Library Reference 3.1

TO: Janaki Suryadevara, Onondaga County Department of Water Environment Protection
FROM: MaryGail Perkins, Upstate Freshwater Institute
RE: UFI Review of 2011 AMP Data Quality Review Summary
DATE: September 21, 2012

Summary

Onondaga County Department of Water Environment Protection provided UFI with their 2011 AMP Data Quality Review Summary for review. I found the Data Quality Review Summary to be complete and consistent with good laboratory practices and various published reference materials, including EPA guidelines, NELAC guidelines, and Standard Methods.

Overall, I am satisfied that the protocols and rule sets employed by the County laboratory have resulted in a data set that has been properly reviewed and qualified. Specific comments are outlined below.

1. Equipment Rinsate Blanks – acceptance criteria are generally consistent with the EPA 5x/10x rule and general laboratory QA/QC practices. Data has been appropriately flagged.

2. Field Duplicates – a relative percent difference (RPD) of less than 20% is reasonable for field duplicates and is consistent with general practices for acceptable control limits for laboratory duplicates. Data has been appropriately flagged.

3. Analytical Duplicates – the acceptance criteria for analytical duplicates for various parameters was not provided for review. Since the County laboratory is a NELAC certified laboratory there is an assumption that accepted NELAC ISO standards for generating laboratory control limits are being followed. Data has been appropriately flagged.

4. Variance from Quality Control or Assurance Criteria – this is a "catch-all" flag for all types of quality control/assurance excursions or failures. This flag accounts for approximately 75% of the qualified data and most of excursions are related to the BOD5 and CBOD5 tests. The data has been appropriately flagged.

5. Reported Value Below the MRL – consistent with accepted/published practices. Data has been appropriately flagged.

6. Verify Parameters for Limnological Reasonableness – this evaluation has the potential to be highly subjective and depends on the experience and expertise of the person conducting the evaluation. In this instance, the three parameters being evaluated for limnological reasonableness are commonly encountered analytes and the rule set employed is consistent with that used for mass balance calculations and modeling. While UFI supports the use of this rule set, I would mention that it is possible from an analytical stand point to have SRP > TDP or TDP > TP and have the result be valid if concentrations of residual fractions (i.e., DOP, PP) are very small relative to the parameters being measured. This is due to the analytical uncertainty in the laboratory analysis itself and, while the occurrence would be noteworthy, it may not necessarily indicate a problem with the analysis itself. The data has been appropriately qualified.

7. Charge Balance Summary – an upper limit of 20% is acceptable and in general the average and median values are within 5%. The instances where the charge balance exceeded 20% are adequately explained. The data has been appropriately qualified.

8. Review for Outliers – while the actual approach to the screening process has not been outlined in detail, I am familiar with Dr. Walker and I find the general approach acceptable. While none of the data was qualified as an outlier, the process was valuable in that it captured a data entry error that was subsequently corrected.

9. Proficiency Testing – in 2011 the County laboratory participated in a proficiency testing (PT) program for *total phosphorus* and *low-level total mercury*. Proficiency samples were supplied by Environment Canada and the County laboratory was scored as "very good" for total mercury analysis, which is the highest scoring category listed. The performance of the County laboratory for total phosphorus analysis was rated as "satisfactory" for one PT study and "very good" for another. The "satisfactory" rating was caused by one of the ten PT samples exceeding the warning limit and another exceeding the acceptance limit. The Onondaga County laboratory conducted a thorough investigation into potential causes for these exceedances and developed a remedial plan to help control similar issues in the future. The laboratory's response demonstrates a commitment to producing high quality analytical results.

10. 2011 Data Qualifier and Action Summary – the summary of quality control/assurance excursions was reviewed and the data appears to be flagged according to the rule set laid out in the document.

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2011 AMP DATA QUALITY REVIEW SUMMARY

This summary outlines the procedures used for completing the 2011 AMP analytical data review and the criteria for inclusion of these data in the 2011 Annual Report related calculations.

