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October 9, 2015

David Szymanski
Project Manager
New York State Department of Environmental Conservation-Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Republic Steel/LTV/Steelfields, LTD
Marilla Street Landfill (Site ID No. 915047)
Post-Closure Monitoring and Maintenance Plan – 2015 Periodic Review Report

Dear Mr. Szymanski:

On behalf of Steelfields, LTD, please find enclosed the 2015 Periodic Review Report (PRR) for the Post-Closure Monitoring and Maintenance Plan for the Marilla Street Landfill. This report is to be submitted by October 12th and include all of the sampling, inspection, and maintenance activities performed during the 2015 calendar year. Appendix H includes the signed Institutional Controls and/or Engineering Controls (IC/EC) Certification forms documenting that all site management requirements are being met.

The Electronic Data Deliverables (EDDs) for NYSDEC's EQuIS database will be submitted to the EQuIS Database Administrator via email. I will copy you on the email.

We trust this report satisfies the requirements for annual reporting for the Post-Closure Monitoring and Maintenance Plan. Should you have any questions or comments, please do not hesitate to contact us.

Sincerely,

Allyson M. Zurawski, E.I.T.
Daigler Engineering, P.C.
2620 Grand Island Blvd. Grand Island, NY 14072
(716)773-6872 ext.202/ (716)773-6873
allyson@jadenvegr.com

cc: Richard Palumbo, Esq. – Brown & Palumbo
Gary Smith – Steelfields, LTD (c/o Mr. James Goehrig)

Enclosure: Post-Closure Monitoring and Maintenance Program – 2015 Period Review Report – Marilla Street Landfill

POST-CLOSURE MONITORING AND MAINTENANCE PROGRAM

2015 Periodic Review Report

MARILLA STREET LANDFILL

NYSDEC SITE ID NO. 915047

Prepared on behalf of:

Steelfields, LTD
11 State Street
Suite 100
Pittsford, New York 14534-2051

Prepared by:

BAIGLER ENGINEERING P.C.
2620 Grand Island Blvd.
Grand Island, New York 14072-2131

October 2015

POST-CLOSURE MONITORING & MAINTENANCE PROGRAM

2015 Periodic Review Report

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POST-CLOSURE MONITORING & MAINTENANCE PROGRAM
2015 Periodic Review Report

Steelfields, LTD

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1 INTRODUCTION

The Marilla Street Landfill (Site ID No. 915047) is located on a 100-acre parcel of land in the City of Buffalo, Erie County, New York. The landfill itself is approximately 80 acres, situated approximately 1.5 miles east of Lake Erie, and just west of Hopkins Street. Railroad tracks run adjacent to the property along the west and north, and also divide the site into different fill areas. A location map illustrates these features and is shown in Figure 1.

The landfill operated from 1930 through the summer of 1981 when it was owned by LTV Steel Company (formerly Republic Steel) and accepted wastes primarily produced by local steelmaking operations at the Buffalo Plant. Discarded wastes included, among others, construction and demolition debris, blast furnace and basic oxygen furnace (BOF) dust, precipitator dust, clarifier sludge from the steel plant's wastewater treatment system, and railroad ties.

The facility operated as an above-grade fill operation and the waste was divided by type. The landfill consists of the BOF Dust Area, the Clarifier Sludge Area, and several Miscellaneous Debris Areas as shown on the site plan on Figure 2. The Former Sediment Disposal Area is also contained within the larger Miscellaneous Debris Area west of Hopkins Street. The five acre BOF Dust Area was capped in 1990 in accordance with 6 NYCRR Part 373. The latter two areas encompassing the remaining landfill area were capped in 1992 and 1993, respectively as per 6 NYCRR Part 360.

LTV Steel Company entered into an Order on Consent (File No. 89-57 R9-2808-89-05) with the New York State Department of Environmental Conservation (NYSDEC) in October 1992 to perform closure and post-closure maintenance and monitoring of the site. LTV Steel Company was acquired by Steelfields, LTD and entered into a voluntary cleanup agreement with the NYSDEC in October 2002. To date, five onsite wetlands have been remediated which involved the excavation and removal of contaminated sediments, placement of clay and topsoil, and revegetation. Steelfields, LTD monitors and maintains the site in accordance with their *Post-Closure Monitoring and Maintenance Plan for Republic Steel/LTV*, Rev October 2010 (hereto referred to as the SMP).

Earlier in 2015 and in accordance with allowances afforded by the Site Management Plan (SMP), Steelfields LTD petitioned the NYSDEC for a modification in monitoring requirements. After meeting with the NYSDEC on July 6, 2015, the agreed upon modifications were documented in a letter to Dave Szymanski of the NYSDEC dated July 15, 2015. The modifications, which were accepted by the NYSDEC in a letter dated August 21, 2015, were incorporated starting with this year's sampling event as is discussed in this report, including:

- Annual sampling of nine shallow overburden monitoring wells (MW-2B, MW-3B, MW-4B, MW-6B, MW-7B, MW-14B-R, MW-15B, MW-16B, and MW-18B);
- Triennial sampling of seven deep overburden monitoring wells (MW-2A, MW-3A, MW-4A, MW-6A, MW-15A, MW-16A, and MW-18A), beginning in 2016; and,
- Triennial sampling of two designated sediment sampling locations within the remediated wetlands (SED 1 and SED 2), beginning in 2016.

Static groundwater levels are to be taken only at well included in the current sampling event. All remaining elements of the SMP remain the same.

This report satisfies the requirement for the 2015 annual reporting and assessment of post-closure monitoring and maintenance activities at the Marilla Street Landfill as outlined in the SMP. Sampling results, analysis, evaluation of the results, and a discussion of statistical trending are included herein. A summary of the post-closure site inspection and maintenance activities performed during 2015 is also provided.

Q:\Steelfields\Marilla Street Landfill\ACAD\FIG 1-LOCATION MAP.dwg 10/7/2015 11:56 AM

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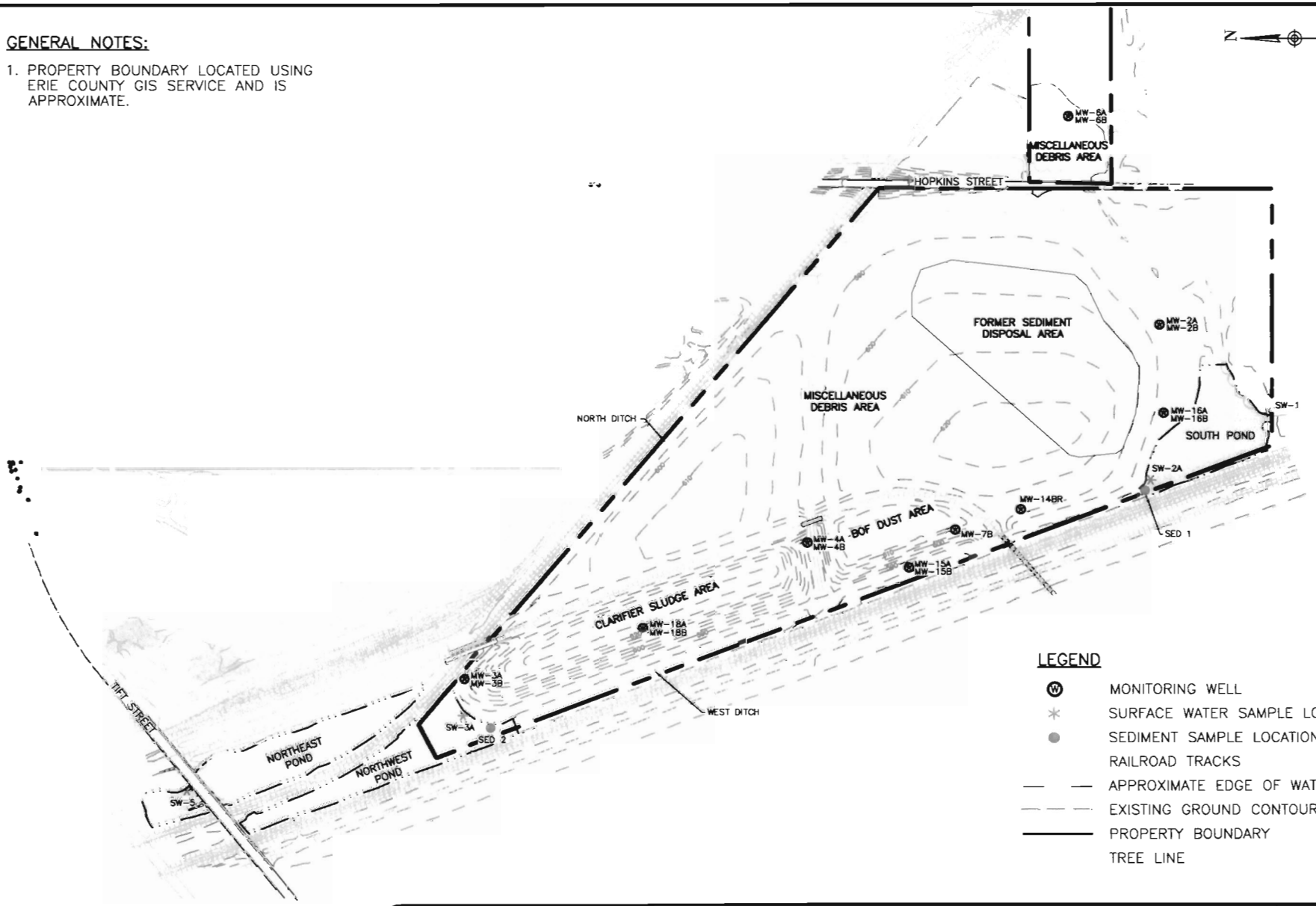
LOCATION MAP

MARILLA STREET LANDFILL PERIODIC REVIEW REPORT

STEELFIELDS, LTD			
CITY OF BUFFALO	ERIE COUNTY	NEW YORK	FIGURE 1
October 2015	SCALE: NOT TO SCALE	REVISION # 0	

GENERAL NOTES:

1. PROPERTY BOUNDARY LOCATED USING ERIE COUNTY GIS SERVICE AND IS APPROXIMATE.



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STEELFIELDS, LTD		SITE PLAN	FIGURE 2
SCALE: 1" = 600'	REVISION # 0	MARILLA STREET LANDFILL	
July 2015	CITY OF BUFFALO	ERIE COUNTY	NEW YORK

Q:\Steelfields\Marilla Street Landfill\ACAD\FIG 2-SITE PLAN.dwg 7/14/2015 8:46 AM

2 MONITORING AND MAINTENANCE PROGRAM

2.1 GENERAL

Monitoring and maintenance at the Marilla Street Landfill operate under the conditions specified in the SMP as modified by the monitoring modifications recently granted and discussed in Section 1. The SMP specifies sampling locations and methodology, analytical requirements, laboratory quality assurance/quality control procedures, and reporting requirements, as well as procedures for routine inspection and maintenance activities. Monitoring of surface water and shallow overburden groundwater is to be conducted annually, in addition to an overall site and final cover inspection. Monitoring of deep overburden groundwater and pond sediments are to be conducted every third year beginning with the next scheduled event in 2016. The approximate sampling locations are shown on Figure 2.

Sampling procedures including collection and preservation were completed in general accordance with the SMP for the 2015 sampling event between August 25th and 27th. Where deviations from the SMP's sampling protocol occurred, these anomalies are noted herein. Decontamination of shared sampling equipment (e.g., stainless steel dipper used for surface water sample collection and groundwater field parameter measurement) was performed by washing equipment with phosphate-free soap using a brush and rinsing with deionized water. Field filtering of groundwater was performed using High Capacity Groundwater Sampling 0.45 micron filters (Pine Environmental Services, Inc GW15020) with an adaptor piece which allowed attachment directly onto the bailer and pushes up on the foot value. While holding the bailer in an upright vertical position, the sample drained by gravity through the filter into laboratory supplied sample containers. Field filtering of surface water samples was performed by submerging the filter cartridge in the dipper, filling the headspace over the filter cartridge while blocking the outlet end, then holding the cartridge over laboratory supplied sample containers and allowing the sample to drain through the filter into the container.

Laboratory analysis was performed by ALS Environmental (ALS) of Rochester, New York, an ELAP certified laboratory. The analytical methods used (see Table 1) deviate from those required in the SMP. The laboratory reported that the methods specified in the SMP were

outdated, and the methods actually used were the most current certified method equivalent to those in the SMP.

2.2 SURFACE WATER

Four surface water samples are to be collected annually from the remediated wetland areas and analyzed for the set of parameters listed in Table 1 of Appendix A. Should leachate seeps be identified during the site inspection, these breakouts are to be sampled for the same suite of parameters as identified in Table 1 for surface water. No seeps were identified during the current monitoring period. The four surface water samples are described as follows:

- **SW-1** – South Pond Inlet, collected from pipe discharged from South Park Ponds, used to establish regional background levels;
- **SW-2A** – South Pond near cutoff wall location;
- **SW-3A** – Southern end of Northwest Pond; and,
- **SW-5** – Northern end of Northeast Pond.

Surface water samples were collected on August 25th and 26th, 2015 at the four locations as described above with the exception of SW-1. An open drainage channel has replaced the discharge piping at this location. SW-1 was collected from the drainage channel entering the South Pond using a decontaminated stainless steel dipper. A blind duplicate (SW Blind Dup) was collected at SW-3A. Each grab sample was analyzed in the field for temperature, pH, conductivity, and turbidity and recorded on the Field Observation forms as shown in Appendix B. Field measurements are summarized in Table 2 in Appendix A.

As per the requirements of the SMP, surface water is to be field filtered and analyzed for soluble metals if the turbidity is greater than 50 NTU. No surface water samples demonstrated turbidity readings greater than 50 NTU. However, all surface water samples were filtered in the field and analyzed for soluble metals to facilitate increasing trends in groundwater wells as suggested in the 2013 Periodic Review Report, December 2013 (Daigler Engineering, PC). A summary of the analytical results are provided in Table 3 of Appendix A. Analytical reports and chain of custody forms are provided in Appendix C.

2.2.1 Surface Water Quality Analysis

Surface water quality analytical results were compared to NYSDEC Class D Surface Water Quality Standards and Guidance Values per 6 NYCRR Part 703 as shown in Table 3 for the current calendar year. With the exception of total iron, all analytical results were below (or in the range for pH) the Class D standards. Total iron exceedances are consistent with historic sampling results. Previously, total iron has only been detected below the Class D standard on one occasion (May 2006 in SW-1) for the available data set. The total iron concentration in SW-2A was below the Class D standard this quarter. Total iron has been decreasing at this location as can be seen in the moving average trend analysis for surface water presented in Appendix F. While not the highest concentration measured during this year's event, the background surface water sampling location, SW-1, is typically high in total iron concentration and appears to be on an updward trend as can be seen in the moving average trend analysis for surface water presented in Appendix F. Therefore, the source of iron contributing to the exceedances measured onsite appears to be from an undetermined upstream location.

Analytical results for background water quality (SW-1) and water quality sampling at the onsite locations are generally similar. This suggests that downstream water quality is characteristic of the water quality from upstream of the site. In addition to the low total iron concentration, manganese in SW-2A was also lower than normal this year. Total manganese in SW-2A was less than detection for the first time for the available data set. All other surface water results were typical.

2.3 GROUNDWATER

In following with the recently approved modifications to monitoring requirements, groundwater at the site is monitored on an annual basis for the parameters listed in Table 1 at nine monitoring wells. Every third year (2013, 2016, 2019, etc.), additional monitoring is conducted at seven deep overburden wells to detect downward leachate migration for the same set of parameters as the annual sampling event. Shallow overburden well IDs are succeeded by a "B" and deep overburden well IDs are designated with an "A". The following list identifies the monitoring wells sampled annually and those that are sampled every third year:

- **Annual** – MW-2B, MW-3B, MW-4B, MW-6B, MW-7B, MW-14BR, MW-15B, MW-16B, MW-18B; and,
- **Triennial** –MW-2A, MW-3A, MW-4A, MW-6A, MW-15A, MW-16A, MW-18A.

Note that monitoring wells MW-6A and MW-6B represent the background wells for their respective water bearing units.

Groundwater sampling was conducted between August 25th and 27th, 2015. Depth to groundwater was first measured in all nine wells slated for sampling this year. Following static groundwater measurement, all wells required for sampling were purged and sampled using dedicated polyethylene bailers per the requirements in the SMP. While purging, the groundwater was field tested for temperature, pH, conductivity, and turbidity and recorded on the field observation sheets shown in Appendix B. Upon sample collection, field parameters were again recorded for the sample itself on the field observation sheets. Field data are summarized in Table 2. Groundwater samples were preserved for analysis in laboratory provided containers.

The dedicated bailer could not be retrieved from MW-14BR. The PVC well casing for MW-14BR appeared to be damaged. The water level meter probe was obstructed and the water surface could not be reached. Consequently, no water elevation data or water quality samples were obtained from MW-14BR. Inspection of the conditions in this well is discussed in Section 2.4.

Samples collected from MW-2B, MW-3B, and MW-7B measured greater than 50 NTU in turbidity. Subsequently, as mandated by the SMP, dissolved metals analyses were performed in addition to total metals for these samples. The background monitoring well MW-6B was also field filtered and tested for soluble metals for moving average trend analysis (MATA) purposes even though its turbidity reading was less than 50 NTU. A blind duplicate (Blind Dup) was collected from MW-16B and the matrix spike/matrix spike duplicate was performed on MW-18B. Analytical reports prepared by ALS and chain of custody forms are provided in Appendix C. A discussion and evaluation of the results are presented herein.

2.3.1 Groundwater Levels and Site Hydrogeology

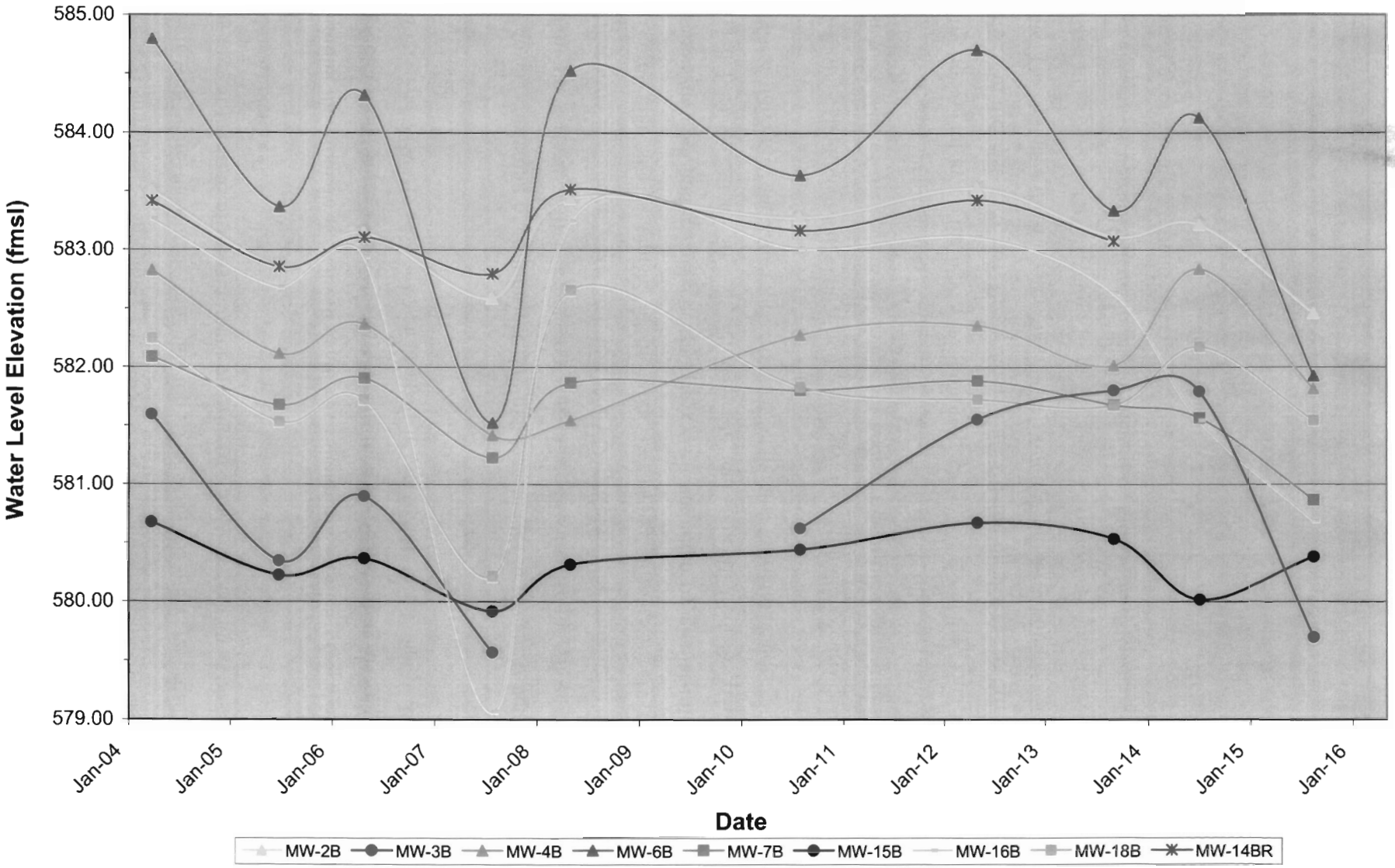
Groundwater elevation data was gathered from the nine shallow overburden wells for the 2015 sampling event as summarized in Tables 4A and 4B of Appendix A. Water levels and the total depth of each well were measured from the top of casing and were recorded on the field observations logs at the time of measurement on August 25, 2015. All field observations logs are included in Appendix B.

A plot illustrating the groundwater elevations of each monitoring well is presented in Figure 3. Groundwater elevations were relatively low during this year's sampling event. Two wells, namely MW-2B and MW-7B were measured at their lowest levels for the available data set dating back to 2004.

The landfill cover, consisting of firm brown clay material, ranges in thickness between 2.3 and 6.25 feet below the surface. Fill and industrial slag material comprise the upper portion of the subsurface reaching elevations near 568 feet NGVD. Below the industrial material, the stratigraphy across the site is typical of the area, consisting of a relatively thin layer of glaciolacustrine sandy silt and glaciolacustrine clayey silt underlain by glacial till. The top of bedrock ranged between 20 to 50 feet below grade and generally consisted of a layer of Skaneateles formation grey limestone on top of black Marcellus formation shale.

Based on historic evaluations of the site's hydrogeology, the naturally occurring water bearing zones appear to consist of the uppermost sandy silt and or fill and the grey limestone bedrock separated by the lower permeability clayey silt and the glacial till. Groundwater flow is predominantly horizontal given the relatively low permeability of the clayey silt. Groundwater enters the site from the east-northeast, flows through the fill and discharges to the site's surface water system. The drainage ditch running northeast along the property boundary is the primary receiving water of groundwater discharge from the site. Groundwater underflow beneath the surface water system is considered negligible. Therefore, the Buffalo River is the ultimate discharge location for the site's groundwater.

FIGURE 3
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of Historical Groundwater Elevations for Shallow Overburden Wells



2.3.2 Groundwater Quality Analysis

The SMP requires the comparison of groundwater results to NYSDEC Part 703 Class GA Standards and Guidance Values and to background water quality. According to the SMP decision tree, groundwater data which exceeds the background mean concentration (BMC) for a parameter by three standard deviations requires additional moving average trend analysis (MATA) to be performed. These evaluations are discussed herein.

2.3.2.1 Comparison of Water Quality to Standards and Guidance Values

Values from the annual samples of 2015 were compared to the 6 NYCRR Part 703 GA standards as shown in Table 5 of Appendix A for the shallow overburden wells. Green, grey, and orange shading in these tables signify exceedances of the Class GA standard; the Class GA standards (where applicable) and the BMC; and the Class GA standards (where applicable), the BMC, and the BMC plus three standard deviations (BMC+3SDs), respectively. Therefore, any shaded parameter is in exceedance of the Part 703 GA standard where one exists. Note that BMC and BMC+3SDs exceedances will be discussed in the next section.

Widespread exceedances of the Class GA standards for specific conductance, TOC, TDS, total iron, and total manganese occurred across the site in the shallow wells, both up and downgradient of the site. Many of the downgradient shallow overburden monitoring wells also regularly exceed the upper limit of the pH standard. The standard of 1.0 ug/L for Total Recoverable Phenolics (TRP) was also exceeded in many of the shallow wells. It should be noted that the detection limit is greater than the standard for TRP; therefore, one or more of the wells reported as non-detect have the potential to be in exceedance of the standard for this parameter. Also of note are the high detection limits for VOCs in MW-7B and MW-15B. According to the laboratory, foaming in these samples required them to be diluted before analysis resulting in the relatively high detection limits.

Exceedances of the Class GA standard for total arsenic and lead were measured at MW-3B. Other less widespread exceedances of groundwater standards or guidance values during 2015 include the following:

- Total arsenic in MW-15B;
- Total chromium in MW-2B;

- Total lead in MW-2B and MW-7B;
- Acetone in MW-3B;
- Carbon disulfide in MW-2B; and,
- Trichloroethene in MW-16B.

These exceedances are generally consistent with data from the 2013 and 2014 sampling events.

2.3.2.2 Comparison of Water Quality to Background Mean Concentration

BMCs and BMC+3SDs were calculated using results from all available events for background monitoring well MW-6B as shown in Appendix D. The results were incorporated into Table 5 and compared to the results from the current monitoring period. The results shaded in orange in Table 5 indicate the need for MATA which are presented on an individual parameter basis in Appendix E.

Table 6 summarizes the tracked parameters and groundwater wells which have experienced exceedances of the BMC+3SDs. After five tracked events, trending is evaluated. Increasing linear trends in downgradient shallow overburden wells are compared to trending in the background water quality in MW-6B and to surface water quality. All trend analysis utilizes moving average data including this sampling event's data and the three preceding sampling events. Linear trend lines were fit to the data using a least squares analysis. The results were incorporated into Table 6.

Increasing trends in total arsenic, total manganese, TDS, and TOC were found in select wells across the site. Also, a very slight increasing trend in conductivity was noted in MW-15B for the first time this year. Generally, these increasing trends were paralleled by an increasing trend in the upgradient well MW-6B with the exception of total arsenic in shallow wells MW-3B and MW-15B and conductivity in MW-15B. As such, most of the water quality trends found in the downgradient wells are likely the result of changes in water quality upgradient of the site.

The observed increasing trend in total arsenic at MW-3B and MW-15B continued with the 2015 sampling event. Regression Analysis on the data for these two wells shows that while the trend in MW-15B may be weakening, the data is still reasonably well fit with a linear trend (R^2=0.93 for MW-3B and 0.61 for MW-15B). Further, the increasing trends remain statistically

significant at the 99% confidence level since the 99% confidence interval around the slope of the linear regression does not include zero. Conversely, the total arsenic concentration in MW-6B has been lower than the detection limit since 1997. Such results do not lend well to trending analysis. Thus, the source of arsenic does not appear to be coming from upgradient of the site. Should increasing trends for a specific parameter be observed downgradient with opposing trends upgradient, a comparison to surface water is the next step as per the SMP decision tree. Only four data points are currently available for surface water for arsenic; therefore, MATA for arsenic in surface water and a subsequent comparison to an observed increasing trend in downgradient groundwater cannot be made until another sampling event occurs. Moving average trend analysis is to continue, per the decision tree, at MW-3B and MW-15B for total arsenic.

The increasing trend in specific conductivity in MW-15B is insignificant at the 95% confidence level and the data are not well fit by linear regression (R^2=0.0002). Similarly, the decreasing trend in specific conductivity in MW-6B is insignificant at the 95% confidence level and the data are not well fit by linear regression (R^2=0.036). Therefore, this opposing trend in MW-15B is not of concern.

2.3.2.3 Comparison of Water Quality to Surface Water Quality

Moving average trend analysis, as described above, has been performed for all surface water sampling locations for select tracked parameters, namely pH, specific conductance, TOC, total iron, and total manganese as shown by the graphs in Appendix F. The results were incorporated into Table 6 where appropriate and trending was compared to the results from the current monitoring period.

Historically surface water MATA had not been performed for TDS or total arsenic; therefore, a comparison cannot be made with the monitoring wells which exhibit increasing trends for TDS (MW-3B and MW-14BR) and total arsenic (MW-3B and MW-15B). Currently, four historic surface water data points have been assembled for TDS and arsenic. Five data points minimum are necessary to begin MATA. Thus, TDS and arsenic comparisons can begin in 2016. Appendix F shows all other parameters analyzed for in the surface water samples.

Total organic carbon which demonstrates increasing trends in three of the downgradient shallow overburden wells (MW-14BR, MW-15B, and MW-16B), had corresponding increasing trends at all surface water sampling locations, with the exception of SW-5, as shown in Table 6. Regression analysis on TOC data at MW-14BR indicated that the observed increasing trend is insignificant at the 95% confidence interval, given the inclusion of zero in the 95% confidence interval around the slope of the linear regression. However, the increasing trends at MW-15B and MW-16B were statistically significant at the 99% confidence interval. These two monitoring locations demonstrate relatively high *R*-squared values (0.75 and 0.82, respectively), indicating a relatively strong fit of the data to a linear trend. The increasing trends in TOC at all the surface water sampling locations have weakened as TOC concentrations in the surface water were down site wide this year. With the addition of this year's analytical results, the positive linear trend previously observed in TOC at SW-5 was reversed, however the decreasing trend is not statistically significant. The other three surface water locations maintained the positive trend, but linear regression analysis shows the trend at SW-1 is no longer statistically significant at the 99% confidence level. Upgradient well MW-6B also demonstrated a statistically significant increasing trend at the 99% confidence level in TOC, albeit a relatively weak fit of the data (R^2=0.58). The actually concentrations of TOC in the downgradient groundwater wells are higher than those found in the upgradient groundwater and surface water.

The observed positive trending in total manganese in MW-3B is statistically significant at the 99% confidence level with at relatively good linear fit of the data (R^2=0.82). Total manganese in the upstream surface water sampling location reversed trending with the addition of this year's sampling event. The now increasing trend in total manganese at SW-1 is insignificant and the linear regression poorly fits the data (R^2=0.07). The increasing trend observed at the most downstream surface water sampling point is also insignificant with a poor linear fit of the data (R^2=0.15). Regression analysis on the decreasing trends in the central surface water sampling locations (SW-2A and SW-3A) shows the linear fit of the data is very strong (R^2=0.85 and 0.95 for SW-2A and SW-3A, respectively) and the trends are statistically significant at the 99% confidence interval. Therefore, the observed statistically significant increase in total manganese in MW-3B does not appear to be influencing surface water.

2.4 POST-CLOSURE SITE INSPECTION AND MAINTENANCE

Landfill cap vegetation was mowed during the week of August 17th to facilitate groundwater and surface water sampling the week of August 24, 2015, and the annual post-closure site inspection was conducted on October 2, 2015.

Annual post-closure site inspections are conducted in general conformance with Section 7 of the Site Management Plan (SMP). However, Steelfields and the NYSDEC agreed in 2013 that Steelfields' primary responsibility is the maintenance and monitoring of the landfill cap, and maintenance of the fence around the site is no longer a required element of the SMP. To that point, two man-made breaches in the perimeter fence were observed in the locations shown on the inspection site plan. On examination, there were no signs of vehicular or foot traffic through these openings.

As documented in the Post-Closure Inspection Report and photographs included in Appendix G, the landfill cap, vegetation and drainage features were observed to be in very good condition. Previously documented cover defects due to burrowing rodents were not found during the 2015 inspection and walkover. No sign of these burrowing animals was evident, and vigorous, healthy vegetative cover was observed across the entire cap.

As noted previously, the dedicated bailer could not be retrieved from MW-14BR. Steelfields completed a shallow excavation in the cap to investigate, confirming that the PVC riser is damaged. At the time of the October 2nd site inspection, the cap excavation had not been restored. A follow up site inspection was completed on October 8th to document the cap repair had been completed.

No unauthorized dumping or refuse disposal was observed. As in the past, railroad maintenance materials (rails and buckets of bolts) remain onsite near the active rail line that traverses the property. This material does not adversely impact the performance of the cover system, and is assumed to be required by the railroad company, so will not be removed.

The inspection reports and photographs are provided in Appendix G. The annual Institutional Controls/Engineering Controls (IC/ECs) Certification is appended to this report in Appendix H.

2.5 LABORATORY QUALITY ASSURANCE/QUALITY CONTROL

All samples were collected with the goal of obtaining representative samples of their respective media. Case narratives prepared by ALS are included with each laboratory report in Appendix C and identify any events, such as quality control failures, which may have occurred during analysis. Upon evaluation, all data are unqualified or usable estimates. The results for total iron and total manganese in sample MW-16B should be considered usable estimates due to the disparity between the sample result and the result of the blind duplicate taken at the same location.

Turbidity, pH, and conductivity meters were calibrated by Pine Environmental Services, Inc prior to sampling. All calibrations were reportedly successful.

Percent completeness was calculated for each media. Groundwater and surface water were calculated to be 90.1% and 100% complete, respectively.

