

PERIODIC REVIEW REPORT

Prepared for

Town of Conklin Landfill
1271 Conklin Road
Conklin, New York 13748
NYSDEC Site No. 704013

SCE Project No. R09357.08

By



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February 10, 2016

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1.0 EXECUTIVE SUMMARY

This document has been prepared by Shumaker Consulting Engineering & Land Surveying, D.P.C. (SCE) on behalf of the Town of Conklin (Town), in accordance with the guidelines provided by NYSDEC in Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation*. This Periodic Review Report (PRR) has been completed with the purpose of addressing all Site Management requirements for the Conklin Upper Landfill.

1.1 SITE BACKGROUND

The site is a capped and closed, 12.1 acre landfill that was investigated and remediated in accordance with a Consent Order signed between the Town of Conklin (Town) and the NYSDEC in June 1987. Key components of the remedial actions include; consolidation of the upper and lower landfills, installation of a leachate collection system, capping of the upper landfill with an impermeable geomembrane and vegetative cover, and installation of perimeter fencing. Following these remedial actions, the site was closed with the contents of the landfill in place.

1.2 OBJECTIVES

The objective of this Periodic Review Report (PRR) is to detail the individual components of the Site Management Plan (SMP) and report on the overall effectiveness of the remedial program for the reporting period of January 2015 to January 2016. The components of the SMP detailed herein are the Engineering and Institutional Control Plan, Site Monitoring Plan, Operation and Maintenance Plan, and Site Inspections.

1.3 CONCLUSIONS

After reviewing the various components of the SMP for the Conklin Upper Landfill, it is found that the overall effectiveness of the remedial program at the site is in compliance with NYSDEC regulations and moving toward the goal of treatment system termination. At this time, no revisions to the SMP or the reporting frequency are proposed, and site management will continue as outlined in the September 2015 SMP.

2.0 SITE OVERVIEW

2.1 SITE LOCATION AND DESCRIPTION

The site is located in the Town of Conklin, Broome County, New York. The site is identified as Parcel ID No. 194.04-1-2 on the Broome County Tax Map. A Site Location Map is included as **Figure 1**. The site is referred to as the Conklin Upper Landfill and is currently maintained as a “closed” landfill. The Upper Landfill (approximately 12.1 acres) is located on the western portion of the Parcel, on the west side of Broome Industrial Parkway. A stream known as Carlin Creek is situated adjacent to the northeastern portion of the Upper Landfill site. A large wetlands and the Delaware and Hudson railroad track border the eastern and downgradient perimeter of the site. Figure 2 presents the layout and configuration of the capped Upper Landfill Site.

2.2 SITE HISTORY

Between 1964 and 1975, the Town accepted refuse and waste from its residents and businesses at a designated landfill area.

The site was nominated for inclusion on the National Priorities List in June 1986. In June 1987, the NYSDEC entered into a Consent Order (Index No. 704013) with the Town to develop a remedial plan for the Conklin dump site. Although the human health risks associated with the site were determined to be within the acceptable range, chloroethane, 1,2-dichloropropane, and xylene were detected in the site groundwater and leachate above State and Federal groundwater standards.

2.3 SUMMARY OF REMEDIAL ALTERNATIVES

Following the completion of the Feasibility Study (FS) in 1991, a Record of Decision (ROD) was signed by the USEPA on March 29, 1991 (EPA/ROD/R02-91/136).

The selected remedy was modified by an Explanation of Significant Differences (ESD) in September 1992. The ESD modified the remedy by excavating the Lower Landfill and consolidating it with the Upper Landfill.

2.4 SUMMARY OF REMEDIAL ACTIONS

2.4.1 Engineering Controls (EC)

The Town conducted remediation of the two (2) landfills in three (3) phases to address all ECs as required for conformance with the ROD.

2.4.2 Institutional Controls (IC)

ICs implemented for the site is as follows:

- Deed restrictions to prevent installation of drinking water wells and restrict activities that may compromise the landfill cap.

- Declaration of Covenants, Restrictions, and Environmental Easement was recorded in February 2013.

2.4.3 Operation and Maintenance

The final element of the ROD called for Operation and Maintenance (O&M) Plan for the landfill site. Key components of the O&M Plan are as follows:

- Groundwater monitoring to evaluate effectiveness of remedy.
- Leachate monitoring prior to discharge to BJCJSTP.
- Annual inspection of all landfill ECs.
- Maintenance of landfill cover to prevent degradation.

3.0 EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS, AND PROTECTIVENESS

The performance and effectiveness of remedial actions taken at the site is determined by the Site Monitoring Plan as described in the September 2015 SMP. The plan calls for monitoring well sampling as well as routine inspections of the landfill cover and leachate collection system. As detailed in the SMP, groundwater and surface water sampling is conducted every fifth (5th) quarter. Results of the inspections and sampling are reported on an annual basis. The most recent Annual Report is included as **Appendix A**. The key findings of the Monitoring Plan are as follows:

- Landfill indicator contaminants chlororethane, 1,2-dichloropropane, methylene chloride and xylenes have not been detected above the screening guidelines since the 1st quarter of 2003.
- Total metals concentrations of iron, lead, manganese, magnesium, and sodium regularly exceeds the screening guidance values.
- Beginning with 3rd quarter sampling in 2013, filtered metals data was taken along with total metals samples. The results showed that elevated metals are the result of sampling methodology (three-volume purge and bailer). Select trend charts are included as **Appendix B**.

4.0 INSTITUTIONAL CONTROL/ENGINEERING CONTROL (IC/EC) PLAN COMPLIANCE REPORT

4.1 IC/EC REQUIREMENTS AND COMPLIANCE

Since remaining contaminated material and groundwater exists beneath the site, IC/ECs are required to protect human health and the environment. The Town implemented an Environmental Easement which included the IC/EC Plan in January 2013 (**Appendix C**). The IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the site.

4.2 ENGINEERING CONTROLS

This section presents the Engineering Control Systems for the facility which includes the landfill cover, perimeter fence and gates, leachate collection and discharge system, gas venting system, environmental monitoring system, and surface water management system. All ECs for the site are designed to be protective of human health and the environment.

4.2.1 Upper Landfill Site

4.2.1.1 Leachate Collection and Storage System

Leachate is captured by a collection trench made out of 940 lf of 6-inch diameter perforated PVC piping; leachate is gravity fed to a concrete pump station. There are also three (3) leachate recovery wells located in the waste mass area near the northeast corner of the landfill. The discharge of each recovery well is conveyed to the pump station where it is then transferred and pumped into a storage tank.

The purpose of the leachate collection trenches and recovery wells is to prevent leachate from migrating off site through surface seeps or shallow groundwater flow. The leachate storage system consists of one (1) 30,000-gallon capacity aboveground horizontal steel storage tank protected by a 33,000-gallon capacity steel secondary containment dike.

Before any leachate can be discharged to the sanitary sewer system for treatment at the Binghamton-Johnson City treatment plant, it must meet effluent limitations per the Industrial Wastewater Discharge Permit issued for the Town of Conklin Landfill by the BJCJSTP. As of this date, the Town of Conklin has not received authorization for discharge to the BJCJSTP for the Reporting Period 2014-2015.

4.2.1.2 Landfill Cap and Venting System

Exposure to remaining contamination in soil/fill at the site is prevented by a multi-media cap system placed over the landfill area. The multi-media cap was constructed in conformance with 6NYCRR Part 360 standards which includes a flexible geomembrane cap, a geotextile soil drainage layer, and a nominal 2 feet of clean soil and topsoil. Topsoil is retained in place by a stable vegetated surface over the entire landfill site. The landfill cap is intact per the 2015 Annual Inspection; however, a few areas of woody vegetation need to be removed.

Surface water and sheet flow from the surface of the cap is removed by a surface drainage system and perimeter drainage ditches, respectively, which intercepts and directs surface water runoff to a stabilized

outlet at Carlin Creek. An annual inspection in October 2015 indicated that the surface drainage system is intact and working as designed.

A total of four (4) gas vents have been installed within the landfill cap boundaries as shown on the Site Map in Figure 2. During installation, a geomembrane boot was placed and sealed around the vent pipe with stainless steel bands and then it was extrusion welded into place on the cap to completely seal the vent penetration. The October 2015 inspection showed that the gas vents are intact and in good working condition.

4.2.1.3 Monitoring Well Network and Sampling Schedule

The environmental monitoring system consists of a series of groundwater monitoring wells and groundwater level observation wells on and around the perimeter of the landfill site (see Figure 2). In addition, there is one (1) surface water sample point in Carlin Creek which flows to the north of the capped landfill site. The objectives of the Monitoring Well Network are to evaluate the condition of groundwater at the site and its effectiveness of limiting off-site transport of site related Contaminants of Concern (COC). The 2014 Annual Report (**Appendix A**) and the tabulated historic data shows that the monitoring well network is operating as planned with no off-site migration of COC. Sampling of the Monitoring Well Network has been switched to sampling every 5th quarter as detailed in the September 2015 SMP.

4.2.1.4 Perimeter Fence at Upper Landfill

To minimize the potential for trespassing, vehicular, or foot traffic across the landfill cap, an 8-foot chain link fence with gates has been installed around the entire Upper Landfill area. A total of three (3) 20-foot gates were constructed: two (2) on the east side adjacent to Broome Corporate Parkway and one (1) in the southwest corner of the site where an access road enters the site from an unnamed access road to the west of the site. All gates are chained and locked with padlocks to prevent entry by unauthorized personnel. The 2015 annual inspection found that the perimeter fence is intact; however, some removal of woody vegetation on the northern and western portion of the fence.

4.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when the effectiveness of monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when the remedial processes are complete is provided in Section 6.5 of NYSDEC DER-10 (May 2010). At this time, monitoring at the site indicates that the remedial processes are moving the site closer to achievement of remedial action objectives; therefore, no recommendations for change are being proposed at this time.

4.3 INSTITUTIONAL CONTROLS (IC)

A series of ICs is required by the ROD for the Upper and Lower Landfill sites. Unlike ECs, adherence with ICs is procedural and requires ongoing compliance activities. Adherence to these ICs on the site is required by the Environmental Easement and implemented under the September 2015 SMP. The identified ICs are:

4.3.1 Upper Landfill Site

ICs authorized for the Upper Landfill site are comprised of the following:

- Restrict activities that could affect the integrity of the landfill cover, including without limitation, excavating, digging, and construction activities which are prohibited on any portion of the Upper Landfill, unless the Town, USEPA, NYSDEC, or successor agency have given their prior written consent to any such intrusive activity.
- Prior to any earthwork on the Upper Landfill site which could impact the integrity of the composite cap, an Excavation Work Plan must be developed which is subject to the Town, NYSDEC, or successor agency, and USEPA approval before implementation. More information regarding the Excavation Work Plan and other procedures required for the Upper Landfill are included in the SMP.
- Groundwater wells for drinking water shall not be installed or used on any portion of the Upper Landfill.
- The Upper Landfill shall not be used for “Residential Use” and “Restricted Residential Use” as defined by NYSDEC Regulations 6NYCRR Part 375-1.8(g)(2)(i) and (ii). Allowable uses include “Commercial Use” and “Industrial Use” as defined in NYSDEC Regulation 6NYCRR Part 375-1.8(g)(2)(iii) and (iv).

4.3.2 Lower Landfill Site

ICs established for the Lower Landfill site include the following:

- Groundwater wells for drinking water shall not be installed or used on any portion of the Lower Landfill.
- The Lower Landfill shall not be used for “Residential Use” and “Restricted Residential Use” as defined by NYSDEC Regulations 6NYCRR Part 375-1.8(g)(2)(i) and (ii). Allowable uses include “Commercial Use” and “Industrial Use” as defined in NYSDEC Regulation 6NYCRR Part 375-1.8(g)(2)(iii) and (iv).

4.3.3 Annual Certification

The site owner or remedial party has submitted to NYSDEC or successor agency a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC or successor agency; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. The Certification of Institutional and Engineering Controls is attached as separate cover in conjunction with this Periodic Review Report. A copy of the 2016 Annual Certification of IC/EC Compliance is included as Appendix D herein.

FIGURE 1

SITE LOCATION MAP

F-1

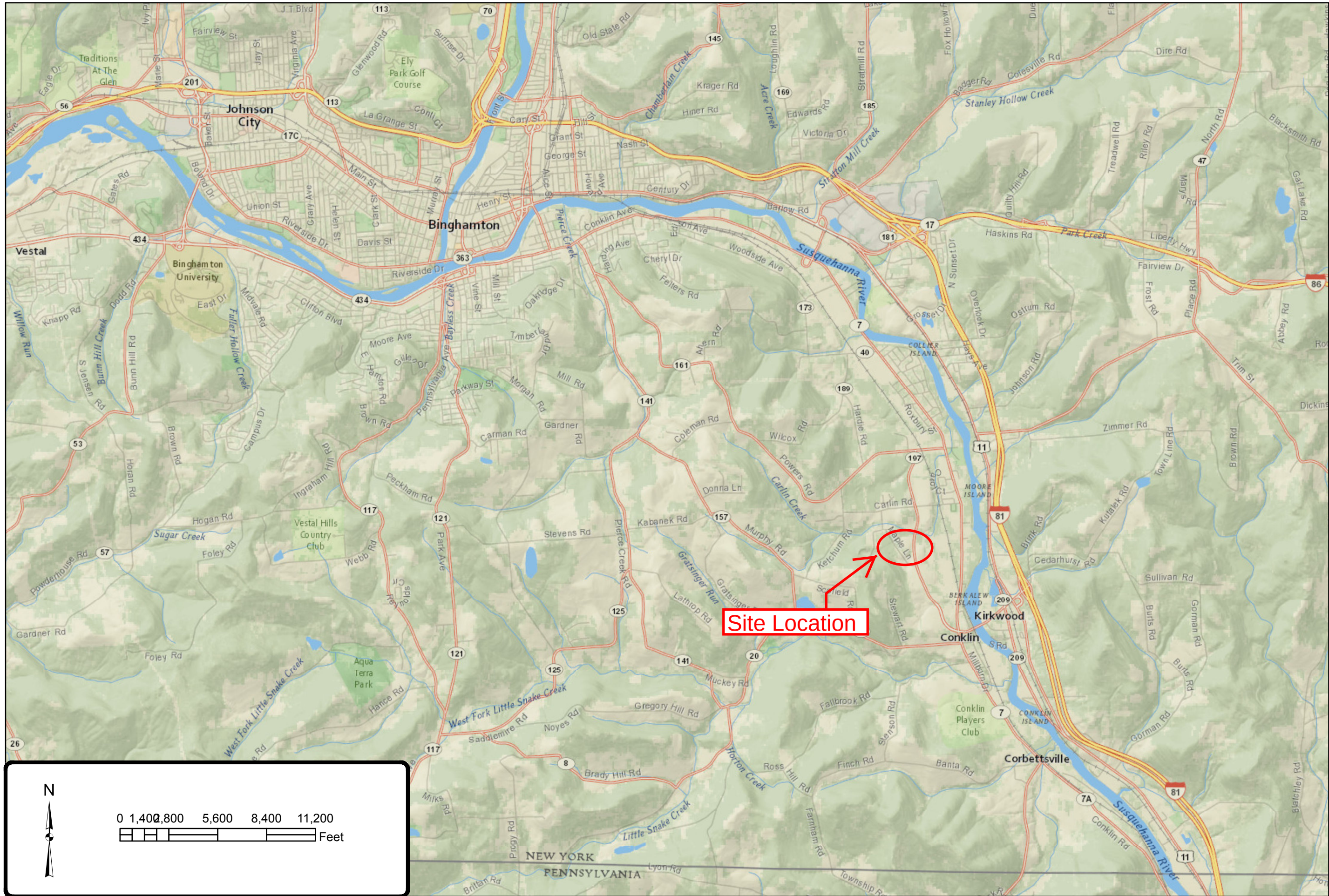


Figure	1			
Drawn by:	FRC	PDR	PDR	
Checked by:				
Proj. MGR:				
Date:	01/03/13			
Proj. No:	9357.04			

SITE LOCATION MAP
CONKLIN LANDFILL
NYSDEC NO. 704013

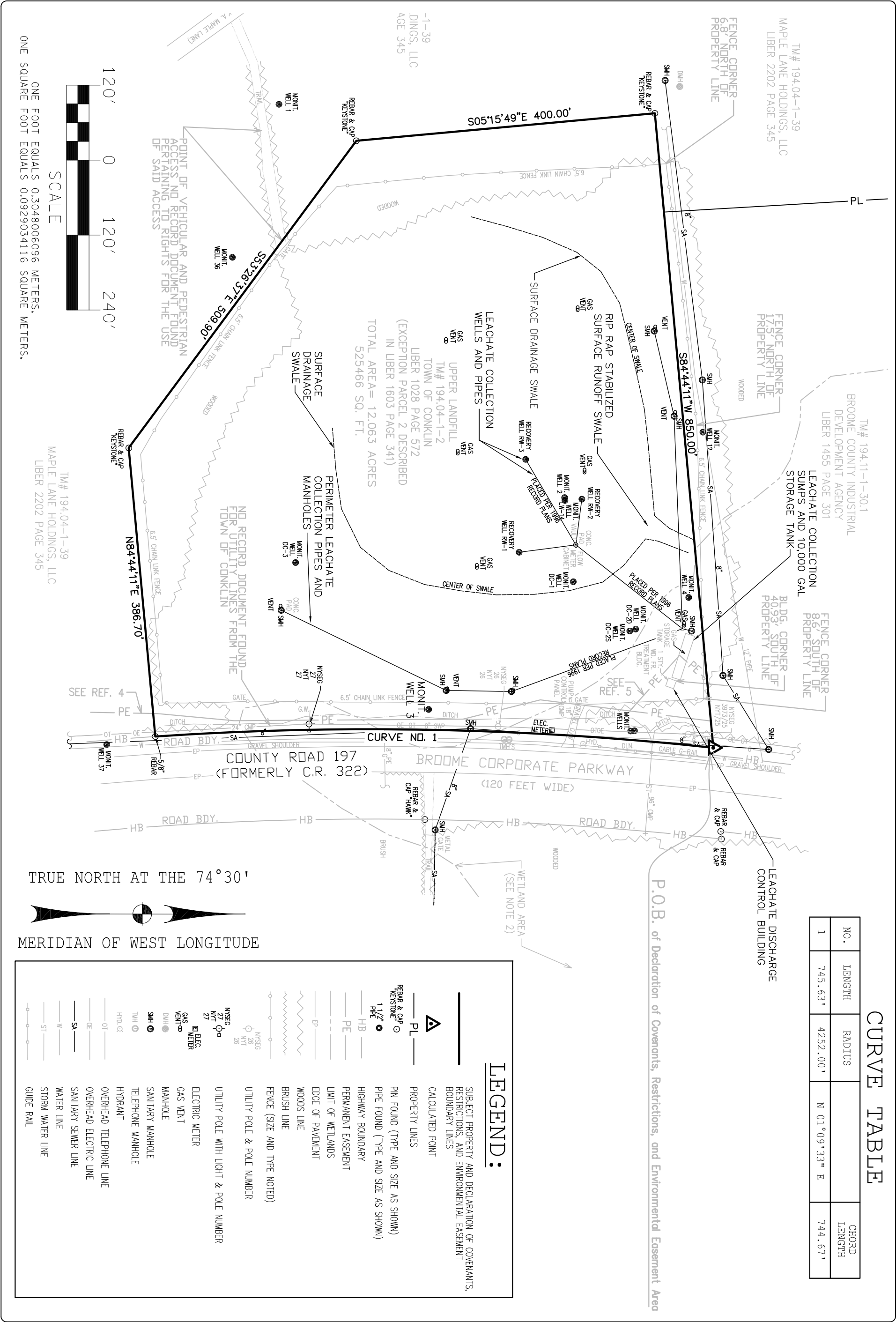
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FIGURE 2A

UPPER LANDFILL LAYOUT



CURVE TABLE

NO.	LENGTH	RADIUS	CHORD LENGTH
1	745.63'	4252.00'	744.67'

DRAWING TITLE

LANDFILL
SITE MAP

Drawn By: TMK
Checked By: WCN
Project Mgr: WCN
Date: 9/3/15
Project No: 9357.03

FIGURE
2A

SITE: CONKLIN UPPER LANDFILL
SITE NUMBER 704013

TOWN OF CONKLIN

BROOME COUNTY

APPENDIX A

REVIEW OF LANDFILL OPERATIONS – CALENDAR YEAR 2014



November 24, 2015

Mr. Payson Long
New York State Department of Environmental Conservation
Division of Environmental Remediation
525 Broadway
Albany, NY 12233

**Re: Review of Landfill Operations – Calendar Year 2014
Town of Conklin Landfill
Conklin, New York
SCE No. R09357.07**

Dear Mr. Long:

Shumaker Consulting Engineering & Land Surveying, D.P.C. (SCE) has been contracted by the Town of Conklin (Town) to assist, monitor, and report on the ongoing Operations and Maintenance activities at the Town of Conklin Landfill site.

The original Operations and Maintenance Plan for the landfill was prepared by Rust Environment and Infrastructure, and presented in the document entitled *Operation, Maintenance, and Monitoring Plan, Conklin Landfill, Conklin, New York*, dated June 27, 1996 (O&M Plan). A new *Site Management Plan* dated September 4, 2015 was prepared by SCE and has been sent to the New York State Department of Environmental Conservation (NYSDEC) and United States Environmental Protection Agency (USEPA). Both plans call for submission of an annual report summarizing activities at the landfill within the previous calendar year. According to the O&M Plan, the annual report is to include:

- The results of all groundwater, surface water, and leachate quality data acquired in the past year.
- The amount of leachate from the landfill that was collected from the leachate collection trench and recovery wells.
- The results of leachate analytical results and the amount of leachate discharged to the sanitary sewer.
- Any alterations from the approved report, plans, and specifications or permit conditions, including justification for the change.
- A recent USEPA requirement to the Annual Report includes a certification that no groundwater wells have been installed on the landfill site, pursuant to the approved Institutional Controls.

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This report has been prepared by SCE on behalf of the Town in support of the annual report commitment promulgated by the O&M Plan. The data collected as part of this study is presented herein.

1.0 LANDFILL ACTIVITIES DURING 2014

Since the remedial activities at the landfill were completed in the mid-1990s, post-closure monitoring and maintenance has been conducted under the 1996 O&M Plan. A new Site Management Plan (SMP) was submitted to USEPA/NYSDEC in September 2015; however, not in effect until the 2015 landfill operations. Future O&M activities documented in subsequent reports will be conducted under the 2015 SMP.

Throughout the year, monthly visual inspections and small maintenance issues are resolved by the Town. The maintenance includes, but is not limited to, a regular mowing schedule during summer months and removal of fallen trees from the perimeter fence. In addition, the monitoring wells (MW) are sampled by Microbac Laboratories, Inc. (formerly Benchmark Analytics, Inc.) on a quarterly basis under the 1996 O&M plan. An annual site inspection is also conducted by SCE and is discussed in more detail below.

2.0 ANNUAL INSPECTION OF LANDFILL

SCE technicians performed a visual inspection of the entire landfill site on October 26, 2015.

The landfill was inspected for:

- Condition of the perimeter fence and access roads.
- Inspection of the leachate collection system (trench manholes, pump station, storage tank, treatment building).
- Condition of the landfill cover for areas of instability, subsidence, erosion, discoloration, etc.
- Inspection of surface water drainage features for washouts, excessive sediment or debris in ditches, dislodged rip-rap, erosion, etc.
- Observed the gas venting system to determine if the vents have been damaged or disturbed.
- Condition of the monitoring and leachate recovery wells.

Overall, the site and landfill cap appear to be in good condition. Visual inspections and maintenance at the landfill have been performed at least monthly by Town personnel; however, a formal record of inspections and repair work performed is not maintained. During the October 2015 inspection, the main access road and entrance gate were observed to be in good condition. The perimeter security fence was also intact and in good condition, although portions of the northern and western perimeter are in need of maintenance as outside plant growth is beginning to encroach onto the property. Surface drainage features appear to be in good condition; however, some woody vegetation was observed near a check dam in the drainage swale, as well as along the drainage down chute. It is recommended that the vegetation be removed to prevent potential damage to the landfill cap. During the 2014 inspection, it was noted that a burrowing

animal's den was present along the drainage swale. Upon inspection during the recent site visit, the animal burrow had been filled in and remains intact.

Monitoring wells and gas vents were observed to be in good working condition. All monitoring wells are equipped with dedicated bailers and covers that are locked. During the site inspection water level measurements were taken at the wells using an electronic water level detector. These water levels were then used to create a groundwater contour map included as Figure 1. MW-2, a well previously used for groundwater depth measurements only, has a blockage approximately 19 feet below the top of casing; therefore, no water level was recorded during the October 2015 inspection. This blockage was visually inspected in 2013, and it appears that the well has collapsed. The lack of groundwater level data at MW-2 does not seem to impact the overall quality of data collected from the site.

The leachate recovery system was also observed during the October 2015 site inspection. Based on control panel observations and manual operation, the pumps, level monitors, and controls were all functioning normally. No abnormal system alarms or groundwater levels were observed, suggesting that the leachate recovery system is functioning per design.

The leachate collection and handling system was inspected as part of the field activities in support of this report. The exterior of the building that houses the leachate handling system was noted to be in good condition and had been recently painted. There were no major structural or plumbing deficiencies noted during inspection of the interior components. The leachate collection tank was previously noted to have paint peeling and some rust spots developing; however, the tank has been recently painted and appeared to be in good condition during the recent inspection. Secondary containment for the leachate tank had accumulated some rainwater through minor gaps in the rain skirt, although the skirt itself is intact and in good condition. The accumulated rainwater was drained from the containment structure during the October 2015 site inspection.

3.0 LEACHATE DISCHARGES

The site is equipped with a leachate collection system that includes leachate recovery wells and trenches. Leachate is temporarily stored in a pump station prior to being transferred to a 30,000-gallon aboveground storage tank (AST). The leachate is stored in the tank until it is sampled and submitted for laboratory analysis. After analytical results are received, the leachate is discharged to the sewer system on an as-needed basis. As previously noted, the discharge of the leachate is regulated through an IWPP Permit with the Binghamton-Johnson City Joint Sewage Board (BJCJSB).

Leachate has historically been discharged once a year; however, recent accumulation of leachate has been minimal, thus decreasing the frequency of discharge necessity. The Town typically coordinates discharge of the leachate with the annual inspection of the facility conducted by the BJCJSB. The Town utilizes the analytical data gathered by the BJCJSB to determine if the leachate is within their permitted effluent limitations prior to discharging to the sewer system. The Town then reports to the BJCJSB when they discharge the leachate. There were no discharges during the 2014 reporting period.

At this time, the Town does not track the amount of leachate recovered from each of the three (3) recovery wells. The Town does, however, regularly monitor the leachate level in the storage tank

to ensure that the tank is not in danger of overflow. A tank level detector has been installed and is part of the tank level monitoring system. At the time of the October inspection, the depth to the leachate in the tank was 3.41 feet and the accumulated volume was 21,808 gallons.

4.0 GROUNDWATER AND SURFACE WATER QUALITY ASSESSMENT

The Site Management Plan has outlined a selection of monitoring wells and a surface water sample location (Carlin Creek) that are required to be sampled every quarter. In addition, one (1) sample round every fifth calendar quarter must be analyzed for Part 360 baseline parameters.

The Town has contracted with Microbac Laboratories, Inc. (Microbac) to perform the quarterly sampling. The site was assessed and sampled by a representative from Test Assured Network, a subcontractor to Microbac on:

- March 31, 2014
- June 23, 2014
- September 24, 2014
- December 8, 2014 (baseline analysis)

The laboratory narratives for the sampling events do not indicate any problems with the sampling or analysis. A summary of laboratory analytical data and full laboratory reports for 2014 are attached as Appendix A. In addition to historically collected samples, field filtered samples were collected to assess and minimize the impact of sampling methodology and turbidity on metals concentrations within the samples.

4.1 GROUNDWATER QUALITY ASSESSMENT

None of the wells sampled during the Microbac baseline sampling event on December 8, 2014 indicated that concentrations of the identified leachate marker compounds Chloroethane, 1,2-Dichloropropane, Methylene Chloride, or Xylenes were present above the guidance value in any of the samples.

The upgradient well, MW-1 exhibited elevated concentrations of sodium in all four (4) quarters. Although no specific source has been identified, the source for sodium is speculated to be road salt from nearby roadway surfaces and parking lots. This elevated level of sodium is also present in many of the other site-wide monitoring wells.

All of the downgradient wells contained elevated levels of inorganics including iron, manganese, and lead. Iron and manganese were the two (2) most commonly found inorganics and were present in elevated levels in all downgradient wells. In many instances, the concentrations exceed the NYSDEC drinking water standards. Groundwater samples at the site have been historically collected via dedicated bailer, and it is suspected that the methodology increases sediment content and turbidity of the samples, which in turn releases metals upon acidification. This issue is discussed in greater detail below.

4.2 ANALYSIS OF FILTERED SAMPLES

During the last six (6) years of analysis, the turbidity of collected samples has been suspect in impacting the ability to conduct trend analysis on the analytical data collected from any of the landfill monitoring wells. In addition to redeveloping the site monitoring wells to remove excess buildup of silt within the well, the analytical program has included collecting filtered samples and non-filtered samples, beginning with the third quarter sampling event in 2013. A comparison of total and dissolved metals concentrations from these samples indicates that turbidity within the collected groundwater has been causing misrepresentative values for inorganic parameters. Upon the recommendation of the USEPA, groundwater samples are currently collected for both total and dissolved metals as part of the routine sampling events.

Throughout the reporting period, dissolved metal samples were collected and then passed through a 0.45 micron filter. The filter removes most suspended solids from the water and leaves only dissolved material within the sample prior to being preserved in the sample bottle.

In general, the samples analyzed for dissolved metals show much lower levels of iron, magnesium, manganese, lead, and other inorganic compounds. This indicates that the majority of the inorganics concentrations found in the samples were due to the turbidity of the unfiltered samples. The only contaminant regularly found in elevated concentrations from filtered samples is sodium, which is primarily in the dissolved phase and therefore, would not be removed through the 0.45 micron filter. The only monitoring wells to show levels of dissolved inorganics above guidance levels were MW-3 and MW-38D, both of which exhibited slightly elevated levels of manganese in the filtered sample. MW-3 had a dissolved manganese concentration of 0.309 mg/l in March of 2014, while MW-38D exhibited a manganese concentration of 0.307 mg/l; both of these values are only slightly above the guidance level for manganese of 0.3 mg/l. It is important to note that the concentration of inorganics in all wells typically decrease by at least one order of magnitude following field filtration, indicating that previously reported, elevated concentrations were due to sampling methodology and therefore, a misrepresentation of true groundwater conditions. Observed concentrations of the conservative elements sodium and calcium show further that turbidity has been a driving factor in elevated inorganic concentrations. As conservative groundwater constituents, sodium and calcium exist primarily in the dissolved phase and consequently, their values are generally the same in both unfiltered and filtered samples. Select trend charts showing unfiltered and filtered concentrations of iron, manganese, sodium, and calcium are included as Appendix B.

4.3 DIRECTION OF GROUNDWATER FLOW ASSESSMENT

The direction of groundwater flow was derived from measured groundwater surface elevations from all available monitoring wells on the site. From this data, the groundwater contours were derived, which indicate that the direction of groundwater flow and the shape of the groundwater contours is generally the same as the 2008 groundwater contour map. Mapping indicates that the depth to groundwater at the southwest corner near MW-1 is nearly 5 feet shallower than the 2013 data, which is likely caused by seasonal fluctuations. At the same time, the groundwater contour geometry is

similar throughout all recent reporting periods, indicating that groundwater contours and flow paths are consistent with historical site conditions.

In general, groundwater elevations and contours remain consistent with previous monitoring events, suggesting that the leachate collection system is operating properly. A groundwater contour map depicting the October 2015 contours is included as Figure 1. Depth to groundwater measurements are included in Appendix C.

4.4 SURFACE WATER QUALITY ASSESSMENT

All Part 360 parameters collected from Carlin Creek are below state standards, with the exception of total (unfiltered) iron in the first quarter; no dissolved (filtered) parameters are in concentrations exceeding the guidance values. The only contaminant found to regularly exceed state standards in Carlin Creek in 2012 is sodium. Although no specific source has been identified, the source for sodium is speculated to be road salt from nearby roadway surfaces and parking lots.

No volatile organic compounds (VOC) were detected in the baseline analysis at the Carlin Creek sampling point.

5.0 POTENTIAL RE-USE EVALUATION

Currently, there is no guidance available at the NYSDEC for potential re-use scenarios for capped landfill sites. Many landfill sites are re-used for municipal solid waste transfer facilities, equipment storage sites, cellular antennae sites, or for other municipal functions such as police department shooting ranges and training facilities. A promising re-use as a solar energy collection site has been evaluated; however, the land slope makes that alternative impractical. Following an objective evaluation of the very steep slopes on the Conklin landfill site, there are few reasonable re-use alternatives readily identified for the site. This is especially true because of the readily available Greenfield sites in the Town which make development options in the former landfill less desirable.

6.0 CERTIFICATION OF INSTITUTIONAL CONTROLS

In accordance with the Institutional Controls, the site was inspected and no evidence of new groundwater wells or other disruptive activities were observed. The Institutional Controls prohibit any activities that could damage the landfill cover including digging, construction, and excavation without prior consent of the USEPA. Additionally, no groundwater wells for drinking water are allowed on any portion of the upper landfill. No activities regulated by the Institutional Controls were observed or authorized for this site.

7.0 RECOMMENDATIONS

Based on the observations of the past year of landfill operations, SCE recommends the following:

1. The portion of the perimeter swale and drainage down chute that have woody vegetation growth should be maintained and growth removed to prevent potential cap degradation.
2. Periodically inspect and drain any accumulated rainwater from the secondary containment structure.
3. Vegetation encroachment along the northern and western perimeter fence should be removed.
4. Continue to collect both filtered and unfiltered groundwater samples, with data analysis focused on dissolved inorganic concentrations.
5. Change in groundwater and surface water monitoring frequency from quarterly to every fifth quarter.
6. A leachate discharge should be scheduled for the fourth quarter of 2015 following sampling and laboratory analysis.

Please do not hesitate to contact me at any time should you have questions regarding this letter or other activities that have taken place at the Conklin Landfill.

Very truly yours,

**SHUMAKER CONSULTING ENGINEERING
& LAND SURVEYING, D.P.C.**



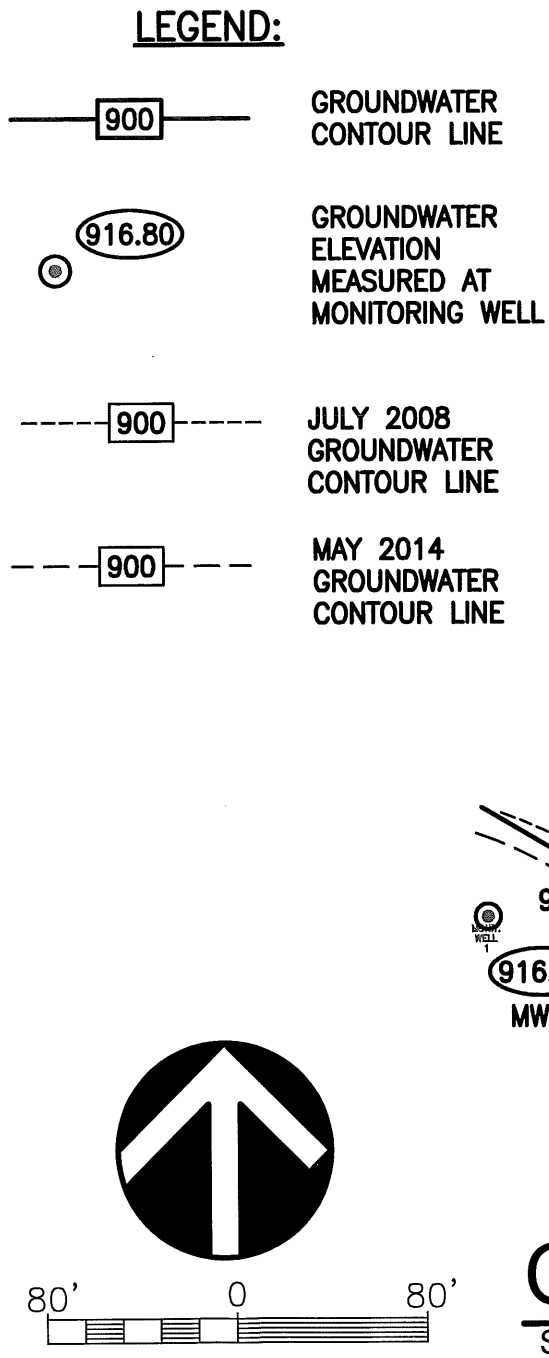
W. Curtis Nichols, P.E., LEED-AP
Sr. Managing Engineer

WCN/vma

Enclosures

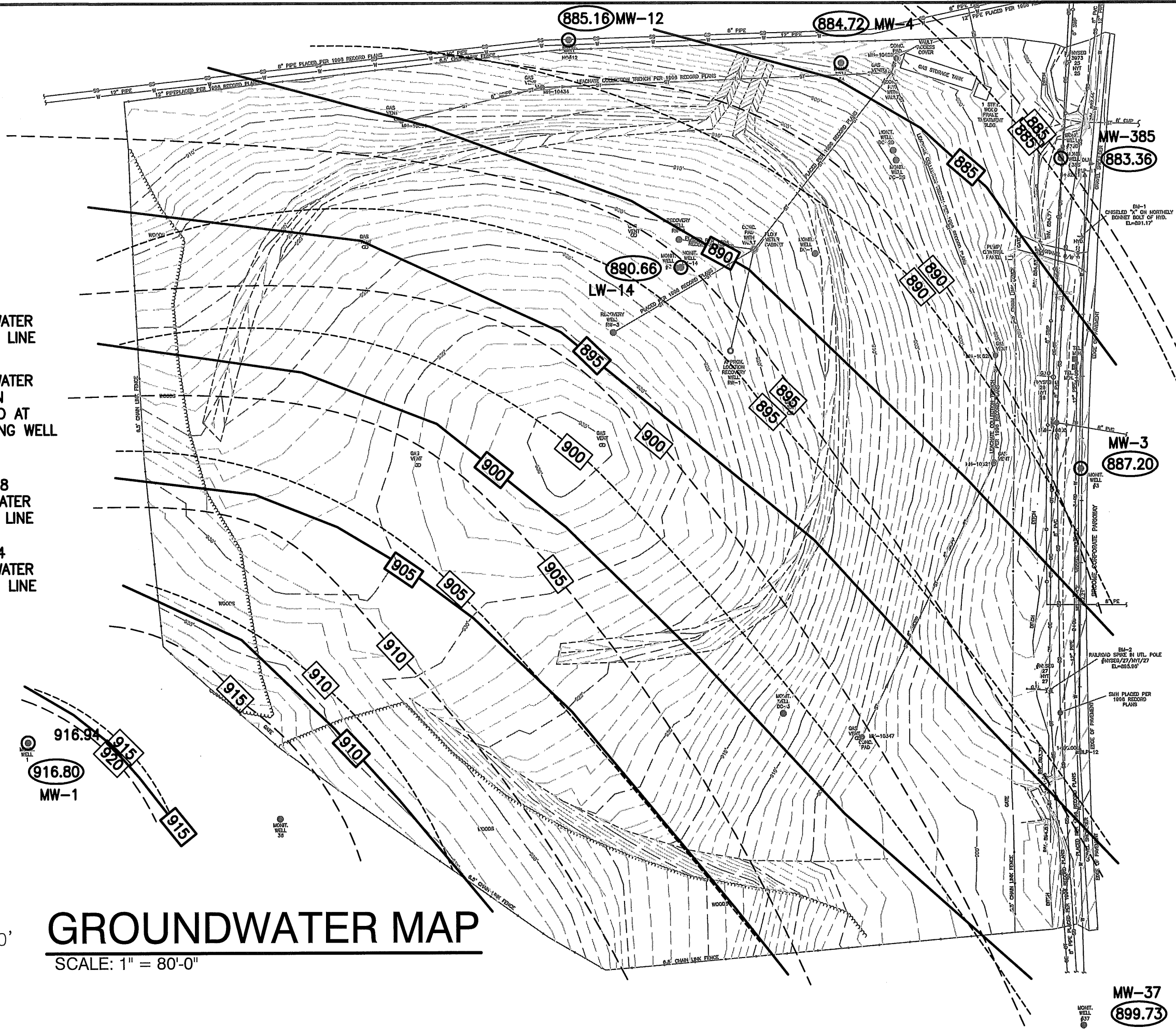
cc: James Finch, Town of Conklin
Tom Delamarter, Town of Conklin
George Jacobs, USEPA

FIGURE 1
GROUNDWATER CONTOUR MAP



GROUNDWATER MAP

SCALE: 1" = 80'-0"



CONKLIN LANDFILL
ANNUAL REPORT

OCTOBER 2015
GROUNDWATER
CONTOUR MAP

CONKLIN, NEW YORK

DRAWING TITLE

FIGURE

Drawn By: TWK
Checked By: WCN
Project Mgr: WCN
Date: 11/2/15
Project No: R09357

STUMPF
Consulting Engineering & Land Surveying P.C.
430 Court Street, Suite 200, Littleton, New York 13022
Telephone: 815.763.0000 Fax: 815.763.0001

1271 CONKLIN ROAD

APPENDIX A

GROUNDWATER ANALYTICAL SUMMARIES

Shumaker Consulting Engineering and Land Surveying, P.C.
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 1			Date Sampled:															
Analyte (Note 1)	Units	Guidance Value	3/30/2011	6/29/2011	8/31/2011	11/29/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/26/2013	3/31/2014	6/23/2014	9/24/2014	12/8/2014
Chloroethane	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
o-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
m,p-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.002
Alkalinity as CaCO3	mg/l		244	134	258	246	222	254	254	250	176	238	248	252	142	272	250	272
Ammonia as N	mg/l	2	<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	0.335	<0.1	<0.1
Biochemical Oxygen Demand-5	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	15.0	<6	<3
Chloride	mg/l	250	0.94	1.32	1.52	1.20	1.72	<10.0	<10.0	<10.0	1.6	2.2	1.3	2.1	3.50	2.60	1.60	2.10
Chemical Oxygen Demand	mg/l		28	<10	<10	21	<10	<10	11	32	<10	<10	<10	<10	31	29.9	13.3	<10
Hexavalent Chromium	mg/l		<0.01	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.010
Nitrate as N	mg/l	10	0.15	0.10	0.08	0.07	<0.05	<0.05	0.06	0.07	<0.05	0.08	0.15	0.07	0.08	0.424	0.550	0.166
pH	pH Units	6.5-8.5	7.44	7.75	7.68	7.47	7.16	7.74	7.51	7.44	7.26	7.49	7.54	7.35	7.59	7.05	6.81	7.72
Phenol	mg/l	0.001	0.029	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Total Dissolved Solids	mg/l	500	303	226	244	227	291	238	262	225	250	252	271	254	262	250	201	230
Sulfate as SO4	mg/l	250	11.4	11.1	10.3	9.52	8.16	<10.0	<10.0	<10	5.77	614	6.8	7.47	5.65	7.45	6.85	7.03
Total Kjeldahl Nitrogen	mg/l		<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	2.54	<1.0	<1.0
Total Organic Carbon	mg/l		<0.5	0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	1.1	2.5	<0.5	1.50	2.75	1.30	0.579
Total Hardness as CaCO3	mg/l		232	223	230	215	218	227	196	221	220	206	212	207	142	-	222	232
Color	Color Units	5	<5	-	-	-	<5	-	-	-	-	-	<5	-	-	-	-	<5
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.010
Bromide	mg/l	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.05	0.58	<0.20	<0.20	<0.020
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.0002	-	-	-	-	<0.0006
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	<0.002
Aluminum	mg/l		7.65	-	-	-	<0.025	-	-	-	-	-	-	-	-	-	-	<0.025
Arsenic	mg/l	0.025	<0.025	-	-	-	<0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.010
Boron	mg/l	1	<0.100	-	-	-	0.075	-	-	-	-	-	-	-	-	-	-	<0.125
Barium	mg/l	1	0.078	-	-	-	0.022	-	-	-	-	-	0.038	-	-	-	-	0.029
Beryllium	mg/l	0.03	<0.001	-	-	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	<0.001
Calcium	mg/l		60.6	56.8	61.0	55	56.1	59.9	50.3	58.1	57.3	52.9	53.5	53.5	36.9	55.9	58.7	60.5
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		<0.010	-	-	-	<0.002	-	-	-	-	-	0.004	-	-	-	-	0.006
Chromium	mg/l	0.05	0.010	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	<0.002
Copper	mg/l	0.2	0.029	-	-	-	<0.002	-	-	-	-	-	0.006	-	-	-	-	0.003
Iron	mg/l	0.3	14.2	0.170	0.066	0.047	0.026	0.084	0.019	0.023	0.093	0.195	0.819	0.149	0.426	0.272	0.037	0.076
Potassium	mg/l		2.85	1.95	1.66	1.58	1.53	1.51	1.44	1.49	1.73	1.76	1.98	1.78	1.06	2.24	1.73	1.48
Magnesium	mg/l	35	19.6	19.8	19	18.9	18.9	18.7	17.1	18.5	18.7	18	18.9	17.8	12.1	21.1	18.2	19.7
Manganese	mg/l	0.3	0.592	0.067	0.251	0.080	0.092	0.047	0.008	0.011	0.361	0.132	0.273	0.057	0.038	0.226	0.024	0.16
Sodium	mg/l	20	23.6	24.1	21.5	19.3	20.8	19.6	16.4	21.4	20.2	21.1	23.2	20.1	7.85	20.7 L	21.9 L	23.6 L
Nickel	mg/l	0.1	0.012	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	<0.002
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.001
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.020	-	-	-	-	<0.020
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		0.011	<0.010	<0.010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	0.043	0.014	<0.005	0.010	0.006	<0.005	<0.005	<0.005	0.007	0.017	0.038	0.012	0.009	0.024	<0.005	0.007
Selenium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.040	-	-	-	-	<0.040

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected.
Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
- Highlighted cell indicates compound detected above applicable regulatory limit.
L = laboratory flag indicating a value above calibration range but within annual verified linear range

Shumaker Consulting Engineering and Land Surveying, P.C.
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 3	Units	Date Sampled:	3/30/2011	6/29/2011	8/31/2011	11/28/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/26/2013	3/31/2014	6/23/2014	9/24/2014	12/8/2017
		Guidance Value																
Analyte (Note 1)																		
Chloroethane	mg/l	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.001	-	-	-	-	<0.001
1,2-Dichloropropane	mg/l	0.001	-	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
Methylene chloride	mg/l	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.001	-	-	-	-	<0.001
o-Xylene	mg/l	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.001	-	-	-	-	<0.001
m,p-Xylene	mg/l	0.005	-	-	-	-	<0.005	-	-	-	-	-	<0.001	-	-	-	-	<0.002
Alkalinity as CaCO3	mg/l		154	126	128	122	124	124	122	122	132	120	128	130	130	134	134	132
Ammonia as N	mg/l	2	<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	<0.1	<0.1	0.121
Biochemical Oxygen Demand-5	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<3
Chloride	mg/l	250	14.2	12.1	10.2	11.1	7.88	<10	<10.0	<10	7.3	3.9	6.4	7.4	5.00	4.50	7.6	9.80
Chemical Oxygen Demand	mg/l		92	69	91	36	29	<10	<10	120	16	47	<10	11	20	13.5	10.9	52.1
Hexavalent Chromium	mg/l		<0.01	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.010
Nitrate as N	mg/l	10	<0.05	0.06	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH	pH Units	6.5-8.5	6.45	6.68	6.46	6.32	6.54	6.40	6.37	6.13	6.19	6.07	6.19	6.20	6.43	6.37	6.47	6.52
Phenol	mg/l	0.001	<0.025	<0.025	0.138	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.033	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Total Dissolved Solids	mg/l	500	212	-	196	133	154	122	140	148	192	161	187	143	666	141	96.0	162
Sulfate as SO4	mg/l	250	11.1	11.5	11.6	11.1	10.5	<10.0	<10	<10.00	12.4	7.54	8.93	8.01	6.1	7.37	7.35	7.32
Total Kjeldahl Nitrogen	mg/l		<1.0	1.2	1.7	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	1.6	<1.0	2.9	<1.0	<1.0
Total Organic Carbon	mg/l		1.6	1.7	1.6	1.5	1.4	1.5	1.6	4.1	1.8	1.4	1.5	1.7	2.6	1.59	1.80	1.60
Total Hardness as CaCO3	mg/l		237	156	279	198	255	319	116	146	570	140	519	220	2.6	-	172	207
Color	Color Units	5	12	-	-	-	100	-	-	-	-	-	<5	-	174	-	-	<5
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.010
Bromide	mg/l	2	0.09	0.09	0.08	0.07	0.16	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.07	0.47	<0.20	<0.20	<0.20
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.0040	-	-	-	-	<0.0002
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.010	-	-	-	-	<0.002
Aluminum	mg/l		58.5	-	-	-	76.6	-	-	-	-	-	-	-	-	-	-	15.1 L
Arsenic	mg/l	0.025	0.040	-	-	-	0.06	-	-	-	-	-	0.201	-	-	-	-	<0.010
Boron	mg/l	1	<0.100	-	-	-	0.053	-	-	-	-	-	-	-	-	-	-	0.026
Barium	mg/l	1	0.293	-	-	-	0.308	-	-	-	-	-	1.41	-	-	-	-	0.448
Beryllium	mg/l	0.03	0.003	-	-	-	0.003	-	-	-	-	-	0.007	-	-	-	-	0.002
Calcium	mg/l		48.1	38.8	49.0	40.4	43.3	47.4	32.5	35.8	76.3	39.2	103	43.6	40.9	60.2	46.8	59.6
Cadmium	mg/l	0.005	0.002	<0.001	0.002	<0.001	0.002	<0.005	<0.001	<0.001	<0.005	<0.001	<0.005	0.002	<0.001	<0.001	0.001	<0.001
Cobalt	mg/l		0.053	-	-	-	0.076	-	-	-	-	-	0.167	-	-	-	-	0.026
Chromium	mg/l	0.05	0.074	-	-	-	0.105	-	-	-	-	-	0.139	-	-	-	-	0.010
Copper	mg/l	0.2	0.094	-	-	-	0.167	-	-	-	-	-	0.225	-	-	-	-	0.070
Iron	mg/l	0.3	125	36.9	182	97.3	181	336	4.95	33.4	487	12	261	117	51.5	22.4	27.9	13.6
Potassium	mg/l		4.73	1.98	5.35	4.24	5.4	6.86	1.13	2.49	9.75	1.15	7.87	4	3.11	1.38	3.02	0.796
Magnesium	mg/l	35	28.3	14.4	38.2	23.5	35.8	48.7	8.53	13.6	92.4	10.3	63.8	26.9	17.5	15.9	13.4	14.00
Manganese	mg/l	0.3	1.52	0.631	2.1	1.23	2.11	3.26	0.273	0.71	5.78	0.693	4.23	1.46	0.931 L	0.996 L	0.59	0.786
Sodium	mg/l	20	10.7	12.1	11.1	11.0	10.4	10.3	11.3	11.3	10.3	9.81	11.7	10.1	11.1	7.74	10.2	8.58
Nickel	mg/l	0.1	0.116	-	-	-	0.176	-	-	-	-	-	0.267	-	-	-	-	0.028
Lead	mg/l	0.025	0.054	0.012	0.082	0.039	0.07	0.098	<0.010	0.015	0.251	0.02	0.167	0.053	<0.010	0.049	0.021	0.0409
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.100	-	-	-	-	<0.020
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.125	<0.025	<0.025	<0.125	<0.025	<0.125	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		0.080	0.021	0.098	0.052	0.106	0.183	<0.005	0.016	0.218	0.01	0.118	0.053	0.030	0.024	0.025	0.017
Zinc	mg/l	2	0.304	0.105	0.446	0.244	0.444	0.809	<0.019	0.089	1.19	0.049	0.789	0.286	0.139	0.147	0.083	0.115
Selenium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.200	-	-	-	-	<0.040

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected.
Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
 - Highlighted cell indicates compound detected above applicable regulatory limit.
- L = laboratory flag indicating a value above calibration range but within annual verified linear range

Shumaker Consulting Engineering and Land Surveying, P.C.
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 4	Units	Date Sampled:	3/30/2011	6/29/2011	8/31/2011	11/28/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/26/2013	3/31/2014	6/23/2014	9/24/2014	12/8/2014
		Guidance Value																
Analyte (Note 1)																		
Chloroethane	mg/l	0.005	<0.0050	-	-	-	<0.005	-	-	-	-	-	<0.001	-	-	-	-	<0.001
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	<0.005	-	-	-	-	-	<0.001	-	-	-	-	<0.001
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	<0.005	-	-	-	-	-	<0.001	-	-	-	-	<0.001
o-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.005	-	-	-	-	-	<0.001	-	-	-	-	<0.001
m,p-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.005	-	-	-	-	-	<0.001	-	-	-	-	<0.002
Alkalinity as CaCO3	mg/l		102	104	102	102	108	104	90	110	108	114	102	90	104	84.0	92.0	92.0
Ammonia as N	mg/l	2	<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	<0.1	<0.1	0.121
Biochemical Oxygen Demand-5	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<3
Chloride	mg/l	250	18.9	17.7	15.7	20.4	25.4	21.9	16.1	27.7	27.5	26.9	27.3	20.2	27.7	18.8	21.2	26.7
Chemical Oxygen Demand	mg/l		21	17	33	38	<10	<10	11	32	14	18	<10	<10	43	18.2	10.9	<10
Hexavalent Chromium	mg/l		<0.01	-	-	-	0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.010
Nitrate as N	mg/l	10	0.12	0.15	0.22	0.13	0.11	0.1	0.07	0.1	0.06	0.05	<0.05	0.06	0.07	<0.05	0.0642	<0.05
pH	pH Units	6.5-8.5	7.08	6.76	7.01	7.02	7	6.88	6.31	6.74	6.82	6.76	6.73	6.41	6.76	5.96	6.76	7.08
Phenol	mg/l	0.001	0.044	<0.025	0.034	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.026	<0.025	<0.025	<0.025	<0.025	<0.025
Total Dissolved Solids	mg/l	500	179	146	138	142	173	154	131	176	329	228	232	162	310	150	79	124
Sulfate as SO4	mg/l	250	9.29	11.1	9.82	9.45	9.52	<10.0	12.1	<10.0	8.27	8.18	8.19	10.9	8.1	11.2	10.5	9.48
Total Kjeldahl Nitrogen	mg/l		<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	<1.0	<1.0
Total Organic Carbon	mg/l		<0.5	0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	0.8	0.9	0.798	0.632	0.501
Total Hardness as CaCO3	mg/l		130	114	127	134	139	135	75.5	147	152	175	140	121	161	-	129	146
Color	Color Units	5	10	-	-	-	<5	-	-	-	-	-	<5	-	-	-	-	<5
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.010
Bromide	mg/l	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.05	0.25	<0.20	<0.20	<0.20
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.002	-	-	-	-	<0.0002
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	<0.002
Aluminum	mg/l		8.43	-	-	-	2.53	-	-	-	-	-	-	-	-	-	-	1.47
Arsenic	mg/l	0.025	<0.025	-	-	-	<0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.010
Boron	mg/l	1	<0.100	-	-	-	0.028	-	-	-	-	-	-	-	-	-	-	<0.025
Barium	mg/l	1	0.091	-	-	-	0.047	-	-	-	-	-	0.033	-	-	-	-	0.073
Beryllium	mg/l	0.03	<0.001	-	-	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	<0.001
Calcium	mg/l		34.7	30.3	33.0	35.8	38.5	36.8	23.6	39.8	40.8	42.9	36.7	32.4	40.7	31.9	34.2	40.1
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		0.027	-	-	-	0.02	-	-	-	-	-	0.003	-	-	-	-	0.005
Chromium	mg/l	0.05	<0.010	-	-	-	0.003	-	-	-	-	-	0.003	-	-	-	-	<0.002
Copper	mg/l	0.2	0.013	-	-	-	0.007	-	-	-	-	-	0.006	-	-	-	-	0.004
Iron	mg/l	0.3	14.8	4.61	17.4	13.5	4.18	7.11	0.098	15.7	6.67	43.7	4.66	9.31	28.4	14.1	9.87	1.63
Potassium	mg/l		2.10	1.11	2.75	1.90	1.21	1.57	0.822	1.96	1.56	3.33	1.62	1.61	2.71	2.06	1.83	0.816
Magnesium	mg/l	35	10.6	9.31	10.9	10.8	10.4	10.5	4.01	11.6	12.1	16.4	11.8	9.65	14.2	12.0	10.6	11.3
Manganese	mg/l	0.3	2.04	1.11	3.16	3.47	1.67	1.86	0.189	3.48	0.534	10.3	0.224	0.755	2.27 L	1.20 L	1.02 L	0.448
Sodium	mg/l	20	6.62	6.10	6.39	6.42	7.38	6.43	6.68	6.76	7.66	7.55	7.55	7.85	7.59	7.64	7.67	8.16
Nickel	mg/l	0.1	0.013	-	-	-	0.007	-	-	-	-	-	0.003	-	-	-	-	0.004
Lead	mg/l	0.025	0.018	<0.010	0.020	0.013	<0.010	<0.010	<0.010	0.021	<0.010	0.056	0.01	<0.010	<0.010	0.013	0.011	0.0166
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.020	-	-	-	-	<0.020
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		0.013	<0.010	0.012	0.010	<0.005	0.007	<0.005	0.009	0.013	0.025	<0.005	0.006	0.019	0.011	0.012	<0.005
Zinc	mg/l	2	0.035	0.022	0.044	0.044	0.012	0.022	<0.005	0.038	0.014	0.097	0.016	0.031	0.077	0.040	0.026	0.011
Selenium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.040	-	-	-	-	0.04

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected.
Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
L = laboratory flag indicating a value above calibration range but within annual verified linear range

Shumaker Consulting Engineering and Land Surveying, P.C
Analytical History for the Conklin Landfil
SCE Project 08126.00

Monitoring Well 12	Date Sampled:		3/30/2011	6/29/2011	8/31/2011	11/28/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	11/26/2013	9/17/2013	11/26/2013	3/31/2014	6/23/2014	9/24/2013	12/8/2014
	Units	Guidance Value																
Analyte (Note 1)																		
Chloroethane	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
<i>o</i> -Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
<i>m,p</i> -Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.002
Alkalinity as CaCO3	mg/l		104	126	80	88	96	146	116	92	124	106	112	112	98	140	134	88
Ammonia as N	mg/l	2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1.0	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Biochemical Oxygen Demand-5	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<3
Chloride	mg/l	250	5.83	8.37	10.3	5.97	5.21	<10.0	<10.0	<10	5	4.3	10.5	5.3	5.30	6.70	6.30	4.50
Chemical Oxygen Demand	mg/l		23	34	45	29	<10	11	69	66	11	11	<10	<10	20	27.5	22.6	28.5
Hexavalent Chromium	mg/l		<0.01	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	0.0163
Nitrate as N	mg/l	10	<0.05	0.07	0.06	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	0.09	<0.1	<0.05	<0.05	<0.05	<0.05
pH	pH Units	6.5-8.5	6.38	6.50	-	6.11	5.99	6.29	6.12	5.99	5.93	5.89	6.23	5.84	6.27	5.90	6.23	6.41
Phenol	mg/l	0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.072	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Total Dissolved Solids	mg/l	500	178	100	152	134	172	160	147	93	149	152	185	137	220	170	108	106
Sulfate as SO4	mg/l	250	14.1	14.2	13.1	14.0	13.7	14.3	13.6	1	11.3	11.8	11.7	12.1	10.3	11.9	12.0	12.7
Total Kjeldahl Nitrogen	mg/l		<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	1.55	<1.0	<1.0
Total Organic Carbon	mg/l		1.3	1.5	1.2	1.1	0.8	1.2	1	0.8	1	1.3	2.2	0.9	0.3	2.28	1.21	1.79
Total Hardness as CaCO3	mg/l		95.2	133	101	86.6	48	146	75	39.1	84.2	111	166	142	96.6	-	163	154
Color	Color Units	5	<5	-	-	-	<5	-	-	-	-	-	<5	-	-	-	-	<5
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.010
Bromide	mg/l	2	0.25	0.41	0.14	0.20	0.33	0.29	0.31	<0.20	0.23	0.22	0.22	0.22	0.55	0.28	0.24	<0.20
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.0040	-	-	-	-	<0.0002
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	<0.002
Aluminum	mg/l		5.78	-	-	-	0.177	-	-	-	-	-	-	-	-	-	-	6.17
Arsenic	mg/l	0.025	<0.025	-	-	-	<0.010	-	-	-	-	-	0.065	-	-	-	-	<0.010
Boron	mg/l	1	<0.100	-	-	-	<0.025	-	-	-	-	-	-	-	-	-	-	<0.025
Barium	mg/l	1	0.055	-	-	-	0.01	-	-	-	-	-	0.29	-	-	-	-	0.169
Beryllium	mg/l	0.03	<0.001	-	-	-	<0.001	-	-	-	-	-	0.002	-	-	-	-	0.001
Calcium	mg/l		23.9	33	25.2	22.1	12.1	37.5	19.2	9.79	21.4	27.4	33.9	34.4	22.4	39.5	41.3	46.0
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.001	<0.001
Cobalt	mg/l		<0.010	-	-	-	<0.002	-	-	-	-	-	0.027	-	-	-	-	0.006
Chromium	mg/l	0.05	<0.010	-	-	-	<0.002	-	-	-	-	-	0.045	-	-	-	-	0.007
Copper	mg/l	0.2	0.016	-	-	-	<0.002	-	-	-	-	-	0.102	-	-	-	-	0.037
Iron	mg/l	0.3	10.3	13.6	17.1	5.33	0.216	12.4	0.15	0.877	3.84	12.3	85.5	32.9	22.3	73.6	19.4	12.9
Potassium	mg/l		1.28	1.32	1.85	0.977	<0.500	1.48	<0.500	<0.500	0.98	1.41	4.65	2.42	1.97	3.52	2.07	0.785
Magnesium	mg/l	35	8.64	12.1	9.17	7.63	4.34	12.6	6.57	3.56	7.46	10.3	19.7	13.7	9.87	20.6	14.5	9.36
Manganese	mg/l	0.3	1.39	2.45	3.01	1.12	0.05	1.57	0.032	0.15	0.587	1.36	5.46	1.37	1.23 L	3.37 L	1.61 L	1.76 L
Sodium	mg/l	20	9.47	11.0	8.22	9.97	7.6	11.2	8.95	7.32	9.97	10.4	13	12.1	9.95	11.4	12.0	9.84
Nickel	mg/l	0.1	<0.010	-	-	-	<0.002	-	-	-	-	-	0.06	-	-	-	-	0.014
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.047	0.014	<0.010	0.039	0.011	0.0168
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.020	-	-	-	-	<0.020
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.010	0.007	0.011	<0.005	<0.005	0.01	<0.005	<0.005	0.006	0.007	0.038	0.017	0.014	0.041	0.017	<0.005
Zinc	mg/l	2	0.021	0.036	0.037	0.025	<0.005	0.028	<0.005	<0.005	0.01	0.029	0.216	0.071	0.062	0.165	0.049	0.041
Selenium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.040	-	-	-	-	<0.040

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected.
Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
L = laboratory flag indicating a value above calibration range but within annual verified linear range

Shumaker Consulting Engineering and Land Surveying, P.C
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 37			Date Sampled:		3/30/2011	6/29/2011	8/31/2011	11/29/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/26/2013	3/31/2014	6/23/2014	9/24/2014	12/8/2014
Analyte (Note 1)	Units	Guidance Value																		
Chloroethane	mg/l	0.005	<0.0050	-	-	-	-	<0.0050	-	-	-	-	-	-	<0.001	-	-	-	-	<0.001
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	-	<0.0050	-	-	-	-	-	-	<0.001	-	-	-	-	<0.001
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	-	<0.0050	-	-	-	-	-	-	<0.001	-	-	-	-	<0.001
o-Xylene	mg/l	0.005	<0.0050	-	-	-	-	<0.0050	-	-	-	-	-	-	<0.001	-	-	-	-	<0.001
m,p-Xylene	mg/l	0.005	<0.0050	-	-	-	-	<0.0050	-	-	-	-	-	-	<0.001	-	-	-	-	<0.002
Alkalinity as CaCO3	mg/l		120	142	-	144	136	134	138	140	128	172	94	130	122	122	120	128		
Ammonia as N	mg/l	2	<0.1	<0.1	-	<0.1	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10
Biochemical Oxygen Demand-5	mg/l		<6	<6	-	<6	<6	<6	<6	<6	<6	<6	11	<6	<6	<6	<6	<6	<3	
Chloride	mg/l	250	9.17	12.6	-	12.7	14.9	12.1	14.3	14.3	13.7	14.7	17.4	16	16.6	18.7	17.3	19.4		
Chemical Oxygen Demand	mg/l		18	12	-	24	41	<10	<10	25	16	<10	32	<10	<10	<10	<10	<10	<10	<10
Hexavalent Chromium	mg/l		<0.01	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	-	-	<0.010
Nitrate as N	mg/l	10	<0.05	0.17	-	<0.05	<0.05	0.07	<0.05	<0.05	<0.050	<0.05	<0.05	<0.05	<0.05	0.1	0.0751	0.127	0.0688	
pH	pH Units	6.5-8.5	7.8	7.76	-	7.53	7.23	7.54	7.31	7.09	7.24	7.06	7.78	7.33	7.75	7.25	6.89	7.68		
Phenol	mg/l	0.001	<0.025	<0.025	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	-	<0.025	
Total Dissolved Solids	mg/l	500	222	172	-	165	178	160	199	139	190	196	169	201	253	184	94.0	137		
Sulfate as SO4	mg/l	250	11.7	13.8	-	13.2	13.2	<10	<10.0	<10.00	10.7	8.26	22.3	12.3	12.3	13.1	12.5	12.9		
Total Kjeldahl Nitrogen	mg/l		<1.0	<1.0	-	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	1.2	2.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Organic Carbon	mg/l		<0.5	4.8	-	<0.5	0.7	0.6	0.9	0.8	1.8	1	3.5	0.8	0.8	0.818	0.668	<0.50		
Total Hardness as CaCO3	mg/l		136	130	-	149	145	152	138	146	145	139	128	141	142	-	142	148		
Color	Color Units	5	<5	-	-	-	<5	-	-	-	-	-	<5	-	-	-	-	-	<5	
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-	-	-	-	-	<0.010	
Bromide	mg/l	2	<0.05	<0.05	-	<0.05	0.07	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.05	0.39	<0.20	<0.20	<0.20	<0.20
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.0002	-	-	-	-	-	<0.0002	
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	-	<0.002	
Aluminum	mg/l		8.21	-	-	-	0.322	-	-	-	-	-	-	-	-	-	-	-	0.186	
Arsenic	mg/l	0.025	<0.025	-	-	-	<0.010	-	-	-	-	-	<0.010	-	-	-	-	-	<0.010	
Boron	mg/l	1	<0.100	-	-	-	<0.025	-	-	-	-	-	-	-	-	-	-	-	<0.025	
Barium	mg/l	1	0.053	-	-	-	0.02	-	-	-	-	-	0.014	-	-	-	-	-	0.017	
Beryllium	mg/l	0.03	<0.001	-	-	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	-	<0.001	
Calcium	mg/l		41.3	42.0	-	48.6	46.2	50	43.9	47.3	46.7	44.1	40	44.7	45.3	47.3	45.3	47.4		
Cadmium	mg/l	0.005	<0.001	<0.001	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		<0.010	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	-	<0.002	
Chromium	mg/l	0.05	0.023	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	-	<0.002	
Copper	mg/l	0.2	0.012	-	-	-	0.003	-	-	-	-	-	0.004	-	-	-	-	-	0.002	
Iron	mg/l	0.3	16.4	0.521	-	0.397	0.805	0.562	0.257	0.233	0.394	0.474	0.489	0.462	1.23	0.246	0.595	0.424		
Potassium	mg/l		3.81	8.09	-	4.02	2.44	2.61	2.44	2.39	2.45	2.16	2.58	2.55	2.24	1.92	2.22	2.01		
Magnesium	mg/l	35	8.10	5.95	-	6.79	7.22	6.5	6.68	6.67	6.74	7.11	6.72	7.12	7.06	7.73	7.05	7.26		
Manganese	mg/l	0.3	0.429	0.017	-	0.073	0.204	0.026	0.373	0.325	0.213	0.196	0.207	0.066	0.104	0.036	0.066	0.034		
Sodium	mg/l	20	7.91	9.56	-	8.88	8.48	7.76	8.04	8.06	8.95	9.06	9.03	9.1	9.19	8.74	8.48	9.26		
Nickel	mg/l	0.1	0.015	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	-	<0.002	
Lead	mg/l	0.025	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0006	
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.020	-	-	-	-	-	<0.020	
Thallium	mg/l	0.0005	<0.025	<0.025	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		0.013	<0.010	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	0.036	0.015	-	0.012	<0.005	0.009	<0.005	0.006	<0.005	0.008	0.006	0.011	0.017	0.009	0.007	0.008		
Selenium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.040	-	-	-	-	-	<0.040	

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected.
Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
L = laboratory flag indicating a value above calibration range but within annual verified linear range

Shumaker Consulting Engineering and Land Surveying, P.C
Analytical History for the Conklin Landfil
SCE Project 08126.00

Monitoring Well 38D	Units	Date Sampled:	3/30/2011	6/29/2011	9/31/2011	11/29/2011	3/22/2012	6/20/2012	9/20/2012	11/8/2012	3/25/2013	6/4/2013	9/17/2013	11/26/2013	3/31/2014	6/23/2014	9/24/2014	12/8/2014
		Guidance Value																
Analyte (Note 1)																		
Chloroethane	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
<i>o</i> -Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
<i>m,p</i> -Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.002
Alkalinity as CaCO3	mg/l		172	188	186	176	178	172	172	184	172	168	188	194	178	186	192	190
Ammonia as N	mg/l	2	0.9	17.1	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.5	<0.1	<0.1	<0.1	0.149	<0.1
Biochemical Oxygen Demand-5	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<3
Chloride	mg/l	250	11.1	11.4	10.5	10.6	11.5	<10.0	11.1	11.3	9.2	9.3	9.6	10.2	9.80	10.5	9.80	10.4
Chemical Oxygen Demand	mg/l		342	37	118	51	118	16	187	79	21	138	243	<10	<10	15.9	41.4	<10
Hexavalent Chromium	mg/l		0.01	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.010
Nitrate as N	mg/l	10	0.1	0.17	0.16	0.11	0.09	0.11	0.07	0.06	0.2	0.22	<0.05	0.06	0.16	0.164	<0.05	0.0823
pH	pH Units	6.5-8.5	7.71	8.02	7.84	7.88	7.66	7.91	7.75	7.51	7.98	7.64	7.65	7.57	8.36	7.53	7.52	8.15
Phenol	mg/l	0.001	0.829	0.026	0.130	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Total Dissolved Solids	mg/l	500	160	186	208	3	223	187	217	157	239	205	243	237	484	204	116	164
Sulfate as SO4	mg/l	250	8.63	7.87	7.50	8.28	9.22	<10	<10	<10	7.52	7.51	6.74	6.82	6.95	10.4	11.3	8.22
Total Kjeldahl Nitrogen	mg/l		2.2	<1.0	<1.0	<0.1	<1.0	<1.0	<1.0	1.6	1.8	<1.0	<1.0	1.1	<1.0	4.95	<1.0	<1.0
Total Organic Carbon	mg/l		2.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	0.9	<0.5	0.8	1.4	0.782	0.510
Total Hardness as CaCO3	mg/l		2140	128	511	298	453	151	120	176	120	179	1840	144	147	-	618	535
Color	Color Units	5	30	-	-	-	15	-	-	-	-	-	<5	-	-	-	-	<5
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.010
Bromide	mg/l	2	0.13	0.13	0.11	0.12	0.14	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.13	0.61	<0.20	<0.20	<0.20
Mercury	mg/l	0.0007	<0.0008	-	-	-	<0.0002	-	-	-	-	-	<0.0040	-	-	-	-	<0.0002
Silver	mg/l	0.05	<0.018	-	-	-	<0.010	-	-	-	-	-	0.02	-	-	-	-	<0.002
Aluminum	mg/l		221	-	-	-	140	-	-	-	-	-	-	-	-	-	-	39.3
Arsenic	mg/l	0.025	0.274	-	-	-	0.111	-	-	-	-	-	0.21	-	-	-	-	0.019
Boron	mg/l	1	<0.900	-	-	-	<0.125	-	-	-	-	-	-	-	-	-	-	<0.125
Barium	mg/l	1	9.89	-	-	-	0.849	-	-	-	-	-	3.89	-	-	-	-	2.84
Beryllium	mg/l	0.03	0.017	-	-	-	0.005	-	-	-	-	-	0.01	-	-	-	-	0.006
Calcium	mg/l		558	35.6	70.3	50.3	63.9	39.6	34	39.1	34.4	41.3	438	39.8	38.8	121	118	153
Cadmium	mg/l	0.005	0.013	<0.001	<0.005	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.009	<0.001	<0.001	<0.001	0.013	0.003
Cobalt	mg/l		0.292	-	-	-	0.16	-	-	-	-	-	0.3	-	-	-	-	0.107
Chromium	mg/l	0.05	0.240	-	-	-	0.19	-	-	-	-	-	0.28	-	-	-	-	0.026
Copper	mg/l	0.2	0.294	-	-	-	0.266	-	-	-	-	-	0.399	-	-	-	-	0.350 L
Iron	mg/l	0.3	698	12.8	395	183	354	28.4	5.27	59.4	<0.010	60.8	599	17.6	21.6	105	373	98.0
Potassium	mg/l		11.9	2.47	11.6	7.14	9.47	2.92	1.89	3.93	1.86	4.49	13.1	2.85	3.04	3.11	18.5	2.79
Magnesium	mg/l	35	183	9.46	81.5	42.1	71.2	12.6	8.56	19.1	8.28	18.4	182	10.8	12.1	36.2	78.6	37.2
Manganese	mg/l	0.3	100	0.367	10.2	2.98	9.41	0.841	0.604	1.84	0.205	2.28	96.6	0.637	0.675	16.2 L	22.4 L	23.0 L
Sodium	mg/l	20	44.8	32.7	43.1	19.3	36.5	28.7	34.6	33.8	37.4	36.9	39.5	35.3	35.5 L	25.0 L	34.1	36.4
Nickel	mg/l	0.1	0.492	-	-	-	0.341	-	-	-	-	-	0.575	-	-	-	-	0.118
Lead	mg/l	0.025	0.241	<0.010	0.145	0.081	0.135	<0.010	<0.010	0.026	<0.010	0.034	0.311	<0.010	<0.010	0.118	0.234	0.110
Antimony	mg/l	0.03	<0.180	-	-	-	<0.100	-	-	-	-	-	<0.100	-	-	-	-	<0.020
Thallium	mg/l	0.0005	<0.225	<0.025	<0.125	<0.025	<0.125	<0.025	<0.025	<0.025	<0.025	<0.025	<0.125	<0.025	<0.025	<0.025	<0.125	<0.0125
Vanadium	mg/l		0.271	<0.010	0.169	0.085	0.181	0.018	<0.005	0.024	<0.005	0.027	0.204	0.009	0.012	0.054	0.265	0.040
Zinc	mg/l	2	1.30	0.035	0.911	0.464	0.837	0.064	0.019	0.141	0.01	0.156	1.48	0.047	0.074	0.339	0.924	0.349
Selenium	mg/l	0.01	<0.360	-	-	-	<0.200	-	-	-	-	-	<0.200	-	-	-	-	<0.040

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected.
Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride,
L = laboratory flag indicating a value above calibration range but within annual verified linear range
- Highlighted cell indicates compound detected above applicable regulatory limit.
- * Blank Cells on 12/28/10 Benchmark Analysis indicates no data received for this analyte.