I. Equipment Rinsate Blanks:

The AMP calls for preparing blanks of the cleaned sampling equipment prior to its use. Results of these samples are used to infer whether samples collected in the field are potentially compromised by the presence of contaminants in the sampling equipment and includes the following:

- Screen the blanks in the database for detectable concentrations
- Compare results of the rinsate blanks to MRL by parameter
- Compare results of the rinsate blanks to field sample results

Equipment rinsate blank data are either qualified (in the sample remark field) or flagged by the Lab, using a **"P"** (Unacceptable for field quality assurance criteria) flag added for reported values which exceed the acceptable limits for the blank concentrations based on the following criteria:

First criteria (If Blank Conc. > MRL and ≤ 2 x MRL)

(i) The OCDWEP Environmental Laboratory (Lab) verifies the analytical result by repeating the analysis, if possible (i.e., sample was within "hold time" and sufficient volume was available to repeat analysis).

(ii) If analysis was repeated and the blank concentration result was again > MRL and ≤ 2 x MRL, the Lab adds the following in the sample remark field - "{parameter} result verified".

(iii) The parameter was considered to be present at trace concentration - No "P" flag added or action needed.

Second Criteria (If Blank Conc. > 2 x MRL)

(i) The Lab flagged the Blank Conc. result as "P" and added the following in the sample remark field of the blank concentration - "Blank concentration of {parameter} exceeds acceptable limits" and issued a Audit Notification Form to the AMP Sanitary Engineer.

(ii) If Sample Concentration < 5 x Blank Concentration, the sample result/s was qualified. The Lab added the following sample remark to result/s to indicate blank contamination:

a. "Blank Concentration of (parameter) exceeds acceptable limits. Associated sample result is < 5 x Blank Concentration" and adds the "P" flag to sample/s with results < 5 x Blank Concentration.

Data Action:

All reported values flagged with the "P" flag was included in the AMP water quality database and qualified as "2" in the AMP water quality database (rejected in the AMP annual report related calculations).

II. Field Duplicates:

Field duplicates were evaluated using RPD (Relative Percent Difference) of the results and the absolute difference of the sample and duplicate result. RPD greater than 20% were considered outside of quality control limits. In some cases, the RPD's are greater than 20% because concentrations are at or near the detection level for some parameters; therefore, field duplicates with RPD greater than 20% were also evaluated for absolute difference greater than 2 x the MRL. Where the absolute difference was less than 2 x the MRL, no further action was required; where the absolute difference was greater than 2 x the MRL, additional investigation was warranted.

Field duplicates were flagged based on the following criteria:

(i) The limit is 10% RPD when the result was > 10 x MRL; or 20% RPD when the result was ≤ 10 x MRL.

(ii) Lab verified the analytical results of the original and duplicate sample by repeating analysis, if possible (i.e., sample was within "hold time" and sufficient volume was available to repeat analysis).

(iii) If the analysis was repeated and the %RPD failed, the absolute duplicate difference was evaluated. When the absolute duplicate difference > 2 x MRL, then the results failed the acceptance criterion.

(iv) Lab issued an Audit Notification Form to the AMP Sanitary Engineer and adds a **"P"** flag to both the original and duplicate reported sample results that exceed the acceptable criterion for the duplicate differences (field duplicates). The following sample remark was added to both the original and duplicate sample as follows: "Field duplicate exceeded acceptance criteria".

Data Action:

All reported field values flagged with the "P" flag was included in the AMP water quality database and qualified as "2" in the AMP water quality database (rejected in the AMP annual report related calculations).

III. Analytical Duplicates:

For samples exceeding the analytical duplicate RPD control limits for matrix duplicates or matrix spike duplicates, the **"N"** flag was used by the Laboratory.

Data Action:

Reported value flagged with the "N" flag was included in the AMP water quality database and qualified as "1" for use in the AMP Annual Report related calculations.