2.6 EQuIS DATABASE

Laboratory analysis results were provided by ALS in the appropriate electronic data deliverables (EDDs) format to input directly into the EQuIS data processor (EDP) for submission to the NYSDEC's EQuIS database. Sample_v3, TestResultsQC_v3, and Batch_v3 EDDs were provided by ALS for all sampling locations, including blind duplicates, method duplicates, and laboratory control samples. The Initial EDD section will be populated in addition to Well_v3, WaterTable_v3, WaterLevel_v3, and FieldResults_v3.

GPS coordinates of each sample location were recorded on Field Observations forms by field staff. The latitude and longitude previously reported in the EDDs will be replaced this year for the wells sampled. It is intended for the location of all wells to be updated following the 2016 triennial sampling event. The requirements in the "Final Checklist for Submissions of EDDs to NYSDEC" will be met and the formatted EDDs will be emailed to the EQuIS database administrator and the NYSDEC project manager for the site. Once the data is reviewed, a confirmatory message indicating the completeness of the EDDs will be sent.

3 SUMMARY AND CONCLUSIONS

Groundwater and surface water quality for the 2015 annual sampling event appeared typical for the site. Total iron remained elevated both upgradient and downgradient in groundwater and surface water. The source of iron in the surface water may be from upstream of the site. However, several downgradient groundwater monitoring wells have higher concentrations compared to upgradient and upstream locations.

Despite the increasing number of parameters being tracked, the moving average trend analysis has identified only a handful of increasing trends in a limited number of downgradient wells. Regression analysis was performed to determine the significance of observed increasing trends in the data. Only three parameters total manganese, TOC, and total arsenic were statistically significant.

Total manganese concentration is increasing in MW-3B, as well as, in the upgradient water quality at MW-6B. However, surface water monitoring locations do not appear to be influenced by this trend.

Increasing TOC concentrations at MW-14BR were determined insignificant at the 99% confidence interval. The increasing trends in TOC at MW-15B and MW-16B were determined to be significant. Upgradient groundwater quality has a similar upward trend. Previously reported positive trending in surface water TOC concentrations has weakened and even reversed in one location, SW-5.

Increasing arsenic trends at MW-3B and MW-15B continued this year, with both trends remaining statistically significant at the 99% confidence interval. The actual concentrations of total arsenic measured in both wells was lower this year compared to recent sampling events and was only slightly over the Class GA standard. Concentrations of total arsenic in the upgradient well MW-6B have been below the detection limit since 1997. Therefore, an upgradient source of arsenic causing the trends observed at MW-3B and MW-15B is not likely. The next step in the SMP decision tree is to determine if there is a corresponding trend for total arsenic in the surface water samples. Moving average trend analysis cannot yet be performed for the surface water

sampling locations since only four data points are available. Therefore, trend analysis at MW-3B and MW-15B is to be continued per the SMP decision tree.

The post-closure site inspection noted the landfill cap to be in very good condition this year. Investigation into the condition of MW-14BR left some minor maintenance issues which were addressed by Steelfields, LTD staff, re-inspected, and approved during a follow-up inspection. There were no leachate seeps identified during the site investigation and the integrity of the final cover system was certified as acceptable.

APPENDIX A

Summary Tables

TABLE 1
Marilla Street Landfill
August 2015 Annual Sampling Event
Groundwater, Surface Water, and Sediment Analytical Parameters

	Analysis Method[3]	Groundwater	Surface Water[2]
FIELD PARAMETERS			
Static Water Level	Field	X	NA
pH	Field	X	X
Temperature	Field	X	X
Specific Conductance	Field	X	X
Turbidity	Field	X	X
WET CHEMISTRY			
Total Organic Carbon (TOC)	SM 5310 B	X	X
Total Dissolved Solids (TDS)	SM 2540 C	X	X
Total Recoverable Phenolics (TRP)	420.4	X	X
METALS - INORGANIC PARAMETERS[1]			
Arsenic - Total and Soluble	6010C	X	X
Chromium - Total and Soluble	6010C	X	X
Cyanide - Total	335.4	X	X
Iron - Total and Soluble	6010C	X	X
Lead - Total and Soluble	6010C	X	X
Manganese - Total and Soluble	6010C	X	X
Volatile Organic Compounds (VOCs)			
TCL Method 8260B	8260C	X	X

Notes:

(1) - Groundwater and surface water samples collected for inorganic analysis are field-filtered and analyzed for soluble inorganics only if field measured turbidity values exceed 50 NTUs.

(2) - Leachate breakouts/seeps are to be analyzed for the same parameters as Surface Water.

(3) - Represents most current laboratory certified method equivalent to those in the Site Management Plan

NA	Analytical parameter not applicable for the specified media
	Parameters required by the Post-Closure Maintenance and Monitoring Plan and not analyzed for during this sampling event
X	Parameters required by the Post-Closure Maintenance and Monitoring Plan and analyzed for during this sampling event

TABLE 2
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of Monitoring Field Measurements

Location	Sampling Date	Sampling Time	pH (units)	Temperature (°C)	Specific Conductance (Umhos/cm)	Turbidity (NTU)
MW-2B[(1)]	8/25/2015	10:50	12.22	14.7	1.72	>1000
MW-3B[(1)]	8/26/2015	14:40	11.38	17.9	2.08	>1000
MW-4B	8/26/2015	10:15	7.60	17.3	0.93	12.0
MW-6B[(2)]	8/26/2005	9:30	7.13	15.5	1.67	6.13
MW-7B[(1)]	8/25/2015	14:46	12.70	15.2	3.70	72.0
MW-14BR[(3)]	8/25/2015	-	-	-	-	-
MW-15B	8/27/2015	9:45	12.64	13.8	3.27	14.8
MW-16B	8/25/2015	12:15	12.45	14.3	2.08	45.6
MW-18B	8/26/2015	12:00	7.84	17.0	3.41	7.46
SW-1	8/26/2015	8:55	8.12	19.1	0.87	6.79
SW-2A	8/25/2015	13:20	8.69	24.0	0.91	4.62
SW-3A	8/26/2015	12:45	8.35	23.3	1.02	21.4
SW-5	8/26/2015	8:10	8.43	19.1	1.86	27.8

Notes:
(1) - Sample was field filtered for soluble metals since turbidity measured greater than 50 NTU.
(2) - Sample was field filtered for soluble metals for comaprison to other filtered samples as background.
(3) - Unable to retrieve dedicated polyethylene bailer. Well casing damaged.

TABLE 3
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of Surface Water Analytical Results

Parameter	SW-1	SW-2A	SW-3A	SW-5	Blind Duplicate #2[3] (SW BLIND DUP)	Class "D" Standard [1][2]
WATER QUALITY (mg/L or as indicated)						
pH (standard units)	8.12	8.69	8.35	8.43	8.35	6.0-9.5
Specific Conductance (Umhos/cm)	0.87	0.91	1.02	1.86	1.02	NA
Total Organic Carbon	5.2	6.9	5.8	6.3	5.6	NA
Total Dissolved Solids	363	375	471	826	483	NA
Total Recoverable Phenolics	0.0050 U	0.0050 U	0.0050 U	0.0050 U	0.0050 U	NA
TOTAL METALS - INORGANIC PARAMETERS (mg/L)						
Arsenic	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA
Chromium	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	NA
Cyanide	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.022
Iron	0.870	0.270	0.970	0.500	1.020	0.3
Lead	0.006 J	0.005 U	0.005 U	0.005 J	0.005 U	NA
Manganese	0.284	0.010 U	0.137	0.068	0.109	NA
SOLUBLE METALS - INORGANIC PARAMETERS (mg/L)						
Arsenic	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	0.34
Chromium	0.010 U	0.010 U	0.010 U	0.010 U	0.010 U	H
Iron	1.13	0.370	0.850	0.790	0.790	NA
Lead	0.005 U	0.005 U	0.005 U	0.007 J	0.006 J	H
Manganese	0.282	0.011	0.106	0.058	0.105	NA
VOLATILE ORGANIC COMPOUNDS (AQUEOUS) (ug/L)						
	All U	All U	All U	All U	All U	Variable

Notes:
(1) - Class "D" Surface Water Quality Standards/Guidance Value - 6 NYCRR Part 703; revised August 1999.
(2) - Some Class "D" Standards/Guidance Values are expressed as a function of hardness. Considering the samples were not analyzed for hardness, those guidance values that require a hardness value to calculate a guidance value are indicated with an H.
(3) - Collected Surface Water Blind Duplicate from SW-3A.
(4) - "U" indicates a non-detect value at the detection level listed.
(5) - "NA" indicates not applicable.

Exceeds Surface Water Quality Standard/Guidance Value.

Table 4A
Marilla Street Landfill
August 2015 Annual Spring Sampling Event
Summary of Historical Groundwater Depths of Shallow Overburden Wells[2][6]

Well ID	MW-2B	MW-3B[6]	MW-4B	MW-6B	MW-7B	MW-14BR	MW-15B	MW-16B	MW-18B
Riser Elevation[1]	590.86	588.29	591.89	597.92	615.76	607.37	586.78	588.09	627.04
Year[3]									
4/4/04	7.35	6.11	9.07	13.13	33.68	23.96	6.11	4.83	44.80
7/5/05	7.99	7.36	9.78	14.56	34.09	24.52	6.56	5.41	45.51
5/6/06	7.71	6.81	9.53	13.61	33.86	24.27	6.42	5.15	45.32
8/7/07	8.27	8.14	10.48	16.40	34.54	24.58	6.87	9.03	46.83
5/12/08	7.42	Note 4	10.35	13.40	33.90	23.86	6.47	4.85	44.39
8/10/10	7.58	7.67	9.62	14.29	33.96	24.21	6.34	5.08	45.21
5/12/12	7.33	6.74	9.54	13.22	33.88	23.95	6.11	4.98	45.32
9/13/13	7.74	6.49	9.88	14.59	34.09	24.30	6.25	5.46	45.37
7/15/14	7.64	6.50	9.06	13.80	34.20	Note 4	6.77	6.55	44.87
8/25/15	8.40	8.60	10.08	16.00	34.90	Note 4	6.40	7.41	45.50

Notes:
(1) - Riser elevations and depths for 2004-2006 measured by others based on information presented in the November 2006 Post-Closure Monitoring & Maintenance Program 2006 Annual report by TurnKey Environmental Restoration, LLC.
(2) - Measured in feet below top of inner casing (TIC) prior to purging/sampling.
(3) - No sampling or gauging was conducted in 2009 or 2011.
(4) - Well MW-3B damaged and not gauged in 2008. MW-14BR damaged and not gauged in 2014 or 2015.
(5) - Well MW-3B was repaired with new PVC riser in August 2010. The origional top of PVC casing elevation for MW-3B (587.70) was used as the reference elevation for water level measurements taken in 2004-2007. The revised top of PVC casing elevation (as shown in the table) was surveyed after the new PVC riser was installed. The revised 2010 elevation will be used for future gauging events.
(6) - The NYSDEC accepted a Petition to Modify Monitoring Requirements in a letter dated August 21, 2015. This petition modified groundwater elevation measurements to only those wells being sampled beginning in 2015. Therefore, only the nine wells required for this year's sampling event are shown in this table.

Table 4B
Marilla Street Landfill
August 2015 Annual Spring Sampling Event
Summary of Historical Groundwater Elevations of Shallow Overburden Wells[5]

Well ID	MW-2B	MW-3B[4]	MW-4B	MW-6B	MW-7B	MW-14BR	MW-15B	MW-16B	MW-18B
Riser Elevation[1]	590.86	588.29	591.89	597.92	615.76	607.37	586.78	588.09	627.04
Year[2]									
4/4/04	583.51	581.59	582.82	584.79	582.08	583.41	580.67	583.26	582.24
7/5/05	582.87	580.34	582.11	583.36	581.67	582.85	580.22	582.68	581.53
5/6/06	583.15	580.89	582.36	584.31	581.90	583.10	580.36	582.94	581.72
8/7/07	582.59	579.56	581.41	581.52	581.22	582.79	579.91	579.06	580.21
5/12/08	583.44	Note 3	581.54	584.52	581.86	583.51	580.31	583.24	582.65
8/10/10	583.28	580.62	582.27	583.63	581.80	583.16	580.44	583.01	581.83
5/12/12	583.53	581.55	582.35	584.70	581.88	583.42	580.67	583.11	581.72
9/13/13	583.12	581.80	582.01	583.33	581.67	583.07	580.53	582.63	581.67
7/15/14	583.22	581.79	582.83	584.12	581.56	Note 3	580.01	581.54	582.17
8/25/15	582.46	579.69	581.81	581.92	580.86	Note 3	580.38	580.68	581.54

Notes:
(1) - Riser elevations and depths for 2004-2006 measured by others based on information presented in the November 2006 Post-Closure Monitoring & Maintenance Program 2006 Annual report by TurnKey Environmental Restoration, LLC.
(2) - No sampling or gauging was conducted in 2009 or 2011.
(3) - Well MW-3B damaged and not gauged in 2008. MW-14BR damaged and not gauged in 2014 or 2015.
(4) - Well MW-3B was repaired with new PVC riser in August 2010. The origional top of PVC casing elevation for MW-3B (587.70) was used as the reference elevation for water level measurements taken in 2004-2007. The revised top of PVC casing elevation (as shown in the table) was surveyed after the new PVC riser was installed. The revised 2010 elevation will be used for future gauging events.
(5) - The NYSDEC accepted a Petition to Modify Monitoring Requirements in a letter dated August 21, 2015. This petition modified groundwater elevation measurements to only those wells being sampled beginning in 2015. Therefore, only the nine wells required for this year's sampling event are shown in this table.

TABLE 5
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of Shallow Groundwater Analytical Results

Parameter	MW-2B	MW-3B	MW-4B	MW-6B	MW-7B	MW-14BR[4]	MW-15B	MW-16B	MW-18B	Blind Duplicate #1[5] (BLIND DUP)	Class "GA" Standard[1]	BMC[2]	BMC +3SDs[3]
WATER QUALITY (mg/L or as indicated)													
pH (standard units)	12.22	11.38	7.60	7.13	12.70	NA	12.64	12.45	7.84	12.45	6.5-8.5	7.31	6.42-8.21
Specific Conductance (mS/cm)	1.72	2.08	0.93	1.67	3.70	NA	3.27	2.08	3.41	2.08	NA	1.10	2.27
Total Organic Carbon	18.0	101	6.7	8.0	51.8	NA	83	14.3	17.0	16.3	NA	6.35	14.32
Total Dissolved Solids	627	3,540	566	966	1,220	NA	1,690	663	2,830	652	500	907	1,257
Total Recoverable Phenolics	0.059	0.683	0.0050 U	0.0050 U	0.587	NA	0.893	0.0080	0.0050 U	0.0054	0.001	0.0121	0.0545
TOTAL METALS - INORGANIC PARAMETERS (mg/L)													
Arsenic	0.01 U	0.030	0.01 U	0.01 U	0.01 U	NA	0.026	0.01 U	0.011	0.013	0.025	0.00764	0.0184
Chromium	0.097	0.037	0.01 U	0.01 U	0.01 U	NA	0.01 U	0.031	0.01 U	0.01 U	0.05	0.00821	0.0191
Cyanide	0.01 U	0.022	0.010 U	0.010 U	0.034	NA	0.012	0.033	0.023	0.030	0.2	0.0096	0.014
Iron	31.5	58.3	1.75	0.33	3.40	NA	0.53	3.62	1.89	0.24	0.3	1.125	4.223
Lead	0.05 J	0.105	0.006 J	0.005 J	0.058	NA	0.010 J	0.025 J	0.010 J	0.005 U	0.025	0.014	0.0713
Manganese	2.23	5.61	0.89	0.591	0.092	NA	0.01	0.717	1.73	0.025	0.3	0.301	0.985
SOLUBLE METALS - INORGANIC PARAMETERS (mg/L)													
Arsenic	0.01 U	0.028	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	0.0084	0.0179
Chromium	0.01 U	0.016	NA	0.01 U	0.01 U	NA	NA	NA	NA	NA	NA	0.0104	0.0119
Iron	0.1 U	2.91	NA	0.1 U	0.1 U	NA	NA	NA	NA	NA	NA	0.416	3.039
Lead	0.005 J	0.025 J	NA	0.005 U	0.007 J	NA	NA	NA	NA	NA	NA	0.0138	0.0711
Manganese	0.01 U	0.05	NA	0.47	0.01 U	NA	NA	NA	NA	NA	NA	0.191	0.701
VOLATILE ORGANIC COMPOUNDS (AQUEOUS) (ug/L)[6]													
Acetone	26	480	10 U	10 U	100 U	NA	200 U	25 U	10 U	25 U	50	NA	NA
Carbon Disulfide	190	100 U	10 U	10 U	100 U	NA	200 U	26	10 U	26	60	NA	NA
Trichloroethene	0.005 U	50 U	5.0 U	5.0 U	50 U	NA	100 U	26	5.0 U	19	5	NA	NA

Notes:
(1) - Class "GA" Groundwater Quality Standards/Guidance Value - 6 NYCRR Part 703; revised August 1999.
(2) - Value represents the Background Mean Concentration of Well MW-6B.
(3) - Value represents the Background Mean plus 3 standard deviation concentrations of well MW-6B. Plus 3 and minus 3 standard deviations for pH.
(4) - Monitoring well MW-14-BR was damaged and not sampled during the current event.
(5) - Blind Duplicate #1 was collected from MW-16B.
(6) - Only those parameters detected at a minimum of one sample location are reported in this table. "U" indicates a non-detect value.
(7) - "NA" indicates parameter not analyzed at this location or data is not available.

#	Exceeds Groundwater Quality Standard/Guidance Value only.
#	Exceeds Background Mean and Groundwater Quality Standard/Guidance Value or just Background Mean if no Standard/Guidance Value exists.
#	Exceeds Background Mean plus 3 standard deviations and the Groundwater Quality Standard, where one exists, or just the Background Mean plus 3 standard deviations where no Groundwater Quality Standard is present.

TABLE 6
Marilla Street Landfill
August 2015 Annual Sampling Event
Parameter Tracking for Moving Average Trend Analysis (MATA)

Well I.D.	Tracked Parameters	Sampling Event[5]														No. of Tracked Events	Increasing Trend?[1]	Corresponding Increasing Trend?					
		Apr-01	Oct-01	Apr-02	Apr-03	Apr-04	Jul-05	May-06	Aug-07	May-08	Aug-10	May-12	Sep-13	Jul-14	Aug-15			Upgradient Groundwater[7]		Surface Water[2][3]			
																		MW-6A	MW-6B	SW-1	SW-2A	SW-3A	SW-5
Shallow Groundwater Monitoring Wells																							
MW-2B[2]	pH												X		X	2	TBD[4]						
	Total Organic Carbon												X		X	2	TBD						
	Total Recoverable Phenolics												X		X	2	TBD						
	Total Chromium														X	1	TBD						
	Total Iron														X	1	TBD						
	Total Manganese														X	1	TBD						
MW-3B[6]	pH	X		X	X	X	X	X	X			X	X		X	10	No						
	Specific Conductance	X	X	X	X	X	X	X	X					X		9	No						
	Total Cyanide				X				X							2	TBD						
	Total Dissolved Solids			X	X	X	X	X	X		X	X	X	X	X	11	Yes	-	Yes	TBD	TBD	TBD	TBD
	Total Organic Carbon	X	X	X	X	X	X	X	X		X	X	X	X	X	13	No						
	Total Recoverable Phenolics	X	X	X	X	X	X	X	X		X	X	X	X	X	13	No						
	Total Arsenic	X	X	X	X	X	X	X	X		X	X	X	X	X	13	Yes	-	No	TBD	TBD	TBD	TBD
	Total Chromium												X	X		2	TBD						
	Total Iron												X	X	X	3	TBD						
	Total Lead												X	X	X	3	TBD						
	Total Manganese								X		X	X	X	X	X	6	Yes	-	Yes	Yes	No	No	Yes
	Soluble Arsenic												X	X	X	3	TBD						
	Soluble Chromium												X	X	X	3	TBD						
	Soluble Iron												X			1	TBD						
	Soluble Lead												X	X		2	TBD						
MW-4B	pH					X										1	TBD						
	Total Organic Carbon						X									1	TBD						
	Total Recoverable Phenolics						X				X					2	TBD						
	Total Iron						X				X					2	TBD						
	Total Manganese												X	X		2	TBD						
	Soluble Iron						X	X			X					3	TBD						
MW-7B	pH	X	X	X	X	X	X	X	X	X		X	X	X	X	13	No						
	Specific Conductance	X	X	X	X	X	X	X					X	X	X	10	No						
	Total Dissolved Solids				X	X	X	X					X			5	No						
	Total Organic Carbon	X	X	X	X	X	X	X	X		X		X	X	X	12	No						
	Total Recoverable Phenolics	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14	No						
MW-14BR[6]	pH	X	X	X	X	X	X	X				X	X			9	No						
	Specific Conductance	X	X	X	X	X	X	X								7	No						
	Total Cyanide				X	X	X	X	X		X		X			7	No						
	Total Dissolved Solids				X	X	X	X	X	X	X	X	X			9	Yes	-	Yes	TBD	TBD	TBD	TBD
	Total Organic Carbon	X	X	X	X	X	X									6	Yes	-	Yes	Yes	Yes	Yes	No
	Total Recoverable Phenolics	X	X													2	TBD						
	Total Manganese			X		X			X	X						4	TBD						
MW-15B	pH											X	X	X	X	4	TBD						
	Specific Conductance	X	X	X	X	X	X	X					X	X	X	10	Yes	-	No	No	No	No	No
	Total Dissolved Solids				X	X	X	X	X	X			X	X	X	9	No						
	Total Organic Carbon	X	X	X	X	X	X	X	X		X	X	X	X	X	13	Yes	-	Yes	Yes	Yes	Yes	No
	Total Recoverable Phenolics											X	X	X	X	4	TBD						
	Total Arsenic						X		X	X	X	X	X	X	X	8	Yes	-	No	TBD	TBD	TBD	TBD
	Total Iron	X		X	X	X	X	X	X							7	No						
	Soluble Iron					X	X	X		X						4	TBD						
	Total Manganese	X	X	X	X	X	X	X	X	X						9	No						
	Soluble Manganese	X	X	X	X	X	X	X								7	No						

TABLE 6
Marilla Street Landfill
August 2015 Annual Sampling Event
Parameter Tracking for Moving Average Trend Analysis (MATA)

Well I.D.	Tracked Parameters	Sampling Event[5]													No. of Tracked Events	Increasing Trend?[1]	Corresponding Increasing Trend?					
		Apr-01	Oct-01	Apr-02	Apr-03	Apr-04	Jul-05	May-06	Aug-07	May-08	Aug-10	May-12	Sep-13	Jul-14	Aug-15			Upgradient Groundwater[7]		Surface Water[2][3]			
																		MW-6A	MW-6B	SW-1	SW-2A	SW-3A	SW-5
MW-16B	pH	X	X		X	X	X	X	X	X		X	X	X	X	12	No						
	Specific Conductance	X	X	X	X	X	X	X								7	No						
	Total Organic Carbon	X	X	X	X		X							X		6	Yes	-	Yes	Yes	Yes	Yes	No
	Total Recoverable Phenolics	X	X													2	TBD						
	Total Dissolved Solids									X						1	TBD						
	Total Chromium					X										1	TBD						
	Total Iron		X	X		X										3	TBD						
	Total Manganese				X	X				X						3	TBD						
MW-18B	pH					X										1	TBD						
	Specific Conductance	X	X	X	X	X	X	X				X	X	X	X	11	No						
	Total Dissolved Solids				X	X	X	X	X	X	X	X	X	X	X	11	No						
	Total Organic Carbon	X	X	X	X	X	X		X		X			X	X	10	No						
	Total Recoverable Phenolics	X	X													2	TBD						
	Total Iron												X			1	TBD						
	Total Manganese	X	X	X	X	X	X		X	X				X	X	10	No						

Notes:
(1) - In accordance with the Statistical Decision Tree (Appendix E); calculated moving average trend evaluation tracked for 5 sampling events
(2) - In accordance with the Statistical Decision Tree (Appendix E); corresponding increasing trend in surface water concentration for that parameter.
(3) - Surface water samples have never been analyzed for soluble metals based on turbidity measurements not exceeding 50 NTU, except SW-5 for one event, prior to July 2014. No trend determination can be made until a minimum of 5 sampling events.
(4) - "TBD" = trend to be determined on a minimum of 5 tracked sampling events.
(5) - The annual sampling event was not conducted in 2009 and 2011.
(6) - MW-3B could not be sampled during the May 2008 event. This well was repaired in August 2010. MW-14BR could not be sampled during the July 2014 or August 2015 events
(7) - Shallow groundwater monitoring wells (designated "B") are compared to upgradient monitoring well MW-6B. Deep groundwater monitoring wells ("A") are compared to upgradient monitoring well MW-6A
(8) - MW-2B previously biennial, not sampled in 2014.

X	Tracked event where reported concentration exceeds Groundwater Quality Standard (GWQS), background mean, and background mean +3 standard deviations
	A blank box indicates the reported concentration does not exceed GWQS, background mean, and background mean +3 standard deviations.
#	A value of 5 or greater indicates that the parameter has been tracked for 5 or more sampling events per the Statistical Decision Tree.
Yes	Indicates the parameter shows increasing trend.

APPENDIX B

Field Data Sheets

.6936 x 3 = 2.0808
1 WELL VOLUME

FIELD OBSERVATIONS

Facility: Marilla Street Landfill

Sample Point ID: MW-2B

Field Personnel: S.D.

Sample Matrix: GROUNDWATER

LAT- 42.835814
LONG- -78.838008

MONITORTING WELL INSPECTION:

Date/Time 8/25/15 10:23AM

Cond of seal: ( ) Good ( ) Cracked ( ) None ( ) Buried

%

Prot. Casing/riser height: 3.1'

Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: .53'

Gas Meter (Calibration/ Reading): % Gas: / % LEL: /

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): 10.1

PURGE INFORMATION:

Date / Time Initiated: 8/25/15 / 10:25AM

Date / Time Completed: /

Surf. Meas. Pt: (X) Prot. Casing ( ) Riser

Riser Diameter, Inches: 4.5"

Initial Water Level, Feet: 8.40'

Elevation. G/W MSL:

Well Total Depth, Feet: 12.65'

Method of Well Purge: BAILER

One (1) Riser Volume, Gal: .6936

Dedicated: (Y) / N

Total Volume Purged, Gal: 1.25 ~~2.0808~~

Purged To Dryness (Y) / N

Purge Observations: MILKY

Start 10:20AM Finish 10:50AM

PURGE DATA: (If applicable)

Time	Purge Rate (gpm/hr)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
10:30		.5	15.0	11.75	0.86	>1000		
10:50		1.25	14.7	12.22	1.72	>1000		

.5386 x3 = 1.6157

FIELD OBSERVATIONS

Facility: Morrilla Street Landfill Sample Point ID: MW-3B

Field Personnel: SJD Sample Matrix: GROUNDWATER

MONITORTING WELL INSPECTION:

LAT - 42.841581
LONG - -78.844062

Date/Time 8/26/15 1400 Cond of seal: ( ) Good ( ) Cracked ____ %
(X) None ( ) Buried

Prot. Casing/riser height: 2.31 Cond of prot. Casing/riser: ( ) Unlocked (X) Good
( ) Loose (X) Flush Mount
( ) Damaged ____

If prot.casing; depth to riser below: -.2

Gas Meter (Calibration/ Reading): % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) 1 0.1

PURGE INFORMATION:

Date / Time Initiated: 8/26/15 1420 Date / Time Completed: ~~BAILER STUCK IN WELL~~ 1 UNABLE TO REMOVE

Surf. Meas. Pt: ( ) Prot. Casing ( ) Riser Riser Diameter, Inches: ____

Initial Water Level, Feet: 8.6 Elevation. G/W MSL: ____

Well Total Depth, Feet: 11.9 Method of Well Purge: BAILER

One (1) Riser Volume, Gal: .5306 Dedicated: (Y) N

Total Volume Purged, Gal: 1.0 Purged To Dryness (Y) (N)

Purge Observations: SOME DARK GREY, TURBID, MURKY ODOR Start 1420 Finish 1440

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
1430	-	.5	17.5	10.37	2.10	>1000		
1440		1.0	17.9	11.38	2.08	>1000		

1.480Z x 3 = 4.4407
1 W.V

FIELD OBSERVATIONS

Facility: Morilla Street Landfill Sample Point ID: MW-413

Field Personnel: SJD Sample Matrix: GROUNDWATER

MONITORTING WELL INSPECTION:

LAT: 42.837478
LONG: -78.888206

Date/Time 8/25/15 1510 Cond of seal: ( ) Good ( ) Cracked ____ %
(X) None ( ) Buried

Prot. Casing/riser height: 3.4 Cond of prot. Casing/riser: ( ) Unlocked (X) Good
( ) Loose ( ) Flush Mount
( ) Damaged ____

If prot.casing; depth to riser below: .4

Gas Meter (Calibration/ Reading): % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) 1 0.0

PURGE INFORMATION:

Date / Time Initiated: 8/25/15 / 1525 Date / Time Completed: 1

Surf. Meas. Pt: (X) Prot. Casing ( ) Riser Riser Diameter, Inches: 4.5"

Initial Water Level, Feet: 10.08 Elevation. G/W MSL: ____

Well Total Depth, Feet: 19.15' Method of Well Purge: BAILER

One (1) Riser Volume, Gal: 1.480Z Dedicated: (Y) / N

Total Volume Purged, Gal: ~~4.44~~ 1.5 Purged To Dryness (Y) / N

Purge Observations: CLOUDY AFTER ~1 gallon Start 1525 Finish 1540

PURGE DATA: (If applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
1530		.5	13.6	8.03	.80	32.5		
1540		1.5	14.0	8.	.84	103.0		
1015	-	-	17.3	7.6	.93	12.0		
	* FIELD SAMPLE							

9/26

.4243 x 3 = 1.2729 gallons
1 WELL VOLUME

FIELD OBSERVATIONS

Facility: Morilla Street Landfill | Sample Point ID: MW-6B

Field Personnel: SJD | Sample Matrix: GROUNDWATER

MONITORTING WELL INSPECTION: [redacted] LAT - 42.834412 LONG - -78.831302

Date/Time 8/25/15 1 9:15AM | Cond of seal: (X) Good ( ) Cracked ____ % (X) None ( ) Buried

Prot. Casing/riser height: 3.75' | Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged ____

If prot.casing; depth to riser below: .3'

Gas Meter (Calibration/ Reading): % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) 1.0

PURGE INFORMATION:

Date / Time Initiated: 8/25/15 / 9:30AM | Date / Time Completed: 1

Surf. Meas. Pt: (X) Prot. Casing ( ) Riser | Riser Diameter, Inches: 4.5"

Initial Water Level, Feet: 16.0' | Elevation. G/W MSL: ____

Well Total Depth, Feet: 18.6' | Method of Well Purge: BAILER

One (1) Riser Volume, Gal: .443 | Dedicated: (Y) / N

Total Volume Purged, Gal: .750 | Purged To Dryness (Y) / N

Purge Observations: CLEAR/SLIGHT ODOR | Start 9:30 Finish 9:57

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/hfz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
935		.25 gallons	14.6	7.28	1.70	11.4		
945		.750	14.3	7.36	1.91	37.0		
8/26 930	-	-	15.5	7.13	1.67	6.13		
* PRE-SAMPLE								

Field Form
Revision 0
03/14/02

1.4198 x 3 = 4.2595
1 WV

FIELD OBSERVATIONS

Facility: Morilla Street landfill Sample Point ID: MW-7B

Field Personnel: SJD Sample Matrix: GROUNDWATER

LAT - 42.837478

LONG - -78.838206

MONITORTING WELL INSPECTION:

Date/Time 8/25/15 1420 Cond of seal: ( ) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: 2.9' Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: .85'

Gas Meter (Calibration/ Reading): % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) 1.0

PURGE INFORMATION:

Date / Time Initiated: 8/25/15 1430 Date / Time Completed: 1

Surf. Meas. Pt: (X) Prot. Casing ( ) Riser Riser Diameter, Inches: 4.5"

Initial Water Level, Feet: 34.9 Elevation. G/W MSL:

Well Total Depth, Feet: 43.6 Method of Well Purge: BAILER

One (1) Riser Volume, Gal: 1.4198 Dedicated: (Y) N

Total Volume Purged, Gal: 1.0 Purged To Dryness (Y) N

Purge Observations: SLIGHTLY TINTED/ODORLESS Start 1430 Finish 1446

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
1433		.5	16.4	12.69	3.96	27.3		
1446		1.0	15.2	12.70	3.70	72.0		

FIELD OBSERVATIONS

Facility: Marilla Street landfill

Sample Point ID: MW-14BR

Field Personnel: SJD

Sample Matrix: GROUNDWATER

LAT - 42.883511

LONG - -78.836123

MONITORTING WELL INSPECTION:

Date/Time 8/25/15 1400

Cond of seal: ( ) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: 1.6

Cond of prot. Casing/riser: ( ) Unlocked ( ) Good (X) Loose ( ) Flush Mount (X) Damaged APPEARS TO HAVE BEEN HIT, CASING BENT >4", BAILER STUCK