GCE Project 00126 00

Carlin Creek		Date Sampled:																
	Units	Guidance Value	3/30/2011	6/29/2011	8/31/2011	11/29/2011	3/22/2012	6/20/2012	9/20/2012	1/6/2012	3/25/2013	6/4/2013	9/17/2013	11/9/2013	3/31/2014	6/23/2014	9/24/2014	1/29/2014
Analyte (Note 1)																		
Chloroethane	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
1,2-Dichloropropane	mg/l	0.001	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
Methylene chloride	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
p-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.001
m,p-Xylene	mg/l	0.005	<0.0050	-	-	-	<0.0050	-	-	-	-	-	<0.001	-	-	-	-	<0.002
Alkalinity as CaCO3	mg/l		22	66	36	30	34	46	52	36	26	50	50	42	18	52	60	32
Ammonia as N	mg/l	2	0.2	<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	<0.1	<0.1
Biochemical Oxygen Demand-5 Chloride	mg/l		<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<3
Chemical Oxygen Demand	mg/l	250	56.1	31.4	23.3	15.8	42.2	30.3	38.2	22.5	71	52.7	39.5	47.9	48.7	48.7	56.2	53.7
Hexavalent Chromium	mg/l		<0.01	-	-	-	<0.01	-	-	-	-	-	<0.01	-	-	-	-	<0.01
Nitrate as N	mg/l	10	<0.05	<0.05	0.38	0.11	0.18	<0.05	0.1	0.06	0.31	0.11	0.2	0.14	0.50	0.23	0.0688	0.383
pH	pH Units	6.5-8.5	7.34	6.79	6.9	7.41	7.07	6.39	7.35	7.31	7.09	6.6	7.03	6.82	7.84	6.27	6.74	7.75
Phenol	mg/l	0.001	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.724
Total Dissolved Solids	mg/l	500	135	90	85	56	130	79	158	85	202	152	174	150	170	144	107	119
Sulfate as SO4	mg/l	250	8.75	8.24	8.98	7.66	8.77	<10.0	<10.0	<10.0	6.96	6.67	7.31	8.38	5.95	7.78	8.00	8.66
Total Kjeldahl Nitrogen	mg/l		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.10	<1.0
Total Organic Carbon	mg/l		1.2	3.3	2.7	2.0	1.8	1.9	4.2	2.2	1.6	2.3	1.5	2.1	2.7	1.67	1.51	2.72
Total Hardness as CaCO3	mg/l		37.8	48.4	37.4	-	44.1	50.3	49.9	37.4	53.1	61.7	59	56.4	37.3	-	73.7	55.6
Color	Color Units	5	<5	-	-	-	<5	-	-	-	-	-	<5	-	-	-	-	<5
Cyanide	mg/l	0.2	<0.010	-	-	-	<0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.010
Bromide	mg/l	2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.05	<0.20	<0.20	<0.20	<0.20
Mercury	mg/l	0.0007	<0.0002	-	-	-	<0.0002	-	-	-	-	-	<0.0002	-	-	-	-	<0.0002
Silver	mg/l	0.05	<0.002	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	<0.002
Aluminum	mg/l		0.098	-	-	-	0.096	-	-	-	-	-	-	-	-	-	-	0.035
Arsenic	mg/l	0.025	<0.025	-	-	-	<0.010	-	-	-	-	-	<0.010	-	-	-	-	<0.010
Boron	mg/l	1	<0.100	-	-	-	<0.025	-	-	-	-	-	-	-	-	-	-	<0.025
Barium	mg/l	1	0.011	-	-	-	0.01	-	-	-	-	-	0.017	-	-	-	-	0.013
Beryllium	mg/l	0.03	<0.001	-	-	-	<0.001	-	-	-	-	-	<0.001	-	-	-	-	<0.001
Calcium	mg/l		10.8	13.6	10.7	9.64	12.6	14.1	14.1	10.6	15.2	18.1	16.7	16	10.4	16.6	21.1	15.9
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		<0.010	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	<0.002
Chromium	mg/l	0.05	<0.010	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	<0.002
Copper	mg/l	0.2	<0.010	-	-	-	<0.002	-	-	-	-	-	0.004	-	-	-	-	<0.002
Iron	mg/l	0.3	0.1	0.715	0.200	0.138	0.198	0.022	0.204	0.094	0.203	0.226	0.069	0.124	1.88	0.035	0.010	0.065
Potassium	mg/l		1.06	2.72	1.87	1.08	1.34	1.31	1.6	0.956	1.34	1.57	2.07	1.37	1.53	1.76	2.12	1.41
Magnesium	mg/l	35	2.63	3.49	2.59	2.25	3.05	3.84	3.55	2.64	3.66	4.04	4.24	3.99	2.76	4.22	5.11	3.90
Manganese	mg/l	0.3	0.004	0.085	0.018	0.044	0.06	0.177	0.021	0.027	0.02	0.444	0.035	0.091	0.039	0.027	0.011	0.006
Sodium	mg/l	20	30.1	20.2	16.7	11.8	24.7	20.7	24.5	15.9	37.5	43	26.8	27.1	29.6 L	29.6 L	33.7 L	34.9 L
Nickel	mg/l	0.1	<0.010	-	-	-	<0.002	-	-	-	-	-	<0.002	-	-	-	-	<0.002
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.006
Antimony	mg/l	0.03	<0.020	-	-	-	<0.020	-	-	-	-	-	<0.020	-	-	-	-	<0.020
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.010	<0.010	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	<0.005	0.007	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	0.017	0.005	<0.005	<0.005
Calcium	mg/l	0.01	<0.040	-	-	-	<0.040	-	-	-	-	-	<0.040	-	-	-	-	<0.040

1. Full

- *. Third Quarter Analysis. 2010 not conducted.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 1		Date Sampled:	9/17/2013	9/17/2013	11/19/2013	11/19/2013	3/31/2014	3/31/2014	6/23/2014	6/23/2014	9/24/2014	9/24/2014	12/8/2014	12/8/2014
Analyte (Note 1)	Units	Guidance Value	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
Filtered/Unfiltered.														
Aluminum	mg/l		-	-	-	-	-	-	-	-	-	-	<0.025	<0.025
Mercury	mg/l	0.0007	<0.0002	<0.0002	-	-	-	-	-	-	-	-	<0.0002	<0.0002
Silver	mg/l	0.05	<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Arsenic	mg/l	0.025	<0.010	<0.010	-	-	-	-	-	-	-	-	<0.010	<0.010
Barium	mg/l	1	0.038	0.028	-	-	-	-	-	-	-	-	0.029	0.024
Beryllium	mg/l	0.03	<0.001	<0.001	-	-	-	-	-	-	-	-	<0.001	<0.001
Boron	mg/l	1	-	-	-	-	-	-	-	-	-	-	<0.125	<0.058
Calcium	mg/l		53.5	56.4	53.5	52.4	36.9	30.3	55.9	48.9	58.7	56.6	60.5	56.4
Cadmium	mg/l	0.005	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		0.004	<0.002	-	-	-	-	-	-	-	-	0.006	<0.002
Chromium	mg/l	0.05	<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Copper	mg/l	0.2	0.006	<0.002	-	-	-	-	-	-	-	-	0.003	<0.002
Iron	mg/l	0.3	0.819	<0.005	0.149	0.006	0.426	0.015	0.272	<0.005	0.037	<0.005	0.076	<0.005
Potassium	mg/l		1.98	1.78	1.78	1.68	1.06	0.713	2.24	2.31	1.73	1.35	1.48	1.54
Magnesium	mg/l	35	18.9	17.3	17.8	17.4	12.1	9.72	21.1	18.5	18.2	17.3	19.7	18.4
Manganese	mg/l	0.3	0.273	<0.002	0.057	<0.002	0.038	<0.002	0.226	0.026	0.024	<0.002	0.160	<0.002
Sodium	mg/l	20	23.2	22.8	20.1	19.1	7.85	5.93	20.7	21.6	21.9	20.9	23.6	22.1
Nickel	mg/l	0.1	<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.0010	<0.0006
Antimony	mg/l	0.03	<0.020	<0.020	-	-	-	-	-	-	-	-	<0.020	<0.020
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	0.038	<0.005	0.012	<0.005	0.009	<0.005	0.024	0.005	<0.005	<0.005	0.007	<0.005
Selenium	mg/l	0.01	<0.040	<0.040	-	-	-	-	-	-	-	-	<0.040	<0.040

Notes

1. Full analytical reports for the Target Compound List were analyzed but were not detected.
Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
2. Highlighted cell indicates compound detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 3		Date Sampled:	9/7/2013	9/7/2013	11/18/2013	11/18/2013	3/31/2014	3/31/2014	6/23/2014	6/23/2014	9/24/2014	9/24/2014	12/8/2014	12/8/2014
Analyte (Note 1)	Units	Guidance Value	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
Filtered/Unfiltered.														
Aluminum	mg/l		-	-	-	-	-	-	-	-	-	-	15.1	<0.025
Mercury	mg/l	0.0007	<0.0040	<0.0002	-	-	-	-	-	-	-	-	<0.0002	<0.0002
Silver	mg/l	0.05	<0.010	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Arsenic	mg/l	0.025	0.201	<0.010	-	-	-	-	-	-	-	-	<0.010	<0.010
Barium	mg/l	1	1.41	0.015	-	-	-	-	-	-	-	-	0.448	0.018
Beryllium	mg/l	0.03	0.007	<0.001	-	-	-	-	-	-	-	-	0.002	<0.001
Boron	mg/l	1	-	-	-	-	-	-	-	-	-	-	0.026	<0.025
Calcium	mg/l		103	34.7	43.6	33.3	40.9	31.3	60.2	31.6	46.8	33.8	59.6	35.6
Cadmium	mg/l	0.005	<0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		0.167	0.002	-	-	-	-	-	-	-	-	0.026	<0.002
Chromium	mg/l	0.05	0.139	<0.002	-	-	-	-	-	-	-	-	0.010	<0.002
Copper	mg/l	0.2	0.225	<0.002	-	-	-	-	-	-	-	-	0.070	<0.002
Iron	mg/l	0.3	261	<0.005	117	0.045	51.5	<0.005	22.4	0.033	27.9	0.008	13.6	0.101
Potassium	mg/l		7.87	0.502	4	<0.500	3.11	<0.500	1.38	<0.500	3.02	<0.500	0.796	0.57
Magnesium	mg/l	35	63.8	8.55	26.9	7.67	17.5	8.06	15.9	8.14	13.4	7.77	14.0	9.03
Manganese	mg/l	0.3	4.23	0.253	1.46	0.249	0.931	0.309	0.996	0.084	0.590	0.146	0.786	0.239
Sodium	mg/l	20	11.7	10.2	10.1	10.1	11.1	8.17	7.74	8.30	10.2	9.20	8.58	9.58
Nickel	mg/l	0.1	0.267	<0.002	-	-	-	-	-	-	-	-	0.028	<0.002
Lead	mg/l	0.025	0.167	<0.010	0.053	<0.010	<0.010	<0.010	0.049	<0.010	0.021	<0.010	0.0409	<0.0006
Antimony	mg/l	0.03	<0.100	<0.020	-	-	-	-	-	-	-	-	<0.020	<0.020
Thallium	mg/l	0.0005	<0.125	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		0.118	<0.005	0.053	<0.005	0.03	<0.005	0.024	<0.005	0.025	<0.005	0.017	<0.005
Zinc	mg/l	2	0.789	<0.005	0.286	<0.005	0.139	0.006	0.147	<0.005	0.083	<0.005	0.115	<0.005
Selenium	mg/l	0.01	<0.200	<0.040	-	-	-	-	-	-	-	-	<0.040	<0.040

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected.
Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
- Highlighted cell indicates compound detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 4	Units	Date Sampled: Guidance Value	9/17/2013	9/17/2013	11/18/2013	11/18/2013	3/31/2014	3/31/2014	6/23/2014	6/23/2014	9/24/2014	9/24/2014	12/9/2014	12/9/2014
			Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
Analyte (Note 1)														
Filtered/Unfiltered.														
Aluminum	mg/l		-	-	-	-	-	-	-	-	-	-	1.47	<0.025
Mercury	mg/l	0.0007	<0.0002	<0.0002	-	-	-	-	-	-	-	-	<0.0002	<0.0002
Silver	mg/l	0.05	<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Arsenic	mg/l	0.025	<0.010	<0.010	-	-	-	-	-	-	-	-	<0.010	<0.010
Barium	mg/l	1	0.033	0.014	-	-	-	-	-	-	-	-	0.073	0.014
Beryllium	mg/l	0.03	<0.001	<0.001	-	-	-	-	-	-	-	-	<0.001	<0.001
Boron	mg/l	1	-	-	-	-	-	-	-	-	-	-	<0.025	<0.025
Calcium	mg/l		36.7	39.4	32.4	29.5	40.7	34	31.9	24.5	34.2	29.8	40.1	35.3
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		0.003	<0.002	-	-	-	-	-	-	-	-	0.005	<0.002
Chromium	mg/l	0.05	0.003	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Copper	mg/l	0.2	0.006	<0.002	-	-	-	-	-	-	-	-	0.004	<0.002
Iron	mg/l	0.3	4.66	<0.005	9.31	0.018	28.4	<0.005	14.1	0.015	9.87	0.008	1.63	0.007
Potassium	mg/l		1.62	0.711	1.61	0.749	2.71	0.528	2.06	0.789	1.83	0.661	0.816	0.912
Magnesium	mg/l	35	11.8	10.5	9.65	8.15	14.2	9.79	12.0	8.18	10.6	8.20	11.3	9.91
Manganese	mg/l	0.3	0.224	0.023	0.755	0.01	2.27	0.013	1.20	0.018	1.02	0.011	0.448	0.025
Sodium	mg/l	20	7.55	7.36	7.85	7.46	7.59	6.42	7.64	7.62	7.67	6.72	8.16	7.05
Nickel	mg/l	0.1	0.003	<0.002	-	-	-	-	-	-	-	-	0.004	<0.002
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.013	<0.010	0.011	<0.010	0.0166	<0.0006
Antimony	mg/l	0.03	<0.020	<0.020	-	-	-	-	-	-	-	-	<0.020	<0.020
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.005	<0.005	0.006	<0.005	0.019	<0.005	0.011	<0.005	0.012	<0.005	<0.005	<0.005
Zinc	mg/l	2	0.016	<0.005	0.031	<0.005	0.077	<0.005	0.040	<0.005	0.026	<0.005	0.011	<0.005
Selenium	mg/l	0.01	<0.040	<0.040	-	-	-	-	-	-	-	-	<0.040	<0.040

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected.
Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
- Highlighted cell indicates compound detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 12		Date Sampled:	9/17/2013	9/17/2013	11/19/2013	11/19/2013	3/31/2014	3/31/2014	6/23/2014	6/23/2014	9/24/2014	9/24/2014	12/9/2014	12/9/2014
Analyte (Note 1)	Units	Guidance Value	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
Filtered/Unfiltered.														
Aluminum	mg/l		-	-	-	-	-	-	-	-	-	-	6.17	<0.025
Mercury	mg/l	0.0007	<0.0040	<0.0002	-	-	-	-	-	-	-	-	<0.0002	-
Silver	mg/l	0.05	<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Arsenic	mg/l	0.025	0.065	<0.010	-	-	-	-	-	-	-	-	<0.010	<0.010
Barium	mg/l	1	0.29	0.014	-	-	-	-	-	-	-	-	0.169	0.014
Beryllium	mg/l	0.03	0.002	<0.001	-	-	-	-	-	-	-	-	0.001	<0.001
Boron	mg/l	1	-	-	-	-	-	-	-	-	-	-	<0.025	<0.025
Calcium	mg/l		33.9	31.2	34.4	27.3	22.4	18.8	39.5	31.5	41.3	33.4	46.00	25.7
Cadmium	mg/l	0.005	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		0.027	<0.002	-	-	-	-	-	-	-	-	0.006	<0.002
Chromium	mg/l	0.05	0.045	<0.002	-	-	-	-	-	-	-	-	0.007	<0.002
Copper	mg/l	0.2	0.102	0.003	-	-	-	-	-	-	-	-	0.037	<0.002
Iron	mg/l	0.3	85.5	<0.005	32.9	0.010	22.3	0.006	73.6	0.017	19.4	0.017	12.9	<0.005
Potassium	mg/l		4.65	0.703	2.42	<0.500	1.97	<0.500	3.52	<0.002	2.07	<0.500	0.785	2.13
Magnesium	mg/l	35	19.7	9.22	13.7	8.42	9.87	6.55	20.6	11.0	14.5	10.0	9.4	6.78
Manganese	mg/l	0.3	5.46	0.645	1.37	0.049	1.23	0.012	3.37	<0.002	1.61	0.008	1.76	<0.002
Sodium	mg/l	20	13	13.1	12.1	10.5	9.95	8.25	11.4	12.0	12.0	10.7	9.84	8.82
Nickel	mg/l	0.1	0.06	0.002	-	-	-	-	-	-	-	-	0.014	<0.002
Lead	mg/l	0.025	0.047	<0.010	0.014	<0.010	<0.010	<0.010	0.039	<0.010	0.011	<0.010	0.0168	<0.0006
Antimony	mg/l	0.03	<0.020	<0.020	-	-	-	-	-	-	-	-	<0.020	<0.020
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		0.038	<0.005	0.017	<0.005	0.014	<0.005	0.041	<0.005	0.017	<0.005	<0.005	<0.005
Zinc	mg/l	2	0.216	0.015	0.071	<0.005	0.062	<0.005	0.165	0.005	0.049	<0.005	0.041	<0.005
Selenium	mg/l	0.01	<0.040	<0.040	-	-	-	-	-	-	-	-	<0.040	<0.040

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
- Highlighted cell indicates compound detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 37	Units	Date Sampled: Guidance Value	9/17/2013	9/17/2013	11/18/2013	11/18/2013	3/23/2014	3/23/2014	6/23/2014	6/23/2014	9/24/2014	9/24/2014	12/9/2014	12/9/2014
			Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
Analyte (Note 1)														
Filtered/Unfiltered.														
Aluminum	mg/l		-	-	-	-	-	-	-	-	-	-	0.186	<0.025
Mercury	mg/l	0.0007	<0.0002	<0.0002	-	-	-	-	-	-	-	-	<0.0002	<0.0002
Silver	mg/l	0.05	<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Arsenic	mg/l	0.025	<0.010	<0.010	-	-	-	-	-	-	-	-	<0.010	<0.010
Barium	mg/l	1	0.014	0.019	-	-	-	-	-	-	-	-	0.017	0.014
Beryllium	mg/l	0.03	<0.001	<0.001	-	-	-	-	-	-	-	-	<0.001	<0.001
Boron	mg/l	1	-	-	-	-	-	-	-	-	-	-	<0.025	<0.025
Calcium	mg/l		40	40.6	44.7	41.5	45.3	38.6	47.3	40.3	45.3	42.1	47.4	45.6
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Chromium	mg/l	0.05	<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Copper	mg/l	0.2	0.004	0.002	-	-	-	-	-	-	-	-	0.002	<0.002
Iron	mg/l	0.3	0.489	0.03	0.462	<0.005	1.23	<0.005	0.246	<0.005	0.595	<0.005	0.424	<0.005
Potassium	mg/l		2.58	2.34	2.55	2.27	2.24	1.79	1.92	2.04	2.22	1.91	2.01	2.7
Magnesium	mg/l	35	6.72	6.75	7.12	6.51	7.06	6.10	7.73	6.96	7.05	6.32	7.26	6.79
Manganese	mg/l	0.3	0.207	0.006	0.066	<0.002	0.104	<0.002	0.036	<0.002	0.066	<0.002	0.034	<0.002
Sodium	mg/l	20	9.03	67.2	9.1	8.56	9.19	7.84	8.74	8.34	8.48	7.81	9.26	9.27
Nickel	mg/l	0.1	<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0006	0.0008
Antimony	mg/l	0.03	<0.020	<0.020	-	-	-	-	-	-	-	-	<0.020	<0.020
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	0.006	0.006	0.011	<0.005	0.017	<0.005	0.009	<0.005	0.007	<0.005	0.008	<0.005
Selenium	mg/l	0.01	<0.040	<0.040	-	-	-	-	-	-	-	-	<0.040	<0.040

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
- Highlighted cell indicates compound detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Monitoring Well 38D	Date Sampled:	Units	Guidance Value	9/17/2013	9/17/2013	11/18/2013	11/18/2013	3/31/2014	3/31/2014	6/23/2014	6/23/2014	9/24/2014	9/24/2014	12/9/2014	12/9/2014
				Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
Analyte (Note 1)															
Filtered/Unfiltered.															
Aluminum	mg/l			-	-	-	-	-	-	-	-	-	-	39.3	0.028
Mercury	mg/l	0.0007		<0.0040	<0.0002	-	-	-	-	-	-	-	-	<0.0002	<0.0002
Silver	mg/l	0.05	0.02	0.02	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Arsenic	mg/l	0.025	0.21	0.21	<0.010	-	-	-	-	-	-	-	-	0.019	<0.010
Barium	mg/l	1	3.89	3.89	0.046	-	-	-	-	-	-	-	-	2.84	0.059
Beryllium	mg/l	0.03	0.01	0.01	<0.001	-	-	-	-	-	-	-	-	0.006	<0.001
Boron	mg/l	1	-	-	-	-	-	-	-	-	-	-	-	<0.125	0.060
Calcium	mg/l		438	37.2	39.8	37.7	38.8	32.3	121	31.9	118	37.1	153	38.5	
Cadmium	mg/l	0.005	0.009	<0.001	<0.001	<0.001	<0.001	<0.010	<0.001	<0.001	0.013	<0.001	0.003	<0.001	
Cobalt	mg/l		0.3	<0.002	-	-	-	-	-	-	-	-	-	0.107	<0.002
Chromium	mg/l	0.05	0.28	<0.002	-	-	-	-	-	-	-	-	-	0.026	<0.002
Copper	mg/l	0.2	0.399	<0.002	-	-	-	-	-	-	-	-	-	0.350	<0.002
Iron	mg/l	0.3	599	<0.005	17.6	0.008	21.6	<0.005	105	0.027	373	0.068	98.0	0.040	
Potassium	mg/l		13.1	1.14	2.85	1.13	3.04	1.14	3.11	1.45	18.5	1.17	2.79	1.27	
Magnesium	mg/l	35	182	8.12	10.8	7.6	12.1	7.48	36.2	7.9	78.6	7.43	37.2	8.31	
Manganese	mg/l	0.3	96.6	0.485	0.637	<0.002	0.675	0.005	16.2	0.005	22.4	0.307	23.0	0.202	
Sodium	mg/l	20	39.5	35.2	35.3	34.5	35.5	32.6	25	36.9	34.1	33.1	36.4	35.6	
Nickel	mg/l	0.1	0.575	<0.002	-	-	-	-	-	-	-	-	-	0.118	<0.002
Lead	mg/l	0.025	0.311	<0.010	<0.010	<0.010	<0.010	<0.010	0.118	<0.010	0.234	<0.010	0.110	<0.0006	
Antimony	mg/l	0.03	<0.100	<0.020	-	-	-	-	-	-	-	-	-	<0.020	<0.020
Thallium	mg/l	0.0005	<0.125	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.125	<0.025	<0.125	<0.125	
Vanadium	mg/l		0.204	<0.005	0.009	<0.005	0.012	<0.005	0.054	<0.005	0.265	<0.005	0.04	<0.005	
Zinc	mg/l	2	1.48	<0.005	0.047	<0.005	0.074	<0.005	0.339	<0.005	0.924	<0.005	0.349	<0.005	
Selenium	mg/l	0.01	<0.200	<0.040	-	-	-	-	-	-	-	-	-	<0.040	<0.040

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
- Highlighted cell indicates compound detected above applicable regulatory limit.

Filtered and Unfiltered Sample Comparison
Analytical History for the Conklin Landfill
SCE Project 08126.00

Carlin Creek	Units	Date Sampled: Guidance Value	9/17/2013	9/17/2013	11/18/2013	11/18/2013	3/31/2014	3/31/2014	6/23/2014	6/23/2014	9/24/2014	9/24/2014	12/9/2014	12/9/2014
			Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered
Analyte (Note 1)														
Filtered/Unfiltered.														
Aluminum	mg/l		-	-	-	-	-	-	-	-	-	-	0.035	<0.025
Mercury	mg/l	0.0007	<0.0002	<0.0002	-	-	-	-	-	-	-	-	<0.0002	<0.0002
Silver	mg/l	0.05	<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Arsenic	mg/l	0.025	<0.010	<0.010	-	-	-	-	-	-	-	-	<0.010	<0.010
Barium	mg/l	1	0.017	0.017	-	-	-	-	-	-	-	-	0.013	0.011
Beryllium	mg/l	0.03	<0.001	<0.001	-	-	-	-	-	-	-	-	<0.001	<0.001
Boron	mg/l	1	-	-	-	-	-	-	-	-	-	-	<0.025	<0.025
Calcium	mg/l		16.7	17.2	16	15.1	10.4	9.31	16.6	14.8	21.1	20.2	15.9	14.0
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l		<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Chromium	mg/l	0.05	<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Copper	mg/l	0.2	0.004	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Iron	mg/l	0.3	0.069	<0.005	0.124	0.043	1.88	0.078	0.035	<0.005	0.01	<0.005	0.065	0.023
Potassium	mg/l		2.07	2.06	1.37	1.17	1.53	1.08	1.76	1.91	2.12	1.91	1.41	1.37
Magnesium	mg/l	35	4.24	4.19	3.99	3.78	2.76	2.3	4.22	3.91	5.11	4.72	3.9	3.42
Manganese	mg/l	0.3	0.035	<0.002	0.091	0.081	0.039	0.006	0.027	0.013	0.011	0.008	0.006	0.003
Sodium	mg/l	20	26.8	26.4	27.1	26.4	29.6	26.4	29.6	29.6	33.7	32.7	34.9	29.5
Nickel	mg/l	0.1	<0.002	<0.002	-	-	-	-	-	-	-	-	<0.002	<0.002
Lead	mg/l	0.025	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0006	<0.0006
Antimony	mg/l	0.03	<0.020	<0.020	-	-	-	-	-	-	-	-	<0.020	<0.020
Thallium	mg/l	0.0005	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Vanadium	mg/l		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Zinc	mg/l	2	<0.005	<0.005	<0.005	<0.005	0.017	<0.005	0.006	0.005	<0.005	<0.005	<0.005	<0.005
Selenium	mg/l	0.01	<0.040	<0.040	-	-	-	-	-	-	-	-	<0.040	<0.040

Notes

- Full analytical reports for the Target Compound List were analyzed but were not detected. Contaminants of concern plus Organic compounds listed herein are for the Methylene Chloride, which has been detected above standards in one sampling event.
- Highlighted cell indicates compound detected above applicable regulatory limit.

LAB ID # 11216 *SA
LAB ID # 11827 *CV



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COMPANY: Conklin, Town of
ADDRESS: P.O. Box 182
Conklin, NY 13748

WO#: 14040079

PAGE: 1 of 23

PO#:

PWS ID# Broome Co. DOH

PHONE: (607) 775-4584
FAX: (607) 775-1434

TEST REPORT

Landfill-Routine

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SAMPLE: **MW-3**

Lab ID: 14040079-001

SAMPLED BY: FC

Sample Time:

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
pH	6.43	Field Parameters				
Temperature, sampled	6.9 deg C	Field Parameters				

SAMPLE: **MW-3**

Lab ID: 14040079-001A

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Alkalinity as CaCO3	130 mg/L	SM2320B	2	04/02/14 15:00	04/02/14	IC-SA

SAMPLE: **MW-3**

Lab ID: 14040079-001B

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Ammonia as N	0.1 mg/L	EPA 350.1	0.1	04/03/14 15:57	04/03/14	KED-SA
Chemical Oxygen Demand	20 mg/L	HACH 8000	10	04/02/14 10:00	04/02/14	SG-SA

SAMPLE: **MW-3**

Lab ID: 14040079-001C

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
BOD	< 6 mg/L	SM5210B	6	04/02/14 7:30	04/07/14	JP-SA
pH	7.10@20.1°C	K N2 SM4500H+B		04/04/14 7:52	04/04/14	JP-SA

SAMPLE: **MW-3**

Lab ID: 14040079-001D

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Bromide	0.47 mg/L	EPA 300.0	0.20	04/05/14 6:06	04/05/14	NSF-SA

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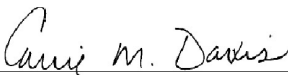
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MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



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SAMPLE: **MW-3**

Lab ID: 14040079-001E

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Nitrate as N	< 0.05 mg/L	EPA 353.2	0.05	04/01/14 15:00	04/01/14	SG-SA
Total Dissolved Solids	666 mg/L	SM2540C	10	04/04/14 14:00	04/07/14	SRS-SA

SAMPLE: **MW-3**

Lab ID: 14040079-001F

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 8:10	04/03/14	SPC-CV
Calcium	40.9 mg/L	EPA 200.7	0.050	04/03/14 8:10	04/03/14	SPC-CV
Iron	51.5 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Lead	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 8:10	04/03/14	SPC-CV
Magnesium	17.5 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Manganese	0.931 mg/L	EPA 200.7	0.002	04/03/14 8:10	04/03/14	SPC-CV
Potassium	3.11 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Sodium	11.1 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Thallium	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Vanadium	0.030 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Zinc	0.139 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Hardness, Calculation	174 mg/L	EPA 200.7	0.373	04/03/14 8:10	04/03/14	SPC-CV

SAMPLE: **MW-3**

Lab ID: 14040079-001G

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Kjeldahl Nitrogen	< 1.0 mg/L	EPA 351.2	1.0	04/04/14 13:59	04/04/14	KED-SA

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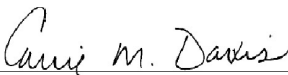
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LAB ID # 11827 *CV



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PWS ID# Broome Co. DOH

Landfill-Routine

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SAMPLE: **MW-3**

Lab ID: 14040079-001H

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SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Phenol	< 0.025 mg/L	S EPA 420.4	0.025	04/03/14 10:00	04/03/14	SG-SA

SAMPLE: **MW-3**

Lab ID: 14040079-001I

Grab

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Sample Time: 03/31/2014 12:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Organic Carbon	2.6 mg/L	SM5310C	0.5	04/07/14 13:00	04/08/14	MED-SA

SAMPLE: **MW-3**

Lab ID: 14040079-001J

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium, Dissolved	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 12:30	04/04/14	SPC-CV
Calcium, Dissolved	31.3 mg/L	EPA 200.7	0.050	04/03/14 12:30	04/04/14	SPC-CV
Iron, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Lead, Dissolved	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 12:30	04/04/14	SPC-CV
Magnesium, Dissolved	8.06 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Manganese, Dissolved	0.309 mg/L	L EPA 200.7	0.002	04/03/14 12:30	04/04/14	SPC-CV
Potassium, Dissolved	< 0.500 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Sodium, Dissolved	8.17 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Thallium, Dissolved	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Vanadium, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Zinc, Dissolved	0.006 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV

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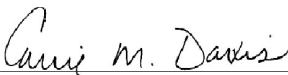
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SAMPLE: **MW-3**

Lab ID: 14040079-001K

Grab

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Sample Time: 03/31/2014 12:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Chloride	5.00 mg/L	EPA 300.0	1.00	04/05/14 6:06	04/05/14	NSF-SA
Sulfate	6.10 mg/L	EPA 300.0	0.25	04/05/14 6:06	04/05/14	NSF-SA

SAMPLE: **MW-12**

Lab ID: 14040079-002

SAMPLED BY: FC

Sample Time:

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
pH	6.27	Field Parameters				
Temperature, sampled	9.4 deg C	Field Parameters				

SAMPLE: **MW-12**

Lab ID: 14040079-002A

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 10:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Alkalinity as CaCO ₃	98 mg/L	SM2320B	2	04/02/14 15:00	04/02/14	IC-SA

SAMPLE: **MW-12**

Lab ID: 14040079-002B

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 10:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Ammonia as N	< 0.1 mg/L	EPA 350.1	0.1	04/03/14 15:58	04/03/14	KED-SA
Chemical Oxygen Demand	20 mg/L	HACH 8000	10	04/02/14 10:00	04/02/14	SG-SA

SAMPLE: **MW-12**

Lab ID: 14040079-002C

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 10:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
BOD	< 6 mg/L	SM5210B	6	04/02/14 7:30	04/07/14	JP-SA

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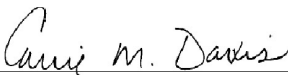
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pH	6.74@19.9°C	K N2	SM4500H+B	04/04/14 7:52	04/04/14	JP-SA
SAMPLE: MW-12		Lab ID: 14040079-002D		Grab		
SAMPLED BY: FC		Sample Time: 03/31/2014 10:50		SLOQ		
<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Bromide	0.55 mg/L	EPA 300.0	0.20	04/05/14 6:35	04/05/14	NSF-SA
SAMPLE: MW-12		Lab ID: 14040079-002E		Grab		
SAMPLED BY: FC		Sample Time: 03/31/2014 10:50		SLOQ		
<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Nitrate as N	< 0.05 mg/L	EPA 353.2	0.05	04/01/14 15:00	04/01/14	SG-SA
Total Dissolved Solids	220 mg/L	SM2540C	10	04/04/14 14:00	04/07/14	SRS-SA
SAMPLE: MW-12		Lab ID: 14040079-002F		Grab		
SAMPLED BY: FC		Sample Time: 03/31/2014 10:50		SLOQ		
<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 8:10	04/03/14	SPC-CV
Calcium	22.4 mg/L	EPA 200.7	0.050	04/03/14 8:10	04/03/14	SPC-CV
Iron	22.3 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Lead	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 8:10	04/03/14	SPC-CV
Magnesium	9.87 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Manganese	1.23 mg/L	EPA 200.7	0.002	04/03/14 8:10	04/03/14	SPC-CV
Potassium	1.97 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Sodium	9.95 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Thallium	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Vanadium	0.014 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Zinc	0.062 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV

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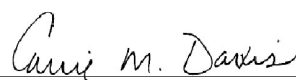
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S Spike Recovery outside accepted recovery limits

MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



SEND DATA TO:

NAME: Tom Delamarter
COMPANY: Conklin, Town of
ADDRESS: P.O. Box 182
Conklin, NY 13748

WO#: 14040079

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PO#:

PHONE: (607) 775-4584
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Hardness, Calculation	96.6 mg/L	EPA 200.7	0.373	04/03/14 8:10	04/03/14	SPC-CV
SAMPLE: MW-12	Lab ID: 14040079-002G		Grab			
SAMPLED BY: FC	Sample Time: 03/31/2014 10:50					
			<u>SLOQ</u>			
<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Kjeldahl Nitrogen	< 1.0 mg/L	EPA 351.2	1.0	04/04/14 13:59	04/04/14	KED-SA
SAMPLE: MW-12	Lab ID: 14040079-002H		Grab			
SAMPLED BY: FC	Sample Time: 03/31/2014 10:50					
			<u>SLOQ</u>			
<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Phenol	< 0.025 mg/L	EPA 420.4	0.025	04/03/14 10:00	04/03/14	SG-SA
SAMPLE: MW-12	Lab ID: 14040079-002I		Grab			
SAMPLED BY: FC	Sample Time: 03/31/2014 10:50					
			<u>SLOQ</u>			
<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Organic Carbon	1.3 mg/L	SM5310C	0.5	04/07/14 13:00	04/08/14	MED-SA
SAMPLE: MW-12	Lab ID: 14040079-002J		Grab			
SAMPLED BY: FC	Sample Time: 03/31/2014 10:50					
			<u>SLOQ</u>			
<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium, Dissolved	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 12:30	04/04/14	SPC-CV
Calcium, Dissolved	18.8 mg/L	EPA 200.7	0.050	04/03/14 12:30	04/04/14	SPC-CV
Iron, Dissolved	0.006 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Lead, Dissolved	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 12:30	04/04/14	SPC-CV
Magnesium, Dissolved	6.55 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Manganese, Dissolved	0.012 mg/L	EPA 200.7	0.002	04/03/14 12:30	04/04/14	SPC-CV
Potassium, Dissolved	< 0.500 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV

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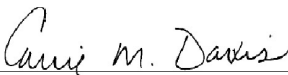
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MANAGER


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DATE: 4/14/2014

LAB ID # 11216 *SA
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Sodium, Dissolved	8.25 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Thallium, Dissolved	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Vanadium, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Zinc, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV

SAMPLE: **MW-12**

Lab ID: 14040079-002K

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 10:50

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Chloride	5.30 mg/L	EPA 300.0	1.00	04/05/14 6:35	04/05/14	NSF-SA
Sulfate	10.3 mg/L	EPA 300.0	0.25	04/05/14 6:35	04/05/14	NSF-SA

SAMPLE: **MW-4**

Lab ID: 14040079-003

SAMPLED BY: FC

Sample Time:

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
pH	6.76	Field Parameters				
Temperature, sampled	7.9 deg C	Field Parameters				

SAMPLE: **MW-4**

Lab ID: 14040079-003A

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 13:55

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Alkalinity as CaCO ₃	104 mg/L	SM2320B	2	04/02/14 15:00	04/02/14	IC-SA

SAMPLE: **MW-4**

Lab ID: 14040079-003B

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 13:55

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Ammonia as N	< 0.1 mg/L	EPA 350.1	0.1	04/03/14 16:00	04/03/14	KED-SA
Chemical Oxygen Demand	43 mg/L	HACH 8000	10	04/07/14 14:00	04/08/14	MED-SA

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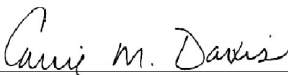
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SAMPLE: **MW-4**

Lab ID: 14040079-003C

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 13:55

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
BOD	< 6 mg/L	SM5210B	6	04/02/14 7:30	04/07/14	JP-SA
pH	7.27@20.1°C	K N2 SM4500H+B		04/04/14 7:52	04/04/14	JP-SA

SAMPLE: **MW-4**

Lab ID: 14040079-003D

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 13:55

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Bromide	0.25 mg/L	EPA 300.0	0.20	04/05/14 7:03	04/05/14	NSF-SA

SAMPLE: **MW-4**

Lab ID: 14040079-003E

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 13:55

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Nitrate as N	0.07 mg/L	EPA 353.2	0.05	04/01/14 15:00	04/01/14	SG-SA
Total Dissolved Solids	310 mg/L	SM2540C	10	04/04/14 14:00	04/07/14	SRS-SA

SAMPLE: **MW-4**

Lab ID: 14040079-003F

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 13:55

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 8:10	04/03/14	SPC-CV
Calcium	40.7 mg/L	EPA 200.7	0.050	04/03/14 8:10	04/03/14	SPC-CV
Iron	28.4 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Lead	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 8:10	04/03/14	SPC-CV
Magnesium	14.2 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Manganese	2.27 mg/L	L EPA 200.7	0.002	04/03/14 8:10	04/03/14	SPC-CV

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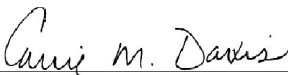
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MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



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Potassium	2.71 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Sodium	7.59 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Thallium	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Vanadium	0.019 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Zinc	0.077 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Hardness, Calculation	161 mg/L	EPA 200.7	0.373	04/03/14 8:10	04/03/14	SPC-CV

SAMPLE: **MW-4**

Lab ID: 14040079-003G

Grab

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SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Kjeldahl Nitrogen	< 1.0 mg/L	EPA 351.2	1.0	04/04/14 13:59	04/04/14	KED-SA

SAMPLE: **MW-4**

Lab ID: 14040079-003H

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 13:55

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Phenol	< 0.025 mg/L	EPA 420.4	0.025	04/03/14 10:00	04/03/14	SG-SA

SAMPLE: **MW-4**

Lab ID: 14040079-003I

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 13:55

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Organic Carbon	0.9 mg/L	SM5310C	0.5	04/07/14 13:00	04/08/14	MED-SA

SAMPLE: **MW-4**

Lab ID: 14040079-003J

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 13:55

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium, Dissolved	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 12:30	04/04/14	SPC-CV
Calcium, Dissolved	34.0 mg/L	EPA 200.7	0.050	04/03/14 12:30	04/04/14	SPC-CV

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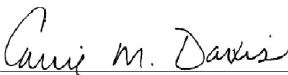
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Iron, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Lead, Dissolved	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 12:30	04/04/14	SPC-CV
Magnesium, Dissolved	9.79 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Manganese, Dissolved	0.013 mg/L	EPA 200.7	0.002	04/03/14 12:30	04/04/14	SPC-CV
Potassium, Dissolved	0.528 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Sodium, Dissolved	6.42 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Thallium, Dissolved	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Vanadium, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Zinc, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV

SAMPLE: MW-4

Lab ID: 14040079-003K Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 13:55

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Chloride	27.7 mg/L	EPA 300.0	1.00	04/05/14 7:03	04/05/14	NSF-SA
Sulfate	8.10 mg/L	EPA 300.0	0.25	04/05/14 7:03	04/05/14	NSF-SA

SAMPLE: MW-1 Upgradient

Lab ID: 14040079-004

SAMPLED BY: FC

Sample Time:

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
pH	7.59	Field Parameters				
Temperature, sampled	9.0 deg C	Field Parameters				

SAMPLE: MW-1 Upgradient

Lab ID: 14040079-004A Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 11:35

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Alkalinity as CaCO ₃	142 mg/L	SM2320B	2	04/02/14 15:00	04/02/14	IC-SA

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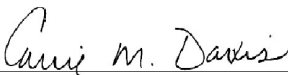
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SAMPLE: **MW-1 Upgradient**

Lab ID: 14040079-004B

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 11:35

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Ammonia as N	< 0.1 mg/L	EPA 350.1	0.1	04/03/14 16:01	04/03/14	KED-SA
Chemical Oxygen Demand	31 mg/L	HACH 8000	10	04/07/14 14:00	04/08/14	MED-SA

SAMPLE: **MW-1 Upgradient**

Lab ID: 14040079-004C

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 11:35

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
BOD	< 6 mg/L	SM5210B	6	04/02/14 7:30	04/07/14	JP-SA
pH	7.78@20.1°C	K N2 SM4500H+B		04/04/14 7:52	04/04/14	JP-SA

SAMPLE: **MW-1 Upgradient**

Lab ID: 14040079-004D

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 11:35

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Bromide	0.58 mg/L	EPA 300.0	0.20	04/05/14 7:31	04/05/14	NSF-SA

SAMPLE: **MW-1 Upgradient**

Lab ID: 14040079-004E

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 11:35

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Nitrate as N	0.08 mg/L	EPA 353.2	0.05	04/01/14 15:00	04/01/14	SG-SA
Total Dissolved Solids	262 mg/L	SM2540C	10	04/04/14 14:00	04/07/14	SRS-SA

SAMPLE: **MW-1 Upgradient**

Lab ID: 14040079-004F

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 11:35

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 8:10	04/03/14	SPC-CV

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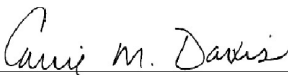
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FAX: (607) 775-1434

TEST REPORT

Landfill-Routine

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Calcium	36.9 mg/L	EPA 200.7	0.050	04/03/14 8:10	04/03/14	SPC-CV
Iron	0.426 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Lead	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 8:10	04/03/14	SPC-CV
Magnesium	12.1 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Manganese	0.038 mg/L	EPA 200.7	0.002	04/03/14 8:10	04/03/14	SPC-CV
Potassium	1.06 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Sodium	7.85 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Thallium	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Vanadium	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Zinc	0.009 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Hardness, Calculation	142 mg/L	EPA 200.7	0.373	04/03/14 8:10	04/03/14	SPC-CV

SAMPLE: MW-1 Upgradient

Lab ID: 14040079-004G

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 11:35

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Total Kjeldahl Nitrogen	< 1.0 mg/L	EPA 351.2	1.0	04/04/14 13:59	04/04/14	KED-SA

SAMPLE: MW-1 Upgradient

Lab ID: 14040079-004H

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 11:35

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Phenol	< 0.025 mg/L	EPA 420.4	0.025	04/03/14 10:00	04/03/14	SG-SA

SAMPLE: MW-1 Upgradient

Lab ID: 14040079-004I

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 11:35

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Total Organic Carbon	1.5 mg/L	SM5310C	0.5	04/07/14 13:00	04/08/14	MED-SA

REMARKS:

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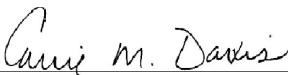
K Sample was received past holding time.

L Value above calibration range but within annually verified linear range

N2 Parameter is NELAP certified by PA DEP, but not in state of origin

S Spike Recovery outside accepted recovery limits

MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



SEND DATA TO:

NAME: Tom Delamarter
COMPANY: Conklin, Town of
ADDRESS: P.O. Box 182
Conklin, NY 13748

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TEST REPORT

Landfill-Routine

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SAMPLE: **MW-1 Upgradient**

Lab ID: 14040079-004J

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 11:35

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium, Dissolved	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 12:30	04/04/14	SPC-CV
Calcium, Dissolved	30.3 mg/L	EPA 200.7	0.050	04/03/14 12:30	04/04/14	SPC-CV
Iron, Dissolved	0.015 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Lead, Dissolved	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 12:30	04/04/14	SPC-CV
Magnesium, Dissolved	9.72 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Manganese, Dissolved	< 0.002 mg/L	EPA 200.7	0.002	04/03/14 12:30	04/04/14	SPC-CV
Potassium, Dissolved	0.713 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Sodium, Dissolved	5.93 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Thallium, Dissolved	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Vanadium, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Zinc, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV

SAMPLE: **MW-1 Upgradient**

Lab ID: 14040079-004K

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 11:35

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Chloride	3.50 mg/L	EPA 300.0	1.00	04/05/14 7:31	04/05/14	NSF-SA
Sulfate	5.65 mg/L	EPA 300.0	0.25	04/05/14 7:31	04/05/14	NSF-SA

SAMPLE: **SW Carlin**

Lab ID: 14040079-005

SAMPLED BY: FC

Sample Time:

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
pH	7.84	Field Parameters				
Temperature, sampled	8.4 deg C	Field Parameters				

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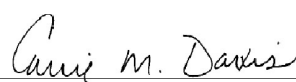
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S Spike Recovery outside accepted recovery limits

MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



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NAME: Tom Delamarter
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SAMPLE: **SW Carlin**
SAMPLED BY: FC

Lab ID: 14040079-005A Grab

Sample Time: 03/31/2014 14:30

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Alkalinity as CaCO ₃	18 mg/L	SM2320B	2	04/02/14 15:00	04/02/14	IC-SA

SAMPLE: **SW Carlin**
SAMPLED BY: FC

Lab ID: 14040079-005B Grab

Sample Time: 03/31/2014 14:30

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Ammonia as N	< 0.1 mg/L	EPA 350.1	0.1	04/03/14 16:09	04/03/14	KED-SA
Chemical Oxygen Demand	15 mg/L	HACH 8000	10	04/07/14 14:00	04/08/14	MED-SA

SAMPLE: **SW Carlin**
SAMPLED BY: FC

Lab ID: 14040079-005C Grab

Sample Time: 03/31/2014 14:30

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
BOD	< 6 mg/L	SM5210B	6	04/02/14 7:30	04/07/14	JP-SA
pH	7.60@19.7°C	K N2 SM4500H+B		04/04/14 7:52	04/04/14	JP-SA

SAMPLE: **SW Carlin**
SAMPLED BY: FC

Lab ID: 14040079-005D Grab

Sample Time: 03/31/2014 14:30

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Bromide	< 0.20 mg/L	EPA 300.0	0.20	04/05/14 7:59	04/05/14	NSF-SA

SAMPLE: **SW Carlin**
SAMPLED BY: FC

Lab ID: 14040079-005E Grab

Sample Time: 03/31/2014 14:30

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Nitrate as N	0.50 mg/L	EPA 353.2	0.05	04/01/14 15:00	04/01/14	SG-SA
Total Dissolved Solids	170 mg/L	SM2540C	10	04/04/14 14:00	04/07/14	SRS-SA

REMARKS:

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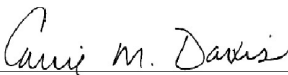
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S Spike Recovery outside accepted recovery limits

MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



SEND DATA TO:

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Conklin, NY 13748

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SAMPLE: **SW Carlin**
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Lab ID: 14040079-005F Grab

Sample Time: 03/31/2014 14:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 8:10	04/03/14	SPC-CV
Calcium	10.4 mg/L	EPA 200.7	0.050	04/03/14 8:10	04/03/14	SPC-CV
Iron	1.88 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Lead	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 8:10	04/03/14	SPC-CV
Magnesium	2.76 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Manganese	0.039 mg/L	EPA 200.7	0.002	04/03/14 8:10	04/03/14	SPC-CV
Potassium	1.53 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Sodium	29.6 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Thallium	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Vanadium	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Zinc	0.017 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Hardness, Calculation	37.3 mg/L	EPA 200.7	0.373	04/03/14 8:10	04/03/14	SPC-CV

SAMPLE: **SW Carlin**
SAMPLED BY: FC

Lab ID: 14040079-005G Grab

Sample Time: 03/31/2014 14:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Kjeldahl Nitrogen	< 1.0 mg/L	EPA 351.2	1.0	04/04/14 13:59	04/04/14	KED-SA

SAMPLE: **SW Carlin**
SAMPLED BY: FC

Lab ID: 14040079-005H Grab

Sample Time: 03/31/2014 14:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Phenol	< 0.025 mg/L	EPA 420.4	0.025	04/03/14 10:00	04/03/14	SG-SA

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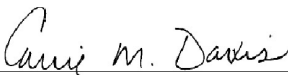
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MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



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NAME: Tom Delamarter
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ADDRESS: P.O. Box 182
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Landfill-Routine

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SAMPLE: **SW Carlin**
SAMPLED BY: FC

Lab ID: 14040079-005I

Grab

Sample Time: 03/31/2014 14:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Organic Carbon	2.7 mg/L	SM5310C	0.5	04/07/14 13:00	04/08/14	MED-SA

SAMPLE: **SW Carlin**
SAMPLED BY: FC

Lab ID: 14040079-005J

Grab

Sample Time: 03/31/2014 14:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium, Dissolved	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 12:30	04/04/14	SPC-CV
Calcium, Dissolved	9.31 mg/L	EPA 200.7	0.050	04/03/14 12:30	04/04/14	SPC-CV
Iron, Dissolved	0.078 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Lead, Dissolved	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 12:30	04/04/14	SPC-CV
Magnesium, Dissolved	2.30 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Manganese, Dissolved	0.006 mg/L	EPA 200.7	0.002	04/03/14 12:30	04/04/14	SPC-CV
Potassium, Dissolved	1.08 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Sodium, Dissolved	26.4 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Thallium, Dissolved	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Vanadium, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Zinc, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV

SAMPLE: **SW Carlin**
SAMPLED BY: FC

Lab ID: 14040079-005K

Grab

Sample Time: 03/31/2014 14:30

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Chloride	48.7 mg/L	EPA 300.0	1.00	04/05/14 7:59	04/05/14	NSF-SA
Sulfate	5.95 mg/L	EPA 300.0	0.25	04/05/14 7:59	04/05/14	NSF-SA

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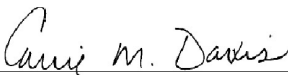
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MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



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NAME: Tom Delamarter
COMPANY: Conklin, Town of
ADDRESS: P.O. Box 182
Conklin, NY 13748

WO#: 14040079

PAGE: 17 of 23

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Landfill-Routine

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SAMPLE: MW-38D

Lab ID: 14040079-006

SAMPLED BY: FC

Sample Time:

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
pH	8.36	Field Parameters				
Temperature, sampled	10.8 deg C	Field Parameters				

SAMPLE: MW-38D

Lab ID: 14040079-006A

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 14:15

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Alkalinity as CaCO3	178 mg/L	SM2320B	2	04/02/14 15:00	04/02/14	IC-SA

SAMPLE: MW-38D

Lab ID: 14040079-006B

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 14:15

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Ammonia as N	< 0.1 mg/L	EPA 350.1	0.1	04/03/14 16:10	04/03/14	KED-SA
Chemical Oxygen Demand	< 10 mg/L	HACH 8000	10	04/07/14 14:00	04/08/14	MED-SA

SAMPLE: MW-38D

Lab ID: 14040079-006C

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 14:15

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
BOD	< 6 mg/L	SM5210B	6	04/02/14 7:30	04/07/14	JP-SA
pH	8.00@19.7°C	K N2 SM4500H+B		04/04/14 7:52	04/04/14	JP-SA

SAMPLE: MW-38D

Lab ID: 14040079-006D

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 14:15

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Bromide	0.61 mg/L	EPA 300.0	0.20	04/05/14 8:27	04/05/14	NSF-SA

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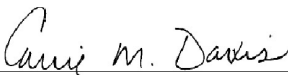
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MANAGER


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DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



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TEST REPORT

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Landfill-Routine

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SAMPLE: MW-38D

Lab ID: 14040079-006E

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 14:15

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Nitrate as N	0.16 mg/L	EPA 353.2	0.05	04/01/14 15:00	04/01/14	SG-SA
Total Dissolved Solids	484 mg/L	SM2540C	10	04/04/14 14:00	04/07/14	SRS-SA

SAMPLE: MW-38D

Lab ID: 14040079-006F

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 14:15

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Cadmium	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 8:10	04/03/14	SPC-CV
Calcium	38.8 mg/L	EPA 200.7	0.050	04/03/14 8:10	04/03/14	SPC-CV
Iron	21.6 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Lead	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 8:10	04/03/14	SPC-CV
Magnesium	12.1 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Manganese	0.675 mg/L	EPA 200.7	0.002	04/03/14 8:10	04/03/14	SPC-CV
Potassium	3.04 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Sodium	35.5 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Thallium	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Vanadium	0.012 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Zinc	0.074 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Hardness, Calculation	147 mg/L	EPA 200.7	0.373	04/03/14 8:10	04/03/14	SPC-CV

SAMPLE: MW-38D

Lab ID: 14040079-006G

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 14:15

SLOQ

Test	Result	Method		Analysis Start	Analysis End	Analyst *
Total Kjeldahl Nitrogen	< 1.0 mg/L	EPA 351.2	1.0	04/04/14 13:59	04/04/14	KED-SA

REMARKS:

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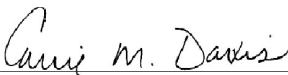
K Sample was received past holding time.

L Value above calibration range but within annually verified linear range

N2 Parameter is NELAP certified by PA DEP, but not in state of origin

S Spike Recovery outside accepted recovery limits

MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



SEND DATA TO:

NAME: Tom Delamarter
COMPANY: Conklin, Town of
ADDRESS: P.O. Box 182
Conklin, NY 13748

WO#: 14040079

PAGE: 19 of 23

PO#:

PHONE: (607) 775-4584
FAX: (607) 775-1434

TEST REPORT

PWS ID# Broome Co. DOH

Landfill-Routine

RECEIVED FOR LAB BY ASV

DATE: 04/01/2014 12:47

Page 19 of 23

SAMPLE: **MW-38D**

Lab ID: 14040079-006H

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 14:15

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Phenol	< 0.025 mg/L	EPA 420.4	0.025	04/03/14 10:00	04/03/14	SG-SA

SAMPLE: **MW-38D**

Lab ID: 14040079-006I

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 14:15

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Total Organic Carbon	0.8 mg/L	SM5310C	0.5	04/07/14 13:00	04/08/14	MED-SA

SAMPLE: **MW-38D**

Lab ID: 14040079-006J

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 14:15

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium, Dissolved	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 12:30	04/04/14	SPC-CV
Calcium, Dissolved	32.3 mg/L	EPA 200.7	0.050	04/03/14 12:30	04/04/14	SPC-CV
Iron, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Lead, Dissolved	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 12:30	04/04/14	SPC-CV
Magnesium, Dissolved	7.48 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Manganese, Dissolved	0.005 mg/L	EPA 200.7	0.002	04/03/14 12:30	04/04/14	SPC-CV
Potassium, Dissolved	1.14 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Sodium, Dissolved	32.6 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Thallium, Dissolved	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Vanadium, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Zinc, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV

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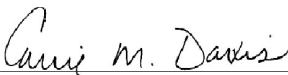
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MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



SEND DATA TO:

NAME: Tom Delamarter
COMPANY: Conklin, Town of
ADDRESS: P.O. Box 182
Conklin, NY 13748

WO#: 14040079

PAGE: 20 of 23

PO#:

PWS ID# Broome Co. DOH

PHONE: (607) 775-4584
FAX: (607) 775-1434

TEST REPORT

Landfill-Routine

RECEIVED FOR LAB BY ASV

DATE: 04/01/2014 12:47

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SAMPLE: **MW-38D**

Lab ID: 14040079-006K

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 14:15

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Chloride	9.80 mg/L	EPA 300.0	1.00	04/05/14 8:27	04/05/14	NSF-SA
Sulfate	6.95 mg/L	EPA 300.0	0.25	04/05/14 8:27	04/05/14	NSF-SA

SAMPLE: **MW-37**

Lab ID: 14040079-007

SAMPLED BY: FC

Sample Time:

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
pH	7.75	Field Parameters				
Temperature, sampled	7.4 deg C	Field Parameters				

SAMPLE: **MW-37**

Lab ID: 14040079-007A

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:05

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Alkalinity as CaCO ₃	122 mg/L	SM2320B	2	04/02/14 15:00	04/02/14	IC-SA

SAMPLE: **MW-37**

Lab ID: 14040079-007B

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:05

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Ammonia as N	< 0.1 mg/L	EPA 350.1	0.1	04/03/14 16:12	04/03/14	KED-SA
Chemical Oxygen Demand	< 10 mg/L	HACH 8000	10	04/07/14 14:00	04/08/14	MED-SA

SAMPLE: **MW-37**

Lab ID: 14040079-007C

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:05

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
BOD	< 6 mg/L	SM5210B	6	04/02/14 7:30	04/07/14	JP-SA

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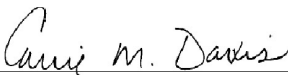
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MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



SEND DATA TO:

NAME: Tom Delamarter
COMPANY: Conklin, Town of
ADDRESS: P.O. Box 182
Conklin, NY 13748

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PAGE: 21 of 23

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TEST REPORT

Landfill-Routine

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DATE: 04/01/2014 12:47

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pH	7.80@19.4°C	K N2	SM4500H+B	04/04/14 7:52	04/04/14	JP-SA
SAMPLE: MW-37		Lab ID: 14040079-007D		Grab		
SAMPLED BY: FC		Sample Time: 03/31/2014 12:05		SLOQ		
<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Bromide	0.39 mg/L	EPA 300.0	0.20	04/05/14 8:55	04/05/14	NSF-SA
SAMPLE: MW-37		Lab ID: 14040079-007E		Grab		
SAMPLED BY: FC		Sample Time: 03/31/2014 12:05		SLOQ		
<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Nitrate as N	0.10 mg/L	EPA 353.2	0.05	04/01/14 15:00	04/01/14	SG-SA
Total Dissolved Solids	253 mg/L	SM2540C	10	04/04/14 14:00	04/07/14	SRS-SA
SAMPLE: MW-37		Lab ID: 14040079-007F		Grab		
SAMPLED BY: FC		Sample Time: 03/31/2014 12:05		SLOQ		
<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Cadmium	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 8:10	04/03/14	SPC-CV
Calcium	45.3 mg/L	EPA 200.7	0.050	04/03/14 8:10	04/03/14	SPC-CV
Iron	1.23 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Lead	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 8:10	04/03/14	SPC-CV
Magnesium	7.06 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Manganese	0.104 mg/L	EPA 200.7	0.002	04/03/14 8:10	04/03/14	SPC-CV
Potassium	2.24 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Sodium	9.19 mg/L	EPA 200.7	0.500	04/03/14 8:10	04/03/14	SPC-CV
Thallium	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 8:10	04/03/14	SPC-CV
Vanadium	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV
Zinc	0.017 mg/L	EPA 200.7	0.005	04/03/14 8:10	04/03/14	SPC-CV

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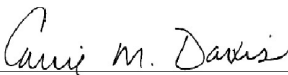
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S Spike Recovery outside accepted recovery limits

MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



SEND DATA TO:

NAME: Tom Delamarter
COMPANY: Conklin, Town of
ADDRESS: P.O. Box 182
Conklin, NY 13748

WO#: 14040079

PAGE: 22 of 23

PO#:

PWS ID# Broome Co. DOH

PHONE: (607) 775-4584
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TEST REPORT

Landfill-Routine

RECEIVED FOR LAB BY ASV

DATE: 04/01/2014 12:47

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Hardness, Calculation		142 mg/L	EPA 200.7	0.373	04/03/14 8:10	04/03/14	SPC-CV
SAMPLE: MW-37		Lab ID: 14040079-007G		Grab			
SAMPLED BY: FC		Sample Time: 03/31/2014 12:05					
<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>	
Total Kjeldahl Nitrogen	< 1.0 mg/L	EPA 351.2	1.0	04/04/14 13:59	04/04/14	KED-SA	
SAMPLE: MW-37		Lab ID: 14040079-007H		Grab			
SAMPLED BY: FC		Sample Time: 03/31/2014 12:05					
<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>	
Phenol	< 0.025 mg/L	EPA 420.4	0.025	04/03/14 10:00	04/03/14	SG-SA	
SAMPLE: MW-37		Lab ID: 14040079-007I		Grab			
SAMPLED BY: FC		Sample Time: 03/31/2014 12:05					
<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>	
Total Organic Carbon	0.8 mg/L	SM5310C	0.5	04/07/14 13:00	04/08/14	MED-SA	
SAMPLE: MW-37		Lab ID: 14040079-007J		Grab			
SAMPLED BY: FC		Sample Time: 03/31/2014 12:05					
<u>Test</u>	<u>Result</u>	<u>Method</u>	<u>SLOQ</u>	<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>	
Cadmium, Dissolved	< 0.001 mg/L	EPA 200.7	0.001	04/03/14 12:30	04/04/14	SPC-CV	
Calcium, Dissolved	38.6 mg/L	EPA 200.7	0.050	04/03/14 12:30	04/04/14	SPC-CV	
Iron, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV	
Lead, Dissolved	< 0.010 mg/L	EPA 200.7	0.010	04/03/14 12:30	04/04/14	SPC-CV	
Magnesium, Dissolved	6.10 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV	
Manganese, Dissolved	< 0.002 mg/L	EPA 200.7	0.002	04/03/14 12:30	04/04/14	SPC-CV	
Potassium, Dissolved	1.79 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV	

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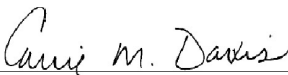
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Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

LAB ID # 11216 *SA
LAB ID # 11827 *CV



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COMPANY: Conklin, Town of
ADDRESS: P.O. Box 182
Conklin, NY 13748

WO#: 14040079

PAGE: 23 of 23

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TEST REPORT

Landfill-Routine

RECEIVED FOR LAB BY ASV

DATE: 04/01/2014 12:47

Page 23 of 23

Sodium, Dissolved	7.84 mg/L	EPA 200.7	0.500	04/03/14 12:30	04/04/14	SPC-CV
Thallium, Dissolved	< 0.025 mg/L	EPA 200.7	0.025	04/03/14 12:30	04/04/14	SPC-CV
Vanadium, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV
Zinc, Dissolved	< 0.005 mg/L	EPA 200.7	0.005	04/03/14 12:30	04/04/14	SPC-CV

SAMPLE: **MW-37**

Lab ID: 14040079-007K

Grab

SAMPLED BY: FC

Sample Time: 03/31/2014 12:05

SLOQ

<u>Test</u>	<u>Result</u>	<u>Method</u>		<u>Analysis Start</u>	<u>Analysis End</u>	<u>Analyst *</u>
Chloride	16.6 mg/L	EPA 300.0	1.00	04/05/14 8:55	04/05/14	NSF-SA
Sulfate	12.3 mg/L	EPA 300.0	0.25	04/05/14 8:55	04/05/14	NSF-SA

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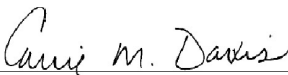
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MANAGER


Carrie Davis, Quality Assurance Officer

DATE: 4/14/2014

CHAIN OF CUSTODY

PAGE 1 OF 2REPORT TO:
Town of Conklin

W/O#: 14040079

REFRIGERATE SAMPLE
AFTER COLLECTION

CONTACT

PH#

FAX#

BILL TO:

PO#

PROJECT DESCRIPTION

SAMPLER SIGNATURE / AFFILIATION

Container Sample Point No./Type

Container	Sample Point No./Type	DATE SAMPLED	TIME OF SAMPLING	SAMPLE MATRIX	SAMPLE TYPE - GRAB / COMPOSITE	SAMPLER INITIALS	PRESERVATIVE	Chlorine Residual Total ☐ Free ☐	ANALYSIS TO BE PERFORMED (PER CONTAINER)	COMPOSITED ON RECEIPT	PRESERVATIVE ADDED ON RECEIPT	LAB USE ONLY
1	MW-3	3-31	1250	GW	G	FC			Alk			Please fill out all applicable areas completely. J. H. S.
2									NH ₃ , COD			
3									BOD, pH			
4									Bromide			
5									Cl Sulfate			
6									NO ₃ , TDS			
7									Pb, Ca, Cd, Fe, K, Mn, Na, TL, V, Zn, T. Hardness, Mg			
8									Phenols			
9									TKN, NO ₃			
10									TOC			
11									Diss Pb, Ca, Cd, Fe, K, Mn, Na, TL, V, Zn, Mg			

 LAB USE ONLY
 DELIVERED BY FC TEMPERATURE UPON RECEIPT 4.8 °C ARRIVAL ON ICE Y N

RELINQUISHED BY: <u>Sean Connor</u>	DATE: <u>3/31/14</u>	TIME: <u>17:00</u>	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY: <u>Samuel Holman</u>	DATE: <u>4/1/14</u>	TIME: <u>1247</u>

CHAIN OF CUSTODY

Benchmark Analytics

PAGE 2 OF 2

REPORT TO: Town of Conklin

CONTACT _____

PH# _____

FAX# _____

BILL TO: _____

PO# _____

PROJECT DESCRIPTION _____

SAMPLER SIGNATURE / AFFILIATION _____

Container _____ Sample Point No./Type _____

REFRIGERATE SAMPL
AFTER COLLECTIONTRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

W/O#: 14040079

RE BEING USED FOR:

NYDEC PADEP

LANDFILL _____

PERSONAL OTHER _____

ARE SPECIAL DETECTION LIMITS

NEEDED: YES / NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?