IV. Variance from quality control or assurance criteria:

The reported value for sample result was considered estimated due to variance from quality control or assurance criteria. For reported values with a **"V"** flagged entered for a parameter, a sample remark indicating the reason for the parameter flag was entered by the Lab.

Reasons or situations when a "V" flag was entered by the Lab:

- Toxic Tendencies for BOD, CBOD

- Past analytical hold time
- Sample acceptance failures
- Matrix spike failures
- LRB, LFB, ICV, or LCS solutions fail and sample analysis cannot be repeated

Data Action:
Reported value flagged with the "V" flag was included in the AMP water quality database and qualified as "2" in the AMP water quality database (rejected in the AMP annual report related calculations).

V. Reported Value Below the MRL

The **"N"** flag for a sample result indicates that the reported value is below the MRL. (Note that possible MRL elevation is dependent upon analyzed mass, volumes, and/or dilution volumes).

Data Action:
Reported value flagged with the "N" flag was included in the AMP water quality database and qualified as "1" for use in the AMP Annual Report related calculations.

VI. Verify Parameters For Limnological Reasonableness:

Several parameters were evaluated for limnological reasonableness for each sample, using the data from the tributaries and the lake.
These evaluations included:

- Phosphorus: $SRP \leq TDP \leq TP$
- Nitrogen: $NH_3\text{-}N \leq TKN$
  $NH_3\text{-}N \leq TKN\text{-}F$
- $BOD_5 \geq CBOD_5$

Data Action:

(i) Reported value flagged with the **"X"** flag, was within the range of uncertainty as determined by the Lab, was included in the AMP water quality database and qualified as "1" for use in the AMP Annual Report related calculations.

(ii) Reported value flagged with the "X" flag, and not within the range of uncertainty as determined by the Lab, was included in the AMP water quality database and qualified as "2" (rejected in the AMP annual report related calculations).

VII. Charge Balance Summary:

The charge balance results were evaluated against an upper limit of 20% for field samples and duplicates from the lake and the tributaries.

	Tributaries	Lake
Average	6.37%	5.05%
Median	5.33%	4.65%
N exceeds 20%	11	0*

**Note: The lab verified the major cations and anions results for eleven (11) tributary samples where charge balance exceeded 20%; and noted that these samples had unusually high solids. Note - each of these sampling events was conducted during high flow conditions.*

2011 Tributary samples where charge balance exceeded 20%

Sample No.	Source	Date	Charge Balance %	TSS (mg/l)
2011004083	Crk-Onondaga Creek @ Dorwin Ave.	23-Mar-11	23.6	24
2011006155	Crk-Nine Mile Creek @ Lakeland Rt 48 – Duplicate	26-Apr-11	30.7	123
2011006147	Crk-Nine Mile Creek @ Lakeland Rt 48	26-Apr-11	26.3	127
2011006151	Crk-Onondaga Creek @ Dorwin Ave.	26-Apr-11	37.2	165
2011006150	Crk-Harbor Brook @ Velasko Road	26-Apr-11	21.6	51
2011006154	Crk-Harbor Brook @ Bellevue Avenue	26-Apr-11	25.0	18
2011014060	Crk-Onondaga Creek @ Dorwin Ave.	29-Aug-11	24.8	276
2011014607	Crk-Nine Mile Creek @ Lakeland Rt 48	08-Sep-11	20.5	213
2011014611	Crk-Onondaga Creek @ Dorwin Ave.	08-Sep-11	28.1	220
2011014615	Crk-Harbor Brook @ Bellevue Avenue	08-Sep-11	21.2	18
2011017845	Crk-Onondaga Creek @ Dorwin Ave.	15-Nov-11	32.9	725

Data Action:
All reported results, including the eleven (11) tributary samples listed above were included in the AMP water quality database and qualified as "1" for use in the AMP Annual Report related calculations.