If prot.casing; depth to riser below: .35

Gas Meter (Calibration/ Reading): % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) 10.1

PURGE INFORMATION:

Date / Time Initiated: N/A

Date / Time Completed: 1

Surf. Meas. Pt: ( ) Prot. Casing ( ) Riser

Riser Diameter, Inches: 4.5

Initial Water Level, Feet: N/A

Elevation. G/W MSL.: ____

Well Total Depth, Feet: N/A

Method of Well Purge: N/A

One (1) Riser Volume, Gal: N/A

Dedicated: (Y) N

Total Volume Purged, Gal: N/A

Purged To Dryness Y / (N)

Purge Observations: N/A

Start ____ Finish ____

PURGE DATA: (If applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other

1.3138 x 3 = 3.9413
1 W.V

FIELD OBSERVATIONS

Facility: Marilla Street Landfill | Sample Point ID: MW-15B

Field Personnel: SJD | Sample Matrix: GROUNDWATER

LAT - 42.876352
LONG - -78.838615

MONITORTING WELL INSPECTION:

Date/Time 8/27/15 : 915 | Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: .84 | Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: .11

Gas Meter (Calibration/ Reading): % Gas: 1 | % LEL: 1

Vol. Organic Meter (Calibration/Reading): | Volatiles (ppm): 1.03

PURGE INFORMATION:

Date / Time Initiated: 8/27/15 / 920 | Date / Time Completed: 8/27/15 945

Surf. Meas. Pt: (X) Prot. Casing ( ) Riser | Riser Diameter, Inches: 4.0"

Initial Water Level, Feet: 6.40 | Elevation. G/W MSL: ____

Well Total Depth, Feet: 14.45 | Method of Well Purge: BAILER

One (1) Riser Volume, Gal: 1.3138 | Dedicated: (Y) N

Total Volume Purged, Gal: 4.0 | Purged To Dryness Y / (N)

Purge Observations: SLIGHT YELLOW TINT MINOR ODOR | Start 920 Finish 945

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
925	-	.5	14.4	12.58	4.20	12.5		
935	-	2.0	13.6	12.70	4.10	35.7		
945	-	4.0	13.8	12.64	3.27	14.8		

1.2583 x 3 = 3.7748
1 w.v

FIELD OBSERVATIONS

Facility: Morilla Street Landfill

Sample Point ID: MW-16B

Field Personnel: SJD

Sample Matrix: GROUNDWATER

LONG: -78.836123

LAT 42.83311

BLIND

MONITORTING WELL INSPECTION:

Date/Time 8/25/15 11:51 AM

Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried

%

Prot. Casing/riser height: 1.73'

Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: .82'

Gas Meter (Calibration/ Reading): % Gas: / % LEL: /

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) 10.0

PURGE INFORMATION:

Date / Time Initiated: 8/25/15 / 11.56 AM Date / Time Completed: /

Surf. Meas. Pt: (X) Prot. Casing ( ) Riser Riser Diameter, Inches: 4.0"

Initial Water Level, Feet: 7.41 Elevation. G/W MSL:

Well Total Depth, Feet: 15.12 Method of Well Purge: BAILER

One (1) Riser Volume, Gal: 1.2583 Dedicated: (Y) / N

Total Volume Purged, Gal: 4.0 Purged To Dryness Y / (N)

Purge Observations: CLEAR/ODORLESS SOME SAND LIKE PARTICLES AFTER 3 W.V Start Finish

PURGE DATA: (If applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
1203		.5	16.6	12.26	1.87	6.13		
1211		2.0	14.6	12.27	1.91	10.6		
1215		4.0	14.3	12.45	2.08	45.6		

1.1750 × 3 = 3.5251
1 well

FIELD OBSERVATIONS

Facility: Marilla Street Landfill Sample Point ID: MW-18S

Field Personnel: S.D. Sample Matrix: GROUND WATER

LAT - 42.839520
LONG - -78.839689

MONITORTING WELL INSPECTION:

Date/Time 8/26/15 1115 Cond of seal: (X) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: 1.4' Cond of prot. Casing/riser: ( ) Unlocked (X) Good ( ) Loose (X) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: -.075'

Gas Meter (Calibration/ Reading): % Gas: 1 % LEL: 1

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm) 1 0.0

PURGE INFORMATION:

Date / Time Initiated: 8/26/15 / 1120 Date / Time Completed: 1

Surf. Meas. Pt: (X) Prot. Casing ( ) Riser Riser Diameter, Inches: 4.0"

Initial Water Level, Feet: ~~45.5~~ 45.5 Elevation. G/W MSL:

Well Total Depth, Feet: 52.7 Method of Well Purge: BAILER

One (1) Riser Volume, Gal: 1.1750 Dedicated: (Y) / N

Total Volume Purged, Gal: 4.0 Purged To Dryness Y / (N)

Purge Observations: CLEAR/ODORLESS Start 1126 Finish 1200

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
1126	–	.5	15.2	7.76	3.16	4.36		
1135	–	2.0	15.1	~~7.83~~	3.36	4.25		
1200	–	4.0	17.0	7.84	3.41	7.46		

FIELD OBSERVATIONS

Facility: Morrilla Street Landfill Sample Point ID: SW-1

Field Personnel: SJD Sample Matrix: SURFACE WATER

MONITORTING WELL INSPECTION:

Date/Time 8/26/15 1855 Cond of seal: ( ) Good ( ) Cracked ( ) None ( ) Buried %

Prot. Casing/riser height: - Cond of prot. Casing/riser: ( ) Unlocked ( ) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: -

Gas Meter (Calibration/ Reading): % Gas: / % LEL: /

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): / -

PURGE INFORMATION:

Date / Time Initiated: - Date / Time Completed: /

Surf. Meas. Pt: ( ) Prot. Casing ( ) Riser Riser Diameter, Inches:

Initial Water Level, Feet: Elevation. G/W MSL:

Well Total Depth, Feet: Method of Well Purge:

One (1) Riser Volume, Gal: Dedicated: Y / N

Total Volume Purged, Gal: Purged To Dryness Y / N

Purge Observations: Start Finish

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
855	-	-	19.1	8.12	.87	6.79		

FIELD OBSERVATIONS

Facility: Morilla Street landfill **Sample Point ID:** SW-2A

Field Personnel: SJD **Sample Matrix:** SURFACE WATER

MONITORTING WELL INSPECTION:

Date/Time 8/25/15 / 13:30 **Cond of seal:** ( ) Good ( ) Cracked ( ) None ( ) Buried — %

Prot. Casing/riser height: — **Cond of prot. Casing/riser:** ( ) Unlocked ( ) Good ( ) Loose ( ) Flush Mount ( ) Damaged —

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): **% Gas:** — / — **% LEL:** — / —

Vol. Organic Meter (Calibration/Reading): **Volatiles (ppm)** / —

PURGE INFORMATION:

Date / Time Initiated: — **Date / Time Completed:** /

Surf. Meas. Pt: ( ) Prot. Casing ( ) Riser **Riser Diameter, Inches:**

Initial Water Level, Feet: **Elevation. G/W MSL:**

Well Total Depth, Feet: **Method of Well Purge:**

One (1) Riser Volume, Gal: **Dedicated:** Y / N

Total Volume Purged, Gal: **Purged To Dryness** Y / N

Purge Observations: **Start** **Finish**

PURGE DATA: (If applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
13:00	—	—	24.0	8.69	.91	4.62		

FIELD OBSERVATIONS

Facility: Marilla Street landfill Sample Point ID: SW-3A

Field Personnel: SJD Sample Matrix: SURFACE WATER

MONITORTING WELL INSPECTION:

Date/Time 8/26/15 1245 Cond of seal: ( ) Good ( ) Cracked ( ) None ( ) Buried ____ %

Prot. Casing/riser height: ~ Cond of prot. Casing/riser: ( ) Unlocked ( ) Good ( ) Loose ( ) Flush Mount ( ) Damaged ____

If prot.casing; depth to riser below: ~

Gas Meter (Calibration/ Reading): % Gas: / % LEL: /

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): /

Blind dup

PURGE INFORMATION:

Date / Time Initiated: ~ Date / Time Completed: /

Surf. Meas. Pt: ( ) Prot. Casing ( ) Riser Riser Diameter, Inches:

Initial Water Level, Feet: Elevation. G/W MSL:

Well Total Depth, Feet: Method of Well Purge:

One (1) Riser Volume, Gal: Dedicated: Y / N

Total Volume Purged, Gal: Purged To Dryness Y / N

Purge Observations: Start ____ Finish ____

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/htz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
1245	~	~	23.3	8.35	1.07	21.4		

FIELD OBSERVATIONS

Facility: Marilla Street landfill Sample Point ID: SW-5

Field Personnel: SJD Sample Matrix: SURFACE WATER

MONITORTING WELL INSPECTION:

Date/Time 8/26/15 1 805 Cond of seal: ( ) Good ( ) Cracked ____ % ( ) None ( ) Buried

Prot. Casing/riser height: — Cond of prot. Casing/riser: ( ) Unlocked ( ) Good ( ) Loose ( ) Flush Mount ( ) Damaged

If prot.casing; depth to riser below: —

Gas Meter (Calibration/ Reading): % Gas: / % LEL: /

Vol. Organic Meter (Calibration/Reading): Volatiles (ppm): / —

PURGE INFORMATION:

Date / Time Initiated: — Date / Time Completed: /

Surf. Meas. Pt: ( ) Prot. Casing ( ) Riser Riser Diameter, Inches:

Initial Water Level, Feet: Elevation. G/W MSL:

Well Total Depth, Feet: Method of Well Purge:

One (1) Riser Volume, Gal: Dedicated: Y / N

Total Volume Purged, Gal: Purged To Dryness Y / N

Purge Observations: Start ____ Finish ____

PURGE DATA: (if applicable)

Time	Purge Rate (gpm/hfz)	Cumulative Volume	Temp. (C)	pH (std units)	Conduct (Umhos/cm)	Turb. (NTU)	Other	Other
810	—	—	19.1	8.43	1.86	27.8		

APPENDIX C

Laboratory Reports and Chain of Custody Forms

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

September 16, 2015

Analytical Report for Service Request No: R1507115

Ms. Allyson Zurawski
Daigler Engineering
2620 Grand Island Blvd.
Grand Island, NY 14072

Laboratory Results for: Surface Water 8/26/15

Dear Ms. Zurawski:

Enclosed are the results of the sample(s) submitted to our laboratory on August 27, 2015. For your reference, these analyses have been assigned our service request number **R1507115**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Karen Bunker
Project Manager

Client:	Daigler Engineering	**Service Request No.:**	R1507115
Project:	Marilla St. LF SW	**Date Received:**	8/27/15
Sample Matrix:	Water		

All analyses were performed consistent with the quality assurance program of ALS Environmental (ALS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Five (5) samples were collected by the client between 8/25-8/26/15 and received for analysis at ALS on 8/27/15 via ALS courier.

Samples were received in good condition, consistent with the Chains of Custody (COC) and within cooler temperature guidelines of 0-6 degrees C.

Inorganics

Five (5) samples were analyzed for a client specified list of parameters. All method numbers are noted on the data forms. Filtering of dissolved metals was performed in the field.

The Laboratory Method Blanks were free from contamination.

Batch QC is included in the report. All Laboratory Control Sample (LCS) recoveries were within QC limits.

Several samples were reported with total metals lower than the dissolved metals. These were field filtered. Sample bottles were checked for proper labeling and no discrepancies were found. ALS can check filter blanks for future sample batches if needed.

All samples were analyzed within the proper holding times for the methods.

No other analytical or QC problems were encountered.

Volatile Organics

Five (5) samples were analyzed for a client specified list of Volatile compounds by GC/MS Method 8260C.

All surrogate recoveries were within QC limits.

All Initial Calibration criteria was met for these samples. All Continuing Calibration Verifications (CCV's) were acceptable except for Bromomethane. Any hits for these samples associated with this CCV should be considered as estimated.

The Laboratory Method Blank was free from contamination.

Batch QC is included in the report. All Laboratory Control Sample (LCS) recoveries were within QC limits except for 2-Hexanone and 4-Methyl-2-pentanone which were outside limits high. All exceeded recoveries have been flagged as "*". No data was affected as the high bias allows for appropriate sensitivity for detection and there were no hits for these compounds in the samples.

All samples were analyzed within the 14 day holding time for preserved samples. All vials were checked for pH after analysis in order to maintain the integrity of the sample. All vials were found to be preserved to a pH of < 2.

No other analytical or QC problems were encountered.

Approved by Karen Bunker **Date** 10/2/15

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1507115

Lab ID	Client ID
R1507115-001	SW-2A
R1507115-002	SW-2A Dissolved
R1507115-003	SW-5
R1507115-004	SW-5 Dissolved
R1507115-005	SW-1
R1507115-006	SW-1 Dissolved
R1507115-007	SW-3A
R1507115-008	SW-3A Dissovlved
R1507115-009	SW BLIND DUP
R1507115-010	SW BLIND DUP Dissolved

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 1300
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW-2A		
Lab Code:	R1507115-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**6.9**		mg/L	1.0	1	NA	9/3/15 06:50	
Cyanide, Total	335.4	0.010	U	mg/L	0.010	1	9/ 3/15	9/4/15 10:45	
Phenolics, Total Recoverable	420.4 Modified	0.0050	U	mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**375**		mg/L	10	1	NA	8/31/15 13:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 1300
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW-2A		
Lab Code:	R1507115-001	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 08:58	
Chromium, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 08:58	
Iron, Total	6010C	**270**		µg/L	100		1	9/ 1/15	9/15/15 08:58	
Lead, Total	6010C	5	U	µg/L	50	5	1	9/ 1/15	9/15/15 08:58	
Manganese, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 08:58	

00007rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 1300
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW-2A Dissolved		
Lab Code:	R1507115-002	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 09:05	
Chromium, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 09:05	
Iron, Dissolved	6010C	**370**		µg/L	100		1	9/ 1/15	9/15/15 09:05	
Lead, Dissolved	6010C	5	U	µg/L	50	5	1	9/ 1/15	9/15/15 09:05	
Manganese, Dissolved	6010C	**11**		µg/L	10		1	9/ 1/15	9/15/15 09:05	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 1300
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/1/15 23:29
Sample Name:	SW-2A	**Units:**	µg/L
Lab Code:	R1507115-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5895.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 1300
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/1/15 23:29
Sample Name:	SW-2A	**Units:**	µg/L
Lab Code:	R1507115-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5895.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	85-122	9/1/15 23:29	
Dibromofluoromethane	112	89-119	9/1/15 23:29	
Toluene-d8	110	87-121	9/1/15 23:29	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 0830
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW-5		
Lab Code:	R1507115-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**6.3**		mg/L	1.0	1	NA	9/3/15 07:11	
Cyanide, Total	335.4	0.010	U	mg/L	0.010	1	9/ 3/15	9/4/15 10:46	
Phenolics, Total Recoverable	420.4 Modified	0.0050	U	mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**826**		mg/L	10	1	NA	8/31/15 13:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 0830
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW-5		
Lab Code:	R1507115-003	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 09:54	
Chromium, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 09:54	
Iron, Total	6010C	**500**		µg/L	100		1	9/ 1/15	9/15/15 09:54	
Lead, Total	6010C	**5**	J	µg/L	50	5	1	9/ 1/15	9/15/15 09:54	
Manganese, Total	6010C	**68**		µg/L	10		1	9/ 1/15	9/15/15 09:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 0830
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW-5 Dissolved		
Lab Code:	R1507115-004	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:00	
Chromium, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:00	
Iron, Dissolved	6010C	**790**		µg/L	100		1	9/ 1/15	9/15/15 10:00	
Lead, Dissolved	6010C	7	J	µg/L	50	5	1	9/ 1/15	9/15/15 10:00	
Manganese, Dissolved	6010C	**58**		µg/L	10		1	9/ 1/15	9/15/15 10:00	

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ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 0830
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 00:00
Sample Name:	SW-5	**Units:**	µg/L
Lab Code:	R1507115-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5896.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 0830
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 00:00
Sample Name:	SW-5	**Units:**	µg/L
Lab Code:	R1507115-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5896.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	85-122	9/2/15 00:00	
Dibromofluoromethane	111	89-119	9/2/15 00:00	
Toluene-d8	110	87-121	9/2/15 00:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 0900
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW-1		
Lab Code:	R1507115-005	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**5.2**		mg/L	1.0	1	NA	9/3/15 07:32	
Cyanide, Total	335.4	0.010	U	mg/L	0.010	1	9/ 3/15	9/4/15 10:47	
Phenolics, Total Recoverable	420.4 Modified	0.0050	U	mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**363**		mg/L	10	1	NA	8/31/15 13:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 0900
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW-1		
Lab Code:	R1507115-005	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:07	
Chromium, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:07	
Iron, Total	6010C	**870**		µg/L	100		1	9/ 1/15	9/15/15 10:07	
Lead, Total	6010C	**6**	J	µg/L	50	5	1	9/ 1/15	9/15/15 10:07	
Manganese, Total	6010C	**284**		µg/L	10		1	9/ 1/15	9/15/15 10:07	

0007 Rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 0900
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW-1 Dissolved		
Lab Code:	R1507115-006	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:14	
Chromium, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:14	
Iron, Dissolved	6010C	**1130**		µg/L	100		1	9/ 1/15	9/15/15 10:14	
Lead, Dissolved	6010C	5	U	µg/L	50	5	1	9/ 1/15	9/15/15 10:14	
Manganese, Dissolved	6010C	**282**		µg/L	10		1	9/ 1/15	9/15/15 10:14	

00018 Rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 0900
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 00:30
Sample Name:	SW-1	**Units:**	µg/L
Lab Code:	R1507115-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5897.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 0900
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 00:30
Sample Name:	SW-1	**Units:**	µg/L
Lab Code:	R1507115-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5897.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	115	85-122	9/2/15 00:30	
Dibromofluoromethane	114	89-119	9/2/15 00:30	
Toluene-d8	110	87-121	9/2/15 00:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 1300
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW-3A		
Lab Code:	R1507115-007	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**5.8**		mg/L	1.0	1	NA	9/3/15 07:53	
Cyanide, Total	335.4	0.010	U	mg/L	0.010	1	9/ 3/15	9/4/15 10:47	
Phenolics, Total Recoverable	420.4 Modified	0.0050	U	mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**471**		mg/L	10	1	NA	8/31/15 13:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: Daigler Engineering
Project: Surface Water 8/26/15
Sample Matrix: Water

Sample Name: SW-3A
Lab Code: R1507115-007

Service Request: R1507115
Date Collected: 8/26/15 1300
Date Received: 8/27/15

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:21	
Chromium, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:21	
Iron, Total	6010C	**970**		µg/L	100		1	9/ 1/15	9/15/15 10:21	
Lead, Total	6010C	5	U	µg/L	50	5	1	9/ 1/15	9/15/15 10:21	
Manganese, Total	6010C	**137**		µg/L	10		1	9/ 1/15	9/15/15 10:21	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 1300
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW-3A Dissovlved		
Lab Code:	R1507115-008	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:28	
Chromium, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:28	
Iron, Dissolved	6010C	**850**		µg/L	100		1	9/ 1/15	9/15/15 10:28	
Lead, Dissolved	6010C	5	U	µg/L	50	5	1	9/ 1/15	9/15/15 10:28	
Manganese, Dissolved	6010C	**106**		µg/L	10		1	9/ 1/15	9/15/15 10:28	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 1300
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 01:01
Sample Name:	SW-3A	**Units:**	µg/L
Lab Code:	R1507115-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5898.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15 1300
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 01:01
Sample Name:	SW-3A	**Units:**	µg/L
Lab Code:	R1507115-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5898.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	115	85-122	9/2/15 01:01	
Dibromofluoromethane	113	89-119	9/2/15 01:01	
Toluene-d8	109	87-121	9/2/15 01:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW BLIND DUP		
Lab Code:	R1507115-009	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**5.6**		mg/L	1.0	1	NA	9/3/15 08:14	
Cyanide, Total	335.4	0.010	U	mg/L	0.010	1	9/ 3/15	9/4/15 10:48	
Phenolics, Total Recoverable	420.4 Modified	0.0050	U	mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**483**		mg/L	10	1	NA	8/31/15 13:20	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW BLIND DUP		
Lab Code:	R1507115-009	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:35	
Chromium, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:35	
Iron, Total	6010C	**1020**		µg/L	100		1	9/ 1/15	9/15/15 10:35	
Lead, Total	6010C	5	U	µg/L	50	5	1	9/ 1/15	9/15/15 10:35	
Manganese, Total	6010C	**109**		µg/L	10		1	9/ 1/15	9/15/15 10:35	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	SW BLIND DUP Dissolved		
Lab Code:	R1507115-010	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:42	
Chromium, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 10:42	
Iron, Dissolved	6010C	**790**		µg/L	100		1	9/ 1/15	9/15/15 10:42	
Lead, Dissolved	6010C	**6**	J	µg/L	50	5	1	9/ 1/15	9/15/15 10:42	
Manganese, Dissolved	6010C	**105**		µg/L	10		1	9/ 1/15	9/15/15 10:42	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 01:32
Sample Name:	SW BLIND DUP	**Units:**	µg/L
Lab Code:	R1507115-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5899.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	8/26/15
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 01:32
Sample Name:	SW BLIND DUP	**Units:**	µg/L
Lab Code:	R1507115-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5899.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	115	85-122	9/2/15 01:32	
Dibromofluoromethane	108	89-119	9/2/15 01:32	
Toluene-d8	108	87-121	9/2/15 01:32	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1507115-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0	U	mg/L	1.0	1	NA	9/3/15 01:38	
Cyanide, Total	335.4	0.010	U	mg/L	0.010	1	9/ 3/15	9/4/15 10:33	
Phenolics, Total Recoverable	420.4 Modified	0.0050	U	mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10	U	mg/L	10	1	NA	8/31/15 13:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1507115-MB	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 08:36	
Arsenic, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 08:36	
Chromium, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 08:36	
Chromium, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 08:36	
Iron, Dissolved	6010C	100	U	µg/L	100		1	9/ 1/15	9/15/15 08:36	
Iron, Total	6010C	100	U	µg/L	100		1	9/ 1/15	9/15/15 08:36	
Lead, Dissolved	6010C	5	U	µg/L	50	5	1	9/ 1/15	9/15/15 08:36	
Lead, Total	6010C	5	U	µg/L	50	5	1	9/ 1/15	9/15/15 08:36	
Manganese, Dissolved	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 08:36	
Manganese, Total	6010C	10	U	µg/L	10		1	9/ 1/15	9/15/15 08:36	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/1/15 22:58
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1510141-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5894.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507115
Project:	Surface Water 8/26/15	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/1/15 22:58
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1510141-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5894.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	85-122	9/1/15 22:58	
Dibromofluoromethane	110	89-119	9/1/15 22:58	
Toluene-d8	111	87-121	9/1/15 22:58	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Surface Water 8/26/15
Sample Matrix: Water

Service Request: R1507115
Date Analyzed: 8/31/15 - 9/ 4/15

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1507115-LCS1 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	9.85	10.0	98	81 - 118
Cyanide, Total	335.4	0.102	0.100	102	90 - 110
Phenolics, Total Recoverable	420.4 Modified	0.0408	0.0400	102	90 - 110
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	918	914	100	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Surface Water 8/26/15
Sample Matrix: Water

Service Request: R1507115
Date Analyzed: 9/ 4/15

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1507115-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Cyanide, Total	335.4	0.385	0.400	96	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Surface Water 8/26/15
Sample Matrix: Water

Service Request: R1507115
Date Analyzed: 9/15/15

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Lab Control Sample
R1507115-LCS

Analyte Name	Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Dissolved	6010C	37.4	40	93	80 - 120
Arsenic, Total	6010C	37.4	40	93	80 - 120
Chromium, Dissolved	6010C	195	200	98	80 - 120
Chromium, Total	6010C	195	200	98	80 - 120
Iron, Dissolved	6010C	958	1000	96	80 - 120
Iron, Total	6010C	958	1000	96	80 - 120
Lead, Dissolved	6010C	476	500	95	80 - 120
Lead, Total	6010C	476	500	95	80 - 120
Manganese, Dissolved	6010C	468	500	94	80 - 120
Manganese, Total	6010C	468	500	94	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Surface Water 8/26/15
Sample Matrix: Water

Service Request: R1507115
Date Analyzed: 9/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 460345

Lab Control Sample
RQ1510141-03

Analyte Name	Result	Spike Amount	% Rec		% Rec Limits
1,1,1-Trichloroethane (TCA)	22.6	20.0	113		74 - 120
1,1,2,2-Tetrachloroethane	21.8	20.0	109		78 - 122
1,1,2-Trichloroethane	21.6	20.0	108		82 - 118
1,1-Dichloroethane (1,1-DCA)	22.3	20.0	112		78 - 117
1,1-Dichloroethene (1,1-DCE)	20.3	20.0	102		74 - 135
1,2-Dichloroethane	21.9	20.0	109		71 - 127
1,2-Dichloropropane	22.8	20.0	114		80 - 119
2-Butanone (MEK)	23.3	20.0	117		61 - 137
2-Hexanone	25.6	20.0	128	*	63 - 124
4-Methyl-2-pentanone	25.8	20.0	129	*	66 - 124
Acetone	24.4	20.0	122		40 - 161
Benzene	21.7	20.0	109		76 - 118
Bromodichloromethane	22.0	20.0	110		78 - 126
Bromoform	22.1	20.0	111		71 - 136
Bromomethane	16.3	20.0	82		42 - 166
Carbon Disulfide	22.1	20.0	111		65 - 127
Carbon Tetrachloride	20.6	20.0	103		68 - 125
Chlorobenzene	21.9	20.0	109		80 - 121
Chloroethane	22.9	20.0	115		70 - 127
Chloroform	21.8	20.0	109		76 - 120
Chloromethane	20.7	20.0	104		69 - 145
Dibromochloromethane	22.5	20.0	113		77 - 128
Dichloromethane	22.3	20.0	112		73 - 122
Ethylbenzene	19.9	20.0	99		76 - 120
Styrene	22.2	20.0	111		80 - 124
Tetrachloroethene (PCE)	22.1	20.0	110		78 - 124
Toluene	22.4	20.0	112		77 - 120
Trichloroethene (TCE)	22.8	20.0	114		78 - 123
Vinyl Chloride	24.3	20.0	122		69 - 133
cis-1,2-Dichloroethene	20.8	20.0	104		80 - 121
cis-1,3-Dichloropropene	21.5	20.0	107		74 - 126
m,p-Xylenes	44.6	40.0	112		78 - 123
o-Xylene	21.5	20.0	107		80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Surface Water 8/26/15
Sample Matrix: Water

Service Request: R1507115
Date Analyzed: 9/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 460345

	Lab Control Sample RQ1510141-03			
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
trans-1,2-Dichloroethene	21.5	20.0	107	80 - 120
trans-1,3-Dichloropropene	23.1	20.0	116	67 - 135

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30137

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: MARILLA STREET LANDFILL	Project Number:
Project Manager: A. ZURAWSKI	Report CC:
Company/Address: DAIGLER ENGINEERING, PC 2620 GRAND ISLAND BLVD. GRAND ISLAND, NY 14072	
Phone #: (716) 773-6872	Email: SAM@JADENVEGR.COM
Sampler's Signature:	Sampler's Printed Name: SAM DAIGLER

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs • 8260 • 624 • CLP	GC/MS SVOAs • 8270 • 625	GC VOAs • 8021 • 601/602	PESTICIDES • 8081 • 608	PCBs • 8082 • 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	TOC, TDS, TRP
MW-2B		8-25-15	1100	GROUND WATER	6	X					X	X	X
MW-16B		8-25-15	1230	GROUND WATER	5	X					X		X
SW-2A	-001,002	8-25-15	1300	SURFACE WATER	6	X					X	X	X
MW-7B		8-25-15	1500	GROUND WATER	6	X					X	X	X
SW-5	-003,004	8-26-15	830	SURFACE WATER	6	X					X	X	X
SW-1	005,006	8-26-15	900	SURFACE WATER	6	X					X	X	X
MW-6B		8-26-15	945	GROUND WATER	6	X					X	X	X
MW-18B		8-26-15	1200	GROUND WATER	5	X					X		X
MW-4B		8-26-15	1050	GROUND WATER	5	X					X		X
SW-3A	-007,008	8-26-15	1300	SURFACE WATER	6	X					X	X	X
MW-3B		8-26-15	1445	GROUND WATER	6	X					X	X	X

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED IN FIELD

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day

REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
_____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with
Edata _____ Yes _____

INVOICE INFORMATION
PO #
BILL TO:

R1507115 5
Daigler Engineering
Surface Water

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature	Signature Scott Seavy	Signature Scott Seavy	Signature Daniel Ward	Signature	Signature
Printed Name SAM DAIGLER	Printed Name SCOTT SEAVY	Printed Name SCOTT SEAVY	Printed Name ALS	Printed Name	Printed Name
Firm DAIGLER ENGINEERING	Firm ALS	Firm ALS	Firm 8/27/15 1410	Firm	Firm
Date/Time 8/27/15 1200	Date/Time 8/27/15 1235	Date/Time 8/27/15 1410	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30138

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: MARILLA STREET LANDFILL	Project Number:
Project Manager: A. ZURAWSKI	Report CC:
Company/Address: DAIGLER ENGINEERING, PC 2620 GRAND ISLAND BLVD GRAND ISLAND, NY 14072	
Phone #: (716) 773-6872	Email: SAM@DAIGLERENG.COM
Sampler's Signature:	Sampler's Printed Name: SAM DAIGLER

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ◦ 8260 ◦ 624 ◦ CLP	GC/MS SVOAs ◦ 8270 ◦ 625	GC VOAs ◦ 8021 ◦ 601/602	PESTICIDES ◦ 8081 ◦ 608	PCBs ◦ 8082 ◦ 608	METALS: TOTAL (List in comments below)	METALS: DISSOLVED (List in comments below)	TOC, TDS, TRP
MW-15B		8/27/15	1000	GROUND WATER	5	X					X		X
SW BLIND DUP	009-010	8/26/15		SURFACE WATER	6	X					X	X	X
BLIND DUP		8/26/15		GROUND WATER	5	X					X		X
MATRIX SPIKE		8/26/15		GROUND WATER	4	X					X		
MATRIX SPIKE DUP		8/26/15		GROUND WATER	4	X					X		

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: IN FIELD

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE: _____

REPORT REQUIREMENTS
_____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report wit
Edata _____ Yes _____

INVOICE INFORMATION
PO #
BILL TO:

R1507115 5
Daigler Engineering
Surface Water

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature	Signature Scott Seavy	Signature Scott Seavy	Signature Daniel Marc	Signature	Signature
Printed Name SAM DAIGLER	Printed Name SCOTT SEAVY	Printed Name SCOTT SEAVY	Printed Name ALS	Printed Name	Printed Name
Firm DAIGLER ENGINEERING	Firm ALS	Firm ALS	Firm 8/27/15 1410	Firm	Firm
Date/Time 8/27/15 1200	Date/Time 8/27/15 1235	Date/Time 8/27/15 1410	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

Cooler Receipt and Preservat

R1507115 5
Daigler Engineering
Surface Water

Project/Client Daigles Folder Numbe

Cooler received on 8/27/15 by: (initials)

COURIER: (ALS) UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	(Y) N NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) **Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 8/27/15 Time: 1416 ID: IR#3 (IR#5) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	2.2	1.3					
Correction Factor (°C)	-0.2	-0.2					
Corrected Temp (°C)	2.0°	1.1°					
Within 0-6°C?	(Y) N	(Y) N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by (initials) on 8/27/15 at 1423
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: MB 8/27/15

Cooler Breakdown: Date: 8/27/15 Time: 1530 by: MDS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH	X		WCM5CF	7/16				
≤2	HNO_3	X		BDB2146F	8/16				
≤2	H_2SO_4	X		83071	8/16				
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522	X		If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: 061515-1BM, 072015-2AA0,
Other Comments:

Headspace: (3 vials) Trip Blank
(1 vial) DUP
(1 vial) Matrix Spike
(1 vial) MW-18B

PC Secondary Review: MB 8/27/15

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

September 21, 2015

Analytical Report for Service Request No: R1507111

Ms. Allyson Zurawski
Daigler Engineering
2620 Grand Island Blvd.
Grand Island, NY 14072

Laboratory Results for: Marilla St. LF Groundwaters 8/2015

Dear Ms. Zurawski:

Enclosed are the results of the sample(s) submitted to our laboratory on August 27, 2015. For your reference, these analyses have been assigned our service request number **R1507111**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Karen.Bunker@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Karen Bunker
Project Manager

Client:	Daigler Engineering	**Service Request No.:**	R1507111
Project:	Marilla St. LF GW	**Date Received:**	8/27/15
Sample Matrix:	Water		

All analyses were performed consistent with the quality assurance program of ALS Environmental (ALS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Nine (9) samples were collected by the client between 8/25-8/26/15 and received for analysis at ALS on 8/27/15 via ALS courier.