YES NO

IF YES, PLEASE ATTACH REQUIREMENTS

GW GROUND WATER SO SOIL
SW SURFACE WATER HZ HAZARDOUS
WW WASTE WATER OTHER
DE DEIONIZED WATER DI DISTILLED WATER

H HYDROCHLORIC ACID OH SODIUM HYDROXIDE
S SULFURIC ACID AS ASCORBIC ACID
N NITRIC ACID AC ACETIC ACID
SO₃ SODIUM SULFITE NH₄ AMMONIUM CHLORIDE
Thio SODIUM THIOSULFATE ZN ZINC ACETATE
- NONE Hg MERCURIC CHLORIDE

PWS ID# _____

Location _____

Sample Point _____

DATE SAMPLED

TIME OF SAMPLING

SAMPLE MATRIX

SAMPLE TYPE - GRAB / COMPOSITE

SAMPLER INITIALS

PRESERVATIVE

Chlorine Residual
Total ☐ Free ☐An incomplete chain of custody may delay the
processing of your sample(s).ANALYSIS TO BE PERFORMED
(PER CONTAINER)COMPOSITED ON
RECEIPTPRESERVATIVE
ADDED ON RECEIPTPlease fill
out all
applicable
areas
completely.

LAB USE ONLY

1	MW-12	3-31	1050	GW	G	FC		same	-002A-J
2	MW-4		1355						-003A-J
3	MW-1 - up gradient		1135						-004A-J
4	SW - Conklin		1430	SW					-005A-J
5	MW 385		1415	GW					-006A-J
6	MW-37		1205						-007A-J
7									
8									
9									
10									
11									

LAB USE ONLY

DELIVERED BY FCTEMPERATURE UPON RECEIPT 4.8 °C ARRIVAL ON ICE Y N

RELINQUISHED BY: <u>Travis Cannon</u>	DATE: <u>3/31/14</u>	TIME: <u>1700</u>	RECEIVED BY: _____	DATE: <u>/ /</u>	TIME: _____
RELINQUISHED BY: _____	DATE: <u>/ /</u>	TIME: _____	RECEIVED BY: _____	DATE: <u>/ /</u>	TIME: _____
RELINQUISHED BY: _____	DATE: <u>/ /</u>	TIME: _____	RECEIVED BY: <u>Emily Holman</u>	DATE: <u>4/1/14</u>	TIME: <u>1247</u>

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW 3 Sequence 4 Physical Condition OK

Weather Conditions Sunny 37°F

Sampling Technician(s) Fran Connor

Additional People Present

Purging Information

Date 3-31-14 Purge Method Bailer Pump

Purge Time Start 12:20 Stop 12:40

Total Depth 22.35 2.0" LWC X 0.163= 3.01 Gals.

Depth to Water 3.86 ft. 4.0" LWC X 0.6532= Gals.

Length of Column 18.49 ft. 6.0" LWC X 1.469= Gals.

3 Volumes of Water 9.03 Actual Volume Removed 9.5 Gals.

Purge Water Characteristics

Color Brown Odor (field) None

Visual Turbidity Moderate Immiscible Layers None

Sampling Information

Date 3-31-14 Sample Method Bailer Pump

Sample Time 12:50 pH (field) 6.43 @ 6.9 °F

Notes:

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW 12 Sequence 1 Physical Condition OK
Weather Conditions 8" Snow, Overcast, 32°F
Sampling Technician(s) Fran Connor
Additional People Present _____

Purging Information

Date 3-31-14 Purge Method Bailed Pump
Purge Time Start 10:30 Stop 10:40
Total Depth 19.13 2.0" LWC X 0.163 = 1.19 Gals.
Depth to Water 11.82 ft. 4.0" LWC X 0.6532 = _____ Gals.
Length of Column 7.31 ft. 6.0" LWC X 1.469 = _____ Gals.
3 Volumes of Water 3.57 Gal. Actual Volume Removed 1.0 Gals.

Purge Water Characteristics

Color Brown Odor (field) None
Visual Turbidity Moderate Immiscible Layers None

Sampling Information

Date 3-31-14 Sample Method Bailed Pump
Sample Time 10:50 pH (field) 6.27 @ 9.4° OF

Notes:

Well bailed dry

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MWH Sequence 7 Physical Condition OK
Weather Conditions Sunny 41 °F
Sampling Technician(s) Fran Connor
Additional People Present _____

Purging Information

Date 3-31-14 Purge Method Bailer Pump
Purge Time Start 13:30 Stop 13:45
Total Depth 19.14 2.0" LWC X 0.163 = 1.54 Gals.
Depth to Water 9.68 ft. 4.0" LWC X 0.6532 = _____ Gals.
Length of Column 9.45 ft. 6.0" LWC X 1.469 = _____ Gals.
3 Volumes of Water 4.62 Gal. Actual Volume Removed 5.0 Gals.

Purge Water Characteristics

Color Brown Odor (field) None
Visual Turbidity Moderate Immiscible Layers None

Sampling Information

Date 3-31-14 Sample Method Bailer Pump
Sample Time 13:55 pH (field) 6.76 @ 7.9 C/F

Notes:

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW-1 Sequence 2 Physical Condition OK

Weather Conditions Sunny 34°F

Sampling Technician(s) Fran Connor

Additional People Present

Purging Information

Date 3-31-14 Purge Method Bailer Pump

Purge Time Start 11:00 Stop 11:25

Total Depth 62.91 2.0" LWC X 0.163 = 6.03 Gals.

Depth to Water 25.93 ft. 4.0" LWC X 0.6532 = Gals.

Length of Column 36.98 ft. 6.0" LWC X 1.469 = Gals.

3 Volumes of Water 18.18 Gal. Actual Volume Removed 18.5 Gals.

Purge Water Characteristics

Color Clear Odor (field) None

Visual Turbidity Slight Immiscible Layers None

Sampling Information

Date ~~4-3-14~~ 3-31-14 Sample Method Bailer Pump

Sample Time 11:35 pH (field) 7.59 @ 9.0 °F

Notes:

CONKLIN LANDFILL
DEPTH TO GROUNDWATER
FIELD DATA SHEET

General Information

Well# SW Conlin Sequence 10 Physical Condition _____
Weather Conditions Sunny 44°F
Sampling Technician(s) Fran Connor
Additional People Present _____

Depth Information

Date 3-31-14
pH-Sample
Depth Reading Time 14:30

Depth to Water _____

Notes:

pH 7.84 @ 8.4°C

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW 38D Sequence 9 Physical Condition OK

Weather Conditions Sunny 43°F

Sampling Technician(s) Fran Connor

Additional People Present _____

Purging Information

Date 3-31-14 Purge Method (Bailer) Pump

Purge Time Start 13:50 Stop 14:10

Total Depth 17.73 2.0" LWC X 0.163 = 2.09 Gals.

Depth to Water 4.9 ft. 4.0" LWC X 0.6532 = Gals.

Length of Column 12.83 ft. 6.0" LWC X 1.469 = Gals.

3 Volumes of Water 6.27 Gal. Actual Volume Removed 6.5 Gals.

Purge Water Characteristics

Color Brown Odor (field) None

Visual Turbidity Extreme Immiscible Layers None

Sampling Information

Date 3-31-14 Sample Method (Bailer) Pump

Sample Time 14:15 pH (field) 8.36 @ 10.8°F

Notes: _____

CONKLIN LANDEFILL
DEPTH TO GROUNDWATER
FIELD DATA SHEET

General Information

Well# MW 38 S Sequence 8 Physical Condition OK

Weather Conditions Sunny 42 °F

Sampling Technician(s) Fran Connor

Additional People Present

Depth Information

Date 3-31-14

Depth Reading Time 13:45

Depth to Water 5.1

Notes:

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW 37 Sequence 3 Physical Condition See below

Weather Conditions Sunny 36 °F

Sampling Technician(s) Fran Connor

Additional People Present

Purging Information

Date 3-31-14 Purge Method Bailer Pump

Purge Time Start 11:45 Stop 11:55

Total Depth 15.82 2.0" LWC X 0.163= 1.22 Gals.

Depth to Water 8.31 ft. 4.0" LWC X 0.6532= Gals.

Length of Column 7.51 ft. 6.0" LWC X 1.469= Gals.

3 Volumes of Water 3.66 Gal. Actual Volume Removed 2.0 Gals.

Purge Water Characteristics

Color Clear Odor (field) None

Visual Turbidity Slight Immiscible Layers None

Sampling Information

Date 3-31-14 Sample Method Bailer Pump

Sample Time 12:05 pH (field) 7.15 @ 7.4 C/F

Notes:

well bailed dry

Casing bent!

CONKLIN LANDFILL
DEPTH TO GROUNDWATER
FIELD DATA SHEET

General Information

Well# MW 2 Sequence 5 Physical Condition See below

Weather Conditions Sunny 38°F

Sampling Technician(s) Fran Connor

Additional People Present

Depth Information

Date 3-31-14

Depth Reading Time 13:05

Depth to Water No Reading

Notes:

Well casing broke or obstructed at ~ 18.5'

CONKLIN LANDFILL
DEPTH TO GROUNDWATER
FIELD DATA SHEET

General Information

Well# L W 14 Sequence 6 Physical Condition OK

Weather Conditions Sunny 38 °F

Sampling Technician(s) Fran Connor

Additional People Present

Depth Information

Date 3-31-14

Depth Reading Time 13:10

Depth to Water 31.45

Notes:

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT**BatchID: OW 040314A**

Sample ID: MBLK OW 040314A	SampType: MBLK	TestCode: ME_ICP_W	Units: mg/L	Prep Date:	RunNo: 128324						
Client ID: PBW	Batch ID: OW 040314	TestNo: E200.7		Analysis Date: 4/3/2014	SeqNo: 2861851						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	< 0.001	0.001
Calcium	< 0.050	0.050
Iron	< 0.005	0.005
Lead	< 0.010	0.010
Magnesium	< 0.025	0.025
Manganese	< 0.002	0.002
Potassium	< 0.500	0.500
Sodium	< 0.500	0.500
Thallium	< 0.025	0.025
Vanadium	< 0.005	0.005
Zinc	< 0.005	0.005

Sample ID: LFB OW 040314A	SampType: LFB	TestCode: ME_ICP_W	Units: mg/L	Prep Date:	RunNo: 128324						
Client ID: ZZZZZZ	Batch ID: OW 040314	TestNo: E200.7		Analysis Date: 4/3/2014	SeqNo: 2861852						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	0.199	0.001	0.200	0	100	85	115				E
Calcium	3.93	0.050	4.20	0	94	85	115				
Iron	4.33	0.005	4.20	0	103	85	115				E
Lead	0.209	0.010	0.200	0	105	85	115				
Magnesium	4.27	0.025	4.20	0	102	85	115				
Manganese	0.204	0.002	0.200	0	102	85	115				
Potassium	6.17	0.500	6.00	0	103	85	115				
Sodium	4.40	0.500	4.20	0	105	85	115				
Thallium	0.201	0.025	0.200	0	101	85	115				
Vanadium	0.205	0.005	0.200	0	103	85	115				
Zinc	0.206	0.005	0.200	0	103	85	115				

Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: OW 040314A

Sample ID: 14040254-001E DUP		SampType: DUP		TestCode: ME_ICP_W		Units: mg/L		Prep Date:		RunNo: 128324	
Client ID: ZZZZZZ		Batch ID: OW 040314		TestNo: E200.7				Analysis Date: 4/3/2014		SeqNo: 2861854	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	< 0.001	0.001						0		20	
Calcium	48.2	0.050						48.5	1	20	E
Iron	0.366	0.005						0.127	97	20	R
Lead	< 0.010	0.010						0		20	
Magnesium	8.47	0.025						8.64	2	20	E
Manganese	0.099	0.002						0.097	2	20	
Potassium	11.2	0.500						11.2		20	
Sodium	77.2	0.500						76.3	1	20	E
Thallium	< 0.025	0.025						0		20	
Vanadium	< 0.005	0.005						0		20	
Zinc	0.117	0.005						0.117		20	

Sample ID: 14040254-001E MS		SampType: MS		TestCode: ME_ICP_W		Units: mg/L		Prep Date:		RunNo: 128324	
Client ID: ZZZZZZ		Batch ID: OW 040314		TestNo: E200.7				Analysis Date: 4/3/2014		SeqNo: 2861855	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	0.197	0.001	0.200	0	99	70	130				E
Calcium	52.8	0.050	4.20	48.5	102	70	130				E
Iron	4.44	0.005	4.20	0.127	103	70	130				E
Lead	0.201	0.010	0.200	0	100	70	130				
Magnesium	13.0	0.025	4.20	8.64	104	70	130				E
Manganese	0.301	0.002	0.200	0.097	102	70	130				
Potassium	17.4	0.500	6.00	11.2	104	70	130				
Sodium	82.6	0.500	4.20	76.3	149	70	130				S E
Thallium	0.209	0.025	0.200	0	104	70	130				
Vanadium	0.208	0.005	0.200	0	104	70	130				
Zinc	0.321	0.005	0.200	0.117	102	70	130				

Qualifiers: E Value above quantitation range J Estimated value
L Value above calibration range but within annually verified linear range Q Due to matrix effects, not all quality control parameters met acceptance criteria
R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits
SF Limit of detection increased due to sample foaming

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: OW 040314A

Sample ID: 14040140-001B DUP		SampType: DUP		TestCode: ME_ICP_W		Units: mg/L		Prep Date:		RunNo: 128324	
Client ID: ZZZZZZ		Batch ID: OW 040314		TestNo: E200.7				Analysis Date: 4/3/2014		SeqNo: 2861871	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	< 0.001	0.001						0		20	
Calcium	24.5	0.050						25.0	2	20	E
Iron	0.791	0.005						0.889	12	20	
Lead	< 0.010	0.010						0		20	
Magnesium	4.32	0.025						4.45	3	20	
Manganese	0.015	0.002						0.015		20	
Potassium	1.98	0.500						2.07	5	20	
Sodium	14.7	0.500						15.4	4	20	
Thallium	< 0.025	0.025						0		20	
Vanadium	< 0.005	0.005						0		20	
Zinc	0.006	0.005						0.006	13	20	

Sample ID: 14040140-001B MS	SampType: MS	TestCode: ME_ICP_W	Units: mg/L	Prep Date:	RunNo: 128324						
Client ID: ZZZZZZ	Batch ID: OW 040314	TestNo: E200.7		Analysis Date: 4/3/2014	SeqNo: 2861872						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	0.205	0.001	0.200	0	102	70	130				E
Calcium	29.2	0.050	4.20	25.0	98	70	130				E
Iron	4.62	0.005	4.20	0.889	89	70	130				E
Lead	0.213	0.010	0.200	0	106	70	130				
Magnesium	8.82	0.025	4.20	4.45	104	70	130				E
Manganese	0.225	0.002	0.200	0.015	105	70	130				
Potassium	8.28	0.500	6.00	2.07	103	70	130				
Sodium	19.0	0.500	4.20	15.4	86	70	130				
Thallium	0.214	0.025	0.200	0	107	70	130				
Vanadium	0.216	0.005	0.200	0	108	70	130				
Zinc	0.214	0.005	0.200	0.006	104	70	130				

Qualifiers: E Value above quantitation range J Estimated value
L Value above calibration range but within annually verified linear range Q Due to matrix effects, not all quality control parameters met acceptance criteria
R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits
SF Limit of detection increased due to sample foaming

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: OW 040414A

Sample ID: 14040046-001B DUP	SampType: DUP	TestCode: ME_ICP_Wdi	Units: mg/L	Prep Date:	RunNo: 128389						
Client ID: ZZZZZZ	Batch ID: OW 040414	TestNo: E200.7		Analysis Date: 4/3/2014	SeqNo: 2863218						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	< 0.001	0.001						0		20	
Calcium	2.64	0.050						2.65		20	
Iron	0.046	0.005						0.047	1	20	
Lead	< 0.010	0.010						0		20	
Magnesium	0.729	0.025						0.730		20	
Manganese	0.002	0.002						0.002	7	20	
Potassium	< 0.500	0.500						0		20	
Sodium	6.88	0.500						6.83	1	20	
Thallium	< 0.025	0.025						0		20	
Vanadium	< 0.005	0.005						0		20	
Zinc	0.049	0.005						0.049		20	

Sample ID: 14040046-001B MS	SampType: MS	TestCode: ME_ICP_Wdi	Units: mg/L	Prep Date:	RunNo: 128389						
Client ID: ZZZZZZ	Batch ID: OW 040414	TestNo: E200.7		Analysis Date: 4/3/2014	SeqNo: 2863219						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	0.201	0.001	0.200	0	101	70	130				
Calcium	6.63	0.050	4.20	2.65	95	70	130				
Iron	4.24	0.005	4.20	0.047	100	70	130				E
Lead	0.213	0.010	0.200	0	107	70	130				
Magnesium	5.10	0.025	4.20	0.730	104	70	130				
Manganese	0.216	0.002	0.200	0.002	107	70	130				E
Potassium	6.40	0.500	6.00	0	107	70	130				
Sodium	10.9	0.500	4.20	6.83	96	70	130				
Thallium	0.200	0.025	0.200	0	100	70	130				
Vanadium	0.213	0.005	0.200	0	107	70	130				
Zinc	0.259	0.005	0.200	0.049	105	70	130				

Qualifiers: E Value above quantitation range J Estimated value
L Value above calibration range but within annually verified linear range Q Due to matrix effects, not all quality control parameters met acceptance criteria
R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits
SF Limit of detection increased due to sample foaming

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: OW 040414A

Sample ID: 14040079-003J DUP		SampType: DUP		TestCode: ME_ICP_Wdi		Units: mg/L		Prep Date:		RunNo: 128389	
Client ID: MW-4		Batch ID: OW 040414		TestNo: E200.7				Analysis Date: 4/3/2014		SeqNo: 2863232	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium, Dissolved	< 0.001	0.001						0		20	
Calcium, Dissolved	34.9	0.050						34.0	2	20	E
Iron, Dissolved	< 0.005	0.005						0		20	
Lead, Dissolved	< 0.010	0.010						0		20	
Magnesium, Dissolved	9.72	0.025						9.79	1	20	E
Manganese, Dissolved	0.013	0.002						0.013	2	20	
Potassium, Dissolved	0.546	0.500						0.528	3	20	
Sodium, Dissolved	6.46	0.500						6.42	1	20	
Thallium, Dissolved	< 0.025	0.025						0		20	
Vanadium, Dissolved	< 0.005	0.005						0		20	
Zinc, Dissolved	< 0.005	0.005						0		20	

Sample ID: 14040079-003J MS	SampType: MS	TestCode: ME_ICP_Wdi	Units: mg/L	Prep Date:	RunNo: 128389						
Client ID: MW-4	Batch ID: OW 040414	TestNo: E200.7		Analysis Date: 4/3/2014	SeqNo: 2863233						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium, Dissolved	0.178	0.001	0.200	0	89	70	130				
Calcium, Dissolved	37.5	0.050	4.20	34.0	82	70	130				E
Iron, Dissolved	3.72	0.005	4.20	0	89	70	130				E
Lead, Dissolved	0.185	0.010	0.200	0	93	70	130				
Magnesium, Dissolved	13.3	0.025	4.20	9.79	83	70	130				E
Manganese, Dissolved	0.203	0.002	0.200	0.013	95	70	130				E
Potassium, Dissolved	6.34	0.500	6.00	0.528	97	70	130				
Sodium, Dissolved	10.3	0.500	4.20	6.42	91	70	130				
Thallium, Dissolved	0.183	0.025	0.200	0	91	70	130				
Vanadium, Dissolved	0.192	0.005	0.200	0	96	70	130				
Zinc, Dissolved	0.189	0.005	0.200	0	94	70	130				

Qualifiers: E Value above quantitation range J Estimated value
L Value above calibration range but within annually verified linear range Q Due to matrix effects, not all quality control parameters met acceptance criteria
R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits
SF Limit of detection increased due to sample foaming

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128271

Sample ID: CCV-1		SampType: CCV		TestCode: Nitrate 353.2		Units: mg/L		Prep Date:		RunNo: 128271	
Client ID: CCV		Batch ID: R128271		TestNo: E353.2				Analysis Date: 4/1/2014		SeqNo: 2860367	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrate as N	1.02	0.05	1.00	0	102	90	110				
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Sample ID: MBLK-1	SampType: MBLK	TestCode: Nitrate 353.2	Units: mg/L	Prep Date:	RunNo: 128271						
Client ID: PBW	Batch ID: R128271	TestNo: E353.2		Analysis Date: 4/1/2014	SeqNo: 2860369						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrate as N	< 0.05	0.05									
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Sample ID: 14040079-004EMS	SampType: MS	TestCode: Nitrate 353.2	Units: mg/L	Prep Date:	RunNo: 128271						
Client ID: MW-1 Upgradient	Batch ID: R128271	TestNo: E353.2		Analysis Date: 4/1/2014	SeqNo: 2860374						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrate as N	2.00	0.05	2.00	0.08	96	90	110				
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Sample ID: CCV-1	SampType: CCV	TestCode: Nitrate SM45	Units: mg/kg	Prep Date:	RunNo: 128271						
Client ID: ZZZZZZ	Batch ID: R128271	TestNo: E353.2		Analysis Date: 4/1/2014	SeqNo: 2860383						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrate as N	198	5	200	0	99	90	110				
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Sample ID: MBLK-1	SampType: MBLK	TestCode: Nitrate SM45	Units: mg/kg	Prep Date:	RunNo: 128271						
Client ID: PBS	Batch ID: R128271	TestNo: E353.2		Analysis Date: 4/1/2014	SeqNo: 2860384						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrate as N	0	5									
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Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128278

Sample ID: CCV-1		SampType: CCV		TestCode: COD HACH 8		Units: mg/L		Prep Date:		RunNo: 128278	
Client ID: CCV		Batch ID: R128278		TestNo: A5220C				Analysis Date: 4/2/2014		SeqNo: 2860473	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand	97	10	100	0	97	90	110				
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Sample ID: LFB-1	SampType: LFB	TestCode: COD HACH 8	Units: mg/L	Prep Date:	RunNo: 128278						
Client ID: ZZZZZZ	Batch ID: R128278	TestNo: A5220C		Analysis Date: 4/2/2014	SeqNo: 2860474						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand	238	10	215	0	111	90	115				
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Sample ID: MBLK-1	SampType: MBLK	TestCode: COD HACH 8	Units: mg/L	Prep Date:	RunNo: 128278						
Client ID: PBW	Batch ID: R128278	TestNo: A5220C		Analysis Date: 4/2/2014	SeqNo: 2860476						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand	< 10	10									
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Sample ID: 14034458-004BMS		SampType: MS		TestCode: COD HACH 8		Units: mg/L		Prep Date:		RunNo: 128278	
Client ID: ZZZZZZ		Batch ID: R128278		TestNo: A5220C				Analysis Date: 4/2/2014		SeqNo: 2860481	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand	255	10	20	224	151	80	120				S
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Sample ID: 14034458-004BMSD	SampType: MSD	TestCode: COD HACH 8	Units: mg/L	Prep Date:	RunNo: 128278						
Client ID: ZZZZZZ	Batch ID: R128278	TestNo: A5220C		Analysis Date: 4/2/2014	SeqNo: 2860482						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand	243	10	20	224	93	80	120	255	5	10	
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Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128292

Sample ID: CCV-1		SampType: CCV		TestCode: Alkalinity 232		Units: mg/L		Prep Date:		RunNo: 128292	
Client ID: CCV		Batch ID: R128292		TestNo: A2320B				Analysis Date: 4/2/2014		SeqNo: 2861004	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity as CaCO3 108 2 100 0 108 80 120

Sample ID: MBLK-1	SampType: MBLK	TestCode: Alkalinity 232	Units: mg/L	Prep Date:	RunNo: 128292						
Client ID: PBW	Batch ID: R128292	TestNo: A2320B		Analysis Date: 4/2/2014	SeqNo: 2861005						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity as CaCO3 < 2 2

Sample ID: 14034632-001DDUP	SampType: DUP	TestCode: Alkalinity 232	Units: mg/L	Prep Date:	RunNo: 128292						
Client ID: ZZZZZZ	Batch ID: R128292	TestNo: A2320B		Analysis Date: 4/2/2014	SeqNo: 2861016						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity as CaCO3 4 2 4 10

Sample ID: 14040079-007ADUP	SampType: DUP	TestCode: Alkalinity 232	Units: mg/L	Prep Date:	RunNo: 128292						
Client ID: MW-37	Batch ID: R128292	TestNo: A2320B		Analysis Date: 4/2/2014	SeqNo: 2861026						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Alkalinity as CaCO3 120 2 122 2 10

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128324

Sample ID: ICV #1		SampType: ICV		TestCode: ME_ICP_D		Units: mg/L		Prep Date:		RunNo: 128324	
Client ID: ICV		Batch ID: R128324		TestNo: E200.7				Analysis Date:		SeqNo: 2861372	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	1020	0.001	1000	0	102	95	105				E
Calcium	960	0.050	1000	0	96	95	105				
Iron	1010	0.005	1000	0	101	95	105				
Lead	1060	0.010	1000	0	106	95	105				S
Magnesium	1030	0.030	1000	0	103	95	105				
Manganese	1040	0.002	1000	0	104	95	105				E
Potassium	10300	0.550	10000	0	103	95	105				
Sodium	1070	0.550	1000	0	107	95	105				S
Thallium	1020	0.025	1000	0	102	95	105				
Vanadium	1020	0.010	1000	0	102	95	105				
Zinc	1020	0.005	1000	0	102	95	105				

Sample ID: ICV #2		SampType: ICV		TestCode: ME_ICP_D		Units: mg/L		Prep Date:		RunNo: 128324	
Client ID: ICV		Batch ID: R128324		TestNo: E200.7				Analysis Date:		SeqNo: 2861373	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	1020	0.001	1000	0	102	95	105				E
Calcium	974	0.050	1000	0	97	95	105				
Iron	1020	0.005	1000	0	102	95	105				
Lead	1060	0.010	1000	0	106	95	105				S
Magnesium	1000	0.030	1000	0	100	95	105				
Manganese	1030	0.002	1000	0	103	95	105				E
Potassium	10100	0.550	10000	0	101	95	105				
Sodium	1050	0.550	1000	0	105	95	105				
Thallium	1020	0.025	1000	0	102	95	105				
Vanadium	1040	0.010	1000	0	104	95	105				
Zinc	1020	0.005	1000	0	102	95	105				

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128324

Sample ID: CCV	SampType: CCV	TestCode: ME_ICP_D	Units: mg/L	Prep Date:	RunNo: 128324						
Client ID: CCV	Batch ID: R128324	TestNo: E200.7		Analysis Date:	SeqNo: 2861863						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	98.6	0.001	100.0	0	99	90	110				
Calcium	6950	0.050	7500	0	93	90	110				
Iron	2450	0.005	2500	0	98	90	110				
Lead	1000	0.010	1000	0	100	90	110				
Magnesium	7330	0.030	7500	0	98	90	110				
Manganese	198	0.002	200	0	99	90	110				
Potassium	3090	0.550	3000	0	103	90	110				
Sodium	3100	0.550	3000	0	103	90	110				
Thallium	2460	0.025	2500	0	98	90	110				
Vanadium	491	0.010	500	0	98	90	110				
Zinc	486	0.005	500	0	97	90	110				

Sample ID: CCV		SampType: CCV		TestCode: ME_ICP_D		Units: mg/L		Prep Date:		RunNo: 128324	
Client ID: CCV		Batch ID: R128324		TestNo: E200.7				Analysis Date:		SeqNo: 2861875	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cadmium	100	0.001	100.0	0	100	90	110				E
Calcium	7050	0.050	7500	0	94	90	110				
Iron	2430	0.005	2500	0	97	90	110				
Lead	1020	0.010	1000	0	102	90	110				
Magnesium	7440	0.030	7500	0	99	90	110				
Manganese	202	0.002	200	0	101	90	110				
Potassium	3050	0.550	3000	0	102	90	110				
Sodium	3300	0.550	3000	0	110	90	110				
Thallium	2510	0.025	2500	0	100	90	110				E
Vanadium	496	0.010	500	0	99	90	110				
Zinc	495	0.005	500	0	99	90	110				

Qualifiers: E Value above quantitation range J Estimated value
L Value above calibration range but within annually verified linear range Q Due to matrix effects, not all quality control parameters met acceptance criteria
R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits
SF Limit of detection increased due to sample foaming

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128329

Sample ID: ICV 100 PPB	SampType: ICV	TestCode: PHENOLS 42	Units: mg/L	Prep Date:	RunNo: 128329						
Client ID: ICV	Batch ID: R128329	TestNo: E420.2		Analysis Date: 4/3/2014	SeqNo: 2861508						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.098	0.025	0.100	0	98	90	110				
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Sample ID: CCV 0331		SampType: CCV		TestCode: PHENOLS 42		Units: mg/L		Prep Date:		RunNo: 128329	
Client ID: CCV		Batch ID: R128329		TestNo: E420.2				Analysis Date: 4/3/2014		SeqNo: 2861513	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.220	0.025	0.200	0	110	90	110				
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Sample ID: CCV 100 PPB		SampType: CCV		TestCode: PHENOLS 42		Units: mg/L		Prep Date:		RunNo: 128329	
Client ID: CCV		Batch ID: R128329		TestNo: E420.2				Analysis Date: 4/3/2014		SeqNo: 2861523	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.099	0.025	0.100	0	99	90	110				
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Sample ID: CCV 100 PPB	SampType: CCV	TestCode: PHENOLS 42	Units: mg/L	Prep Date:	RunNo: 128329						
Client ID: CCV	Batch ID: R128329	TestNo: E420.2		Analysis Date: 4/3/2014	SeqNo: 2861535						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.100	0.025	0.100	0	100	90	110				
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Sample ID: CCV 0402	SampType: CCV	TestCode: PHENOLS 42	Units: mg/L	Prep Date:	RunNo: 128329						
Client ID: CCV	Batch ID: R128329	TestNo: E420.2		Analysis Date: 4/3/2014	SeqNo: 2861539						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.223	0.025	0.200	0	112	90	110				S
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Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128329

Sample ID: CCV 100 PPB		SampType: CCV		TestCode: PHENOLS 42		Units: mg/L		Prep Date:		RunNo: 128329	
Client ID: CCV		Batch ID: R128329		TestNo: E420.2				Analysis Date: 4/3/2014		SeqNo: 2861549	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.104	0.025	0.100	0	104	90	110				
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Sample ID: 14040079-007H MS		SampType: MS		TestCode: PHENOLS 42		Units: mg/L		Prep Date:		RunNo: 128329	
Client ID: MW-37		Batch ID: R128329		TestNo: E420.2				Analysis Date: 4/3/2014		SeqNo: 2861557	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.416	0.025	0.400	0	104	90	110				
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Sample ID: 14034284-001B MS	SampType: MS	TestCode: PHENOLS 42	Units: mg/L	Prep Date:	RunNo: 128329						
Client ID: ZZZZZZ	Batch ID: R128329	TestNo: E420.2		Analysis Date: 4/3/2014	SeqNo: 2861558						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.453	0.025	0.400	0	113	90	110				S
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Sample ID: CCV 100 PPB	SampType: CCV	TestCode: PHENOLS 42	Units: mg/L	Prep Date:	RunNo: 128329						
Client ID: CCV	Batch ID: R128329	TestNo: E420.2		Analysis Date: 4/3/2014	SeqNo: 2861561						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.102	0.025	0.100	0	102	90	110				
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Sample ID: CCV 0402		SampType: CCV		TestCode: PHENOLS 42		Units: mg/L		Prep Date:		RunNo: 128329	
Client ID: CCV		Batch ID: R128329		TestNo: E420.2				Analysis Date: 4/3/2014		SeqNo: 2861569	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.220	0.025	0.200	0	110	90	110				
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Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128329

Sample ID: 14040079-001H MS	SampType: MS	TestCode: PHENOLS 42	Units: mg/L	Prep Date:	RunNo: 128329						
Client ID: MW-3	Batch ID: R128329	TestNo: E420.2	Analysis Date: 4/3/2014	SeqNo: 2861571							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.438	0.025	0.400	0	109	90	110				
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Sample ID: 14040079-001H MSD	SampType: MSD	TestCode: PHENOLS 42	Units: mg/L	Prep Date:	RunNo: 128329						
Client ID: MW-3	Batch ID: R128329	TestNo: E420.2	Analysis Date: 4/3/2014	SeqNo: 2861572							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.489	0.025	0.400	0	122	90	110	0.441	10	10	S
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Sample ID: CCV 100 PPB		SampType: CCV		TestCode: PHENOLS 42		Units: mg/L		Prep Date:		RunNo: 128329	
Client ID: CCV		Batch ID: R128329		TestNo: E420.2				Analysis Date: 4/3/2014		SeqNo: 2861575	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.102	0.025	0.100	0	102	90	110				
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Sample ID: CCV 100 PPB		SampType: CCV		TestCode: PHENOLS 42		Units: mg/L		Prep Date:		RunNo: 128329	
Client ID: CCV		Batch ID: R128329		TestNo: E420.2				Analysis Date: 4/3/2014		SeqNo: 2861576	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.103	0.025	0.100	0	103	90	110				
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Sample ID: ICV 100 PPB	SampType: ICV	TestCode: PHENOLS 42	Units: mg/L	Prep Date:	RunNo: 128329						
Client ID: ICV	Batch ID: R128329	TestNo: E420.2	Analysis Date: 4/3/2014	SeqNo: 2861665							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.094	0.025	0.100	0	94	90	110				
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Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128329

Sample ID: CCV 0402		SampType: CCV		TestCode: PHENOLS 42		Units: mg/L		Prep Date:		RunNo: 128329	
Client ID: CCV		Batch ID: R128329		TestNo: E420.2				Analysis Date: 4/3/2014		SeqNo: 2861672	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.216	0.025	0.200	0	108	90	110				
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Sample ID: CCV 100 PPB		SampType: CCV		TestCode: PHENOLS 42		Units: mg/L		Prep Date:		RunNo: 128329	
Client ID: CCV		Batch ID: R128329		TestNo: E420.2				Analysis Date: 4/3/2014		SeqNo: 2861675	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.095	0.025	0.100	0	95	90	110				
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Sample ID: CCV 100 PPB		SampType: CCV		TestCode: PHENOLS 42		Units: mg/L		Prep Date:		RunNo: 128329			
Client ID: CCV		Batch ID: R128329		TestNo: E420.2				Analysis Date: 4/3/2014		SeqNo: 2861676			
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Phenol	0.093	0.025	0.100	0	93	90	110				
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Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128353

Sample ID: ICV 5 mg/L		SampType: ICV		TestCode: AmmoniaDist		Units: mg/L		Prep Date:		RunNo: 128353	
Client ID: ICV		Batch ID: R128353		TestNo: E350.1				Analysis Date: 4/3/2014		SeqNo: 2862268	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 4.8 0.1 5.0 0 96 90 110

Sample ID: 14040079-004BMS		SampType: MS		TestCode: AmmoniaDist		Units: mg/L		Prep Date:		RunNo: 128353	
Client ID: MW-1 Upgradient		Batch ID: R128353		TestNo: E350.1				Analysis Date: 4/3/2014		SeqNo: 2862280	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 5.2 0.1 5.0 0 105 90 110

Sample ID: 14040144-002AMS		SampType: MS		TestCode: AmmoniaDist		Units: mg/L		Prep Date:		RunNo: 128353	
Client ID: ZZZZZZ		Batch ID: R128353		TestNo: E350.1				Analysis Date: 4/3/2014		SeqNo: 2862293	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 5.3 0.1 5.0 0.1 104 90 110

Sample ID: 14040144-002ADUP	SampType: DUP	TestCode: AmmoniaDist	Units: mg/L	Prep Date:	RunNo: 128353						
Client ID: ZZZZZZ	Batch ID: R128353	TestNo: E350.1		Analysis Date: 4/3/2014	SeqNo: 2862294						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 0.1 0.1 0.1 3 10

Sample ID: CCV 5 MG/L	SampType: CCV	TestCode: AmmoniaDist	Units: mg/L	Prep Date:				RunNo: 128353			
Client ID: CCV	Batch ID: R128353	TestNo: E350.1	Analysis Date: 4/3/2014				SeqNo: 2862295				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 4.7 0.1 5.0 0 94 90 110

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128353

Sample ID: 14040195-001KMS	SampType: MS	TestCode: AmmoniaDist	Units: mg/L	Prep Date:	RunNo: 128353						
Client ID: ZZZZZZ	Batch ID: R128353	TestNo: E350.1		Analysis Date: 4/3/2014	SeqNo: 2862307						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 4.9 0.1 5.0 0 98 90 110

Sample ID: 14040259-001BMS		SampType: MS		TestCode: AmmoniaDist		Units: mg/L		Prep Date:		RunNo: 128353	
Client ID: ZZZZZZ		Batch ID: R128353		TestNo: E350.1				Analysis Date: 4/3/2014		SeqNo: 2862320	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 5.2 0.1 5.0 0.4 96 90 110

Sample ID: 14040259-001BDUP		SampType: DUP		TestCode: AmmoniaDist		Units: mg/L		Prep Date:		RunNo: 128353	
Client ID: ZZZZZZ		Batch ID: R128353		TestNo: E350.1				Analysis Date: 4/3/2014		SeqNo: 2862321	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 0.2 0.1 0.4 52 10 R

Sample ID: CCV 5 MG/L		SampType: CCV		TestCode: AmmoniaDist		Units: mg/L		Prep Date:		RunNo: 128353	
Client ID: CCV		Batch ID: R128353		TestNo: E350.1				Analysis Date: 4/3/2014		SeqNo: 2862322	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 4.7 0.1 5.0 0 94 90 110

Sample ID: 14040398-002AMS	SampType: MS	TestCode: AmmoniaDist	Units: mg/L	Prep Date:	RunNo: 128353						
Client ID: ZZZZZZ	Batch ID: R128353	TestNo: E350.1		Analysis Date: 4/3/2014	SeqNo: 2862334						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 7.9 0.1 5.0 2.9 100 90 110

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128353

Sample ID: 14040429-001KMS	SampType: MS	TestCode: AmmoniaDist	Units: mg/L	Prep Date:	RunNo: 128353						
Client ID: ZZZZZZ	Batch ID: R128353	TestNo: E350.1		Analysis Date: 4/3/2014	SeqNo: 2862347						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 5.1 0.1 5.0 0 103 90 110

Sample ID: 14040429-001KDUP		SampType: DUP		TestCode: AmmoniaDist		Units: mg/L		Prep Date:		RunNo: 128353	
Client ID: ZZZZZZ		Batch ID: R128353		TestNo: E350.1				Analysis Date: 4/3/2014		SeqNo: 2862348	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N < 0.1 0.1 0 10

Sample ID: CCV 5 mg/L		SampType: CCV		TestCode: AmmoniaDist		Units: mg/L		Prep Date:		RunNo: 128353	
Client ID: CCV		Batch ID: R128353		TestNo: E350.1				Analysis Date: 4/3/2014		SeqNo: 2862361	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ammonia as N 4.7 0.1 5.0 0 94 90 110

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128389

Sample ID: ICV #1		SampType: ICV		TestCode: ME_ICP_D		Units: mg/L		Prep Date:		RunNo: 128389		
Client ID: ICV		Batch ID: R128389		TestNo: E200.7				Analysis Date:		SeqNo: 2863206		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Cadmium	966	0.001	1000	0	97	95	105				E	
Calcium	915	0.050	1000	0	91	95	105				S	
Iron	967	0.005	1000	0	97	95	105					
Lead	1030	0.010	1000	0	103	95	105					
Magnesium	987	0.030	1000	0	99	95	105					
Manganese	999	0.002	1000	0	100	95	105				E	
Potassium	9810	0.550	10000	0	98	95	105					
Sodium	971	0.550	1000	0	97	95	105					
Thallium	965	0.025	1000	0	96	95	105					
Vanadium	1000	0.010	1000	0	100	95	105					
Zinc	1000	0.005	1000	0	100	95	105					

Sample ID: ICV #2		SampType: ICV		TestCode: ME_ICP_D		Units: mg/L		Prep Date:		RunNo: 128389		
Client ID: ICV		Batch ID: R128389		TestNo: E200.7				Analysis Date:		SeqNo: 2863207		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Cadmium	982	0.001	1000	0	98	95	105				E	
Calcium	1030	0.050	1000	0	103	95	105					
Iron	995	0.005	1000	0	100	95	105					
Lead	1050	0.010	1000	0	105	95	105					
Magnesium	1030	0.030	1000	0	103	95	105					
Manganese	1040	0.002	1000	0	104	95	105				E	
Potassium	10100	0.550	10000	0	101	95	105					
Sodium	999	0.550	1000	0	100	95	105					
Thallium	985	0.025	1000	0	99	95	105					
Vanadium	1030	0.010	1000	0	103	95	105					
Zinc	1010	0.005	1000	0	101	95	105					

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128389

Sample ID: CCV		SampType: CCV		TestCode: ME_ICP_D		Units: mg/L		Prep Date:		RunNo: 128389		
Client ID: CCV		Batch ID: R128389		TestNo: E200.7				Analysis Date:		SeqNo: 2863224		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Cadmium	98.5	0.001	100.0	0	98	90	110					
Calcium	6960	0.050	7500	0	93	90	110					
Iron	2380	0.005	2500	0	95	90	110					
Lead	1030	0.010	1000	0	103	90	110					
Magnesium	7530	0.030	7500	0	100	90	110				E	
Manganese	203	0.002	200	0	101	90	110					
Potassium	2950	0.550	3000	0	98	90	110					
Sodium	2950	0.550	3000	0	98	90	110					
Thallium	2470	0.025	2500	0	99	90	110					
Vanadium	499	0.010	500	0	100	90	110					
Zinc	492	0.005	500	0	98	90	110					

Sample ID: CCV	SampType: CCV	TestCode: ME_ICP_D	Units: mg/L	Prep Date:				RunNo: 128389			
Client ID: CCV	Batch ID: R128389	TestNo: E200.7		Analysis Date:				SeqNo: 2863236			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	97.7	0.001	100.0	0	98	90	110				
Calcium	6980	0.050	7500	0	93	90	110				
Iron	2360	0.005	2500	0	94	90	110				
Lead	1020	0.010	1000	0	102	90	110				
Magnesium	7500	0.030	7500	0	100	90	110				E
Manganese	204	0.002	200	0	102	90	110				
Potassium	2900	0.550	3000	0	97	90	110				
Sodium	2900	0.550	3000	0	97	90	110				
Thallium	2450	0.025	2500	0	98	90	110				
Vanadium	499	0.010	500	0	100	90	110				
Zinc	495	0.005	500	0	99	90	110				

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128398

Sample ID: CCV 5.00 PPM	SampType: CCV	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: CCV	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863488		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	4.9	1.0	5.0	0	97	90	110				
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Sample ID: CCV 5.00 PPM	SampType: CCV	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: CCV	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863499		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	4.9	1.0	5.0	0	98	90	110				
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Sample ID: 14034368-005BMS	SampType: MS	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: ZZZZZZ	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863505		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	5.3	1.0	5.0	0	107	80	120				
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Sample ID: 14034421-001AMS	SampType: MS	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: ZZZZZZ	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863518		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	18.8	1.0	5.0	12.6	124	80	120				S
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Sample ID: 14034421-001ADUP	SampType: DUP	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: ZZZZZZ	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863519		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	12.4	1.0						12.6	2	10	
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Qualifiers:	E	Value above quantitation range	J	Estimated value
	L	Value above calibration range but within annually verified linear range	Q	Due to matrix effects, not all quality control parameters met acceptance criteria
	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits
	SF	Limit of detection increased due to sample foaming		

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128398

Sample ID: CCV 5 PPM	SampType: CCV	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: CCV	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863532		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	4.9	1.0	5.0	0	98	90	110				
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Sample ID: 14034553-004AMS	SampType: MS	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: ZZZZZZ	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863532		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	8.1	1.0	5.0	2.8	105	80	120				
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Sample ID: 14034553-004ADUP	SampType: DUP	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: ZZZZZZ	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863533		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	2.5	1.0						2.8	10	10	
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Sample ID: SOIL QC CCV 5	SampType: CCV	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: CCV	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863541		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	4.8	1.0	5.0	0	96	90	110				
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Sample ID: CCV 5.00 PPM	SampType: CCV	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: CCV	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863547		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	4.9	1.0	5.0	0	98	90	110				
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Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128398

Sample ID: 14040079-007GMS	SampType: MS	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: MW-37	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863561		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	4.4	1.0	5.0	0	88	80	120				
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Sample ID: CCV 5 PPM	SampType: CCV	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: CCV	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863571		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	4.8	1.0	5.0	0	97	90	110				
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Sample ID: 14040224-002BMS	SampType: MS	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: ZZZZZZ	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863574		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	9.5	1.0	5.0	3.8	114	80	120				
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Sample ID: 14040224-002BDUP	SampType: DUP	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: ZZZZZZ	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863575		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	4.1	1.0						3.8	6	10	
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Sample ID: 14040249-001AMS	SampType: MS	TestCode: TKN_Lachat_ Units: mg/L				Prep Date:			RunNo: 128398		
Client ID: ZZZZZZ	Batch ID: R128398	TestNo: E351.2				Analysis Date: 4/4/2014			SeqNo: 2863580		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Kjeldahl Nitrogen	6.6	1.0	5.0	1.3	107	80	120				
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Qualifiers:	E	Value above quantitation range	J	Estimated value
	L	Value above calibration range but within annually verified linear range	Q	Due to matrix effects, not all quality control parameters met acceptance criteria
	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits
	SF	Limit of detection increased due to sample foaming		

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128398

Sample ID: 14040249-001ADUP	SampType: DUP	TestCode: TKN_Lachat_	Units: mg/L	Prep Date:	RunNo: 128398						
Client ID: ZZZZZZ	Batch ID: R128398	TestNo: E351.2		Analysis Date: 4/4/2014	SeqNo: 2863581						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Kjeldahl Nitrogen	1.3	1.0						1.3	1	10	

Sample ID: CCV 5 PPM	SampType: CCV	TestCode: TKN_Lachat_	Units: mg/L	Prep Date:	RunNo: 128398						
Client ID: CCV	Batch ID: R128398	TestNo: E351.2	Analysis Date: 4/4/2014	SeqNo: 2863591							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Kjeldahl Nitrogen	4.7	1.0	5.0	0	95	90	110				

Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128421

Sample ID: MBLK-1	SampType: MBLK	TestCode: pH water SM	Units:	Prep Date:	RunNo: 128421						
Client ID: PBW	Batch ID: R128421	TestNo: A4500-H+B		Analysis Date: 4/4/2014	SeqNo: 2864133						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

pH 4.36@19.5°C 0

Sample ID: 14040460-003CDUP	SampType: DUP	TestCode: pH water SM	Units:	Prep Date:	RunNo: 128421						
Client ID: ZZZZZZ	Batch ID: R128421	TestNo: A4500-H+B		Analysis Date: 4/4/2014	SeqNo: 2864156						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

pH 6.93@19.9°C 0 0 0 K

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128438

Sample ID: 14034680-001B MS		SampType: MS		TestCode: AnionS_300.		Units: mg/L		Prep Date:		RunNo: 128438	
Client ID: ZZZZZZ		Batch ID: R128438		TestNo: E300.0				Analysis Date: 4/5/2014		SeqNo: 2864604	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	95.3	1.00	100.0	0	95	80	120				
Sulfate	94.4	0.25	100.0	0	94	80	120				
Bromide	0.51	0.20	0.50	0	101	80	120				

Sample ID: 14034680-001B DUP		SampType: DUP		TestCode: AnionS_300.		Units: mg/L		Prep Date:		RunNo: 128438	
Client ID: ZZZZZZ		Batch ID: R128438		TestNo: E300.0				Analysis Date: 4/5/2014		SeqNo: 2864605	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	0	1.00						0		10	
Sulfate	0	0.25						0		10	
Bromide	0	0.20						0		10	

Sample ID: CCV High Level		SampType: CCV		TestCode: AnionS_300.		Units: mg/L		Prep Date:		RunNo: 128438	
Client ID: CCV		Batch ID: R128438		TestNo: E300.0				Analysis Date: 4/4/2014		SeqNo: 2864577	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	203	1.00	200	0	101	90	110				
Sulfate	204	0.25	200	0	102	90	110				
Bromide	0.94	0.20	1.00	0	94	90	110				

Sample ID: 14034458-010A MS	SampType: MS	TestCode: AnionS_300.	Units: mg/L	Prep Date:	RunNo: 128438						
Client ID: ZZZZZZ	Batch ID: R128438	TestNo: E300.0		Analysis Date: 4/5/2014	SeqNo: 2864591						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	351	0.25	100.0	266	85	80	120				
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Qualifiers:	E	Value above quantitation range	J	Estimated value
	L	Value above calibration range but within annually verified linear range	Q	Due to matrix effects, not all quality control parameters met acceptance criteria
	R	RPD outside accepted recovery limits	S	Spike Recovery outside accepted recovery limits
	SF	Limit of detection increased due to sample foaming		

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128438

Sample ID: CCV High Level		SampType: CCV		TestCode: AnionS_300.		Units: mg/L		Prep Date:		RunNo: 128438	
Client ID: CCV		Batch ID: R128438		TestNo: E300.0				Analysis Date: 4/5/2014		SeqNo: 2864606	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	206	1.00	200	0	103	90	110				
Sulfate	207	0.25	200	0	103	90	110				
Bromide	1.00	0.20	1.00	0	100	90	110				

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128472

Sample ID: CCV	SampType: CCV	TestCode: BOD SM5210		Units: mg/L	Prep Date:			RunNo: 128472			
Client ID: CCV	Batch ID: R128472	TestNo: A5210B			Analysis Date: 4/2/2014			SeqNo: 2865212			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

BOD	178	6	198	0	90	85	115				
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Sample ID: CCV	SampType: CCV	TestCode: BOD SM5210		Units: mg/L	Prep Date:			RunNo: 128472			
Client ID: CCV	Batch ID: R128472	TestNo: A5210B			Analysis Date: 4/2/2014			SeqNo: 2865215			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

BOD	181	6	198	0	92	85	115				
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Sample ID: 14040079-007C DUP	SampType: DUP	TestCode: BOD SM5210		Units: mg/L	Prep Date:			RunNo: 128472			
Client ID: MW-37	Batch ID: R128472	TestNo: A5210B			Analysis Date: 4/2/2014			SeqNo: 2865227			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

BOD	< 6	6						0		10	
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Sample ID: CCV	SampType: CCV	TestCode: BOD SM5210		Units: mg/L	Prep Date:			RunNo: 128472			
Client ID: CCV	Batch ID: R128472	TestNo: A5210B			Analysis Date: 4/2/2014			SeqNo: 2865237			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

BOD	179	6	198	0	90	85	115				
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Sample ID: 14040158-002A DUP	SampType: DUP	TestCode: BOD SM5210		Units: mg/L	Prep Date:			RunNo: 128472			
Client ID: ZZZZZZ	Batch ID: R128472	TestNo: A5210B			Analysis Date: 4/2/2014			SeqNo: 2865248			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

BOD	< 6	6						0		10	
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Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128473

Sample ID: MBLK-1	SampType: MBLK	TestCode: Solids, TDS-	Units: mg/L	Prep Date:	RunNo: 128473						
Client ID: PBW	Batch ID: R128473	TestNo: A2540C		Analysis Date: 4/4/2014	SeqNo: 2865249						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids < 10 10

Sample ID: CCV-1	SampType: CCV	TestCode: Solids, TDS-	Units: mg/L	Prep Date:	RunNo: 128473						
Client ID: CCV	Batch ID: R128473	TestNo: A2540C		Analysis Date: 4/4/2014	SeqNo: 2865250						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids 1020 10 1000 0 102 80 120

Sample ID: 14034722-001ADUP	SampType: DUP	TestCode: Solids, TDS-	Units: mg/L	Prep Date:	RunNo: 128473						
Client ID: ZZZZZZ	Batch ID: R128473	TestNo: A2540C		Analysis Date: 4/4/2014	SeqNo: 2865261						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids 18500 10 19300 4 5 X

Sample ID: 14040460-001EDUP	SampType: DUP	TestCode: Solids, TDS-	Units: mg/L	Prep Date:	RunNo: 128473						
Client ID: ZZZZZZ	Batch ID: R128473	TestNo: A2540C		Analysis Date: 4/4/2014	SeqNo: 2865273						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids 743 10 755 2 5 X

Sample ID: MBLK-2	SampType: MBLK	TestCode: Solids, TDS-	Units: mg/L	Prep Date:	RunNo: 128473						
Client ID: PBW	Batch ID: R128473	TestNo: A2540C		Analysis Date: 4/4/2014	SeqNo: 2865274						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids < 10 10

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128473

Sample ID: CCV-2		SampType: CCV		TestCode: Solids, TDS-		Units: mg/L		Prep Date:		RunNo: 128473	
Client ID: CCV		Batch ID: R128473		TestNo: A2540C		Analysis Date: 4/4/2014		SeqNo: 2865275			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids	1040	10	1000	0	104	80	120				
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Sample ID: 14040660-001CDUP	SampType: DUP	TestCode: Solids, TDS-	Units: mg/L	Prep Date:	RunNo: 128473						
Client ID: ZZZZZZ	Batch ID: R128473	TestNo: A2540C	Analysis Date: 4/4/2014	SeqNo: 2865284							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Dissolved Solids	308	10						296	4	5	
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Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128493

Sample ID: MBLK-1		SampType: MBLK		TestCode: COD HACH 8		Units: mg/L		Prep Date:		RunNo: 128493	
Client ID: PBW		Batch ID: R128493		TestNo: A5220C				Analysis Date: 4/7/2014		SeqNo: 2865765	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand < 10 10

Sample ID: 14040079-003BMS		SampType: MS		TestCode: COD HACH 8		Units: mg/L		Prep Date:		RunNo: 128493	
Client ID: MW-4		Batch ID: R128493		TestNo: A5220C				Analysis Date: 4/7/2014		SeqNo: 2865768	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand 66 10 20 43 117 80 120

Sample ID: 14040079-003BMSD		SampType: MSD		TestCode: COD HACH 8		Units: mg/L		Prep Date:		RunNo: 128493	
Client ID: MW-4		Batch ID: R128493		TestNo: A5220C				Analysis Date: 4/7/2014		SeqNo: 2865769	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand 73 10 20 43 152 80 120 66 10 10 S

Sample ID: CCV-1	SampType: CCV	TestCode: COD HACH 8	Units: mg/L	Prep Date:	RunNo: 128493						
Client ID: CCV	Batch ID: R128493	TestNo: A5220C		Analysis Date: 4/7/2014	SeqNo: 2865777						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand 470 10 500 0 94 90 110

Sample ID: MBLK-2	SampType: MBLK	TestCode: COD HACH 8	Units: mg/L	Prep Date:	RunNo: 128493						
Client ID: PBW	Batch ID: R128493	TestNo: A5220C		Analysis Date: 4/7/2014	SeqNo: 2865789						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chemical Oxygen Demand < 10 10

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128493

Sample ID: CCV-2		SampType: CCV		TestCode: COD HACH 8		Units: mg/L		Prep Date:		RunNo: 128493	
Client ID: CCV		Batch ID: R128493		TestNo: A5220C				Analysis Date: 4/7/2014		SeqNo: 2865799	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	502	10	500	0	100	90	110				

Sample ID: 14040956-002BMS	SampType: MS	TestCode: COD HACH 8	Units: mg/L	Prep Date:	RunNo: 128493						
Client ID: ZZZZZZ	Batch ID: R128493	TestNo: A5220C		Analysis Date: 4/7/2014	SeqNo: 2866371						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	38	10	20	20	93	80	120				

Sample ID: 14040956-002BMSD	SampType: MSD	TestCode: COD HACH 8	Units: mg/L	Prep Date:	RunNo: 128493						
Client ID: ZZZZZZ	Batch ID: R128493	TestNo: A5220C		Analysis Date: 4/7/2014	SeqNo: 2866372						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chemical Oxygen Demand	45	10	20	20	128	80	120	38	17	10	S R

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128568

Sample ID: ICV 5PPM		SampType: ICV		TestCode: TOC 5310lab		Units: mg/L		Prep Date:		RunNo: 128568	
Client ID: ICV		Batch ID: R128568		TestNo: A5310C				Analysis Date: 4/7/2014		SeqNo: 2868164	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon	5.0	0.5	5.0	0	100	80	120				
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Sample ID: CCV 5		SampType: CCV		TestCode: TOC 5310lab		Units: mg/L		Prep Date:		RunNo: 128568	
Client ID: CCV		Batch ID: R128568		TestNo: A5310C				Analysis Date: 4/7/2014		SeqNo: 2868171	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon	4.9	0.5	5.0	0	99	80	120				
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Sample ID: 14034610-003A DUP	SampType: DUP	TestCode: TOC 5310lab	Units: mg/L	Prep Date:	RunNo: 128568						
Client ID: ZZZZZZ	Batch ID: R128568	TestNo: A5310C		Analysis Date: 4/7/2014	SeqNo: 2868177						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon	1.3	0.5						1.3	1	10	
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Sample ID: 14034610-005A MS	SampType: MS	TestCode: TOC 5310lab	Units: mg/L	Prep Date:	RunNo: 128568						
Client ID: ZZZZZZ	Batch ID: R128568	TestNo: A5310C		Analysis Date: 4/7/2014	SeqNo: 2868180						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon	5.9	0.5	5.0	1.2	95	80	120				
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Sample ID: CCV 5		SampType: CCV		TestCode: TOC 5310lab		Units: mg/L		Prep Date:		RunNo: 128568	
Client ID: CCV		Batch ID: R128568		TestNo: A5310C				Analysis Date: 4/7/2014		SeqNo: 2868197	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon	5.1	0.5	5.0	0	102	80	120				
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Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128568

Sample ID: 14040141-001A MS		SampType: MS		TestCode: TOC 5310lab		Units: mg/L		Prep Date:		RunNo: 128568	
Client ID: ZZZZZZ		Batch ID: R128568		TestNo: A5310C				Analysis Date: 4/7/2014		SeqNo: 2868203	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon	5.1	0.5	5.0	0.7	87	80	120				
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Sample ID: 14040161-001A DUP	SampType: DUP	TestCode: TOC 5310lab	Units: mg/L	Prep Date:	RunNo: 128568						
Client ID: ZZZZZZ	Batch ID: R128568	TestNo: A5310C		Analysis Date: 4/7/2014	SeqNo: 2868205						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon	6.5	0.5						6.5	1	10	
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Sample ID: CCV 5		SampType: CCV		TestCode: TOC 5310lab		Units: mg/L		Prep Date:		RunNo: 128568	
Client ID: CCV		Batch ID: R128568		TestNo: A5310C				Analysis Date: 4/7/2014		SeqNo: 2868225	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon	4.8	0.5	5.0	0	97	80	120				
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Sample ID: 14040554-001ADUP	SampType: DUP	TestCode: TOC 5310lab	Units: mg/L	Prep Date:	RunNo: 128568						
Client ID: ZZZZZZ	Batch ID: R128568	TestNo: A5310C		Analysis Date: 4/7/2014	SeqNo: 2868228						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon	2.4	0.5						2.4	1	10	
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Sample ID: 14040554-002A MS	SampType: MS	TestCode: TOC 5310lab	Units: mg/L	Prep Date:	RunNo: 128568						
Client ID: ZZZZZZ	Batch ID: R128568	TestNo: A5310C		Analysis Date: 4/7/2014	SeqNo: 2868230						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Organic Carbon	7.1	0.5	5.0	2.3	97	80	120				
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Qualifiers:

E	Value above quantitation range
L	Value above calibration range but within annually verified linear range
R	RPD outside accepted recovery limits
SF	Limit of detection increased due to sample foaming

J	Estimated value
Q	Due to matrix effects, not all quality control parameters met acceptance criteria
S	Spike Recovery outside accepted recovery limits

CLIENT: Conklin, Town of
Work Order: 14040079
Project: Landfill-Routine

ANALYTICAL QC SUMMARY REPORT

BatchID: R128568

Sample ID: CCV 5PPM		SampType: CCV		TestCode: TOC 5310lab		Units: mg/L		Prep Date:		RunNo: 128568	
Client ID: CCV		Batch ID: R128568		TestNo: A5310C		Analysis Date: 4/7/2014		SeqNo: 2868244			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Organic Carbon	5.0	0.5	5.0	0	99	80	120				

Qualifiers: E Value above quantitation range
L Value above calibration range but within annually verified linear range
R RPD outside accepted recovery limits
SF Limit of detection increased due to sample foaming

J Estimated value
Q Due to matrix effects, not all quality control parameters met acceptance criteria
S Spike Recovery outside accepted recovery limits



Benchmark Analytics Sayre, A Microbac Laboratory
 CERTIFICATE OF ANALYSIS
 S4F2585

Project Name: Conklin Landfill

Conklin, Town of
 Tom Delamarter
 P.O. Box 182
 Conklin, NY 13748

Project / PO Number: N/A
 Received: 06/24/2014 10:50
 Reported: 07/31/2014 23:07

Analytical Testing Parameters

Client Sample ID: MW-3
 Lab Sample ID: S4F2585-01
 Sample Type: Grab

Collection Date: 06/23/14
 Collection Time: 13:00
 Collected By: fran Connor

Benchmark Analytics (NY 11827)
 Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	< 0.001		0.001	mg/L		06/30/14 0000	06/30/14 1130	SPC
Cadmium, Dissolved	< 0.001		0.001	mg/L		06/30/14 0000	07/01/14 1320	SPC
Calcium	60.2		0.050	mg/L		06/30/14 0000	06/30/14 1130	SPC
Calcium, Dissolved	31.6		0.050	mg/L		06/30/14 0000	07/01/14 1320	SPC
Iron	22.4		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Iron, Dissolved	0.033		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Lead	0.049		0.010	mg/L		06/30/14 0000	06/30/14 1130	SPC
Lead, Dissolved	< 0.010		0.010	mg/L		06/30/14 0000	07/01/14 1320	SPC
Magnesium	15.9		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Magnesium, Dissolved	8.14		0.025	mg/L	L	06/30/14 0000	07/01/14 1320	SPC
Manganese	0.996		0.002	mg/L	L	06/30/14 0000	06/30/14 1130	SPC
Manganese, Dissolved	0.084		0.002	mg/L		06/30/14 0000	07/01/14 1320	SPC
Potassium	1.38		0.500	mg/L		06/30/14 0000	06/30/14 1130	SPC
Potassium, Dissolved	< 0.500		0.500	mg/L		06/30/14 0000	07/01/14 1320	SPC
Sodium	7.74		0.500	mg/L		06/30/14 0000	06/30/14 1130	SPC
Sodium, Dissolved	8.30		0.500	mg/L		06/30/14 0000	07/01/14 1320	SPC
Thallium	< 0.025		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Thallium, Dissolved	< 0.025		0.025	mg/L		06/30/14 0000	07/01/14 1320	SPC
Vanadium	0.024		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Vanadium, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Zinc	0.147		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Zinc, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		06/29/14 1150	06/29/14 1150	NSF
Chloride	4.50		1.00	mg/L		06/29/14 1150	06/29/14 1150	NSF
Sulfate as SO4	7.37		0.250	mg/L		06/29/14 1150	06/29/14 1150	NSF

Microbac Laboratories, Inc.