VIII. Review for Outliers:

The water quality database was used to identify possible outliers using the tool developed by Dr. William Walker. The primary purpose for the outlier screening is to provide additional quality control for data entry and transfer of the data to the water quality database. For the outlier screening algorithm, the data are fit to a normal or lognormal distribution using a procedure that is robust to outliers.

No samples were rejected as a result of this analysis, however the County made one (1) correction to the water quality database due to a data entry error in LIMS, which was subsequently corrected by the Lab: Sample #2011001738 (12 meter Lake North Deep station sample collected 4/6/11).

IX. Ultra low-level Mercury results:

During 2011, the County subcontracted ultra low-level total mercury and methyl mercury analysis. In 2011, samples collected on two (2) dates April 19, 2011, and August 9, 2011, were analyzed by Frontier Global Sciences, Inc. (FGS) and samples collected on one (1) date October 24, 2011, were analyzed by TestAmerica Laboratories, Inc.

Review of the 2011 ultra low-level total and methyl mercury analytical data, which indicated that all quality control issues were met and that all results were usable, included a review of the following:

a. Chain of Custody forms
b. Holding times
c. Matrix Duplicates and Triplicates
d. Preparation Blanks
e. Calibration Blanks
f. Field/Equipment Blanks

2011 Data Qualifier Flags & Action Summary:

During 2011, the laboratory annotated AMP analytical results with standard data flags as defined by NELAC. The laboratory provides comments in the database to clarify the rationale for the data flags assigned to the sample results. See Attachment #1 for 2011 AMP Flagged data summary.

Lab Flag	Definition	2011 Occurrence	Data Action
P	Unacceptable for field quality assurance criteria	11 records	Qualified as "2" in the AMP water quality database (rejected in the AMP annual report related calculations).
V	Reported value is considered estimated due to variance from quality control or assurance criteria	362 records - (Includes 188 records for BOD5 and 115 records for CBOD5)	Qualified as "2" in the AMP water quality database (rejected in the AMP annual report related calculations). Note: Whenever a "V" flag is entered for a parameter, a sample remark indicating the reason for the parameter flag is also entered.
N	Duplicates: RPD exceeds the laboratory control limit for matrix duplicates or matrix spike duplicates	83 records	Qualified as "1" for use in the AMP Annual Report related calculations.
U	Indicates that the measured value is below the MRL. Note that possible MRL elevation is dependent upon analyzed mass, volumes, and/or dilution volumes	7 records	Qualified as "1" for use in the AMP Annual Report related calculations.
X	Reported value fails limnological or analytical reasonableness	28 records - 13 records qualified as "1" 15 records qualified as "2"	If sample remarks indicate that the results are within the range of uncertainty of the tests, qualified as "1" for use in the AMP Annual Report related calculations. Otherwise Qualified as "2" in the AMP water quality database (rejected in the AMP annual report related calculations).

*	Used by the Contract Lab for Priority Pollutant analysis or Hg analysis.	5 records – 2 records qualified as “1” 3 records qualified as “2”	*Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value (qualified as “1”) The result of the laboratory control sample was less than the established limit (qualified as “2”).