Samples were received in good condition, consistent with the Chains of Custody (COC) and within cooler temperature guidelines of 0-6 degrees C except for headspace in vials as noted on the Cooler Receipt and Preservation Check Form at the end of the report. The Laboratory uses non-headspace vials as possible.

Inorganics

Nine (9) samples were analyzed for a client specified list of parameters. All method numbers are noted on the data forms. Filtering of dissolved metals was performed in the field.

The Laboratory Method Blanks were free from contamination.

Site QC was requested on sample MW-18B (ALS #R1507111-008). All Matrix Spike (MS) recoveries and Relative Percent Difference (RPD) calculations were acceptable.

Batch QC is included in the report. All Laboratory Control Sample (LCS) recoveries were within QC limits.

All samples were analyzed within the proper holding times for the methods.

No other analytical or QC problems were encountered.

Volatile Organics

Nine (9) samples were analyzed for a client specified list of Volatile compounds by GC/MS Method 8260C.

All surrogate recoveries were within QC limits.

All Initial Calibration criteria was met for these samples. All Continuing Calibration Verifications (CCV's) were acceptable except for Bromomethane on the 9/1/15 run. Any hits for these samples associated with this CCV should be considered as estimated.

The Laboratory Method Blank was free from contamination.

Site QC was requested on sample MW-18B (ALS #R1507111-008). All Matrix Spike (MS), MS Duplicate (MDS) recoveries and Relative Percent Difference (RPD) calculations were acceptable.

Batch QC is included in the report. All Laboratory Control Sample (LCS) recoveries were within QC limits except for 2-Hexanone and 4-Methyl-2-pentanone which were outside limits high on the 9/1/15 run. All exceeded recoveries have been flagged as "*". No data was affected as the high bias allows for appropriate sensitivity for detection and there were no hits for these compounds in the samples.

All samples were analyzed within the 14 day holding time for preserved samples. All vials were checked for pH after analysis in order to maintain the integrity of the sample. All vials were found to be preserved to a pH of < 2.

No other analytical or QC problems were encountered.

Approved by Karen Burke **Date** 9/11/15

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1507111

Lab ID	Client ID
R1507111-001	MW-2B
R1507111-002	MW-2B Dissolved
R1507111-003	MW-16B
R1507111-004	MW-7B
R1507111-005	MW-7B Dissolved
R1507111-006	MW-6B
R1507111-007	MW-6B Dissolved
R1507111-008	MW-18B
R1507111-009	MW-4B
R1507111-010	MW-3B
R1507111-011	MW-3B Dissolved
R1507111-012	MW-15B
R1507111-013	BLIND DUP

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Delaware Accredited	Nebraska Accredited	
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1100
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-2B		
Lab Code:	R1507111-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**18.0**		mg/L	1.0	1	NA	9/3/15 02:19	
Cyanide, Total	335.4	0.010	U	mg/L	0.010	1	9/3/15	9/4/15 10:35	
Phenolics, Total Recoverable	420.4 Modified	**0.059**		mg/L	0.010	2	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**627**		mg/L	10	1	NA	8/31/15 13:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1100
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-2B		
Lab Code:	R1507111-001	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 03:45	
Chromium, Total	6010C	**97**		µg/L	10		1	8/31/15	9/11/15 03:45	
Iron, Total	6010C	**31500**		µg/L	100		1	8/31/15	9/11/15 03:45	
Lead, Total	6010C	**50**	J	µg/L	50	5	1	8/31/15	9/11/15 03:45	
Manganese, Total	6010C	**2230**		µg/L	10		1	8/31/15	9/11/15 03:45	

00007 Rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1100
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-2B Dissolved		
Lab Code:	R1507111-002	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 03:52	
Chromium, Dissolved	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 03:52	
Iron, Dissolved	6010C	100	U	µg/L	100		1	8/31/15	9/11/15 03:52	
Lead, Dissolved	6010C	**5**	J	µg/L	50	5	1	8/31/15	9/11/15 03:52	
Manganese, Dissolved	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 03:52	

00008Rev

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1100
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 02:02
Sample Name:	MW-2B	**Units:**	µg/L
Lab Code:	R1507111-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5900.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	**26**		10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	**190**		10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1100
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 02:02
Sample Name:	MW-2B	**Units:**	µg/L
Lab Code:	R1507111-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5900.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	85-122	9/2/15 02:02	
Dibromofluoromethane	112	89-119	9/2/15 02:02	
Toluene-d8	107	87-121	9/2/15 02:02	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1230
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-16B		
Lab Code:	R1507111-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**14.3**		mg/L	1.0	1	NA	9/3/15 02:40	
Cyanide, Total	335.4	**0.033**		mg/L	0.010	1	9/ 3/15	9/4/15 10:36	
Phenolics, Total Recoverable	420.4 Modified	**0.0080**		mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**663**		mg/L	10	1	NA	8/31/15 13:20	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1230
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-16B		
Lab Code:	R1507111-003	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 03:59	
Chromium, Total	6010C	**31**		µg/L	10		1	8/31/15	9/11/15 03:59	
Iron, Total	6010C	**3620**		µg/L	100		1	8/31/15	9/11/15 03:59	
Lead, Total	6010C	**25**	J	µg/L	50	5	1	8/31/15	9/11/15 03:59	
Manganese, Total	6010C	**717**		µg/L	10		1	8/31/15	9/11/15 03:59	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1230
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 04:05
Sample Name:	MW-16B	**Units:**	µg/L
Lab Code:	R1507111-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5904.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	13	U	13	
79-34-5	1,1,2,2-Tetrachloroethane	13	U	13	
79-00-5	1,1,2-Trichloroethane	13	U	13	
75-34-3	1,1-Dichloroethane (1,1-DCA)	13	U	13	
75-35-4	1,1-Dichloroethene (1,1-DCE)	13	U	13	
107-06-2	1,2-Dichloroethane	13	U	13	
78-87-5	1,2-Dichloropropane	13	U	13	
78-93-3	2-Butanone (MEK)	25	U	25	
591-78-6	2-Hexanone	25	U	25	
108-10-1	4-Methyl-2-pentanone	25	U	25	
67-64-1	Acetone	25	U	25	
71-43-2	Benzene	13	U	13	
75-27-4	Bromodichloromethane	13	U	13	
75-25-2	Bromoform	13	U	13	
74-83-9	Bromomethane	13	U	13	
75-15-0	Carbon Disulfide	**26**		25	
56-23-5	Carbon Tetrachloride	13	U	13	
108-90-7	Chlorobenzene	13	U	13	
75-00-3	Chloroethane	13	U	13	
67-66-3	Chloroform	13	U	13	
74-87-3	Chloromethane	13	U	13	
124-48-1	Dibromochloromethane	13	U	13	
75-09-2	Dichloromethane	13	U	13	
100-41-4	Ethylbenzene	13	U	13	
100-42-5	Styrene	13	U	13	
127-18-4	Tetrachloroethene (PCE)	13	U	13	
108-88-3	Toluene	13	U	13	
79-01-6	Trichloroethene (TCE)	**26**		13	
75-01-4	Vinyl Chloride	13	U	13	
156-59-2	cis-1,2-Dichloroethene	13	U	13	
10061-01-5	cis-1,3-Dichloropropene	13	U	13	
179601-23-1	m,p-Xylenes	13	U	13	
95-47-6	o-Xylene	13	U	13	
156-60-5	trans-1,2-Dichloroethene	13	U	13	
10061-02-6	trans-1,3-Dichloropropene	13	U	13	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1230
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 04:05
Sample Name:	MW-16B	**Units:**	µg/L
Lab Code:	R1507111-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5904.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	114	85-122	9/2/15 04:05	
Dibromofluoromethane	113	89-119	9/2/15 04:05	
Toluene-d8	110	87-121	9/2/15 04:05	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1500
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-7B		
Lab Code:	R1507111-004	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**51.8**		mg/L	4.0	4	NA	9/9/15 02:06	
Cyanide, Total	335.4	**0.034**		mg/L	0.010	1	9/ 3/15	9/4/15 10:37	
Phenolics, Total Recoverable	420.4 Modified	**0.587**		mg/L	0.025	5	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**1220**		mg/L	20	1	NA	8/31/15 13:20	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1500
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-7B		
Lab Code:	R1507111-004	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 04:05	
Chromium, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 04:05	
Iron, Total	6010C	**3400**		µg/L	100		1	8/31/15	9/11/15 04:05	
Lead, Total	6010C	**58**		µg/L	50	5	1	8/31/15	9/11/15 04:05	
Manganese, Total	6010C	**92**		µg/L	10		1	8/31/15	9/11/15 04:05	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1500
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-7B Dissolved		
Lab Code:	R1507111-005	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 04:12	
Chromium, Dissolved	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 04:12	
Iron, Dissolved	6010C	100	U	µg/L	100		1	8/31/15	9/11/15 04:12	
Lead, Dissolved	6010C	7	J	µg/L	50	5	1	8/31/15	9/11/15 04:12	
Manganese, Dissolved	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 04:12	

00017Rev

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1500
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 05:06
Sample Name:	MW-7B	**Units:**	µg/L
Lab Code:	R1507111-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5906.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50	U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	
79-00-5	1,1,2-Trichloroethane	50	U	50	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	U	50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50	U	50	
107-06-2	1,2-Dichloroethane	50	U	50	
78-87-5	1,2-Dichloropropane	50	U	50	
78-93-3	2-Butanone (MEK)	100	U	100	
591-78-6	2-Hexanone	100	U	100	
108-10-1	4-Methyl-2-pentanone	100	U	100	
67-64-1	Acetone	100	U	100	
71-43-2	Benzene	50	U	50	
75-27-4	Bromodichloromethane	50	U	50	
75-25-2	Bromoform	50	U	50	
74-83-9	Bromomethane	50	U	50	
75-15-0	Carbon Disulfide	100	U	100	
56-23-5	Carbon Tetrachloride	50	U	50	
108-90-7	Chlorobenzene	50	U	50	
75-00-3	Chloroethane	50	U	50	
67-66-3	Chloroform	50	U	50	
74-87-3	Chloromethane	50	U	50	
124-48-1	Dibromochloromethane	50	U	50	
75-09-2	Dichloromethane	50	U	50	
100-41-4	Ethylbenzene	50	U	50	
100-42-5	Styrene	50	U	50	
127-18-4	Tetrachloroethene (PCE)	50	U	50	
108-88-3	Toluene	50	U	50	
79-01-6	Trichloroethene (TCE)	50	U	50	
75-01-4	Vinyl Chloride	50	U	50	
156-59-2	cis-1,2-Dichloroethene	50	U	50	
10061-01-5	cis-1,3-Dichloropropene	50	U	50	
179601-23-1	m,p-Xylenes	50	U	50	
95-47-6	o-Xylene	50	U	50	
156-60-5	trans-1,2-Dichloroethene	50	U	50	
10061-02-6	trans-1,3-Dichloropropene	50	U	50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1500
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 05:06
Sample Name:	MW-7B	**Units:**	µg/L
Lab Code:	R1507111-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5906.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	115	85-122	9/2/15 05:06	
Dibromofluoromethane	113	89-119	9/2/15 05:06	
Toluene-d8	112	87-121	9/2/15 05:06	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 0945
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-6B		
Lab Code:	R1507111-006	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**8.0**		mg/L	1.0	1	NA	9/3/15 03:22	
Cyanide, Total	335.4	0.010	U	mg/L	0.010	1	9/ 3/15	9/4/15 10:37	
Phenolics, Total Recoverable	420.4 Modified	0.0050	U	mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**966**		mg/L	10	1	NA	8/31/15 13:20	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 0945
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-6B		
Lab Code:	R1507111-006	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 04:18	
Chromium, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 04:18	
Iron, Total	6010C	**330**		µg/L	100		1	8/31/15	9/11/15 04:18	
Lead, Total	6010C	**5**	J	µg/L	50	5	1	8/31/15	9/11/15 04:18	
Manganese, Total	6010C	**591**		µg/L	10		1	8/31/15	9/11/15 04:18	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 0945
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-6B Dissolved		
Lab Code:	R1507111-007	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 04:25	
Chromium, Dissolved	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 04:25	
Iron, Dissolved	6010C	100	U	µg/L	100		1	8/31/15	9/11/15 04:25	
Lead, Dissolved	6010C	5	U	µg/L	50	5	1	8/31/15	9/11/15 04:25	
Manganese, Dissolved	6010C	**470**		µg/L	10		1	8/31/15	9/11/15 04:25	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 0945
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 02:33
Sample Name:	MW-6B	**Units:**	µg/L
Lab Code:	R1507111-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5901.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 0945
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 02:33
Sample Name:	MW-6B	**Units:**	µg/L
Lab Code:	R1507111-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5901.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	116	85-122	9/2/15 02:33	
Dibromofluoromethane	114	89-119	9/2/15 02:33	
Toluene-d8	113	87-121	9/2/15 02:33	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1200
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-18B		
Lab Code:	R1507111-008	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**17.0**		mg/L	1.0	1	NA	9/3/15 03:43	
Cyanide, Total	335.4	**0.023**		mg/L	0.010	1	9/3/15	9/4/15 10:38	
Phenolics, Total Recoverable	420.4 Modified	0.0050	U	mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**2830**		mg/L	20	1	NA	8/31/15 13:20	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1200
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-18B		
Lab Code:	R1507111-008	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	**11**		µg/L	10		1	8/31/15	9/11/15 04:32	
Chromium, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 04:32	
Iron, Total	6010C	**1890**		µg/L	100		1	8/31/15	9/11/15 04:32	
Lead, Total	6010C	**10**	J	µg/L	50	5	1	8/31/15	9/11/15 04:32	
Manganese, Total	6010C	**1730**		µg/L	10		1	8/31/15	9/11/15 04:32	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1200
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 03:04
Sample Name:	MW-18B	**Units:**	µg/L
Lab Code:	R1507111-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5902.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1200
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 03:04
Sample Name:	MW-18B	**Units:**	µg/L
Lab Code:	R1507111-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5902.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	115	85-122	9/2/15 03:04	
Dibromofluoromethane	108	89-119	9/2/15 03:04	
Toluene-d8	110	87-121	9/2/15 03:04	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1030
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-4B		
Lab Code:	R1507111-009	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**6.7**		mg/L	1.0	1	NA	9/3/15 04:45	
Cyanide, Total	335.4	0.010	U	mg/L	0.010	1	9/ 3/15	9/4/15 10:42	
Phenolics, Total Recoverable	420.4 Modified	0.0050	U	mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**566**		mg/L	10	1	NA	8/31/15 13:20	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1030
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-4B		
Lab Code:	R1507111-009	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 07:19	
Chromium, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 07:19	
Iron, Total	6010C	**1750**		µg/L	100		1	8/31/15	9/11/15 07:19	
Lead, Total	6010C	**6**	J	µg/L	50	5	1	8/31/15	9/11/15 07:19	
Manganese, Total	6010C	**890**		µg/L	10		1	8/31/15	9/11/15 07:19	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1030
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 03:34
Sample Name:	MW-4B	**Units:**	µg/L
Lab Code:	R1507111-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5903.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1030
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 03:34
Sample Name:	MW-4B	**Units:**	µg/L
Lab Code:	R1507111-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5903.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	117	85-122	9/2/15 03:34	
Dibromofluoromethane	114	89-119	9/2/15 03:34	
Toluene-d8	111	87-121	9/2/15 03:34	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1445
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-3B		
Lab Code:	R1507111-010	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**101**		mg/L	20	20	NA	9/9/15 02:27	
Cyanide, Total	335.4	**0.022**		mg/L	0.010	1	9/3/15	9/4/15 10:43	
Phenolics, Total Recoverable	420.4 Modified	**0.683**		mg/L	0.050	10	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**3540**		mg/L	42	1	NA	8/31/15 13:20	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1445
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-3B		
Lab Code:	R1507111-010	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	**30**		µg/L	10		1	8/31/15	9/11/15 07:25	
Chromium, Total	6010C	**37**		µg/L	10		1	8/31/15	9/11/15 07:25	
Iron, Total	6010C	**58300**		µg/L	1000		10	8/31/15	9/11/15 20:02	
Lead, Total	6010C	**105**		µg/L	50	5	1	8/31/15	9/11/15 07:25	
Manganese, Total	6010C	**5610**		µg/L	10		1	8/31/15	9/11/15 07:25	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/27/15 1445
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-3B Dissolved		
Lab Code:	R1507111-011	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	**28**		µg/L	10		1	8/31/15	9/11/15 07:32	
Chromium, Dissolved	6010C	**16**		µg/L	10		1	8/31/15	9/11/15 07:32	
Iron, Dissolved	6010C	**2910**		µg/L	100		1	8/31/15	9/11/15 07:32	
Lead, Dissolved	6010C	**25**	J	µg/L	50	5	1	8/31/15	9/11/15 07:32	
Manganese, Dissolved	6010C	**50**		µg/L	10		1	8/31/15	9/11/15 07:32	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1445
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 05:37
Sample Name:	MW-3B	**Units:**	µg/L
Lab Code:	R1507111-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5907.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50	U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	
79-00-5	1,1,2-Trichloroethane	50	U	50	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	U	50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50	U	50	
107-06-2	1,2-Dichloroethane	50	U	50	
78-87-5	1,2-Dichloropropane	50	U	50	
78-93-3	2-Butanone (MEK)	100	U	100	
591-78-6	2-Hexanone	100	U	100	
108-10-1	4-Methyl-2-pentanone	100	U	100	
67-64-1	Acetone	**480**		100	
71-43-2	Benzene	50	U	50	
75-27-4	Bromodichloromethane	50	U	50	
75-25-2	Bromoform	50	U	50	
74-83-9	Bromomethane	50	U	50	
75-15-0	Carbon Disulfide	100	U	100	
56-23-5	Carbon Tetrachloride	50	U	50	
108-90-7	Chlorobenzene	50	U	50	
75-00-3	Chloroethane	50	U	50	
67-66-3	Chloroform	50	U	50	
74-87-3	Chloromethane	50	U	50	
124-48-1	Dibromochloromethane	50	U	50	
75-09-2	Dichloromethane	50	U	50	
100-41-4	Ethylbenzene	50	U	50	
100-42-5	Styrene	50	U	50	
127-18-4	Tetrachloroethene (PCE)	50	U	50	
108-88-3	Toluene	50	U	50	
79-01-6	Trichloroethene (TCE)	50	U	50	
75-01-4	Vinyl Chloride	50	U	50	
156-59-2	cis-1,2-Dichloroethene	50	U	50	
10061-01-5	cis-1,3-Dichloropropene	50	U	50	
179601-23-1	m,p-Xylenes	50	U	50	
95-47-6	o-Xylene	50	U	50	
156-60-5	trans-1,2-Dichloroethene	50	U	50	
10061-02-6	trans-1,3-Dichloropropene	50	U	50	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15 1445
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 05:37
Sample Name:	MW-3B	**Units:**	µg/L
Lab Code:	R1507111-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5907.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	85-122	9/2/15 05:37	
Dibromofluoromethane	111	89-119	9/2/15 05:37	
Toluene-d8	110	87-121	9/2/15 05:37	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/27/15 1000
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-15B		
Lab Code:	R1507111-012	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**83**		mg/L	10	10	NA	9/9/15 02:48	
Cyanide, Total	335.4	**0.012**		mg/L	0.010	1	9/ 3/15	9/4/15 10:44	
Phenolics, Total Recoverable	420.4 Modified	**0.893**		mg/L	0.050	10	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**1690**		mg/L	20	1	NA	8/31/15 13:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/27/15 1000
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	MW-15B		
Lab Code:	R1507111-012	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	**26**		µg/L	10		1	8/31/15	9/11/15 07:39	
Chromium, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 07:39	
Iron, Total	6010C	**530**		µg/L	100		1	8/31/15	9/11/15 07:39	
Lead, Total	6010C	**10**	J	µg/L	50	5	1	8/31/15	9/11/15 07:39	
Manganese, Total	6010C	**10**		µg/L	10		1	8/31/15	9/11/15 07:39	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/27/15 1000
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 06:08
Sample Name:	MW-15B	**Units:**	µg/L
Lab Code:	R1507111-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5908.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
78-93-3	2-Butanone (MEK)	200	U	200	
591-78-6	2-Hexanone	200	U	200	
108-10-1	4-Methyl-2-pentanone	200	U	200	
67-64-1	Acetone	200	U	200	
71-43-2	Benzene	100	U	100	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
75-15-0	Carbon Disulfide	200	U	200	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Dichloromethane	100	U	100	
100-41-4	Ethylbenzene	100	U	100	
100-42-5	Styrene	100	U	100	
127-18-4	Tetrachloroethene (PCE)	100	U	100	
108-88-3	Toluene	100	U	100	
79-01-6	Trichloroethene (TCE)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	100	U	100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
179601-23-1	m,p-Xylenes	100	U	100	
95-47-6	o-Xylene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/27/15 1000
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 06:08
Sample Name:	MW-15B	**Units:**	µg/L
Lab Code:	R1507111-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5908.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	118	85-122	9/2/15 06:08	
Dibromofluoromethane	114	89-119	9/2/15 06:08	
Toluene-d8	112	87-121	9/2/15 06:08	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	BLIND DUP		
Lab Code:	R1507111-013	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	**16.3**		mg/L	1.0	1	NA	9/3/15 06:30	
Cyanide, Total	335.4	**0.030**		mg/L	0.010	1	9/ 3/15	9/4/15 10:44	
Phenolics, Total Recoverable	420.4 Modified	**0.0054**		mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	**652**		mg/L	10	1	NA	8/31/15 13:20	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15
Sample Matrix:	Water	**Date Received:**	8/27/15
Sample Name:	BLIND DUP		
Lab Code:	R1507111-013	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	**13**		µg/L	10		1	9/10/15	9/16/15 19:37	
Chromium, Total	6010C	10	U	µg/L	10		1	9/10/15	9/16/15 19:37	
Iron, Total	6010C	**240**		µg/L	100		1	9/10/15	9/16/15 19:37	
Lead, Total	6010C	5	U	µg/L	50	5	1	9/10/15	9/16/15 19:37	
Manganese, Total	6010C	**25**		µg/L	10		1	9/10/15	9/16/15 19:37	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 04:36
Sample Name:	BLIND DUP	**Units:**	µg/L
Lab Code:	R1507111-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5905.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	13	U	13	
79-34-5	1,1,2,2-Tetrachloroethane	13	U	13	
79-00-5	1,1,2-Trichloroethane	13	U	13	
75-34-3	1,1-Dichloroethane (1,1-DCA)	13	U	13	
75-35-4	1,1-Dichloroethene (1,1-DCE)	13	U	13	
107-06-2	1,2-Dichloroethane	13	U	13	
78-87-5	1,2-Dichloropropane	13	U	13	
78-93-3	2-Butanone (MEK)	25	U	25	
591-78-6	2-Hexanone	25	U	25	
108-10-1	4-Methyl-2-pentanone	25	U	25	
67-64-1	Acetone	25	U	25	
71-43-2	Benzene	13	U	13	
75-27-4	Bromodichloromethane	13	U	13	
75-25-2	Bromoform	13	U	13	
74-83-9	Bromomethane	13	U	13	
75-15-0	Carbon Disulfide	**26**		25	
56-23-5	Carbon Tetrachloride	13	U	13	
108-90-7	Chlorobenzene	13	U	13	
75-00-3	Chloroethane	13	U	13	
67-66-3	Chloroform	13	U	13	
74-87-3	Chloromethane	13	U	13	
124-48-1	Dibromochloromethane	13	U	13	
75-09-2	Dichloromethane	13	U	13	
100-41-4	Ethylbenzene	13	U	13	
100-42-5	Styrene	13	U	13	
127-18-4	Tetrachloroethene (PCE)	13	U	13	
108-88-3	Toluene	13	U	13	
79-01-6	Trichloroethene (TCE)	**19**		13	
75-01-4	Vinyl Chloride	13	U	13	
156-59-2	cis-1,2-Dichloroethene	13	U	13	
10061-01-5	cis-1,3-Dichloropropene	13	U	13	
179601-23-1	m,p-Xylenes	13	U	13	
95-47-6	o-Xylene	13	U	13	
156-60-5	trans-1,2-Dichloroethene	13	U	13	
10061-02-6	trans-1,3-Dichloropropene	13	U	13	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/2/15 04:36
Sample Name:	BLIND DUP	**Units:**	µg/L
Lab Code:	R1507111-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5905.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	116	85-122	9/2/15 04:36	
Dibromofluoromethane	113	89-119	9/2/15 04:36	
Toluene-d8	109	87-121	9/2/15 04:36	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1507111-MB1	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0	U	mg/L	1.0	1	NA	9/3/15 01:38	
Cyanide, Total	335.4	0.010	U	mg/L	0.010	1	9/3/15	9/4/15 10:33	
Phenolics, Total Recoverable	420.4 Modified	0.0050	U	mg/L	0.0050	1	NA	9/1/15 10:20	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10	U	mg/L	10	1	NA	8/31/15 13:20	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1507111-MB2	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0	U	mg/L	1.0	1	NA	9/8/15 17:16	

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Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1507111-MB1	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Dissolved	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 02:13	
Arsenic, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 02:13	
Chromium, Dissolved	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 02:13	
Chromium, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 02:13	
Iron, Dissolved	6010C	100	U	µg/L	100		1	8/31/15	9/11/15 02:13	
Iron, Total	6010C	100	U	µg/L	100		1	8/31/15	9/11/15 02:13	
Lead, Dissolved	6010C	5	U	µg/L	50	5	1	8/31/15	9/11/15 02:13	
Lead, Total	6010C	5	U	µg/L	50	5	1	8/31/15	9/11/15 02:13	
Manganese, Dissolved	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 02:13	
Manganese, Total	6010C	10	U	µg/L	10		1	8/31/15	9/11/15 02:13	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1507111-MB2	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
Arsenic, Total	6010C	10	U	µg/L	10		1	9/10/15	9/16/15 19:26	
Chromium, Total	6010C	10	U	µg/L	10		1	9/10/15	9/16/15 19:26	
Iron, Total	6010C	100	U	µg/L	100		1	9/10/15	9/16/15 19:26	
Lead, Total	6010C	5	U	µg/L	50	5	1	9/10/15	9/16/15 19:26	
Manganese, Total	6010C	10	U	µg/L	10		1	9/10/15	9/16/15 19:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/1/15 22:58
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1510141-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5894.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
78-93-3	2-Butanone (MEK)	10	U	10	
591-78-6	2-Hexanone	10	U	10	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	5.0	U	5.0	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
75-15-0	Carbon Disulfide	10	U	10	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Dichloromethane	5.0	U	5.0	
100-41-4	Ethylbenzene	5.0	U	5.0	
100-42-5	Styrene	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	5.0	U	5.0	
108-88-3	Toluene	5.0	U	5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
179601-23-1	m,p-Xylenes	5.0	U	5.0	
95-47-6	o-Xylene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	9/1/15 22:58
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1510141-04	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	460345
Prep Method:	EPA 5030C		
Data File Name:	I:\ACQUDATA\MSVOA12\DATA\090115\MM5894.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	112	85-122	9/1/15 22:58	
Dibromofluoromethane	110	89-119	9/1/15 22:58	
Toluene-d8	111	87-121	9/1/15 22:58	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Marilla St. LF Groundwaters 8/2015
Sample Matrix: Water

Service Request: R1507111
Date Collected: 8/26/15
Date Received: 8/27/15
Date Analyzed: 8/31/15 - 9/ 4/15

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW-18B
Lab Code: R1507111-008

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	Sample Result	MW-18BDUP Duplicate Sample R1507111-008DUP Result	Average	RPD	RPD Limit
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0	17.0	17.3	17.2	2	20
Cyanide, Total	335.4	0.010	0.023	0.021	0.0217	9	20
Phenolics, Total Recoverable	420.4 Modified	0.0050	0.0050 U	0.0050 U	NC	NC	20
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	20	2830	2850	2840	<1	10

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/ 1/15 - 9/ 4/15

Matrix Spike Summary
General Chemistry Parameters

Sample Name:	MW-18B	**Units:**	mg/L
Lab Code:	RI507111-008	**Basis:**	NA

MW-18BMS
Matrix Spike
R1507111-008MS

Analyte Name	Method	Sample Result	Spike Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	17.0	24.1	10.0	70	48 - 135
Cyanide, Total	335.4	0.023	0.120	0.100	97	90 - 110
Phenolics, Total Recoverable	420.4 Modified	ND	0.0389	0.0400	97	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client:	Daigler Engineering	**Service Request:**	R1507111
Project:	Marilla St. LF Groundwaters 8/2015	**Date Collected:**	8/26/15
Sample Matrix:	Water	**Date Received:**	8/27/15
		Date Analyzed:	9/11/15

Replicate Sample Summary
Inorganic Parameters

Sample Name:	MW-18B	**Units:**	µg/L
Lab Code:	R1507111-008	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	MW-18BDUP Duplicate Sample R1507111-008DUP Result	Average	RPD	RPD Limit
Arsenic, Total	6010C	10		11	12	11.7	12	20
Chromium, Total	6010C	10		10 U	10 U	NC	NC	20
Iron, Total	6010C	100		1890	2000	1950	6	20
Lead, Total	6010C	50	5	10 J	8 J	8.98	20	20
Manganese, Total	6010C	10		1730	1800	1760	4	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Daigler Engineering
Project: Marilla St. LF Groundwaters 8/2015
Sample Matrix: Water

Service Request: R1507111
Date Collected: 8/26/15
Date Received: 8/27/15
Date Analyzed: 9/11/15

Matrix Spike Summary
Inorganic Parameters

Sample Name: MW-18B
Lab Code: R1507111-008

Units: µg/L
Basis: NA

Analytical Method: 6010C
Prep Method: EPA 3005A/3010A

MW-18BMS
Matrix Spike
R1507111-008MS

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Total	11	52	40	103	75 - 125
Chromium, Total	ND	204	200	102	75 - 125
Iron, Total	1890	3030	1000	113	75 - 125
Lead, Total	10	513	500	101	75 - 125
Manganese, Total	1730	2220	500	99	75 - 125

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Marilla St. LF Groundwaters 8/2015
Sample Matrix: Water

Service Request: R1507111
Date Collected: 8/26/15
Date Received: 8/27/15
Date Analyzed: 9/ 2/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-18B
Lab Code: R1507111-008

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		MW-18BMS Matrix Spike RQ1510141-05			MW-18BDMS Duplicate Matrix Spike RQ1510141-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	ND	44.6	50.0	89	46.5	50.0	93	74 - 127	4	30
1,1,2,2-Tetrachloroethane	ND	46.4	50.0	93	45.9	50.0	92	72 - 122	1	30
1,1,2-Trichloroethane	ND	43.3	50.0	87	44.2	50.0	88	79 - 119	2	30
1,1-Dichloroethane (1,1-DCA)	ND	43.6	50.0	87	43.8	50.0	88	74 - 132	<1	30
1,1-Dichloroethene (1,1-DCE)	ND	42.3	50.0	84	41.6	50.0	83	74 - 139	2	30
1,2-Dichloroethane	ND	45.1	50.0	90	46.0	50.0	92	68 - 130	2	30
1,2-Dichloropropane	ND	44.1	50.0	88	46.1	50.0	92	79 - 124	5	30
2-Butanone (MEK)	ND	45.0	50.0	90	47.9	50.0	96	46 - 141	6	30
2-Hexanone	ND	50.8	50.0	102	54.4	50.0	109	56 - 132	7	30
4-Methyl-2-pentanone	ND	50.0	50.0	100	53.4	50.0	107	60 - 141	6	30
Acetone	ND	44.1	50.0	88	47.1	50.0	94	29 - 151	6	30
Benzene	ND	43.7	50.0	87	43.3	50.0	87	76 - 129	1	30
Bromodichloromethane	ND	41.4	50.0	83	43.7	50.0	87	76 - 127	5	30
Bromoform	ND	36.0	50.0	72	39.8	50.0	80	58 - 133	10	30
Bromomethane	ND	25.1	50.0	50	33.4	50.0	67	10 - 162	28	30
Carbon Disulfide	ND	26.2	50.0	52	29.1	50.0	58	34 - 162	11	30
Carbon Tetrachloride	ND	41.2	50.0	82	41.1	50.0	82	65 - 135	<1	30
Chlorobenzene	ND	42.6	50.0	85	42.9	50.0	86	76 - 125	<1	30
Chloroethane	ND	43.8	50.0	88	45.1	50.0	90	70 - 140	3	30
Chloroform	ND	42.0	50.0	84	42.3	50.0	85	75 - 130	<1	30
Chloromethane	ND	41.9	50.0	84	42.7	50.0	85	55 - 160	2	30
Dibromochloromethane	ND	42.6	50.0	85	42.4	50.0	85	72 - 128	<1	30
Dichloromethane	ND	44.7	50.0	89	44.9	50.0	90	75 - 121	<1	30
Ethylbenzene	ND	38.9	50.0	78	39.3	50.0	78	72 - 134	<1	30
Styrene	ND	35.9	50.0	72	40.0	50.0	80	34 - 156	11	30
Tetrachloroethene (PCE)	ND	42.7	50.0	85	43.8	50.0	88	67 - 137	3	30
Toluene	ND	44.0	50.0	88	45.0	50.0	90	79 - 125	2	30
Trichloroethene (TCE)	ND	44.3	50.0	89	44.3	50.0	89	62 - 142	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Marilla St. LF Groundwaters 8/2015
Sample Matrix: Water