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS
S4F2585

Analytical Testing Parameters

Client Sample ID: MW-3
Lab Sample ID: S4F2585-01
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 13:00
Collected By: fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	17.3			°C	Y	06/23/14 1300	06/23/14 1300	FSC
Method: SM4500 H+ B-2000								
pH	6.37		0.0100	pH Units	Y	06/23/14 1300	06/23/14 1300	FSC
Inorganics								
	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2								
Ammonia as N	<0.100		0.100	mg/L		06/26/14 1506	06/26/14 1716	KED
Method: EPA 351.2, Rv 2								
Total Kjeldahl Nitrogen (TKN)	2.90		1.00	mg/L		06/25/14 1042	06/27/14 1018	JPP
Method: EPA 353.2, Rv 2.0								
Nitrate as N	<0.0500		0.0500	mg/L		06/24/14 1200	06/24/14 1351	SXG
Nitrate-Nitrite as N	<0.0500		0.0500	mg/L	Y	06/24/14 1200	06/24/14 1351	SXG
Nitrite as N	<0.0250		0.0250	mg/L		06/24/14 1200	06/24/14 1311	SXG
Method: EPA 420.4, Rv 1								
Phenols	<0.0250		0.0250	mg/L	Q2	06/25/14 1018	06/30/14 1144	SXG
Method: HACH 8000								
Chemical Oxygen Demand (COD)	13.5		10.0	mg/L		06/25/14 1247	06/26/14 1305	SRS
Method: SM2320 B-1997								
Alkalinity, Total	134		2.00	mg equiv CaCO3/L		06/27/14 1230	06/27/14 1230	JPP
Method: SM2340 C-1997								
Total Dissolved Solids - TDS	141	500	10.0	mg/L		06/25/14 0900	06/25/14 0900	KAL
Method: SM4500 H+ B-2000								
pH	6.00		0.0100	pH Units	H1,Y	06/24/14 1602	06/24/14 1625	NSF
Method: SM5210 B-2001								
Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		06/25/14 0800	06/30/14 1702	NSF
Method: SM5310 C-2000								
Total Organic Carbon - TOC	1.59		0.500	mg/L		06/30/14 1612	07/02/14 1215	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4F2585

Analytical Testing Parameters

Client Sample ID: MW-12
Lab Sample ID: S4F2585-02
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 15:00
Collected By: fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	< 0.001		0.001	mg/L		06/30/14 0000	06/30/14 1130	SPC
Cadmium, Dissolved	< 0.001		0.001	mg/L		06/30/14 0000	07/01/14 1320	SPC
Calcium	39.5		0.050	mg/L		06/30/14 0000	06/30/14 1130	SPC
Calcium, Dissolved	31.5		0.050	mg/L		06/30/14 0000	07/01/14 1320	SPC
Iron	73.6		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Iron, Dissolved	0.017		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Lead	0.039		0.010	mg/L		06/30/14 0000	06/30/14 1130	SPC
Lead, Dissolved	< 0.010		0.010	mg/L		06/30/14 0000	07/01/14 1320	SPC
Magnesium	20.6		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Magnesium, Dissolved	11.0		0.025	mg/L	L	06/30/14 0000	07/01/14 1320	SPC
Manganese	3.37		0.002	mg/L	L	06/30/14 0000	06/30/14 1130	SPC
Manganese, Dissolved	< 0.002		0.002	mg/L		06/30/14 0000	07/01/14 1320	SPC
Potassium	3.52		0.500	mg/L		06/30/14 0000	06/30/14 1130	SPC
Potassium, Dissolved	< 0.500		0.500	mg/L		06/30/14 0000	07/01/14 1320	SPC
Sodium	11.4		0.500	mg/L		06/30/14 0000	06/30/14 1130	SPC
Sodium, Dissolved	12.0		0.500	mg/L		06/30/14 0000	07/01/14 1320	SPC
Thallium	< 0.025		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Thallium, Dissolved	< 0.025		0.025	mg/L		06/30/14 0000	07/01/14 1320	SPC
Vanadium	0.041		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Vanadium, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Zinc	0.165		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Zinc, Dissolved	0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	0.280		0.200	mg/L		06/29/14 1150	06/29/14 1150	NSF
Chloride	6.70		1.00	mg/L		06/29/14 1150	06/29/14 1150	NSF
Sulfate as SO ₄	11.9		0.250	mg/L		06/29/14 1150	06/29/14 1150	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	0.00			°C	Y	06/23/14 1500	06/23/14 1500	FSC
Method: SM4500 H+ B-2000								
pH	<0.0100		0.0100	pH Units	Y	06/23/14 1500	06/23/14 1500	FSC

Microbac Laboratories, Inc.



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS
S4F2585

Analytical Testing Parameters

Client Sample ID: MW-12
Lab Sample ID: S4F2585-02
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 15:00
Collected By: fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	<0.100		0.100	mg/L		06/26/14 1506	06/26/14 1717	KED
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	1.55		1.00	mg/L		06/25/14 1042	06/27/14 1018	JPP
Method: EPA 353.2, Rv 2.0 Nitrate as N	<0.0500		0.0500	mg/L		06/24/14 1200	06/24/14 1351	SXG
Nitrate-Nitrite as N	<0.0500		0.0500	mg/L	Y	06/24/14 1200	06/24/14 1351	SXG
Nitrite as N	<0.0250		0.0250	mg/L		06/24/14 1200	06/24/14 1312	SXG
Method: EPA 420.4, Rv 1 Phenols	<0.0250		0.0250	mg/L	Q2	06/25/14 1018	06/30/14 1144	SXG
Method: HACH 8000 Chemical Oxygen Demand (COD)	27.5		10.0	mg/L		06/25/14 1247	06/26/14 1305	SRS
Method: SM2320 B-1997 Alkalinity, Total	140		2.00	mg equiv CaCO3/L		06/27/14 1230	06/27/14 1230	JPP
Method: SM2340 C-1997 Total Dissolved Solids - TDS	170	500	10.0	mg/L		06/25/14 0900	06/25/14 0900	KAL
Method: SM4500 H+ B-2000 pH	5.90		0.0100	pH Units	H1,Y	06/24/14 1602	06/24/14 1625	NSF
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		06/25/14 0800	06/30/14 1702	NSF
Method: SM5310 C-2000 Total Organic Carbon - TOC	2.28		0.500	mg/L		06/30/14 1612	07/02/14 1215	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4F2585

Analytical Testing Parameters

Client Sample ID: MW-4
Lab Sample ID: S4F2585-03
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 14:00
Collected By: fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	< 0.001		0.001	mg/L		06/30/14 0000	06/30/14 1130	SPC
Cadmium, Dissolved	< 0.001		0.001	mg/L		06/30/14 0000	07/01/14 1320	SPC
Calcium	31.9		0.050	mg/L		06/30/14 0000	06/30/14 1130	SPC
Calcium, Dissolved	24.5		0.050	mg/L		06/30/14 0000	07/01/14 1320	SPC
Iron	14.1		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Iron, Dissolved	0.015		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Lead	0.013		0.010	mg/L		06/30/14 0000	06/30/14 1130	SPC
Lead, Dissolved	< 0.010		0.010	mg/L		06/30/14 0000	07/01/14 1320	SPC
Magnesium	12.0		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Magnesium, Dissolved	8.18		0.025	mg/L	L	06/30/14 0000	07/01/14 1320	SPC
Manganese	1.20		0.002	mg/L	L	06/30/14 0000	06/30/14 1130	SPC
Manganese, Dissolved	0.018		0.002	mg/L		06/30/14 0000	07/01/14 1320	SPC
Potassium	2.06		0.500	mg/L		06/30/14 0000	06/30/14 1130	SPC
Potassium, Dissolved	0.789		0.500	mg/L		06/30/14 0000	07/01/14 1320	SPC
Sodium	7.64		0.500	mg/L		06/30/14 0000	06/30/14 1130	SPC
Sodium, Dissolved	7.62		0.500	mg/L		06/30/14 0000	07/01/14 1320	SPC
Thallium	< 0.025		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Thallium, Dissolved	< 0.025		0.025	mg/L		06/30/14 0000	07/01/14 1320	SPC
Vanadium	0.011		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Vanadium, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Zinc	0.040		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Zinc, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		06/29/14 1150	06/29/14 1150	NSF
Chloride	18.8		1.00	mg/L		06/29/14 1150	06/29/14 1150	NSF
Sulfate as SO4	11.2		0.250	mg/L		06/29/14 1150	06/29/14 1150	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	0.00			°C	Y	06/23/14 1400	06/23/14 1400	FSC
Method: SM4500 H+ B-2000								
pH	<0.0100		0.0100	pH Units	Y	06/23/14 1400	06/23/14 1400	FSC

Microbac Laboratories, Inc.



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS
S4F2585

Analytical Testing Parameters

Client Sample ID: MW-4
Lab Sample ID: S4F2585-03
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 14:00
Collected By: fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	<0.100		0.100	mg/L		06/26/14 1506	06/26/14 1719	KED
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		06/25/14 1042	06/27/14 1018	JPP
Method: EPA 353.2, Rv 2.0 Nitrate as N	<0.0500		0.0500	mg/L		06/24/14 1200	06/24/14 1351	SXG
Nitrate-Nitrite as N	<0.0500		0.0500	mg/L	Y	06/24/14 1200	06/24/14 1351	SXG
Nitrite as N	<0.0250		0.0250	mg/L		06/24/14 1200	06/24/14 1312	SXG
Method: EPA 420.4, Rv 1 Phenols	<0.0250		0.0250	mg/L	Q2	06/25/14 1018	06/30/14 1144	SXG
Method: HACH 8000 Chemical Oxygen Demand (COD)	18.2		10.0	mg/L		06/25/14 1247	06/26/14 1305	SRS
Method: SM2320 B-1997 Alkalinity, Total	84.0		2.00	mg equiv CaCO3/L		06/27/14 1230	06/27/14 1230	JPP
Method: SM2340 C-1997 Total Dissolved Solids - TDS	150	500	10.0	mg/L		06/25/14 0900	06/25/14 0900	KAL
Method: SM4500 H+ B-2000 pH	5.96		0.0100	pH Units	H1,Y	06/24/14 1602	06/24/14 1625	NSF
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		06/25/14 0800	06/30/14 1702	NSF
Method: SM5310 C-2000 Total Organic Carbon - TOC	0.798		0.500	mg/L		06/30/14 1612	07/02/14 1215	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4F2585

Analytical Testing Parameters

Client Sample ID: MW-1 Upgradient
Lab Sample ID: S4F2585-04
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 14:30
Collected By: fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	< 0.001		0.001	mg/L		06/30/14 0000	06/30/14 1130	SPC
Cadmium, Dissolved	< 0.001		0.001	mg/L		06/30/14 0000	07/01/14 1320	SPC
Calcium	55.9		0.050	mg/L		06/30/14 0000	06/30/14 1130	SPC
Calcium, Dissolved	48.9		0.050	mg/L		06/30/14 0000	07/01/14 1320	SPC
Iron	0.272		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Iron, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Lead	< 0.010		0.010	mg/L		06/30/14 0000	06/30/14 1130	SPC
Lead, Dissolved	< 0.010		0.010	mg/L		06/30/14 0000	07/01/14 1320	SPC
Magnesium	21.1		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Magnesium, Dissolved	18.5		0.025	mg/L	L	06/30/14 0000	07/01/14 1320	SPC
Manganese	0.226		0.002	mg/L		06/30/14 0000	06/30/14 1130	SPC
Manganese, Dissolved	0.026		0.002	mg/L		06/30/14 0000	07/01/14 1320	SPC
Potassium	2.24		0.500	mg/L		06/30/14 0000	06/30/14 1130	SPC
Potassium, Dissolved	2.31		0.500	mg/L		06/30/14 0000	07/01/14 1320	SPC
Sodium	20.7		0.500	mg/L	L	06/30/14 0000	06/30/14 1130	SPC
Sodium, Dissolved	21.6		0.500	mg/L	L	06/30/14 0000	07/01/14 1320	SPC
Thallium	< 0.025		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Thallium, Dissolved	< 0.025		0.025	mg/L		06/30/14 0000	07/01/14 1320	SPC
Vanadium	< 0.005		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Vanadium, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Zinc	0.024		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Zinc, Dissolved	0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		06/29/14 1150	06/29/14 1150	NSF
Chloride	2.60		1.00	mg/L		06/29/14 1150	06/29/14 1150	NSF
Sulfate as SO ₄	7.45		0.250	mg/L		06/29/14 1150	06/29/14 1150	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	0.00			°C	Y	06/23/14 1430	06/23/14 1430	FSC
Method: SM4500 H+ B-2000								
pH	<0.0100		0.0100	pH Units	Y	06/23/14 1430	06/23/14 1430	FSC

Microbac Laboratories, Inc.



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS
S4F2585

Analytical Testing Parameters

Client Sample ID: MW-1 Upgradient
Lab Sample ID: S4F2585-04
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 14:30
Collected By: fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	0.335		0.100	mg/L		06/26/14 1506	06/26/14 1720	KED
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	2.54		1.00	mg/L		06/25/14 1042	06/27/14 1018	JPP
Method: EPA 353.2, Rv 2.0 Nitrate as N	0.424		0.0500	mg/L		06/24/14 1200	06/24/14 1351	SXG
Nitrate-Nitrite as N	0.494		0.0500	mg/L	Y	06/24/14 1200	06/24/14 1351	SXG
Nitrite as N	0.0699		0.0250	mg/L		06/24/14 1200	06/24/14 1313	SXG
Method: EPA 420.4, Rv 1 Phenols	<0.0250		0.0250	mg/L	Q2	06/25/14 1018	06/30/14 1144	SXG
Method: HACH 8000 Chemical Oxygen Demand (COD)	29.9		10.0	mg/L		06/25/14 1247	06/26/14 1305	SRS
Method: SM2320 B-1997 Alkalinity, Total	272		2.00	mg equiv CaCO3/L		06/27/14 1230	06/27/14 1230	JPP
Method: SM2340 C-1997 Total Dissolved Solids - TDS	250	500	10.0	mg/L		06/25/14 0900	06/25/14 0900	KAL
Method: SM4500 H+ B-2000 pH	7.05		0.0100	pH Units	H1,Y	06/24/14 1602	06/24/14 1625	NSF
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD5)	15.0		6.00	mg/L		06/25/14 0800	06/30/14 1702	NSF
Method: SM5310 C-2000 Total Organic Carbon - TOC	2.75		0.500	mg/L		06/30/14 1612	07/02/14 1215	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4F2585

Analytical Testing Parameters

Client Sample ID: SW-Carlin
Lab Sample ID: S4F2585-05
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 14:45
Collected By: fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	< 0.001		0.001	mg/L		06/30/14 0000	06/30/14 1130	SPC
Cadmium, Dissolved	< 0.001		0.001	mg/L		06/30/14 0000	07/01/14 1320	SPC
Calcium	16.6		0.050	mg/L		06/30/14 0000	06/30/14 1130	SPC
Calcium, Dissolved	14.8		0.050	mg/L		06/30/14 0000	07/01/14 1320	SPC
Iron	0.035		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Iron, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Lead	< 0.010		0.010	mg/L		06/30/14 0000	06/30/14 1130	SPC
Lead, Dissolved	< 0.010		0.010	mg/L		06/30/14 0000	07/01/14 1320	SPC
Magnesium	4.22		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Magnesium, Dissolved	3.91		0.025	mg/L		06/30/14 0000	07/01/14 1320	SPC
Manganese	0.027		0.002	mg/L		06/30/14 0000	06/30/14 1130	SPC
Manganese, Dissolved	0.013		0.002	mg/L		06/30/14 0000	07/01/14 1320	SPC
Potassium	1.76		0.500	mg/L		06/30/14 0000	06/30/14 1130	SPC
Potassium, Dissolved	1.91		0.500	mg/L		06/30/14 0000	07/01/14 1320	SPC
Sodium	29.6		0.500	mg/L	L	06/30/14 0000	06/30/14 1130	SPC
Sodium, Dissolved	29.6		0.500	mg/L	L	06/30/14 0000	07/01/14 1320	SPC
Thallium	< 0.025		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Thallium, Dissolved	< 0.025		0.025	mg/L		06/30/14 0000	07/01/14 1320	SPC
Vanadium	< 0.005		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Vanadium, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Zinc	0.006		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Zinc, Dissolved	0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		06/29/14 1150	06/29/14 1150	NSF
Chloride	48.7		1.00	mg/L		06/29/14 1150	06/29/14 1150	NSF
Sulfate as SO4	7.78		0.250	mg/L		06/29/14 1150	06/29/14 1150	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	0.00			°C	Y	06/23/14 1445	06/23/14 1445	FSC
Method: SM4500 H+ B-2000								
pH	<0.0100		0.0100	pH Units	Y	06/23/14 1445	06/23/14 1445	FSC

Microbac Laboratories, Inc.



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS
S4F2585

Analytical Testing Parameters

Client Sample ID: SW-Carlin
Lab Sample ID: S4F2585-05
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 14:45
Collected By: fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	<0.100		0.100	mg/L		06/26/14 1506	06/26/14 1722	KED
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		06/25/14 1042	06/27/14 1018	JPP
Method: EPA 353.2, Rv 2.0 Nitrate as N	0.230		0.0500	mg/L		06/24/14 1200	06/24/14 1351	SXG
Nitrate-Nitrite as N	0.230		0.0500	mg/L	Y	06/24/14 1200	06/24/14 1351	SXG
Nitrite as N	<0.0250		0.0250	mg/L		06/24/14 1200	06/24/14 1317	SXG
Method: EPA 420.4, Rv 1 Phenols	<0.0250		0.0250	mg/L	Q2	06/25/14 1018	06/30/14 1144	SXG
Method: HACH 8000 Chemical Oxygen Demand (COD)	48.5		10.0	mg/L		06/25/14 1247	06/26/14 1305	SRS
Method: SM2320 B-1997 Alkalinity, Total	52.0		2.00	mg equiv CaCO3/L		06/27/14 1230	06/27/14 1230	JPP
Method: SM2340 C-1997 Total Dissolved Solids - TDS	144	500	10.0	mg/L		06/25/14 0900	06/25/14 0900	KAL
Method: SM4500 H+ B-2000 pH	6.27		0.0100	pH Units	H1,Y	06/24/14 1602	06/24/14 1625	NSF
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		06/25/14 0800	06/30/14 1702	NSF
Method: SM5310 C-2000 Total Organic Carbon - TOC	1.67		0.500	mg/L		06/30/14 1612	07/02/14 1215	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4F2585

Analytical Testing Parameters

Client Sample ID: MW-38D
Lab Sample ID: S4F2585-06
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 14:18
Collected By: fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	< 0.001		0.001	mg/L		06/30/14 0000	06/30/14 1130	SPC
Cadmium, Dissolved	< 0.001		0.001	mg/L		06/30/14 0000	07/01/14 1320	SPC
Calcium	121		0.050	mg/L		06/30/14 0000	06/30/14 1130	SPC
Calcium, Dissolved	31.9		0.050	mg/L		06/30/14 0000	07/01/14 1320	SPC
Iron	105		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Iron, Dissolved	0.027		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Lead	0.118		0.010	mg/L		06/30/14 0000	06/30/14 1130	SPC
Lead, Dissolved	< 0.010		0.010	mg/L		06/30/14 0000	07/01/14 1320	SPC
Magnesium	36.2		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Magnesium, Dissolved	7.90		0.025	mg/L	L	06/30/14 0000	07/01/14 1320	SPC
Manganese	16.2		0.002	mg/L	L	06/30/14 0000	06/30/14 1130	SPC
Manganese, Dissolved	0.005		0.002	mg/L		06/30/14 0000	07/01/14 1320	SPC
Potassium	3.11		0.500	mg/L		06/30/14 0000	06/30/14 1130	SPC
Potassium, Dissolved	1.45		0.500	mg/L		06/30/14 0000	07/01/14 1320	SPC
Sodium	25.0		0.500	mg/L	L	06/30/14 0000	06/30/14 1130	SPC
Sodium, Dissolved	36.9		0.500	mg/L	L	06/30/14 0000	07/01/14 1320	SPC
Thallium	< 0.025		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Thallium, Dissolved	< 0.025		0.025	mg/L		06/30/14 0000	07/01/14 1320	SPC
Vanadium	0.054		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Vanadium, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Zinc	0.339		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Zinc, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		06/29/14 1150	06/29/14 1150	NSF
Chloride	10.5		1.00	mg/L		06/29/14 1150	06/29/14 1150	NSF
Sulfate as SO4	10.4		0.250	mg/L		06/29/14 1150	06/29/14 1150	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	0.00			°C	Y	06/23/14 1418	06/23/14 1418	FSC
Method: SM4500 H+ B-2000								
pH	<0.0100		0.0100	pH Units	Y	06/23/14 1418	06/23/14 1418	FSC

Microbac Laboratories, Inc.



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS
S4F2585

Analytical Testing Parameters

Client Sample ID: MW-38D
Lab Sample ID: S4F2585-06
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 14:18
Collected By: fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	<0.100		0.100	mg/L		06/26/14 1506	06/26/14 1723	KED
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	4.95		1.00	mg/L		06/25/14 1042	06/27/14 1018	JPP
Method: EPA 353.2, Rv 2.0 Nitrate as N	0.164		0.0500	mg/L		06/24/14 1200	06/24/14 1351	SXG
Nitrate-Nitrite as N	0.164		0.0500	mg/L	Y	06/24/14 1200	06/24/14 1351	SXG
Nitrite as N	<0.0250		0.0250	mg/L		06/24/14 1200	06/24/14 1318	SXG
Method: EPA 420.4, Rv 1 Phenols	<0.0250		0.0250	mg/L	Q2	06/25/14 1018	06/30/14 1144	SXG
Method: HACH 8000 Chemical Oxygen Demand (COD)	15.9		10.0	mg/L		06/25/14 1247	06/26/14 1305	SRS
Method: SM2320 B-1997 Alkalinity, Total	186		2.00	mg equiv CaCO3/L		06/27/14 1230	06/27/14 1230	JPP
Method: SM2340 C-1997 Total Dissolved Solids - TDS	204	500	10.0	mg/L		06/25/14 0900	06/25/14 0900	KAL
Method: SM4500 H+ B-2000 pH	7.53		0.0100	pH Units	H1,Y	06/24/14 1602	06/24/14 1625	NSF
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		06/25/14 0800	06/30/14 1702	NSF
Method: SM5310 C-2000 Total Organic Carbon - TOC	1.40		0.500	mg/L		06/30/14 1612	07/02/14 1215	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4F2585

Analytical Testing Parameters

Client Sample ID: MW-37
Lab Sample ID: S4F2585-07
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 12:45
Collected By: fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	< 0.001		0.001	mg/L		06/30/14 0000	06/30/14 1130	SPC
Cadmium, Dissolved	< 0.001		0.001	mg/L		06/30/14 0000	07/01/14 1320	SPC
Calcium	47.3		0.050	mg/L		06/30/14 0000	06/30/14 1130	SPC
Calcium, Dissolved	40.3		0.050	mg/L		06/30/14 0000	07/01/14 1320	SPC
Iron	0.246		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Iron, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Lead	< 0.010		0.010	mg/L		06/30/14 0000	06/30/14 1130	SPC
Lead, Dissolved	< 0.010		0.010	mg/L		06/30/14 0000	07/01/14 1320	SPC
Magnesium	7.73		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Magnesium, Dissolved	6.96		0.025	mg/L		06/30/14 0000	07/01/14 1320	SPC
Manganese	0.036		0.002	mg/L		06/30/14 0000	06/30/14 1130	SPC
Manganese, Dissolved	< 0.002		0.002	mg/L		06/30/14 0000	07/01/14 1320	SPC
Potassium	1.92		0.500	mg/L		06/30/14 0000	06/30/14 1130	SPC
Potassium, Dissolved	2.04		0.500	mg/L		06/30/14 0000	07/01/14 1320	SPC
Sodium	8.74		0.500	mg/L		06/30/14 0000	06/30/14 1130	SPC
Sodium, Dissolved	8.34		0.500	mg/L		06/30/14 0000	07/01/14 1320	SPC
Thallium	< 0.025		0.025	mg/L		06/30/14 0000	06/30/14 1130	SPC
Thallium, Dissolved	< 0.025		0.025	mg/L		06/30/14 0000	07/01/14 1320	SPC
Vanadium	< 0.005		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Vanadium, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC
Zinc	0.009		0.005	mg/L		06/30/14 0000	06/30/14 1130	SPC
Zinc, Dissolved	< 0.005		0.005	mg/L		06/30/14 0000	07/01/14 1320	SPC

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		06/29/14 1150	06/29/14 1150	NSF
Chloride	18.7		1.00	mg/L		06/29/14 1150	06/29/14 1150	NSF
Sulfate as SO4	13.1		0.250	mg/L		06/29/14 1150	06/29/14 1150	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	0.00			°C	Y	06/23/14 1245	06/23/14 1245	FSC
Method: SM4500 H+ B-2000								
pH	<0.0100		0.0100	pH Units	Y	06/23/14 1245	06/23/14 1245	FSC

Microbac Laboratories, Inc.



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4F2585

Analytical Testing Parameters

Client Sample ID: MW-37
Lab Sample ID: S4F2585-07
Sample Type: Grab

Collection Date: 06/23/14
Collection Time: 12:45
Collected By: fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	<0.100		0.100	mg/L		06/26/14 1506	06/26/14 1725	KED
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L	S	06/25/14 1042	06/27/14 1018	JPP
Method: EPA 353.2, Rv 2.0 Nitrate as N	0.0751		0.0500	mg/L		06/24/14 1200	06/24/14 1351	SXG
Nitrate-Nitrite as N	0.0751		0.0500	mg/L	Y	06/24/14 1200	06/24/14 1351	SXG
Nitrite as N	<0.0250		0.0250	mg/L		06/24/14 1200	06/24/14 1319	SXG
Method: EPA 420.4, Rv 1 Phenols	<0.0250		0.0250	mg/L	Q2	06/25/14 1018	06/30/14 1144	SXG
Method: HACH 8000 Chemical Oxygen Demand (COD)	<10.0		10.0	mg/L		06/25/14 1247	06/26/14 1305	SRS
Method: SM2320 B-1997 Alkalinity, Total	122		2.00	mg equiv CaCO ₃ /L		06/27/14 1230	06/27/14 1230	JPP
Method: SM2340 C-1997 Total Dissolved Solids - TDS	184	500	10.0	mg/L		06/25/14 0900	06/25/14 0900	KAL
Method: SM4500 H+ B-2000 pH	7.25		0.0100	pH Units	H1,Y	06/24/14 1602	06/24/14 1625	NSF
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD ₅)	<6.00		6.00	mg/L		06/25/14 0800	06/30/14 1702	NSF
Method: SM5310 C-2000 Total Organic Carbon - TOC	0.818		0.500	mg/L		06/30/14 1612	07/02/14 1215	KED

Definitions

H1:	Sample received past holding time.
L:	Value above calibration range but within annually verified linear range
Q2:	LCS recovery is above acceptance limits. However there is no impact on the sample result.
S:	Spike recovery outside of acceptance limits.
Y:	This analyte is not on the the laboratory's current Scope of Accreditation.
MCL:	Maximum Contamination Level
PQL:	Practical Quantitation Limit



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS

S4F2585

Cooler Receipt Log:

Cooler ID:	Default Cooler	Received On Ice (or not required):	Yes
Cooler Temp:	3.40 °C	Preservation Correct (or not required):	Yes
COC/Labels Agree:	Yes	Custody Seals Intact and/or No Evidence of Tampering	Yes
Containers Intact:	Yes		

Project Requested Certification(s):

Certificate ID	Agency
NY Lab ID No.: 11216, Serial No.: 4993	New York State Department of Health

Report Comments:

In accordance with NYSDOH-ELAP and NELAP, any non-conformance of these regulations are noted directly on the laboratory as qualifiers and/or noted in the case narrative.

Reviewed and Approved By:

Renee Lantz
Project Manager

Go Green:

Contact your project manager to set up email reporting and invoicing options.

For any feedback concerning our services, please contact your Project Manager listed above at 570-888-0169. You may also contact Trevor Boyce President, at president@microbac.com.

Benchmark Analytics
2566 Pennsylvania Avenue • Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

S 4 F 2 5 8 5

Conklin, Town of

REPORT TO:	Town of Conklin
CONTACT	
PH#	
FAX#	
BILL TO:	
PO#	
PROJECT DESCRIPTION	
SAMPLER SIGNATURE / AFFILIATION	
Container	Sample Point No./Type

REFRIGERATE SAMPLES AFTER COLLECTION

**TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE**

SAMPLE	TIME OF SAMPLING	DATE SAMPLED
--------	------------------	--------------

RESULTS ARE BEING USED FOR:			
NYDOH	NYDEC	PADEP	
	LANDFILL		
PERSONAL	OTHER		

DW	DRINKING WATER	SL	SLUDGE
GW	GROUND WATER	SO	SOIL
SW	SURFACE WATER	HZ	HAZARDOUS
WW	WASTE WATER	OTHER	
DE	DEIONIZED WATER	DI	DISTILLED WATER

LABORATORY IN COOLER WITH ICE	DATE SAMPLED	TIME OF SAMPLING	SAMPLE MATRIX	SAMPLE TYPE - GRAB / COMPOSITE	SAMPLER INITIALS	PRESERVER

H	HYDROCHLORIC ACID	OH	SODIUM HYDROXIDE
S	SULFURIC ACID	AS	ASCORBIC ACID
N	NITRIC ACID	AC	ACETIC ACID
SO ₃	SODIUM SULFITE	NH ₄	AMMONIUM CHLORIDE
Thio	SODIUM THIOSULFATE	ZN	ZINC ACETATE
-	NONE	Hg	MERCURIC CHLORIDE

An incomplete chain of custody may delay the processing of your sample(s).

**ANALYSIS TO BE PERFORMED
(PER CONTAINER)**

1	MW-3	6-23	1300	6W	6	FC			
2	✓	✓	✓	✓	✓	✓	S	Alk	
3								NH ₃ , COD	
4								BOD, pH	
5								Bromide	
6								Cl ₂ Sulfate	
7								NO ₃ , TDS	
8								Pb, Ca, Cd, Fe, K, Mn, Na, Ti, V, Zn, Mg, T, Hardness	N
9								Phenols	S
10								TKN, NO ₃	S
11								TUC	S
12								Diso Pb, Ca, Cd, Fe, K, Mn, Na, Ti, V, Zn, Mg, T, Hardness	✓

LAB USE ONLY

DELIVERED BY

FC

TEMPERATURE UPON RECEIPT

3.4

°C

ARRIVAL ON ICE

(Y)N

ELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
Dean Connor	6/23/14	18:00		/ /	
ELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
	/ /			/ /	
ELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
	/ /		Debbie McCarty	6/24/14	10:50

CHAIN OF CUSTODY

Benchmark Analytics
2566 Pennsylvania Avenue • Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

PAGE 2 OF 2

REPORT TO: Town of Conklin

CONTACT

PH#

FAX#

BILL TO:

PO#

PROJECT DESCRIPTION

SAMPLER SIGNATURE / AFFILIATION

Container Sample Point No./Type

1	MW-12	6-23 1500	6W	6	FC
2	MW-4	1400	↓	↓	↓
3	MW-1 upgradient	1430	↓	↓	↓
4	SW - center	1445 SW	↓	↓	↓
5	MW-38D	1410 6W	↓	↓	↓
6	MW-37	1245	↓	↓	↓
7					
8					
9					
10					
11					

LAB USE ONLY

DELIVERED BY

FC

TEMPERATURE UPON RECEIPT 3.4 °C

ARRIVAL ON ICE YN

ELINQUISHED BY:

DATE: / /

TIME:

RECEIVED BY:

DATE: / /

TIME:

RECEIVED BY:

DATE: / /

TIME:

DATE: / /

TIME: 10:50

ARE SPECIAL DETECTION LIMITS
NEEDED: YES / NO
IF YES, PLEASE ATTACH
IS A QC PACKAGE NEEDED?
YES NO
IF YES, PLEASE ATTACH REQUIREMENTS

RESULTS ARE BEING USED FOR:
NYDOH NYDEC PADEP
LANDFILL
PERSONAL OTHER

REFRIGERATE SAMPLES AFTER COLLECTION
TRANSPORT TO LABORATORY IN COOLER WITH ICE

DRINKING WATER SL SLUDGE
GW GROUND WATER SO SOIL
SW SURFACE WATER HZ HAZARDOUS
WW WASTE WATER OTHER
DE DEIONIZED WATER DI DISTILLED WATER

PWS ID#
Location
Sample Point

H HYDROCHLORIC ACID OH SODIUM HYDROXIDE
S SULFURIC ACID AS ASCORBIC ACID
N NITRIC ACID AC ACETIC ACID
SO₃ SODIUM SULFITE NH₄ AMMONIUM CHLORIDE
Thio SODIUM THIOSULFATE ZN ZINC ACETATE
- NONE Hg MERCURIC CHLORIDE

SAMPLER INITIALS
SAMPLE TYPE - GRAB / COMPOSITE

Chlorine Residual
☐ Free
☐ Total

DATE SAMPLED
TIME OF SAMPLING
SAMPLE MATRIX

ANALYSIS TO BE PERFORMED (PER CONTAINER)
An incomplete chain of custody may delay the processing of your sample(s).

COMPOSITED ON RECEIPT
PRESERVATIVE ADDED ON



Conklin, Town of

CHAIN OF CUSTODY

Benchmark Analytics
2566 Pennsylvania Avenue • Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

PAGE 2 OF 2

REPORT TO: Town of Conklin	
CONTACT	
PH#	
FAX#	
BILL TO:	
PO#	
PROJECT DESCRIPTION	
SAMPLER SIGNATURE / AFFILIATION	
Container	Sample Point No./Type
1	MW-12
2	MW-41
3	MW-1 upgradient
4	SW-conclin
5	MW-38B
6	MW-37
7	
8	
9	
10	
11	

REFRIGERATE SAMPLES
AFTER COLLECTION

TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

DW DRINKING WATER
GW GROUND WATER
SW SURFACE WATER
WW WASTE WATER
DE DEIONIZED WATER

SL SLUDGE
SO SOIL
HZ HAZARDOUS
DI DISTILLED WATER
OTHER

H HYDROCHLORIC ACID
S SULFURIC ACID
N NITRIC ACID
SO₃ SODIUM SULFITE
Thio SODIUM THIOSULFATE
- NONE

OH SODIUM HYDROXIDE
AS ASCORBIC ACID
AC ACETIC ACID
NH₄ AMMONIUM CHLORIDE
Zn ZINC ACETATE
Hg MERCURIC CHLORIDE

PWS ID#
Location
Sample Point

An incomplete chain of custody may delay the processing of your sample(s).

ANALYSIS TO BE PERFORMED
(PER CONTAINER)

Chlorine Residual
☐ Free
☐ Total

PREPARED BY
COMPOSITE ON
RECEIPT
PRESERVATIVE
ADDED ON



Conklin, Town of

LAB USE ONLY

DELIVERED BY FC TEMPERATURE UPON RECEIPT 3.4 °C ARRIVAL ON ICE YN

RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY:	DATE: / /	TIME:

DATE: 6/24/14 TIME: 10:50

Deborah McCarty

CONCRETE LANDFILL GROUNDWATER SAMPLING FIELD DATA SHEET

General Information

Well# MW3 Sequence 4 Physical Condition OK

Weather Conditions Partly Cloudy 77°F

Sampling Technician(s) Fran Connor

Additional People Present _____

Purging Information

Date 6-23-14 Purge Method Bailer Pump

Purge Time Start 12:55 Stop _____

Total Depth 22.35 2.0" LWC X 0.163 = 2.84 Gals.

Depth to Water 4.92 4.0" LWC X 0.6532 = _____ Gals.

Length of Column 17.43 6.0" LWC X 1.469 = _____ Gals.

3 Volumes of Water 8.52 Actual Volume Removed 8.75 Gals.

Purge Water Characteristics

Color Brown Odor (field) None

Visual Turbidity Extreme Immiscible Layers None

Sampling Information

Date 6-23-14 Sample Method Bailer Pump

Sample Time 13:00 pH (field) 6.37 @ 17.3 °F

Notes: _____

CONSTANT LANDFILL GROUNDWATER SAMPLING FIELD DATA SHEET

General Information	
Well# MW 12	Sequence 1
Physical Condition OK	
Weather Conditions Sunny 73°F	
Sampling Technician(s) Fran Rodriguez	
Additional People Present	
Purging Information	
Date 6-23-14	Purge Time Start 10:10
Total Depth 19.13	Depth to Water 13.40
Length of Column 5.73	Volume of Water 2.79
Purge Water Characteristics	
Color Brown	Visual Turbidity Moderate
Sampling Information	
Date 6-23-14	Sample Time 1500
Notes:	
Sample Method <u>Beiter Pump</u> Sample Method <u>Beiter Pump</u> pH (field) 6.77 @ 15.6 °C Actual Volume Removed 2.0 Gals 6.0 LWC X 1.469 = Gals 2.0 LWC X 0.6532 = Gals 2.0 LWC X 0.163 = 0.93 Gals Stop 10:25 Sample Method <u>Beiter Pump</u> Sample Method <u>Beiter Pump</u> Odor (field) None Immiscible Layers None	

CONKIN LANDFILL GROUNDWATER SAMPLING FIELD DATA SHEET

Well# MW4		Sequence 7	Physical Condition OK	Weather Conditions Overcast 77°F	Sampling Technician(s) Fran Ronger	Additional People Present
Purging Information						
Date	6-23-14	Purge Time Start	13:45	Total Depth	19.14	Depth to Water
			10.68	Length of Column	8.46	3 Volumes of Water
					4.14	Purge Water Characteristics
Color	Brown	Visual Turbidity	Moderate	Purging Information		
Immiscible Layers None						
Odor (field)	None	Sample Method (Bailer) Pump				
Sample Method (Bailer) Pump						
Actual Volume Removed 4.5 Gals.						
6.0" LWC X 1.469 =						
Gals.						
4.0" LWC X 0.6532 =						
Gals.						
2.0" LWC X 0.163 = 1.38						
Gals.						
Step 13.55						
Sample Method (Bailer) Pump						
pH (field) 6.64 @ 16.4						
Sample Time 14:00						
Date 6-23-14						
Notes:						

CONCRETE LANDFILL GROUNDWATER SAMPLING FIELD DATA SHEET

General Information

Well# Mw 1 Sequence 2 Physical Condition OK
 Weather Conditions Sunny 73°F
 Sampling Technician(s) Fran Cozart
 Additional People Present _____

Purging Information

Date 6-23-14 Purge Method Bailer Pump
 Purge Time Start 10:50 Stop 11:15
 Total Depth 62.91 2.0" LWC X 0.163 = 5.87 Gals.
 Depth to Water 26.89 4.0" LWC X 0.6532 = _____ Gals.
 Length of Column 36.02 6.0" LWC X 1.469 = _____ Gals.
 3 Volumes of Water 17.61 Actual Volume Removed 17.8 Gals.

Purge Water Characteristics

Color Clear - Brown Odor (field) None
 Visual Turbidity Slight Immiscible Layers None

Sampling Information

Date 6-23-14 Sample Method Bailer Pump
 Sample Time 14:30 pH (field) 7.64 @ 14.6 ft

Notes:

well bailed dry, sampled when recovered

CONKLE LANDFILL
DEPTH TO GROUNDWATER
FIELD DATA SHEET

General Information	
Well# SW Conklin Sequence 10	Physical Condition
Weather Conditions	
Partly Cloudy 78	
Sampling Technician(s)	Fran Connor
Additional People Present	
Depth Information	
Date	6-23-14
Depth Reading Time	14.45
Depth to Water	NA
Notes:	
PH 6.92 @ 22.4°F	
Very low Flow	

CONELIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW 38D Sequence 9 Physical Condition OK

Weather Conditions Partly Cloudy

Sampling Technician(s) Fran Connor

Additional People Present _____

Purging Information

Date 6-23-14 Purge Method Bailer Pump

Purge Time Start 14:08 Stop 14:15

Total Depth 24.13 2.0" LWC X 0.163= 3.03 Gals.

Depth to Water 5.52 4.0" LWC X 0.6532= _____ Gals.

Length of Column 18.61 6.0" LWC X 1.469= _____ Gals.

3 Volumes of Water 9.09 Actual Volume Removed 3.0 Gals.

Purge Water Characteristics

Color Brown Odor (field) None

Visual Turbidity Extreme Immiscible Layers None

Sampling Information

Date 14:15 6-23-14 Sample Method Bailer Pump

Sample Time 14:18 pH (field) 7.67 @ 17.6 °F

Notes:

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW 31 Sequence 3 Physical Condition See below
Weather Conditions Sunny 77°F
Sampling Technician(s) Fran Conner
Additional People Present _____

Purging Information

Date 6-23 Purge Method Bailer Pump
Purge Time Start 10:35 Stop 11:45
Total Depth 15.82 2.0" LWC X 0.163 = 1.16 Gals.
Depth to Water 8.12 4.0" LWC X 0.6532 = _____ Gals.
Length of Column 7.1 6.0" LWC X 1.469 = _____ Gals.
3 Volumes of Water 3.48 Actual Volume Removed 40 Gals.

Purge Water Characteristics

Color Clear Odor (field) None
Visual Turbidity Slight Immiscible Layers None

Sampling Information

Date 6-23-14 Sample Method Bailer Pump
Sample Time 12:45 pH (field) 7.65 @ 16.4 °F

Notes:

Well bent, hard to bail.

CONKLE LANDFILL
DEPTH TO GROUNDWATER
FIELD DATA SHEET

General Information

Well# MW 14 Sequence 5 Physical Condition OK

Weather Conditions

overcast 77°F

Sampling Technician(s)

Fran Connor

Additional People Present

Depth Information

Date 6-23-14

Depth Reading Time 13.35

Depth to Water 32.16

Notes:

CONKIN LANDFILL DEPTH TO GROUNDWATER FIELD DATA SHEET

General Information

Well# MW 2 Sequence 6 Physical Condition See below

Weather Conditions

Overcast 77°F

Sampling Technician(s)

Fran Connor

Additional People Present

Depth Information

Date 6-23-14

Depth Reading Time 13:37

Depth to Water

Notes:

Well obstructed at 18.5'

CONKLE LANDFILL
DEPTH TO GROUNDWATER
PIECE DATA SHEET

General Information	
Well#	MW 30S
Sequence	8
Physical Condition	OK
Weather Conditions	
Partly Cloudy 77°F	
Sampling Technician(s)	
Fran Connor	
Additional People Present	
Depth Information	
Date	6-23-14
Depth Reading Time	14:05
Depth to Water	5.72
Notes:	



Benchmark Analytics Sayre, A Microbac Laboratory
CERTIFICATE OF ANALYSIS

S4I2418

Project Name: Conklin Landfill

Conklin, Town of

Tom Delamarter

P.O. Box 182

Conklin, NY 13748

Project / PO Number: N/A

Received: 09/25/2014 08:00

Reported: 11/29/2014 12:52

Case Narrative

Introduction

This report was prepared to convey the analytical results of surface and groundwater samples, as well as groundwater depth measurements, as part of compliance monitoring for the New York State Department of Environmental Conservation. Samples were taken on September 24, 2014, iced and submitted to Benchmark Analytics for analysis.

Sampling

Samples of surface and groundwater were taken by personnel from Test Assured Network. Sample containers, supplied by Benchmark Analytics, were filled, iced, and transported to the laboratory at the end of the sampling day. Site dedicated bailers and dedicated pump tubing were used to eliminate possible cross contamination. Chain-of-Custody forms accompanied the sample group and are given in the Chain-of-Custody Section of this report.

Analyses

Individual reports for each sample site are contained in the Laboratory Reports Section of this report.

Holding Times

All samples were analyzed within method specified holding times.

Spreadsheet Summaries

Spreadsheet Summaries are included in the Spreadsheet section of this report. Subsequent quarterly monitoring events will include cumulative spreadsheets.

QA/QC Procedures

At a minimum, the following QA/QC procedures were followed to support data reliability.

- 1 Chain-of-Custody forms were submitted with the sample group
- 2 Instrument or method blanks were analyzed for each parameter
- 3 QC analysis was performed on 10% of the samples
- 4 Matrix spike and Matrix spike duplicate samples were performed on 10% of samples

Discussion

All of the monitoring wells were sampled this quarter. Carlin Creek was clear and had a below average flow. Some of the wells were purged to dryness and were sampled throughout the day to obtain sufficient sample. Monitoring well 2 (a depth well only) has a blockage or broken casing at about 19 feet, making a depth reading impossible. Monitoring well 37 has a bent casing and was difficult to purge.



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS

S412418

Microbac Laboratories, Inc.



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-3
Lab Sample ID: S4I2418-01
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 13:50
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	0.001		0.001	mg/L		09/29/14 0000	10/06/14 1355	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		10/08/14 1420	10/08/14 1420	KMG
Calcium	46.8		0.050	mg/L		09/29/14 0000	10/06/14 1355	KMG
Calcium, Dissolved	33.8		0.050	mg/L		10/08/14 1420	10/08/14 1420	KMG
Hardness, Calculation	172		0.373	mg/L		09/29/14 0000	10/06/14 1355	KMG
Iron	27.9		0.005	mg/L		09/29/14 0000	10/06/14 1355	KMG
Iron, Dissolved	0.008		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG
Lead	0.021		0.010	mg/L		09/29/14 0000	10/06/14 1355	KMG
Lead, Dissolved	< 0.010		0.010	mg/L		10/08/14 1420	10/08/14 1420	KMG
Magnesium	13.4		0.025	mg/L		09/29/14 0000	10/06/14 1355	KMG
Magnesium, Dissolved	7.77		0.025	mg/L		10/08/14 1420	10/08/14 1420	KMG
Manganese	0.590		0.002	mg/L		09/29/14 0000	10/06/14 1355	KMG
Manganese, Dissolved	0.146		0.002	mg/L		10/08/14 1420	10/08/14 1420	KMG
Potassium	3.02		0.500	mg/L		09/29/14 0000	10/06/14 1355	KMG
Potassium, Dissolved	< 0.500		0.500	mg/L		10/08/14 1420	10/08/14 1420	KMG
Sodium	10.2		0.500	mg/L		09/29/14 0000	10/06/14 1355	KMG
Sodium, Dissolved	9.20		0.500	mg/L		10/08/14 1420	10/08/14 1420	KMG
Thallium	< 0.025		0.025	mg/L		09/29/14 0000	10/06/14 1355	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		10/08/14 1420	10/08/14 1420	KMG
Vanadium	0.025		0.005	mg/L		09/29/14 0000	10/06/14 1355	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG
Zinc	0.083		0.005	mg/L		09/29/14 0000	10/06/14 1355	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		10/07/14 1646	10/07/14 1646	NSF
Chloride	7.60		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF
Sulfate as SO ₄	7.35		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF

Field Parameters

Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
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Microbac Laboratories, Inc.



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-3
Lab Sample ID: S4I2418-01
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 13:50
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	18.1			°C	Y	09/24/14 1350	09/24/14 1350	FSC
Method: SM4500 H+ B-2000								
pH	<0.0100		0.0100	pH Units	Y	09/24/14 1350	09/24/14 1350	FSC

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2								
Ammonia as N	<0.100		0.100	mg/L	M1	09/25/14 1025	09/25/14 1859	PMD
Method: EPA 351.2, Rv 2								
Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		09/29/14 1850	09/30/14 1347	KED
Method: EPA 353.2, Rv 2.0								
Nitrate as N	<0.0500		0.0500	mg/L		09/26/14 0900	09/26/14 1321	SXG
Nitrate-Nitrite as N	<0.0500		0.0500	mg/L	Y	09/26/14 0900	09/26/14 1321	SXG
Nitrite as N	<0.0250		0.0250	mg/L		09/26/14 0900	09/26/14 1135	SXG
Method: EPA 420.4, Rv 1								
Phenols	<0.0250		0.0250	mg/L	Q1	09/26/14 0813	09/29/14 1708	SXG
Method: Hach 8000								
Chemical Oxygen Demand (COD)	10.9		10.0	mg/L		09/29/14 1925	09/30/14 1230	NSF
Method: SM2320 B-1997								
Alkalinity, Total	134		2.00	mg equiv CaCO3/L		09/26/14 1658	09/29/14 0813	SRS
Method: SM2340 C-1997								
Total Dissolved Solids - TDS	96.0		10.0	mg/L		09/25/14 1045	09/25/14 1700	NSF
Method: SM4500 H+ B-2000								
pH	6.47		0.0100	pH Units	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Temperature	22.3			°C	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Method: SM5210 B-2001								
Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		09/25/14 1000	09/30/14 1410	KAL
Method: SM5310 C-2000								
Total Organic Carbon - TOC	1.80		0.500	mg/L		09/25/14 1232	09/26/14 1953	KED



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CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-12
Lab Sample ID: S4I2418-02
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 16:10
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	0.001		0.001	mg/L		09/29/14 0000	10/07/14 0730	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		10/08/14 1420	10/08/14 1420	KMG
Calcium	41.3		0.050	mg/L		09/29/14 0000	10/07/14 0730	KMG
Calcium, Dissolved	33.4		0.050	mg/L		10/08/14 1420	10/08/14 1420	KMG
Hardness, Calculation	163		0.373	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron	19.4		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron, Dissolved	0.017		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG
Lead	0.011		0.010	mg/L		09/29/14 0000	10/07/14 0730	KMG
Lead, Dissolved	< 0.010		0.010	mg/L		10/08/14 1420	10/08/14 1420	KMG
Magnesium	14.5		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Magnesium, Dissolved	10.0		0.025	mg/L		10/08/14 1420	10/08/14 1420	KMG
Manganese	1.61		0.002	mg/L	L	09/29/14 0000	10/07/14 0730	KMG
Manganese, Dissolved	0.008		0.002	mg/L		10/08/14 1420	10/08/14 1420	KMG
Potassium	2.07		0.500	mg/L		09/29/14 0000	10/07/14 0730	KMG
Potassium, Dissolved	< 0.500		0.500	mg/L		10/08/14 1420	10/08/14 1420	KMG
Sodium	12.0		0.500	mg/L		09/29/14 0000	10/07/14 0730	KMG
Sodium, Dissolved	10.7		0.500	mg/L		10/08/14 1420	10/08/14 1420	KMG
Thallium	< 0.025		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		10/08/14 1420	10/08/14 1420	KMG
Vanadium	0.017		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG
Zinc	0.049		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	0.240		0.200	mg/L		10/07/14 1646	10/07/14 1646	NSF
Chloride	6.30		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF
Sulfate as SO ₄	12.0		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	15.7			°C	Y	09/24/14 1610	09/24/14 1610	FSC
Method: SM4500 H+ B-2000								

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Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-12
Lab Sample ID: S4I2418-02
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 16:10
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
pH	6.23		0.0100	pH Units	Y	09/24/14 1610	09/24/14 1610	FSC

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	<0.100		0.100	mg/L	Q6	09/25/14 1025	09/25/14 1906	PMD
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		09/29/14 1850	09/30/14 1348	KED
Method: EPA 353.2, Rv 2.0 Nitrate as N	<0.0500		0.0500	mg/L		09/26/14 0900	09/26/14 1322	SXG
Nitrate-Nitrite as N	<0.0500		0.0500	mg/L	Y	09/26/14 0900	09/26/14 1322	SXG
Nitrite as N	<0.0250		0.0250	mg/L		09/26/14 0900	09/26/14 1136	SXG
Method: EPA 420.4, Rv 1 Phenols	<0.0250		0.0250	mg/L	Q1	09/26/14 0813	09/29/14 1709	SXG
Method: Hach 8000 Chemical Oxygen Demand (COD)	22.6		10.0	mg/L		09/29/14 1925	09/30/14 1230	NSF
Method: SM2320 B-1997 Alkalinity, Total	134		2.00	mg equiv CaCO3/L		09/26/14 1658	09/29/14 0813	SRS
Method: SM2340 C-1997 Total Dissolved Solids - TDS	108		10.0	mg/L		09/25/14 1045	09/25/14 1700	NSF
Method: SM4500 H+ B-2000 pH	6.17		0.0100	pH Units	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Temperature	22.2			°C	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		09/25/14 1000	09/30/14 1410	KAL
Method: SM5310 C-2000 Total Organic Carbon - TOC	1.21		0.500	mg/L		09/25/14 1232	09/26/14 2015	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-4
Lab Sample ID: S4I2418-03
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 14:55
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	< 0.001		0.001	mg/L		09/29/14 0000	10/07/14 0730	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		10/08/14 1420	10/08/14 1420	KMG
Calcium	34.2		0.050	mg/L		09/29/14 0000	10/07/14 0730	KMG
Calcium, Dissolved	29.8		0.050	mg/L		10/08/14 1420	10/08/14 1420	KMG
Hardness, Calculation	129		0.373	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron	9.87		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron, Dissolved	0.008		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG
Lead	0.011		0.010	mg/L		09/29/14 0000	10/07/14 0730	KMG
Lead, Dissolved	< 0.010		0.010	mg/L		10/08/14 1420	10/08/14 1420	KMG
Magnesium	10.6		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Magnesium, Dissolved	8.20		0.025	mg/L		10/08/14 1420	10/08/14 1420	KMG
Manganese	1.02		0.002	mg/L	L	09/29/14 0000	10/07/14 0730	KMG
Manganese, Dissolved	0.011		0.002	mg/L		10/08/14 1440	10/08/14 1440	KMG
Potassium	1.83		0.500	mg/L		09/29/14 0000	10/07/14 0730	KMG
Potassium, Dissolved	0.661		0.500	mg/L		10/08/14 1420	10/08/14 1420	KMG
Sodium	7.67		0.500	mg/L		09/29/14 0000	10/07/14 0730	KMG
Sodium, Dissolved	6.72		0.500	mg/L		10/08/14 1420	10/08/14 1420	KMG
Thallium	< 0.025		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		10/08/14 1420	10/08/14 1420	KMG
Vanadium	0.012		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG
Zinc	0.026		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		10/07/14 1646	10/07/14 1646	NSF
Chloride	21.2		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF
Sulfate as SO ₄	10.5		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	17.2			°C	Y	09/24/14 1455	09/24/14 1455	FSC
Method: SM4500 H+ B-2000								

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Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-4
Lab Sample ID: S4I2418-03
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 14:55
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
pH	6.76		0.0100	pH Units	Y	09/24/14 1455	09/24/14 1455	FSC

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	<0.100		0.100	mg/L	Q6	09/25/14 1025	09/25/14 1908	PMD
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L	M1	09/29/14 1850	09/30/14 1351	KED
Method: EPA 353.2, Rv 2.0 Nitrate as N	0.0642		0.0500	mg/L		09/26/14 0900	09/26/14 1329	SXG
Nitrate-Nitrite as N	0.0642		0.0500	mg/L	Y	09/26/14 0900	09/26/14 1329	SXG
Nitrite as N	<0.0250		0.0250	mg/L		09/26/14 0900	09/26/14 1140	SXG
Method: EPA 420.4, Rv 1 Phenols	<0.0250		0.0250	mg/L	Q1	09/26/14 0813	09/29/14 1710	SXG
Method: Hach 8000 Chemical Oxygen Demand (COD)	10.9		10.0	mg/L		09/29/14 1925	09/30/14 1230	NSF
Method: SM2320 B-1997 Alkalinity, Total	92.0		2.00	mg equiv CaCO3/L		09/26/14 1658	09/29/14 0813	SRS
Method: SM2340 C-1997 Total Dissolved Solids - TDS	79.0		10.0	mg/L		09/25/14 1045	09/25/14 1700	NSF
Method: SM4500 H+ B-2000 pH	6.33		0.0100	pH Units	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Temperature	22.1			°C	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		09/25/14 1000	09/30/14 1410	KAL
Method: SM5310 C-2000 Total Organic Carbon - TOC	0.632		0.500	mg/L		09/25/14 1232	09/26/14 2037	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-1 Upgradient
Lab Sample ID: S4I2418-04
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 12:35
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	< 0.001		0.001	mg/L		09/29/14 0000	10/07/14 0730	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		10/08/14 1420	10/08/14 1420	KMG
Calcium	58.7		0.050	mg/L		09/29/14 0000	10/07/14 0730	KMG
Calcium, Dissolved	56.6		0.050	mg/L		10/08/14 1420	10/08/14 1420	KMG
Hardness, Calculation	222		0.373	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron	0.037		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG
Lead	< 0.010		0.010	mg/L		09/29/14 0000	10/07/14 0730	KMG
Lead, Dissolved	< 0.010		0.010	mg/L		10/08/14 1420	10/08/14 1420	KMG
Magnesium	18.2		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Magnesium, Dissolved	17.3		0.025	mg/L		10/08/14 1420	10/08/14 1420	KMG
Manganese	0.024		0.002	mg/L		09/29/14 0000	10/07/14 0730	KMG
Manganese, Dissolved	< 0.002		0.002	mg/L		10/08/14 1420	10/08/14 1420	KMG
Potassium	1.73		0.500	mg/L		09/29/14 0000	10/07/14 0730	KMG
Potassium, Dissolved	1.35		0.500	mg/L		10/08/14 1420	10/08/14 1420	KMG
Sodium	21.9		0.500	mg/L	L	09/29/14 0000	10/07/14 0730	KMG
Sodium, Dissolved	20.9		0.500	mg/L	L	10/08/14 1420	10/08/14 1420	KMG
Thallium	< 0.025		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		10/08/14 1420	10/08/14 1420	KMG
Vanadium	< 0.005		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG
Zinc	< 0.005		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		10/07/14 1646	10/07/14 1646	NSF
Chloride	1.60		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF
Sulfate as SO ₄	6.85		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	17.8			°C	Y	09/24/14 1235	09/24/14 1235	FSC
Method: SM4500 H+ B-2000								

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Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-1 Upgradient
Lab Sample ID: S4I2418-04
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 12:35
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
pH	6.81		0.0100	pH Units	Y	09/24/14 1235	09/24/14 1235	FSC

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	<0.100		0.100	mg/L	Q6	09/25/14 1025	09/25/14 1909	PMD
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		09/29/14 1850	09/30/14 1353	KED
Method: EPA 353.2, Rv 2.0 Nitrate as N	0.550		0.0500	mg/L		09/26/14 0900	09/26/14 1330	SXG
Nitrate-Nitrite as N	0.550		0.0500	mg/L	Y	09/26/14 0900	09/26/14 1330	SXG
Nitrite as N	<0.0250		0.0250	mg/L		09/26/14 0900	09/26/14 1141	SXG
Method: EPA 420.4, Rv 1 Phenols	<0.0250		0.0250	mg/L	Q3, R1	10/08/14 0847	10/13/14 1649	SXG
Method: Hach 8000 Chemical Oxygen Demand (COD)	13.3		10.0	mg/L		09/29/14 1925	09/30/14 1230	NSF
Method: SM2320 B-1997 Alkalinity, Total	250		2.00	mg equiv CaCO3/L		09/26/14 1658	09/29/14 0813	SRS
Method: SM2340 C-1997 Total Dissolved Solids - TDS	201		10.0	mg/L	R1	09/25/14 1045	09/25/14 1700	NSF
Method: SM4500 H+ B-2000 pH	7.35		0.0100	pH Units	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Temperature	22.1			°C	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		09/25/14 1000	09/30/14 1410	KAL
Method: SM5310 C-2000 Total Organic Carbon - TOC	1.30		0.500	mg/L		09/25/14 1232	09/26/14 2101	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: SW-Carlin
Lab Sample ID: S4I2418-05
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 12:55
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	< 0.001		0.001	mg/L		09/29/14 0000	10/07/14 0730	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		10/08/14 1420	10/08/14 1420	KMG
Calcium	21.1		0.050	mg/L		09/29/14 0000	10/07/14 0730	KMG
Calcium, Dissolved	20.2		0.050	mg/L		10/08/14 1420	10/08/14 1420	KMG
Hardness, Calculation	73.7		0.373	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron	0.010		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG
Lead	< 0.010		0.010	mg/L		09/29/14 0000	10/07/14 0730	KMG
Lead, Dissolved	< 0.010		0.010	mg/L		10/08/14 1420	10/08/14 1420	KMG
Magnesium	5.11		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Magnesium, Dissolved	4.72		0.025	mg/L		10/08/14 1420	10/08/14 1420	KMG
Manganese	0.011		0.002	mg/L		09/29/14 0000	10/07/14 0730	KMG
Manganese, Dissolved	0.008		0.002	mg/L		10/08/14 1440	10/08/14 1440	KMG
Potassium	2.12		0.500	mg/L		09/29/14 0000	10/07/14 0730	KMG
Potassium, Dissolved	1.91		0.500	mg/L		10/08/14 1420	10/08/14 1420	KMG
Sodium	33.7		0.500	mg/L	L	09/29/14 0000	10/07/14 0730	KMG
Sodium, Dissolved	32.7		0.500	mg/L	L	10/08/14 1420	10/08/14 1420	KMG
Thallium	< 0.025		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		10/08/14 1420	10/08/14 1420	KMG
Vanadium	< 0.005		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG
Zinc	< 0.005		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		10/08/14 1420	10/08/14 1420	KMG

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		10/07/14 1646	10/07/14 1646	NSF
Chloride	56.2		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF
Sulfate as SO ₄	8.00		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	19.8			°C	Y	09/24/14 1235	09/24/14 1235	FSC
Method: SM4500 H+ B-2000								

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Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS
S4I2418

Analytical Testing Parameters

Client Sample ID: SW-Carlin
Lab Sample ID: S4I2418-05
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 12:55
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
pH	6.74		0.0100	pH Units	Y	09/24/14 1235	09/24/14 1235	FSC

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	<0.100		0.100	mg/L	Q6	09/25/14 1025	09/25/14 1911	PMD
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	1.10		1.00	mg/L		09/29/14 1850	09/30/14 1354	KED
Method: EPA 353.2, Rv 2.0 Nitrate as N	0.0688		0.0500	mg/L		09/26/14 0900	09/26/14 1331	SXG
Nitrate-Nitrite as N	0.0688		0.0500	mg/L	Y	09/26/14 0900	09/26/14 1331	SXG
Nitrite as N	<0.0250		0.0250	mg/L		09/26/14 0900	09/26/14 1142	SXG
Method: EPA 420.4, Rv 1 Phenols	<0.0250		0.0250	mg/L	Q3	10/08/14 0847	10/13/14 1650	SXG
Method: Hach 8000 Chemical Oxygen Demand (COD)	13.3		10.0	mg/L		09/29/14 1925	09/30/14 1230	NSF
Method: SM2320 B-1997 Alkalinity, Total	60.0		2.00	mg equiv CaCO3/L		09/26/14 1658	09/29/14 0813	SRS
Method: SM2340 C-1997 Total Dissolved Solids - TDS	107		10.0	mg/L		09/25/14 1045	09/25/14 1700	NSF
Method: SM4500 H+ B-2000 pH	6.82		0.0100	pH Units	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Temperature	22.3			°C	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		09/25/14 1000	09/30/14 1410	KAL
Method: SM5310 C-2000 Total Organic Carbon - TOC	1.51		0.500	mg/L		09/25/14 1232	09/26/14 2123	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-38
Lab Sample ID: S4I2418-06
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 15:40
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	0.013		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		10/08/14 1440	10/08/14 1440	KMG
Calcium	118		0.250	mg/L		09/29/14 0000	10/07/14 0730	KMG
Calcium, Dissolved	37.1		0.050	mg/L		10/08/14 1440	10/08/14 1440	KMG
Hardness, Calculation	618		1.87	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron	373		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron, Dissolved	0.068		0.005	mg/L		10/08/14 1440	10/08/14 1440	KMG
Lead	0.234		0.050	mg/L		09/29/14 0000	10/07/14 0730	KMG
Lead, Dissolved	< 0.010		0.010	mg/L		10/08/14 1440	10/08/14 1440	KMG
Magnesium	78.6		0.125	mg/L		09/29/14 0000	10/07/14 0730	KMG
Magnesium, Dissolved	7.43		0.025	mg/L		10/08/14 1440	10/08/14 1440	KMG
Manganese	22.4		0.010	mg/L	L	09/29/14 0000	10/07/14 0730	KMG
Manganese, Dissolved	0.307		0.002	mg/L		10/08/14 1440	10/08/14 1440	KMG
Potassium	18.5		2.50	mg/L		09/29/14 0000	10/07/14 0730	KMG
Potassium, Dissolved	1.17		0.500	mg/L		10/08/14 1440	10/08/14 1440	KMG
Sodium	34.1		2.50	mg/L		09/29/14 0000	10/07/14 0730	KMG
Sodium, Dissolved	33.1		0.500	mg/L	L	10/08/14 1440	10/08/14 1440	KMG
Thallium	< 0.125		0.125	mg/L		09/29/14 0000	10/07/14 0730	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		10/08/14 1440	10/08/14 1440	KMG
Vanadium	0.265		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		10/08/14 1440	10/08/14 1440	KMG
Zinc	0.924		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		10/08/14 1440	10/08/14 1440	KMG

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		10/07/14 1646	10/07/14 1646	NSF
Chloride	9.80		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF
Sulfate as SO ₄	11.3		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	18.6			°C	Y	09/24/14 1235	09/24/14 1235	FSC
Method: SM4500 H+ B-2000								

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Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-38
Lab Sample ID: S4I2418-06
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 15:40
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
pH	7.52		0.0100	pH Units	Y	09/24/14 1235	09/24/14 1235	FSC

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	0.149		0.100	mg/L	Q6	09/25/14 1025	09/25/14 1912	PMD
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		09/29/14 1850	09/30/14 1355	KED
Method: EPA 353.2, Rv 2.0 Nitrate as N	<0.0500		0.0500	mg/L		09/26/14 0900	09/26/14 1331	SXG
Nitrate-Nitrite as N	<0.0500		0.0500	mg/L	Y	09/26/14 0900	09/26/14 1331	SXG
Nitrite as N	<0.0250		0.0250	mg/L		09/26/14 0900	09/26/14 1142	SXG
Method: EPA 420.4, Rv 1 Phenols	<0.0250		0.0250	mg/L	Q3	10/08/14 0847	10/13/14 1651	SXG
Method: Hach 8000 Chemical Oxygen Demand (COD)	41.4		10.0	mg/L		09/29/14 1925	09/30/14 1230	NSF
Method: SM2320 B-1997 Alkalinity, Total	192		2.00	mg equiv CaCO3/L		09/26/14 1658	09/29/14 0813	SRS
Method: SM2340 C-1997 Total Dissolved Solids - TDS	116		10.0	mg/L		09/25/14 1045	09/25/14 1700	NSF
Method: SM4500 H+ B-2000 pH	7.57		0.0100	pH Units	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Temperature	23.9			°C	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		09/25/14 1000	09/30/14 1410	KAL
Method: SM5310 C-2000 Total Organic Carbon - TOC	0.782		0.500	mg/L		09/25/14 1232	09/26/14 2145	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-37
Lab Sample ID: S4I2418-07
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 16:25
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Cadmium	< 0.001		0.001	mg/L		09/29/14 0000	10/07/14 0730	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		10/08/14 1440	10/08/14 1440	KMG
Calcium	45.3		0.050	mg/L		09/29/14 0000	10/07/14 0730	KMG
Calcium, Dissolved	42.1		0.050	mg/L		10/08/14 1440	10/08/14 1440	KMG
Hardness, Calculation	142		0.373	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron	0.595		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Iron, Dissolved	< 0.005		0.005	mg/L		10/08/14 1440	10/08/14 1440	KMG
Lead	< 0.010		0.010	mg/L		09/29/14 0000	10/07/14 0730	KMG
Lead, Dissolved	< 0.010		0.010	mg/L		10/08/14 1440	10/08/14 1440	KMG
Magnesium	7.05		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Magnesium, Dissolved	6.32		0.025	mg/L		10/08/14 1440	10/08/14 1440	KMG
Manganese	0.066		0.002	mg/L		09/29/14 0000	10/07/14 0730	KMG
Manganese, Dissolved	< 0.002		0.002	mg/L		10/08/14 1440	10/08/14 1440	KMG
Potassium	2.22		0.500	mg/L		09/29/14 0000	10/07/14 0730	KMG
Potassium, Dissolved	1.91		0.500	mg/L		10/08/14 1440	10/08/14 1440	KMG
Sodium	8.48		0.500	mg/L		09/29/14 0000	10/07/14 0730	KMG
Sodium, Dissolved	7.81		0.500	mg/L		10/08/14 1440	10/08/14 1440	KMG
Thallium	< 0.025		0.025	mg/L		09/29/14 0000	10/07/14 0730	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		10/08/14 1440	10/08/14 1440	KMG
Vanadium	< 0.005		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		10/08/14 1440	10/08/14 1440	KMG
Zinc	0.007		0.005	mg/L		09/29/14 0000	10/07/14 0730	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		10/08/14 1440	10/08/14 1440	KMG

Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		10/07/14 1646	10/07/14 1646	NSF
Chloride	17.3		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF
Sulfate as SO4	12.5		1.00	mg/L		10/07/14 1646	10/07/14 1646	NSF

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	17.7			°C	Y	09/24/14 1235	09/24/14 1235	FSC
Method: SM4500 H+ B-2000								

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Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS S4I2418

Analytical Testing Parameters

Client Sample ID: MW-37
Lab Sample ID: S4I2418-07
Sample Type: Grab

Collection Date: 09/24/14
Collection Time: 16:25
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
pH	6.89		0.0100	pH Units	Y	09/24/14 1235	09/24/14 1235	FSC

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 350.1, Rv 2 Ammonia as N	<0.100		0.100	mg/L	Q6	09/25/14 1025	09/25/14 1914	PMD
Method: EPA 351.2, Rv 2 Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		09/29/14 1850	09/30/14 1356	KED
Method: EPA 353.2, Rv 2.0 Nitrate as N	0.127		0.0500	mg/L		09/26/14 0900	09/26/14 1332	SXG
Nitrate-Nitrite as N	0.127		0.0500	mg/L	Y	09/26/14 0900	09/26/14 1332	SXG
Nitrite as N	<0.0250		0.0250	mg/L		09/26/14 0900	09/26/14 1143	SXG
Method: Hach 8000 Chemical Oxygen Demand (COD)	<10.0		10.0	mg/L	M1	09/29/14 1925	09/30/14 1230	NSF
Method: SM2320 B-1997 Alkalinity, Total	120		2.00	mg equiv CaCO3/L		09/26/14 1658	09/29/14 0813	SRS
Method: SM2340 C-1997 Total Dissolved Solids - TDS	94.0		10.0	mg/L		09/25/14 1045	09/25/14 1700	NSF
Method: SM4500 H+ B-2000 pH	7.30		0.0100	pH Units	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Temperature	22.1			°C	H1,Y	09/30/14 1413	09/30/14 1413	CDR
Method: SM5210 B-2001 Biochemical Oxygen Demand (BOD5)	<6.00		6.00	mg/L		09/25/14 1000	09/30/14 1410	KAL
Method: SM5310 C-2000 Total Organic Carbon - TOC	0.668		0.500	mg/L		09/25/14 1232	09/26/14 2208	KED



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS
S4I2418

Definitions

H1:	Sample received past holding time.
L:	Value above calibration range but within annually verified linear range
M1:	Matrix spike recovery is outside of acceptance limits, biased high.
Q1:	LCS recovery is above acceptance limits.
Q3:	LCS recovery is below acceptance limits.
Q6:	CCV recovery is above acceptance limits.
R1:	Duplicate RPD is outside acceptance criteria.
Y:	This analyte is not on the the laboratory's current Scope of Accreditation.
MCL:	Maximum Contamination Level
PQL:	Practical Quantitation Limit

Cooler Receipt Log:

Cooler ID:	Default Cooler	Received On Ice (or not required):	Yes
Cooler Temp:	6.00 °C	Preservation Correct (or not required):	Yes
COC/Labels Agree:	Yes	Custody Seals Intact and/or No Evidence of Tampering	Yes
Containers Intact:	Yes		

Project Requested Certification(s):

Certificate ID

Benchmark Analytics Sayre, A Microbac Laboratory
NY-Sayre NYSDOH NY Lab ID No.: 11216

Agency

New York State Department of Health

Report Comments:

In accordance with NYSDOH-ELAP and NELAP, any non-conformance of these regulations are noted directly on the laboratory as qualifiers and/or noted in the case narrative.