2011 AMP FLAGGED DATA SUMMARY

ONONDAGA COUNTY DEPARTMENT OF WATER ENVIRONMENT PROTECTION

YEAR	DATE	SAMPLE #	IC#	SOURCE	SRESULT	PARAMETER	UNITS	MARK CO	LAB COMMENTS	Qualify*
2011	03-Jan-11	2011000039	789	Metro Final Effluent	3	CBOD5	mg/L	N	acceptance criteria	1
2011	03-Jan-11	2011000039	789	Metro Final Effluent	3	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000081	911	Crk-Harbor Brook @ Velasko Road	<2	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000149	789	Metro Final Effluent	<2	CBOD5	mg/L	N	CBOD5: QC standards failed the acceptance criteria.	1
2011	04-Jan-11	2011000149	789	Metro Final Effluent	4	BOD5	mg/L	N	BOD5: QC standards failed the acceptance criteria.	1
2011	04-Jan-11	2011000084	910	Crk-Onondaga Creek @ Dorwin Ave. - Duplicate	0.018	TP	mg/L	P	criteria and given a P flag. TP filtered in lab.	2
2011	04-Jan-11	2011000084	910	Crk-Onondaga Creek @ Dorwin Ave. - Duplicate	<2	BOD5	mg/L	UN	criteria, Method Blank outside acceptance criteria	1
2011	04-Jan-11	2011000083	789	Crk-Metro Effluent	4	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000082	910	Crk-Onondaga Creek @ Dorwin Ave.	<2	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000080	904	Crk-Tributary 5a @ State Fair Blvd	5	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000073	901	Crk-Blank SS Pail (Crew A)	<2	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000082	910	Crk-Onondaga Creek @ Dorwin Ave.	0.042	TP	mg/L	P	TP filtered in lab, failed duplicate difference criteria.	2
2011	04-Jan-11	2011000072	888	Crk-Blank Dunker Churn (Crew B)	<2	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000079	905	Crk-Nine Mile Creek @ Lakeland Rt 48	<2	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000074	902	Crk-Harbor Brook @ Hiawatha	<2	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000075	882	Crk-Onondaga Creek @ Kirkpatrick	<2	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000076	908	Crk-Ley Creek @ Park Street	4	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000077	1906	Crk-Onondaga Lake Outlet 2 ft.	<2	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000078	1907	Crk-Onondaga Lake Outlet 12 ft.	<2	BOD5	mg/L	N	acceptance criteria	1
2011	04-Jan-11	2011000071	990	Crk-Blank Churn (Crew A)	<2	BOD5	mg/L	N	acceptance criteria	1
2011	06-Jan-11	2011000346	789	Metro Final Effluent	4	BOD5	mg/L	N	BOD5: QC standards failed the acceptance criteria.	1
2011	06-Jan-11	2011000346	789	Metro Final Effluent	2	CBOD5	mg/L	N	CBOD5: QC standards failed the acceptance criteria.	1
2011	07-Jan-11	2011000406	789	Metro Final Effluent	5	BOD5	mg/L	V	BOD5: Two consecutive sets of QC standards failed the acceptance criteria	2
2011	07-Jan-11	2011000406	789	Metro Final Effluent	3	CBOD5	mg/L	V	CBOD5: Two consecutive sets of QC standards failed the acceptance criteria	2
2011	08-Jan-11	2011000411	789	Metro Final Effluent	2	BOD5	mg/L	N	interference	1
2011	08-Jan-11	2011000411	789	Metro Final Effluent	3	CBOD5	mg/L	V	BOD5<CBOD5 matrix interference	2
2011	11-Jan-11	2011000506	789	Metro Final Effluent	3	BOD5	mg/L	N	BOD5: QC standards failed the acceptance criteria.	1
2011	11-Jan-11	2011000506	789	Metro Final Effluent	2	CBOD5	mg/L	N	CBOD5: QC standards failed the acceptance criteria.	1
2011	12-Jan-11	2011000549	789	Metro Final Effluent	3	CBOD5	mg/L	N	CBOD5: QC standards failed the acceptance criteria.	1
2011	13-Jan-11	2011000678	789	Metro Final Effluent	5	BOD5	mg/L	N	BOD5: QC standards failed the acceptance criteria.	1