Service Request: R1507111
Date Collected: 8/26/15
Date Received: 8/27/15
Date Analyzed: 9/ 2/15

Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW-18B
Lab Code: R1507111-008

Units: µg/L
Basis: NA

Analytical Method: 8260C
Prep Method: EPA 5030C

		MW-18BMS Matrix Spike RQ1510141-05			MW-18BDMS Duplicate Matrix Spike RQ1510141-06					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Vinyl Chloride	ND	48.4	50.0	97	49.0	50.0	98	60 - 157	1	30
cis-1,2-Dichloroethene	ND	41.9	50.0	84	41.8	50.0	84	72 - 133	<1	30
cis-1,3-Dichloropropene	ND	34.3	50.0	69	37.7	50.0	75	52 - 134	9	30
m,p-Xylenes	ND	85.1	100	85	86.3	100	86	68 - 138	1	30
o-Xylene	ND	42.9	50.0	86	42.3	50.0	85	68 - 134	1	30
trans-1,2-Dichloroethene	ND	43.9	50.0	88	43.6	50.0	87	77 - 125	<1	30
trans-1,3-Dichloropropene	ND	36.9	50.0	74	39.9	50.0	80	50 - 142	8	30

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.
Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Marilla St. LF Groundwaters 8/2015
Sample Matrix: Water

Service Request: R1507111
Date Analyzed: 8/31/15 - 9/ 4/15

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1507111-LCS1 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	9.85	10.0	98	81 - 118
Cyanide, Total	335.4	0.102	0.100	102	90 - 110
Phenolics, Total Recoverable	420.4 Modified	0.0408	0.0400	102	90 - 110
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	918	914	100	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Marilla St. LF Groundwaters 8/2015
Sample Matrix: Water

Service Request: R1507111
Date Analyzed: 9/ 4/15 - 9/ 8/15

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Lab Control Sample
R1507111-LCS2

Analyte Name	Method	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	9.23	10.0	92	81 - 118
Cyanide, Total	335.4	0.385	0.400	96	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Marilla St. LF Groundwaters 8/2015
Sample Matrix: Water

Service Request: R1507111
Date Analyzed: 9/11/15

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Lab Control Sample
R1507111-LCS1

Analyte Name	Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic, Dissolved	6010C	41.4	40	104	80 - 120
Arsenic, Total	6010C	41.4	40	104	80 - 120
Chromium, Dissolved	6010C	201	200	100	80 - 120
Chromium, Total	6010C	201	200	100	80 - 120
Iron, Dissolved	6010C	982	1000	98	80 - 120
Iron, Total	6010C	982	1000	98	80 - 120
Lead, Dissolved	6010C	498	500	100	80 - 120
Lead, Total	6010C	498	500	100	80 - 120
Manganese, Dissolved	6010C	489	500	98	80 - 120
Manganese, Total	6010C	489	500	98	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Marilla St. LF Groundwaters 8/2015
Sample Matrix: Water

Service Request: R1507111
Date Analyzed: 9/16/15

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

		Lab Control Sample R1507111-LCS2			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Arsenic, Total	6010C	41.2	40	103	80 - 120
Chromium, Total	6010C	206	200	103	80 - 120
Iron, Total	6010C	1020	1000	102	80 - 120
Lead, Total	6010C	495	500	99	80 - 120
Manganese, Total	6010C	494	500	99	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Marilla St. LF Groundwaters 8/2015
Sample Matrix: Water

Service Request: R1507111
Date Analyzed: 9/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 460345

Analyte Name	Lab Control Sample RQ1510141-03 Result	Spike Amount	% Rec		% Rec Limits
1,1,1-Trichloroethane (TCA)	22.6	20.0	113		74 - 120
1,1,2,2-Tetrachloroethane	21.8	20.0	109		78 - 122
1,1,2-Trichloroethane	21.6	20.0	108		82 - 118
1,1-Dichloroethane (1,1-DCA)	22.3	20.0	112		78 - 117
1,1-Dichloroethene (1,1-DCE)	20.3	20.0	102		74 - 135
1,2-Dichloroethane	21.9	20.0	109		71 - 127
1,2-Dichloropropane	22.8	20.0	114		80 - 119
2-Butanone (MEK)	23.3	20.0	117		61 - 137
2-Hexanone	25.6	20.0	128	*	63 - 124
4-Methyl-2-pentanone	25.8	20.0	129	*	66 - 124
Acetone	24.4	20.0	122		40 - 161
Benzene	21.7	20.0	109		76 - 118
Bromodichloromethane	22.0	20.0	110		78 - 126
Bromoform	22.1	20.0	111		71 - 136
Bromomethane	16.3	20.0	82		42 - 166
Carbon Disulfide	22.1	20.0	111		65 - 127
Carbon Tetrachloride	20.6	20.0	103		68 - 125
Chlorobenzene	21.9	20.0	109		80 - 121
Chloroethane	22.9	20.0	115		70 - 127
Chloroform	21.8	20.0	109		76 - 120
Chloromethane	20.7	20.0	104		69 - 145
Dibromochloromethane	22.5	20.0	113		77 - 128
Dichloromethane	22.3	20.0	112		73 - 122
Ethylbenzene	19.9	20.0	99		76 - 120
Styrene	22.2	20.0	111		80 - 124
Tetrachloroethene (PCE)	22.1	20.0	110		78 - 124
Toluene	22.4	20.0	112		77 - 120
Trichloroethene (TCE)	22.8	20.0	114		78 - 123
Vinyl Chloride	24.3	20.0	122		69 - 133
cis-1,2-Dichloroethene	20.8	20.0	104		80 - 121
cis-1,3-Dichloropropene	21.5	20.0	107		74 - 126
m,p-Xylenes	44.6	40.0	112		78 - 123
o-Xylene	21.5	20.0	107		80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: Daigler Engineering
Project: Marilla St. LF Groundwaters 8/2015
Sample Matrix: Water

Service Request: R1507111
Date Analyzed: 9/ 1/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 460345

Lab Control Sample
RQ1510141-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
trans-1,2-Dichloroethene	21.5	20.0	107	80 - 120
trans-1,3-Dichloropropene	23.1	20.0	116	67 - 135

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30137

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name: MARILLA STREET LANDFILL
Project Number:
Project Manager: A. ZURAWSKI
Report CC:
Company/Address: DAIGLER ENGINEERING, PC
2620 GRAND ISLAND BLVD.
GRAND ISLAND, NY 14072
Phone #: (716) 773-6872
Email: SAM@DAIGLERENGR.COM
Sampler's Signature:
Sampler's Printed Name: SAM DAIGLER

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	TOC, TDS, TRP	REMARKS/ ALTERNATE DESCRIPTION
MW-2B	001, 002	8-25-15	1100	GROUND WATER	6	X					X	X	X	
MW-16B *	003	8-25-15	1230	GROUND WATER	5	X					X		X	
SW-2A		8-25-15	1300	SURFACE WATER	6	X					X	X	X	
MW-7B	005, 004	8-25-15	1500	GROUND WATER	6	X					X	X	X	
SW-5		8-26-15	830	SURFACE WATER	6	X					X	X	X	
SW-1		8-26-15	900	SURFACE WATER	6	X					X	X	X	
MW-6B	006, 007	8-26-15	945	GROUND WATER	6	X					X	X	X	
MW-18B	008	8-26-15	1200	GROUND WATER	5	X					X		X	
MW-4B	009	8-26-15	1050	GROUND WATER	5	X					X		X	
SW-3A		8-26-15	1300	SURFACE WATER	6	X					X	X	X	
MW-3B	010, 011	8-26-15	1445	GROUND WATER	6	X					X	X	X	

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other ____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

* Received bottle for Diss metal logged in sample 03 8/28/15
→ not required as per client email 8/28/15

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE
____

REPORT REQUIREMENTS
____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____ Yes ____ No

INVOICE INFORMATION
PO #
BILL TO:

R1507111 5
Daigler Engineering
Groundwater or Seeps

STATE WHERE SAMPLES WERE COLLECTED: IN FIELD

	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature				Dave Ward		
Printed Name	SAM DAIGLER	SCOTT SEAVY	SCOTT SEAVY	ALS		
Firm	DAIGLER ENGINEERING	ALS	ALS	8/27/15/ 1410		
Date/Time	8/27/15 1200	8/27/15 1235	8/27/15 1410			

Distribution: White - Lab Copy; Yellow - Return to Originator

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

30138

ALS Environmental

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 2

Project Name: MARILLA STREET LANDFILL	Project Number:
Project Manager: A. ZURAWSKI	Report CC:
Company/Address: DAIGLER ENGINEERING, PC 2620 GRAND ISLAND BLVD GRAND ISLAND, NY 14072	
Phone #: (716) 773-6872	Email: SAM@DAIGLERENGR.com
Sampler's Signature:	Sampler's Printed Name: SAM DAIGLER

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs • 8260 • 624 • CLP	GC/MS SVOAs • 8270 • 625	GC VOAs • 8021 • 601/602	PESTICIDES • 8081 • 608	PCBs • 8082 • 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	TOC, TDS, TRP	REMARKS/ ALTERNATE DESCRIPTION
MW-16S	-012	8/27/15	1000	GROUND WATER	5	X					X		X	
SW BLIND DUP		8/26/15		SURFACE WATER	6	X					X	X	X	
BLIND DUP	-013	8/26/15		GROUND WATER	5	X					X		X	
MATRIX SPIKE		8/26/15		GROUND WATER	4	X					X			
MATRIX SPIKE DUP		8/26/15		GROUND WATER	4	X					X			

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED IN FIELD

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
_____ I. Results Only
X II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
_____ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw (
Edata _____ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

R1507111 5
Daigler Engineering
Groundwater or Seeps

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature	Signature Scott Seavy	Signature Scott Seavy	Signature	Signature	Signature
Printed Name SAM DAIGLER	Printed Name SCOTT SEAVY	Printed Name SCOTT SEAVY	Printed Name	Printed Name	Printed Name
Firm DAIGLER ENGINEERING	Firm ALS	Firm ALS	Firm ALS	Firm	Firm
Date/Time 8/27/15 1200	Date/Time 8/27/15 1235	Date/Time 8/27/15 1410	Date/Time 8/27/15 1410	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

Cooler Receipt and Preserva[tion]

R1507111 5
Daigler Engineering
Groundwater or Seeps

Project/Client Daigler Folder Numb[er]

Cooler received on 8/27/15 by: [initials] COURIER: (ALS) UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y (N)	5a	Perchlorate samples have required headspace?	Y N (NA)
2	Custody papers properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	(Y) N NA
3	Did all bottles arrive in good condition (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (Wet Ice) Dry Ice Gel packs present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 8/27/15 Time: 1416 ID: IR#3 (IR#5) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	2.2	1.3					
Correction Factor (°C)	-0.2	-0.2					
Corrected Temp (°C)	2.0°	1.1°					
Within 0-6°C?	(Y) N	(Y) N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: ________ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: ________ Standing Approval Client aware at drop-off Client notified by: ________

All samples held in storage location: R-002 by [initials] on 8/27/15 at 1423
5035 samples placed in storage location: ________ by ________ on ________ at ________

PC Secondary Review: KB 8/28/15

Cooler Breakdown: Date: 8/27/15 Time: 1630 by: MDS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH	X		W14D132F	7/16				
≤2	HNO_3	X		BDB26145F	8/16				
≤2	H_2SO_4	X		83071	5/16				
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522	X		If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-			**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet			
	HCl	**	**	411407D	7/16				

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: ________

Bottle lot numbers: 5-120-002, 072015-2AA6, 061515-1BAC

Other Comments:

Headspace: (3 vials) Trip Blank
(1 vial) DUP
(1 vial) Matrix Spike
(1 vial) MW-18B

PC Secondary Review: KB 8/28/15 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

APPENDIX D

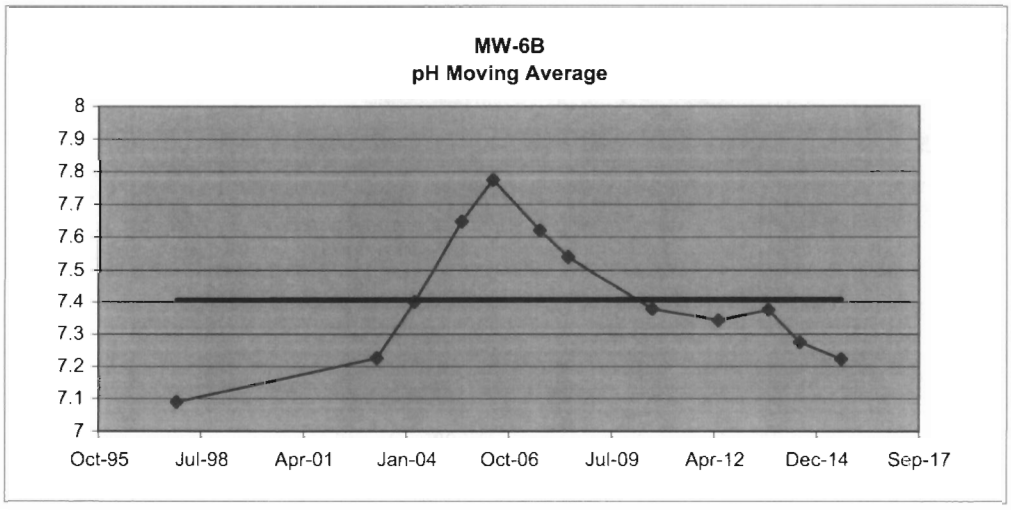
Historic Data for Shallow Overburden Background Well MW-6B

Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
pH

Event No.	Event Date	pH	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.	M.A. - 3 S.D.
1	Mar-96	7.22					
2	Jun-96	7.24					
3	Oct-96	7.32					
4	Dec-96	6.88					
5	Mar-97	7.14					
6	Jun-97	7.19					
7	Sep-97	7.00					
8	Dec-97	7.03	7.090	0.090	0.269	7.359	6.821
9	Apr-03	7.68	7.225	0.315	0.944	8.169	6.281
10	Apr-04	7.89	7.400	0.453	1.359	8.759	6.041
11	Jul-05	7.99	7.648	0.431	1.294	8.942	6.353
12	May-06	7.54	7.775	0.203	0.609	8.384	7.166
13	Aug-07	7.06	7.620	0.420	1.261	8.881	6.359
14	May-08	7.57	7.540	0.380	1.141	8.681	6.399
15	Aug-10	7.34	7.378	0.235	0.705	8.082	6.673
16	May-12	7.40	7.343	0.212	0.636	7.979	6.706
17	Sep-13	7.19	7.375	0.157	0.471	7.846	6.904
18	Jul-14	7.17	7.275	0.113	0.338	7.613	6.937
19	Aug-15	7.13	7.223	0.121	0.363	7.585	6.860

Background Mean Concentration (BMC)= 7.31
3 S.D.= 0.897
BMC + 3 S.D.= 8.21
BMC - 3 S.D.= 6.42

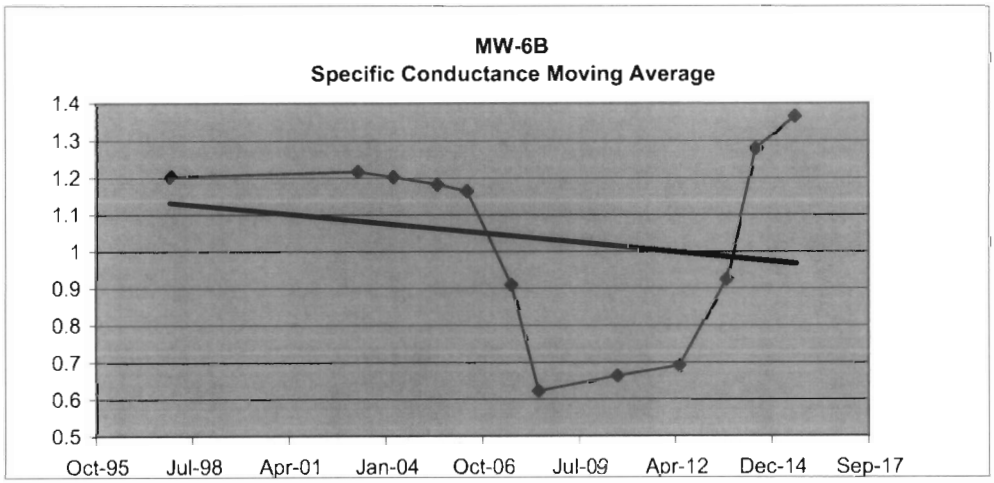


Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Specific Conductance

Event No.	Event Date	Specific Conductance (mS/cm)	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	1.057				
2	Jun-96	1.106				
3	Oct-96	1.118				
4	Dec-96	1.131				
5	Mar-97	1.102				
6	Jun-97	1.205				
7	Sep-97	1.234				
8	Dec-97	1.275	1.204	0.074	0.221	1.425
9	Apr-03	1.152	1.217	0.052	0.155	1.372
10	Apr-04	1.149	1.203	0.062	0.187	1.390
11	Jul-05	1.158	1.184	0.061	0.183	1.367
12	May-06	1.202	1.165	0.025	0.074	1.240
13	Aug-07	0.130	0.910	0.520	1.561	2.471
14	May-08	0.000	0.623	0.646	1.939	2.561
15	Aug-10	1.326	0.665	0.696	2.088	2.753
16	May-12	1.310	0.692	0.725	2.176	2.868
17	Sep-13	1.060	0.924	0.628	1.884	2.808
18	Jul-14	1.420	1.279	0.154	0.462	1.741
19	Aug-15	1.670	1.365	0.253	0.759	2.124

Background Mean Concentration (BMC)= 1.095
3 S.D.= 1.174
BMC + 3 S.D.= 2.269



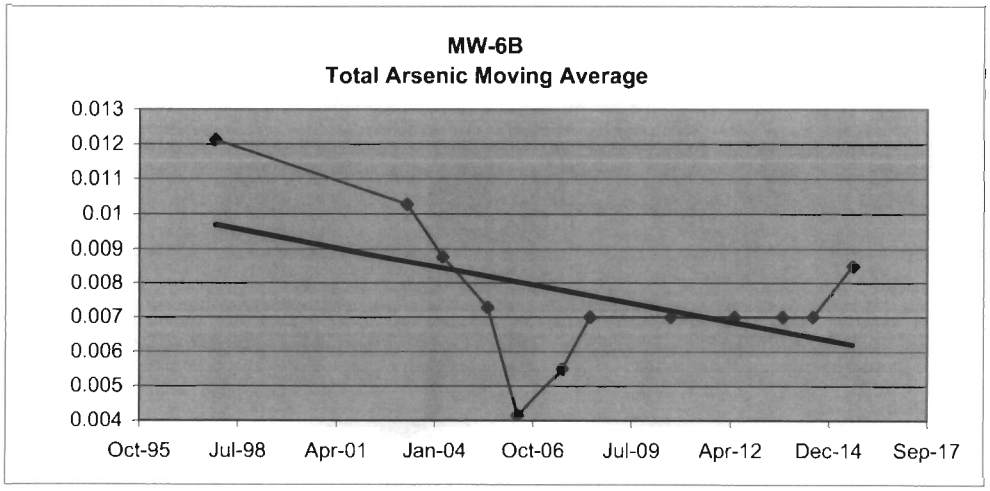
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Total Arsenic

Event No.	Event Date	Arsenic, T (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	0.0050	*				
2	Jun-96	0.0070					
3	Oct-96	0.0050	*				
4	Dec-96	0.0050	*				
5	Mar-97	0.0120					
6	Jun-97	0.0100	*				
7	Sep-97	0.0100	*				
8	Dec-97	0.0165		0.0121	0.0031	0.0092	0.0213
9	Apr-03	0.0046	*	0.0103	0.0049	0.0146	0.0249
10	Apr-04	0.0040	*	0.0088	0.0058	0.0174	0.0262
11	Jul-05	0.0040	*	0.0073	0.0062	0.0185	0.0257
12	May-06	0.0040	*	0.0042	0.0003	0.0009	0.0051
13	Aug-07	0.0100	*	0.0055	0.0030	0.0090	0.0145
14	May-08	0.0100	*	0.0070	0.0035	0.0104	0.0174
15	Aug-10	0.0040	*	0.0070	0.0035	0.0104	0.0174
16	May-12	0.0040	*	0.0070	0.0035	0.0104	0.0174
17	Sep-13	0.0100	*	0.0070	0.0035	0.0104	0.0174
18	Jul-14	0.0100	*	0.0070	0.0035	0.0104	0.0174
19	Aug-15	0.0100	*	0.0085	0.0030	0.0090	0.0175

Background Mean Concentration (BMC)= 0.00764
3 S.D.= 0.0108
BMC + 3 S.D.= 0.0184

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



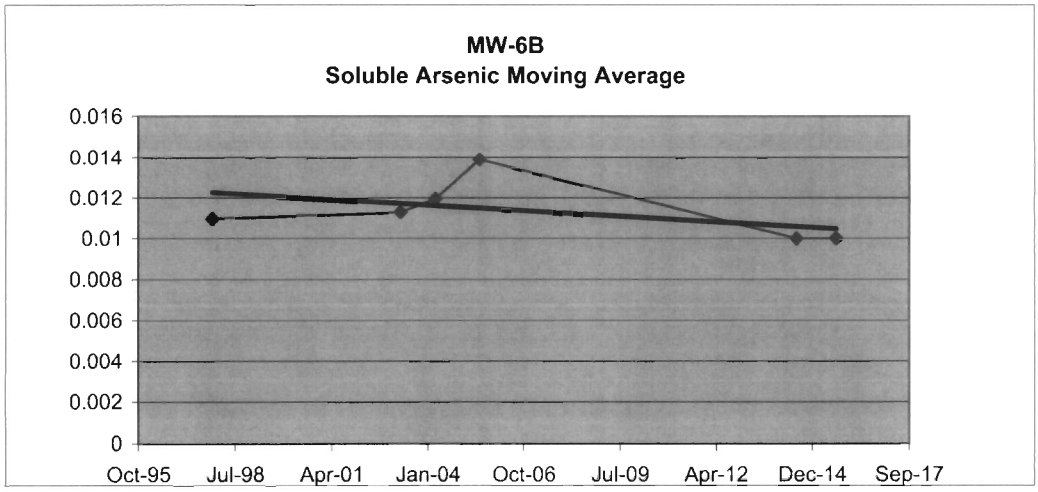
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Soluble Arsenic

Event No.	Event Date	Arsenic, S (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	0.0050	*				
2	Jun-96	0.0050	*				
3	Oct-96	0.0050	*				
4	Dec-96	0.0050	*				
5	Mar-97	0.0101					
6	Jun-97	0.0100	*				
7	Sep-97	0.0100	*				
8	Dec-97	0.0139		0.0110	0.0019	0.0058	0.0168
9	Apr-03	NA		0.0113	0.0023	0.0068	0.0181
10	Apr-04	NA		0.0120	0.0028	0.0083	0.0202
11	Jul-05	NA		0.0139	NA	NA	NA
12	May-06	NA		NA	NA	NA	NA
13	Aug-07	NA		NA	NA	NA	NA
14	May-08	NA		NA	NA	NA	NA
15	Aug-10	NA		NA	NA	NA	NA
16	May-12	NA		NA	NA	NA	NA
17	Sep-13	NA		NA	NA	NA	NA
18	Jul-14	0.0100		0.0100	NA	NA	NA
19	Aug-15	0.0100		0.0100	0.0000	0.0000	0.0100

Background Mean Concentration (BMC)= 0.00840
3 S.D.= 0.0095
BMC+3 S.D.= 0.0179

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



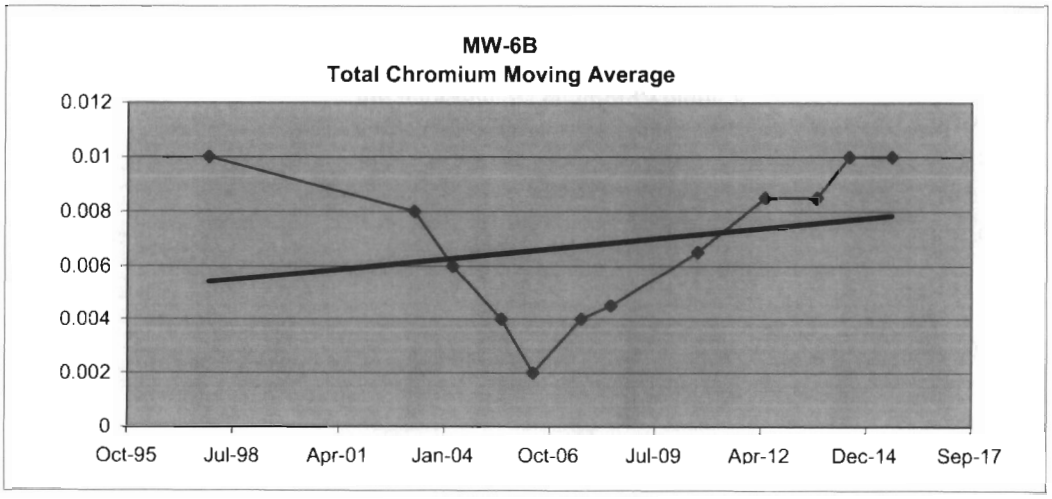
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Total Chromium

Event No.	Event Date	Chromium, T (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	0.0110	*				
2	Jun-96	0.0110	*				
3	Oct-96	0.0110	*				
4	Dec-96	0.0110	*				
5	Mar-97	0.0100	*				
6	Jun-97	0.0100	*				
7	Sep-97	0.0100	*				
8	Dec-97	0.0100	*	0.0100	0.0000	0.0000	0.0100
9	Apr-03	0.0020	*	0.0080	0.0040	0.0120	0.0200
10	Apr-04	0.0020	*	0.0060	0.0046	0.0139	0.0199
11	Jul-05	0.0020	*	0.0040	0.0040	0.0120	0.0160
12	May-06	0.0020	*	0.0020	0.0000	0.0000	0.0020
13	Aug-07	0.0100	*	0.0040	0.0040	0.0120	0.0160
14	May-08	0.0040	*	0.0045	0.0038	0.0114	0.0159
15	Aug-10	0.0100	*	0.0065	0.0041	0.0124	0.0189
16	May-12	0.0100	*	0.0085	0.0030	0.0090	0.0175
17	Sep-13	0.0100	*	0.0085	0.0030	0.0090	0.0175
18	Jul-14	0.0100	*	0.0100	0.0000	0.0000	0.0100
19	Aug-15	0.0100	*	0.0100	0.0000	0.0000	0.0100

Background Mean Concentration (BMC)= 0.00821
3 S.D.= 0.0108
BMC+3 S.D.= 0.0191

= Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



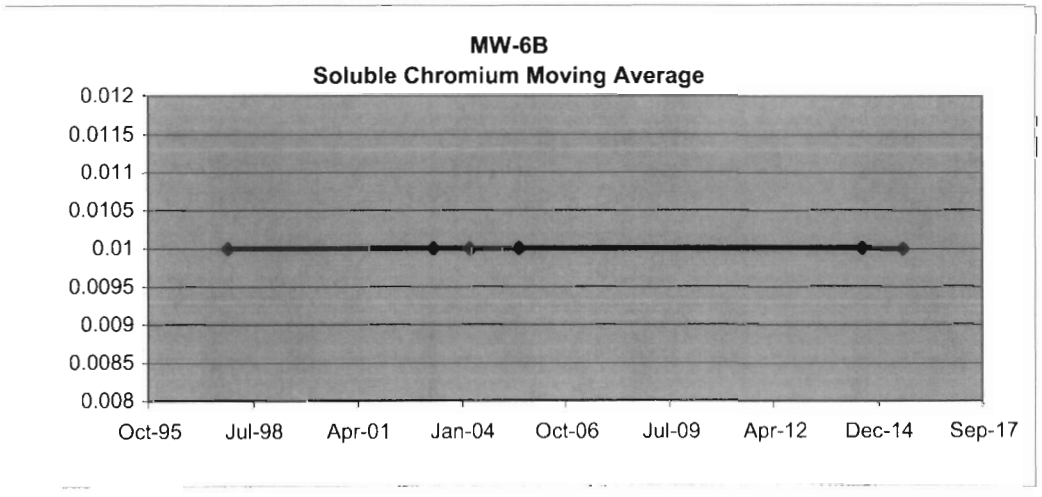
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Soluble Chromium

Event No.	Event Date	Chromium, S (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	0.0110	*				
2	Jun-96	0.0110	*				
3	Oct-96	0.0110	*				
4	Dec-96	0.0110	*				
5	Mar-97	0.0100	*				
6	Jun-97	0.0100	*				
7	Sep-97	0.0100	*				
8	Dec-97	0.0100	*	0.0100	0.0000	0.0000	0.0100
9	Apr-03	NA		0.0100	0.0000	0.0000	0.0100
10	Apr-04	NA		0.0100	0.0000	0.0000	0.0100
11	Jul-05	NA		0.0100	NA	NA	NA
12	May-06	NA		NA	NA	NA	NA
13	Aug-07	NA		NA	NA	NA	NA
14	May-08	NA		NA	NA	NA	NA
15	Aug-10	NA		NA	NA	NA	NA
16	May-12	NA		NA	NA	NA	NA
17	Sep-13	NA		NA	NA	NA	NA
18	Jul-14	0.0100	*	0.0100	NA	NA	NA
19	Aug-15	0.0100	*	0.0100	0.0000	0.0000	0.0100

Background Mean Concentration (BMC)= 0.0104
3 S.D.= 0.00155
BMC+3 S.D.= 0.0119

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



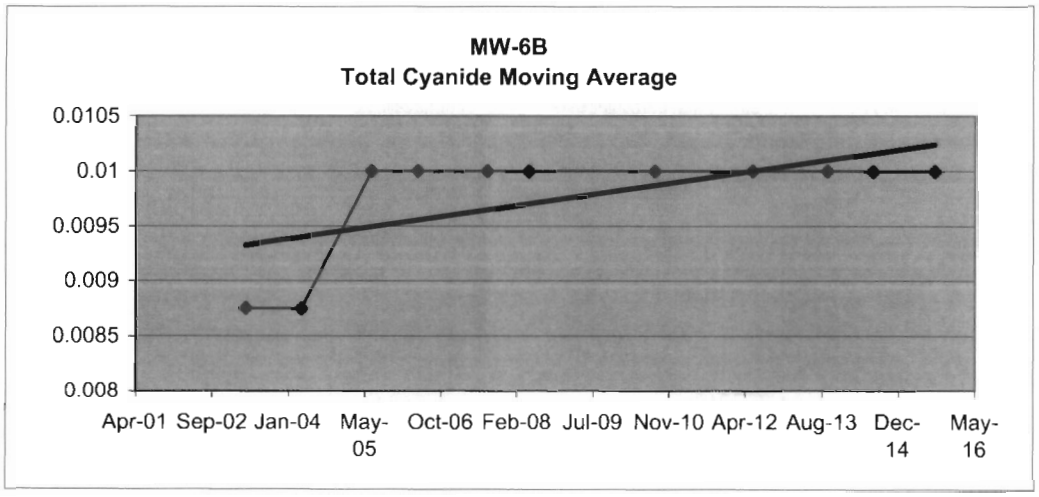
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Total Cyanide

Event No.	Event Date	Cyanide, T (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Apr-01	0.010	*				
2	Oct-01	0.005					
3	Apr-02	0.010	*				
4	Apr-03	0.010	*	0.009	0.003	0.008	0.016
5	Apr-04	0.010	*	0.009	0.003	0.008	0.016
6	Jul-05	0.010	*	0.010	0.000	0.000	0.010
7	May-06	0.010	*	0.010	0.000	0.000	0.010
8	Aug-07	0.010	*	0.010	0.000	0.000	0.010
9	May-08	0.010	*	0.010	0.000	0.000	0.010
10	Aug-10	0.010	*	0.010	0.000	0.000	0.010
11	May-12	0.010	*	0.010	0.000	0.000	0.010
12	Sep-13	0.010	*	0.010	0.000	0.000	0.010
13	Jul-14	0.010	*	0.010	0.000	0.000	0.010
14	Aug-15	0.010	*	0.010	0.000	0.000	0.010