Reviewed and Approved By:

Renee Lantz
Project Manager

Go Green:

Contact your project manager to set up email reporting and invoicing options.

For any feedback concerning our services, please contact your Project Manager listed above at 570-888-0169. You may also contact Trevor Boyce President, at president@microbac.com.

CHAIN OF CUSTODY

Benchmark Analytics, Inc.
2566 Pennsylvania Avenue • Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

PAGE 1 OF 2



Conklin, Town of

REPORT TO:	Town of Conklin
CONTACT	
PH#	
FAX#	
BILL TO:	
PO#	
PROJECT DESCRIPTION	
SAMPLER SIGNATURE / AFFILIATION	

REFRIGERATE SAMPLES
AFTER COLLECTION

TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE

RESULTS ARE BEING USED FOR:

NYDOH	NYDEC	PADEP
LANDFILL		

ARE SPECIAL DETECTION LIMITS
NEEDED: YES / NO

IF YES, PLEASE ATTACH

IS A QC PACKAGE NEEDED?
YES

IF YES, PLEASE ATTACH

DATE SAMPLED	TIME OF SAMPLING	SAMPLE MATRIX	SAMPLE TYPE - GRAB / COMPOSITE	SAMPLER INITIALS	CHLORINE RESIDUAL	ANALYSIS TO BE PERFORMED (PER CONTAINER)	COMPOSITE ON RECEIPT	PRESERVATIVE ADDED
9-24-14	1350	GW	G	FC	Free	Alk, NH ₃ , CO ₂ , BOD, pH, Bromide, Cl, Sulfate, ND ₃ , TDS, Pb, Cd, Fe, K, Mn, Na, Ti, V, Zn, Mg, Phenols, TKN, NO ₃ , TOC, Dissolved Pb, Cd, Fe, K, Mn, Na, Ti, V, Zn, Mg, Seme		

An incomplete chain of custody may delay the processing of your sample(s).

TEMPERATURE UPON RECEIPT 6 °C ARRIVAL ON ICE Y N

LAB USE ONLY

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
<i>Travis Cannon</i>	9/24/14	18:10		/ /	/ /
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
	/ /			/ /	/ /
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
	/ /		<i>Cathryn Phinney</i>	9/25/14	8:00



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS

S4L0853

Project Description

Conklin Landfill

For:

Tom Delamarter

Town of Conklin

P.O. Box 182

Conklin, NY 13748

Renee Lantz

Project Manager

renee.lantz@microbac.com

Tuesday, April 14, 2015

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Benchmark Analytics Sayre, A Microbac Laboratory. If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

I certify that all test results meet all of the requirements of the accrediting authority listed within this report. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

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Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS

S4L0853

Town of Conklin

Tom Delamarter
P.O. Box 182
Conklin, NY 13748

Project Name: Conklin Landfill

Project / PO Number: N/A
Received: 12/09/2014 11:43
Reported: 04/14/2015 11:05

Case Narrative

Introduction

This case narrative and spreadsheet summaries were prepared by Fran Connor of Test Assured Network to convey the analytical results of surface and groundwater samples, as well as groundwater depth measurements, as part of compliance monitoring for the New York State Department of Environmental Conservation. Samples were taken on December 8, 2014, iced and submitted to Benchmark Analytics - A Microbac Laboratory for analysis.

Sampling

Samples of surface and groundwater were taken by personnel from Test Assured Network. Sample containers, supplied by Benchmark Analytics, were filled, iced, and transported to the laboratory at the end of the sampling day. Site dedicated bailers and dedicated pump tubing were used to eliminate possible cross contamination. Chain-of-Custody forms accompanied the sample group and are given in the Chain-of-Custody Section of this report.

Analyses

Individual reports for each sample site are contained in the Laboratory Reports Section of this report.

Holding Times

All samples were analyzed within method specified holding times.

Spreadsheet Summaries

Spreadsheet Summaries are included in the Spreadsheet section of this report.
Subsequent quarterly monitoring events will include cumulative spreadsheets.

QA/QC Procedures

At a minimum, the following QA/QC procedures were followed to support data reliability.

- 1 Chain-of-Custody forms were submitted with the sample group
- 2 Instrument or method blanks were analyzed for each parameter
- 3 QC analysis was performed on 10% of the samples
- 4 Matrix spike and Matrix spike duplicate samples were performed on 10% of samples

Discussion

All of the monitoring wells were sampled this quarter. Some of the wells were purged to dryness and were sampled throughout the day to obtain sufficient sample. Monitoring Well 12 was purged at the beginning of the day, and sampled at the end of the day. This well is slow to recover and there was limited (though sufficient) amount of sample volume. MW 37 was also sampled near the beginning of the day and sampled at the end, and recovered well. MW 37 also has a bent casing which makes it difficult to purge. MW2 (a depth well only) has a blockage or broken casing at about 19 feet, making a depth reading impossible. Carlin Creek was running clear and had an above average flow.

Sample Summary Report

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
MW-3	S4L0853-01	Groundwater	Grab		12/08/14 12:30	12/09/14 11:43
MW-4	S4L0853-02	Groundwater	Grab		12/08/14 13:05	12/09/14 11:43
MW-12	S4L0853-03	Groundwater	Grab		12/08/14 14:55	12/09/14 11:43
MW-37	S4L0853-04	Groundwater	Grab		12/08/14 15:25	12/09/14 11:43
MW-38D	S4L0853-05	Groundwater	Grab		12/08/14 13:55	12/09/14 11:43
MW-1 Upgradient	S4L0853-06	Groundwater	Grab		12/08/14 11:10	12/09/14 11:43
SW-Carlin	S4L0853-07	Groundwater	Grab		12/08/14 14:20	12/09/14 11:43

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Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-3
Lab Sample ID: S4L0853-01
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 12:30
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Aluminum	15.1		0.025	mg/L	L	12/16/14 1050	12/16/14 1050	KMG
Aluminum, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Antimony	< 0.020		0.020	mg/L		12/16/14 1050	12/16/14 1050	KMG
Antimony, Dissolved	< 0.020		0.020	mg/L		12/17/14 1000	12/17/14 1000	KMG
Arsenic	< 0.010		0.010	mg/L		12/16/14 1050	12/16/14 1050	KMG
Arsenic, Dissolved	< 0.010		0.010	mg/L		12/17/14 1000	12/17/14 1000	KMG
Barium	0.448		0.002	mg/L	L	12/16/14 1050	12/16/14 1050	KMG
Barium, Dissolved	0.018		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Beryllium	0.002		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Beryllium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Boron	0.026		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Boron, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cadmium	< 0.001		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Calcium	59.6		0.050	mg/L		12/16/14 1050	12/16/14 1050	KMG
Calcium, Dissolved	35.6		0.050	mg/L		12/17/14 1000	12/17/14 1000	KMG
Chromium	0.010		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Chromium, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cobalt	0.026		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cobalt, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Copper	0.070		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Copper, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Hardness, Calculation	207		0.373	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron	13.6		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron, Dissolved	0.101		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Magnesium	14.0		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Magnesium, Dissolved	9.03		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Manganese	0.786		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Manganese, Dissolved	0.239		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Nickel	0.028		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Nickel, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Potassium	0.796		0.500	mg/L		12/16/14 1050	12/16/14 1050	KMG
Potassium, Dissolved	0.570		0.500	mg/L		12/17/14 1000	12/17/14 1000	KMG
Selenium	< 0.040		0.040	mg/L		12/16/14 1050	12/16/14 1050	KMG
Selenium, Dissolved	< 0.040		0.040	mg/L		12/17/14 1000	12/17/14 1000	KMG
Silver	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Silver, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Sodium	8.58		0.500	mg/L		12/16/14 1050	12/16/14 1050	KMG

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Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-3
Lab Sample ID: S4L0853-01
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 12:30
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Sodium, Dissolved	9.58		0.500	mg/L		12/17/14 1000	12/17/14 1000	KMG
Thallium	< 0.025		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Vanadium	0.017		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Zinc	0.115		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG

Method: EPA 200.8

Lead	0.0409		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD
Lead, Dissolved	< 0.0006		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD

Method: EPA 245.1

Mercury	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1000	KMG
Mercury, Dissolved	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1030	KMG

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Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	8.40			°C	Y	12/08/14 1230	12/08/14 1230	FSC
Method: SM4500 H+ B-2000								
pH	6.52		0.0100	pH Units	Y	12/08/14 1230	12/08/14 1230	FSC

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		12/17/14 1627	12/17/14 1627	NSF
Chloride	9.80		1.00	mg/L		12/17/14 1627	12/17/14 1627	NSF
Sulfate as SO ₄	7.32		0.250	mg/L		12/17/14 1627	12/17/14 1627	NSF

General Paramaters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2120 B-2001								
Color	<5.00		5.00	Pt-Co	CC	12/10/14 1045	12/10/14 1045	SRS
Method: SM4500 H+ B-2000								
pH	6.33		0.0100	pH Units	H1,Y	12/11/14 1140	12/11/14 1536	CDR
Temperature	19.9			°C	H1,Y	12/11/14 1140	12/11/14 1536	CDR

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
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Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-3
Lab Sample ID: S4L0853-01
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 12:30
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 335.4, Rv 1								
Cyanide - Total	<0.0100		0.0100	mg/L		12/11/14 1023	12/17/14 1220	KED
Method: EPA 350.1, Rv 2								
Ammonia as N	0.121		0.100	mg/L		12/12/14 1400	12/12/14 1610	KED
Method: EPA 351.2, Rv 2								
Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		12/10/14 1531	12/11/14 1542	KED
Method: EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	<0.0500		0.0500	mg/L	Y	12/10/14 0830	12/10/14 1334	SXG
Nitrate-Nitrite as N	<0.0500		0.0500	mg/L		12/10/14 0830	12/10/14 1334	SXG
Nitrite as N	<0.0250		0.0250	mg/L		12/10/14 0830	12/10/14 1116	SXG
Method: EPA 420.4, Rv 1								
Phenols	<0.0250		0.0250	mg/L		12/15/14 1200	12/15/14 1306	ICC
Method: Hach 8000								
Chemical Oxygen Demand (COD)	52.1		10.0	mg/L		12/12/14 1000	12/12/14 1600	CDR
Method: SM2320 B-1997								
Alkalinity to pH 4.5	132		2.00	mg CaCO3/L		12/10/14 1515	12/10/14 1515	NSF
Method: SM2540 C-2011								
Total Dissolved Solids (TDS)	162		10.0	mg/L		12/11/14 0911	12/11/14 1200	ZTB
Method: SM3500 Cr B-2009								
Chromium (VI)	<0.0100		0.0100	mg/L		12/12/14 1338	12/12/14 1512	KAL
Method: SM5210 B-2001								
Biochemical Oxygen Demand (BOD5)	<3.00		3.00	mg/L		12/10/14 0800	12/15/14 1327	PMD
Method: SM5310 C-2000								
Total Organic Carbon (TOC)	1.60		0.500	mg/L		12/12/14 1013	12/12/14 1728	toc

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 8260C								
Benzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Bromobenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Bromochloromethane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Bromodichloromethane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Bromoform	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
2-Butanone (MEK)	<10.0		10.0	ug/L		12/17/14 1002	12/17/14 1002	RJH
tert-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
n-Butylbenzene	<1.00		1.00	ug/L	Q1	12/17/14 1002	12/17/14 1002	RJH

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S4L0853

Analytical Testing Parameters

Client Sample ID: MW-3
Lab Sample ID: S4L0853-01
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 12:30
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
sec-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Carbon tetrachloride	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Chlorobenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Chloroethane (Ethyl chloride)	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Chloroform	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
4-Chlorotoluene	<1.00		1.00	ug/L	Q1	12/17/14 1002	12/17/14 1002	RJH
2-Chlorotoluene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,2-Dibromo-3-chloropropane (DBCP)	<5.00		5.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Dibromochloromethane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,2-Dibromoethane (Ethylene dibromide, EDB)	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Dibromomethane (Methylene bromide)	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,3-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,4-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,2-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Dichlorodifluoromethane (Freon-12)	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,2-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,1-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
cis-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,1-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
trans-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,3-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
2,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
trans-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,1-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
cis-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Ethylbenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Hexachlorobutadiene	<1.00		1.00	ug/L	Q1	12/17/14 1002	12/17/14 1002	RJH
2-Hexanone (MBK)	<10.0		10.0	ug/L		12/17/14 1002	12/17/14 1002	RJH
Isopropylbenzene (Cumene)	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
4-Isopropyltoluene (p-Isopropyltoluene)	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Methyl bromide (Bromomethane)	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Methyl tert-butyl ether (MTBE)	<2.00		2.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Methyl chloride (Chloromethane)	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Methylene chloride (Dichloromethane)	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	ug/L		12/17/14 1002	12/17/14 1002	RJH
Naphthalene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
n-Propylbenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Styrene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-3
Lab Sample ID: S4L0853-01
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 12:30
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
1,1,2,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,1,1,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Tetrachloroethene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Toluene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,2,3-Trichlorobenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,2,4-Trichlorobenzene	<1.00		1.00	ug/L	Q1	12/17/14 1002	12/17/14 1002	RJH
1,1,2-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,1,1-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Trichloroethene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Trichlorofluoromethane (Freon 11)	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,2,3-Trichloropropane	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,3,5-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
1,2,4-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Vinyl chloride	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
o-Xylene	<1.00		1.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
m,p-Xylene	<2.00		2.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
Xylenes (total)	<3.00		3.00	ug/L		12/17/14 1002	12/17/14 1002	RJH
4-Bromofluorobenzene		92.9	81-113	% Rec		12/17/14 1002	12/17/14 1002	RJH
1,2-Dichloroethane-d4		108	64-126	% Rec		12/17/14 1002	12/17/14 1002	RJH
Toluene-d8		97.3	84-116	% Rec		12/17/14 1002	12/17/14 1002	RJH



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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-4
Lab Sample ID: S4L0853-02
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 13:05
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Aluminum	1.47		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Aluminum, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Antimony	< 0.020		0.020	mg/L		12/16/14 1050	12/16/14 1050	KMG
Antimony, Dissolved	< 0.020		0.020	mg/L		12/17/14 1000	12/17/14 1000	KMG
Arsenic	< 0.010		0.010	mg/L		12/16/14 1050	12/16/14 1050	KMG
Arsenic, Dissolved	< 0.010		0.010	mg/L		12/17/14 1000	12/17/14 1000	KMG
Barium	0.073		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Barium, Dissolved	0.014		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Beryllium	< 0.001		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Beryllium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Boron	< 0.025		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Boron, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cadmium	< 0.001		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Calcium	40.1		0.050	mg/L		12/16/14 1050	12/16/14 1050	KMG
Calcium, Dissolved	35.3		0.050	mg/L		12/17/14 1000	12/17/14 1000	KMG
Chromium	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Chromium, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cobalt	0.005		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cobalt, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Copper	0.004		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Copper, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Hardness, Calculation	146		0.373	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron	1.63		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron, Dissolved	0.007		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Magnesium	11.3		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Magnesium, Dissolved	9.91		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Manganese	0.448		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Manganese, Dissolved	0.025		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Nickel	0.004		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Nickel, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Potassium	0.816		0.500	mg/L		12/16/14 1050	12/16/14 1050	KMG
Potassium, Dissolved	0.912		0.500	mg/L		12/17/14 1000	12/17/14 1000	KMG
Selenium	< 0.040		0.040	mg/L		12/16/14 1050	12/16/14 1050	KMG
Selenium, Dissolved	< 0.040		0.040	mg/L		12/17/14 1000	12/17/14 1000	KMG
Silver	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Silver, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Sodium	8.16		0.500	mg/L		12/16/14 1050	12/16/14 1050	KMG
Sodium, Dissolved	7.05		0.500	mg/L		12/17/14 1000	12/17/14 1000	KMG

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-4
Lab Sample ID: S4L0853-02
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 13:05
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Thallium	< 0.025		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Vanadium	< 0.005		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Zinc	0.011		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG

Method: EPA 200.8

Lead	0.0166		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD
Lead, Dissolved	< 0.0006		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD

Method: EPA 245.1

Mercury	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1000	KMG
Mercury, Dissolved	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1030	KMG

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Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	8.90			°C	Y	12/08/14 1305	12/08/14 1305	FSC

Method: SM4500 H+ B-2000

pH	7.08		0.0100	pH Units	Y	12/08/14 1305	12/08/14 1305	FSC
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Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		12/17/14 1627	12/17/14 1627	NSF
Chloride	26.7		1.00	mg/L		12/17/14 1627	12/17/14 1627	NSF
Sulfate as SO4	9.48		0.250	mg/L		12/17/14 1627	12/17/14 1627	NSF

General Paramaters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2120 B-2001								
Color	<5.00		5.00	Pt-Co	CC	12/10/14 1045	12/10/14 1045	SRS
Method: SM4500 H+ B-2000								
pH	6.49		0.0100	pH Units	H1,Y	12/11/14 1141	12/11/14 1536	CDR
Temperature	19.7			°C	H1,Y	12/11/14 1141	12/11/14 1536	CDR

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-4
Lab Sample ID: S4L0853-02
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 13:05
Collected By: Fran Connor

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Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 335.4, Rv 1								
Cyanide - Total	<0.0100		0.0100	mg/L		12/11/14 1023	12/17/14 1221	KED
Method: EPA 350.1, Rv 2								
Ammonia as N	0.121		0.100	mg/L		12/12/14 1400	12/12/14 1612	KED
Method: EPA 351.2, Rv 2								
Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		12/10/14 1531	12/11/14 1543	KED
Method: EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	<0.0500		0.0500	mg/L	Y	12/10/14 0830	12/10/14 1335	SXG
Nitrate-Nitrite as N	<0.0500		0.0500	mg/L		12/10/14 0830	12/10/14 1335	SXG
Nitrite as N	<0.0250		0.0250	mg/L		12/10/14 0830	12/10/14 1117	SXG
Method: EPA 420.4, Rv 1								
Phenols	<0.0250		0.0250	mg/L		12/15/14 1200	12/15/14 1307	ICC
Method: Hach 8000								
Chemical Oxygen Demand (COD)	<10.0		10.0	mg/L		12/12/14 1000	12/12/14 1600	CDR
Method: SM2320 B-1997								
Alkalinity to pH 4.5	92.0		2.00	mg CaCO3/L		12/10/14 1515	12/10/14 1515	NSF
Method: SM2540 C-2011								
Total Dissolved Solids (TDS)	124		10.0	mg/L		12/11/14 0911	12/11/14 1200	ZTB
Method: SM3500 Cr B-2009								
Chromium (VI)	<0.0100		0.0100	mg/L		12/12/14 1338	12/12/14 1512	KAL
Method: SM5210 B-2001								
Biochemical Oxygen Demand (BOD5)	<3.00		3.00	mg/L		12/10/14 0800	12/15/14 1327	PMD
Method: SM5310 C-2000								
Total Organic Carbon (TOC)	0.501		0.500	mg/L		12/12/14 1013	12/12/14 1741	toc

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 8260C								
Benzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Bromobenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Bromochloromethane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Bromodichloromethane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Bromoform	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
2-Butanone (MEK)	<10.0		10.0	ug/L		12/17/14 1032	12/17/14 1032	RJH
tert-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
n-Butylbenzene	<1.00		1.00	ug/L	Q1	12/17/14 1032	12/17/14 1032	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-4
Lab Sample ID: S4L0853-02
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 13:05
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
sec-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Carbon tetrachloride	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Chlorobenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Chloroethane (Ethyl chloride)	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Chloroform	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
4-Chlorotoluene	<1.00		1.00	ug/L	Q1	12/17/14 1032	12/17/14 1032	RJH
2-Chlorotoluene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,2-Dibromo-3-chloropropane (DBCP)	<5.00		5.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Dibromochloromethane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,2-Dibromoethane (Ethylene dibromide, EDB)	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Dibromomethane (Methylene bromide)	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,3-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,4-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,2-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Dichlorodifluoromethane (Freon-12)	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,2-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,1-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
cis-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,1-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
trans-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,3-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
2,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
trans-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,1-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
cis-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Ethylbenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Hexachlorobutadiene	<1.00		1.00	ug/L	Q1	12/17/14 1032	12/17/14 1032	RJH
2-Hexanone (MBK)	<10.0		10.0	ug/L		12/17/14 1032	12/17/14 1032	RJH
Isopropylbenzene (Cumene)	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
4-Isopropyltoluene (p-Isopropyltoluene)	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Methyl bromide (Bromomethane)	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Methyl tert-butyl ether (MTBE)	<2.00		2.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Methyl chloride (Chloromethane)	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Methylene chloride (Dichloromethane)	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	ug/L		12/17/14 1032	12/17/14 1032	RJH
Naphthalene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
n-Propylbenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Styrene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-4
Lab Sample ID: S4L0853-02
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 13:05
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
1,1,2,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,1,1,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Tetrachloroethene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Toluene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,2,3-Trichlorobenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,2,4-Trichlorobenzene	<1.00		1.00	ug/L	Q1	12/17/14 1032	12/17/14 1032	RJH
1,1,2-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,1,1-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Trichloroethene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Trichlorofluoromethane (Freon 11)	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,2,3-Trichloropropane	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,3,5-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
1,2,4-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Vinyl chloride	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
o-Xylene	<1.00		1.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
m,p-Xylene	<2.00		2.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
Xylenes (total)	<3.00		3.00	ug/L		12/17/14 1032	12/17/14 1032	RJH
4-Bromofluorobenzene		94.6	81-113	% Rec		12/17/14 1032	12/17/14 1032	RJH
1,2-Dichloroethane-d4		112	64-126	% Rec		12/17/14 1032	12/17/14 1032	RJH
Toluene-d8		98.3	84-116	% Rec		12/17/14 1032	12/17/14 1032	RJH



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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-12
Lab Sample ID: S4L0853-03
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 14:55
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Aluminum	6.17		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Aluminum, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Antimony	< 0.020		0.020	mg/L		12/16/14 1050	12/16/14 1050	KMG
Antimony, Dissolved	< 0.020		0.020	mg/L		12/17/14 1000	12/17/14 1000	KMG
Arsenic	< 0.010		0.010	mg/L		12/16/14 1050	12/16/14 1050	KMG
Arsenic, Dissolved	< 0.010		0.010	mg/L		12/17/14 1000	12/17/14 1000	KMG
Barium	0.169		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Barium, Dissolved	0.014		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Beryllium	0.001		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Beryllium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Boron	< 0.025		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Boron, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cadmium	< 0.001		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Calcium	46.0		0.050	mg/L		12/16/14 1050	12/16/14 1050	KMG
Calcium, Dissolved	25.7		0.050	mg/L		12/17/14 1220	01/15/15 0930	KMG
Chromium	0.007		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Chromium, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cobalt	0.006		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cobalt, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Copper	0.037		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Copper, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Hardness, Calculation	154		0.373	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron	12.9		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Magnesium	9.36		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Magnesium, Dissolved	6.78		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Manganese	1.76		0.002	mg/L	L	12/16/14 1050	12/16/14 1050	KMG
Manganese, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Nickel	0.014		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Nickel, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Potassium	0.785		0.500	mg/L		12/16/14 1050	12/16/14 1050	KMG
Potassium, Dissolved	2.13		0.500	mg/L		12/17/14 1000	12/17/14 1000	KMG
Selenium	< 0.040		0.040	mg/L		12/16/14 1050	12/16/14 1050	KMG
Selenium, Dissolved	< 0.040		0.040	mg/L		12/17/14 1000	12/17/14 1000	KMG
Silver	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Silver, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Sodium	9.84		0.500	mg/L		12/16/14 1050	12/16/14 1050	KMG
Sodium, Dissolved	8.82		0.500	mg/L		12/17/14 1000	12/17/14 1000	KMG

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-12
Lab Sample ID: S4L0853-03
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 14:55
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Thallium	< 0.025		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Vanadium	< 0.005		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Zinc	0.041		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG

Method: EPA 200.8

Lead	0.0168		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD
Lead, Dissolved	< 0.0006		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD

Method: EPA 245.1

Mercury	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1000	KMG
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Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	8.70			°C	Y	12/08/14 1455	12/08/14 1455	FSC

Method: SM4500 H+ B-2000

pH	6.41		0.0100	pH Units	Y	12/08/14 1455	12/08/14 1455	FSC
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Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		12/17/14 1627	12/17/14 1627	NSF
Chloride	4.50		1.00	mg/L		12/17/14 1627	12/17/14 1627	NSF
Sulfate as SO ₄	12.7		0.250	mg/L		12/17/14 1627	12/17/14 1627	NSF

General Paramaters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2120 B-2001								
Color	<5.00		5.00	Pt-Co	CC	12/10/14 1045	12/10/14 1045	SRS
Method: SM4500 H+ B-2000								
pH	6.15		0.0100	pH Units	H1,Y	12/11/14 1143	12/11/14 1536	CDR
Temperature	19.9			°C	H1,Y	12/11/14 1143	12/11/14 1536	CDR

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
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Method: EPA 335.4, Rv 1

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-12
Lab Sample ID: S4L0853-03
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 14:55
Collected By: Fran Connor

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Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Cyanide - Total	<0.0100		0.0100	mg/L		12/11/14 1023	12/17/14 1222	KED
Method: EPA 350.1, Rv 2								
Ammonia as N	<0.100		0.100	mg/L		12/12/14 1400	12/12/14 1619	KED
Method: EPA 351.2, Rv 2								
Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		12/10/14 1531	12/11/14 1543	KED
Method: EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	<0.0500		0.0500	mg/L	Y	12/10/14 0830	12/10/14 1335	SXG
Nitrate-Nitrite as N	<0.0500		0.0500	mg/L		12/10/14 0830	12/10/14 1335	SXG
Nitrite as N	<0.0250		0.0250	mg/L		12/10/14 0830	12/10/14 1118	SXG
Method: EPA 420.4, Rv 1								
Phenols	<0.0250		0.0250	mg/L		12/15/14 1200	12/15/14 1308	ICC
Method: Hach 8000								
Chemical Oxygen Demand (COD)	28.5		10.0	mg/L		12/12/14 1000	12/12/14 1600	CDR
Method: SM2320 B-1997								
Alkalinity to pH 4.5	88.0		2.00	mg CaCO3/L		12/10/14 1515	12/10/14 1515	NSF
Method: SM2540 C-2011								
Total Dissolved Solids (TDS)	106		10.0	mg/L		12/11/14 0911	12/11/14 1200	ZTB
Method: SM3500 Cr B-2009								
Chromium (VI)	0.0163		0.0100	mg/L		12/12/14 1338	12/12/14 1512	KAL
Method: SM5210 B-2001								
Biochemical Oxygen Demand (BOD5)	<3.00		3.00	mg/L		12/10/14 0800	12/15/14 1327	PMD
Method: SM5310 C-2000								
Total Organic Carbon (TOC)	1.79		0.500	mg/L		12/12/14 1013	12/12/14 1807	toc

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 8260C								
Benzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Bromobenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Bromochloromethane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Bromodichloromethane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Bromoform	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
2-Butanone (MEK)	<10.0		10.0	ug/L		12/17/14 1103	12/17/14 1103	RJH
tert-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
n-Butylbenzene	<1.00		1.00	ug/L	Q1	12/17/14 1103	12/17/14 1103	RJH
sec-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-12
Lab Sample ID: S4L0853-03
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 14:55
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Carbon tetrachloride	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Chlorobenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Chloroethane (Ethyl chloride)	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Chloroform	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
4-Chlorotoluene	<1.00		1.00	ug/L	Q1	12/17/14 1103	12/17/14 1103	RJH
2-Chlorotoluene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,2-Dibromo-3-chloropropane (DBCP)	<5.00		5.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Dibromochloromethane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,2-Dibromoethane (Ethylene dibromide, EDB)	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Dibromomethane (Methylene bromide)	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,3-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,4-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,2-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Dichlorodifluoromethane (Freon-12)	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,2-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,1-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
cis-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,1-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
trans-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,3-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
2,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
trans-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,1-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
cis-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Ethylbenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Hexachlorobutadiene	<1.00		1.00	ug/L	Q1	12/17/14 1103	12/17/14 1103	RJH
2-Hexanone (MBK)	<10.0		10.0	ug/L		12/17/14 1103	12/17/14 1103	RJH
Isopropylbenzene (Cumene)	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
4-Isopropyltoluene (p-Isopropyltoluene)	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Methyl bromide (Bromomethane)	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Methyl tert-butyl ether (MTBE)	<2.00		2.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Methyl chloride (Chloromethane)	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Methylene chloride (Dichloromethane)	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	ug/L		12/17/14 1103	12/17/14 1103	RJH
Naphthalene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
n-Propylbenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Styrene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,1,2,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-12
Lab Sample ID: S4L0853-03
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 14:55
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analized	Analyst
1,1,1,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Tetrachloroethene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Toluene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,2,3-Trichlorobenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,2,4-Trichlorobenzene	<1.00		1.00	ug/L	Q1	12/17/14 1103	12/17/14 1103	RJH
1,1,2-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,1,1-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Trichloroethene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Trichlorofluoromethane (Freon 11)	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,2,3-Trichloropropane	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,3,5-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
1,2,4-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Vinyl chloride	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
o-Xylene	<1.00		1.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
m,p-Xylene	<2.00		2.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
Xylenes (total)	<3.00		3.00	ug/L		12/17/14 1103	12/17/14 1103	RJH
4-Bromofluorobenzene		94.5	81-113	% Rec		12/17/14 1103	12/17/14 1103	RJH
1,2-Dichloroethane-d4		110	64-126	% Rec		12/17/14 1103	12/17/14 1103	RJH
Toluene-d8		97.5	84-116	% Rec		12/17/14 1103	12/17/14 1103	RJH



Benchmark Analytics Sayre, A Microbac Laboratory

CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-37
Lab Sample ID: S4L0853-04
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 15:25
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Aluminum	0.186		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Aluminum, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Antimony	< 0.020		0.020	mg/L		12/16/14 1050	12/16/14 1050	KMG
Antimony, Dissolved	< 0.020		0.020	mg/L		12/17/14 1000	12/17/14 1000	KMG
Arsenic	< 0.010		0.010	mg/L		12/16/14 1050	12/16/14 1050	KMG
Arsenic, Dissolved	< 0.010		0.010	mg/L		12/17/14 1000	12/17/14 1000	KMG
Barium	0.017		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Barium, Dissolved	0.014		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Beryllium	< 0.001		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Beryllium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Boron	< 0.025		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Boron, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cadmium	< 0.001		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Calcium	47.4		0.050	mg/L		12/16/14 1050	12/16/14 1050	KMG
Calcium, Dissolved	45.6		0.050	mg/L		12/17/14 1000	12/17/14 1000	KMG
Chromium	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Chromium, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cobalt	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cobalt, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Copper	0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Copper, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Hardness, Calculation	148		0.373	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron	0.424		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Magnesium	7.26		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Magnesium, Dissolved	6.79		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Manganese	0.034		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Manganese, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Nickel	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Nickel, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Potassium	2.01		0.500	mg/L		12/16/14 1050	12/16/14 1050	KMG
Potassium, Dissolved	2.70		0.500	mg/L		12/17/14 1000	12/17/14 1000	KMG
Selenium	< 0.040		0.040	mg/L		12/16/14 1050	12/16/14 1050	KMG
Selenium, Dissolved	< 0.040		0.040	mg/L		12/17/14 1000	12/17/14 1000	KMG
Silver	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Silver, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Sodium	9.26		0.500	mg/L		12/16/14 1050	12/16/14 1050	KMG
Sodium, Dissolved	9.27		0.500	mg/L		12/17/14 1000	12/17/14 1000	KMG

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-37
Lab Sample ID: S4L0853-04
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 15:25
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Thallium	< 0.025		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Vanadium	< 0.005		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Zinc	0.008		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG

Method: EPA 200.8

Lead	< 0.0006		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD
Lead, Dissolved	0.0008		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD

Method: EPA 245.1

Mercury	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1000	KMG
Mercury, Dissolved	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1030	KMG

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Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	9.00			°C	Y	12/08/14 1525	12/08/14 1525	FSC

Method: SM4500 H+ B-2000

pH	7.68		0.0100	pH Units	Y	12/08/14 1525	12/08/14 1525	FSC
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Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		12/17/14 1627	12/17/14 1627	NSF
Chloride	19.4		1.00	mg/L		12/17/14 1627	12/17/14 1627	NSF
Sulfate as SO4	12.9		0.250	mg/L		12/17/14 1627	12/17/14 1627	NSF

General Paramaters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2120 B-2001								
Color	<5.00		5.00	Pt-Co	CC	12/10/14 1045	12/10/14 1045	SRS
Method: SM4500 H+ B-2000								
pH	7.49		0.0100	pH Units	H1,Y	12/11/14 1146	12/11/14 1536	CDR
Temperature	19.9			°C	H1,Y	12/11/14 1146	12/11/14 1536	CDR

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-37
Lab Sample ID: S4L0853-04
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 15:25
Collected By: Fran Connor

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Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 335.4, Rv 1								
Cyanide - Total	<0.0100		0.0100	mg/L		12/11/14 1023	12/17/14 1224	KED
Method: EPA 350.1, Rv 2								
Ammonia as N	<0.100		0.100	mg/L		12/12/14 1400	12/12/14 1621	KED
Method: EPA 351.2, Rv 2								
Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		12/12/14 0835	12/16/14 1425	KED
Method: EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	0.0688		0.0500	mg/L		12/10/14 0830	12/10/14 1336	SXG
Nitrate-Nitrite as N	0.0688		0.0500	mg/L	Y	12/10/14 0830	12/10/14 1336	SXG
Nitrite as N	<0.0250		0.0250	mg/L	M1	12/10/14 0830	12/10/14 1119	SXG
Method: EPA 420.4, Rv 1								
Phenols	<0.0250		0.0250	mg/L		12/15/14 1200	12/15/14 1309	ICC
Method: Hach 8000								
Chemical Oxygen Demand (COD)	<10.0		10.0	mg/L		12/12/14 1000	12/12/14 1600	CDR
Method: SM2320 B-1997								
Alkalinity to pH 4.5	128		2.00	mg CaCO ₃ /L		12/10/14 1515	12/10/14 1515	NSF
Method: SM2540 C-2011								
Total Dissolved Solids (TDS)	137		10.0	mg/L		12/11/14 0911	12/11/14 1200	ZTB
Method: SM3500 Cr B-2009								
Chromium (VI)	<0.0100		0.0100	mg/L		12/12/14 1338	12/12/14 1512	KAL
Method: SM5210 B-2001								
Biochemical Oxygen Demand (BOD ₅)	<3.00		3.00	mg/L		12/10/14 0800	12/15/14 1327	PMD
Method: SM5310 C-2000								
Total Organic Carbon (TOC)	<0.500		0.500	mg/L		12/12/14 1013	12/12/14 1820	toc

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 8260C								
Benzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Bromobenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Bromochloromethane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Bromodichloromethane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Bromoform	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
2-Butanone (MEK)	<10.0		10.0	ug/L		12/17/14 1133	12/17/14 1133	RJH
tert-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
n-Butylbenzene	<1.00		1.00	ug/L	Q1	12/17/14 1133	12/17/14 1133	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-37
Lab Sample ID: S4L0853-04
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 15:25
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
sec-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Carbon tetrachloride	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Chlorobenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Chloroethane (Ethyl chloride)	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Chloroform	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
4-Chlorotoluene	<1.00		1.00	ug/L	Q1	12/17/14 1133	12/17/14 1133	RJH
2-Chlorotoluene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,2-Dibromo-3-chloropropane (DBCP)	<5.00		5.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Dibromochloromethane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,2-Dibromoethane (Ethylene dibromide, EDB)	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Dibromomethane (Methylene bromide)	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,3-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,4-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,2-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Dichlorodifluoromethane (Freon-12)	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,2-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,1-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
cis-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,1-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
trans-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,3-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
2,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
trans-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,1-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
cis-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Ethylbenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Hexachlorobutadiene	<1.00		1.00	ug/L	Q1	12/17/14 1133	12/17/14 1133	RJH
2-Hexanone (MBK)	<10.0		10.0	ug/L		12/17/14 1133	12/17/14 1133	RJH
Isopropylbenzene (Cumene)	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
4-Isopropyltoluene (p-Isopropyltoluene)	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Methyl bromide (Bromomethane)	<1.00		1.00	ug/L	M2	12/17/14 1133	12/17/14 1133	RJH
Methyl tert-butyl ether (MTBE)	<2.00		2.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Methyl chloride (Chloromethane)	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Methylene chloride (Dichloromethane)	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	ug/L		12/17/14 1133	12/17/14 1133	RJH
Naphthalene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
n-Propylbenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Styrene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-37
Lab Sample ID: S4L0853-04
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 15:25
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
1,1,2,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,1,1,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Tetrachloroethene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Toluene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,2,3-Trichlorobenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,2,4-Trichlorobenzene	<1.00		1.00	ug/L	Q1	12/17/14 1133	12/17/14 1133	RJH
1,1,2-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,1,1-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Trichloroethene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Trichlorofluoromethane (Freon 11)	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,2,3-Trichloropropane	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,3,5-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
1,2,4-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Vinyl chloride	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
o-Xylene	<1.00		1.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
m,p-Xylene	<2.00		2.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
Xylenes (total)	<3.00		3.00	ug/L		12/17/14 1133	12/17/14 1133	RJH
4-Bromofluorobenzene		97.3	81-113	% Rec		12/17/14 1133	12/17/14 1133	RJH
1,2-Dichloroethane-d4		117	64-126	% Rec		12/17/14 1133	12/17/14 1133	RJH
Toluene-d8		102	84-116	% Rec		12/17/14 1133	12/17/14 1133	RJH



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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-38D
Lab Sample ID: S4L0853-05
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 13:55
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Aluminum	39.3		0.025	mg/L	L	12/16/14 1050	12/16/14 1050	KMG
Aluminum, Dissolved	0.028		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Antimony	< 0.020		0.020	mg/L		12/16/14 1050	12/16/14 1050	KMG
Antimony, Dissolved	< 0.020		0.020	mg/L		12/17/14 1000	12/17/14 1000	KMG
Arsenic	0.019		0.010	mg/L		12/16/14 1050	12/16/14 1050	KMG
Arsenic, Dissolved	< 0.010		0.010	mg/L		12/17/14 1000	12/17/14 1000	KMG
Barium	2.84		0.002	mg/L	L	12/16/14 1050	12/16/14 1050	KMG
Barium, Dissolved	0.059		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Beryllium	0.006		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Beryllium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Boron	< 0.125		0.125	mg/L		12/16/14 1050	12/16/14 1050	KMG
Boron, Dissolved	0.060		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cadmium	0.003		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Calcium	153		0.050	mg/L		12/16/14 1050	12/16/14 1050	KMG
Calcium, Dissolved	38.5		0.050	mg/L		12/17/14 1000	12/17/14 1000	KMG
Chromium	0.026		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Chromium, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cobalt	0.107		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cobalt, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Copper	0.350		0.002	mg/L	L	12/16/14 1050	12/16/14 1050	KMG
Copper, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Hardness, Calculation	535		0.373	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron	98.0		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron, Dissolved	0.040		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Magnesium	37.2		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Magnesium, Dissolved	8.31		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Manganese	23.0		0.002	mg/L	L	12/16/14 1050	12/16/14 1050	KMG
Manganese, Dissolved	0.202		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Nickel	0.118		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Nickel, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Potassium	2.79		2.50	mg/L		12/16/14 1050	12/16/14 1050	KMG
Potassium, Dissolved	1.27		0.500	mg/L		12/17/14 1000	12/17/14 1000	KMG
Selenium	< 0.040		0.040	mg/L		12/16/14 1050	12/16/14 1050	KMG
Selenium, Dissolved	< 0.040		0.040	mg/L		12/17/14 1000	12/17/14 1000	KMG
Silver	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Silver, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Sodium	36.4		2.50	mg/L		12/16/14 1050	12/16/14 1050	KMG
Sodium, Dissolved	35.6		0.500	mg/L	L	12/17/14 1000	12/17/14 1000	KMG

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-38D
Lab Sample ID: S4L0853-05
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 13:55
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Thallium	< 0.125		0.125	mg/L		12/16/14 1050	12/16/14 1050	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Vanadium	0.040		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Zinc	0.349		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG

Method: EPA 200.8

Lead	0.110		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD
Lead, Dissolved	< 0.0006		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD

Method: EPA 245.1

Mercury	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1000	KMG
Mercury, Dissolved	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1030	KMG

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Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	7.40			°C	Y	12/08/14 1355	12/08/14 1355	FSC

Method: SM4500 H+ B-2000

pH	8.15		0.0100	pH Units	Y	12/08/14 1355	12/08/14 1355	FSC
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Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		12/17/14 1627	12/17/14 1627	NSF
Chloride	10.4		1.00	mg/L		12/17/14 1627	12/17/14 1627	NSF
Sulfate as SO4	8.22		0.250	mg/L		12/17/14 1627	12/17/14 1627	NSF

General Paramaters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2120 B-2001								
Color	<5.00		5.00	Pt-Co	CC	12/10/14 1045	12/10/14 1045	SRS
Method: SM4500 H+ B-2000								
pH	7.58		0.0100	pH Units	H1,Y	12/11/14 1148	12/11/14 1536	CDR
Temperature	19.9			°C	H1,Y	12/11/14 1148	12/11/14 1536	CDR

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-38D
Lab Sample ID: S4L0853-05
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 13:55
Collected By: Fran Connor

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Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 335.4, Rv 1								
Cyanide - Total	<0.0100		0.0100	mg/L		12/11/14 1023	12/17/14 1225	KED
Method: EPA 350.1, Rv 2								
Ammonia as N	<0.100		0.100	mg/L		12/12/14 1400	12/12/14 1622	KED
Method: EPA 351.2, Rv 2								
Total Kjeldahl Nitrogen (TKN)	3.02		1.00	mg/L		12/12/14 0835	12/16/14 1426	KED
Method: EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	0.0823		0.0500	mg/L	Y	12/10/14 0830	12/10/14 1337	SXG
Nitrate-Nitrite as N	0.0823		0.0500	mg/L		12/10/14 0830	12/10/14 1337	SXG
Nitrite as N	<0.0250		0.0250	mg/L		12/10/14 0830	12/10/14 1119	SXG
Method: EPA 420.4, Rv 1								
Phenols	<0.0250		0.0250	mg/L		12/15/14 1200	12/15/14 1310	ICC
Method: Hach 8000								
Chemical Oxygen Demand (COD)	<10.0		10.0	mg/L		12/12/14 1000	12/12/14 1600	CDR
Method: SM2320 B-1997								
Alkalinity to pH 4.5	190		2.00	mg CaCO3/L		12/10/14 1515	12/10/14 1515	NSF
Method: SM2540 C-2011								
Total Dissolved Solids (TDS)	164		10.0	mg/L		12/11/14 0911	12/11/14 1200	ZTB
Method: SM3500 Cr B-2009								
Chromium (VI)	<0.0100		0.0100	mg/L		12/12/14 1338	12/12/14 1512	KAL
Method: SM5210 B-2001								
Biochemical Oxygen Demand (BOD5)	<3.00		3.00	mg/L		12/10/14 0800	12/15/14 1327	PMD
Method: SM5310 C-2000								
Total Organic Carbon (TOC)	0.510		0.500	mg/L		12/12/14 1013	12/12/14 1838	too

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 8260C								
Benzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Bromobenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Bromochloromethane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Bromodichloromethane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Bromoform	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
2-Butanone (MEK)	<10.0		10.0	ug/L		12/17/14 1204	12/17/14 1204	RJH
tert-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
n-Butylbenzene	<1.00		1.00	ug/L	Q1	12/17/14 1204	12/17/14 1204	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-38D
Lab Sample ID: S4L0853-05
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 13:55
Collected By: Fran Connor

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Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
sec-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Carbon tetrachloride	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Chlorobenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Chloroethane (Ethyl chloride)	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Chloroform	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
4-Chlorotoluene	<1.00		1.00	ug/L	Q1	12/17/14 1204	12/17/14 1204	RJH
2-Chlorotoluene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,2-Dibromo-3-chloropropane (DBCP)	<5.00		5.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Dibromochloromethane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,2-Dibromoethane (Ethylene dibromide, EDB)	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Dibromomethane (Methylene bromide)	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,3-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,4-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,2-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Dichlorodifluoromethane (Freon-12)	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,2-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,1-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
cis-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,1-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
trans-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,3-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
2,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
trans-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,1-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
cis-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Ethylbenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Hexachlorobutadiene	<1.00		1.00	ug/L	Q1	12/17/14 1204	12/17/14 1204	RJH
2-Hexanone (MBK)	<10.0		10.0	ug/L		12/17/14 1204	12/17/14 1204	RJH
Isopropylbenzene (Cumene)	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
4-Isopropyltoluene (p-Isopropyltoluene)	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Methyl bromide (Bromomethane)	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Methyl tert-butyl ether (MTBE)	<2.00		2.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Methyl chloride (Chloromethane)	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Methylene chloride (Dichloromethane)	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	ug/L		12/17/14 1204	12/17/14 1204	RJH
Naphthalene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
n-Propylbenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Styrene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-38D
Lab Sample ID: S4L0853-05
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 13:55
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
1,1,2,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,1,1,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Tetrachloroethene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Toluene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,2,3-Trichlorobenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,2,4-Trichlorobenzene	<1.00		1.00	ug/L	Q1	12/17/14 1204	12/17/14 1204	RJH
1,1,2-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,1,1-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Trichloroethene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Trichlorofluoromethane (Freon 11)	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,2,3-Trichloropropane	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,3,5-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
1,2,4-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Vinyl chloride	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
o-Xylene	<1.00		1.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
m,p-Xylene	<2.00		2.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
Xylenes (total)	<3.00		3.00	ug/L		12/17/14 1204	12/17/14 1204	RJH
4-Bromofluorobenzene		95.3	81-113	% Rec		12/17/14 1204	12/17/14 1204	RJH
1,2-Dichloroethane-d4		113	64-126	% Rec		12/17/14 1204	12/17/14 1204	RJH
Toluene-d8		99.9	84-116	% Rec		12/17/14 1204	12/17/14 1204	RJH



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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-1 Upgradient
Lab Sample ID: S4L0853-06
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 11:10
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Aluminum	< 0.025		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Aluminum, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Antimony	< 0.020		0.020	mg/L		12/16/14 1050	12/16/14 1050	KMG
Antimony, Dissolved	< 0.020		0.020	mg/L		12/17/14 1000	12/17/14 1000	KMG
Arsenic	< 0.010		0.010	mg/L		12/16/14 1050	12/16/14 1050	KMG
Arsenic, Dissolved	< 0.010		0.010	mg/L		12/17/14 1000	12/17/14 1000	KMG
Barium	0.029		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Barium, Dissolved	0.024		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Beryllium	< 0.001		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Beryllium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Boron	< 0.125		0.125	mg/L		12/16/14 1050	12/16/14 1050	KMG
Boron, Dissolved	0.058		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cadmium	< 0.001		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Calcium	60.5		0.050	mg/L		12/16/14 1050	12/16/14 1050	KMG
Calcium, Dissolved	56.4		0.050	mg/L		12/17/14 1000	12/17/14 1000	KMG
Chromium	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Chromium, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cobalt	0.006		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cobalt, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Copper	0.003		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Copper, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Hardness, Calculation	232		0.373	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron	0.076		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Magnesium	19.7		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Magnesium, Dissolved	18.4		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Manganese	0.160		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Manganese, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Nickel	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Nickel, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Potassium	1.48		0.500	mg/L		12/16/14 1050	12/16/14 1050	KMG
Potassium, Dissolved	1.54		0.500	mg/L		12/17/14 1000	12/17/14 1000	KMG
Selenium	< 0.040		0.040	mg/L		12/16/14 1050	12/16/14 1050	KMG
Selenium, Dissolved	< 0.040		0.040	mg/L		12/17/14 1000	12/17/14 1000	KMG
Silver	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Silver, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Sodium	23.6		0.500	mg/L	L	12/16/14 1050	12/16/14 1050	KMG
Sodium, Dissolved	22.1		0.500	mg/L	L	12/17/14 1000	12/17/14 1000	KMG

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-1 Upgradient
Lab Sample ID: S4L0853-06
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 11:10
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Thallium	< 0.025		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Vanadium	< 0.005		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Zinc	0.007		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG

Method: EPA 200.8

Lead	0.0010		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD
Lead, Dissolved	< 0.0006		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD

Method: EPA 245.1

Mercury	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1000	KMG
Mercury, Dissolved	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1030	KMG

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Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	9.30			°C	Y	12/08/14 1110	12/08/14 1110	FSC

Method: SM4500 H+ B-2000

pH	7.72		0.0100	pH Units	Y	12/08/14 1110	12/08/14 1110	FSC
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Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		12/17/14 1627	12/17/14 1627	NSF
Chloride	2.10		1.00	mg/L		12/17/14 1627	12/17/14 1627	NSF
Sulfate as SO4	7.03		0.250	mg/L		12/17/14 1627	12/17/14 1627	NSF

General Paramaters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2120 B-2001								
Color	<5.00		5.00	Pt-Co	CC	12/10/14 1045	12/10/14 1045	SRS
Method: SM4500 H+ B-2000								
pH	7.61		0.0100	pH Units	H1,Y	12/11/14 1153	12/11/14 1536	CDR
Temperature	20.4			°C	H1,Y	12/11/14 1153	12/11/14 1536	CDR

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-1 Upgradient
Lab Sample ID: S4L0853-06
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 11:10
Collected By: Fran Connor

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Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 335.4, Rv 1								
Cyanide - Total	<0.0100		0.0100	mg/L		12/11/14 1023	12/17/14 1226	KED
Method: EPA 350.1, Rv 2								
Ammonia as N	<0.100		0.100	mg/L		12/12/14 1400	12/12/14 1624	KED
Method: EPA 351.2, Rv 2								
Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		12/12/14 0835	12/16/14 1427	KED
Method: EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	0.166		0.0500	mg/L	Y	12/10/14 0830	12/10/14 1338	SXG
Nitrate-Nitrite as N	0.166		0.0500	mg/L		12/10/14 0830	12/10/14 1338	SXG
Nitrite as N	<0.0250		0.0250	mg/L		12/10/14 0830	12/10/14 1122	SXG
Method: EPA 420.4, Rv 1								
Phenols	<0.0250		0.0250	mg/L		12/15/14 1200	12/15/14 1720	ICC
Method: Hach 8000								
Chemical Oxygen Demand (COD)	<10.0		10.0	mg/L		12/12/14 1000	12/12/14 1600	CDR
Method: SM2320 B-1997								
Alkalinity to pH 4.5	272		2.00	mg CaCO3/L		12/10/14 1515	12/10/14 1515	NSF
Method: SM2540 C-2011								
Total Dissolved Solids (TDS)	230		10.0	mg/L		12/11/14 0911	12/11/14 1200	ZTB
Method: SM3500 Cr B-2009								
Chromium (VI)	<0.0100		0.0100	mg/L		12/12/14 1338	12/12/14 1512	KAL
Method: SM5210 B-2001								
Biochemical Oxygen Demand (BOD5)	<3.00		3.00	mg/L		12/10/14 0800	12/15/14 1327	PMD
Method: SM5310 C-2000								
Total Organic Carbon (TOC)	0.579		0.500	mg/L		12/12/14 1013	12/12/14 1856	too

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 8260C								
Benzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Bromobenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Bromochloromethane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Bromodichloromethane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Bromoform	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
2-Butanone (MEK)	<10.0		10.0	ug/L		12/17/14 1235	12/17/14 1235	RJH
tert-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
n-Butylbenzene	<1.00		1.00	ug/L	Q1	12/17/14 1235	12/17/14 1235	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-1 Upgradient
Lab Sample ID: S4L0853-06
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 11:10
Collected By: Fran Connor

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Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
sec-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Carbon tetrachloride	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Chlorobenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Chloroethane (Ethyl chloride)	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Chloroform	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
4-Chlorotoluene	<1.00		1.00	ug/L	Q1	12/17/14 1235	12/17/14 1235	RJH
2-Chlorotoluene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,2-Dibromo-3-chloropropane (DBCP)	<5.00		5.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Dibromochloromethane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,2-Dibromoethane (Ethylene dibromide, EDB)	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Dibromomethane (Methylene bromide)	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,3-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,4-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,2-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Dichlorodifluoromethane (Freon-12)	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,2-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,1-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
cis-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,1-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
trans-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,3-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
2,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
trans-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,1-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
cis-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Ethylbenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Hexachlorobutadiene	<1.00		1.00	ug/L	Q1	12/17/14 1235	12/17/14 1235	RJH
2-Hexanone (MBK)	<10.0		10.0	ug/L		12/17/14 1235	12/17/14 1235	RJH
Isopropylbenzene (Cumene)	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
4-Isopropyltoluene (p-Isopropyltoluene)	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Methyl bromide (Bromomethane)	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Methyl tert-butyl ether (MTBE)	<2.00		2.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Methyl chloride (Chloromethane)	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Methylene chloride (Dichloromethane)	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	ug/L		12/17/14 1235	12/17/14 1235	RJH
Naphthalene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
n-Propylbenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Styrene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: MW-1 Upgradient
Lab Sample ID: S4L0853-06
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 11:10
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
1,1,2,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,1,1,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Tetrachloroethene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Toluene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,2,3-Trichlorobenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,2,4-Trichlorobenzene	<1.00		1.00	ug/L	Q1	12/17/14 1235	12/17/14 1235	RJH
1,1,2-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,1,1-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Trichloroethene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Trichlorofluoromethane (Freon 11)	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,2,3-Trichloropropane	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,3,5-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
1,2,4-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Vinyl chloride	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
o-Xylene	<1.00		1.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
m,p-Xylene	<2.00		2.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
Xylenes (total)	<3.00		3.00	ug/L		12/17/14 1235	12/17/14 1235	RJH
4-Bromofluorobenzene		94.6	81-113	% Rec		12/17/14 1235	12/17/14 1235	RJH
1,2-Dichloroethane-d4		110	64-126	% Rec		12/17/14 1235	12/17/14 1235	RJH
Toluene-d8		97.5	84-116	% Rec		12/17/14 1235	12/17/14 1235	RJH



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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: SW-Carlin
Lab Sample ID: S4L0853-07
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 14:20
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 200.7								
Aluminum	0.035		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Aluminum, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Antimony	< 0.020		0.020	mg/L		12/16/14 1050	12/16/14 1050	KMG
Antimony, Dissolved	< 0.020		0.020	mg/L		12/17/14 1000	12/17/14 1000	KMG
Arsenic	< 0.010		0.010	mg/L		12/16/14 1050	12/16/14 1050	KMG
Arsenic, Dissolved	< 0.010		0.010	mg/L		12/17/14 1000	12/17/14 1000	KMG
Barium	0.013		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Barium, Dissolved	0.011		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Beryllium	< 0.001		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Beryllium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Boron	< 0.025		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Boron, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cadmium	< 0.001		0.001	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cadmium, Dissolved	< 0.001		0.001	mg/L		12/17/14 1000	12/17/14 1000	KMG
Calcium	15.9		0.050	mg/L		12/16/14 1050	12/16/14 1050	KMG
Calcium, Dissolved	14.0		0.050	mg/L		12/17/14 1000	12/17/14 1000	KMG
Chromium	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Chromium, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Cobalt	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Cobalt, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Copper	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Copper, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Hardness, Calculation	55.6		0.373	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron	0.065		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Iron, Dissolved	0.023		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Magnesium	3.90		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Magnesium, Dissolved	3.42		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Manganese	0.006		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Manganese, Dissolved	0.003		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Nickel	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Nickel, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Potassium	1.41		0.500	mg/L		12/16/14 1050	12/16/14 1050	KMG
Potassium, Dissolved	1.37		0.500	mg/L		12/17/14 1000	12/17/14 1000	KMG
Selenium	< 0.040		0.040	mg/L		12/16/14 1050	12/16/14 1050	KMG
Selenium, Dissolved	< 0.040		0.040	mg/L		12/17/14 1000	12/17/14 1000	KMG
Silver	< 0.002		0.002	mg/L		12/16/14 1050	12/16/14 1050	KMG
Silver, Dissolved	< 0.002		0.002	mg/L		12/17/14 1000	12/17/14 1000	KMG
Sodium	34.9		0.500	mg/L	L	12/16/14 1050	12/16/14 1050	KMG
Sodium, Dissolved	29.5		0.500	mg/L	L	12/17/14 1000	12/17/14 1000	KMG

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: SW-Carlin
Lab Sample ID: S4L0853-07
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 14:20
Collected By: Fran Connor

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Thallium	< 0.025		0.025	mg/L		12/16/14 1050	12/16/14 1050	KMG
Thallium, Dissolved	< 0.025		0.025	mg/L		12/17/14 1000	12/17/14 1000	KMG
Vanadium	< 0.005		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Vanadium, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG
Zinc	< 0.005		0.005	mg/L		12/16/14 1050	12/16/14 1050	KMG
Zinc, Dissolved	< 0.005		0.005	mg/L		12/17/14 1000	12/17/14 1000	KMG

Method: EPA 200.8

Lead	< 0.0006		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD
Lead, Dissolved	< 0.0006		0.0006	mg/L		12/15/14 0925	12/15/14 0925	STD

Method: EPA 245.1

Mercury	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1000	KMG
Mercury, Dissolved	< 0.0002		0.0002	mg/L		12/17/14 1220	12/18/14 1030	KMG

Benchmark Analytics Sayre, A Microbac Laboratory

Field Parameters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2550 B-2000								
Temperature	1.00			°C	Y	12/08/14 1420	12/08/14 1420	FSC
Method: SM4500 H+ B-2000								
pH	7.74		0.0100	pH Units	Y	12/08/14 1420	12/08/14 1420	FSC

Anions by Ion Chromatography

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 300.0, Rv 2.1								
Bromide	<0.200		0.200	mg/L		12/17/14 1627	12/17/14 1627	NSF
Chloride	53.7		1.00	mg/L		12/17/14 1627	12/17/14 1627	NSF
Sulfate as SO4	8.66		0.250	mg/L		12/17/14 1627	12/17/14 1627	NSF

General Paramaters

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: SM2120 B-2001								
Color	<5.00		5.00	Pt-Co	CC	12/10/14 1045	12/10/14 1045	SRS
Method: SM4500 H+ B-2000								
pH	7.36		0.0100	pH Units	H1,Y	12/11/14 1154	12/11/14 1536	CDR
Temperature	19.9			°C	H1,Y	12/11/14 1154	12/11/14 1536	CDR

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: SW-Carlin
Lab Sample ID: S4L0853-07
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 14:20
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Inorganics

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 335.4, Rv 1								
Cyanide - Total	<0.0100		0.0100	mg/L		12/11/14 1023	12/17/14 1227	KED
Method: EPA 350.1, Rv 2								
Ammonia as N	<0.100		0.100	mg/L		12/12/14 1400	12/12/14 1625	KED
Method: EPA 351.2, Rv 2								
Total Kjeldahl Nitrogen (TKN)	<1.00		1.00	mg/L		12/12/14 0835	12/16/14 1427	KED
Method: EPA 353.2, Rv 2.0								
Nitrate as N (Calc)	0.383		0.0500	mg/L	Y	12/10/14 0830	12/10/14 1345	SXG
Nitrate-Nitrite as N	0.383		0.0500	mg/L		12/10/14 0830	12/10/14 1345	SXG
Nitrite as N	<0.0250		0.0250	mg/L		12/10/14 0830	12/10/14 1124	SXG
Method: EPA 420.4, Rv 1								
Phenols	<0.0250		0.0250	mg/L		12/15/14 1200	12/15/14 1721	ICC
Method: Hach 8000								
Chemical Oxygen Demand (COD)	<10.0		10.0	mg/L		12/12/14 1000	12/12/14 1600	CDR
Method: SM2320 B-1997								
Alkalinity to pH 4.5	32.0		2.00	mg CaCO3/L		12/10/14 1515	12/10/14 1515	NSF
Method: SM2540 C-2011								
Total Dissolved Solids (TDS)	119		10.0	mg/L		12/11/14 0911	12/11/14 1200	ZTB
Method: SM3500 Cr B-2009								
Chromium (VI)	<0.0100		0.0100	mg/L		12/12/14 1338	12/12/14 1512	KAL
Method: SM5210 B-2001								
Biochemical Oxygen Demand (BOD5)	<3.00		3.00	mg/L		12/10/14 0800	12/15/14 1327	PMD
Method: SM5310 C-2000								
Total Organic Carbon (TOC)	2.72		0.500	mg/L		12/12/14 1013	12/12/14 1914	too

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
Method: EPA 8260C								
Benzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Bromobenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Bromochloromethane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Bromodichloromethane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Bromoform	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
2-Butanone (MEK)	<10.0		10.0	ug/L		12/17/14 1305	12/17/14 1305	RJH
tert-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
n-Butylbenzene	<1.00		1.00	ug/L	Q1	12/17/14 1305	12/17/14 1305	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: SW-Carlin
Lab Sample ID: S4L0853-07
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 14:20
Collected By: Fran Connor

Benchmark Analytics Sayre, A Microbac Laboratory

Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
sec-Butylbenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Carbon tetrachloride	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Chlorobenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Chloroethane (Ethyl chloride)	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Chloroform	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
4-Chlorotoluene	<1.00		1.00	ug/L	Q1	12/17/14 1305	12/17/14 1305	RJH
2-Chlorotoluene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,2-Dibromo-3-chloropropane (DBCP)	<5.00		5.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Dibromochloromethane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,2-Dibromoethane (Ethylene dibromide, EDB)	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Dibromomethane (Methylene bromide)	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,3-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,4-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,2-Dichlorobenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Dichlorodifluoromethane (Freon-12)	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,2-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,1-Dichloroethane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
cis-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,1-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
trans-1,2-Dichloroethene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,3-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
2,2-Dichloropropane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
trans-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,1-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
cis-1,3-Dichloropropene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Ethylbenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Hexachlorobutadiene	<1.00		1.00	ug/L	Q1	12/17/14 1305	12/17/14 1305	RJH
2-Hexanone (MBK)	<10.0		10.0	ug/L		12/17/14 1305	12/17/14 1305	RJH
Isopropylbenzene (Cumene)	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
4-Isopropyltoluene (p-Isopropyltoluene)	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Methyl bromide (Bromomethane)	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Methyl tert-butyl ether (MTBE)	<2.00		2.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Methyl chloride (Chloromethane)	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Methylene chloride (Dichloromethane)	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	ug/L		12/17/14 1305	12/17/14 1305	RJH
Naphthalene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
n-Propylbenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Styrene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH

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CERTIFICATE OF ANALYSIS

S4L0853

Analytical Testing Parameters

Client Sample ID: SW-Carlin
Lab Sample ID: S4L0853-07
Sample Type: Grab

Collection Date: 12/08/14
Collection Time: 14:20
Collected By: Fran Connor

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Volatile Organic Compounds - GC/MS

	Result	MCL	PQL	Units	Note	Prepared	Analyzed	Analyst
1,1,2,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,1,1,2-Tetrachloroethane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Tetrachloroethene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Toluene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,2,3-Trichlorobenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,2,4-Trichlorobenzene	<1.00		1.00	ug/L	Q1	12/17/14 1305	12/17/14 1305	RJH
1,1,2-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,1,1-Trichloroethane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Trichloroethene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Trichlorofluoromethane (Freon 11)	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,2,3-Trichloropropane	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,3,5-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
1,2,4-Trimethylbenzene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Vinyl chloride	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
o-Xylene	<1.00		1.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
m,p-Xylene	<2.00		2.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
Xylenes (total)	<3.00		3.00	ug/L		12/17/14 1305	12/17/14 1305	RJH
4-Bromofluorobenzene		93.9	81-113	% Rec		12/17/14 1305	12/17/14 1305	RJH
1,2-Dichloroethane-d4		112	64-126	% Rec		12/17/14 1305	12/17/14 1305	RJH
Toluene-d8		99.0	84-116	% Rec		12/17/14 1305	12/17/14 1305	RJH

Batch Quality Control Summary

Benchmark Analytics (NY 11827)

Subcontracted (Center Valley - Metals)

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EW121514A - - EPA 200.8										
MBLK (3088477)	Source: MBLK EW 12151 Prepared: Analyzed: 12/15/2014									
Lead	ND	0.0006	mg/L				-			
LFB (3088478)	Source: LFB EW 121514 Prepared: Analyzed: 12/15/2014									
Lead	0.0257	0.0006	mg/L	0.03	0	103	85-115			
DUP (3088480)	Source: 14120875-001A Prepared: Analyzed: 12/15/2014									
Lead	0.0406	0.0006	mg/L		0.0406		-	0.60	20	
MS (3088481)	Source: 14120875-001A Prepared: Analyzed: 12/15/2014									
Lead	0.0603	0.0006	mg/L	0.03	0.0409	78	70-130			
MBLK (3089037)	Source: FB 121214 Prepared: Analyzed: 12/15/2014									