2011	13-Jan-11	2011000678	789	Metro Final Effluent	2	CBOD5	mg/L	N	CBOD5: QC standards failed the acceptance criteria.	1
2011	14-Jan-11	2011000729	789	Metro Final Effluent	6	BOD5	mg/L	N	BOD5: QC standards failed the acceptance criteria.	1
2011	15-Jan-11	2011000734	789	Metro Final Effluent	3	BOD5	mg/L	N	BOD5: QC standards failed the acceptance criteria.	1
2011	17-Jan-11	2011000762	789	Metro Final Effluent	2	CBOD5	mg/L	N	CBOD5: QC standards failed the acceptance criteria.	1
2011	23-Jan-11	2011001021	789	Metro Final Effluent	3	CBOD5	mg/L	N	CBOD5: QC standards failed the acceptance criteria.	1
2011	24-Jan-11	2011001076	789	Metro Final Effluent	5	BOD5	mg/L	N	BOD5: QC standards failed the acceptance criteria.	1
2011	25-Jan-11	2011001143	789	Metro Final Effluent	4	BOD5	mg/L	N	BOD5: QC standards failed the acceptance criteria.	1
2011	25-Jan-11	2011001143	789	Metro Final Effluent	3	CBOD5	mg/L	N	CBOD5: QC standards failed the acceptance criteria.	1
2011	26-Jan-11	2011001198	789	Metro Final Effluent	3	CBOD5	mg/L	N	CBOD5: Two consecutive sets of QC standards failed the acceptance criteria	1
2011	31-Jan-11	2011001362	789	Metro Final Effluent	0.0045	Mo-GFA	mg/L	N		1
2011	31-Jan-11	2011001362	789	Metro Final Effluent	1366	TDS	mg/L	N	TDS: In house standard outside acceptance criteria	1
2011	02-Feb-11	2011001510	789	Metro Effluent - Duplicate	1.94	TKN	mg/L	N	Sample is duplicate of #2011001467.	1
2011	07-Feb-11	2011001659	789	Metro Final Effluent	<5	Trichlorobenz	µg/L	V	sample was less than the established limit.	2
2011	07-Feb-11	2011001659	789	Metro Final Effluent	<10	clopentadiene	µg/L	V	sample was less than the established limit.	2
2011	07-Feb-11	2011001659	789	Metro Final Effluent	<5	hane	µg/L	V	sample was less than the established limit.	2
2011	08-Feb-11	2011001398	902	Crk-Harbor Brook @ Hiawatha	0.036	TDP	mg/L	X	of uncertainty of the tests.	1
2011	08-Feb-11	2011001399	882	Crk-Onondaga Creek @ Kirkpatrick	0.006	SRP	mg/L	X	TDP < SRP, failed limnological reasonableness.	2
2011	08-Feb-11	2011001399	882	Crk-Onondaga Creek @ Kirkpatrick	0.004	TDP	mg/L	X	TDP < SRP, failed limnological reasonableness.	2
2011	08-Feb-11	2011001398	902	Crk-Harbor Brook @ Hiawatha	0.04	SRP	mg/L	X	of uncertainty of the tests.	1
2011	19-Feb-11	2011002305	789	Metro Final Effluent	4	BOD5	mg/L	v	BOD5: LCS failed acceptance criteria.	2
2011	19-Feb-11	2011002454	630	Metro By-Pass Event #4	43	BOD5	mg/L	v	grab 1; one grab only BOD5: LCS failed acceptance criteria.	2
2011	23-Feb-11	2011002438	888	Crk-Blank Dunker Churn (Crew B)	<0.5	TOC	mg/L	X	TOC<TOC-F; fail limnological reasonableness.	2
2011	23-Feb-11	2011002448	910	Crk-Onondaga Creek @ Dorwin Ave.	240	ALK-T	mg/L	V	or assurance criteria.	2
2011	23-Feb-11	2011002438	888	Crk-Blank Dunker Churn (Crew B)	0.565	TOC-F	mg/L	X	TOC<TOC-F; fail limnological reasonableness.	2
2011	25-Feb-11	2011002642	789	Metro Final Effluent	2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	25-Feb-11	2011002642	789	Metro Final Effluent	4	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	26-Feb-11	2011002647	789	Metro Final Effluent	3	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	26-Feb-11	2011002647	789	Metro Final Effluent	4	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	06-Mar-11	2011002871	630	Metro By-Pass Event #7	<6	O&G	mg/L	V	grab 2 O&G (SPE): was not properly preserved(stir bar in sample jar)	2