Background Mean Concentration (BMC)= 0.0096
3 S.D.= 0.0040
BMC+3 S.D.= 0.014

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



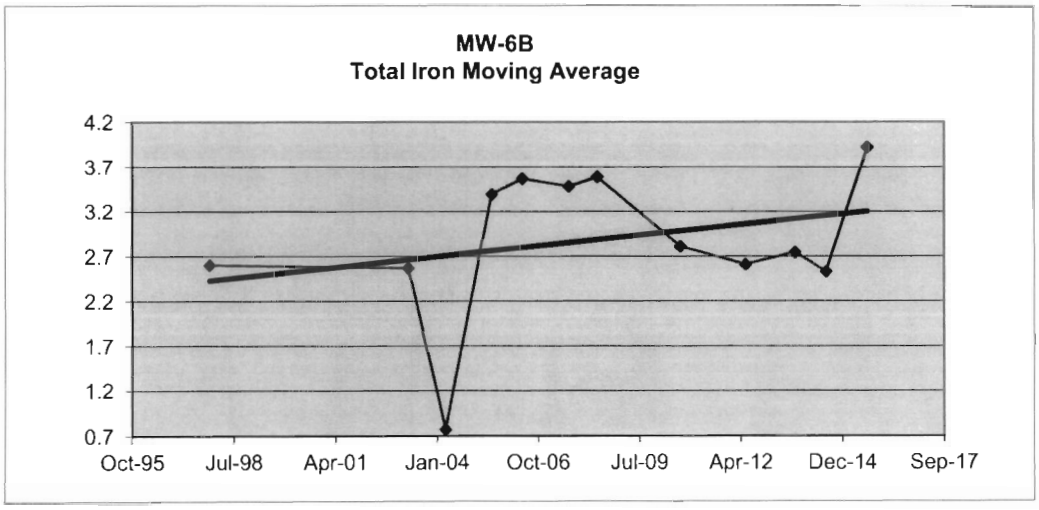
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Total Iron

Event No.	Event Date	Iron, T (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	1.300					
2	Jun-96	3.960					
3	Oct-96	0.693					
4	Dec-96	1.760					
5	Mar-97	0.205					
6	Jun-97	2.130					
7	Sep-97	0.412					
8	Dec-97	0.719		0.867	0.868	2.605	3.472
9	Apr-03	0.250		0.878	0.857	2.572	3.449
10	Apr-04	0.798		0.545	0.258	0.773	1.317
11	Jul-05	2.800		1.142	1.132	3.395	4.537
12	May-06	0.360		1.052	1.189	3.567	4.619
13	Aug-07	0.383		1.085	1.161	3.482	4.568
14	May-08	0.490		1.008	1.196	3.588	4.596
15	Aug-10	2.280		0.878	0.936	2.809	3.687
16	May-12	1.090		1.061	0.870	2.611	3.672
17	Sep-13	0.220		1.020	0.915	2.746	3.766
18	Jul-14	1.190		1.195	0.844	2.533	3.728
19	Aug-15	3.300		1.450	1.308	3.924	5.374

Background Mean Concentration (BMC)= 1.281
3 S.D.= 3.379
BMC+3 S.D.= 4.660

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



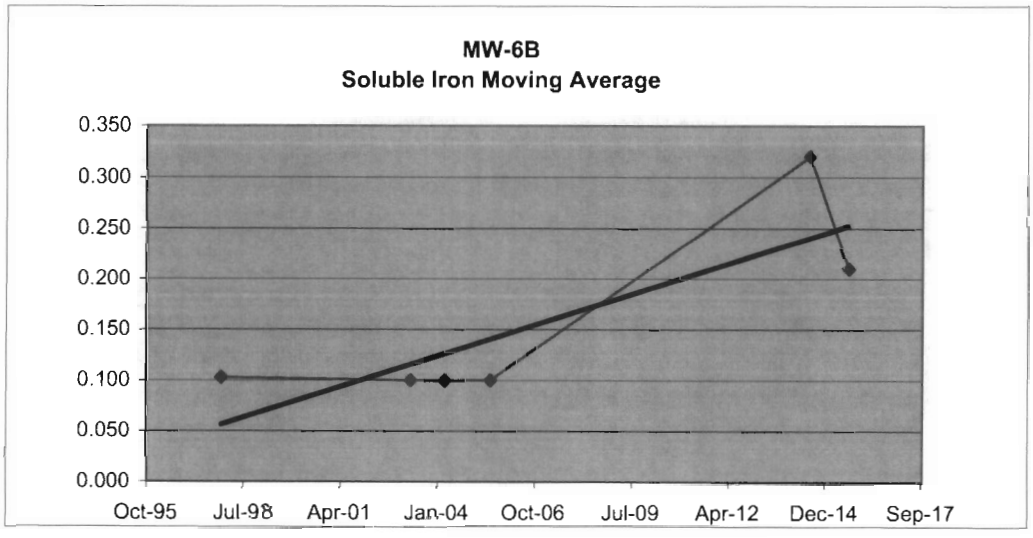
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Soluble Iron

Event No.	Event Date	Iron, S (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	0.070					
2	Jun-96	0.063	*				
3	Oct-96	0.310					
4	Dec-96	2.890					
5	Mar-97	0.111					
6	Jun-97	0.100	*				
7	Sep-97	0.100	*				
8	Dec-97	0.100	*	0.103	0.006	0.017	0.119
9	Apr-03	NA		0.100	0.000	0.000	0.100
10	Apr-04	NA		0.100	0.000	0.000	0.100
11	Jul-05	NA		0.100	NA	NA	NA
12	May-06	NA		NA	NA	NA	NA
13	Aug-07	NA		NA	NA	NA	NA
14	May-08	NA		NA	NA	NA	NA
15	Aug-10	NA		NA	NA	NA	NA
14	May-12	NA		NA	NA	NA	NA
15	Sep-13	NA		NA	NA	NA	NA
16	Jul-14	0.320		0.320	NA	NA	NA
17	Aug-15	0.100	*	0.210	0.156	0.467	0.677

Background Mean Concentration (BMC)= 0.416
3 S.D.= 2.623
BMC+3 S.D.= 3.039

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



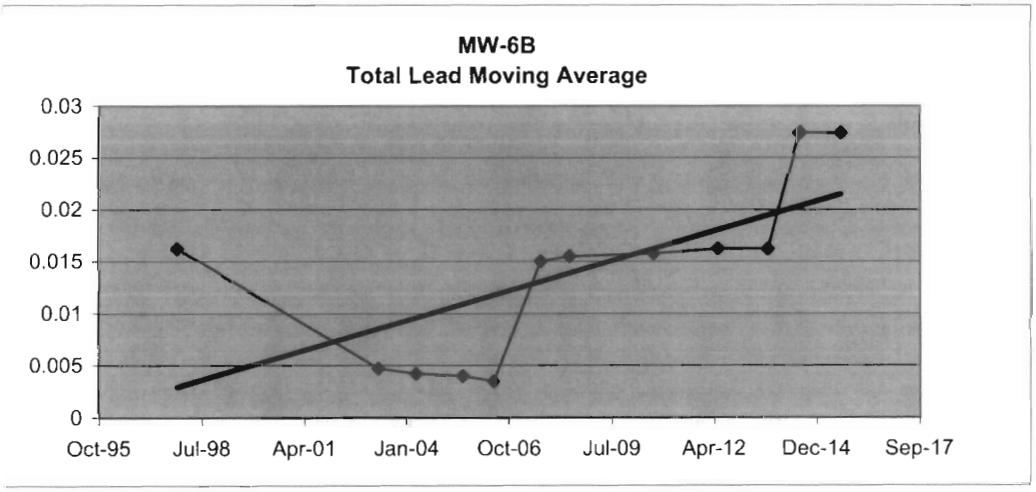
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Total Lead

Event No.	Event Date	Lead, T (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	0.0050	*				
2	Jun-96	0.0040	*				
3	Oct-96	0.0040	*				
4	Dec-96	0.0040	*				
5	Mar-97	0.0500	*				
6	Jun-97	0.0050					
7	Sep-97	0.0050	*				
8	Dec-97	0.0050	*	0.0163	0.0225	0.0675	0.0838
9	Apr-03	0.0038	*	0.0047	0.0006	0.0018	0.0065
10	Apr-04	0.0030	*	0.0042	0.0010	0.0029	0.0071
11	Jul-05	0.0040	*	0.0040	0.0008	0.0025	0.0064
12	May-06	0.0030	*	0.0035	0.0005	0.0016	0.0050
13	Aug-07	0.0500	*	0.0150	0.0233	0.0700	0.0850
14	May-08	0.0050	*	0.0155	0.0230	0.0690	0.0845
15	Aug-10	0.0050	*	0.0158	0.0229	0.0686	0.0843
16	May-12	0.0050	*	0.0163	0.0225	0.0675	0.0838
17	Sep-13	0.0500	*	0.0163	0.0225	0.0675	0.0838
18	Jul-14	0.0500	*	0.0275	0.0260	0.0779	0.1054
19	Aug-15	0.0050		0.0275	0.0260	0.0779	0.1054

Background Mean Concentration (BMC)= 0.0140
3 S.D.= 0.0573
BMC+3 S.D.= 0.0713

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



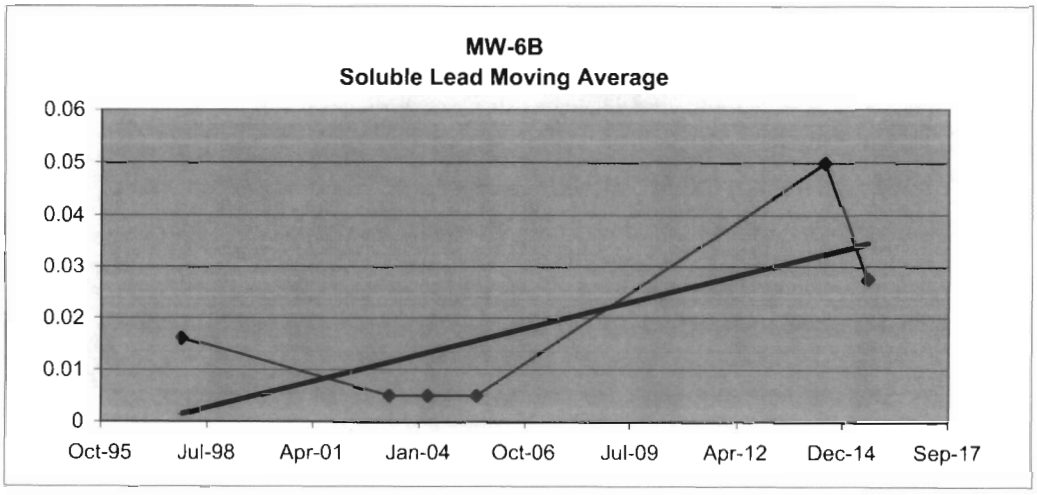
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Soluble Lead

Event No.	Event Date	Lead, S (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	0.0060	*				
2	Jun-96	0.0040	*				
3	Oct-96	0.0040	*				
4	Dec-96	0.0040	*				
5	Mar-97	0.0500	*				
6	Jun-97	0.0050	*				
7	Sep-97	0.0050	*				
8	Dec-97	0.0050	*	0.0163	0.0225	0.0675	0.0838
9	Apr-03	NA		0.0050	0.0000	0.0000	0.0050
10	Apr-04	NA		0.0050	0.0000	0.0000	0.0050
11	Jul-05	NA		0.0050	NA	NA	NA
12	May-06	NA		NA	NA	NA	NA
13	Aug-07	NA		NA	NA	NA	NA
14	May-08	NA		NA	NA	NA	NA
15	Aug-10	NA		NA	NA	NA	NA
16	May-12	NA		NA	NA	NA	NA
17	Sep-13	NA		NA	NA	NA	NA
18	Jul-14	0.0500	*	0.0500	NA	NA	NA
19	Aug-15	0.0050	*	0.0275	0.0318	0.0955	0.1230

Background Mean Concentration (BMC)= 0.0138
3 S.D.= 0.0573
BMC+3 S.D.= 0.0711

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



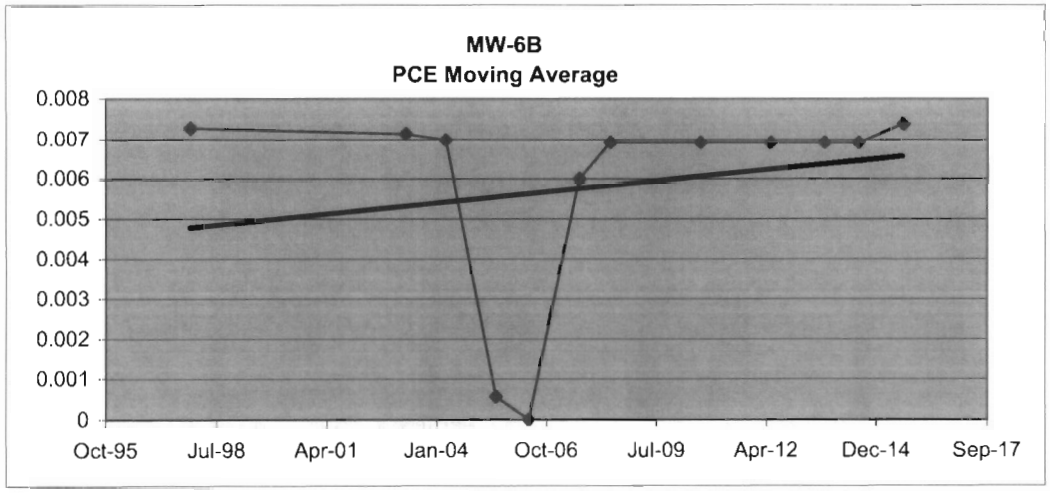
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
PCE

Event No.	Event Date	PCE (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	0.00090					
2	Jun-96	0.00090					
3	Oct-96	0.00090					
4	Dec-96	0.00090					
5	Mar-97	0.00069					
6	Jun-97	0.00069					
7	Sep-97	0.00552					
8	Dec-97	0.00062		0.00188	0.00243	0.00728	0.00916
9	Apr-03	0.00100	*	0.00196	0.00238	0.00714	0.00910
10	Apr-04	0.00100	*	0.00204	0.00233	0.00699	0.00903
11	Jul-05	0.00100	*	0.00091	0.00019	0.00057	0.00148
12	May-06	0.00100	*	0.00100	0.00000	0.00000	0.00100
13	Aug-07	0.00500	*	0.00200	0.00200	0.00600	0.00800
14	May-08	0.00500	*	0.00300	0.00231	0.00693	0.00993
15	Aug-10	0.00100	*	0.00300	0.00231	0.00693	0.00993
16	May-12	0.00100	*	0.00300	0.00231	0.00693	0.00993
17	Sep-13	0.00500	*	0.00300	0.00231	0.00693	0.00993
18	Jul-14	0.00500	*	0.00300	0.00231	0.00693	0.00993
19	Aug-15	0.00050	*	0.00288	0.00246	0.00739	0.01026

Background Mean Concentration (BMC)= 0.00198
3 S.D.= 0.00578
BMC+3 S.D.= 0.00776

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



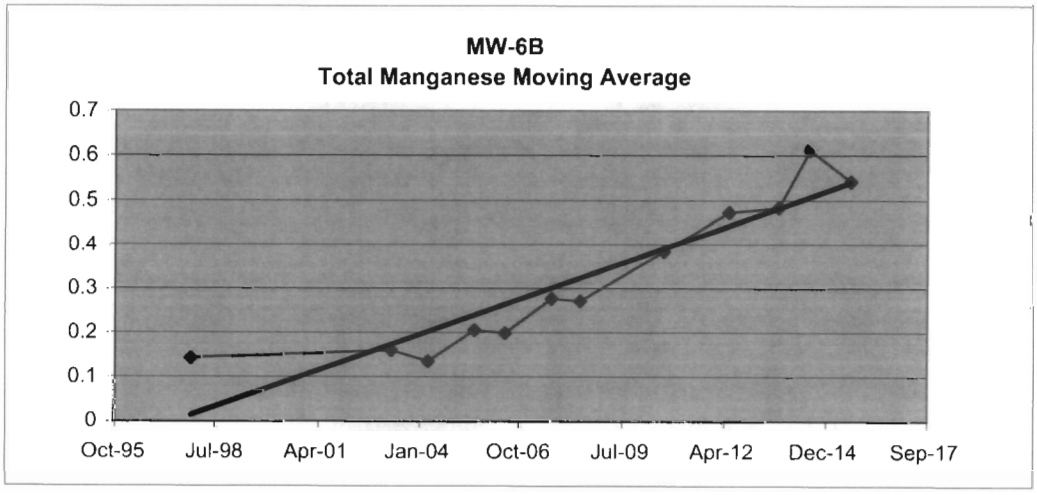
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Total Manganese

Event No.	Event Date	Manganese, T (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	0.1070					
2	Jun-96	0.1960					
3	Oct-96	0.1980					
4	Dec-96	0.2620					
5	Mar-97	0.1130					
6	Jun-97	0.1750					
7	Sep-97	0.1410					
8	Dec-97	0.1450		0.1435	0.0254	0.0761	0.2196
9	Apr-03	0.1800		0.1603	0.0201	0.0603	0.2205
10	Apr-04	0.0754		0.1354	0.0436	0.1309	0.2663
11	Jul-05	0.4200		0.2051	0.1497	0.4492	0.6543
12	May-06	0.1200		0.1989	0.1535	0.4606	0.6595
13	Aug-07	0.4910		0.2766	0.2094	0.6282	0.9048
14	May-08	0.0540		0.2713	0.2164	0.6492	0.9205
15	Aug-10	0.8720		0.3843	0.3778	1.1334	1.5176
16	May-12	0.4740		0.4728	0.3342	1.0026	1.4754
17	Sep-13	0.5320		0.4830	0.3356	1.0067	1.4897
18	Jul-14	0.5670		0.6113	0.1780	0.5340	1.1453
19	Aug-15	0.5910		0.5410	0.0508	0.1524	0.6934

Background Mean Concentration (BMC)= 0.3007
3 S.D.= 0.6840
BMC+3 S.D.= 0.9847

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



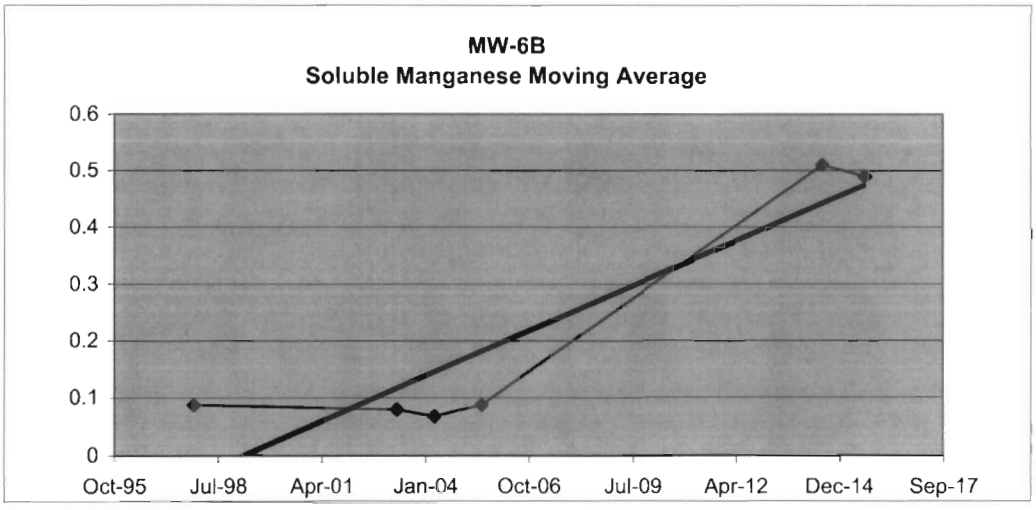
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Soluble Manganese

Event No.	Event Date	Manganese, S (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	0.1050					
2	Jun-96	0.0310					
3	Oct-96	0.2000					
4	Dec-96	0.2410					
5	Mar-97	0.1120					
6	Jun-97	0.1030					
7	Sep-97	0.0484					
8	Dec-97	0.0875		0.0877	0.0281	0.0843	0.1720
9	Apr-03	NA		0.0796	0.0281	0.0844	0.1640
10	Apr-04	NA		0.0680	0.0276	0.0829	0.1509
11	Jul-05	NA		0.0875	NA	NA	NA
12	May-06	NA		NA	NA	NA	NA
13	Aug-07	NA		NA	NA	NA	NA
14	May-08	NA		NA	NA	NA	NA
15	Aug-10	NA		NA	NA	NA	NA
16	May-12	NA		NA	NA	NA	NA
17	Sep-13	NA		NA	NA	NA	NA
18	Jul-14	0.51		0.5100	NA	NA	NA
19	Aug-15	0.47		0.4900	0.0283	0.0849	0.5749

Background Mean Concentration (BMC)= 0.1908
3 S.D.= 0.5101
BMC+3 S.D.= 0.7009

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



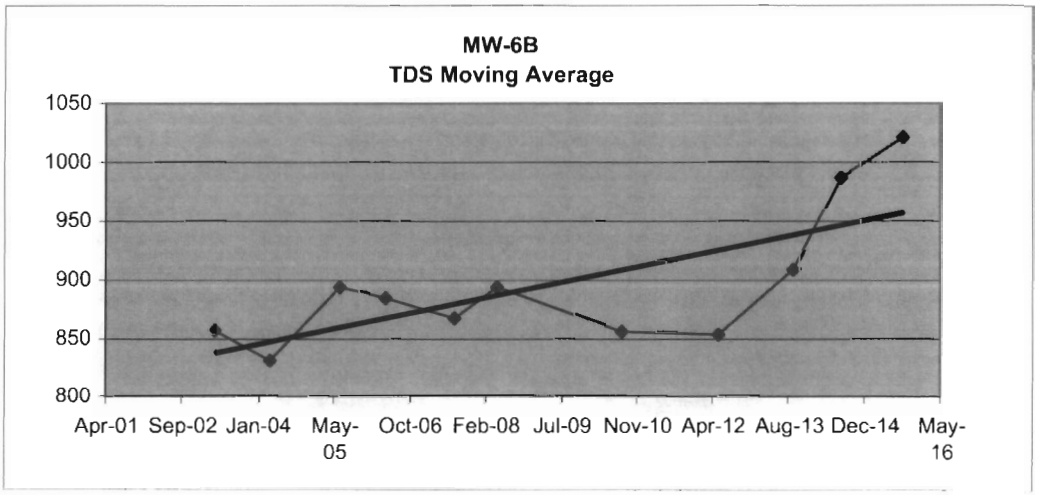
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Total Dissolved Solids

Event No.	Event Date	TDS (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Apr-01	885					
2	Oct-01	731					
3	Apr-02	914					
5	Apr-03	898		857	85	254	1111
6	Apr-04	785		832	88	265	1097
7	Jul-05	979		894	81	242	1136
8	May-06	877		885	80	239	1124
9	Aug-07	830		868	83	249	1117
10	May-08	890		894	62	187	1081
11	Aug-10	828		856	32	96	952
12	May-12	868		854	30	91	945
13	Sep-13	1050		909	97	292	1201
14	Jul-14	1200		987	172	516	1503
15	Aug-15	966		1021	141	422	1443

Background Mean Concentration (BMC)= 907
3 S.D.= 349
BMC+3 S.D.= 1257

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



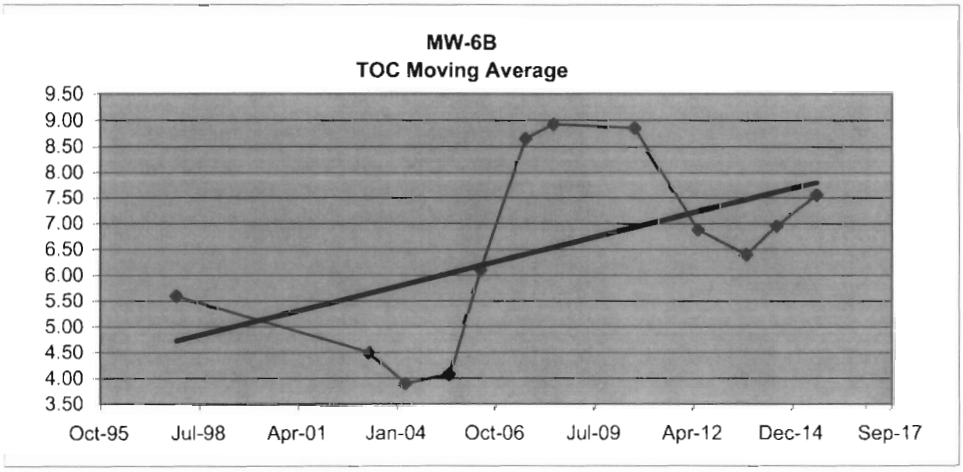
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Total Organic Carbon

Event No.	Event Date	TOC (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	5.10					
2	Jun-96	5.10					
3	Oct-96	5.80					
4	Dec-96	5.40					
5	Mar-97	5.40					
6	Jun-97	6.70					
7	Sep-97	5.20					
8	Dec-97	5.10		5.60	0.74	2.23	7.83
9	Apr-03	1.00	*	4.50	2.45	7.34	11.84
10	Apr-04	4.30		3.90	1.97	5.92	9.82
11	Jul-05	5.90		4.08	2.15	6.45	10.53
12	May-06	13.20		6.10	5.15	15.46	21.56
13	Aug-07	11.20		8.65	4.23	12.69	21.34
14	May-08	5.40		8.93	3.87	11.62	20.55
15	Aug-10	5.60		8.85	3.95	11.86	20.71
16	May-12	5.30		6.88	2.89	8.66	15.53
17	Sep-13	9.30		6.40	1.94	5.81	12.21
18	Jul-14	7.60		6.95	1.87	5.61	12.56
19	Aug-15	8.00		7.55	1.67	5.00	12.55

Background Mean Concentration (BMC)= 6.35
3 S.D.= 7.98
BMC+3 S.D.= 14.32

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available



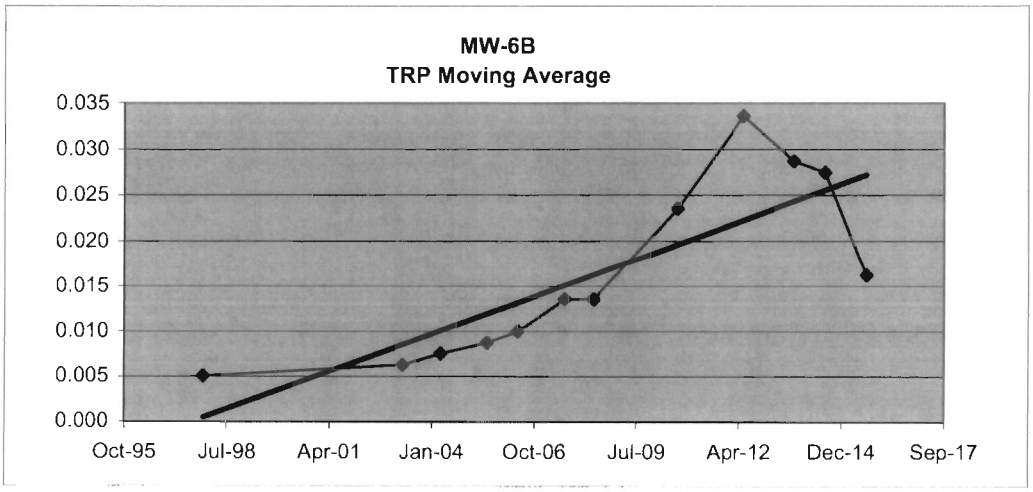
Appendix D
Marilla Street Landfill

August 2015 Annual Sampling Event
Background Shallow Overburden Well MW-6B
Total Recoverable Phenolics

Event No.	Event Date	TRP (mg/L)	*	Moving Average (M.A.)	Moving Standard Deviation (S.D.)	S.D. x 3	M.A. + 3 S.D.
1	Mar-96	0.005	*				
2	Jun-96	0.005	*				
3	Oct-96	0.005	*				
4	Dec-96	0.005	*				
5	Mar-97	0.005	*				
6	Jun-97	0.005					
7	Sep-97	0.00521	*				
8	Dec-97	0.005	*	0.005	0.000	0.000	0.005
9	Apr-03	0.010	*	0.006	0.002	0.007	0.014
10	Apr-04	0.010	*	0.008	0.003	0.008	0.016
11	Jul-05	0.010	*	0.009	0.003	0.008	0.016
12	May-06	0.010	*	0.010	0.000	0.000	0.010
13	Aug-07	0.0243		0.014	0.007	0.021	0.035
14	May-08	0.010	*	0.014	0.007	0.021	0.035
15	Aug-10	0.050	*	0.024	0.019	0.057	0.080
16	May-12	0.050	*	0.034	0.020	0.060	0.093
17	Sep-13	0.005	*	0.029	0.025	0.074	0.103
18	Jul-14	0.005	*	0.028	0.026	0.078	0.105
19	Aug-15	0.005	*	0.016	0.023	0.068	0.084

Background Mean Concentration (BMC)= 0.0121
3 S.D.= 0.0424
BMC+3 S.D.= 0.0545

* = Concentration was reported as less than the laboratory detection limit; the laboratory detection limit is presented in this table.
NA = The parameter was not analyzed during that particular event or data is not available.



APPENDIX E

Moving Average Trend Analysis of Tracked Parameters for Shallow Overburden Wells

Appendix E
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for MW-2B

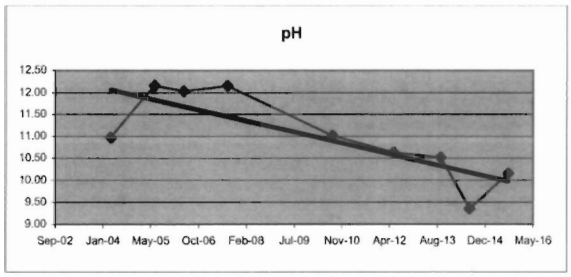
Event Date	pH	Moving Average	TRP	Moving Average	TOC	Moving Average	Total Chromium	Moving Average	Total Iron	Moving Average	Total Manganese	Moving Average
Sep-13	13.9	-	0.088	-	0.081	-	-	-	-	-	-	-
Jul-14[3]	-	-	-	-	-	-	-	-	-	-	-	-
Aug-15	12.22	-	0.059	-	18.0	-	0.097	-	31.5	-	2.23	-

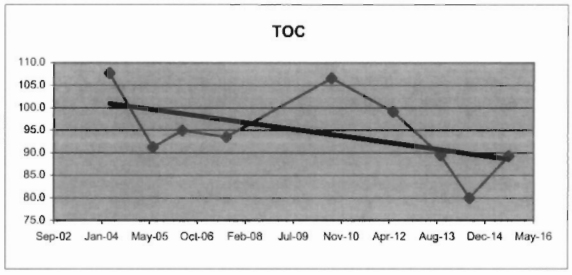
Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.
(2) - Data prior to September 2013 sampling event was unavailable, and/or MATA was not previously conducted.
(3) - MW-2B previously biennial. not sampled in 2014.

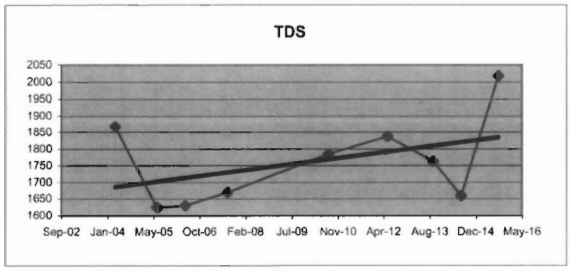
Appendix E
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for MW-3B

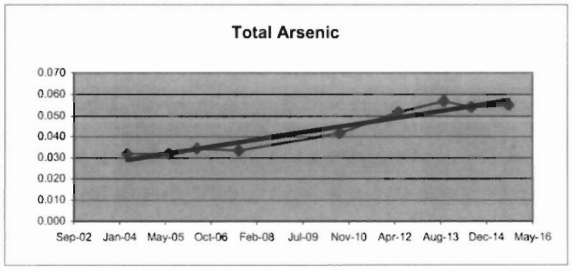
Event Date	pH	Moving Average	TOC	Moving Average	TDS	Moving Average	Total Arsenic	Moving Average	Specific Conductance	Moving Average	TRP	Moving Average
Oct-01	6.72	-	163.0	-	2400	-	0.030	-	2.30	-	1.30	-
Apr-02	12.41	-	117.0	-	1640	-	0.027	-	4.44	-	0.84	-
Apr-03	12.01	-	140.0	-	1780	-	0.037	-	2.97	-	1.10	-
Apr-04	12.74	10.97	11.0	107.8	1650	1868	0.034	0.032	3.53	3.31	0.24	0.87
Jul-05	11.48	12.16	96.9	91.2	1430	1625	0.030	0.032	2.77	3.43	0.36	0.64
May-06	11.90	12.03	132.0	95.0	1660	1630	0.037	0.034	6.69	3.99	0.72	0.61
Aug-07	12.49	12.15	134.0	93.5	1940	1670	0.058	0.034	6.13	4.78	1.05	0.59
Aug-10	8.18	11.01	63.7	106.7	2110	1785	0.026	0.042	0.90	4.12	0.36	0.62
May-12	9.95	10.63	66.6	99.1	1640	1838	0.087	0.052	1.70	3.85	0.64	0.69
Sep-13	11.44	10.52	93.6	89.5	1360	1763	0.057	0.057	1 59	2.58	0.851	0.73
Jul-14	7.84	9.35	96.0	80.0	1530	1660	0.047	0.054	2.75	1.73	0.521	0.59
Aug-15	11.38	10.15	101.0	89.3	3540	2018	0.030	0.055	2.08	2.03	0.683	0.67

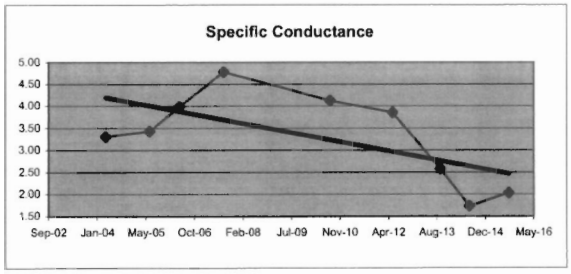
Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.
(2) - TOC = Total Organic Carbon
(3) - TDS = Total Dissolved Solids
(4) - TRP = Total Recoverable Phenolics
(5) - NA = Parameter not analyzed at this location.