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S4L0853

Subcontracted (Center Valley - Metals)

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EW121514A - - EPA 200.8										
MBLK (3089037)	Source: FB 121214		Prepared: Analyzed: 12/15/2014							
Lead	ND	0.0006	mg/L				-			
LFB (3089038)	Source: FLMS 121214		Prepared: Analyzed: 12/15/2014							
Lead	0.0211	0.0006	mg/L	0.02	0	105	85-115			
Batch gDW121814A - - EPA 245.1										
MBLK (3089948)	Source: MBLK HG D/W 1		Prepared: Analyzed: 12/18/2014							
Mercury	0	0.0002	mg/L				-			
DUP (3089952)	Source: 14120651-001A		Prepared: Analyzed: 12/18/2014							
Mercury	0	0.0002	mg/L		0		-	0	20	
MS (3089953)	Source: 14120651-001A		Prepared: Analyzed: 12/18/2014							
Mercury	0.0018	0.0002	mg/L	0.00	0	88	70-130			
DUP (3089966)	Source: 14120934-001A		Prepared: Analyzed: 12/18/2014							
Mercury	0	0.0002	mg/L		0		-	0	20	
MS (3089967)	Source: 14120934-001A		Prepared: Analyzed: 12/18/2014							
Mercury	0.0017	0.0002	mg/L	0.00	0	84	70-130			
LFB (3090016)	Source: LFB HG D/W 12		Prepared: Analyzed: 12/18/2014							
Mercury	0.0019	0.0002	mg/L	0.00	0	95	85-115			
Batch OW121614A - - EPA 200.7										
MBLK (3090312)	Source: MBLK OW 12161		Prepared: Analyzed: 12/16/2014							
Iron	ND	0.005	mg/L				-			



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CERTIFICATE OF ANALYSIS

S4L0853

Subcontracted (Center Valley - Metals)

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch OW121614A - - EPA 200.7										
LFB (3090313) Source: LFB OW 121614 Prepared: Analyzed: 12/16/2014										
Iron	4.13	0.005	mg/L	4.20	0	98	85-115			E
DUP (3090316) Source: 14120939-001A Prepared: Analyzed: 12/16/2014										
Cobalt	0.003	0.002	mg/L		0.003		-	19.65	20	
Potassium	1.53	0.500	mg/L		1.53		-	0.89	20	
Copper	0.022	0.002	mg/L		0.022		-	4.09	20	
Calcium	47.0	0.050	mg/L		47.0		-	0.24	20	E
Cadmium	ND	0.001	mg/L		0		-	0	20	
Antimony	ND	0.020	mg/L		0		-	0	20	
Nickel	ND	0.002	mg/L		0		-	0	20	
Barium	0.127	0.002	mg/L		0.127		-	2.96	20	
Beryllium	ND	0.001	mg/L		0		-	0	20	
Arsenic	ND	0.010	mg/L		0		-	0	20	
Iron	ND	0.005	mg/L		0		-	0	20	
Aluminum	0.027	0.025	mg/L		0.027		-	1.34	20	
Thallium	ND	0.025	mg/L		0		-	0	20	
Chromium	ND	0.002	mg/L		0		-	0	20	
Sodium	19.8	0.500	mg/L		19.8		-	2.15	20	
Magnesium	9.33	0.025	mg/L		9.33		-	0.27	20	E
Boron	0.093	0.025	mg/L		0.093		-	20.04	20	
Selenium	ND	0.040	mg/L		0		-	0	20	
Manganese	ND	0.002	mg/L		0		-	0	20	
Silver	ND	0.002	mg/L		0		-	0	20	
Vanadium	ND	0.005	mg/L		0		-	0	20	
Zinc	0.009	0.005	mg/L		0.009		-	0.68	20	
MBLK (3091340) Source: MBLK OW 12161 Prepared: Analyzed: 12/16/2014										
Nickel	ND	0.002	mg/L				-			
Antimony	ND	0.020	mg/L				-			
Arsenic	ND	0.010	mg/L				-			
Magnesium	ND	0.025	mg/L				-			
Potassium	ND	0.500	mg/L				-			
Chromium	ND	0.002	mg/L				-			
Silver	ND	0.002	mg/L				-			
Calcium	ND	0.050	mg/L				-			
Cadmium	ND	0.001	mg/L				-			
Copper	ND	0.002	mg/L				-			
Sodium	ND	0.500	mg/L				-			
Iron	ND	0.005	mg/L				-			
Beryllium	ND	0.001	mg/L				-			
Thallium	ND	0.025	mg/L				-			
Cobalt	ND	0.002	mg/L				-			
Zinc	ND	0.005	mg/L				-			
Selenium	ND	0.040	mg/L				-			
Vanadium	ND	0.005	mg/L				-			
Aluminum	ND	0.025	mg/L				-			

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CERTIFICATE OF ANALYSIS

S4L0853

Subcontracted (Center Valley - Metals)

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch OW121614A - - EPA 200.7										
MBLK (3091340) Source: MBLK OW 12161 Prepared: Analyzed: 12/16/2014										
Barium	ND	0.002	mg/L				-			
LFB (3091341) Source: LFB OW 121614 Prepared: Analyzed: 12/16/2014										
Barium	0.213	0.002	mg/L	0.20	0	107	85-115			L
Arsenic	0.213	0.010	mg/L	0.20	0	106	85-115			
Nickel	0.222	0.002	mg/L	0.20	0	111	85-115			L
Manganese	0.219	0.002	mg/L	0.20	0	110	85-115			
Iron	4.45	0.005	mg/L	4.20	0	106	85-115			
Beryllium	0.213	0.001	mg/L	0.20	0	106	85-115			L
Selenium	0.223	0.040	mg/L	0.20	0	112	85-115			
Antimony	0.215	0.020	mg/L	0.20	0	107	85-115			
Zinc	0.230	0.005	mg/L	0.20	0	115	85-115			
Magnesium	4.49	0.025	mg/L	4.20	0	107	85-115			
Copper	0.216	0.002	mg/L	0.20	0	108	85-115			L
Cobalt	0.219	0.002	mg/L	0.20	0	110	85-115			L
Cadmium	0.221	0.001	mg/L	0.20	0	111	85-115			L
Calcium	4.49	0.050	mg/L	4.20	0	107	85-115			
Chromium	0.217	0.002	mg/L	0.20	0	109	85-115			
Vanadium	0.223	0.005	mg/L	0.20	0	111	85-115			
Silver	0.103	0.002	mg/L	0.10	0	103	85-115			
Aluminum	0.216	0.025	mg/L	0.20	0	108	85-115			
MS (3091342) Source: 14120939-001A Prepared: Analyzed: 12/16/2014										
Aluminum	0.263	0.025	mg/L	0.20	0	132	70-130			S
Selenium	0.212	0.040	mg/L	0.20	0	106	70-130			
Barium	0.357	0.002	mg/L	0.20	0.122	118	70-130			E
Arsenic	0.213	0.010	mg/L	0.20	0	107	70-130			
Iron	4.47	0.005	mg/L	4.20	0	106	70-130			
Chromium	0.219	0.002	mg/L	0.20	0	110	70-130			
Antimony	0.215	0.020	mg/L	0.20	0	107	70-130			
Beryllium	0.210	0.001	mg/L	0.20	0	105	70-130			E
Manganese	0.217	0.002	mg/L	0.20	0	108	70-130			
Magnesium	14.6	0.025	mg/L	4.20	9.31	125	70-130			E
Thallium	0.205	0.025	mg/L	0.20	0	103	70-130			
Boron	0.324	0.025	mg/L	0.20	0.097	113	70-130			
Cadmium	0.220	0.001	mg/L	0.20	0	110	70-130			E
Vanadium	0.221	0.005	mg/L	0.20	0	111	70-130			
Cobalt	0.213	0.002	mg/L	0.20	0.003	105	70-130			E
Silver	0.104	0.002	mg/L	0.10	0.002	102	70-130			
Zinc	0.238	0.005	mg/L	0.20	0.008	115	70-130			
Copper	0.241	0.002	mg/L	0.20	0.019	111	70-130			E
Calcium	56.0	0.050	mg/L	4.20	47.0	216	70-130			S, E
Potassium	8.11	0.500	mg/L	6.00	1.59	109	70-130			
Sodium	26.7	0.500	mg/L	4.20	19.6	170	70-130			S, E
Nickel	0.216	0.002	mg/L	0.20	0	108	70-130			E



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CERTIFICATE OF ANALYSIS

S4L0853

Subcontracted (Center Valley - Metals)

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch OW121614A - - EPA 200.7										
DUP (3091356)	Source: 14120942-001A			Prepared: Analyzed: 12/16/2014						
Manganese	0.013	0.002	mg/L		0.013	-		0.70	20	
Nickel	ND	0.002	mg/L		0	-		0	20	
Cadmium	ND	0.001	mg/L		0	-		0	20	
Copper	0.002	0.002	mg/L		0.002	-		200.0	20	R
Cobalt	ND	0.002	mg/L		0	-		0	20	
Calcium	36.5	0.050	mg/L		36.5	-		0.47	20	E
Chromium	ND	0.002	mg/L		0	-		0	20	
Iron	0.028	0.005	mg/L		0.028	-		0	20	
Sodium	18.7	0.500	mg/L		18.7	-		1.46	20	
Arsenic	ND	0.010	mg/L		0	-		0	20	
Zinc	ND	0.005	mg/L		0	-		0	20	
Boron	0.045	0.025	mg/L		0.045	-		13.55	20	
Silver	ND	0.002	mg/L		0	-		0	20	
Beryllium	ND	0.001	mg/L		0	-		0	20	
Barium	0.056	0.002	mg/L		0.056	-		0.15	20	
Potassium	3.04	0.500	mg/L		3.04	-		4.65	20	
Aluminum	0.035	0.025	mg/L		0.035	-		10.36	20	
Selenium	ND	0.040	mg/L		0	-		0	20	
Vanadium	ND	0.005	mg/L		0	-		0	20	
Thallium	ND	0.025	mg/L		0	-		0	20	
Magnesium	5.81	0.025	mg/L		5.81	-		0.47	20	
Antimony	ND	0.020	mg/L		0	-		0	20	
MS (3091357)	Source: 14120942-001A			Prepared: Analyzed: 12/16/2014						
Vanadium	0.228	0.005	mg/L	0.20	0	114	70-130			
Zinc	0.230	0.005	mg/L	0.20	0	115	70-130			
Boron	0.259	0.025	mg/L	0.20	0.052	104	70-130			
Nickel	0.221	0.002	mg/L	0.20	0	111	70-130			E
Manganese	0.235	0.002	mg/L	0.20	0.013	111	70-130			
Chromium	0.224	0.002	mg/L	0.20	0	112	70-130			
Antimony	0.227	0.020	mg/L	0.20	0	113	70-130			
Sodium	23.7	0.500	mg/L	4.20	18.4	125	70-130			E
Barium	0.281	0.002	mg/L	0.20	0.056	113	70-130			E
Copper	0.227	0.002	mg/L	0.20	0	113	70-130			E
Iron	4.60	0.005	mg/L	4.20	0.028	109	70-130			
Selenium	0.216	0.040	mg/L	0.20	0	108	70-130			
Thallium	0.207	0.025	mg/L	0.20	0	103	70-130			
Arsenic	0.215	0.010	mg/L	0.20	0	107	70-130			
Silver	0.106	0.002	mg/L	0.10	0	106	70-130			
Aluminum	0.282	0.025	mg/L	0.20	0.039	121	70-130			
Beryllium	0.218	0.001	mg/L	0.20	0	109	70-130			E
Magnesium	10.6	0.025	mg/L	4.20	5.84	114	70-130			E
Potassium	9.64	0.500	mg/L	6.00	3.19	108	70-130			
Cadmium	0.224	0.001	mg/L	0.20	0	112	70-130			E
Cobalt	0.219	0.002	mg/L	0.20	0	110	70-130			E
Calcium	42.5	0.050	mg/L	4.20	36.7	139	70-130			S, E

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S4L0853

Subcontracted (Center Valley - Metals)

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch OW121614A - - EPA 200.7										
LFB (3091925)	Source: LFB OW 121614 Prepared: Analyzed: 12/16/2014									
Manganese	0.221	0.002	mg/L	0.20	0	111	85-115			
MBLK (3094166)	Source: MBLK OW 12161 Prepared: Analyzed: 12/16/2014									
Manganese	ND	0.002	mg/L				-			
Boron	ND	0.025	mg/L				-			
LFB (3094167)	Source: LFB OW 121614 Prepared: Analyzed: 12/16/2014									
Boron	0.208	0.025	mg/L	0.20	0	104	85-115			



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Benchmark Analytics Sayre, A Microbac Laboratory

Anions by Ion Chromatography

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1916 - SL40994 - EPA 300.0, Rv 2.1										
Calibration Blank (S4L1916-CCB1)				Prepared & Analyzed: 12/17/2014						
Sulfate as SO ₄	0.00		mg/L							
Bromide	0.00		mg/L							
Chloride	0.00		mg/L							
Calibration Blank (S4L1916-CCB2)				Prepared & Analyzed: 12/17/2014						
Chloride	0.00		mg/L							
Bromide	0.00		mg/L							
Sulfate as SO ₄	0.00		mg/L							
Calibration Blank (S4L1916-CCB3)				Prepared & Analyzed: 12/17/2014						
Sulfate as SO ₄	0.00		mg/L							
Chloride	0.00		mg/L							
Bromide	0.00		mg/L							
Calibration Blank (S4L1916-CCB4)				Prepared & Analyzed: 12/17/2014						
Sulfate as SO ₄	0.00		mg/L							
Chloride	0.00		mg/L							
Bromide	0.00		mg/L							
Calibration Blank (S4L1916-CCB5)				Prepared & Analyzed: 12/18/2014						
Sulfate as SO ₄	0.00		mg/L							
Chloride	0.00		mg/L							
Bromide	0.00		mg/L							
Calibration Blank (S4L1916-CCB6)				Prepared & Analyzed: 12/18/2014						
Sulfate as SO ₄	0.00		mg/L							
Chloride	0.00		mg/L							
Bromide	0.00		mg/L							



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CERTIFICATE OF ANALYSIS

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Anions by Ion Chromatography

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1916 - SL40994 - EPA 300.0, Rv 2.1										
Calibration Blank (S4L1916-CCB7)				Prepared & Analyzed: 12/18/2014						
Bromide	0.00		mg/L							
High Cal Check (S4L1916-HCV1)				Prepared & Analyzed: 12/17/2014						
Bromide	1.01		mg/L	1.00		101	90-110			
Sulfate as SO ₄	208		mg/L	200.00		104	90-110			
Chloride	208		mg/L	200.00		104	90-110			
High Cal Check (S4L1916-HCV2)				Prepared & Analyzed: 12/17/2014						
Bromide	0.985		mg/L	1.00		98.5	90-110			
Chloride	212		mg/L	200.00		106	90-110			
Sulfate as SO ₄	211		mg/L	200.00		106	90-110			
High Cal Check (S4L1916-HCV3)				Prepared & Analyzed: 12/18/2014						
Bromide	0.982		mg/L	1.00		98.2	90-110			
Chloride	208		mg/L	200.00		104	90-110			
Sulfate as SO ₄	207		mg/L	200.00		104	90-110			
Low Cal Check (S4L1916-LCV1)				Prepared & Analyzed: 12/17/2014						
Bromide	0.502		mg/L	0.50		100	90-110			
Sulfate as SO ₄	48.6		mg/L	50.00		97.2	90-110			
Chloride	46.5		mg/L	50.00		93.0	90-110			
Low Cal Check (S4L1916-LCV2)				Prepared & Analyzed: 12/17/2014						
Bromide	0.537		mg/L	0.50		107	90-110			
Chloride	45.7		mg/L	50.00		91.4	90-110			
Sulfate as SO ₄	48.4		mg/L	50.00		96.8	90-110			
Low Cal Check (S4L1916-LCV3)				Prepared & Analyzed: 12/18/2014						
Bromide	0.549		mg/L	0.50		110	90-110			
Chloride	47.2		mg/L	50.00		94.4	90-110			
Sulfate as SO ₄	49.3		mg/L	50.00		98.6	90-110			



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Anions by Ion Chromatography

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1916 - SL40994 - EPA 300.0, Rv 2.1										
Low Cal Check (S4L1916-LCV4)				Prepared & Analyzed: 12/18/2014						
Bromide	0.510		mg/L	0.50		102	90-110			
Batch SL40996 - Wet Chem - W - EPA 300.0, Rv 2.1										
Blank (SL40996-BLK1)				Prepared & Analyzed: 12/17/2014						
Bromide	ND	0.200	mg/L							
Chloride	ND	1.00	mg/L							
Sulfate as SO4	ND	0.250	mg/L							
LCS (SL40996-BS1)				Prepared & Analyzed: 12/17/2014						
Bromide	0.550	0.200	mg/L	0.50		110	90-110			
Chloride	46.3	1.00	mg/L	50.00		92.6	90-110			
Sulfate as SO4	48.4	0.250	mg/L	50.00		96.8	90-110			
Matrix Spike (SL40996-MS1)				Source: S4L0853-07	Prepared & Analyzed: 12/17/2014					
Chloride	157	1.00	mg/L	100.00	53.7	103	80-120			
Sulfate as SO4	107	0.250	mg/L	100.00	8.66	98.3	80-120			
Bromide	0.504	0.200	mg/L	0.50	ND	101	80-120			
Matrix Spike (SL40996-MS3)				Source: S4L0735-01	Prepared & Analyzed: 12/18/2014					
Sulfate as SO4	104	0.250	mg/L	100.00	6.85	97.2	80-120			
Bromide	0.506	0.200	mg/L	0.50	ND	101	80-120			
Chloride	96.6	1.00	mg/L	100.00	ND	96.6	80-120			
Matrix Spike Dup (SL40996-MSD1)				Source: S4L0853-07	Prepared & Analyzed: 12/17/2014					
Chloride	156	1.00	mg/L	100.00	53.7	102	80-120	0.639	200	
Bromide	0.550	0.200	mg/L	0.50	ND	110	80-120	8.73	200	
Sulfate as SO4	106	0.250	mg/L	100.00	8.66	97.3	80-120	0.939	200	



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Anions by Ion Chromatography

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40996 - Wet Chem - W - EPA 300.0, Rv 2.1										
Matrix Spike Dup (SL40996-MSD3)		Source: S4L0735-01		Prepared & Analyzed: 12/18/2014						
Chloride	96.0	1.00	mg/L	100.00	ND	96.0	80-120	0.623	200	
Sulfate as SO ₄	104	0.250	mg/L	100.00	6.85	97.2	80-120	0.00	200	
Bromide	0.503	0.200	mg/L	0.50	ND	101	80-120	0.595	200	



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General Paramaters

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1101 - SL40597 - SM2120 B-2001										
Cal Standard (S4L1101-CAL1)				Prepared & Analyzed: 12/10/2014						
Color	5.00		Pt-Co	5.00		100				
Cal Standard (S4L1101-CAL2)				Prepared & Analyzed: 12/10/2014						
Color	10.0		Pt-Co	10.00		100				
Cal Standard (S4L1101-CAL3)				Prepared & Analyzed: 12/10/2014						
Color	25.0		Pt-Co	25.00		100				
Batch S4L1201 - SL40686 - SM4500 H+ B-2000										
Cal Standard (S4L1201-CAL1)				Prepared & Analyzed: 12/11/2014						
pH	4.00		pH Units	4.00		100				
Cal Standard (S4L1201-CAL2)				Prepared & Analyzed: 12/11/2014						
pH	6.96		pH Units	7.00		99.4				
Cal Standard (S4L1201-CAL3)				Prepared & Analyzed: 12/11/2014						
pH	10.0		pH Units	10.00		100				
Calibration Check (S4L1201-CCV1)				Prepared & Analyzed: 12/11/2014						
pH	6.96		pH Units	7.00		99.4	98.6-101.4			
Calibration Check (S4L1201-CCV2)				Prepared & Analyzed: 12/11/2014						
pH	7.04		pH Units	7.00		101	98.6-101.4			
Calibration Check (S4L1201-CCV3)				Prepared & Analyzed: 12/11/2014						
pH	7.05		pH Units	7.00		101	98.6-101.4			



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CERTIFICATE OF ANALYSIS

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General Parameters

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1201 - SL40686 - SM4500 H+ B-2000										
Calibration Check (S4L1201-CCV4)				Prepared & Analyzed: 12/11/2014						
pH	7.02		pH Units	7.00		100	98.6-101.4			
Instrument Blank (S4L1201-IBL1)				Prepared & Analyzed: 12/11/2014						
Temperature	17.7		°C							
pH	6.49	0.0100	pH Units							
Batch SL40598 - Wet Chem - W - SM2120 B-2001										
Blank (SL40598-BLK1)				Prepared & Analyzed: 12/10/2014						
Color	ND	5.00	Pt-Co							
Duplicate (SL40598-DUP1)				Source: S4L0853-06 Prepared & Analyzed: 12/10/2014						
Color	ND	5.00	Pt-Co		0.00				10	
Duplicate (SL40598-DUP2)				Source: S4L0853-07 Prepared & Analyzed: 12/10/2014						
Color	ND	5.00	Pt-Co		0.00				10	
Reference (SL40598-SRM1)				Prepared & Analyzed: 12/10/2014						
Color	10.0	5.00	Pt-Co	10.00		100	0-200			
Reference (SL40598-SRM2)				Prepared & Analyzed: 12/10/2014						
Color	10.0	5.00	Pt-Co	10.00		100	0-200			
Batch SL40674 - Wet Chem - W - SM4500 H+ B-2000										
Duplicate (SL40674-DUP1)				Source: S4L0871-01 Prepared & Analyzed: 12/11/2014						
pH	6.82	0.0100	pH Units		6.80			0.294	200	
Temperature	19.9		°C		19.8			0.504	200	



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S4L0853

General Paramaters

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40674 - Wet Chem - W - SM4500 H+ B-2000										
Duplicate (SL40674-DUP2)	Source: S4L0954-07			Prepared & Analyzed: 12/11/2014						
Temperature	20.4		°C		20.4			0.00	200	
pH	7.95	0.0100	pH Units		7.95			0.00	200	



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Inorganics

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L0914 - SL40531 - Hach 8000										
Cal Standard (S4L0914-CAL1)				Prepared & Analyzed: 12/09/2014						
Chemical Oxygen Demand (COD)	14.3		mg/L	10.00		143				
Cal Standard (S4L0914-CAL2)				Prepared & Analyzed: 12/09/2014						
Chemical Oxygen Demand (COD)	52.1		mg/L	50.00		104				
Cal Standard (S4L0914-CAL3)				Prepared & Analyzed: 12/09/2014						
Chemical Oxygen Demand (COD)	94.6		mg/L	100.00		94.6				
Cal Standard (S4L0914-CAL4)				Prepared & Analyzed: 12/09/2014						
Chemical Oxygen Demand (COD)	154		mg/L	150.00		102				
Cal Standard (S4L0914-CAL5)				Prepared & Analyzed: 12/09/2014						
Chemical Oxygen Demand (COD)	491		mg/L	500.00		98.3				
Cal Standard (S4L0914-CAL6)				Prepared & Analyzed: 12/09/2014						
Chemical Oxygen Demand (COD)	1000		mg/L	1,000.00		100				
High Cal Check (S4L0914-HCV1)				Prepared & Analyzed: 12/09/2014						
Chemical Oxygen Demand (COD)	517		mg/L	500.00		103	0-200			
Low Cal Check (S4L0914-LCV1)				Prepared & Analyzed: 12/09/2014						
Chemical Oxygen Demand (COD)	97.0		mg/L	100.00		97.0	0-200			
Batch S4L1112 - SL40578 - EPA 353.2, Rv 2.0										
Cal Standard (S4L1112-CAL1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	2.00		mg/L	2.00		100				



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Inorganics

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1112 - SL40578 - EPA 353.2, Rv 2.0										
Cal Standard (S4L1112-CAL2)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	1.00		mg/L	1.00		100				
Cal Standard (S4L1112-CAL3)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.500		mg/L	0.50		100				
Cal Standard (S4L1112-CAL4)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.250		mg/L	0.25		100				
Cal Standard (S4L1112-CAL5)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.100		mg/L	0.10		100				
Cal Standard (S4L1112-CAL6)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0500		mg/L	0.05		100				
Cal Standard (S4L1112-CAL7)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0250		mg/L	0.03		100				
Calibration Blank (S4L1112-CCB1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0171		mg/L							
Calibration Blank (S4L1112-CCB2)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0163		mg/L							
Calibration Blank (S4L1112-CCB3)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0173		mg/L							
Calibration Blank (S4L1112-CCB4)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0178		mg/L							



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Inorganics

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1112 - SL40578 - EPA 353.2, Rv 2.0										
Calibration Blank (S4L1112-CCB5)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.00611		mg/L							
Calibration Blank (S4L1112-CCB6)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0208		mg/L							
Calibration Check (S4L1112-CCV2)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	1.92		mg/L	2.00		96.0	90-110			
High Cal Check (S4L1112-HCV1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.949		mg/L	1.00		94.9	90-110			
High Cal Check (S4L1112-HCV2)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.963		mg/L	1.00		96.3	90-110			
Instrument Blank (S4L1112-IBL1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0234	0.0250	mg/L							
Initial Cal Blank (S4L1112-ICB1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0145		mg/L							
Initial Cal Check (S4L1112-ICV1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.953		mg/L	1.00		95.3	90-110			
Low Cal Check (S4L1112-LCV1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.497		mg/L	0.50		99.4	90-110			
Low Cal Check (S4L1112-LCV2)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.498		mg/L	0.50		99.6	90-110			



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Inorganics

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1112 - SL40578 - EPA 353.2, Rv 2.0										
Low Cal Check (S4L1112-LCV3)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.495		mg/L	0.50		99.0	90-110			
Low Cal Check (S4L1112-LCV4)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.490		mg/L	0.50		98.0	90-110			
Batch S4L1115 - SL40637 - EPA 353.2, Rv 2.0										
Cal Standard (S4L1115-CAL1)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	2.50		mg/L	2.50		100				
Cal Standard (S4L1115-CAL2)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	1.00		mg/L	1.00		100				
Cal Standard (S4L1115-CAL3)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	0.500		mg/L	0.50		100				
Cal Standard (S4L1115-CAL4)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	0.100		mg/L	0.10		100				
Cal Standard (S4L1115-CAL5)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	0.0500		mg/L	0.05		100				
Calibration Blank (S4L1115-CCB1)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0455		mg/L							
Calibration Blank (S4L1115-CCB2)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0447		mg/L							



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Inorganics

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1115 - SL40637 - EPA 353.2, Rv 2.0										
Calibration Blank (S4L1115-CCB3)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0527		mg/L							
Calibration Blank (S4L1115-CCB4)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0456		mg/L							
Calibration Blank (S4L1115-CCB5)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0451		mg/L							
Calibration Blank (S4L1115-CCB6)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0542		mg/L							
Initial Cal Blank (S4L1115-ICB1)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0500		mg/L							
Batch S4L1116 - SL40625 - EPA 351.2, Rv 2										
Calibration Blank (S4L1116-CCB1)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	0.00983		mg/L							
Calibration Blank (S4L1116-CCB2)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	-0.00578		mg/L							
Calibration Blank (S4L1116-CCB3)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	-0.00989		mg/L							
Calibration Blank (S4L1116-CCB4)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	-0.0457		mg/L							



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1116 - SL40625 - EPA 351.2, Rv 2										
High Cal Check (S4L1116-HCV1)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	10.2		mg/L	10.00		102	90-110			
High Cal Check (S4L1116-HCV2)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	10.3		mg/L	10.00		103	90-110			
Initial Cal Blank (S4L1116-ICB1)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	-0.0130		mg/L							
Initial Cal Check (S4L1116-ICV1)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	10.2		mg/L	10.00		102	90-110			
Low Cal Check (S4L1116-LCV1)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	5.06		mg/L	5.00		101	90-110			
Low Cal Check (S4L1116-LCV2)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	5.11		mg/L	5.00		102	90-110			
Batch S4L1208 - SL40755 - SM3500 Cr B-2009										
Cal Standard (S4L1208-CAL1)				Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.00600		mg/L	0.01		60.0				
Cal Standard (S4L1208-CAL2)				Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.0380		mg/L	0.05		76.0				
Cal Standard (S4L1208-CAL3)				Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.0780		mg/L	0.10		78.0				



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1208 - SL40755 - SM3500 Cr B-2009										
Cal Standard (S4L1208-CAL4)				Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.398		mg/L	0.50		79.6				
High Cal Check (S4L1208-HCV1)				Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.0988		mg/L	0.50		19.8	0-200			
High Cal Check (S4L1208-HCV2)				Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.101		mg/L	0.50		20.3	0-200			
Low Cal Check (S4L1208-LCV1)				Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.0488		mg/L	0.05		97.5	90-110			
Batch S4L1501 - SL40732 - SM5310 C-2000										
Calibration Blank (S4L1501-CCB1)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.146		mg/L							
Calibration Blank (S4L1501-CCB2)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.150		mg/L							
Calibration Blank (S4L1501-CCB3)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.134		mg/L							
Calibration Blank (S4L1501-CCB4)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.193		mg/L							
Calibration Blank (S4L1501-CCB5)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.0420		mg/L							



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1501 - SL40732 - SM5310 C-2000										
High Cal Check (S4L1501-HCV1)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	5.30		mg/L	5.00		106	80-120			
High Cal Check (S4L1501-HCV2)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	5.45		mg/L	5.00		109	80-120			
High Cal Check (S4L1501-HCV3)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	5.56		mg/L	5.00		111	80-120			
Initial Cal Blank (S4L1501-ICB1)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.135		mg/L							
Initial Cal Check (S4L1501-ICV1)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	5.33		mg/L	5.00		107	80-120			
Low Cal Check (S4L1501-LCV1)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	2.58		mg/L	2.50		103	80-120			
Low Cal Check (S4L1501-LCV2)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	2.62		mg/L	2.50		105	80-120			
Batch S4L1504 - SL40750 - EPA 350.1, Rv 2										
Cal Standard (S4L1504-CAL1)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.146		mg/L	0.10		146				
Cal Standard (S4L1504-CAL2)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.477		mg/L	0.50		95.4				



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1504 - SL40750 - EPA 350.1, Rv 2										
Cal Standard (S4L1504-CAL3)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.942		mg/L	1.00		94.2				
Cal Standard (S4L1504-CAL4)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	5.08		mg/L	5.00		102				
Cal Standard (S4L1504-CAL5)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	9.94		mg/L	10.00		99.4				
Cal Standard (S4L1504-CAL6)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	15.0		mg/L	15.00		100				
Calibration Blank (S4L1504-CCB1)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0890		mg/L							
Calibration Blank (S4L1504-CCB2)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0640		mg/L							
Calibration Blank (S4L1504-CCB3)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0650		mg/L							
Calibration Blank (S4L1504-CCB4)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0630		mg/L							
Calibration Blank (S4L1504-CCB5)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0720		mg/L							
Calibration Blank (S4L1504-CCB6)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0620		mg/L							



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1504 - SL40750 - EPA 350.1, Rv 2										
Calibration Blank (S4L1504-CCB7)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0590		mg/L							
High Cal Check (S4L1504-HCV1)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	9.99		mg/L	10.00		99.9	90-110			
High Cal Check (S4L1504-HCV2)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	10.3		mg/L	10.00		103	90-110			
High Cal Check (S4L1504-HCV3)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	9.72		mg/L	10.00		97.2	90-110			
Initial Cal Blank (S4L1504-ICB1)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0820		mg/L							
Initial Cal Check (S4L1504-ICV1)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.98		mg/L	5.00		99.7	90-110			
Low Cal Check (S4L1504-LCV1)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.92		mg/L	5.00		98.4	90-110			
Low Cal Check (S4L1504-LCV2)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.73		mg/L	5.00		94.6	90-110			
Low Cal Check (S4L1504-LCV3)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.84		mg/L	5.00		96.8	90-110			
Low Cal Check (S4L1504-LCV4)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.76		mg/L	5.00		95.1	90-110			



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1606 - SL40848 - Hach 8000										
Cal Standard (S4L1606-CAL1)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	14.3		mg/L	10.00		143				
Cal Standard (S4L1606-CAL2)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	49.7		mg/L	50.00		99.4				
Cal Standard (S4L1606-CAL3)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	94.6		mg/L	100.00		94.6				
Cal Standard (S4L1606-CAL4)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	156		mg/L	150.00		104				
Cal Standard (S4L1606-CAL5)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	494		mg/L	500.00		98.8				
Cal Standard (S4L1606-CAL6)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	1010		mg/L	1,000.00		101				
High Cal Check (S4L1606-HCV1)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	515		mg/L	500.00		103	0-200			
High Cal Check (S4L1606-HCV2)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	520		mg/L	500.00		104	0-200			
Low Cal Check (S4L1606-LCV1)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	97.0		mg/L	100.00		97.0	0-200			
Low Cal Check (S4L1606-LCV2)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	92.2		mg/L	100.00		92.2	0-200			



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1613 - SL40844 - EPA 351.2, Rv 2										
Calibration Blank (S4L1613-CCB1)	Prepared & Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	0.0133		mg/L							
Calibration Blank (S4L1613-CCB2)	Prepared & Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	0.101		mg/L							
Calibration Blank (S4L1613-CCB3)	Prepared & Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	0.188		mg/L							
Calibration Blank (S4L1613-CCB4)	Prepared & Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	0.0629		mg/L							
Calibration Blank (S4L1613-CCB5)	Prepared & Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	0.0171		mg/L							
Calibration Blank (S4L1613-CCB6)	Prepared & Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	0.0334		mg/L							
Calibration Blank (S4L1613-CCB7)	Prepared & Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	0.0617		mg/L							
Calibration Blank (S4L1613-CCB8)	Prepared & Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	-0.0571		mg/L							
Calibration Blank (S4L1613-CCB9)	Prepared & Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	0.0246		mg/L							
Calibration Blank (S4L1613-CCBA)	Prepared & Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	0.0615		mg/L							



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1613 - SL40844 - EPA 351.2, Rv 2										
Calibration Blank (S4L1613-CCBB)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.0643		mg/L							
Calibration Blank (S4L1613-CCBC)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	-0.0307		mg/L							
High Cal Check (S4L1613-HCV1)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.52		mg/L	10.00		95.2	90-110			
High Cal Check (S4L1613-HCV2)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.70		mg/L	10.00		97.0	90-110			
High Cal Check (S4L1613-HCV3)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.59		mg/L	10.00		95.9	90-110			
High Cal Check (S4L1613-HCV4)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.63		mg/L	10.00		96.3	90-110			
High Cal Check (S4L1613-HCV5)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.71		mg/L	10.00		97.1	90-110			
High Cal Check (S4L1613-HCV6)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.92		mg/L	10.00		99.2	90-110			
Initial Cal Blank (S4L1613-ICB1)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.0149		mg/L							
Initial Cal Check (S4L1613-ICV1)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.45		mg/L	10.00		94.5	90-110			



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1613 - SL40844 - EPA 351.2, Rv 2										
Low Cal Check (S4L1613-LCV1)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.82		mg/L	5.00		96.4	90-110			
Low Cal Check (S4L1613-LCV2)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.79		mg/L	5.00		95.8	90-110			
Low Cal Check (S4L1613-LCV3)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.86		mg/L	5.00		97.2	90-110			
Low Cal Check (S4L1613-LCV4)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.81		mg/L	5.00		96.2	90-110			
Low Cal Check (S4L1613-LCV5)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.88		mg/L	5.00		97.6	90-110			
Low Cal Check (S4L1613-LCV6)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.88		mg/L	5.00		97.6	90-110			
Batch S4L1713 - SL40790 - EPA 335.4, Rv 1										
Cal Standard (S4L1713-CAL1)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.500		mg/L	0.50		100				
Cal Standard (S4L1713-CAL2)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.350		mg/L	0.35		100				
Cal Standard (S4L1713-CAL3)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.200		mg/L	0.20		100				



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1713 - SL40790 - EPA 335.4, Rv 1										
Cal Standard (S4L1713-CAL4)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.100		mg/L	0.10		100				
Cal Standard (S4L1713-CAL5)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.0500		mg/L	0.05		100				
Cal Standard (S4L1713-CAL6)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.0100		mg/L	0.01		100				
Calibration Blank (S4L1713-CCB1)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.00768		mg/L							
Calibration Blank (S4L1713-CCB2)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.00269		mg/L							
Calibration Blank (S4L1713-CCB3)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.00426		mg/L							
Calibration Blank (S4L1713-CCB4)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	-0.00537		mg/L							
Calibration Blank (S4L1713-CCB5)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	-0.00481		mg/L							
Calibration Blank (S4L1713-CCB6)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	-0.00544		mg/L							
High Cal Check (S4L1713-HCV1)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.361		mg/L	0.35		103	0-200			



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1713 - SL40790 - EPA 335.4, Rv 1										
High Cal Check (S4L1713-HCV2)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.381		mg/L	0.35		109	0-200			
High Cal Check (S4L1713-HCV3)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.365		mg/L	0.35		104	0-200			
Initial Cal Blank (S4L1713-ICB1)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.000920		mg/L							
Initial Cal Check (S4L1713-ICV1)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.0984		mg/L	0.10		98.4	90-110			
Low Cal Check (S4L1713-LCV1)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.110		mg/L	0.10		110	90-110			
Low Cal Check (S4L1713-LCV2)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.0956		mg/L	0.10		95.6	90-110			
Low Cal Check (S4L1713-LCV3)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.104		mg/L	0.10		104	90-110			
Batch S4L1814 - SL40687 - EPA 420.4, Rv 1										
Cal Standard (S4L1814-CAL1)				Prepared & Analyzed: 12/15/2014						
Phenols	1.00		mg/L	1.00		100				
Cal Standard (S4L1814-CAL2)				Prepared & Analyzed: 12/15/2014						
Phenols	0.500		mg/L	0.50		100				



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1814 - SL40687 - EPA 420.4, Rv 1										
Cal Standard (S4L1814-CAL3)				Prepared & Analyzed: 12/15/2014						
Phenols	0.200		mg/L	0.20		100				
Cal Standard (S4L1814-CAL4)				Prepared & Analyzed: 12/15/2014						
Phenols	0.100		mg/L	0.10		100				
Cal Standard (S4L1814-CAL5)				Prepared & Analyzed: 12/15/2014						
Phenols	0.0500		mg/L	0.05		100				
Cal Standard (S4L1814-CAL6)				Prepared & Analyzed: 12/15/2014						
Phenols	0.0250		mg/L	0.03		100				
Cal Standard (S4L1814-CAL7)				Prepared & Analyzed: 12/15/2014						
Phenols	0.0100		mg/L	0.01		100				
Calibration Blank (S4L1814-CCB1)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00383		mg/L							
Calibration Blank (S4L1814-CCB2)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00356		mg/L							
Calibration Blank (S4L1814-CCB3)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00527		mg/L							
Calibration Blank (S4L1814-CCB4)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00340		mg/L							
Calibration Blank (S4L1814-CCB5)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00669		mg/L							



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Inorganics

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1814 - SL40687 - EPA 420.4, Rv 1										
High Cal Check (S4L1814-HCV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.486		mg/L	0.50		97.2	0-200			
High Cal Check (S4L1814-HCV2)				Prepared & Analyzed: 12/15/2014						
Phenols	0.483		mg/L	0.50		96.6	0-200			
High Cal Check (S4L1814-HCV3)				Prepared & Analyzed: 12/15/2014						
Phenols	0.488		mg/L	0.50		97.6	0-200			
Initial Cal Blank (S4L1814-ICB1)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00885		mg/L							
Initial Cal Check (S4L1814-ICV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.198		mg/L	0.20		99.0	90-110			
Low Cal Check (S4L1814-LCV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.198		mg/L	0.20		99.0	0-200			
Batch S4L1819 - SL40839 - EPA 420.4, Rv 1										
Cal Standard (S4L1819-CAL1)				Prepared & Analyzed: 12/15/2014						
Phenols	1.00		mg/L	1.00		100				
Cal Standard (S4L1819-CAL2)				Prepared & Analyzed: 12/15/2014						
Phenols	0.500		mg/L	0.50		100				
Cal Standard (S4L1819-CAL3)				Prepared & Analyzed: 12/15/2014						
Phenols	0.200		mg/L	0.20		100				



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1819 - SL40839 - EPA 420.4, Rv 1										
Cal Standard (S4L1819-CAL4)				Prepared & Analyzed: 12/15/2014						
Phenols	0.100		mg/L	0.10		100				
Cal Standard (S4L1819-CAL5)				Prepared & Analyzed: 12/15/2014						
Phenols	0.0500		mg/L	0.05		100				
Cal Standard (S4L1819-CAL6)				Prepared & Analyzed: 12/15/2014						
Phenols	0.0250		mg/L	0.03		100				
Cal Standard (S4L1819-CAL7)				Prepared & Analyzed: 12/15/2014						
Phenols	0.0100		mg/L	0.01		100				
Calibration Blank (S4L1819-CCB1)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00187		mg/L							
Calibration Blank (S4L1819-CCB2)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00213		mg/L							
Calibration Blank (S4L1819-CCB3)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00388		mg/L							
Calibration Blank (S4L1819-CCB4)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00255		mg/L							
Calibration Blank (S4L1819-CCB5)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00605		mg/L							
High Cal Check (S4L1819-HCV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.487		mg/L	0.50		97.4	0-200			



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch S4L1819 - SL40839 - EPA 420.4, Rv 1										
High Cal Check (S4L1819-HCV2)				Prepared & Analyzed: 12/15/2014						
Phenols	0.484		mg/L	0.50		96.8	0-200			
High Cal Check (S4L1819-HCV3)				Prepared & Analyzed: 12/15/2014						
Phenols	0.486		mg/L	0.50		97.2	0-200			
Initial Cal Blank (S4L1819-ICB1)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00600		mg/L							
Initial Cal Check (S4L1819-ICV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.198		mg/L	0.20		99.0	90-110			
Low Cal Check (S4L1819-LCV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.200		mg/L	0.20		100	0-200			
Batch SL40581 - 353.2 - W - EPA 353.2, Rv 2.0										
Matrix Spike (SL40581-MS1)		Source: S4L0853-04		Prepared & Analyzed: 12/10/2014						
Nitrite as N	1.13	0.0250	mg/L	1.00	0.0108	112	90-110			M1
Matrix Spike (SL40581-MS2)		Source: S4L0865-02		Prepared & Analyzed: 12/10/2014						
Nitrite as N	1.17	0.0250	mg/L	1.00	0.0354	113	90-110			M1
Matrix Spike Dup (SL40581-MSD1)		Source: S4L0853-04		Prepared & Analyzed: 12/10/2014						
Nitrite as N	1.11	0.0250	mg/L	1.00	0.0108	110	90-110	1.79	10	M1
Batch SL40583 - 353.2 - W - EPA 353.2, Rv 2.0										
Matrix Spike (SL40583-MS1)		Source: S4L0853-04		Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	1.90	0.500	mg/L	2.00	0.0688	95.0	90-110			D



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40583 - 353.2 - W - EPA 353.2, Rv 2.0										
Matrix Spike (SL40583-MS2)	Source: S4L0865-02			Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	1.88	0.0500	mg/L	2.00	0.0502	91.5	90-110			
Matrix Spike Dup (SL40583-MSD1)	Source: S4L0853-04			Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	1.91	0.500	mg/L	2.00	0.0688	95.5	90-110	0.525	10	D
Batch SL40617 - Wet Chem - W - SM2320 B-1997										
Blank (SL40617-BLK1)	Prepared & Analyzed: 12/10/2014									
Alkalinity to pH 4.5	ND	2.00	mg CaCO3/L							
Blank (SL40617-BLK2)	Prepared & Analyzed: 12/10/2014									
Alkalinity to pH 4.5	ND	2.00	mg CaCO3/L							
LCS (SL40617-BS1)	Prepared & Analyzed: 12/10/2014									
Alkalinity to pH 4.5	104	2.00	mg CaCO3/L	100.00		104	85-115			
LCS (SL40617-BS2)	Prepared & Analyzed: 12/10/2014									
Alkalinity to pH 4.5	106	2.00	mg CaCO3/L	100.00		106	85-115			
Duplicate (SL40617-DUP1)	Source: S4L0663-04			Prepared & Analyzed: 12/10/2014						
Alkalinity to pH 4.5	134	2.00	mg CaCO3/L		134			0.00	10	
Duplicate (SL40617-DUP2)	Source: S4L0735-01			Prepared & Analyzed: 12/10/2014						
Alkalinity to pH 4.5	142	2.00	mg CaCO3/L		142			0.00	10	
Duplicate (SL40617-DUP3)	Source: S4L0921-01			Prepared & Analyzed: 12/10/2014						
Alkalinity to pH 4.5	154	2.00	mg CaCO3/L		152			1.31	10	



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40626 - Wet-Digestion-W - EPA 351.2, Rv 2										
Blank (SL40626-BLK1)				Prepared: 12/10/2014 Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	ND	1.00	mg/L							
Blank (SL40626-BLK2)				Prepared: 12/10/2014 Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	ND	1.00	mg/L							
Duplicate (SL40626-DUP1)		Source: S4L0807-02		Prepared: 12/10/2014 Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	5.48	1.00	mg/L		5.03			8.56	10	
Matrix Spike (SL40626-MS1)		Source: S4L0735-01		Prepared: 12/10/2014 Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	5.47	1.00	mg/L	5.00	0.304	103	80-120			
Matrix Spike (SL40626-MS2)		Source: S4L0807-02		Prepared: 12/10/2014 Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	9.81	1.00	mg/L	5.00	5.03	95.6	80-120			
Reference (SL40626-SRM1)				Prepared: 12/10/2014 Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	14.1	1.00	mg/L	14.10		100	79.3-120			
Reference (SL40626-SRM2)				Prepared: 12/10/2014 Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	13.1	1.00	mg/L	14.10		92.9	79.3-120			
Batch SL40641 - Wet Chem - W - SM5210 B-2001										
Blank (SL40641-BLK1)				Prepared: 12/10/2014 Analyzed: 12/15/2014						
Biochemical Oxygen Demand (BOD5)	ND	2.00	mg/L							
Blank (SL40641-BLK2)				Prepared: 12/10/2014 Analyzed: 12/15/2014						
Biochemical Oxygen Demand (BOD5)	ND	2.00	mg/L							



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40641 - Wet Chem - W - SM5210 B-2001										
LCS (SL40641-BS1)				Prepared: 12/10/2014 Analyzed: 12/15/2014						
Biochemical Oxygen Demand (BOD5)	206	100	mg/L	198.00		104	85-115			
LCS (SL40641-BS2)				Prepared: 12/10/2014 Analyzed: 12/15/2014						
Biochemical Oxygen Demand (BOD5)	169	100	mg/L	198.00		85.2	85-115			
LCS (SL40641-BS3)				Prepared: 12/10/2014 Analyzed: 12/15/2014						
Biochemical Oxygen Demand (BOD5)	186	100	mg/L	198.00		93.8	85-115			
Duplicate (SL40641-DUP2)				Source: S4L0735-10		Prepared: 12/10/2014 Analyzed: 12/15/2014				
Biochemical Oxygen Demand (BOD5)	ND	3.00	mg/L		0.00				10	
Batch SL40651 - Wet Chem - W - SM2540 C-2011										
Blank (SL40651-BLK1)				Prepared & Analyzed: 12/11/2014						
Total Dissolved Solids (TDS)	ND	10.0	mg/L							
Blank (SL40651-BLK2)				Prepared & Analyzed: 12/11/2014						
Total Dissolved Solids (TDS)	ND	10.0	mg/L							
Duplicate (SL40651-DUP2)				Source: S4L0871-01		Prepared & Analyzed: 12/11/2014				
Total Dissolved Solids (TDS)	690	10.0	mg/L		706			2.29	5	
Duplicate (SL40651-DUP3)				Source: S4L0735-01		Prepared & Analyzed: 12/11/2014				
Total Dissolved Solids (TDS)	116	10.0	mg/L		97.0			17.8	5	R1
Reference (SL40651-SRM1)				Prepared & Analyzed: 12/11/2014						
Total Dissolved Solids (TDS)	966	10.0	mg/L	1,000.00		96.6	75.1-120			



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40651 - Wet Chem - W - SM2540 C-2011										
Reference (SL40651-SRM2)				Prepared & Analyzed: 12/11/2014						
Total Dissolved Solids (TDS)	888	10.0	mg/L	1,000.00		88.8	75.1-120			
Batch SL40661 - 335.4 CN T Distill - W - EPA 335.4, Rv 1										
Blank (SL40661-BLK1)				Prepared: 12/11/2014 Analyzed: 12/17/2014						
Cyanide - Total	ND	0.0100	mg/L							
LCS (SL40661-BS1)				Prepared: 12/11/2014 Analyzed: 12/17/2014						
Cyanide - Total	0.0943	0.0100	mg/L	0.10		94.3	90-110			
LCS (SL40661-BS2)				Prepared: 12/11/2014 Analyzed: 12/17/2014						
Cyanide - Total	0.497	0.0100	mg/L	0.50		99.4	90-110			
Matrix Spike (SL40661-MS1)				Source: S4L0853-07		Prepared: 12/11/2014 Analyzed: 12/17/2014				
Cyanide - Total	0.187	0.0100	mg/L	0.20	ND	93.5	90-110			
Batch SL40687 - Wet Chem - W - EPA 420.4, Rv 1										
Blank (SL40687-BLK1)				Prepared & Analyzed: 12/15/2014						
Phenols	ND	0.0250	mg/L							
LCS (SL40687-BS1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.519	0.0250	mg/L	0.50		104	90-110			
Matrix Spike (SL40687-MS1)				Source: S4L0735-09		Prepared & Analyzed: 12/15/2014				
Phenols	0.414	0.0250	mg/L	0.40	ND	104	90-110			



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40687 - Wet Chem - W - EPA 420.4, Rv 1										
Matrix Spike (SL40687-MS2)	Source: S4L0735-01			Prepared & Analyzed: 12/15/2014						
Phenols	0.417	0.0250	mg/L	0.40	ND	104	90-110			
Matrix Spike (SL40687-MS3)	Source: S4L0735-01			Prepared: 12/19/2014 Analyzed: 12/22/2014						
Phenols	0.488	0.0250	mg/L	0.40	ND	122	90-110			M6
Matrix Spike Dup (SL40687-MSD1)	Source: S4L0735-09			Prepared: 12/19/2014 Analyzed: 12/22/2014						
Phenols	0.446	0.0250	mg/L	0.40	ND	112	90-110	7.44	10	M6
Matrix Spike Dup (SL40687-MSD2)	Source: S4L0735-01			Prepared: 12/19/2014 Analyzed: 12/22/2014						
Phenols	0.442	0.0250	mg/L	0.40	ND	111	90-110	5.82	10	M6
Batch SL40714 - Wet-Digestion-W - EPA 351.2, Rv 2										
Blank (SL40714-BLK1)	Prepared: 12/12/2014 Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	ND	1.00	mg/L							
Blank (SL40714-BLK2)	Prepared: 12/12/2014 Analyzed: 12/16/2014									
Total Kjeldahl Nitrogen (TKN)	ND	1.00	mg/L							
Duplicate (SL40714-DUP1)	Source: S4L0768-09			Prepared: 12/12/2014 Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	ND	1.00	mg/L		0.590				10	
Duplicate (SL40714-DUP2)	Source: S4L0921-01			Prepared: 12/12/2014 Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	5.23	1.00	mg/L		5.01			4.30	10	
Matrix Spike (SL40714-MS1)	Source: S4L0068-02			Prepared: 12/12/2014 Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	6.86	1.00	mg/L	5.00	1.92	98.8	80-120			



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40714 - Wet-Digestion-W - EPA 351.2, Rv 2										
Matrix Spike (SL40714-MS2)	Source: S4L0768-09			Prepared: 12/12/2014 Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	5.56	1.00	mg/L	5.00	0.590	99.4	80-120			
Matrix Spike (SL40714-MS3)	Source: S4L0921-01			Prepared: 12/12/2014 Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	10.3	1.00	mg/L	5.00	5.01	106	80-120			
Reference (SL40714-SRM1)				Prepared: 12/12/2014 Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	13.2	1.00	mg/L	14.10		93.6	80.9-117.8			
Reference (SL40714-SRM2)				Prepared: 12/12/2014 Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	13.1	1.00	mg/L	14.10		92.9	80.9-117.8			
Batch SL40750 - Wet-Distillation-W - EPA 350.1, Rv 2										
Duplicate (SL40750-DUP1)	Source: S4L0870-01			Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.156	0.100	mg/L		0.369			81.1	10	R1
Duplicate (SL40750-DUP2)	Source: S4L1000-02			Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.200	0.100	mg/L		0.242			19.0	10	R1
Matrix Spike (SL40750-MS1)	Source: S4L0735-01			Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.84	0.100	mg/L	5.00	0.0920	95.0	90-110			
Matrix Spike (SL40750-MS2)	Source: S4L0654-01			Prepared & Analyzed: 12/12/2014						
Ammonia as N	8.80	0.100	mg/L	5.00	3.97	96.5	90-110			
Matrix Spike (SL40750-MS3)	Source: S4L0800-01			Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.89	0.100	mg/L	5.00	0.0540	96.8	90-110			



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40750 - Wet-Distillation-W - EPA 350.1, Rv 2										
Matrix Spike (SL40750-MS4)	Source: S4L0870-01			Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.81	0.100	mg/L	5.00	0.369	88.8	90-110			M2
Matrix Spike (SL40750-MS5)	Source: S4L0931-03			Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.89	0.100	mg/L	5.00	0.192	93.9	90-110			
Matrix Spike (SL40750-MS6)	Source: S4L1000-02			Prepared & Analyzed: 12/12/2014						
Ammonia as N	5.08	0.100	mg/L	5.00	0.242	96.7	90-110			
Matrix Spike Dup (SL40750-MSD1)	Source: S4L0735-01			Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.84	0.100	mg/L	5.00	0.0920	94.9	90-110	0.165	15	
Batch SL40755 - Wet Chem - W - SM3500 Cr B-2009										
Blank (SL40755-BLK1)	Prepared & Analyzed: 12/12/2014									
Chromium (VI)	ND	0.0100	mg/L							
Matrix Spike (SL40755-MS1)	Source: S4K1636-05			Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.100	0.0100	mg/L	0.10	ND	100	80-120			
Matrix Spike Dup (SL40755-MSD1)	Source: S4K1636-05			Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.105	0.0100	mg/L	0.10	ND	105	80-120	4.88	20	
Batch SL40839 - Wet Chem - W - EPA 420.4, Rv 1										
Blank (SL40839-BLK1)	Prepared & Analyzed: 12/15/2014									
Phenols	ND	0.0250	mg/L							



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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40839 - Wet Chem - W - EPA 420.4, Rv 1										
LCS (SL40839-BS1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.456	0.0250	mg/L	0.50		91.2	90-110			
Matrix Spike (SL40839-MS1)				Source: S4L1196-05 Prepared & Analyzed: 12/15/2014						
Phenols	0.378	0.0250	mg/L	0.40	ND	94.5	90-110			
Matrix Spike (SL40839-MS2)				Source: S4L1204-01 Prepared & Analyzed: 12/15/2014						
Phenols	0.461	0.0250	mg/L	0.40	0.0223	110	90-110			
Matrix Spike Dup (SL40839-MSD1)				Source: S4L1196-05 Prepared: 12/19/2014 Analyzed: 12/22/2014						
Phenols	0.445	0.0250	mg/L	0.40	ND	111	90-110	16.3	10	M6, R1
Batch SL40848 - Wet Chem - W - Hach 8000										
Blank (SL40848-BLK1)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	ND	10.0	mg/L							
Blank (SL40848-BLK2)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	ND	10.0	mg/L							
Reference (SL40848-SRM1)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	66.2	10.0	mg/L	76.70		86.4	73.3-122.8			
Reference (SL40848-SRM2)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	71.0	10.0	mg/L	76.70		92.5	73.3-122.8			



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Volatile Organic Compounds - GC/MS

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40998 - 5030C VOA W - EPA 8260C										
Blank (SL40998-BLK1)				Prepared & Analyzed: 12/17/2014						
Benzene	ND	1.00	ug/L							
Bromobenzene	ND	1.00	ug/L							
Bromochloromethane	ND	1.00	ug/L							
Bromodichloromethane	ND	1.00	ug/L							
Bromoform	ND	1.00	ug/L							
2-Butanone (MEK)	ND	10.0	ug/L							
tert-Butylbenzene	ND	1.00	ug/L							
n-Butylbenzene	ND	1.00	ug/L							Q1
sec-Butylbenzene	ND	1.00	ug/L							
Carbon tetrachloride	ND	1.00	ug/L							
Chlorobenzene	ND	1.00	ug/L							
Chloroethane (Ethyl chloride)	ND	1.00	ug/L							
Chloroform	ND	1.00	ug/L							
4-Chlorotoluene	ND	1.00	ug/L							Q1
2-Chlorotoluene	ND	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.00	ug/L							
Dibromochloromethane	ND	1.00	ug/L							
1,2-Dibromoethane (Ethylene dibromide, EDB)	ND	1.00	ug/L							
Dibromomethane (Methylene bromide)	ND	1.00	ug/L							
1,3-Dichlorobenzene	ND	1.00	ug/L							
1,4-Dichlorobenzene	ND	1.00	ug/L							
1,2-Dichlorobenzene	ND	1.00	ug/L							
Dichlorodifluoromethane (Freon-12)	ND	1.00	ug/L							
1,2-Dichloroethane	ND	1.00	ug/L							
1,1-Dichloroethane	ND	1.00	ug/L							
cis-1,2-Dichloroethene	ND	1.00	ug/L							
1,1-Dichloroethene	ND	1.00	ug/L							
trans-1,2-Dichloroethene	ND	1.00	ug/L							
1,3-Dichloropropane	ND	1.00	ug/L							
1,2-Dichloropropane	ND	1.00	ug/L							
2,2-Dichloropropane	ND	1.00	ug/L							
trans-1,3-Dichloropropene	ND	1.00	ug/L							
1,1-Dichloropropene	ND	1.00	ug/L							
cis-1,3-Dichloropropene	ND	1.00	ug/L							
Ethylbenzene	ND	1.00	ug/L							
Hexachlorobutadiene	ND	1.00	ug/L							Q1
2-Hexanone (MBK)	ND	10.0	ug/L							
Isopropylbenzene (Cumene)	ND	1.00	ug/L							
4-Isopropyltoluene (p-Isopropyltoluene)	ND	1.00	ug/L							
Methyl bromide (Bromomethane)	ND	1.00	ug/L							
Methyl tert-butyl ether (MTBE)	ND	2.00	ug/L							
Methyl chloride (Chloromethane)	ND	1.00	ug/L							
Methylene chloride (Dichloromethane)	ND	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	ND	10.0	ug/L							
Naphthalene	ND	1.00	ug/L							

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CERTIFICATE OF ANALYSIS

S4L0853

Volatile Organic Compounds - GC/MS

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40998 - 5030C VOA W - EPA 8260C										
Blank (SL40998-BLK1)				Prepared & Analyzed: 12/17/2014						
n-Propylbenzene	ND	1.00	ug/L							
Styrene	ND	1.00	ug/L							
1,1,2,2-Tetrachloroethane	ND	1.00	ug/L							
1,1,1,2-Tetrachloroethane	ND	1.00	ug/L							
Tetrachloroethene	ND	1.00	ug/L							
Toluene	ND	1.00	ug/L							
1,2,3-Trichlorobenzene	ND	1.00	ug/L							
1,2,4-Trichlorobenzene	ND	1.00	ug/L							Q1
1,1,2-Trichloroethane	ND	1.00	ug/L							
1,1,1-Trichloroethane	ND	1.00	ug/L							
Trichloroethene	ND	1.00	ug/L							
Trichlorofluoromethane (Freon 11)	ND	1.00	ug/L							
1,2,3-Trichloropropane	ND	1.00	ug/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.00	ug/L							
1,3,5-Trimethylbenzene	ND	1.00	ug/L							
1,2,4-Trimethylbenzene	ND	1.00	ug/L							
Vinyl chloride	ND	1.00	ug/L							
o-Xylene	ND	1.00	ug/L							
m,p-Xylene	ND	2.00	ug/L							
Xylenes (total)	ND	3.00	ug/L							
Surrogate: 4-Bromofluorobenzene	47.3		ug/L	50.00		94.5	81-113			
Surrogate: 1,2-Dichloroethane-d4	54.6		ug/L	50.00		109	64-126			
Surrogate: Toluene-d8	48.3		ug/L	50.00		96.7	84-116			
LCS (SL40998-BS1)				Prepared & Analyzed: 12/17/2014						
Benzene	21.9	1.00	ug/L	20.00		109	70-130			
Bromobenzene	24.5	1.00	ug/L	20.00		122	70-130			
Bromochloromethane	18.9	1.00	ug/L	20.00		94.4	70-130			
Bromodichloromethane	21.7	1.00	ug/L	20.00		108	70-130			
Bromoform	20.7	1.00	ug/L	20.00		103	70-130			
2-Butanone (MEK)	34.7	10.0	ug/L	40.00		86.7	70-130			
tert-Butylbenzene	23.1	1.00	ug/L	20.00		116	70-130			
n-Butylbenzene	27.3	1.00	ug/L	20.00		137	70-130			
sec-Butylbenzene	25.5	1.00	ug/L	20.00		127	70-130			
Carbon tetrachloride	25.7	1.00	ug/L	20.00		129	70-130			
Chlorobenzene	22.5	1.00	ug/L	20.00		112	70-130			
Chloroethane (Ethyl chloride)	19.8	1.00	ug/L	20.00		98.8	70-130			
Chloroform	21.8	1.00	ug/L	20.00		109	70-130			
4-Chlorotoluene	26.2	1.00	ug/L	20.00		131	70-130			
2-Chlorotoluene	25.9	1.00	ug/L	20.00		130	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	18.8	1.00	ug/L	20.00		93.9	70-130			
Dibromochloromethane	21.8	1.00	ug/L	20.00		109	70-130			
1,2-Dibromoethane (Ethylene dibromide, EDB)	20.9	1.00	ug/L	20.00		104	70-130			
Dibromomethane (Methylene bromide)	20.5	1.00	ug/L	20.00		102	70-130			
1,3-Dichlorobenzene	23.2	1.00	ug/L	20.00		116	70-130			

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CERTIFICATE OF ANALYSIS

S4L0853

Volatile Organic Compounds - GC/MS

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40998 - 5030C VOA W - EPA 8260C										
LCS (SL40998-BS1)				Prepared & Analyzed: 12/17/2014						
1,4-Dichlorobenzene	23.8	1.00	ug/L	20.00		119	70-130			
1,2-Dichlorobenzene	24.6	1.00	ug/L	20.00		123	70-130			
Dichlorodifluoromethane (Freon-12)	21.9	1.00	ug/L	20.00		110	70-130			
1,2-Dichloroethane	21.3	1.00	ug/L	20.00		107	70-130			
1,1-Dichloroethane	19.9	1.00	ug/L	20.00		99.3	70-130			
cis-1,2-Dichloroethene	23.4	1.00	ug/L	20.00		117	70-130			
1,1-Dichloroethene	20.0	1.00	ug/L	20.00		100	70-130			
trans-1,2-Dichloroethene	19.8	1.00	ug/L	20.00		99.0	70-130			
1,3-Dichloropropane	22.1	1.00	ug/L	20.00		111	70-130			
1,2-Dichloropropane	22.1	1.00	ug/L	20.00		110	70-130			
2,2-Dichloropropane	21.6	1.00	ug/L	20.00		108	70-130			
trans-1,3-Dichloropropene	23.1	1.00	ug/L	20.00		116	70-130			
1,1-Dichloropropene	20.6	1.00	ug/L	20.00		103	70-130			
cis-1,3-Dichloropropene	21.1	1.00	ug/L	20.00		106	70-130			
Ethylbenzene	23.0	1.00	ug/L	20.00		115	70-130			
Hexachlorobutadiene	26.8	1.00	ug/L	20.00		134	70-130			
2-Hexanone (MBK)	48.2	10.0	ug/L	40.00		120	70-130			
Isopropylbenzene (Cumene)	22.8	1.00	ug/L	20.00		114	70-130			
4-Isopropyltoluene (p-Isopropyltoluene)	22.6	1.00	ug/L	20.00		113	70-130			
Methyl bromide (Bromomethane)	18.6	1.00	ug/L	20.00		93.0	70-130			
Methyl tert-butyl ether (MTBE)	33.9	2.00	ug/L	40.00		84.8	70-130			
Methyl chloride (Chloromethane)	19.9	1.00	ug/L	20.00		99.4	70-130			
Methylene chloride (Dichloromethane)	19.7	1.00	ug/L	20.00		98.5	70-130			
4-Methyl-2-pentanone (MIBK)	34.1	10.0	ug/L	40.00		85.3	70-130			
Naphthalene	24.1	1.00	ug/L	20.00		121	70-130			
n-Propylbenzene	25.7	1.00	ug/L	20.00		128	70-130			
Styrene	24.8	1.00	ug/L	20.00		124	70-130			
1,1,2,2-Tetrachloroethane	21.1	1.00	ug/L	20.00		105	70-130			
1,1,1,2-Tetrachloroethane	22.6	1.00	ug/L	20.00		113	70-130			
Tetrachloroethene	23.3	1.00	ug/L	20.00		116	70-130			
Toluene	21.9	1.00	ug/L	20.00		109	70-130			
1,2,3-Trichlorobenzene	24.9	1.00	ug/L	20.00		124	70-130			
1,2,4-Trichlorobenzene	26.9	1.00	ug/L	20.00		135	70-130			
1,1,2-Trichloroethane	21.0	1.00	ug/L	20.00		105	70-130			
1,1,1-Trichloroethane	21.4	1.00	ug/L	20.00		107	70-130			
Trichloroethene	22.3	1.00	ug/L	20.00		112	70-130			
Trichlorofluoromethane (Freon 11)	21.6	1.00	ug/L	20.00		108	70-130			
1,2,3-Trichloropropane	21.7	1.00	ug/L	20.00		108	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	20.5	1.00	ug/L	20.00		102	70-130			
1,3,5-Trimethylbenzene	25.2	1.00	ug/L	20.00		126	70-130			
1,2,4-Trimethylbenzene	25.3	1.00	ug/L	20.00		126	70-130			
Vinyl chloride	20.0	1.00	ug/L	20.00		100	70-130			
o-Xylene	22.9	1.00	ug/L	20.00		115	70-130			
m,p-Xylene	47.6	2.00	ug/L	40.00		119	70-130			