YEAR	DATE	SAMPLE #	IC#	SOURCE	SRESULT	PARAMETER	UNITS	MARK CO	LAB COMMENTS	Qualify*
2011	07-Mar-11	2011003214	630	Metro By-Pass Event #8	7	O&G	mg/L	V	grab 1 O&G(SPE):LFS outside acceptance criteria	2
2011	08-Mar-11	2011003222	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	08-Mar-11	2011003363	630	Metro By-Pass Event #9	42	CBOD5	mg/L	V	made from 5 grabs CBOD5: LCS standards failed the acceptance criteria	2
2011	08-Mar-11	2011003222	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	09-Mar-11	2011003303	789	Metro Final Effluent	2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	09-Mar-11	2011003341	789	Metro Final Effluent - Duplicate	<2	CBOD5	mg/L	V	acceptance criteria	2
2011	10-Mar-11	2011003378	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	10-Mar-11	2011003378	789	Metro Final Effluent	<2	CBOD5	mg/L	V	the acceptance criteria	2
2011	10-Mar-11	2011003432	630	Metro By-Pass Event #10	<6	O&G	mg/L	V	grab 2; Monthly O&G(SPE):LCS standards failed the acceptance criteria	2
2011	10-Mar-11	2011003437	630	Metro By-Pass Event #10	51	BOD5	mg/L	V	made of 6 grabs BOD5: Method blank outside acceptance criteria.	2
2011	10-Mar-11	2011003437	630	Metro By-Pass Event #10	36	CBOD5	mg/L	V	LCS standards failed the acceptance criteria	2
2011	12-Mar-11	2011003615	630	Metro By-Pass Event #12	46	BOD5	mg/L	V	made of 6 grabs BOD5: Method blank outside acceptance criteria.	2
2011	12-Mar-11	2011003615	630	Metro By-Pass Event #12	32	CBOD5	mg/L	V	made of 6 grabs CBOD5: Method blank outside acceptance criteria.	2
2011	12-Mar-11	2011003448	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	12-Mar-11	2011003448	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	16-Mar-11	2011003810	630	Metro By-Pass Event #16	7	O&G	mg/L	V	grab 1 O&G(SPE):LFS outside acceptance criteria.	2
2011	21-Mar-11	2011003904	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	21-Mar-11	2011003904	789	Metro Final Effluent	<2	BOD5	mg/L	V	acceptance criteria.	2
2011	21-Mar-11	2011003977	630	Metro By-Pass Event #19	52	CBOD5	mg/L	V	criteria.	2
2011	21-Mar-11	2011003977	630	Metro By-Pass Event #19	72	BOD5	mg/L	V	BOD5,: LCS standards outside acceptance criteria	2
2011	22-Mar-11	2011004023	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	22-Mar-11	2011004023	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004078	1906	Crk-Onondaga Lake Outlet 2 ft.	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004105	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	23-Mar-11	2011004086	1978	Crk-Allied East Flume-Manhole 015	14	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004085	905	Crk-Nine Mile Creek @ Lakeland Rt 48 - Duplicate	<2	BOD5	mg/L	V	criteria.	2
2011	23-Mar-11	2011004084	789	Crk-Metro Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004083	910	Crk-Onondaga Creek @ Dorwin Ave.	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004082	911	Crk-Harbor Brook @ Velasko Road	0.012	TDP	mg/L	V	TDP bottle; Sample acceptance criteria not met pH=2.29.	2
2011	23-Mar-11	2011004082	911	Crk-Harbor Brook @ Velasko Road	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004081	904	Crk-Tributary 5a @ State Fair Blvd	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004079	1907	Crk-Onondaga Lake Outlet 12 ft.	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004077	908	Crk-Ley Creek @ Park Street	4	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004076	882	Crk-Onondaga Creek @ Kirkpatrick	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004073	901	Crk-Blank SS Pail (Crew A)	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004072	888	Crk-Blank Dunker Churn (Crew B)	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004071	990	Crk-Blank Churn (Crew A)	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004074	902	Crk-Harbor Brook @ Hiawatha	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	23-Mar-11	2011004080	905	Crk-Nine Mile Creek @ Lakeland Rt 48	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	24-Mar-11	2011004237	789	Metro Final Effluent	3	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	24-Mar-11	2011004093	630	Metro By-Pass Event #20	66	BOD5	mg/L	V	Composite consists of 2 grabs. BOD5: Method blank outside acceptance criteria.	2
2011	24-Mar-11	2011004093	630	Metro By-Pass Event #20	43	CBOD5	mg/L	V	criteria.	2
2011	24-Mar-11	2011004237	789	Metro Final Effluent	4	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	25-Mar-11	2011004312	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards past expiration date	2
2011	25-Mar-11	2011004312	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: LCS standards past expiration date	2
2011	26-Mar-11	2011004317	789	Metro Final Effluent	<2	CBOD5	mg/L	V	conmtrol limits	2
2011	26-Mar-11	2011004317	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards past expiration date	2
2011	27-Mar-11	2011004322	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	27-Mar-11	2011004322	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	30-Mar-11	2011004635	789	Metro Final Effluent - Duplicate	<2	CBOD5	mg/L	V	criteria. LCS standards failed the acceptance criteria.	2
2011	30-Mar-11	2011004593	789	Metro Final Effluent	<2	CBOD5	mg/L	V	acceptance criteria	2
2011	30-Mar-11	2011004593	789	Metro Final Effluent	5	BOD5	mg/L	V	acceptance criteria	2
2011	30-Mar-11	2011004635	789	Metro Final Effluent - Duplicate	1.25	TKN	mg/L	V	Sample is duplicate of #2011004593. TKN: Batch LRB failed acceptance criteria.	2
2011	30-Mar-11	2011004635	789	Metro Final Effluent - Duplicate	3	BOD5	mg/L	V	criteria. LCS standards failed the acceptance criteria.	2
2011	31-Mar-11	2011004693	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	31-Mar-11	2011004693	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	01-Apr-11	2011004766	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Apr-11	2011004767	789	Metro Final Effluent	100	FCOLI-MF	count/100	V	FCOLI - Power outage affected result. Result is an estimate.	2
2011	03-Apr-11	2011004778	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	03-Apr-11	2011004778	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	05-Apr-11	2011004934	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	05-Apr-11	2011004934	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2