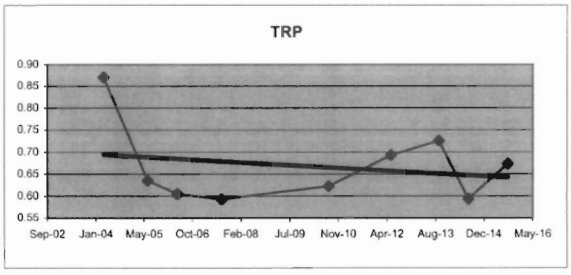








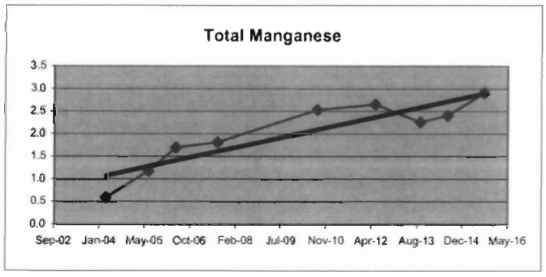




Appendix E
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for MW-3B

Event Date	Total Cyanide	Moving Average	Total Manganese	Moving Average	Total Chromium	Moving Average	Total Iron	Moving Average	Total Lead	Moving Average	Soluble Arsenic	Moving Average
Oct-01	0.0095	-	0.610	-								
Apr-02	0.0124	-	0.510	-								
Apr-03	0.0183	-	0.560	-								
Apr-04	0.0199	0.0150	0.727	0.602								
Jul-05	0.0262	0.0192	2.900	1.174								
May-06	0.0254	0.0225	2.600	1.697								
Aug-07	0.0174	0.0222	1.020	1.812								
Aug-10	0.0220	0.0228	3.600	2.530								
May-12	0.0100	0.0187	3.380	2.650								
Sep-13	0.0150	0.0161	1.030	2.258	0.129	-	73.3	-	0.763	-	0.041	-
Jun-14	0.0130	0.0150	1.610	2.405	0.133	-	94.4	-	0.582	-	0.035	-
Aug-15	0.0220	0.0150	5.610	2.908	0.037	-	58.3	-	0.105	-	0.028	-

Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.



Appendix E
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for MW-3B

Event Date	Soluble Chromium	Moving Average	Soluble Iron	Moving Average	Soluble Lead	Moving Average
Oct-01						
Apr-02						
Apr-03						
Apr-04						
Jul-05						
May-06						
Aug-07						
Aug-10						
May-12						
Sep-13	0.0300	-	3.990	-	0.059	-
Jun-14	0.0230	-	3.040	-	0.091	-
Aug-15	0.0160	-	2.910	-	0.050	-

Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.

Appendix E
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for MW-4B

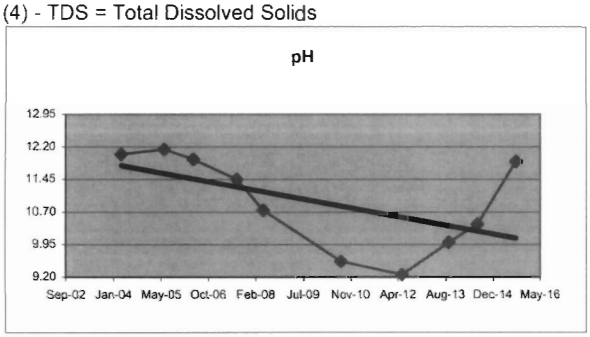
Event Date	pH	Moving Average	TOC	Moving Average	TRP	Moving Average	Total Iron	Moving Average	Soluble Iron	Moving Average	Total Manganese	Moving Average
Oct-01	NA	-	NA	-	NA	-	NA	-	NA	-		-
Apr-02	7.90	-	6.5	-	0.005	-	5.60	-	NA	-		-
Apr-03	8.08	-	4.6	-	0.010	-	30.20	-	NA	-		-
Apr-04	8.57	8.18	6.5	5.9	0.010	0.008	1.00	12.27	NA	-		-
Jul-05	7.78	8.08	22.2	10.0	0.076	0.025	10.90	11.92	4.00	4.00		-
May-06	7.71	8.04	3.9	9.3	0.010	0.027	6.60	12.17	NA	4.00		-
Aug-07	7.53	7.90	6.0	9.6	0.005	0.025	1.12	4.90	NA	4.00		-
May-08	7.81	7.71	5.0	9.3	0.010	0.025	0.72	4.84	NA	4.00		-
Aug-10	6.86	7.48	3.8	4.7	0.061	0.022	6.67	3.78	0.77	0.77		-
May-12	7.78	7.50	4.9	4.9	0.050	0.032	3.02	2.88	0.49	0.63		-
Sep-13	8.06	7.63	5.0	4.7	0.005	0.032	0.88	2.82	NA	0.63	1.02	-
Jul-14	8.04	7.69	6.8	5.1	0.0254	0.035	2.50	3.27	NA	0.63	1.02	-
Aug-15	7.60	7.87	6.7	5.9	0.0050	0.021	1.75	2.04	NA	0.49	0.89	-

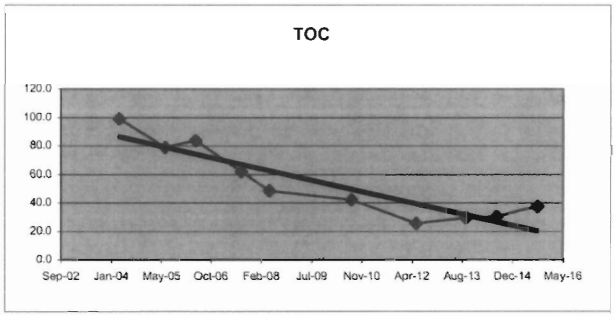
Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.
(2) - TOC = Total Organic Carbon
(3) - TRP = Total Recoverable Phenolics
(4) - NA = Parameter not analyzed at this location.

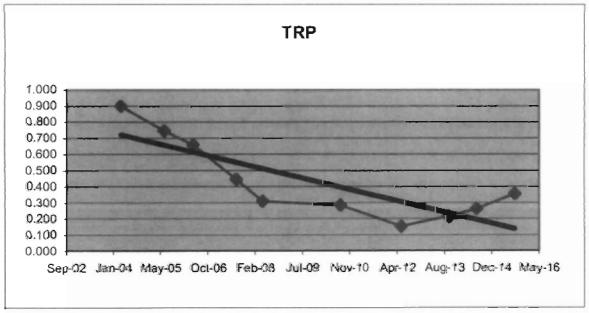
Appendix E
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for MW-7B

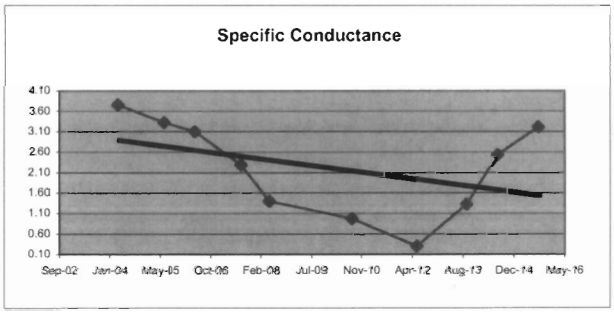
Event Date	pH	Moving Average	TOC	Moving Average	TRP	Moving Average	Specific Conductance	Moving Average	TDS	Moving Average
Oct-01	11.18	-	128.0	-	0.940	-	4.40	-	1420	-
Apr-02	12.61	-	61.8	-	0.950	-	3.73	-	1580	-
Apr-03	11.48	-	109.0	-	0.940	-	3.36	-	1410	-
Apr-04	12.83	12.03	97.0	99.0	0.770	0.900	3.53	3.76	1400	1453
Jul-05	11.65	12.14	47.8	78.9	0.320	0.745	2.66	3.32	1860	1563
May-06	11.69	11.91	81.4	83.8	0.600	0.658	2.83	3.10	1230	1475
Aug-07	9.65	11.46	21.0	61.8	0.083	0.443	0.11	2.28	529	1255
May-08	9.99	10.75	43.5	48.4	0.230	0.308	0.00	1.40	747	1092
Aug-10	6.94	9.57	23.0	42.2	0.220	0.283	0.97	0.98	468	744
May-12	10.45	9.26	14.6	25.5	0.080	0.153	0.12	0.30	401	536
Sep-13	12.63	10.00	36.5	29.4	0.321	0.213	4.20	1.32	1360	744
Jul-14	11.65	10.42	47.5	30.4	0.426	0.262	4.83	2.53	1070	825
Aug-15	12.70	11.86	51.8	37.6	0.587	0.354	3.70	3.21	1220	1013

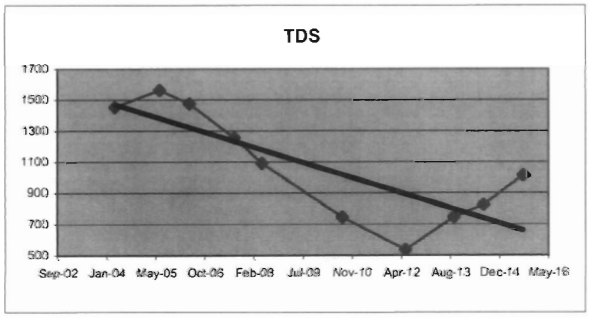
Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.
(2) - TOC = Total Organic Carbon
(3) - TRP = Total Recoverable Phenolics
(4) - TDS = Total Dissolved Solids







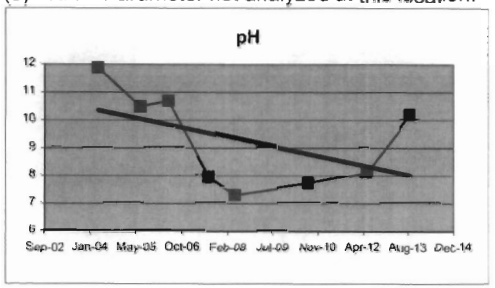


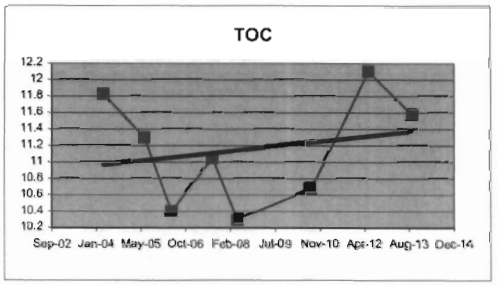


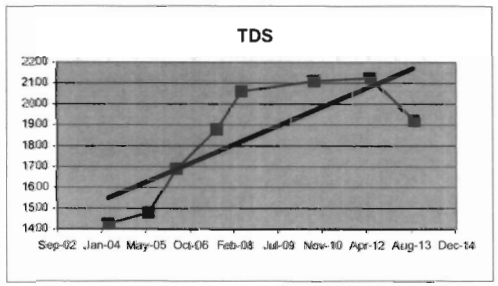
Appendix E
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for MW-14BR

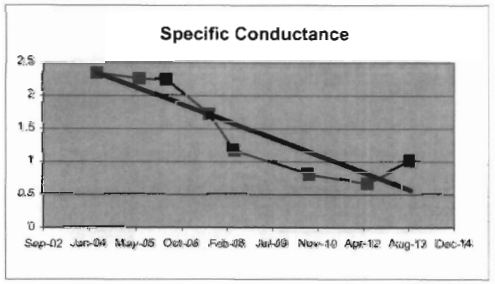
Event Date	pH	Moving Average	TOC	Moving Average	TRP	Moving Average	Specific Conductance	Moving Average	Total Cyanide	Moving Average	TDS	Moving Average	Total Manganese	Moving Average
Oct-01	11.27	-	14.1	-	0.014	-	2.50	-	0.623	-	1480	-	0.044	-
Apr-02	11.21	-	11.1	-	0.005	-	2.31	-	0.047	-	922	-	0.780	-
Apr-03	10.71	-	11.9	-	0.010	-	2.35	-	0.606	-	1680	-	0.120	-
Apr-04	11.89	11.27	10.2	11.8	0.012	0.010	2.23	2.35	0.790	0.5164	1620	1426	0.529	0.368
Jul-05	10.49	11.08	12.0	11.3	0.010	0.009	2.16	2.26	1.120	0.6406	1700	1481	0.280	0.427
May-06	10.69	10.95	7.5	10.4	0.010	0.011	2.19	2.23	0.835	0.8378	1750	1688	0.350	0.320
Aug-07	7.92	10.25	14.5	11.1	0.005	0.009	0.32	1.73	0.084	0.7073	2440	1878	0.726	0.471
May-08	7.30	9.10	7.2	10.3	0.010	0.009	0.00	1.17	0.085	0.5310	2350	2060	1.800	0.789
Aug-10	7.70	8.40	13.5	10.7	0.050	0.019	0.72	0.81	0.065	0.2673	1900	2110	0.610	0.872
May-12	8.10	7.76	13.2	12.1	0.050	0.029	1.64	0.67	0.075	0.0773	1810	2125	0.749	0.971
Sep-13	10.15	8.31	12.4	11.6	0.0111	0.030	1.64	1.00	1.160	0.3463	1620	1920	0.242	0.850
Jul-14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aug-15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

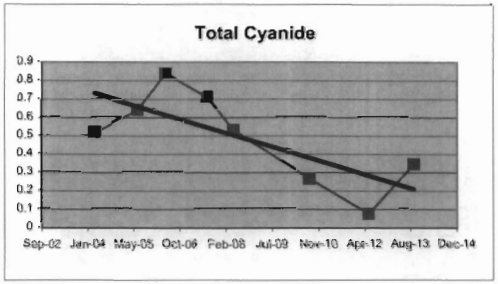
Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.
(2) - TOC = Total Organic Carbon
(3) - TRP = Total Recoverable Phenolics
(4) - TDS = Total Dissolved Solids
(5) - NA = Parameter not analyzed at this location.







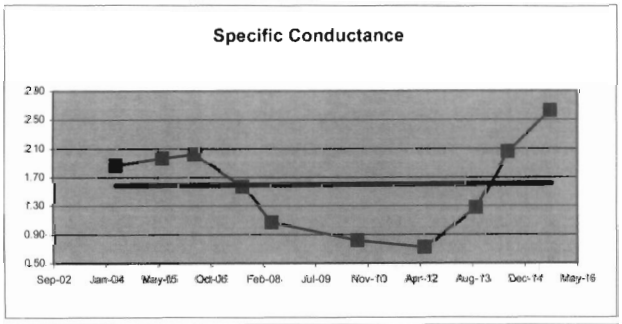


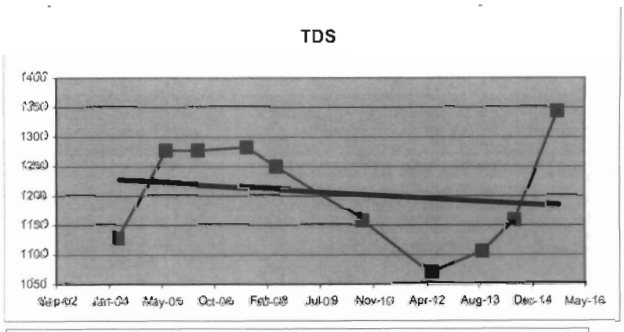


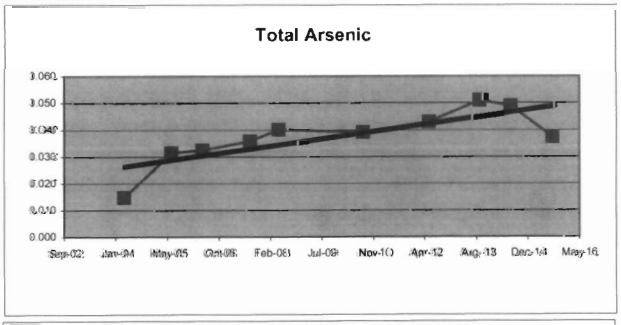
Appendix E
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for MW-15B

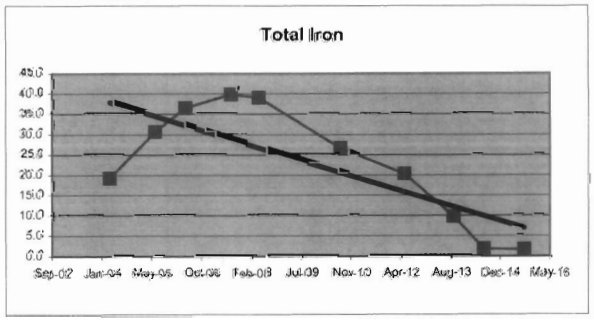
Event Date	Specific Conductance	Moving Average	TDS	Moving Average	TOC	Moving Average	Total Arsenic	Moving Average	Total Iron	Moving Average
Oct-01	1.62	-	722	-	70.2	-	0.009	-	4.7	-
Apr-02	1.81	-	1310	-	52.6	-	0.013	-	5.6	-
Apr-03	2.02	-	1240	-	62.9	-	0.014	-	30.2	-
Apr-04	2.02	1.87	1240	1128	54.6	60.1	0.023	0.015	36.5	19.3
Jul-05	2.00	1.96	1320	1278	49.9	55.0	0.076	0.032	50.5	30.7
May-06	2.04	2.02	1310	1278	50.6	54.5	0.017	0.033	29.0	36.6
Aug-07	0.23	1.57	1260	1283	56.3	52.9	0.027	0.036	43.6	39.9
May-08	0.00	1.07	1110	1250	56.8	53.4	0.040	0.040	33.0	39.0
Aug-10	1.00	0.82	951	1158	87.3	62.8	0.073	0.039	1.1	26.7
May-12	1.66	0.72	954	1069	61.3	65.4	0.032	0.043	3.6	20.3
Sep-13	2.45	1.28	1410	1106	73.8	69.8	0.059	0.051	1.4	9.8
Jul-14	3.11	2.05	1320	1159	96.0	79.6	0.032	0.049	0.85	1.7
Aug-15	3.27	2.62	1690	1344	83.0	78.5	0.026	0.037	0.53	1.6

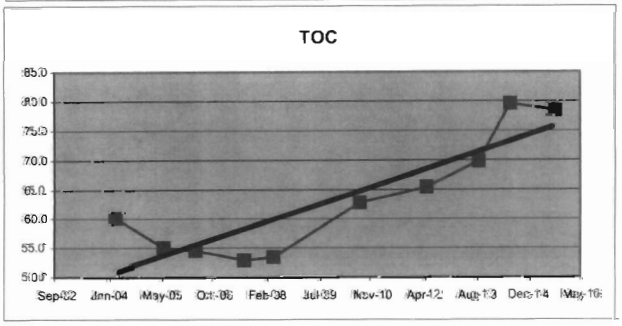
Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.
(2) - TDS = Total Dissolved Solids
(3) - TOC = Total Organic Carbon











Appendix E

Marilla Street Landfill

August 2015 Annual Sampling Event

Summary of MATA Tracked Parameters for MW-15B

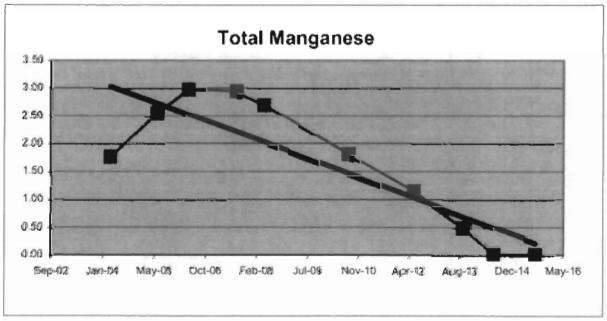
Event Date	Soluble Iron	Moving Average	Total Manganese	Moving Average	Soluble Manganese	Moving Average	TRP	Moving Average	pH	Moving Average
Oct-01	4.7	-	0.48	-	0.47	-				
Apr-02	5.6	-	0.97	-	1.00	-				
Apr-03	21.4	-	2.80	-	2.40	-				
Apr-04	26.6	14.6	2.85	1.78	2.56	1.61				
Jul-05	26.3	20.0	3.60	2.56	2.50	2.12				
May-06	28.1	25.6	2.70	2.99	2.60	2.52				
Aug-07	NA	27.0	2.61	2.94	NA	2.55				
May-08	15.2	23.2	1.90	2.70	1.90	2.33				
Aug-10	NA	21.7	0.02	1.81	NA	2.25				
May-12	1.0	8.1	0.05	1.15	0.02	0.96	0.14	-	10.37	
Sep-13	NA	8.1	0.02	0.50	NA	0.96	0.761	-	12.23	-
Jul-14	NA	1.0	0.02	0.03	NA	0.02	0.930	-	10.97	-
Aug-15	NA	1.0	0.01	0.02	NA	0.02	0.893	-	12.64	-

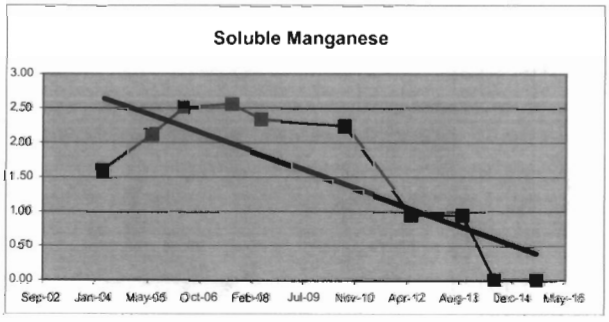
Notes:

(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.

(2) - TRP = Total Recoverable Phenolics

(3) - NA = Parameter not analyzed at this location.

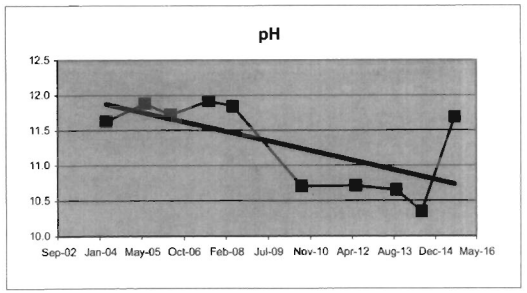


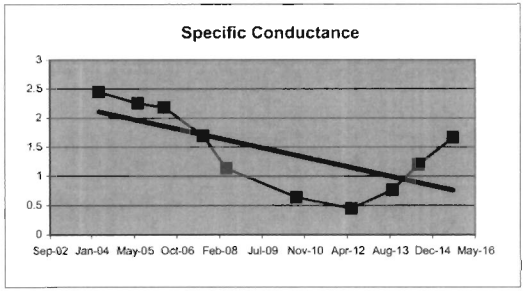


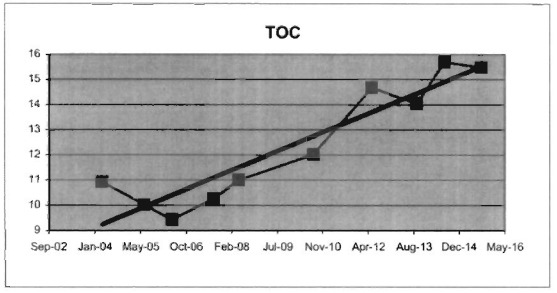
Appendix E
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for MW-16B

Event Date	pH	Moving Average	Specific Conductance	Moving Average	TOC	Moving Average	TRP	Moving Average	Total Iron	Moving Average	Total Chromium	Moving Average	Total Manganese	Moving Average	TCE	Moving Average
Oct-01	10.62	-	3.00	-	14.6	-	0.013	-	8.400	-	0.055	-	1.200	-	5.000	-
Apr-02	12.11	-	2.37	-	9.3	-	0.005	-	0.970	-	0.005	-	0.130	-	5.000	-
Apr-03	11.37	-	2.19	-	11.2	-	0.010	-	1.400	-	0.010	-	0.330	-	5.000	-
Apr-04	12.41	11.63	2.24	2.45	8.6	10.9	0.010	0.010	6.070	4.210	0.055	0.031	2.060	0.930	5.000	-
Jul-05	11.63	11.88	2.22	2.25	11.0	10.0	0.010	0.009	0.090	2.133	0.002	0.018	0.005	0.631	5.000	-
May-06	11.49	11.73	2.10	2.19	6.9	9.4	0.010	0.010	0.130	1.923	0.002	0.017	0.032	0.607	31.000	11.500
Aug-07	12.14	11.92	0.23	1.70	14.5	10.3	0.010	0.010	0.100	1.598	0.010	0.017	0.010	0.527	20.000	15.250
May-08	12.11	11.84	0.00	1.14	11.6	11.0	0.010	0.010	0.051	0.093	0.004	0.005	0.003	0.013	5.000	15.250
Aug-10	7.07	10.70	0.21	0.63	15.1	12.0	0.050	0.020	0.191	0.118	0.010	0.007	0.015	0.015	1.000	14.250
May-12	11.53	10.71	1.33	0.44	17.5	14.7	0.050	0.030	0.116	0.115	0.010	0.009	0.015	0.011	11.900	9.475
Sep-13	11.88	10.65	1.50	0.76	12.0	14.1	0.0073	0.029	0.110	0.117	0.010	0.009	0.011	0.011	35.000	13.225
Jul-14	10.90	10.35	1.75	1.20	18.2	15.7	0.0073	0.029	0.510	0.232	0.010	0.010	0.061	0.026	21.000	17.225
Aug-15	12.45	11.69	2.08	1.67	14.3	15.5	0.0080	0.018	3.620	1.089	0.031	0.015	0.717	0.201	26.000	23.475

Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.
(2) - TOC = Total Organic Carbon
(3) - TCE = Trichloroethene
(4) - TRP = Total Recoverable Phenolics



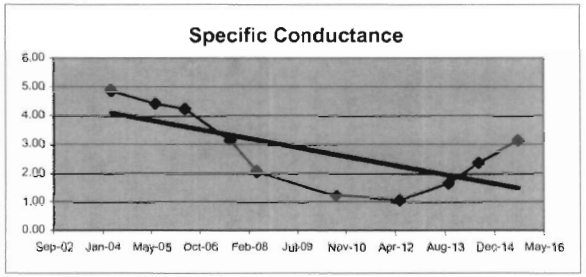


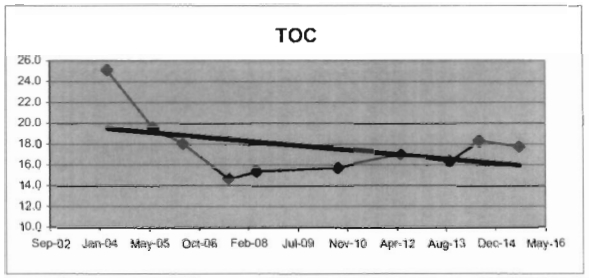


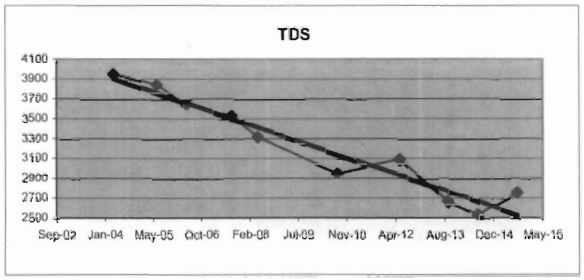
Appendix E
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for MW-18B

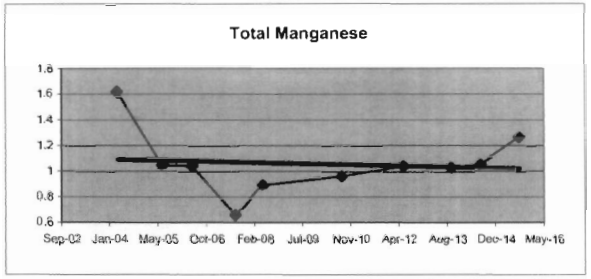
Event Date	pH	Moving Average	Specific Conductance	Moving Average	TOC	Moving Average	TRP	Moving Average	TDS	Moving Average	Total Manganese	Moving Average	Total Iron	Moving Average
Oct-01	7.27	-	5.58	-	40.0	-	0.007	-	3860	-	2.900	-		
Apr-02	7.57	-	4.77	-	16.2	-	0.005	-	4220	-	0.740	-		
Apr-03	7.85	-	4.84	-	30.2	-	0.010	-	3940	-	2.500	-		
Apr-04	8.61	7.83	4.40	4.90	14.0	25.1	0.010	0.008	3820	3960	0.341	1.620		
Jul-05	7.89	7.98	3.79	4.45	17.9	19.6	0.010	0.009	3380	3840	0.630	1.053		
May-06	8.33	8.17	4.05	4.27	10.0	18.0	0.010	0.010	3450	3648	0.710	1.045		
Aug-07	7.56	8.10	0.45	3.17	16.9	14.7	0.005	0.009	3510	3540	0.952	0.658		
May-08	7.92	7.93	0.00	2.07	16.9	15.4	0.011	0.009	2920	3315	1.300	0.898		
Aug-10	7.49	7.83	0.42	1.23	19.3	15.8	0.050	0.019	1950	2958	0.908	0.968		
May-12	7.91	7.72	3.49	1.09	15.1	17.1	0.050	0.029	3990	3093	1.030	1.048		
Sep-13	7.68	7.75	2.81	1.68	14.4	16.4	0.005	0.029	1820	2670	0.896	1.034	7.660	-
Jul-14	7.55	7.66	2.82	2.38	24.4	18.3	0.005	0.028	2380	2535	1.40	1.059	1.09	-
Aug-15	7.84	7.75	3.41	3.13	17.0	17.7	0.005	0.016	2830	2755	1.73	1.264	1.89	-

Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.
(2) - TOC = Total Organic Carbon
(3) - TRP = Total Recoverable Phenolics.
(4) - TDS = Total Dissolved Solids









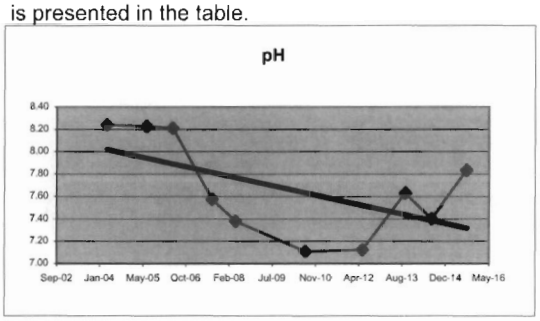
APPENDIX F

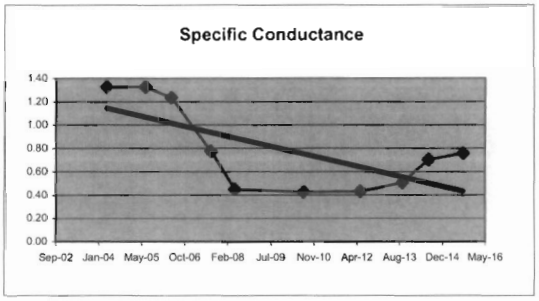
Moving Average Trend Analysis of Tracked Parameters for Surface Water

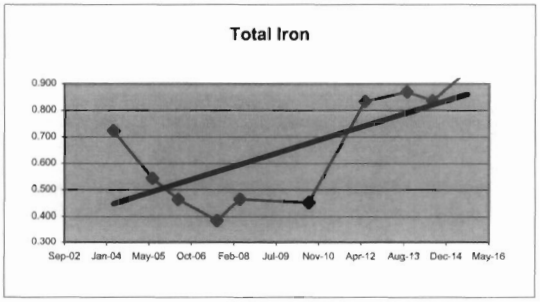
Appendix F
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for SW-1

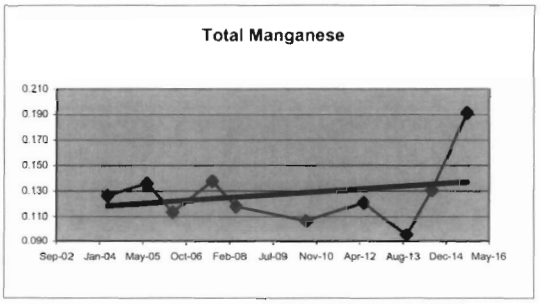
Event Date	pH	Moving Average	Specific Conductance	Moving Average	TOC	Moving Average	Total Iron	Moving Average	Total Manganese	Moving Average
Apr-01	7.62	-	1.21	-	6.6	-	0.730	-	0.300	-
Oct-01	7.53	-	0.77	-	4.9	-	1.200	-	0.045	-
Apr-02	8.02	-	1.23	-	3.5	-	0.390	-	0.160	-
Apr-03	8.56	-	2.02	-	4.4	-	0.740	-	0.082	-
Apr-04	8.85	8.24	1.30	1.33	2.5	3.8	0.564	0.724	0.219	0.127
Jul-05	7.48	8.23	0.75	1.32	5.4	4.0	0.480	0.544	0.083	0.136
May-06	7.95	8.21	0.87	1.24	7.3	4.9	0.070	0.464	0.070	0.114
Aug-07	6.02	7.58	0.18	0.78	4.7	5.0	0.430	0.386	0.178	0.138
May-08	8.07	7.38	0.00	0.45	5.2	5.7	0.880	0.465	0.140	0.118
Jul-10	6.40	7.11	0.66	0.43	71.7	22.2	0.428	0.452	0.040	0.107
May-12	8.00	7.12	0.89	0.43	6.6	22.1	1.600	0.835	0.126	0.121
Sep-13	8.05	7.63	0.48	0.51	4.5	22.0	0.570	0.870	0.077	0.096
Jul-14	7.16	7.40	0.79	0.70	6.1	22.2	0.750	0.837	0.279	0.130
Aug-15	8.12	7.83	0.87	0.76	5.2	5.6	0.870	0.948	0.284	0.192

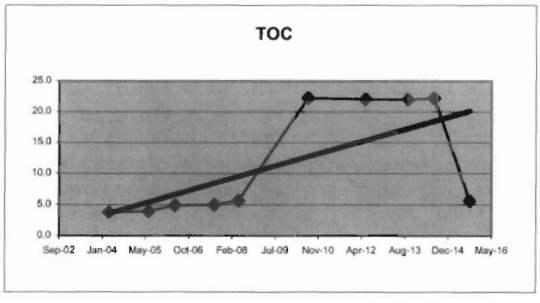
Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.