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CERTIFICATE OF ANALYSIS

S4L0853

Volatile Organic Compounds - GC/MS

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40998 - 5030C VOA W - EPA 8260C										
LCS (SL40998-BS1)				Prepared & Analyzed: 12/17/2014						
Xylenes (total)	70.5	3.00	ug/L	60.00		118	0-200			
Surrogate: 4-Bromofluorobenzene	53.4		ug/L	50.00		107	81-113			
Surrogate: 1,2-Dichloroethane-d4	51.0		ug/L	50.00		102	64-126			
Surrogate: Toluene-d8	49.8		ug/L	50.00		99.7	84-116			
LCS (SL40998-BS2)				Prepared & Analyzed: 12/17/2014						
Benzene	50.4	1.00	ug/L	50.00		101	70-130			
Bromobenzene	56.6	1.00	ug/L	50.00		113	70-130			
Bromochloromethane	47.7	1.00	ug/L	50.00		95.3	70-130			
Bromodichloromethane	52.6	1.00	ug/L	50.00		105	70-130			
Bromoform	56.5	1.00	ug/L	50.00		113	70-130			
2-Butanone (MEK)	78.9	10.0	ug/L	100.00		78.9	70-130			
tert-Butylbenzene	50.0	1.00	ug/L	50.00		100	70-130			
n-Butylbenzene	55.8	1.00	ug/L	50.00		112	70-130			
sec-Butylbenzene	56.7	1.00	ug/L	50.00		113	70-130			
Carbon tetrachloride	53.7	1.00	ug/L	50.00		107	70-130			
Chlorobenzene	52.8	1.00	ug/L	50.00		106	70-130			
Chloroethane (Ethyl chloride)	47.2	1.00	ug/L	50.00		94.3	70-130			
Chloroform	54.4	1.00	ug/L	50.00		109	70-130			
4-Chlorotoluene	57.6	1.00	ug/L	50.00		115	70-130			
2-Chlorotoluene	56.0	1.00	ug/L	50.00		112	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	49.8	1.00	ug/L	50.00		99.6	70-130			
Dibromochloromethane	59.9	1.00	ug/L	50.00		120	70-130			
1,2-Dibromoethane (Ethylene dibromide, EDB)	59.3	1.00	ug/L	50.00		119	70-130			
Dibromomethane (Methylene bromide)	57.5	1.00	ug/L	50.00		115	70-130			
1,3-Dichlorobenzene	52.8	1.00	ug/L	50.00		106	70-130			
1,4-Dichlorobenzene	51.3	1.00	ug/L	50.00		103	70-130			
1,2-Dichlorobenzene	55.5	1.00	ug/L	50.00		111	70-130			
Dichlorodifluoromethane (Freon-12)	51.2	1.00	ug/L	50.00		102	70-130			
1,2-Dichloroethane	53.6	1.00	ug/L	50.00		107	70-130			
1,1-Dichloroethane	48.4	1.00	ug/L	50.00		96.9	70-130			
cis-1,2-Dichloroethene	62.9	1.00	ug/L	50.00		126	70-130			
1,1-Dichloroethene	46.5	1.00	ug/L	50.00		93.1	70-130			
trans-1,2-Dichloroethene	45.8	1.00	ug/L	50.00		91.6	70-130			
1,3-Dichloropropane	57.8	1.00	ug/L	50.00		116	70-130			
1,2-Dichloropropane	52.7	1.00	ug/L	50.00		105	70-130			
2,2-Dichloropropane	59.5	1.00	ug/L	50.00		119	70-130			
trans-1,3-Dichloropropene	56.3	1.00	ug/L	50.00		113	70-130			
1,1-Dichloropropene	45.0	1.00	ug/L	50.00		90.0	70-130			
cis-1,3-Dichloropropene	50.0	1.00	ug/L	50.00		100	70-130			
Ethylbenzene	52.6	1.00	ug/L	50.00		105	70-130			
Hexachlorobutadiene	50.1	1.00	ug/L	50.00		100	70-130			
2-Hexanone (MBK)	109	10.0	ug/L	100.00		109	70-130			
Isopropylbenzene (Cumene)	50.3	1.00	ug/L	50.00		101	70-130			
4-Isopropyltoluene (p-Isopropyltoluene)	47.0	1.00	ug/L	50.00		93.9	70-130			
Methyl bromide (Bromomethane)	19.4	1.00	ug/L	50.00		38.8	70-130			

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CERTIFICATE OF ANALYSIS

S4L0853

Volatile Organic Compounds - GC/MS

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40998 - 5030C VOA W - EPA 8260C										
LCS (SL40998-BS2)				Prepared & Analyzed: 12/17/2014						
Methyl tert-butyl ether (MTBE)	98.4	2.00	ug/L	100.00		98.4	70-130			
Methyl chloride (Chloromethane)	40.4	1.00	ug/L	50.00		80.8	70-130			
Methylene chloride (Dichloromethane)	47.1	1.00	ug/L	50.00		94.3	70-130			
4-Methyl-2-pentanone (MIBK)	100	10.0	ug/L	100.00		100	70-130			
Naphthalene	55.5	1.00	ug/L	50.00		111	70-130			
n-Propylbenzene	53.6	1.00	ug/L	50.00		107	70-130			
Styrene	56.8	1.00	ug/L	50.00		114	70-130			
1,1,2,2-Tetrachloroethane	53.1	1.00	ug/L	50.00		106	70-130			
1,1,1,2-Tetrachloroethane	55.1	1.00	ug/L	50.00		110	70-130			
Tetrachloroethene	58.5	1.00	ug/L	50.00		117	70-130			
Toluene	52.9	1.00	ug/L	50.00		106	70-130			
1,2,3-Trichlorobenzene	50.7	1.00	ug/L	50.00		101	70-130			
1,2,4-Trichlorobenzene	52.7	1.00	ug/L	50.00		105	70-130			
1,1,2-Trichloroethane	55.8	1.00	ug/L	50.00		112	70-130			
1,1,1-Trichloroethane	50.4	1.00	ug/L	50.00		101	70-130			
Trichloroethene	56.3	1.00	ug/L	50.00		113	70-130			
Trichlorofluoromethane (Freon 11)	52.3	1.00	ug/L	50.00		105	70-130			
1,2,3-Trichloropropane	57.2	1.00	ug/L	50.00		114	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	48.2	1.00	ug/L	50.00		96.4	70-130			
1,3,5-Trimethylbenzene	54.8	1.00	ug/L	50.00		110	70-130			
1,2,4-Trimethylbenzene	54.6	1.00	ug/L	50.00		109	70-130			
Vinyl chloride	44.6	1.00	ug/L	50.00		89.3	70-130			
o-Xylene	51.8	1.00	ug/L	50.00		104	70-130			
m,p-Xylene	113	2.00	ug/L	100.00		113	70-130			
Xylenes (total)	165	3.00	ug/L	150.00		110	0-200			
Surrogate: 4-Bromofluorobenzene	49.2		ug/L	50.00		98.5	81-113			
Surrogate: 1,2-Dichloroethane-d4	54.4		ug/L	50.00		109	64-126			
Surrogate: Toluene-d8	50.2		ug/L	50.00		100	84-116			



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CERTIFICATE OF ANALYSIS

S4L0853

Volatile Organic Compounds - GC/MS

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40998 - 5030C VOA W - EPA 8260C										
Matrix Spike (SL40998-MS1)		Source: S4L0853-04		Prepared & Analyzed: 12/17/2014						
Benzene	16.1	1.00	ug/L	20.00	ND	80.3	70-130			
Bromobenzene	16.6	1.00	ug/L	20.00	ND	83.1	70-130			
Bromochloromethane	13.9	1.00	ug/L	20.00	ND	69.7	70-130			
Bromodichloromethane	15.5	1.00	ug/L	20.00	ND	77.7	70-130			
Bromoform	15.7	1.00	ug/L	20.00	ND	78.5	70-130			
2-Butanone (MEK)	26.3	10.0	ug/L	40.00	ND	65.7	70-130			
tert-Butylbenzene	16.8	1.00	ug/L	20.00	ND	84.2	70-130			
n-Butylbenzene	18.0	1.00	ug/L	20.00	0.00	90.1	70-130			
sec-Butylbenzene	18.0	1.00	ug/L	20.00	ND	90.0	70-130			
Carbon tetrachloride	16.7	1.00	ug/L	20.00	ND	83.5	70-130			
Chlorobenzene	15.3	1.00	ug/L	20.00	ND	76.4	70-130			
Chloroethane (Ethyl chloride)	16.5	1.00	ug/L	20.00	ND	82.7	70-130			
Chloroform	15.3	1.00	ug/L	20.00	ND	76.5	70-130			
4-Chlorotoluene	17.8	1.00	ug/L	20.00	ND	88.9	70-130			
2-Chlorotoluene	17.8	1.00	ug/L	20.00	ND	89.1	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	15.5	1.00	ug/L	20.00	0.00	77.6	70-130			
Dibromochloromethane	15.8	1.00	ug/L	20.00	ND	79.2	70-130			
1,2-Dibromoethane (Ethylene dibromide, EDB)	16.2	1.00	ug/L	20.00	0.00	80.9	70-130			
Dibromomethane (Methylene bromide)	15.9	1.00	ug/L	20.00	0.00	79.6	70-130			
1,3-Dichlorobenzene	16.9	1.00	ug/L	20.00	ND	84.3	70-130			
1,4-Dichlorobenzene	16.4	1.00	ug/L	20.00	ND	82.0	70-130			
1,2-Dichlorobenzene	17.8	1.00	ug/L	20.00	ND	89.0	70-130			
Dichlorodifluoromethane (Freon-12)	18.7	1.00	ug/L	20.00	ND	93.4	70-130			
1,2-Dichloroethane	15.8	1.00	ug/L	20.00	ND	78.9	70-130			
1,1-Dichloroethane	14.8	1.00	ug/L	20.00	ND	74.2	70-130			
cis-1,2-Dichloroethene	17.0	1.00	ug/L	20.00	ND	85.2	70-130			
1,1-Dichloroethene	15.9	1.00	ug/L	20.00	ND	79.5	70-130			
trans-1,2-Dichloroethene	14.9	1.00	ug/L	20.00	ND	74.6	70-130			
1,3-Dichloropropane	16.6	1.00	ug/L	20.00	ND	82.8	70-130			
1,2-Dichloropropane	16.0	1.00	ug/L	20.00	ND	80.2	70-130			
2,2-Dichloropropane	14.5	1.00	ug/L	20.00	ND	72.7	70-130			
trans-1,3-Dichloropropene	15.9	1.00	ug/L	20.00	ND	79.3	70-130			
1,1-Dichloropropene	15.5	1.00	ug/L	20.00	0.00	77.3	70-130			
cis-1,3-Dichloropropene	13.8	1.00	ug/L	20.00	ND	69.2	70-130			
Ethylbenzene	16.1	1.00	ug/L	20.00	ND	80.3	70-130			
Hexachlorobutadiene	14.2	1.00	ug/L	20.00	ND	70.8	70-130			
2-Hexanone (MBK)	29.7	10.0	ug/L	40.00	ND	74.3	70-130			
Isopropylbenzene (Cumene)	16.7	1.00	ug/L	20.00	ND	83.6	70-130			
4-Isopropyltoluene (p-Isopropyltoluene)	16.6	1.00	ug/L	20.00	ND	83.0	70-130			
Methyl bromide (Bromomethane)	3.70	1.00	ug/L	20.00	0.00	18.5	70-130			
Methyl tert-butyl ether (MTBE)	31.0	2.00	ug/L	40.00	ND	77.5	70-130			
Methyl chloride (Chloromethane)	14.6	1.00	ug/L	20.00	ND	73.1	70-130			
Methylene chloride (Dichloromethane)	15.0	1.00	ug/L	20.00	ND	74.8	70-130			
4-Methyl-2-pentanone (MIBK)	30.2	10.0	ug/L	40.00	ND	75.5	70-130			
Naphthalene	17.9	1.00	ug/L	20.00	0.00	89.4	70-130			

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S4L0853

Volatile Organic Compounds - GC/MS

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40998 - 5030C VOA W - EPA 8260C										
Matrix Spike (SL40998-MS1)										
Source: S4L0853-04			Prepared & Analyzed: 12/17/2014							
n-Propylbenzene	17.3	1.00	ug/L	20.00	ND	86.5	70-130			
Styrene	17.0	1.00	ug/L	20.00	ND	85.2	70-130			
1,1,2,2-Tetrachloroethane	16.6	1.00	ug/L	20.00	ND	82.8	70-130			
1,1,1,2-Tetrachloroethane	15.6	1.00	ug/L	20.00	ND	77.9	70-130			
Tetrachloroethene	16.5	1.00	ug/L	20.00	ND	82.7	70-130			
Toluene	15.6	1.00	ug/L	20.00	ND	77.8	70-130			
1,2,3-Trichlorobenzene	16.0	1.00	ug/L	20.00	0.00	80.2	70-130			
1,2,4-Trichlorobenzene	17.2	1.00	ug/L	20.00	0.00	85.9	70-130			
1,1,2-Trichloroethane	15.9	1.00	ug/L	20.00	ND	79.5	70-130			
1,1,1-Trichloroethane	16.0	1.00	ug/L	20.00	ND	79.8	70-130			
Trichloroethene	15.7	1.00	ug/L	20.00	ND	78.4	70-130			
Trichlorofluoromethane (Freon 11)	17.3	1.00	ug/L	20.00	ND	86.7	70-130			
1,2,3-Trichloropropane	17.1	1.00	ug/L	20.00	ND	85.7	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	16.1	1.00	ug/L	20.00	0.00	80.3	70-130			
1,3,5-Trimethylbenzene	17.8	1.00	ug/L	20.00	ND	88.8	70-130			
1,2,4-Trimethylbenzene	18.0	1.00	ug/L	20.00	ND	90.1	70-130			
Vinyl chloride	16.2	1.00	ug/L	20.00	ND	81.1	70-130			
o-Xylene	16.6	1.00	ug/L	20.00	ND	83.2	70-130			
m,p-Xylene	33.7	2.00	ug/L	40.00	ND	84.3	70-130			
Xylenes (total)	50.3	3.00	ug/L	60.00	0.00	83.9	0-200			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.00		101	81-113			
Surrogate: 1,2-Dichloroethane-d4	53.2		ug/L	50.00		106	64-126			
Surrogate: Toluene-d8	49.7		ug/L	50.00		99.3	84-116			
Matrix Spike Dup (SL40998-MSD1)										
Source: S4L0853-04			Prepared & Analyzed: 12/17/2014							
Benzene	22.9	1.00	ug/L	20.00	ND	115	70-130	35.1	20	
Bromobenzene	24.9	1.00	ug/L	20.00	ND	125	70-130	40.0	20	
Bromochloromethane	26.0	1.00	ug/L	20.00	ND	130	70-130	60.5	20	
Bromodichloromethane	22.6	1.00	ug/L	20.00	ND	113	70-130	37.0	20	
Bromoform	24.2	1.00	ug/L	20.00	ND	121	70-130	42.7	20	
2-Butanone (MEK)	37.5	10.0	ug/L	40.00	ND	93.7	70-130	35.1	20	
tert-Butylbenzene	24.6	1.00	ug/L	20.00	ND	123	70-130	37.3	20	
n-Butylbenzene	24.8	1.00	ug/L	20.00	0.00	124	70-130	31.8	20	
sec-Butylbenzene	27.2	1.00	ug/L	20.00	ND	136	70-130	40.6	20	
Carbon tetrachloride	23.2	1.00	ug/L	20.00	ND	116	70-130	32.4	20	
Chlorobenzene	23.1	1.00	ug/L	20.00	ND	115	70-130	40.6	20	
Chloroethane (Ethyl chloride)	24.9	1.00	ug/L	20.00	ND	124	70-130	40.3	20	
Chloroform	22.0	1.00	ug/L	20.00	ND	110	70-130	36.1	20	
4-Chlorotoluene	26.9	1.00	ug/L	20.00	ND	135	70-130	40.9	20	
2-Chlorotoluene	26.5	1.00	ug/L	20.00	ND	132	70-130	39.1	20	
1,2-Dibromo-3-chloropropane (DBCP)	21.4	1.00	ug/L	20.00	0.00	107	70-130	32.0	20	
Dibromochloromethane	22.5	1.00	ug/L	20.00	ND	112	70-130	34.6	20	
1,2-Dibromoethane (Ethylene dibromide, EDB)	23.2	1.00	ug/L	20.00	0.00	116	70-130	35.8	20	
Dibromomethane (Methylene bromide)	22.2	1.00	ug/L	20.00	0.00	111	70-130	32.9	20	
1,3-Dichlorobenzene	24.9	1.00	ug/L	20.00	ND	125	70-130	38.7	20	

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Volatile Organic Compounds - GC/MS

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40998 - 5030C VOA W - EPA 8260C										
Matrix Spike Dup (SL40998-MSD1)			Source: S4L0853-04		Prepared & Analyzed: 12/17/2014					
1,4-Dichlorobenzene	23.4	1.00	ug/L	20.00	ND	117	70-130	35.2	20	
1,2-Dichlorobenzene	24.7	1.00	ug/L	20.00	ND	123	70-130	32.4	20	
Dichlorodifluoromethane (Freon-12)	24.3	1.00	ug/L	20.00	ND	122	70-130	26.2	20	
1,2-Dichloroethane	22.5	1.00	ug/L	20.00	ND	112	70-130	35.1	20	
1,1-Dichloroethane	21.5	1.00	ug/L	20.00	ND	108	70-130	36.8	20	
cis-1,2-Dichloroethene	24.6	1.00	ug/L	20.00	ND	123	70-130	36.2	20	
1,1-Dichloroethene	22.5	1.00	ug/L	20.00	ND	113	70-130	34.5	20	
trans-1,2-Dichloroethene	21.2	1.00	ug/L	20.00	ND	106	70-130	34.8	20	
1,3-Dichloropropane	23.5	1.00	ug/L	20.00	ND	117	70-130	34.5	20	
1,2-Dichloropropane	22.9	1.00	ug/L	20.00	ND	114	70-130	35.1	20	
2,2-Dichloropropane	20.9	1.00	ug/L	20.00	ND	104	70-130	35.8	20	
trans-1,3-Dichloropropene	23.0	1.00	ug/L	20.00	ND	115	70-130	36.6	20	
1,1-Dichloropropene	21.3	1.00	ug/L	20.00	0.00	107	70-130	31.9	20	
cis-1,3-Dichloropropene	19.6	1.00	ug/L	20.00	ND	98.0	70-130	34.4	20	
Ethylbenzene	23.6	1.00	ug/L	20.00	ND	118	70-130	38.0	20	
Hexachlorobutadiene	21.1	1.00	ug/L	20.00	ND	105	70-130	39.2	20	
2-Hexanone (MBK)	43.1	10.0	ug/L	40.00	ND	108	70-130	36.8	20	
Isopropylbenzene (Cumene)	23.4	1.00	ug/L	20.00	ND	117	70-130	33.3	20	
4-Isopropyltoluene (p-Isopropyltoluene)	23.0	1.00	ug/L	20.00	ND	115	70-130	32.3	20	
Methyl bromide (Bromomethane)	7.54	1.00	ug/L	20.00	0.00	37.7	70-130	68.3	20	
Methyl tert-butyl ether (MTBE)	45.6	2.00	ug/L	40.00	ND	114	70-130	38.2	20	
Methyl chloride (Chloromethane)	20.4	1.00	ug/L	20.00	ND	102	70-130	33.0	20	
Methylene chloride (Dichloromethane)	21.6	1.00	ug/L	20.00	ND	108	70-130	36.2	20	
4-Methyl-2-pentanone (MIBK)	44.5	10.0	ug/L	40.00	ND	111	70-130	38.3	20	
Naphthalene	26.4	1.00	ug/L	20.00	0.00	132	70-130	38.5	20	
n-Propylbenzene	25.4	1.00	ug/L	20.00	ND	127	70-130	37.8	20	
Styrene	25.3	1.00	ug/L	20.00	ND	126	70-130	39.0	20	
1,1,2,2-Tetrachloroethane	25.1	1.00	ug/L	20.00	ND	125	70-130	40.9	20	
1,1,1,2-Tetrachloroethane	23.6	1.00	ug/L	20.00	ND	118	70-130	41.2	20	
Tetrachloroethene	23.3	1.00	ug/L	20.00	ND	117	70-130	33.9	20	
Toluene	22.5	1.00	ug/L	20.00	ND	112	70-130	36.3	20	
1,2,3-Trichlorobenzene	24.6	1.00	ug/L	20.00	0.00	123	70-130	42.3	20	
1,2,4-Trichlorobenzene	24.8	1.00	ug/L	20.00	0.00	124	70-130	36.1	20	
1,1,2-Trichloroethane	22.2	1.00	ug/L	20.00	ND	111	70-130	33.3	20	
1,1,1-Trichloroethane	22.8	1.00	ug/L	20.00	ND	114	70-130	35.2	20	
Trichloroethene	22.7	1.00	ug/L	20.00	ND	113	70-130	36.5	20	
Trichlorofluoromethane (Freon 11)	24.7	1.00	ug/L	20.00	ND	124	70-130	35.1	20	
1,2,3-Trichloropropane	25.7	1.00	ug/L	20.00	ND	128	70-130	39.9	20	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	22.1	1.00	ug/L	20.00	0.00	110	70-130	31.5	20	
1,3,5-Trimethylbenzene	26.3	1.00	ug/L	20.00	ND	132	70-130	38.9	20	
1,2,4-Trimethylbenzene	26.9	1.00	ug/L	20.00	ND	135	70-130	39.7	20	
Vinyl chloride	22.0	1.00	ug/L	20.00	ND	110	70-130	30.2	20	
o-Xylene	23.6	1.00	ug/L	20.00	ND	118	70-130	34.8	20	
m,p-Xylene	49.1	2.00	ug/L	40.00	ND	123	70-130	37.3	20	

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S4L0853

Volatile Organic Compounds - GC/MS

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch SL40998 - 5030C VOA W - EPA 8260C										
Matrix Spike Dup (SL40998-MSD1)			Source: S4L0853-04		Prepared & Analyzed: 12/17/2014					
Xylenes (total)	72.8	3.00	ug/L	60.00	0.00	121	0-200	36.4	200	
Surrogate: 4-Bromofluorobenzene	51.5		ug/L	50.00		103	81-113			
Surrogate: 1,2-Dichloroethane-d4	53.5		ug/L	50.00		107	64-126			
Surrogate: Toluene-d8	48.8		ug/L	50.00		97.7	84-116			

Sequence Quality Control Summary

Anions by Ion Chromatography - Quality Control Summary

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Instrument QC - S4L1916										
Low Cal Check (S4L1916-LCV1)				Prepared & Analyzed: 12/17/2014						
Chloride	46.5		mg/L	50.0000		93.0	90-110			
Bromide	0.502		mg/L	0.500000		100	90-110			
Sulfate as SO4	48.6		mg/L	50.0000		97.2	90-110			
Calibration Blank (S4L1916-CCB1)				Prepared & Analyzed: 12/17/2014						
Chloride	0.00		mg/L							
Bromide	0.00		mg/L							
Sulfate as SO4	0.00		mg/L							
High Cal Check (S4L1916-HCV1)				Prepared & Analyzed: 12/17/2014						
Chloride	208		mg/L	200.000		104	90-110			
Sulfate as SO4	208		mg/L	200.000		104	90-110			
Bromide	1.01		mg/L	1.00000		101	90-110			
Calibration Blank (S4L1916-CCB2)				Prepared & Analyzed: 12/17/2014						
Chloride	0.00		mg/L							
Sulfate as SO4	0.00		mg/L							
Bromide	0.00		mg/L							
Low Cal Check (S4L1916-LCV2)				Prepared & Analyzed: 12/17/2014						
Sulfate as SO4	48.4		mg/L	50.0000		96.8	90-110			
Bromide	0.537		mg/L	0.500000		107	90-110			
Chloride	45.7		mg/L	50.0000		91.4	90-110			
Calibration Blank (S4L1916-CCB3)				Prepared & Analyzed: 12/17/2014						
Bromide	0.00		mg/L							
Chloride	0.00		mg/L							
Sulfate as SO4	0.00		mg/L							
High Cal Check (S4L1916-HCV2)				Prepared & Analyzed: 12/17/2014						
Chloride	212		mg/L	200.000		106	90-110			
Bromide	0.985		mg/L	1.00000		98.5	90-110			
Sulfate as SO4	211		mg/L	200.000		106	90-110			

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Anions by Ion Chromatography - Quality Control Summary

Benchmark Analytics Sayre, A Microbac Laboratory

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Instrument QC - S4L1916										
Calibration Blank (S4L1916-CCB4)				Prepared & Analyzed: 12/17/2014						
Bromide	0.00		mg/L							
Chloride	0.00		mg/L							
Sulfate as SO ₄	0.00		mg/L							
Low Cal Check (S4L1916-LCV3)				Prepared & Analyzed: 12/18/2014						
Chloride	47.2		mg/L	50.0000		94.4	90-110			
Sulfate as SO ₄	49.3		mg/L	50.0000		98.6	90-110			
Bromide	0.549		mg/L	0.500000		110	90-110			
Calibration Blank (S4L1916-CCB5)				Prepared & Analyzed: 12/18/2014						
Bromide	0.00		mg/L							
Sulfate as SO ₄	0.00		mg/L							
Chloride	0.00		mg/L							
High Cal Check (S4L1916-HCV3)				Prepared & Analyzed: 12/18/2014						
Bromide	0.982		mg/L	1.00000		98.2	90-110			
Sulfate as SO ₄	207		mg/L	200.000		104	90-110			
Chloride	208		mg/L	200.000		104	90-110			
Calibration Blank (S4L1916-CCB6)				Prepared & Analyzed: 12/18/2014						
Sulfate as SO ₄	0.00		mg/L							
Bromide	0.00		mg/L							
Chloride	0.00		mg/L							
Low Cal Check (S4L1916-LCV4)				Prepared & Analyzed: 12/18/2014						
Bromide	0.510		mg/L	0.500000		102	90-110			
Calibration Blank (S4L1916-CCB7)				Prepared & Analyzed: 12/18/2014						
Bromide	0.00		mg/L							



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General Parameters - Quality Control Summary

Benchmark Analytics Sayre, A Microbac Laboratory

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Instrument QC - S4L1201										
Calibration Check (S4L1201-CCV1)				Prepared & Analyzed: 12/11/2014						
pH	6.96		pH Units	7.00000		99.4	98.6-101.4			
Instrument Blank (S4L1201-IBL1)				Prepared & Analyzed: 12/11/2014						
Temperature	17.7		°C							
pH	6.49	0.0100	pH Units							
Calibration Check (S4L1201-CCV2)				Prepared & Analyzed: 12/11/2014						
pH	7.04		pH Units	7.00000		101	98.6-101.4			
Calibration Check (S4L1201-CCV3)				Prepared & Analyzed: 12/11/2014						
pH	7.05		pH Units	7.00000		101	98.6-101.4			
Calibration Check (S4L1201-CCV4)				Prepared & Analyzed: 12/11/2014						
pH	7.02		pH Units	7.00000		100	98.6-101.4			



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Inorganics - Quality Control Summary

Benchmark Analytics Sayre, A Microbac Laboratory

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Instrument QC - S4L0914										
High Cal Check (S4L0914-HCV1)				Prepared & Analyzed: 12/09/2014						
Chemical Oxygen Demand (COD)	517		mg/L	500.000		103	0-200			
Low Cal Check (S4L0914-LCV1)				Prepared & Analyzed: 12/09/2014						
Chemical Oxygen Demand (COD)	97.0		mg/L	100.000		97.0	0-200			
Instrument QC - S4L1112										
Initial Cal Check (S4L1112-ICV1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.953		mg/L	1.00000		95.3	90-110			
Initial Cal Blank (S4L1112-ICB1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0145		mg/L							
Low Cal Check (S4L1112-LCV1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.497		mg/L	0.500000		99.4	90-110			
Calibration Check (S4L1112-CCV2)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	1.92		mg/L	2.00000		96.0	90-110			
Instrument Blank (S4L1112-IBL1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0234	0.0250	mg/L							
Low Cal Check (S4L1112-LCV2)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.498		mg/L	0.500000		99.6	90-110			
Calibration Blank (S4L1112-CCB1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0171		mg/L							
Calibration Blank (S4L1112-CCB2)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0163		mg/L							
Low Cal Check (S4L1112-LCV3)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.495		mg/L	0.500000		99.0	90-110			
Calibration Blank (S4L1112-CCB3)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0173		mg/L							
High Cal Check (S4L1112-HCV1)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.949		mg/L	1.00000		94.9	90-110			
Calibration Blank (S4L1112-CCB4)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0178		mg/L							
Low Cal Check (S4L1112-LCV4)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.490		mg/L	0.500000		98.0	90-110			
Calibration Blank (S4L1112-CCB5)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.00611		mg/L							
High Cal Check (S4L1112-HCV2)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.963		mg/L	1.00000		96.3	90-110			
Calibration Blank (S4L1112-CCB6)				Prepared & Analyzed: 12/10/2014						

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Inorganics - Quality Control Summary

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Instrument QC - S4L1112										
Calibration Blank (S4L1112-CCB6)				Prepared & Analyzed: 12/10/2014						
Nitrite as N	0.0208		mg/L							
Instrument QC - S4L1115										
Initial Cal Blank (S4L1115-ICB1)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0500		mg/L							
Calibration Blank (S4L1115-CCB1)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0455		mg/L							
Calibration Blank (S4L1115-CCB2)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0447		mg/L							
Calibration Blank (S4L1115-CCB3)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0527		mg/L							
Calibration Blank (S4L1115-CCB4)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0456		mg/L							
Calibration Blank (S4L1115-CCB5)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0451		mg/L							
Calibration Blank (S4L1115-CCB6)				Prepared & Analyzed: 12/10/2014						
Nitrate-Nitrite as N	-0.0542		mg/L							
Instrument QC - S4L1116										
Initial Cal Check (S4L1116-ICV1)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	10.2		mg/L	10.0000		102	90-110			
Initial Cal Blank (S4L1116-ICB1)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	-0.0130		mg/L							
Low Cal Check (S4L1116-LCV1)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	5.06		mg/L	5.00000		101	90-110			
Calibration Blank (S4L1116-CCB1)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	0.00983		mg/L							
High Cal Check (S4L1116-HCV1)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	10.2		mg/L	10.0000		102	90-110			
Calibration Blank (S4L1116-CCB2)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	-0.00578		mg/L							
Low Cal Check (S4L1116-LCV2)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	5.11		mg/L	5.00000		102	90-110			
Calibration Blank (S4L1116-CCB3)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	-0.00989		mg/L							
High Cal Check (S4L1116-HCV2)				Prepared & Analyzed: 12/11/2014						

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Inorganics - Quality Control Summary

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Instrument QC - S4L1116										
High Cal Check (S4L1116-HCV2)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	10.3		mg/L	10.0000		103	90-110			
Calibration Blank (S4L1116-CCB4)				Prepared & Analyzed: 12/11/2014						
Total Kjeldahl Nitrogen (TKN)	-0.0457		mg/L							
Instrument QC - S4L1208										
High Cal Check (S4L1208-HCV1)				Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.0988		mg/L	0.500000		19.8	0-200			
Low Cal Check (S4L1208-LCV1)				Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.0488		mg/L	0.0500000		97.5	90-110			
High Cal Check (S4L1208-HCV2)				Prepared & Analyzed: 12/12/2014						
Chromium (VI)	0.101		mg/L	0.500000		20.3	0-200			
Instrument QC - S4L1501										
Initial Cal Blank (S4L1501-ICB1)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.135		mg/L							
Initial Cal Check (S4L1501-ICV1)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	5.33		mg/L	5.00000		107	80-120			
Low Cal Check (S4L1501-LCV1)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	2.58		mg/L	2.50000		103	80-120			
Calibration Blank (S4L1501-CCB1)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.146		mg/L							
High Cal Check (S4L1501-HCV1)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	5.30		mg/L	5.00000		106	80-120			
Calibration Blank (S4L1501-CCB2)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.150		mg/L							
Low Cal Check (S4L1501-LCV2)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	2.62		mg/L	2.50000		105	80-120			
Calibration Blank (S4L1501-CCB3)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.134		mg/L							
High Cal Check (S4L1501-HCV2)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	5.45		mg/L	5.00000		109	80-120			
Calibration Blank (S4L1501-CCB4)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.193		mg/L							
High Cal Check (S4L1501-HCV3)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	5.56		mg/L	5.00000		111	80-120			
Calibration Blank (S4L1501-CCB5)				Prepared & Analyzed: 12/15/2014						

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Inorganics - Quality Control Summary

Benchmark Analytics Sayre, A Microbac Laboratory

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Instrument QC - S4L1501										
Calibration Blank (S4L1501-CCB5)				Prepared & Analyzed: 12/15/2014						
Total Organic Carbon (TOC)	0.0420		mg/L							
Instrument QC - S4L1504										
Initial Cal Check (S4L1504-ICV1)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.98		mg/L	5.00000		99.7	90-110			
Initial Cal Blank (S4L1504-ICB1)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0820		mg/L							
High Cal Check (S4L1504-HCV1)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	9.99		mg/L	10.0000		99.9	90-110			
Calibration Blank (S4L1504-CCB1)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0890		mg/L							
Low Cal Check (S4L1504-LCV1)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.92		mg/L	5.00000		98.4	90-110			
Calibration Blank (S4L1504-CCB2)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0640		mg/L							
High Cal Check (S4L1504-HCV2)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	10.3		mg/L	10.0000		103	90-110			
Calibration Blank (S4L1504-CCB3)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0650		mg/L							
Low Cal Check (S4L1504-LCV2)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.73		mg/L	5.00000		94.6	90-110			
Calibration Blank (S4L1504-CCB4)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0630		mg/L							
High Cal Check (S4L1504-HCV3)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	9.72		mg/L	10.0000		97.2	90-110			
Calibration Blank (S4L1504-CCB5)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0720		mg/L							
Low Cal Check (S4L1504-LCV3)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.84		mg/L	5.00000		96.8	90-110			
Calibration Blank (S4L1504-CCB6)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0620		mg/L							
Low Cal Check (S4L1504-LCV4)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	4.76		mg/L	5.00000		95.1	90-110			
Calibration Blank (S4L1504-CCB7)				Prepared & Analyzed: 12/12/2014						
Ammonia as N	0.0590		mg/L							

Instrument QC - S4L1606

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Inorganics - Quality Control Summary

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
High Cal Check (S4L1606-HCV1)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	515		mg/L	500.000		103	0-200			
Low Cal Check (S4L1606-LCV2)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	92.2		mg/L	100.000		92.2	0-200			
High Cal Check (S4L1606-HCV2)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	520		mg/L	500.000		104	0-200			
Low Cal Check (S4L1606-LCV1)				Prepared & Analyzed: 12/12/2014						
Chemical Oxygen Demand (COD)	97.0		mg/L	100.000		97.0	0-200			
Instrument QC - S4L1613										
Initial Cal Check (S4L1613-ICV1)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.45		mg/L	10.0000		94.5	90-110			
Initial Cal Blank (S4L1613-ICB1)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.0149		mg/L							
Low Cal Check (S4L1613-LCV1)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.82		mg/L	5.00000		96.4	90-110			
Calibration Blank (S4L1613-CCB1)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.0133		mg/L							
High Cal Check (S4L1613-HCV1)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.52		mg/L	10.0000		95.2	90-110			
Calibration Blank (S4L1613-CCB2)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.101		mg/L							
Low Cal Check (S4L1613-LCV2)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.79		mg/L	5.00000		95.8	90-110			
Calibration Blank (S4L1613-CCB3)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.188		mg/L							
High Cal Check (S4L1613-HCV2)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.70		mg/L	10.0000		97.0	90-110			
Calibration Blank (S4L1613-CCB4)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.0629		mg/L							
Low Cal Check (S4L1613-LCV3)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.86		mg/L	5.00000		97.2	90-110			
Calibration Blank (S4L1613-CCB5)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.0171		mg/L							
High Cal Check (S4L1613-HCV3)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.59		mg/L	10.0000		95.9	90-110			
Calibration Blank (S4L1613-CCB6)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.0334		mg/L							
Low Cal Check (S4L1613-LCV4)				Prepared & Analyzed: 12/16/2014						

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Inorganics - Quality Control Summary

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Instrument QC - S4L1613										
Low Cal Check (S4L1613-LCV4)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.81		mg/L	5.00000		96.2	90-110			
Calibration Blank (S4L1613-CCB7)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.0617		mg/L							
High Cal Check (S4L1613-HCV4)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.63		mg/L	10.0000		96.3	90-110			
Calibration Blank (S4L1613-CCB8)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	-0.0571		mg/L							
Low Cal Check (S4L1613-LCV5)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.88		mg/L	5.00000		97.6	90-110			
Calibration Blank (S4L1613-CCB9)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.0246		mg/L							
High Cal Check (S4L1613-HCV5)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.71		mg/L	10.0000		97.1	90-110			
Calibration Blank (S4L1613-CCBA)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.0615		mg/L							
Low Cal Check (S4L1613-LCV6)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	4.88		mg/L	5.00000		97.6	90-110			
Calibration Blank (S4L1613-CCBB)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	0.0643		mg/L							
High Cal Check (S4L1613-HCV6)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	9.92		mg/L	10.0000		99.2	90-110			
Calibration Blank (S4L1613-CCBC)				Prepared & Analyzed: 12/16/2014						
Total Kjeldahl Nitrogen (TKN)	-0.0307		mg/L							
Instrument QC - S4L1713										
Initial Cal Check (S4L1713-ICV1)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.0984		mg/L	0.100000		98.4	90-110			
Initial Cal Blank (S4L1713-ICB1)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.000920		mg/L							
High Cal Check (S4L1713-HCV1)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.361		mg/L	0.350000		103	0-200			
Calibration Blank (S4L1713-CCB1)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.00768		mg/L							
Low Cal Check (S4L1713-LCV1)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.110		mg/L	0.100000		110	90-110			
Calibration Blank (S4L1713-CCB2)				Prepared & Analyzed: 12/17/2014						

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Inorganics - Quality Control Summary

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Instrument QC - S4L1713										
Calibration Blank (S4L1713-CCB2)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.00269		mg/L							
High Cal Check (S4L1713-HCV2)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.381		mg/L	0.350000		109	0-200			
Calibration Blank (S4L1713-CCB3)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.00426		mg/L							
Low Cal Check (S4L1713-LCV2)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.0956		mg/L	0.100000		95.6	90-110			
Calibration Blank (S4L1713-CCB4)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	-0.00537		mg/L							
High Cal Check (S4L1713-HCV3)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.365		mg/L	0.350000		104	0-200			
Calibration Blank (S4L1713-CCB5)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	-0.00481		mg/L							
Low Cal Check (S4L1713-LCV3)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	0.104		mg/L	0.100000		104	90-110			
Calibration Blank (S4L1713-CCB6)				Prepared & Analyzed: 12/17/2014						
Cyanide - Total	-0.00544		mg/L							
Instrument QC - S4L1814										
Initial Cal Check (S4L1814-ICV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.198		mg/L	0.200000		99.0	90-110			
Initial Cal Blank (S4L1814-ICB1)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00885		mg/L							
High Cal Check (S4L1814-HCV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.486		mg/L	0.500000		97.2	0-200			
Calibration Blank (S4L1814-CCB1)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00383		mg/L							
High Cal Check (S4L1814-HCV2)				Prepared & Analyzed: 12/15/2014						
Phenols	0.483		mg/L	0.500000		96.6	0-200			
Calibration Blank (S4L1814-CCB2)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00356		mg/L							
Low Cal Check (S4L1814-LCV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.198		mg/L	0.200000		99.0	0-200			
Calibration Blank (S4L1814-CCB3)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00527		mg/L							
High Cal Check (S4L1814-HCV3)				Prepared & Analyzed: 12/15/2014						

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Inorganics - Quality Control Summary

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Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Instrument QC - S4L1814										
High Cal Check (S4L1814-HCV3)				Prepared & Analyzed: 12/15/2014						
Phenols	0.488		mg/L	0.500000		97.6	0-200			
Calibration Blank (S4L1814-CCB4)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00340		mg/L							
Calibration Blank (S4L1814-CCB5)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00669		mg/L							
Instrument QC - S4L1819										
Initial Cal Check (S4L1819-ICV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.198		mg/L	0.200000		99.0	90-110			
Initial Cal Blank (S4L1819-ICB1)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00600		mg/L							
High Cal Check (S4L1819-HCV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.487		mg/L	0.500000		97.4	0-200			
Calibration Blank (S4L1819-CCB1)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00187		mg/L							
High Cal Check (S4L1819-HCV2)				Prepared & Analyzed: 12/15/2014						
Phenols	0.484		mg/L	0.500000		96.8	0-200			
Calibration Blank (S4L1819-CCB2)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00213		mg/L							
Low Cal Check (S4L1819-LCV1)				Prepared & Analyzed: 12/15/2014						
Phenols	0.200		mg/L	0.200000		100	0-200			
Calibration Blank (S4L1819-CCB3)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00388		mg/L							
High Cal Check (S4L1819-HCV3)				Prepared & Analyzed: 12/15/2014						
Phenols	0.486		mg/L	0.500000		97.2	0-200			
Calibration Blank (S4L1819-CCB4)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00255		mg/L							
Calibration Blank (S4L1819-CCB5)				Prepared & Analyzed: 12/15/2014						
Phenols	-0.00605		mg/L							



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Definitions

CC:	All results were reported as true color.
D:	Dilution performed on sample.
E:	Value above quantitation range
H1:	Sample was received past holding time.
L:	Value above calibration range but within annually verified linear range
M1:	Matrix spike recovery is above acceptance limits.
M2:	Matrix spike recovery is below acceptance limits.
M6:	Matrix spike recovery was not calculated. The analyte concentration is 4X the spiking level.
MCL:	Maximum Contaminant Level
MDL:	Minimum Detection Limit
PQL:	Practical Quantitation Limit
Q1:	LCS recovery is above acceptance limits. The reported value is estimated.
R:	RPD outside accepted recovery limits
R1:	Duplicate RPD is outside acceptance criteria.
RPD:	Relative Percent Difference
S:	Spike Recovery outside accepted recovery limits
Y:	This analyte is not on the laboratory's current Scope of Accreditation.
PQL:	Practical Quantitation Limit

Cooler Receipt Log:

Cooler ID:	Default Cooler		
Cooler Temp:	3.2 °C	Received On Ice (or not required):	Yes
COC/Labels Agree:	Yes	Preservation Correct (or not required):	Yes
Containers Intact:	Yes	Custody Seals Intact and/or No Evidence of Tampering	Yes

Project Requested Certification(s):

Certificate ID	Agency
Benchmark Analytics Sayre, A Microbac Laboratory NY-Sayre NYSDOH NY Lab ID No.: 11216	New York State Department of Health

Report Comments:

In accordance with NYSDOH-ELAP and NELAC, any non-conformance of these regulations are noted directly on the laboratory as qualifiers and/or noted in the case narrative.

Reviewed and Approved By:

Renee Lantz
Project Manager

Go Green:

Contact renee.lantz@microbac.com to set up email reporting and invoicing options.

The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included.

For any feedback concerning our services, please contact Renee Lantz listed above at renee.lantz@microbac.com or 570-888-0169. You may also contact Trevor Boyce President, at president@microbac.com.

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REPORT TO: Town of Conklin
CONTACT
PH#
FAX#
BILL TO:
PO#
PROJECT DESCRIPTION
SAMPLER SIGNATURE / AFFILIATION
Container Sample Point No./Type

REFRIGERATE SAMPLES
AFTER COLLECTION

**TRANSPORT
TO
LABORATORY
IN COOLER
WITH ICE**

SAMPLE	TIME OF SAMPLING	DATE SAMPLED
--------	------------------	--------------

PREPARED BY	SAMPLER INITIALS	SAMPLE TYPE - GRAB / COMPOSITE	TEST MATRIX

☐ Total Chlorine Residual

☐ Free Chlorine Residual

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ANALYSIS TO BE PERFORMED (PER CONTAINER)

FORMED
ER)

he

COMPOSITE OF
RECEIPT

PRESEB
ADD



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FC	
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A	

8260	Ag, Al, As, B,
	Sb, Se, Ca,
	THardness
	Alk
	NH ₃ , CO ₂
	BO ₂ , pH
	Bromide
	TDS
	Cl, Sulfate
	Calcium

Ba, Be, Co, Cr, Cu,
Cd, Fe, K, Mg, Mn

Hg, Ni, Pb
n, Na, Ti, V, Zn

Conklin, Town of

S 4 L 0 8 5 3

LAB USE ONLY

DELIVERED BY FC

ELINQUISHED BY: Tran Cannon

ELINQUISHED BY:

ELINQUISHED BY:

	DATE: 12/9/14	TIME: 8:30
	DATE: / /	TIME:
	DATE: / /	TIME:

	RECEIVED BY:	TEMP
①	RECEIVED BY:	
	RECEIVED BY:	De H

Signature of the person receiving the property: De. McCarty

DATE: 3.2 °C	ARRIVE: / /
DATE: / /	DATE: / /
DATE: 12/9/11	

	TIME:	
	TIME:	
4	TIME:	11

43				Y/N
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Page 101 of 113

Ad Graphics Printing 570-888 0685

Benchmark Analytics, Inc.
2566 Pennsylvania Avenue • Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

1

[illegible]

Benchmark Analytics, Inc.
2566 Pennsylvania Avenue • Sayre, PA 18840
Phone: (570) 888-0169
Fax: (570) 888-0717

3 OF 3

REFRIGERATE SAMPLES
AFTER COLLECTION

TRANSPORT TO LABORATORY IN COOLER WITH ICE

DATE SAMPLED	TIME OF SAMPLING	SAMPLE MATRIX	SA
--------------	------------------	---------------	----

1	SLW·Carlin
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11	

LAB USE ONLY

DELIVERED BY

ELINQUISHED BY:	<i>Alan Connor</i>
ELINQUISHED BY:	
ELINQUISHED BY:	

DATE: 12/9/14	TIME: 8:30
DATE: / /	TIME:
DATE: / /	TIME:

RECEIVED BY: _____

RECEIVED BY: _____

RECEIVED BY: Debbie McCarty

	DATE: / /	TIME:
	DATE: / /	TIME:
	DATE: 12 / 14	TIME: 1143

Ad Graphics Printing 570-888-0685

ARE SPECIAL DETECTION LIMITS NEEDED: YES / NO	IF YES, PLEASE ATTACH	IS A QC PACKAGE NEEDED?	YES NO	IF YES, PLEASE ATTACH REQUIREMENTS

RESULTS ARE BEING USED FOR:			
NYDOH	NYDEC	PADEP	
		LANDFILL	
PERSONAL	OTHER		

PWS ID # _____	Location _____	Sample Point _____
SODIUM HYDROXIDE FORMIC ACID CITRIC ACID AMMONIUM CHLORIDE SODIUM ACETATE SODIUM CHLORIDE		

DW	DRINKING WATER	SL	SLUDGE
GW	GROUND WATER	SO	SOIL
SW	SURFACE WATER	HZ	HAZARDOUS
WW	WASTE WATER	OTHER	
DE	DEIONIZED WATER	DI	DISTILLED WATER

An incomplete chain of custody may delay the processing of your sample(s).

ANALYSIS TO BE PERFORMED
(PER CONTAINER)

Chlorine Residual ☐ Free ☐

PREPRESERVATIVE

COMPOSITED ON
RECEIPT
PREPARED

same

[illegible]

LAB USE ONLY

DELIVERED BY FC TEMPERATURE UPON RECEIPT 3.2 °C ARRIVAL ON ICE (Y)N

RELINQUISHED BY: <i>Alan Connor</i>	DATE: 12/9/14	TIME: 8:30	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY:	DATE: / /	TIME:
RELINQUISHED BY:	DATE: / /	TIME:	RECEIVED BY: <i>Debbie McCarty</i>	DATE: 12/9/14	TIME: 1143

Ad Graphics Printing 570-888-0685

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW3 Sequence 4 Physical Condition OK

Weather Conditions Ptly Sunny - 23 °F

Sampling Technician(s) Fran Connor

Additional People Present _____

Purging Information

Date 12-8-14

Purge Method (Bailer) Pump _____

Purge Time Start 11:45

Stop 12:25

Total Depth 22.35

2.0" LWC X 0.163= 2.98 Gals.

Depth to Water 4.06 ft.

4.0" LWC X 0.6532= _____ Gals.

Length of Column 18.29 ft.

6.0" LWC X 1.469= _____ Gals.

3 Volumes of Water 8.94 Gal.

Actual Volume Removed 9.0 Gals.

Purge Water Characteristics

Color Brown

Odor (field) None

Visual Turbidity Moderate

Immiscible Layers None

Sampling Information

Date 12-8-14

Sample Method (Bailer) Pump _____

Sample Time 12:30

pH (field) 6.52 @ 8.4 O/F

Notes:

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW 4 Sequence 5 Physical Condition OK

Weather Conditions Ptly. Sunny 24 °F

Sampling Technician(s) Fran Connor

Additional People Present _____

Purging Information

Date 12-8-14

Purge Method Bailer Pump

Purge Time Start 1240

Stop 1300

Total Depth 19.14

2.0" LWC X 0.163 = 1.64 Gals.

Depth to Water 9.10 ft.

4.0" LWC X 0.6532 = _____ Gals.

Length of Column 10.04 ft.

6.0" LWC X 1.469 = _____ Gals.

3 Volumes of Water 4.92 Gal.

Actual Volume Removed 5.0 Gals.

Purge Water Characteristics

Color Brown

Odor (field) None

Visual Turbidity Slight

Immiscible Layers None

Sampling Information

Date 12-8-14

Sample Method Bailer Pump

Sample Time 1305

pH (field) 7.08 @ 8.9 °C/F

Notes:

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW 12 Sequence 1 Physical Condition OK

Weather Conditions Sunny 18 °F

Sampling Technician(s) Fran Connor

Additional People Present _____

Purging Information

Date 12-8-14 Purge Method (Bailer) Pump

Purge Time Start 1015 Stop 1030

Total Depth 19.02 2.0" LWC X 0.163= 1.27 Gals.

Depth to Water 11.25 ft. 4.0" LWC X 0.6532= _____ Gals.

Length of Column 7.77 ft. 6.0" LWC X 1.469= _____ Gals.

3 Volumes of Water 3.81 Gal. Actual Volume Removed 1.5 Gals.

Purge Water Characteristics

Color Brown Odor (field) None

Visual Turbidity Moderate Immiscible Layers None

Sampling Information

Date 12-8-14 Sample Method (Bailer) Pump

Sample Time 14:55 pH (field) 6.41 @ 8.7 (C/F)

Notes:

Lots of roots in well.

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW 37 Sequence 30 Physical Condition See below

Weather Conditions Sunny 21 °F

Sampling Technician(s) Fran Connor

Additional People Present _____

Purging Information

Date 12-8-14

Purge Method (Bailer) Pump

Purge Time Start 11:20

Stop 11:35

Total Depth 15.63

2.0" LWC X 0.163= 1.39 Gals.

Depth to Water 7.13 ft.

4.0" LWC X 0.6532= _____ Gals.

Length of Column 8.5 ft.

6.0" LWC X 1.469= _____ Gals.

3 Volumes of Water 447 Gal.

Actual Volume Removed 1.75 Gals.

Purge Water Characteristics

Color Clear - Brown

Odor (field) None

Visual Turbidity Slight

Immiscible Layers None

Sampling Information

Date 12-8-14

Sample Method (Bailer) Pump

Sample Time 15:25

pH (field) 7.68 @ 9.0 C/F

Notes:

Well bent, hard to bail

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW 38D Sequence 8 Physical Condition See below

Weather Conditions Overcast 25.°F

Sampling Technician(s) Fran Connor

Additional People Present _____

Purging Information

Date 12-8-14

Purge Method (Bailer) Pump

Purge Time Start 1335

Stop 1350

Total Depth 16.16

2.0" LWC X 0.163= 1.73 Gals.

Depth to Water 5.55 ft.

4.0" LWC X 0.6532= _____ Gals.

Length of Column 10.61 ft.

6.0" LWC X 1.469= _____ Gals.

3 Volumes of Water 5.19 Gal.

Actual Volume Removed 5.25 Gals.

Purge Water Characteristics

Color Brown

Odor (field) None

Visual Turbidity Extreme

Immiscible Layers None

Sampling Information

Date 12-8-14

Sample Method (Bailer) Pump

Sample Time 1355

pH (field) 8.15 @ 7.4° C F

Notes:

CONKLIN LANDFILL
GROUNDWATER SAMPLING
FIELD DATA SHEET

General Information

Well# MW-1 Sequence 2 Physical Condition OK

Weather Conditions Sunny 21°F

Sampling Technician(s) Fran Connor

Additional People Present _____

Purging Information

Date 12-8-14

Purge Method Bailer Pump

Purge Time Start 1045

Stop 11:05

Total Depth 62.91

2.0" LWC X 0.163 = 5.92 Gals.

Depth to Water 26.58 ft.

4.0" LWC X 0.6532 = _____ Gals.

Length of Column 36.33 ft.

6.0" LWC X 1.469 = _____ Gals.

3 Volumes of Water 17.76 Gal.

Actual Volume Removed 18.0 Gals.

Purge Water Characteristics

Color Clear

Odor (field) None

Visual Turbidity None

Immiscible Layers None

Sampling Information

Date 12-8-14

Sample Method Bailer Pump

Sample Time 11:10

pH (field) 7.72 @ 9.3 C/F

Notes:

CONKLIN LANDFILL
DEPTH TO GROUNDWATER
FIELD DATA SHEET

General Information

Well# SW Carlin Sequence 10 Physical Condition OK

Weather Conditions Overcast 25°F

Sampling Technician(s) Fran Connor

Additional People Present _____

Depth Information

Date 12-8-14

Depth Reading Time 14:20

~~Depth to~~ Water Above Aug.

Notes:

pH 7.74 @ 1.0 °F

CONKLIN LANDFILL
DEPTH TO GROUNDWATER
FIELD DATA SHEET

General Information

Well# LW-14 Sequence 6 Physical Condition OK

Weather Conditions Plty Sunny 25 °F

Sampling Technician(s) Fran Connor

Additional People Present

Depth Information

Date 12-8-14

Depth Reading Time 12:40

Depth to Water 31.62

Notes:

CONKLIN LANDFILL
DEPTH TO GROUNDWATER
FIELD DATA SHEET

General Information

Well# MW 2 Sequence 7 Physical Condition See below

Weather Conditions Partly Sunny 25°F

Sampling Technician(s) Fran Connor

Additional People Present _____

Depth Information

Date 12-8-14

Depth Reading Time 12:45

Depth to Water —

Notes:

Well has obstruction at ~19 ft.

CONKLIN LANDFILL
DEPTH TO GROUNDWATER
FIELD DATA SHEET

General Information

Well# MW 385 Sequence 9 Physical Condition OK

Weather Conditions Overcast 25°F

Sampling Technician(s) Fran Connor

Additional People Present _____

Depth Information

Date 12-8-14

Depth Reading Time 1400

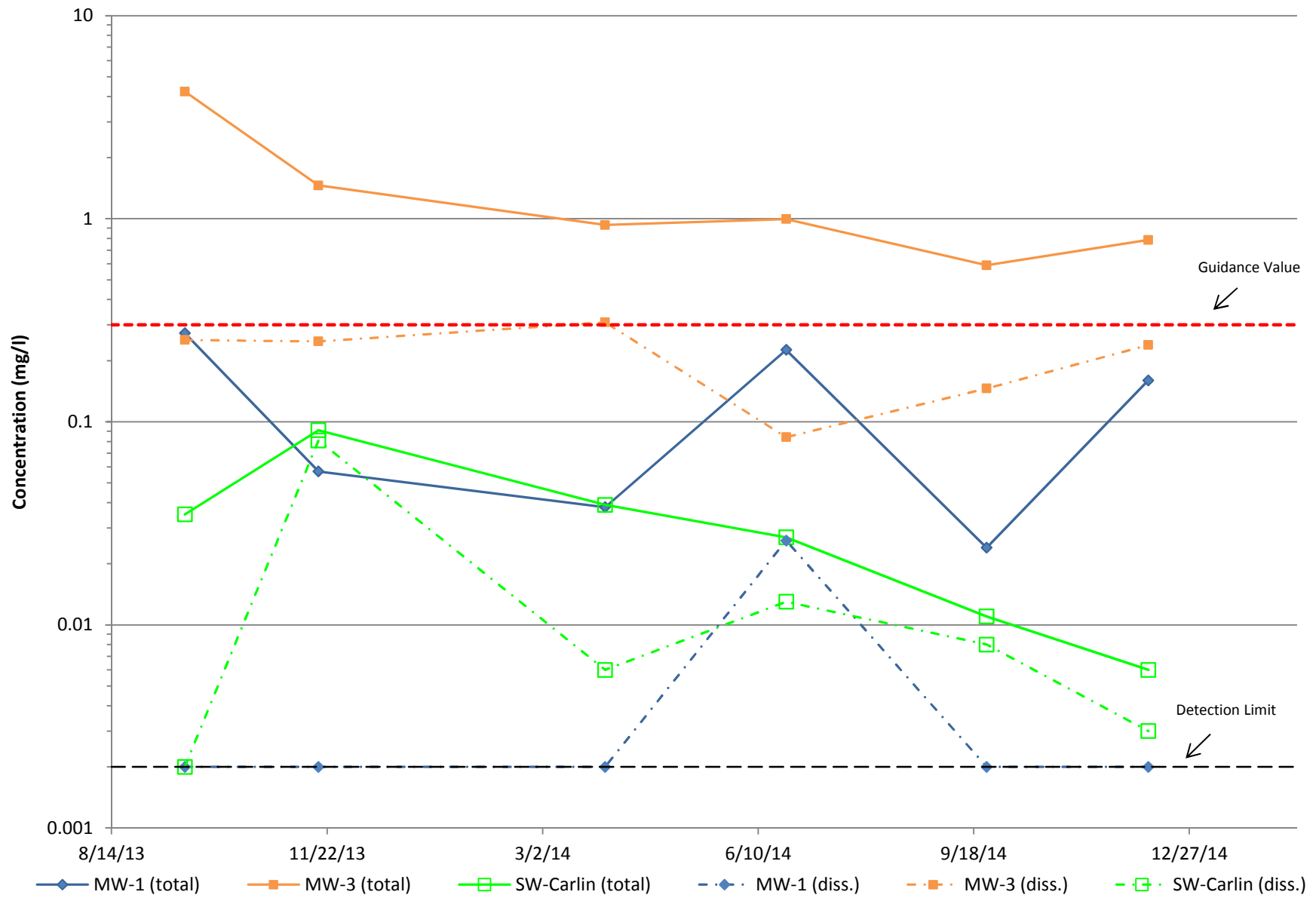
Depth to Water 4.92

Notes:

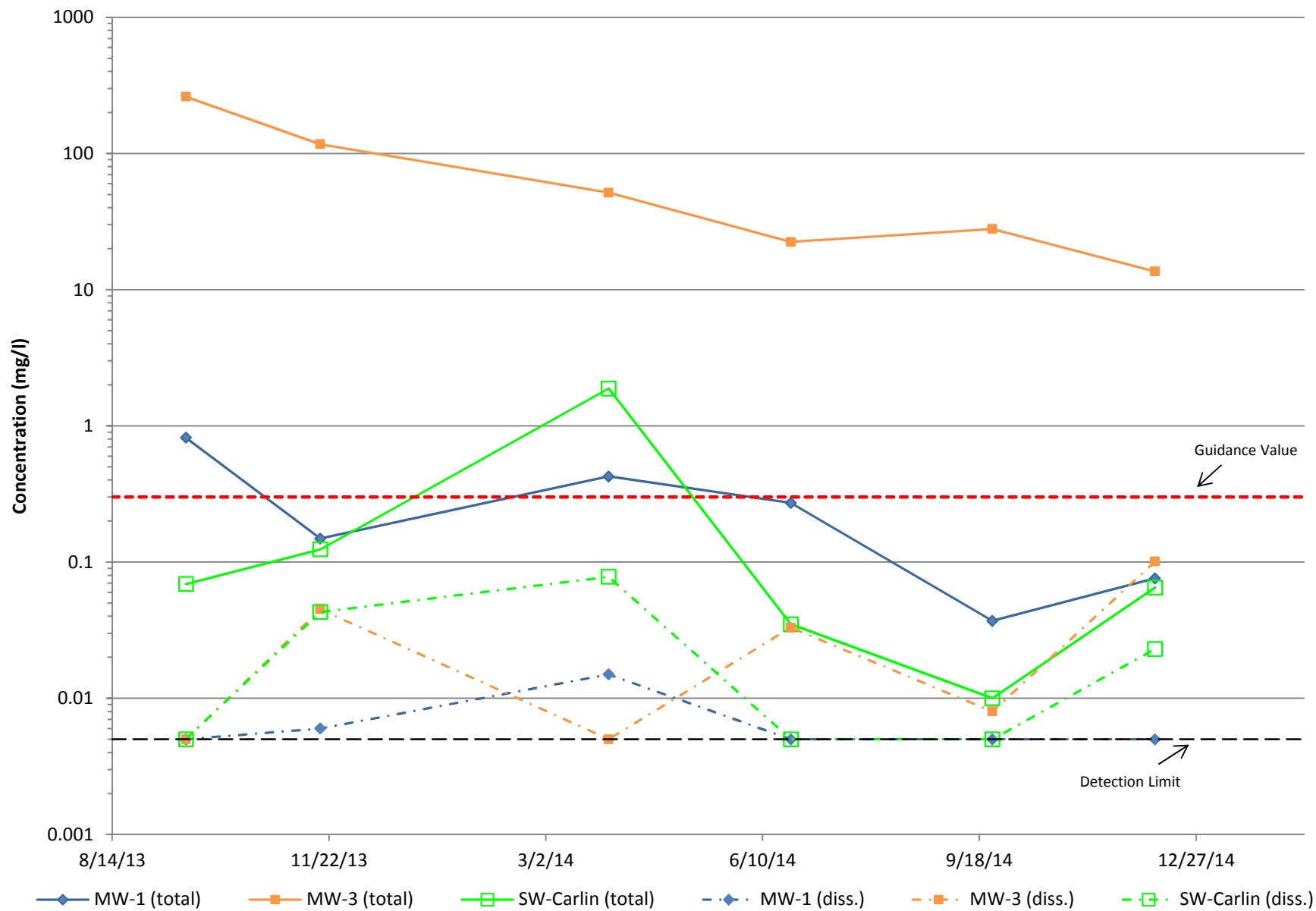
APPENDIX B

FILTERED AND UNFILTERED GROUNDWATER TREND COMPARISON

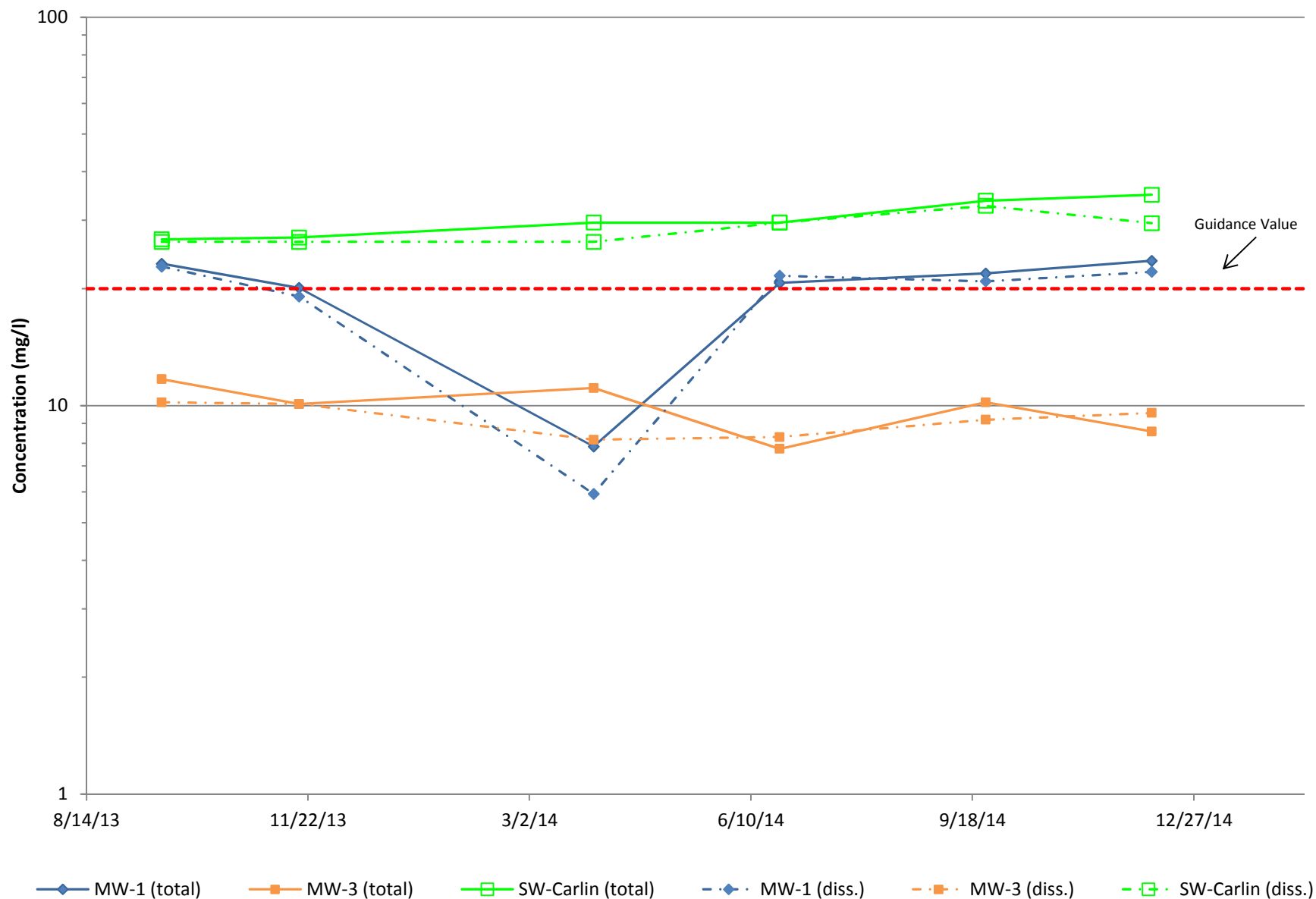
Total and Dissolved Manganese Trends



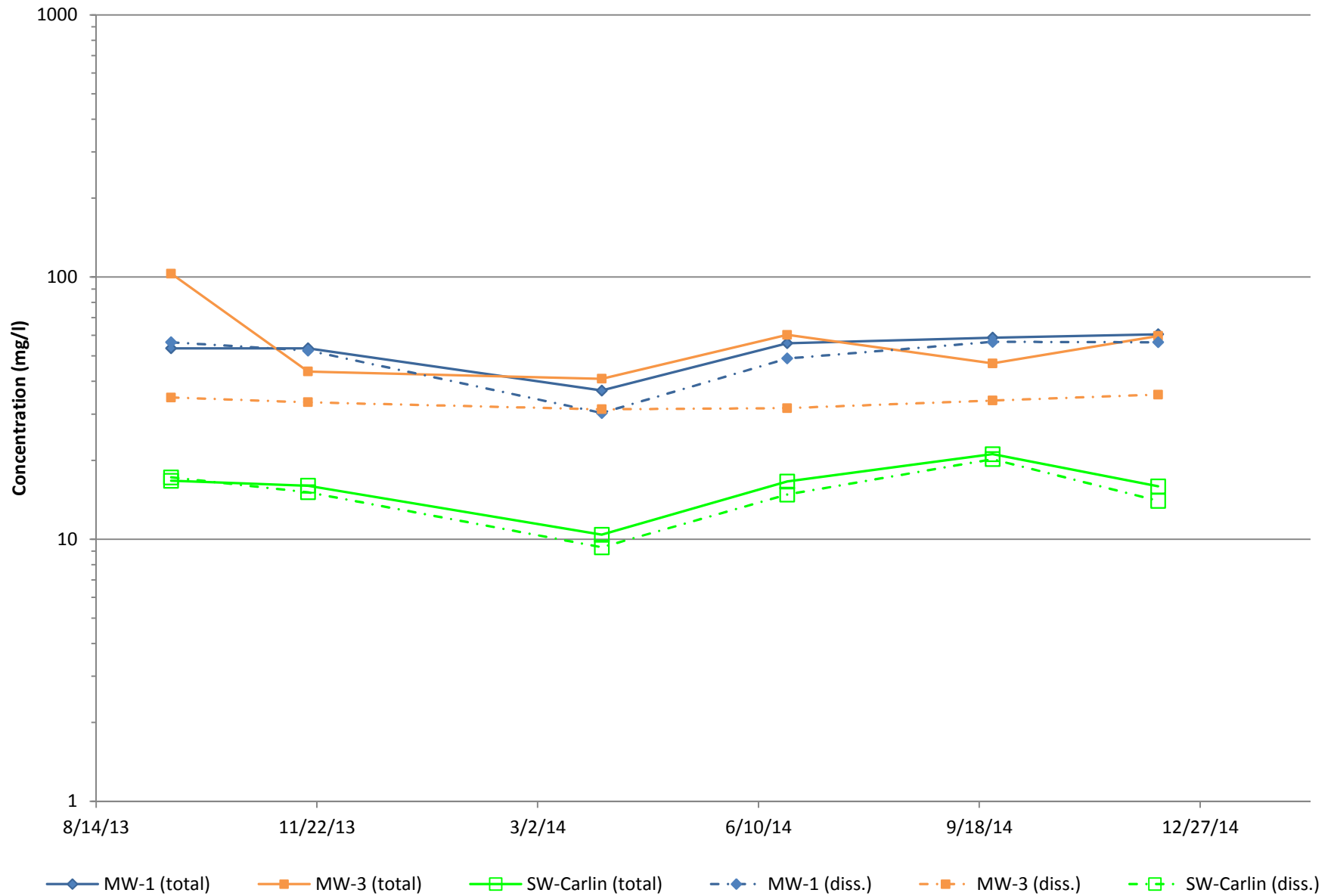
Total and Dissolved Iron Trends



Total and Dissolved Sodium Trends



Total and Dissolved Calcium Trends



APPENDIX C

DEPTH-TO-GROUNDWATER MEASUREMENTS

Depth To Groundwater Measurements

Town of Conklin Landfill

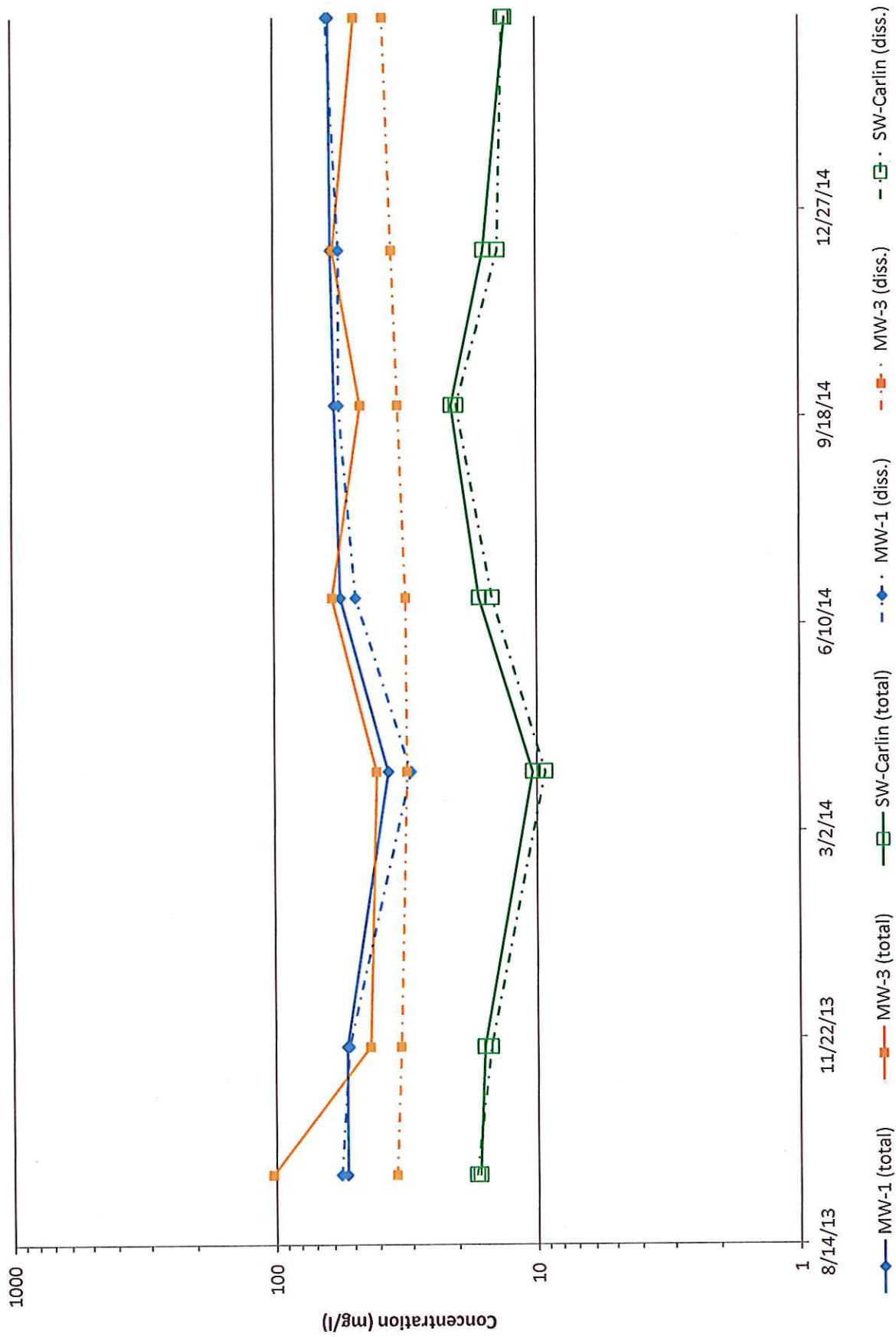
26-Oct-15

Well ID	Top of Casing Elevation	Depth to Water	Elevation of Water
MW-1	946.69	29.89	916.80
MW-3	892.4	5.20	887.20
MW-4	897.18	12.46	884.72
MW-12	901.08	15.92	885.16
MW-37	908.71	8.98	899.73
MW-38S	890.13	6.77	883.36
MW-38D	888.34	5.91	882.43
lw14	926.24	35.58	890.66

APPENDIX B

SELECT TREND CHARTS –FILTERED VS NON-FILTERED

Total and Dissolved Calcium Trends

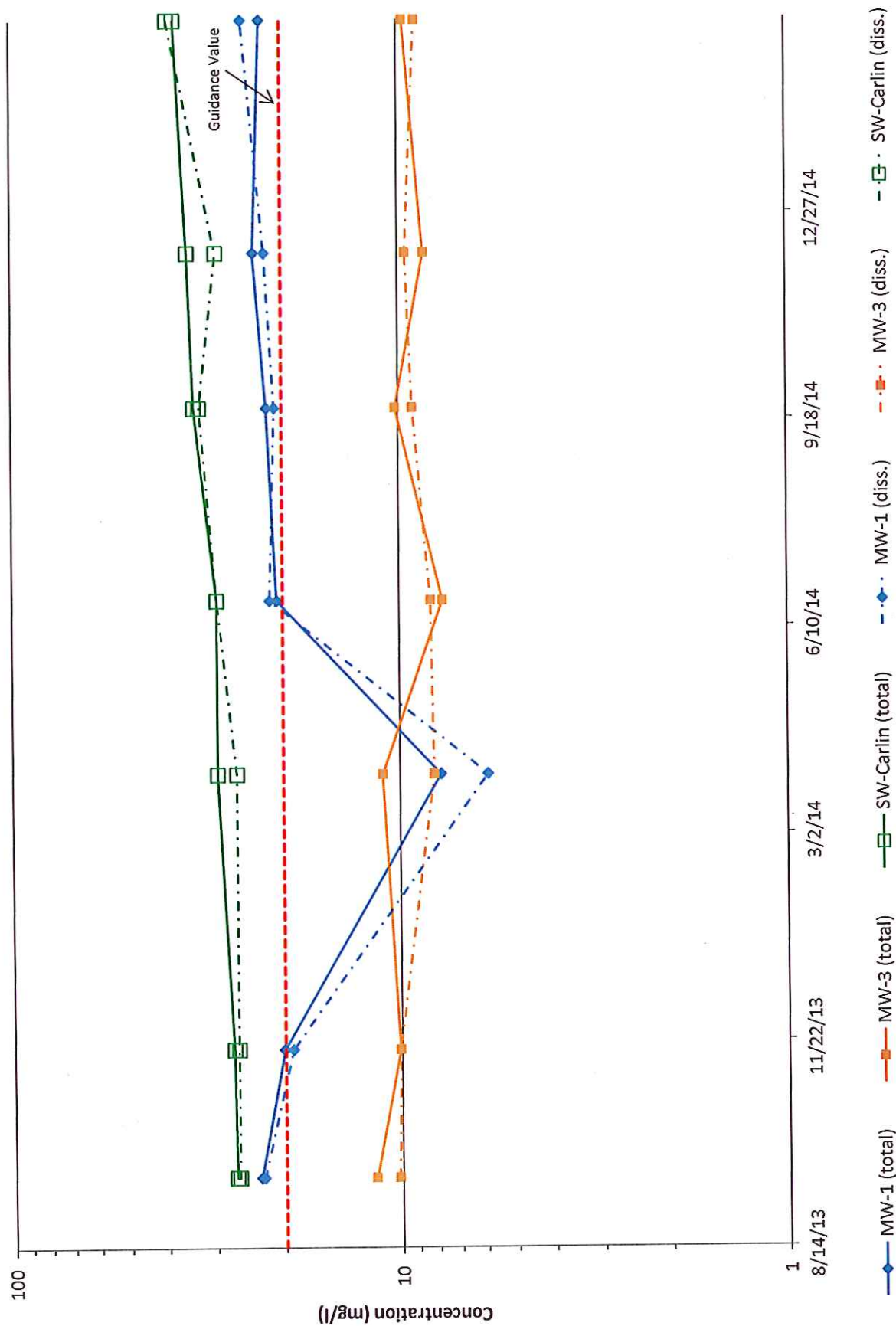


CALCIUM TRENDS

Total								Dissolved								
Date	MW-1	MW-3	MW-4	MW-12	MW-37	MW-38D	SW-Carlin	Date	MW-1	MW-3	MW-4	MW-12	MW-37	MW-38D	SW-Carlin	
9/17/2013	53.5	103	36.7	33.9	40	438	16.7	9/17/2013	56.4	34.7	39.4	31.2	40.6	37.2	17.2	41500
11/18/2013	53.5	43.6	32.4	34.4	44.7	39.8	16	11/18/2013	52.4	33.3	29.5	27.3	41.5	37.7	15.1	42094
3/31/2014	36.9	40.9	40.7	22.4	45.3	38.8	10.4	3/31/2014	30.3	31.3	34	18.8	38.6	32.3	9.31	
6/23/2014	55.9	60.2	31.9	39.5	47.3	121	16.6	6/23/2014	48.9	31.6	24.5	31.5	40.3	31.9	14.8	
9/24/2014	58.7	46.8	34.2	41.3	45.3	118	21.1	9/24/2014	56.6	33.8	29.8	33.4	42.1	37.1	20.2	
12/8/2014	60.5	59.6	40.1	46	47.4	153	15.9	12/8/2014	56.4	35.6	35.3	25.7	45.6	38.5	14	
3/31/2015	61.3	49.2	42.4	25.8	47.6	63.8	13.1	3/31/2015	62.8	38.3	40	22.9	48.5	37.7	13.4	

42094

Total and Dissolved Sodium Trends



SODIUM TRENDS

Date	MW-1	MW-3	Total MW-4	MW-12	MW-37	MW-38D	SW-Carlin
9/17/2013	23.2	11.7	7.55	13		39.5	26.8
11/18/2013	20.1	10.1	7.85	12.1	9.1	35.3	27.1
3/31/2014	7.85	11.1	7.59	9.95	9.19	35.5	29.6
6/23/2014	20.7	7.74	7.64	11.4	8.74	25	29.6
9/24/2014	21.9	10.2	7.67	12	8.48	34.1	33.7
12/8/2014	23.6	8.58	8.16	9.84	9.26	36.4	34.9
3/31/2015	22.6	9.68	7.58	9.64	9.11	34.5	37.6

Date	MW-1	MW-3	Dissolved MW-4	MW-12	MW-37	MW-38D	SW-Carlin
9/17/2013	22.8	10.2	7.36	13.1		35.2	26.4
11/18/2013	19.1	10.1	7.46	10.5	8.56	34.5	26.4
3/31/2014	5.93	8.17	6.42	8.25	7.84	32.6	26.4
6/23/2014	21.6	8.3	7.62	12	8.34	36.9	29.6
9/24/2014	20.9	9.2	6.72	10.7	7.81	33.1	32.7
12/8/2014	22.1	9.58	7.05	8.82	9.27	35.6	29.5
3/31/2015	25.2	9.01	7.59	9.73	9.61	38.4	39.1

41500	20
42094	20

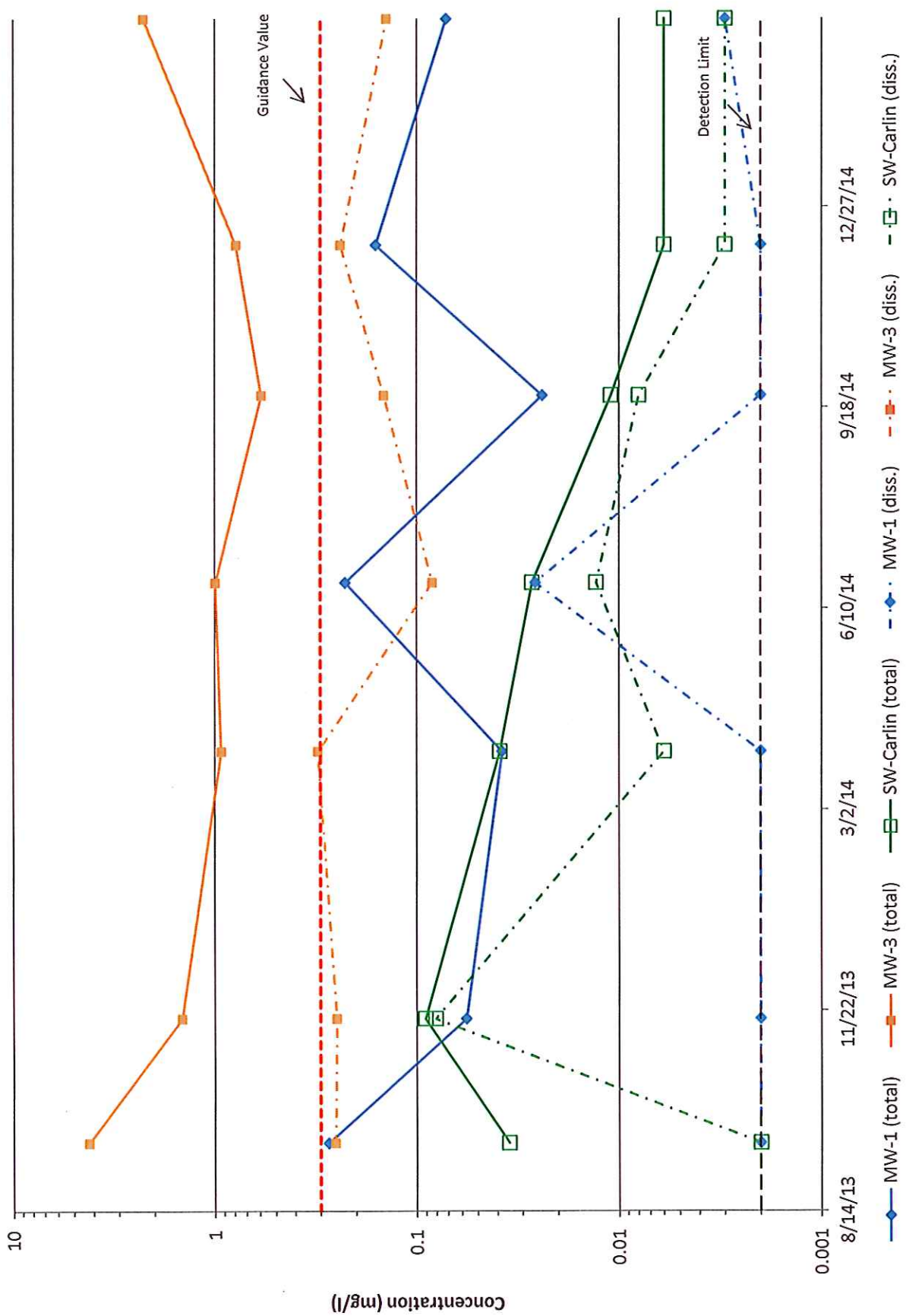
Concentration (mg/l)

Guidance Value

Detection Limit

8/14/13 11/22/13 3/2/14 6/10/14 9/18/14 12/27/14

MW-1 (total) — MW-3 (total) — SW-Carlin (total) — MW-1 (diss.) — MW-3 (diss.) — SW-Carlin (diss.)



MANGANESE TRENDS

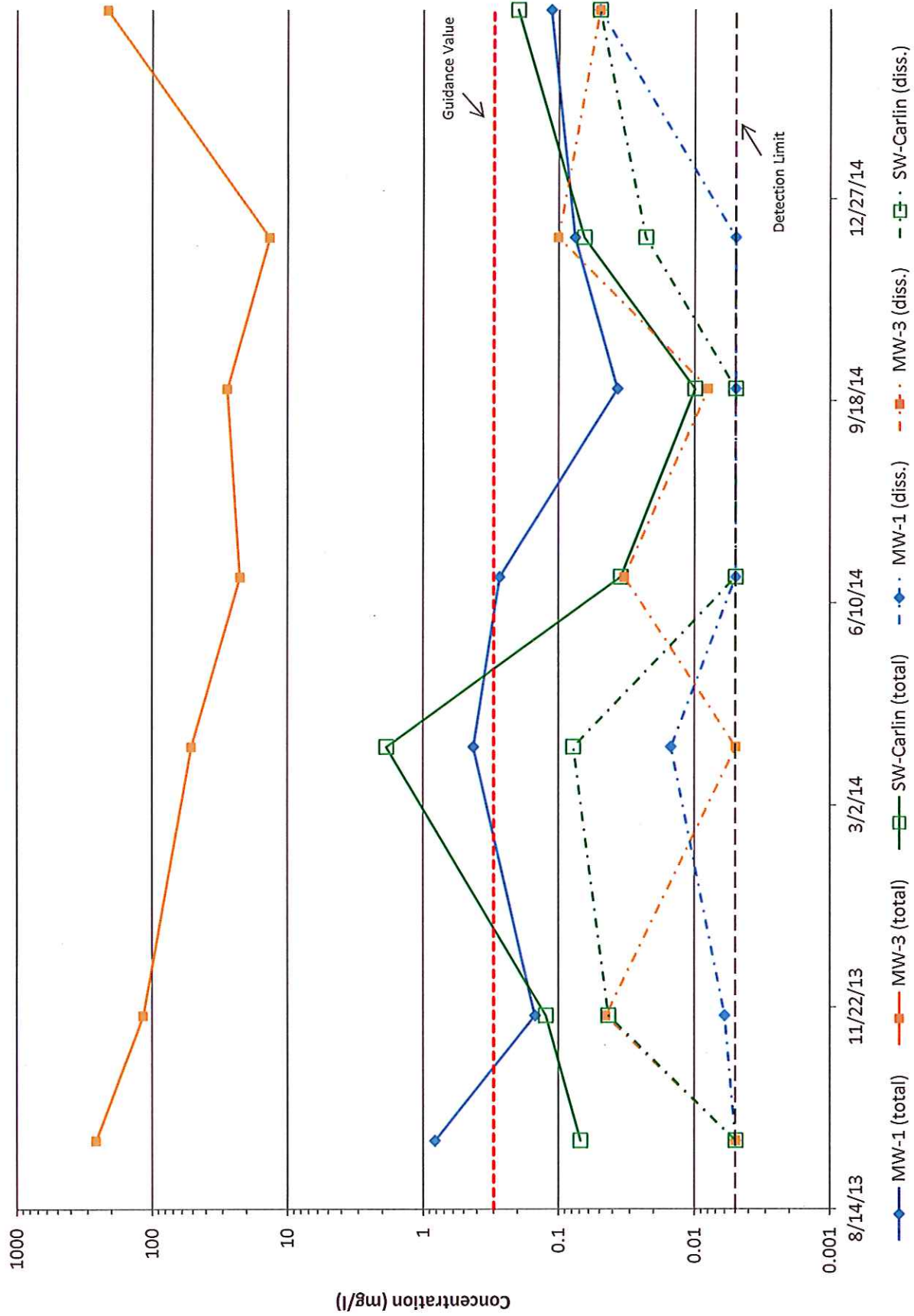
	Total						
Date	MW-1	MW-3	MW-4	MW-12	MW-37	MW-38D	SW-Carlin
9/17/2013	0.273	4.23	0.224	5.46	0.207	96.6	0.035
11/18/2013	0.057	1.46	0.755	1.37	0.066	0.637	0.091
3/31/2014	0.038	0.931	2.27	1.23	0.104	0.675	0.039
6/23/2014	0.226	0.996	1.2	3.37	0.036	16.2	0.027
9/24/2014	0.024	0.59	1.02	1.61	0.066	22.4	0.011
12/8/2014	0.16	0.786	0.448	1.76	0.034	23	0.006
3/31/2015	0.072	2.27	2.55	2.44	0.034	10.5	0.006

	Dissolved						
Date	MW-1	MW-3	MW-4	MW-12	MW-37	MW-38D	SW-Carlin
9/17/2013	0.002	0.253	0.023	0.645	0.006	0.485	0.002
11/18/2013	0.002	0.249	0.01	0.049	0.002	0.002	0.081
3/31/2014	0.002	0.309	0.013	0.012	0.002	0.005	0.006
6/23/2014	0.026	0.084	0.018	0.002	0.002	0.005	0.013
9/24/2014	0.002	0.146	0.011	0.008	0.002	0.307	0.008
12/8/2014	0.002	0.239	0.025	0.002	0.002	0.202	0.003
3/31/2015	0.003	0.142	0.003	0.003	0.003	0.003	0.003

41500	0.002	0.3
42094	0.002	0.3

0.002

Total and Dissolved Iron Trends



IRON TRENDS

Date	MW-1	MW-3	Total MW-4	MW-12	MW-37	MW-38D	SW-Carlin
9/17/2013	0.819	261	4.66	85.5	0.489	599	0.069
11/18/2013	0.149	117	9.31	32.9	0.462	17.6	0.124
3/31/2014	0.426	51.5	28.4	22.3	1.23	21.6	1.88
6/23/2014	0.272	22.4	14.1	73.6	0.246	105	0.035
9/24/2014	0.037	27.9	9.87	19.4	0.595	373	0.01
12/8/2014	0.076	13.6	1.63	12.9	0.424	98	0.065
3/31/2015	0.114	214	35.2	56.5	0.546	369	0.199

Date	MW-1	MW-3	Dissolved MW-4	MW-12	MW-37	MW-38D	SW-Carlin
9/17/2013	0.005	0.005	0.005	0.005	0.03	0.005	0.005
11/18/2013	0.006	0.045	0.018	0.01	0.005	0.008	0.043
3/31/2014	0.015	0.005	0.005	0.006	0.005	0.005	0.078
6/23/2014	0.005	0.033	0.015	0.017	0.005	0.027	0.005
9/24/2014	0.005	0.008	0.008	0.017	0.005	0.068	0.005
12/8/2014	0.005	0.101	0.007	0.005	0.005	0.04	0.023
3/31/2015	0.05	0.05	0.05	0.05	0.05	0.05	0.05

41500	0.005	0.3
42094	0.005	0.3

APPENDIX C

ENVIRONMENTAL EASEMENT

DECLARATION OF COVENANTS, RESTRICTIONS AND ENVIRONMENTAL EASEMENT

This Declaration of Covenants, Restrictions and Environmental Easement is made this 20th day of February, 2013, by and between The Town of Conklin, a municipal corporation, having an address at 1271 Conklin Road, Conklin, New York 13748, ("Grantor"), and the People of the State of New York (the "Grantee"), acting through their Commissioner of the New York State Department of Environmental Conservation with its Central Office, located at 625 Broadway, Albany, New York 12233 ("Grantee").

. WITNESSETH:

WHEREAS, Grantor is the owner of a 12.063 acre $\pm$ parcel [a/k/a the "Upper Landfill"] and a 15.625 acre $\pm$ parcel [a/k/a the "Lower Landfill"] of land located in Town of Conklin, County of Broome, State of New York, more particularly described on **Exhibit A** and **Exhibit B** attached hereto and made a part hereof together with any buildings and improvements thereon and appurtenances thereto (the parcels of land described on Exhibit A and Exhibit B shall be referred to collectively as the "Property"); and

WHEREAS, the Property is part of the Conklin Dumps Superfund Site ("Site"), which the U.S. Environmental Protection Agency ("EPA"), pursuant to Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9605, placed on the National Priorities List, as set forth in Appendix B of the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 C.F.R. Part 300, by publication in the Federal Register in June 1986; and

WHEREAS, in a Record of Decision dated March 29, 1991, ("ROD"), The Regional Administrator of EPA selected, and the New York State Department of Environmental Conservation ("NYSDEC") concurred with, response actions for the Site ("CERCLA response actions"), which provided in pertinent part, for the following actions:

- (i) Capping of the upper landfill and lower landfill
- (ii) Leachate collection and treatment
- (iii) Groundwater monitoring
- (iv) Fencing and long-term monitoring
- (v) Restricting activities at the Site that could affect the integrity of the cap

WHEREAS, in an Explanation of Significant Difference ("ESD") issued in September 1992, The EPA modified the remedy selected in the ROD, providing in pertinent part, for the following actions: the excavation of the lower landfill, consolidation of the excavated lower landfill contents onto the upper landfill, capping of the upper landfill, construction of a leachate collection system, and treatment of the leachate. The ESD did not modify the requirement in the ROD for the imposition of a property deed restriction, if necessary, to prevent the installation of drinking water wells that do not meet the quality standards at the Site, and restrict activities that could affect the integrity of the cap;

WHEREAS, a current copy of the NYSDEC and EPA approved SMP must be obtained by any party with an interest in the property, from the New York State Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@gw.dec.state.ny.us;

WHEREAS, the excavation of waste from the lower landfill, capping of the consolidated wastes in the upper landfill, installation of a leachate recovery system, and construction of a final cap for the upper landfill have been completed; and

WHEREAS, the parties hereto have agreed that Grantor shall grant to the Grantee a permanent Declaration of Covenants, Restrictions and Environmental Easement pursuant to Article 71, Title 36 of the NYS Environmental Conservation Law, covenant with respect to restrictions on the use of the Property, and provide a right of access to the Property in favor of Grantee and EPA, all of which shall run with the land, for purposes of preventing the installation of drinking water wells that do not meet quality standards, at the Site and to impose on the Property use restrictions that will run with the land for the purpose of restricting activities which could affect the integrity of the cap and protecting human health and the environment; and

WHEREAS, Grantor wishes to cooperate fully with the Grantee in the implementation of all response actions at the Site;

NOW, THEREFORE:

1. Grant: Grantor, on behalf of itself, its successors and assigns, in consideration of the mutual promises contained herein and other good and valuable consideration, receipt of which is hereby acknowledged, does hereby give, grant, covenant and declare in favor of the Grantee that the Property shall be subject to this Declaration of Covenants, Restrictions and Environmental Easement, and Grantor does further give, grant and convey to the Grantee the perpetual right to enforce said restrictions, covenants, right of access and Environmental Easement, all of which shall be of the nature and character, and for the purposes hereinafter set forth, with respect to the Site.
2. Purpose: It is the purpose of this instrument to convey to the Grantee real property rights, which will run with the land, facilitate the remediation of past environmental contamination and to impose use restrictions and covenants to protect human health and the environment by reducing the risk of exposure to contaminants.
3. Restrictions on Use: The following restrictions apply to the use of the Property, run with the land and are binding on the Grantor and its successors in title and assigns:
 - a) Restrictions to the use of the Upper Landfill are provided below:
 - i) Activities that could affect the integrity of the landfill cover, including without limitation, excavation, digging, and construction activities, are prohibited on any portion of the Upper Landfill, unless Grantee and EPA have given their prior written consent to any such intrusive activity.

-
- ii) Groundwater wells for drinking water shall not be installed or used on any portion of the Upper Landfill.
 - iii) The Upper Landfill shall not be used for "Residential Use" and "Restricted-Residential Use" as defined by New York State Department of Environmental Conservation (NYSDEC) Regulations – 6 NYCRR Part 375 – 1.8(g)(2)(i) and (ii). Allowable uses include "Commercial Use" and "Industrial Use" as defined in NYSDEC Regulations – 6 NYCRR Part 375 – 1.8(g)(2)(iii) and (iv).
 - iv) Grantor, for itself and its successors and assigns, covenants and agrees to keep in good repair and maintain the following engineering controls on the Upper Landfill:
 - v) Leachate Collection System;
 - vi) Landfill Cover and Gas Venting;
 - vii) Fencing bordering the Upper Landfill; and
 - viii) Monitoring Well Network.
 - ix) Periodic Certification
 - b) Restrictions to the use of the Lower Landfill are provided below:
 - i) Groundwater wells for drinking water shall not be installed or used on any portion of the Lower Landfill.
 - ii) The Lower Landfill shall not be used for "Residential Use" and "Restricted-Residential Use" as defined by New York State Department of Environmental Conservation (NYSDEC) Regulations – 6 NYCRR Part 375 – 1.8(g)(2)(i) and (ii). Allowable uses include "Commercial Use" and "Industrial Use" as defined in NYSDEC Regulations – 6 NYCRR Part 375 – 1.8(g)(2)(iii) and (iv).
 - c) Grantor, for itself and its successors and assigns, covenants and agrees that it shall, upon request by Grantee or EPA, certify to Grantee and to EPA that it is in compliance with the current Site Management Plan for the Site (a copy of which is available from Grantee at the address provided in Section 15, below, and electronically at the Grantee's website, currently <http://www.dec.ny.gov/chemical/36045.html>); that the Institutional Controls for the Site are in place and have not been violated since the date of the previous certification; that it is in compliance with its covenant to keep in good repair and maintain the Engineering Controls. (i) unless otherwise approved in writing by NYSDEC and EPA, or their successor agencies, there shall be no future development or use of the Property that could compromise, interfere with or adversely affect the implementation, integrity, or effectiveness of the remedial measures performed at the Site or cause contaminants to migrate; (ii) there shall be no installation of drinking water wells on the Property nor use of the groundwater from the unconfined aquifer underlying the Site as a source of potable or process water unless such groundwater meets or is

treated to meet quality standards established under federal and state laws and regulations for the intended use.

4. Modification or termination of restrictions and covenants: The restrictions specified in the preceding paragraph of this instrument may only be modified or terminated, in whole or in part, in writing, by the Grantee, provided, however, that any modification or termination of said restrictions shall not adversely affect the remedy selected by EPA and NYSDEC for the Site. If requested by the Grantor, such writing will be executed by Grantee in recordable form. Any request by Grantor for a modification or termination of this instrument shall be made in writing by Grantor to NYSDEC and to EPA in accordance with paragraph 15 of this instrument.
5. Right of access: Grantors hereby convey to Grantee and to EPA a right of access to the Property at all reasonable times for the following purposes shall run with the land and be binding on Grantor, their successors and /or assigns, and on any tenants or any other parties having an interest and/or rights to the Property:
 - a) Modifying the Implemented response actions in the ROD and ESD, including but not limited to, O & M to be provided by the State of New York;
 - b) Verifying any data or information relating to the Site;
 - c) Verifying that no action is being taken on the Property in violation of the terms of this instrument or of any federal or state environmental laws or regulations;
 - d) Conducting investigations under CERCLA relating to contamination on or near the Site, including, without limitation, sampling of air, water, sediments, soils; and
 - e) Implementing additional or new response actions under CERCLA.
6. Reserved rights of Grantor: Grantor hereby reserves unto itself, its successors and assigns, all rights and privileges in and to the use of the Property which are not incompatible with the restrictions, rights, covenants and easements granted herein.
7. Federal authority: Nothing in this document shall limit or otherwise affect EPA's rights of entry and access or EPA's authority to take response actions under CERCLA, the NCP, or other federal law.
8. State authority: Nothing herein shall constitute a waiver of any rights the State may have pursuant to the Environmental Conservation Law, regulations and/or relevant provisions of statutory or common law.
9. No public access and use: No right of access or use by the general public to any portion of the Property is conveyed by this instrument.
10. Public notice: Grantor, on behalf of itself, its successors and assigns, agrees to include in each instrument conveying any interest in any portion of the Property, including but not limited to deeds, leases and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO A DECLARATION OF COVENANTS, RESTRICTIONS AND ENVIRONMENTAL EASEMENT, DATED _____, 20__, RECORDED IN THE _____ COUNTY CLERK'S OFFICE ON _____, 20__, IN BOOK _____, PAGE _____, IN FAVOR OF, AND ENFORCEABLE BY, THE PEOPLE OF THE STATE OF NEW YORK AND BY THE UNITED STATES OF AMERICA AS THIRD-PARTY BENEFICIARY.

Within thirty (30) days of the date any such instrument of conveyance is executed, Grantor agrees to provide Grantee and EPA with a certified true copy of said instrument and, if it has been recorded in the public land records, its recording reference.

11. Enforcement: The Grantee shall be entitled to enforce the terms of this instrument by resort to specific performance. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity, including CERCLA. Any forbearance, delay or omission to exercise Grantee's rights under this instrument in the event of a breach of any term of this instrument shall not be deemed to be a waiver by the Grantee of such term or of any of the rights of the Grantee under this instrument.
12. Damages: Grantee shall also be entitled to recover damages for breach of any covenant or violation of the terms of this instrument including any impairment to the remedial action that increases the cost of the selected response action for the Site as a result of such breach or violation.
13. Waiver of certain defenses: Grantor hereby waives any defense of laches, estoppel, or prescription.
14. Covenants: Grantor hereby covenants that the Grantor is lawfully seized in fee simple of the Property, that the Grantor has a good and lawful right and power to sell and convey it or any interest therein and that the Property is free and clear of encumbrances.
15. Notices: Any notice, demand, request, consent, approval, or communication under this instrument that either party desires or is required to give to the other shall be in writing and shall either be served personally or sent by first class mail, postage prepaid, addressed as follows:

To Grantor:

The Town of Conklin
Town Hall
1271 Conklin Road
Conklin, New York 13748

To Grantee:

Office of General Counsel
NYS Department of Environmental Conservation
625 Broadway
Albany, New York 12233-5500

NYS Department of Environmental Conservation
Division of Environmental Remediation Site Control
625 Broadway
Albany, New York 12233

A copy of each such communication shall also be sent to EPA in the same manner as to Grantor or Grantee, and addressed to the following two addressees:

U.S. Environmental Protection Agency
Emergency & Remedial Response Division, Western New York Remediation Branch
Attention: Conklin Dumps Superfund Site Remedial Project Manager
290 Broadway, 20th Floor
New York, New York 10007-1866

U.S. Environmental Protection Agency
Office of Regional Counsel
Attention: Conklin Dumps Superfund Site Attorney
290 Broadway, 17th Floor,
New York, New York 10007-1866

16. General provisions:

- a) Controlling law: The interpretation and performance of this instrument shall, with respect to the Environmental Easement, be governed by the laws of the State of New York, and with respect to other matters, shall be governed by the laws of the United States or, if there are no applicable federal laws, by the law of the State of New York.
- b) Liberal construction: Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the grant to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.
- c) Severability: If any provision of this instrument, or the application of it to any person or circumstance, is found to be invalid, the remainder of the provisions of this instrument, or the application of such provisions to persons or circumstances other than those to which it is found to be invalid, as the case may be, shall not be affected thereby.
- d) No forfeiture: Nothing contained herein will result in a forfeiture or reversion of Grantors' title in any respect.
- e) Joint obligation: If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.
- f) Successors: The covenants, easements, terms, conditions, and restrictions of this instrument shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall continue as a servitude running in perpetuity with the Property. The term "Grantor", wherever used herein, and any pronouns used in place thereof, shall include the persons and/or entities named at the beginning of this document, identified as "Grantor" and their personal representatives, heirs, successors, and assigns. The term "Grantee", wherever used herein, and any pronouns used in

County:

Site No:

Order No:

place thereof, shall mean the People of the State of New York acting through their Commissioner of NYSDEC or through any successor department or agency of the State of New York.

g) Captions: The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon construction or interpretation.

h) Counterparts: The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

i) Third-Party Beneficiary: Grantor and Grantee hereby agree that the United States, through EPA, shall be, on behalf of the public, a third-party beneficiary of the benefits, rights and obligations conveyed to Grantee in this instrument; provided that nothing in this instrument shall be construed to create any obligations on the part of EPA.

TO HAVE AND TO HOLD unto the Grantee and its assigns forever.

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

Executed this 22nd day of January, 2013.

GRANTOR: TOWN OF CONKLIN

By: James E. Finch

Title: Supervisor

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF BROOME)

On the 22nd day of January, in the year 2013, before me, the above-signed, personally appeared JAMES E. FINCH, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as Town Supervisor of the Town of Conklin and that by his signature on the instrument, the Grantor, upon behalf of which the individual acted, executed the instrument.

Sherrie L. Jacobs
Notary Public - State of New York

SHERRIE L. JACOBS
NOTARY PUBLIC, STATE OF NEW YORK
NO. 01JA6084551
QUALIFIED IN BROOME COUNTY
MY COMMISSION EXPIRES 12/9/20 14

County:

Site No:

Order No:

THIS ENVIRONMENTAL EASEMENT AND DECLARATION OF RESTRICTIVE COVENANTS IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner.

By: 

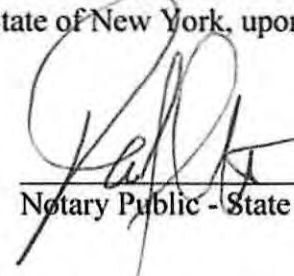
Robert W. Schick, Director
Division of Environmental Remediation

Date: FEB 20 2013

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the 20th day of February, in the year 2013, before me, the above-signed, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his signature on the instrument, the People of the State of New York, upon behalf of which the individual acted, executed the instrument.


Notary Public - State of New York

David J. Chiusano
Notary Public, State of New York
No. 01CH5032146
Qualified in Schenectady County
Commission Expires August 22, 2014

EXHIBIT A
To
Declaration of Covenants, Restrictions and Environmental Easement

Survey and Description of
Conklin Dumps Superfund Site
[UPPER LANDFILL]
(12.063 ± Acres)

Declaration of Covenants, Restrictions, and Environmental Easement - Upper Landfill Area
Description:

Being all that tract or parcel of Land, situate in the Town of Conklin, County of Broome, and the State of New York, and described as follows:

Beginning at a point on the westerly boundary of Broome Corporate Parkway, County Route 197, at its intersection with the division line between the property of the Town of Conklin on the south and the property of the Broome County Industrial Development Agency on the north;

Thence South 84°44'11" West along said division line between the property of the Town of Conklin on the south and the properties of Broome County Industrial Development Agency and Maple Lane Holdings, LLC on the north a distance of 850.00 feet to a rebar with cap found;

Thence southerly and easterly along the division line between the property of the Town of Conklin on the east and north and the property of Maple Lane Holdings, LLC on the west and south;

1) South 05°15'49" East a distance of 400.00 feet to a rebar with cap found;

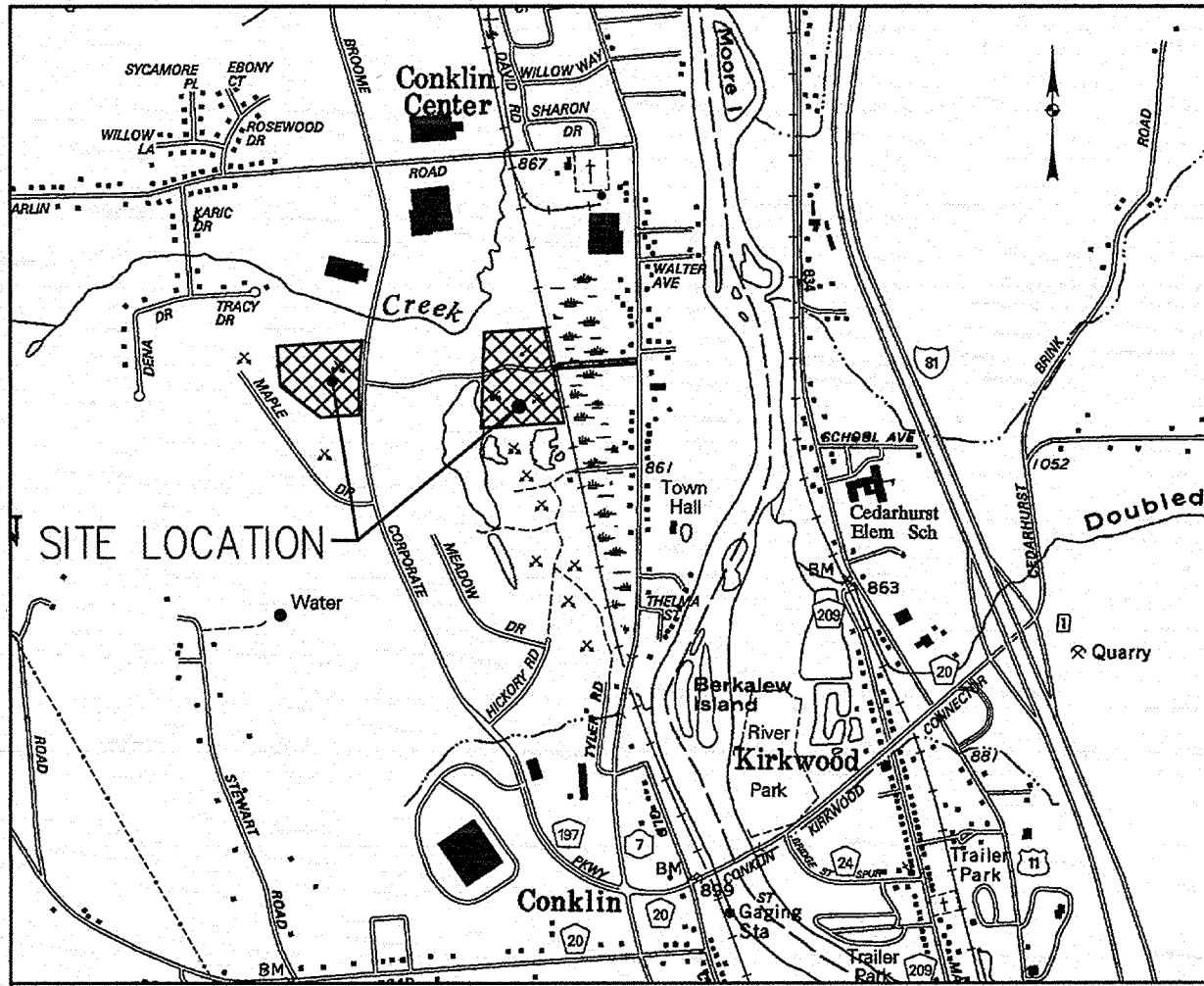
2) South 53°26'37" East a distance of 509.90 feet to a rebar with cap found;

3) North 84°44'11" East a distance of 386.70 feet to a 5/8" rebar found on the said westerly boundary of Broome Corporate Parkway;

Thence northerly along said road boundary on a curve to the right a distance of 745.63 feet having a radius of 4252.00 feet and subtended by a chord having a length of 744.67 feet with a bearing of North 01°09'33" East to the POINT OF BEGINNING.

The above described parcel contains 12.063± acres or 525465± square feet.

Being a portion of the land conveyed by George R. Webb and Ada M. Webb to the Town of Conklin by deed dated November 14, 1960 and recorded November 14, 1960 in the Broome County Clerk's Office in Book 1028 Page 572 of Deeds.



SITE LOCATION MAP

DECLARATION OF COVENANTS, RESTRICTIONS & ENVIRONMENTAL EASEMENT AREA ACCESS

THE DEC, EPA OR THEIR AGENT MAY ACCESS THE ENVIRONMENTAL EASEMENT AREA AS SHOWN HEREON THROUGH ANY EXISTING STREET ACCESS OR BUILDING INGRESS/EGRESS ACCESS POINT

TRUE NORTH AT THE 74°30'
MERIDIAN OF WEST LONGITUDE

TM# 194.04-1-39
MAPLE LANE HOLDINGS, LLC
LIBER 2202 PAGE 345

FENCE CORNER
6.8' NORTH OF
PROPERTY LINE

TM# 194.04-1-39
MAPLE LANE HOLDINGS, LLC
LIBER 2202 PAGE 345

TM# 194.11-1-30.1
BROOME COUNTY INDUSTRIAL
DEVELOPMENT AGENCY
LIBER 1455 PAGE 301

FENCE CORNER
17.5' NORTH OF
PROPERTY LINE

BLDG. CORNER
40.93' SOUTH OF
PROPERTY LINE

UPPER LANDFILL
TM# 194.04-1-2
TOWN OF CONKLIN
LIBER 1028 PAGE 572
(EXCEPTION PARCEL 2 DESCRIBED
IN LIBER 1603 PAGE 341)
TOTAL AREA= 12.063 ACRES
525466 SQ. FT.

TM# 194.04-1-39
MAPLE LANE HOLDINGS, LLC
LIBER 2202 PAGE 345

Engineering Controls/Institutional Controls on the Upper Landfill:

- Engineering Controls:
 - Leachate Collection System;
 - Landfill Cover and Gas Venting;
 - Fencing Bordering the Upper Landfill; and
 - Monitoring Well Network.
- Institutional Controls:
 - Activities that could affect the integrity of the landfill cover, including without limitation, excavation, digging, and construction activities, are prohibited on any portion of the Upper Landfill, unless Grantee and EPA have given their prior written consent to any such intrusive activity;
 - Groundwater wells for drinking water shall not be installed or used on any portion of the Upper Landfill; and
 - The Upper Landfill shall not be used for "Residential Use" and "Restricted-Residential Use" as defined by New York State Department of Environmental Conservation (NYSDEC) Regulations - 6 NYCRR Part 375 - 1.8 (g) (2) (i) and (ii). Allowable Uses include "Commercial Use" and "Industrial Use" as defined in NYSDEC Regulations - 6 NYCRR Part 375 - 1.8 (g) (2) (iii) and (iv).

Declaration of Covenants, Restrictions, and Environmental Easement - Upper Landfill Area Description:

Being all that tract or parcel of Land, situate in the Town of Conklin, County of Broome, and the State of New York, and described as follows:

Beginning at a point on the westerly boundary of Broome Corporate Parkway, County Route 197, at its intersection with the division line between the property of the Town of Conklin on the south and the property of the Broome County Industrial Development Agency on the north;

thence South 84°44'11" West along said division line between the property of the Town of Conklin on the south and the properties of Broome County Industrial Development Agency and Maple Lane Holdings, LLC on the north a distance of 850.00 feet to a rebar with cap found;

Thence southerly and easterly along the division line between the property of the Town of Conklin on the east and north and the property of Maple Lane Holdings, LLC on the west and south;

- South 05°15'49" East a distance of 400.00 feet to a rebar with cap found;
- South 53°26'37" East a distance of 509.90 feet to a rebar with cap found;
- North 84°44'11" East a distance of 386.70 feet to a 5/8" rebar found on the said westerly boundary of Broome Corporate Parkway;

Thence northerly along said road boundary on a curve to the right a distance of 745.63 feet having a radius of 4252.00 feet and subtended by a chord having a length of 744.67 feet with a bearing of North 01°09'33" East to the POINT OF BEGINNING.

The above described parcel contains 12.063± acres or 525465± square feet.

Being a portion of the land conveyed by George R. Webb and Ada M. Webb to the Town of Conklin by deed dated November 14, 1960 and recorded November 14, 1960 in the Broome County Clerks Office in Book 1028 Page 572 of Deeds.

NOTES:

- HORIZONTAL DATUM IS REFERENCED TO NEW YORK STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 83.
- EXISTING WETLAND MAPPING DEPICTED HEREIN WERE OBTAIN THROUGH THE U.S. FISH AND WILDLIFE SERVICE'S NATIONAL WETLANDS INVENTORY AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AGENCIES FRESH WATER WETLANDS OBTAINED THROUGH THE CORNELL UNIVERSITY GEOSPATIAL INFORMATION REPOSITORY.
- THE LOCATION OF THE UNDERGROUND UTILITY LINES SHOWN IS PURSUANT TO INFORMATION SUPPLIED BY OTHERS. THERE IS NO GUARANTEE THAT ALL EXISTING UTILITIES, WHETHER FUNCTIONAL OR ABANDONED WITHIN THE PROJECT AREA ARE SHOWN ON THIS DRAWING. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE STARTING WORK AND SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM THIS WORK. BEFORE COMMENCING WORK CONTACT "DIG SAFELY NEW YORK" AT 1-800-962-7962 AND PROVIDE 72 HOURS NOTICE.

REFERENCES:

- Land conveyed by George R. Webb & Ada M Webb to the Town of Conklin by deed dated November 14, 1960 and recorded November 14, 1960 in the Broome County Clerks Office in Book 1028 Page 572 of Deeds.
- Exception parcels 2 and 3 listed in a deed conveyed by the Town of Conklin to the County of Broome by deed dated September 23, 1986 and recorded March 26, 1987 in the Broome County Clerks Office in Book 1603 Page 341 of Deeds.
- "Boundary Survey for the Maines Family Limited Partnership" By: Keystone Associates Architects, Engineers and Surveyors, LLC Dated: July 14, 2007 (unrecorded map)
- Permanent easement (Parcel 2E) for the purpose of constructing and maintaining a drainage ditch and the right to discharge water thereon and therefrom conveyed by the Town of Conklin to the County of Broome by deed dated May 13, 1986 and recorded May 21, 1986 in the Broome County Clerks Office in Book 1531 Page 113 of Deeds.
- Permanent easement (Parcel 5E) for the purpose of constructing and maintaining a slope and drainage ditch conveyed by the Town of Conklin to the County of Broome by deed dated May 13, 1986 and recorded May 21, 1986 in the Broome County Clerks Office in Book 1531 Page 113 of Deeds.

REVISION TABLE

NO.	REMARKS	DATE
1	Revised Per United States EPA & NYSDEC Comments Dated 1/14/13	1/15/13

ALTA/ACSM LAND TITLE SURVEY

SURVEY OF COVENANTS, RESTRICTIONS, AND ENVIRONMENTAL EASEMENT AREA

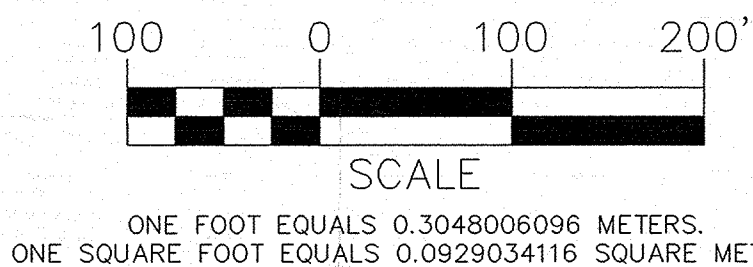
ON LANDS OWNED BY THE TOWN OF CONKLIN
TAX MAP NO. 194.04-1-2 & 194.04-1-18
TOWN OF CONKLIN, BROOME COUNTY, NY

SURVEY COMPLETED: 11/30/11
MAP COMPLETED: 12/27/11
DRAWN BY: MST
DRAWING NO. 935703_A.DWG
SHEET NO. 1 OF 2

SHUMAKER
CONSULTING ENGINEERING & LAND SURVEYING P.C.
143 COURT STREET, BINGHAMTON, NY 13901
PHONE 607-798-8081

LEGEND:

- SUBJECT PROPERTY AND DECLARATION OF COVENANTS, RESTRICTIONS, AND ENVIRONMENTAL EASEMENT BOUNDARY LINES
- △ CALCULATED POINT
- PL PROPERTY LINES
- REBAR & CAP KEYSTONE PIN FOUND (TYPE AND SIZE AS SHOWN)
- PIPE FOUND (TYPE AND SIZE AS SHOWN)
- HB HIGHWAY BOUNDARY
- PE PERMANENT EASEMENT
- LIMIT OF WETLANDS
- EP EDGE OF PAVEMENT
- WOODS LINE
- BRUSH LINE
- FENCE (SIZE AND TYPE NOTED)
- UTILITY POLE & POLE NUMBER
- UTILITY POLE WITH LIGHT & POLE NUMBER
- ELECTRIC METER
- GAS VENT
- MANHOLE
- SANITARY MANHOLE
- TELEPHONE MANHOLE
- HYDRANT
- OVERHEAD TELEPHONE LINE
- OVERHEAD ELECTRIC LINE
- SANITARY SEWER LINE
- WATER LINE
- STORM WATER LINE
- GUIDE RAIL



INSTITUTIONAL / ENGINEERING CONTROLS NOTES:

- THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE ENVIRONMENTAL CONSERVATION LAW.
- THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THIS EASEMENT ARE SET FORTH IN THE SITE MANAGEMENT PLAN (SMP). A COPY OF THE SMP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE SMP CAN BE OBTAINED FROM NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY ALBANY, NY 12233 OR BY SENDING AN EMAIL REQUEST TO DERWEB@GW.DEC.STATE.NY.US.

"UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."

ONLY BOUNDARY SURVEY MAPS BEARING THE SURVEYOR'S SEAL AND SIGNED IN BLUE INK ARE GENUINE, TRUE AND CORRECT COPIES OF THE SURVEYOR'S ORIGINAL WORK AND OPINION.

THIS SURVEY HAS BEEN REVISED WITH THE BENEFIT OF TITLE REPORT COMMITMENT NO. 1217-25092, DATED AUGUST 16, 2012 PREPARED BY CHICAGO TITLE INSURANCE COMPANY.

- 1) TOWN OF CONKLIN
- 2) THE PEOPLE OF THE STATE OF NEW YORK ACTING THROUGH THEIR COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
- 3) UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
- 4) CHICAGO TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEM 19 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON NOVEMBER 30, 2011.

I HEREBY CERTIFY THAT THIS IS A MAP MADE FROM A SURVEY, PREPARED UNDER MY DIRECTION.

Paul A. Waters
PAUL A. WATERS, LAND SURVEYOR - January 23, 2013
P. L. S. LICENSE NO. 049966
SHUMAKER CONSULTING ENGINEERING & LAND SURVEYING, P.C.
143 COURT STREET, BINGHAMTON, NEW YORK 13901
(607) 798-8081



County:

Site No:

Order No:

EXHIBIT B

To

Declaration of Covenants, Restrictions and Environmental Easement

Survey of Conklin Dumps Superfund Site

[LOWER LANDFILL]

(15.6248 ± Acres)

Declaration of Covenants, Restrictions, and Environmental Easement - Lower Landfill Area
Description:

Being all that tract or parcel of Land, situate in the Town of Conklin, County of Broome, and the State of New York, and described as follows:

Beginning at a point in the southeasterly corner of the premises herein described being on the division line between the property of the Town of Conklin on the north, the property of Broome County Industrial Development Agency on the south and the property of Delaware & Hudson Railroad on the east;

thence westerly, northerly and easterly along said division line between the property of the Town of Conklin and the property of the Broome County Industrial Development Agency the following three (3) courses and distances:

- 1) South 84°37'08" West a distance of 830.00 feet to a point;
- 2) North 00°32'40" East a distance of 957.66 feet to a point;
- 3) North 84°44'11" East a distance of 600.00 feet to a point on the division line between the property of the Town of Conklin on the West and the Property of the Delaware & Hudson Railroad on the east;

thence South 13°13'47" East a distance of 960.31 feet along said division line to the POINT OF BEGINNING.

The above described parcel contains 15.6248 acres or 680618 square feet of land

Being a portion of the land conveyed by George R. Webb and Ada M. Webb to the Town of Conklin by deed dated November 14, 1960 and recorded November 14, 1960 in the Broome County Clerk's Office in Book 1028 Page 572 of Deeds.

SCHEDULE "A" RIGHT OF WAY AND ACCESS DESCRIPTION:

Beginning at a point on the westerly highway boundary of Conklin Road, NYS Route 7 at its intersection with the division line between the property of James Slavitsky and Karie Slavitsky on the north and the property of the Town of Conklin on the south;

thence South 84°51'56" West a distance of 766.66 feet along said division line to a point on the division line between the property of James Slavitsky and Karie Slavitsky on the east and the property of Delaware & Hudson Railroad on the west;

thence North 13°13'47" West a distance of 50.50 feet along said division line to a point;

thence North 84°51'56" East a distance of 777.04 feet through the property of James Slavitsky and Karie Slavitsky to a point on the said westerly highway boundary of Conklin Road, NYS Route 7;

Declaration of Covenants, Restrictions, and Environmental Easement - Lower Landfill Area Description:

Being all that tract or parcel of Land, situate in the Town of Conklin, County of Broome, and the State of New York, and described as follows:

Beginning at a point in the southeasterly corner of the premises herein described being on the division line between the property of the Town of Conklin on the north, the property of Broome County Industrial Development Agency on the south and the property of Delaware & Hudson Railroad on the east;

thence westerly, northerly and easterly along said division line between the property of the Town of Conklin and the property of the Broome County Industrial Development Agency the following three (3) courses and distances:

- 1) South 84°37'08" West a distance of 830.00 feet to a point;
- 2) North 00°32'40" East a distance of 957.66 feet to a point;
- 3) North 84°44'11" East a distance of 600.00 feet to a point on the division line between the property of the Town of Conklin on the West and the Property of the Delaware & Hudson Railroad on the east;

thence South 13°13'47" East a distance of 960.31 feet along said division line to the POINT OF BEGINNING.

The above described parcel contains 15.6248 acres or 680618 square feet of land

Being a portion of the land conveyed by George R. Webb and Ada M. Webb to the Town of Conklin by deed dated November 14, 1960 and recorded November 14, 1960 in the Broome County Clerks Office in Book 1028 Page 572 of Deeds.

DECLARATION OF COVENANTS, RESTRICTIONS & ENVIRONMENTAL EASEMENT AREA ACCESS

THE DEC, EPA OR THEIR AGENT MAY ACCESS THE ENVIRONMENTAL EASEMENT AREA AS SHOWN HEREON THROUGH ANY EXISTING STREET ACCESS OR BUILDING INGRESS/EGRESS ACCESS POINT

Engineering Controls/Institutional Controls on the Lower Landfill:

- a. Engineering Controls:
 - None.
- b. Institutional Controls:
 - Groundwater wells for drinking water shall not be installed or used on any portion of the Lower Landfill; and
 - The Lower Landfill shall not be used for "Residential Use" and "Restricted-Residential Use" as defined by New York State Department of Environmental Conservation (NYSDEC) Regulations - 6 NYCRR Part 375 - 1.8 (g) (2) (i) and (ii). Allowable Uses include "Commercial Use" and "Industrial Use" as defined in NYSDEC Regulations - 6 NYCRR Part 375 - 1.8 (g) (2) (iii) and (iv).

SCHEDULE "A" RIGHT OF WAY AND ACCESS DESCRIPTION:

Beginning at a point on the westerly highway boundary of Conklin Road, NYS Route 7 at its intersection with the division line between the property of James Slavitsky and Karie Slavitsky on the north and the property of the Town of Conklin on the south;

thence South 84°51'56" West a distance of 766.66 feet along said division line to a point on the division line between the property of James Slavitsky and Karie Slavitsky on the east and the property of Delaware & Hudson Railroad on the west;

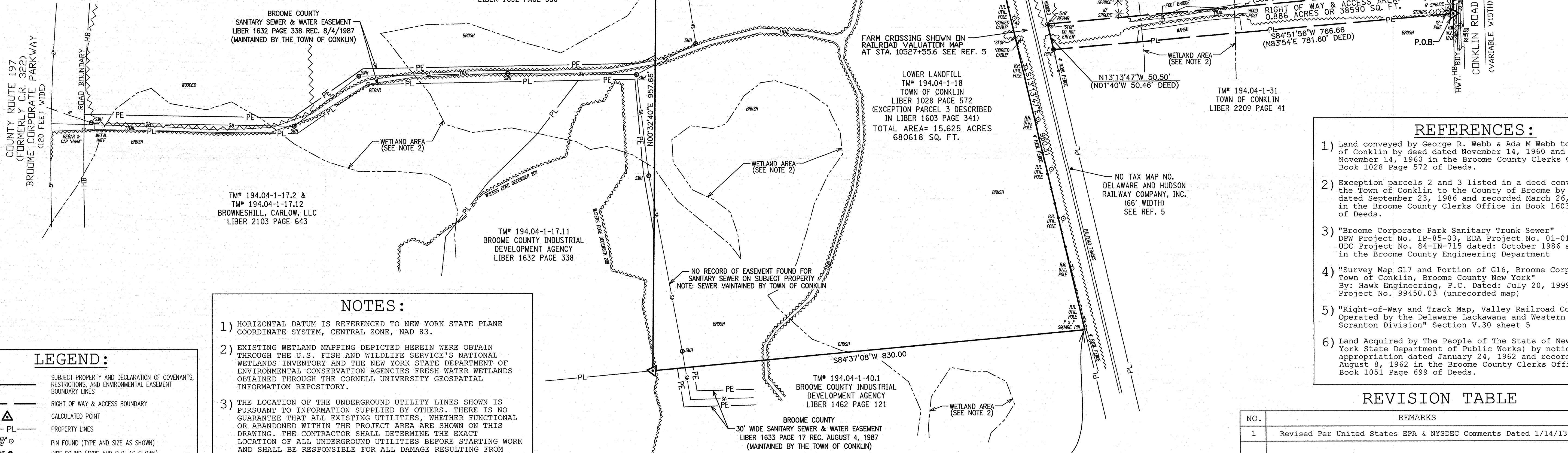
thence North 13°13'47" West a distance of 50.50 feet along said division line to a point;

thence North 84°51'56" East a distance of 777.04 feet through the property of James Slavitsky and Karie Slavitsky to a point on the said westerly highway boundary of Conklin Road, NYS Route 7;

thence South 01°22'55" East a distance of 50.10 feet along said highway boundary to the POINT OF BEGINNING.

The above described parcel contains 0.8859 acres or 38590 square feet of land

Being the same as the permanent easement and right of way conveyed by George R. Webb and Ada M. Webb to the Town of Conklin by deed dated November 14, 1960 and recorded November 14, 1960 in the Broome County Clerks Office in Book 1028 Page 572 of Deeds.



NOTES:

- 1) HORIZONTAL DATUM IS REFERENCED TO NEW YORK STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 83.
- 2) EXISTING WETLAND MAPPING DEPICTED HEREIN WERE OBTAIN THROUGH THE U.S. FISH AND WILDLIFE SERVICE'S NATIONAL WETLANDS INVENTORY AND THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION AGENCIES FRESH WATER WETLANDS OBTAINED THROUGH THE CORNELL UNIVERSITY GEOSPATIAL INFORMATION REPOSITORY.
- 3) THE LOCATION OF THE UNDERGROUND UTILITY LINES SHOWN IS PURSUANT TO INFORMATION SUPPLIED BY OTHERS. THERE IS NO GUARANTEE THAT ALL EXISTING UTILITIES, WHETHER FUNCTIONAL OR ABANDONED WITHIN THE PROJECT AREA ARE SHOWN ON THIS DRAWING. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE STARTING WORK AND SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM THIS WORK. BEFORE COMMENCING WORK CONTACT "DIG SAFELY NEW YORK" AT 1-800-962-7962 AND PROVIDE 72 HOURS NOTICE.

INSTITUTIONAL / ENGINEERING CONTROLS NOTES:

- 1) THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE ENVIRONMENTAL CONSERVATION LAW.
- 2) THE ENGINEERING AND INSTITUTIONAL CONTROLS FOR THIS EASEMENT ARE SET FORTH IN THE SITE MANAGEMENT PLAN (SMP). A COPY OF THE SMP MUST BE OBTAINED BY ANY PARTY WITH AN INTEREST IN THE PROPERTY. THE SMP CAN BE OBTAINED FROM NYS DEPARTMENT OF ENVIRONMENTAL CONSERVATION, DIVISION OF ENVIRONMENTAL REMEDIATION, SITE CONTROL SECTION, 625 BROADWAY ALBANY, NY 12233 OR BY SENDING AN EMAIL REQUEST TO DERWEB@GW.DEC.STATE.NY.US.

"UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."

ONLY BOUNDARY SURVEY MAPS BEARING THE SURVEYOR'S SEAL AND SIGNED IN BLUE INK ARE GENUINE, TRUE AND CORRECT COPIES OF THE SURVEYOR'S ORIGINAL WORK AND OPINION.

THIS SURVEY HAS BEEN REVISED WITH THE BENEFIT OF TITLE REPORT COMMITMENT NO. 1217-25092, DATED AUGUST 16, 2012 PREPARED BY CHICAGO TITLE INSURANCE COMPANY.

- 1) TOWN OF CONKLIN
- 2) THE PEOPLE OF THE STATE OF NEW YORK ACTING THROUGH THEIR COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
- 3) UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
- 4) CHICAGO TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEM 19 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON NOVEMBER 30, 2011.

I HEREBY CERTIFY THAT THIS IS A MAP MADE FROM A SURVEY, PREPARED UNDER MY DIRECTION.

Paul A. Waters
PAUL A. WATERS, LAND SURVEYOR - January 23, 2013
P.L.S. LICENSE NO. 049966
SHUMAKER CONSULTING ENGINEERING & LAND SURVEYING, P.C.
143 COURT STREET, BINGHAMTON, NEW YORK 13901
(607) 798-8081



REFERENCES:

- 1) Land conveyed by George R. Webb & Ada M Webb to the Town of Conklin by deed dated November 14, 1960 and recorded November 14, 1960 in the Broome County Clerks Office in Book 1028 Page 572 of Deeds.
- 2) Exception parcels 2 and 3 listed in a deed conveyed by the Town of Conklin to the County of Broome by deed dated September 23, 1986 and recorded March 26, 1987 in the Broome County Clerks Office in Book 1603 Page 341 of Deeds.
- 3) "Broome Corporate Park Sanitary Trunk Sewer" DPW Project No. IP-85-03, EDA Project No. 01-01-02692, UDC Project No. 84-IN-715 dated: October 1986 and filed in the Broome County Engineering Department
- 4) "Survey Map G17 and Portion of G16, Broome Corporate Park, Town of Conklin, Broome County New York" By: Hawk Engineering, P.C. Dated: July 20, 1999 Project No. 99450.03 (unrecorded map)
- 5) "Right-of-Way and Track Map, Valley Railroad Company, Operated by the Delaware Lackawana and Western R.R. Co., Scranton Division" Section V.30 sheet 5
- 6) Land Acquired by The People of The State of New York (New York State Department of Public Works) by notice of appropriation dated January 24, 1962 and recorded August 8, 1962 in the Broome County Clerks Office in Book 1051 Page 699 of Deeds.

REVISION TABLE

NO.	REMARKS	DATE
1	Revised Per United States EPA & NYSDEC Comments Dated 1/14/13	1/15/13

ALTA/ACSM LAND TITLE SURVEY

SURVEY OF COVENANTS, RESTRICTIONS, AND ENVIRONMENTAL EASEMENT AREA

ON LANDS OWNED BY THE TOWN OF CONKLIN
TAX MAP NO. 194.04-1-2 & 194.04-1-18
TOWN OF CONKLIN, BROOME COUNTY, NY

SURVEY COMPLETED: 11/30/11
MAP COMPLETED: 12/27/11
DRAWN BY: MST
DRAWING NO. 935703_B.DWG
SHEET NO. 2 OF 2

SHUMAKER
CONSULTING ENGINEERING & LAND SURVEYING P.C.
143 COURT STREET, BINGHAMTON, NY 13901
PHONE 607-798-8081

APPENDIX D

CERTIFICATION OF INSTITUTIONAL AND ENGINEERING CONTROLS



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site No.	Site Details	Box 1
704013		
Site Name Conklin Upper Landfill		
Site Address: Route 7 Zip Code: 13748 City/Town: Conklin County: Broome Site Acreage: 4.5		
Reporting Period: January 02, 2015 to January 02, 2016		
		YES NO
1. Is the information above correct?	<i>Acreage = 12.1 Ac</i>	☐ ☒
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		☐ ☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		☐ ☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		☐ ☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		☐ ☒

	Box 2
	YES NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☒ ☐
7. Are all ICs/ECs in place and functioning as designed?	☒ ☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

Description of Institutional ControlsParcelOwnerInstitutional Control**194.04-1-18**

Town of Conklin

Ground Water Use Restriction
Landuse Restriction
Soil Management Plan

Declaration of Covenants, Restrictions, and Environmental Easement was placed on the site February 20, 2013.

194.04-1-2

Town of Conklin

Soil Management Plan
Monitoring Plan
O&M Plan
IC/EC Plan
Ground Water Use Restriction
Site Management Plan
Landuse Restriction

Declaration of Covenants, Restrictions, and Environmental Easement was placed on the site February 20, 2013.

Description of Engineering ControlsParcelEngineering Control**194.04-1-2**Fencing/Access Control
Cover System
Leachate Collection

Leachate Collection System, Landfill Cover, Gas Venting System, Fencing Bordering the upper landfill, and monitoring network

Periodic Review Report (PRR) Certification Statements

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

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

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

YES NO

☒ ☐

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

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

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

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

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

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

YES NO

☒ ☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 704013

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I William C Nichols PE at SAUMAKER CONSULTING ENGINEERING + LAND SURVEYING
print name print business address DPL

am certifying as TOWN OF CONKLIN, NY (Owner or Remedial Party)

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

William C Nichols
Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

2-5-16
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

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

I William C. Nichols PE at Schmager Consulting Engineering & Land Surveying
print name print business address DPC

am certifying as a Professional Engineer for the Town of Conklin, NY
(Owner or Remedial Party)

William C. Nichols



2-5-16

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

Stamp
(Required for PE)

Date