Appendix F
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for SW-1

Event Date	TDS	Moving Average	TRP	Moving Average	Total Arsenic	Moving Average	Total Chromium	Moving Average	Total Cyanide	Moving Average	Total Lead	Moving Average
Apr-01												
Oct-01												
Apr-02												
Apr-03												
Apr-04												
Jul-05												
May-06												
Aug-07												
May-08												
Jul-10												
May-12	366	-	0.050	-	0.004	-	0.010	-	0.010	-	0.005	-
Sep-13	267	-	0.005	-	0.010	-	0.010	-	0.010	-	0.050	-
Jul-14	414	-	0.005	-	0.010	-	0.010	-	0.010	-	0.050	-
Aug-15	363	353	0.005	0.016	0.010	0.009	0.010	0.010	0.010	0.010	0.050	0.039

Appendix F

Marilla Street Landfill

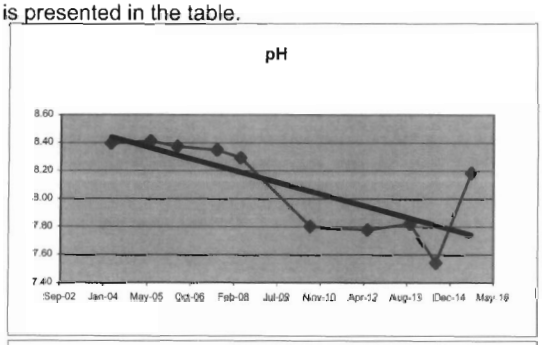
August 2015 Annual Sampling Event

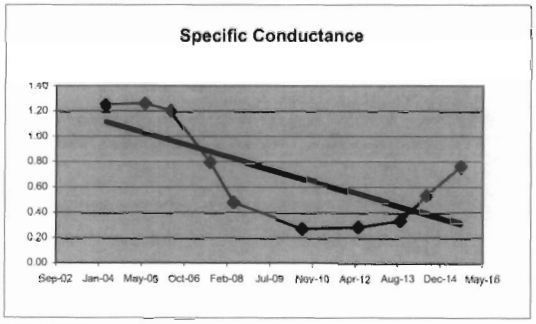
Summary of MATA Tracked Parameters for SW-2A

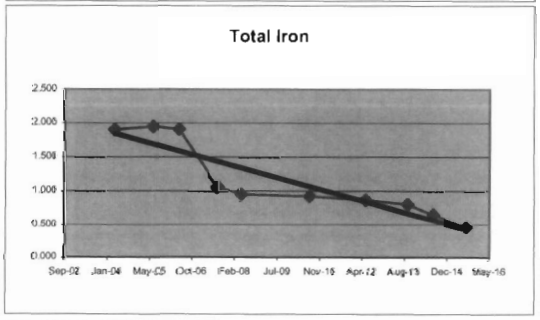
Event Date	pH	Moving Average	Specific Conductance	Moving Average	TOC	Moving Average	Total Iron	Moving Average	Total Manganese	Moving Average
Apr-01	8.58	-	1.29	-	6.4	-	0.780	-	0.360	-
Oct-01	8.02	-	0.78	-	5.1	-	0.920	-	0.096	-
Apr-02	8.45	-	1.12	-	4.0	-	0.950	-	0.180	-
Apr-03	8.26	-	1.85	-	4.3	-	4.200	-	0.210	-
Apr-04	8.85	8.40	1.28	1.26	4.2	4.4	1.540	1.903	0.265	0.188
Jul-05	8.08	8.41	0.79	1.26	4.7	4.3	1.100	1.948	0.180	0.209
May-06	8.30	8.37	0.89	1.20	6.9	5.0	0.800	1.910	0.051	0.177
Aug-07	8.17	8.35	0.23	0.80	4.9	5.2	0.794	1.059	0.136	0.158
May-08	8.62	8.29	0.00	0.48	5.2	5.4	1.100	0.949	0.160	0.132
Jul-10	6.12	7.80	0.00	0.28	9.5	6.6	0.999	0.923	0.159	0.127
May-12	8.20	7.78	0.93	0.29	4.8	6.1	0.569	0.866	0.095	0.137
Sep-13	8.35	7.82	0.43	0.34	5.4	6.2	0.550	0.805	0.045	0.115
Jul-14	7.50	7.54	0.77	0.53	5.8	6.4	0.480	0.650	0.141	0.110
Aug-15	8.69	8.19	0.91	0.76	6.9	5.7	0.270	0.467	0.010	0.073

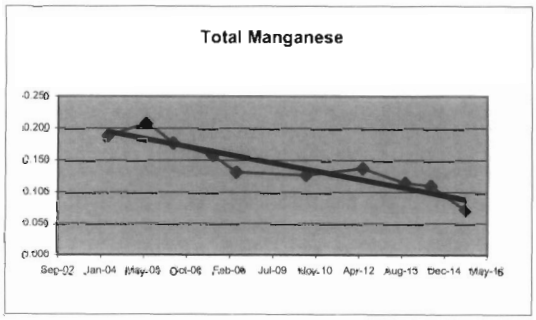
Notes:

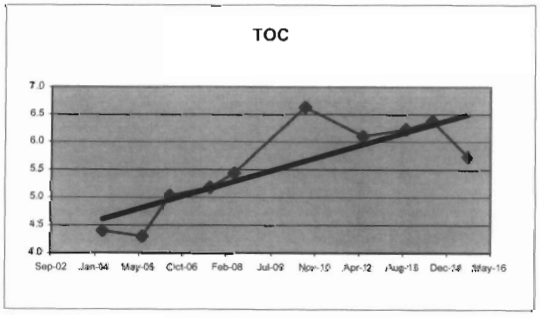
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.











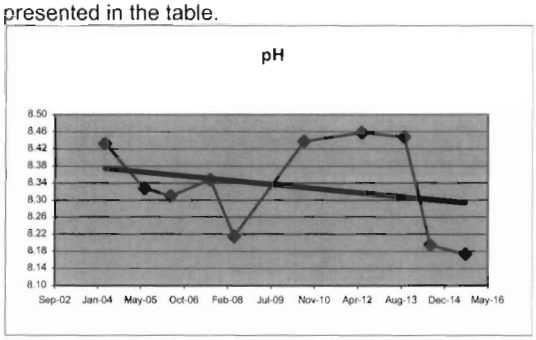
Appendix F
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for SW-2A

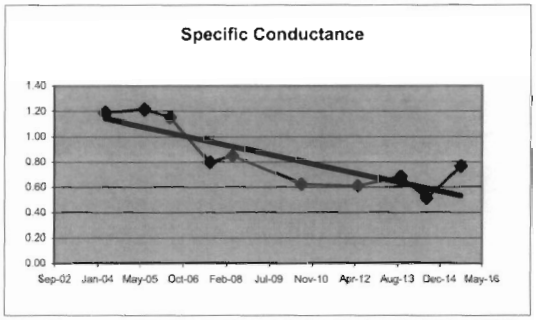
Event Date	TDS	Moving Average	TRP	Moving Average	Total Arsenic	Moving Average	Total Chromium	Moving Average	Total Cyanide	Moving Average	Total Lead	Moving Average
Apr-01												
Oct-01												
Apr-02												
Apr-03												
Apr-04												
Jul-05												
May-06												
Aug-07												
May-08												
Jul-10												
May-12	365	-	0.050	-	0.004	-	0.010	-	0.010	-	0.005	-
Sep-13	293	-	0.005	-	0.010	-	0.010	-	0.010	-	0.050	-
Jul-14	409	-	0.005	-	0.010	-	0.010	-	0.010	-	0.050	-
Aug-15	375	361	0.005	0.016	0.010	0.009	0.010	0.010	0.010	0.010	0.050	0.039

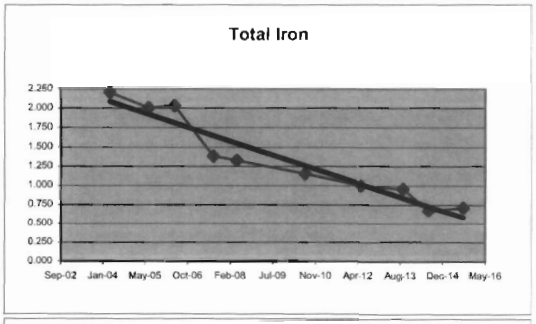
Appendix F
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for SW-3A

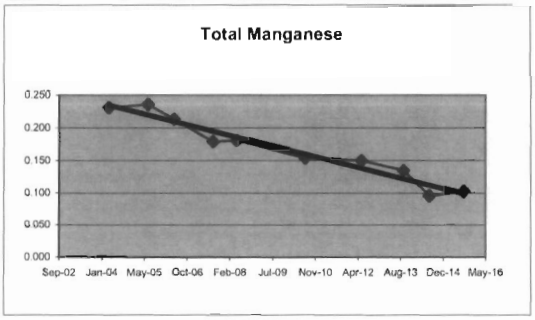
Event Date	pH	Moving Average	Specific Conductance	Moving Average	TOC	Moving Average	Total Iron	Moving Average	Total Manganese	Moving Average
Apr-01	8.75	-	1.16	-	8.5	-	1.800	-	0.350	-
Oct-01	7.97	-	0.80	-	5.9	-	2.300	-	0.200	-
Apr-02	8.54	-	1.11	-	4.0	-	1.400	-	0.180	-
Apr-03	8.18	-	1.61	-	5.2	-	3.400	-	0.280	-
Apr-04	9.04	8.43	1.24	1.19	4.4	4.9	1.730	2.208	0.263	0.231
Jul-05	7.55	8.33	0.89	1.21	3.6	4.3	1.500	2.008	0.220	0.236
May-06	8.47	8.31	0.87	1.15	7.1	5.1	1.500	2.033	0.091	0.214
Aug-07	8.33	8.35	0.17	0.79	5.8	5.2	0.805	1.384	0.142	0.179
May-08	8.51	8.22	1.46	0.85	6.0	5.6	1.500	1.326	0.270	0.181
Jul-10	8.44	8.44	0.00	0.63	6.1	6.3	0.800	1.151	0.112	0.154
May-12	8.55	8.46	0.81	0.61	5.5	5.9	0.897	1.001	0.076	0.150
Sep-13	8.29	8.45	0.45	0.68	5.6	5.8	0.620	0.954	0.080	0.135
Jul-14	7.50	8.20	0.77	0.51	6.3	5.9	0.380	0.674	0.116	0.096
Aug-15	8.35	8.17	1.02	0.76	5.8	5.8	0.970	0.717	0.137	0.102

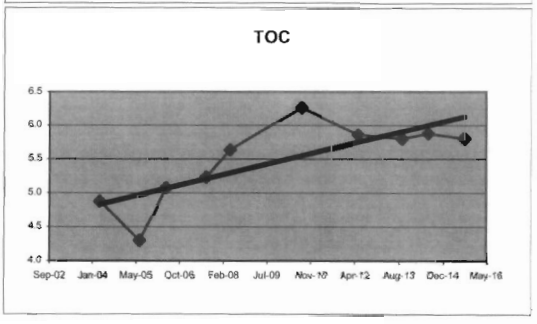
Notes:
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.











Appendix F
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for SW-3A

Event Date	TDS	Moving Average	TRP	Moving Average	Total Arsenic	Moving Average	Total Chromium	Moving Average	Total Cyanide	Moving Average	Total Lead	Moving Average
Apr-01												
Oct-01												
Apr-02												
Apr-03												
Apr-04												
Jul-05												
May-06												
Aug-07												
May-08												
Jul-10												
May-12	396	-	0.050	-	0.004	-	0.010	-	0.010	-	0.005	-
Sep-13	324	-	0.005	-	0.010	-	0.010	-	0.010	-	0.050	-
Jul-14	427	-	0.005	-	0.010	-	0.010	-	0.010	-	0.050	-
Aug-15	471	405	0.005	0.016	0.010	0.009	0.010	0.010	0.010	0.010	0.050	0.039

Appendix F

Marilla Street Landfill

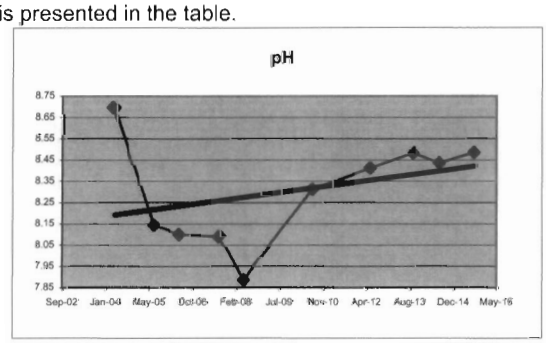
August 2015 Annual Sampling Event

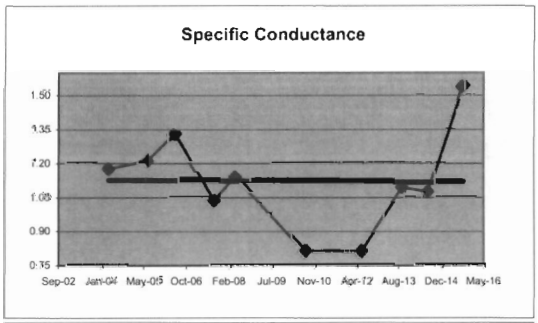
Summary of MATA Tracked Parameters for SW-5

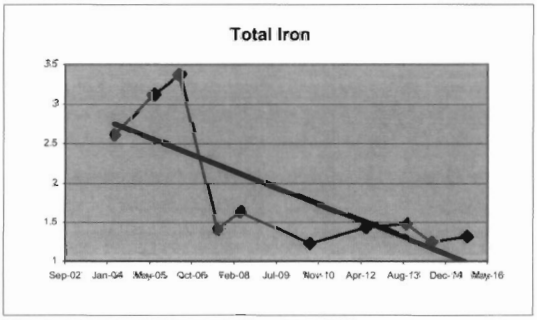
Event Date	pH	Moving Average	Specific Conductance	Moving Average	TOC	Moving Average	Total Iron	Moving Average	Total Manganese	Moving Average
Apr-01	8.75	-	1.10	-	8.4	-	0.560	-	0.086	-
Oct-01	8.75	-	1.18	-	10.8	-	0.370	-	0.100	-
Apr-02	8.36	-	0.97	-	5.2	-	0.890	-	0.050	-
Apr-03	8.38	-	1.33	-	5.2	-	8.500	-	0.016	-
Apr-04	9.30	8.70	1.22	1.18	4.8	6.5	0.689	2.612	0.036	0.050
Jul-05	6.53	8.14	1.32	1.21	6.2	5.4	2.400	3.120	0.097	0.050
May-06	8.19	8.10	1.43	1.33	8.3	6.1	1.900	3.372	0.093	0.060
Aug-07	8.34	8.09	0.15	1.03	9.2	7.1	0.651	1.410	0.166	0.098
May-08	8.48	7.89	1.66	1.14	5.8	7.4	1.600	1.638	0.097	0.113
Jul-10	8.24	8.31	0.00	0.81	6.3	7.4	0.737	1.222	0.103	0.115
May-12	8.59	8.41	1.43	0.81	5.8	6.8	2.730	1.430	0.104	0.118
Sep-13	8.62	8.48	1.29	1.10	6.0	6.0	0.840	1.477	0.057	0.090
Jul-14	8.30	8.44	1.58	1.08	5.7	6.0	0.660	1.242	0.054	0.080
Aug-15	8.43	8.49	1.86	1.54	6.3	6.0	1.020	1.313	0.068	0.071

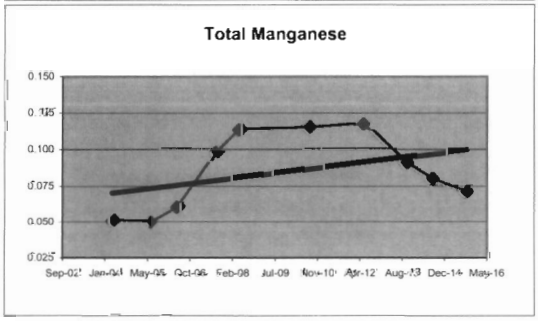
Notes:

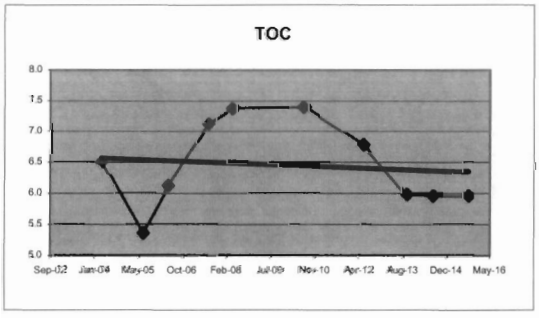
(1) - If the concentration was reported at less than the laboratory detection limit, the detection limit is presented in the table.











Appendix F
Marilla Street Landfill
August 2015 Annual Sampling Event
Summary of MATA Tracked Parameters for SW-5

Event Date	TDS	Moving Average	TRP	Moving Average	Total Arsenic	Moving Average	Total Chromium	Moving Average	Total Cyanide	Moving Average	Total Lead	Moving Average
Apr-01												
Oct-01												
Apr-02												
Apr-03												
Apr-04												
Jul-05												
May-06												
Aug-07												
May-08												
Jul-10												
May-12	646	-	0.050	-	0.004	-	0.010	-	0.010	-	0.005	-
Sep-13	873	-	0.005	-	0.010	-	0.010	-	0.010	-	0.050	-
Jul-14	40	-	0.005	-	0.010	-	0.010	-	0.010	-	0.050	-
Aug-15	826	596	0.005	0.016	0.010	0.009	0.010	0.010	0.010	0.010	0.050	0.039

APPENDIX G

2015 Post-Closure Inspection and Maintenance Report

MARILLA STREET LANDFILL
POST -CLOSURE INSPECTION REPORT

DATE: 10-2-15
WEATHER: 50°F, breezy, cloudy - lt. cloudy
PERSONNEL: Jim Douglas

Instructions: Complete the checklist of visual evaluation items then complete specific data items. Field measurements should be made with a cloth tape, provided instrumentation on equipment or other suitable means. Estimated measurements shall be noted. Attach hand sketches or photographs to further define conditions or problems.

I. VISUAL EVALUATION ITEMS	Acceptable	Not Acceptable	Not Present	Present	Remarks
1. Vegetative Cover					
a. Within Landfill Disposal Area	X				
b. Around Landfill Perimeter	X				
2. Integrity of Drainage Ditches					
a. Sediment Build-up	X				
b. Pooling or Ponding	X				
c. Slope Integrity	X				
d. Overall Adequacy	X				
3. General Conditions of Site					
a. Road Construction	X				
b. Gates/~~Fences~~/Locks	X				ALL GATES LOCKED
c. Grass Height	X 3"-4"				
d. Illegal Dumping	X				NO DUMPING AREAS OBSERVED
e. Wetland Shrub Plantings (1)	N/A				
4. Integrity of Groundwater	N.A.				
5. Integrity of Landfill Cap					
a. Erosion Damage	X				
b. Leachate Breakthrough	X				
c. Settlement	X				
d. Cracking	X				
e. Slope	X				
f. Undesirable plants	X				
g. Benchmark	N.A.				
h. Animal Burrowing	X				

Notes: (1) Until Year 2002

JAD

II. SPECIFIC DATA ITEMS (Write N.A. if not applicable)

A. Erosion and Settlement: N.A.

1. Approximate size in feet of cap ended area(s). (List separately)
   a. _____ feet _____ feet
   b. _____ feet _____ feet
   c. _____ feet _____ feet

2. How deep is the most extreme point of erosion when measured from the adjacent surface. (List separately) N.A.
   a. _____ feet
   b. _____ feet
   c. _____ feet

3. Approximate size in feet of eroded areas outside the soil cap area such as drainage ditches, roads or slopes. N.A.

4. Attach a hand sketch or photograph showing the location of the eroded area(s). Identify each area by using the letter a, b, c, etc. from Question 1. N.A.

5. Approximate size in feet of leachate breakouts. (List separately) N.A.
   a. _____ feet _____ feet
   b. _____ feet _____ feet
   c. _____ feet _____ feet

6. Approximate size in feet of any settlement areas within the soil cap area. (List separately) N.A.
   a. _____ feet _____ feet
   b. _____ feet _____ feet
   c. _____ feet _____ feet

7. Approximate depth of each settlement area when measured from adjacent surface. (List separately) N.A.
   a. _____ feet _____ feet
   b. _____ feet _____ feet
   c. _____ feet _____ feet

8. Attach a hand sketch or photograph showing the location of the settlement area(s). Identify each area by using the letter a, b, c, etc. from Question 6. N.A.

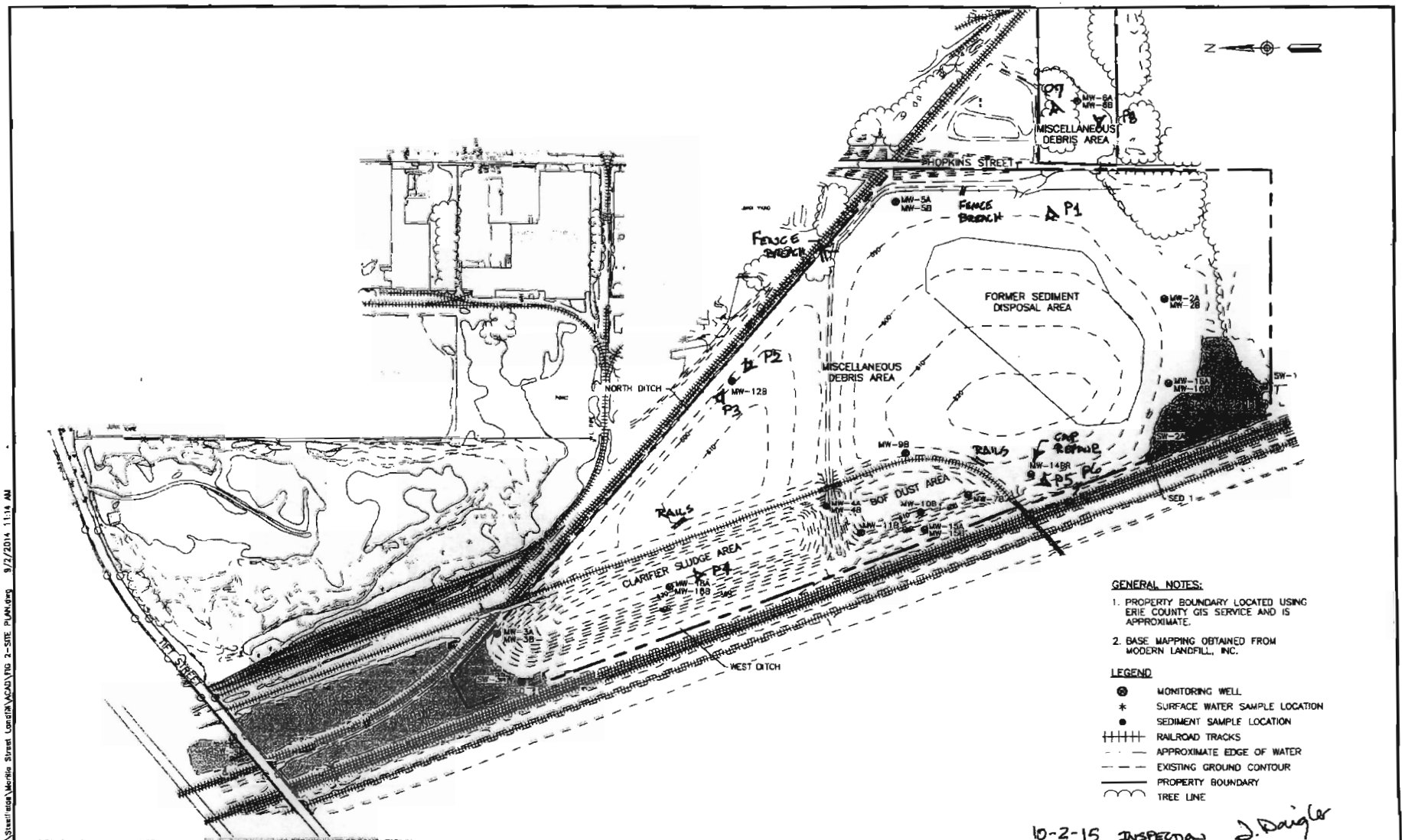
B. Corrective Actions:

1. Describe corrective actions taken (write N.A. if not applicable).

   N.A.

2. Date of corrective action:

   N.A.



10-2-15 INSPECTION J. Daigler

G:\Steelfields\Marilla Street Landfill\ACAD\FIG 2-SITE PLAN.dwg 9/2/2014 11:14 AM

NO.	REVISION	BY	DATE

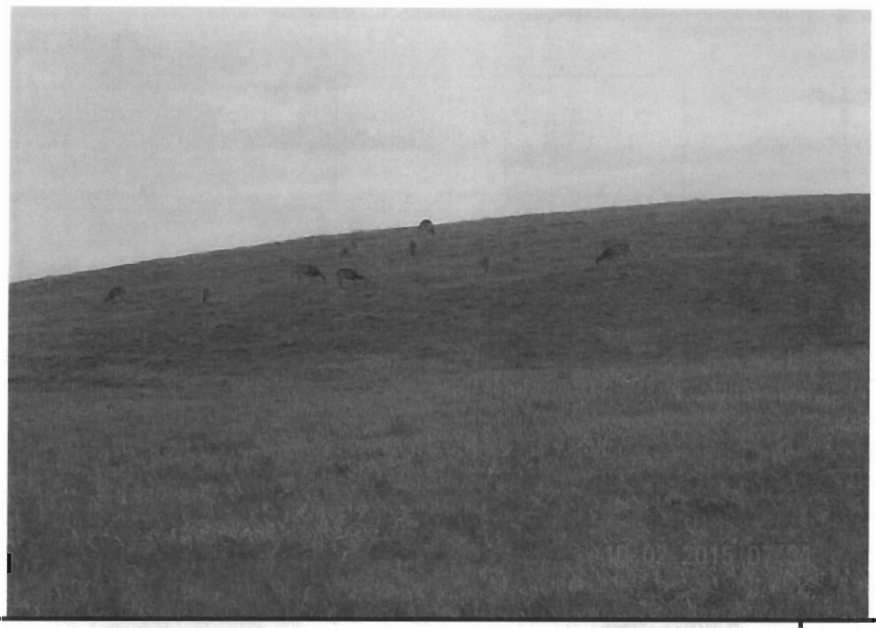
DAIGLER ENGINEERING P.C.
engineering · science · design
2620 GRAND ISLAND BLVD. GRAND ISLAND, NEW YORK 14072
JAMES A. DAIGLER, P.E. NYSPE NO. 061999

DATE: September 2014

SCALE: 1"=400'

PREPARED FOR: STEELFIELDS, LTD			SITE PLAN
DES. BY:	DRW. BY:	CHK. BY:	MARILLA STREET LANDFILL PERIODIC REVIEW REPORT
DWG: FIG 2-SITE PLAN.dwg	CITY OF BUFFALO	ERIE COUNTY	NEW YORK

FIGURE 2



Looking West from the Hopkins Street Gate to the Former Sediment Disposal Area	P1

Looking Southeast from MW-12B	P2

STEELFIELDS LTD MARILLA STREET LANDFILL 2015 POST CLOSURE INSPECTION	Photographs
	Page 1 of 4

Looking Northwest from MW-12B	P3

Looking Northwest at MW18A and MW-18B	P4

STEELFIELDS LTD MARILLA STREET LANDFILL 2015 POST CLOSURE INSPECTION	Photographs
	Page 2 of 4

Investigation of MW-14BR	P5

Repaired Cap at MW-14BR	P6

Looking West at the North Slope of the Miscellaneous Debris Area	P7

Looking East at the South Slope of the Miscellaneous Debris Area	P8

APPENDIX H

Institutional Controls/Engineering Controls (IC/ECs) Certification

Enclosure 2

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Site Management Periodic Review Report Notice

Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **915047**

Site Name Republic Steel (LTV) (Marilla St. LF)

Site Address: Marilla Street and Hopkins Street Zip Code: 14220
City/Town: Buffalo
County: Erie
Site Acreage: 110.0

Reporting Period: September 12, 2014 to September 12, 2015

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

Box 2

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

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.

Richard U. Peluso, V.P
Signature of Owner, Remedial Party or Designated Representative

10.7.15
Date

SITE NO. 915047 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
132.16-1-11.2	Steelfields LTD	

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1. Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling. YAD see PRR section
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

132.16-1-13 Steelfields LTD

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1. Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling. YAD
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

132.16-1-14 Steelfields LTD

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1. Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling. YAD
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

132.16-1-9 Steelfields LTD Monitoring Plan

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1 Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling. YAD
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

132.20-1-2.2 Steelfields LTD

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1. Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling.
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

132.20-1-9 Steelfields LTD

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1. Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling.
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

133.13-1-8 Steelfields LTD Monitoring Plan

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1. Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling.
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

133.17-1-1 Steelfields LTD Monitoring Plan

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1. Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling.
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

133.17-1-10 Steelfields LTD

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1. Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling.
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

133.17-1-2 Steelfields LTD Monitoring Plan

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1. Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling.
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

133.17-1-6 Steelfields LTD

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1. Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling.
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

133.17-1-9 Steelfields LTD Monitoring Plan

Record of Decision: 3/27/1997

The Final Post-Closure Monitoring and Maintenance Plan (Revised November 2010) was approved on 11/22/2010. The Plan requires:

1. Maintenance and Monitoring of the landfill caps.
2. Groundwater Monitoring.
3. Surface water and sediment sampling.
~~4. Maintenance of fence around the site.~~
5. Periodic Reporting of Site activities and evaluation of Site data.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
132.16-1-11.2	~~Fencing/Access Control~~ Cover System
132.16-1-13	Cover System ~~Fencing/Access Control~~
132.16-1-14	Cover System ~~Fencing/Access Control~~
132.16-1-9	Cover System ~~Fencing/Access Control~~

Parcel	Engineering Control
132.20-1-2.2	Cover System ~~Fencing/Access Control~~ JAD
132.20-1-9	Cover System ~~Fencing/Access Control~~ JAD
133.13-1-8	Cover System ~~Fencing/Access Control~~ JAD
133.17-1-1	Cover System ~~Fencing/Access Control~~ JAD
133.17-1-10	Cover System ~~Fencing/Access Control~~ JAD
133.17-1-2	Cover System ~~Fencing/Access Control~~ JAD
133.17-1-6	Cover System ~~Fencing/Access Control~~ JAD
133.17-1-9	Cover System ~~Fencing/Access Control~~ JAD

Box 5

Periodic Review Report (PRR) Certification Statements

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

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

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

   AS DESCRIBED IN THE PRR

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;
   AS MODIFIED BY NYSDEC IN 2013 REGARDING FENCE MAINTENANCE

   (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.

   TO THE BEST OF MY KNOWLEDGE

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. 915047

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 JAMES A. DAIGLER (print name) at 2620 GRAND ISLAND BLVD GRAND ISLAND, N.Y 14072 (print business address)

am certifying as DESIGNATED REPRESENTATIVE (Owner or Remedial Party)

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

James O. Daigler
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

10-9-15
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 JAMES A. DAIGLER at 2620 GRAND ISLAND BLVD GRAND ISLAND, N.Y. 14072
print name print business address

am certifying as a Professional Engineer for the OWNER (Owner or Remedial Party)

James A. Daigler
Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

10-9-15
Date