ATTACHMENT 1
Library Reference 3.1

YEAR	DATE	SAMPLE #	IC#	SOURCE	SRESULT	PARAMETER	UNITS	MARK CO	LAB COMMENTS	Qualify*
2011	05-Apr-11	2011004496	630	Metro By-Pass Event #22	58	CBOD5	mg/L	V	criteria.	2
2011	05-Apr-11	2011004496	630	Metro By-Pass Event #22	68	BOD5	mg/L	V	Composite consists of 3 grabs. BOD5: Method blank outside acceptance criteria.	2
2011	05-Apr-11	2011004490	630	Metro By-Pass Event #22	<6	O&G	mg/L	V	grab 1 O&G(SPE):LFS outside acceptance criteria	2
2011	06-Apr-11	2011004953	916	Lake Equip. Blk (Dunker Churn)	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	06-Apr-11	2011005013	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	06-Apr-11	2011005013	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	06-Apr-11	2011004965	925	Lake Upper Mixed Layer South - Duplicate	<2	BOD5	mg/L	V	criteria.	2
2011	06-Apr-11	2011004964	926	Lake Lower Water Layer South	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	06-Apr-11	2011004963	925	Lake Upper Mixed Layer South	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	06-Apr-11	2011004962	920	Lake 6m South - Duplicate	46.0	TIC	mg/L	V	service.	2
2011	06-Apr-11	2011004961	924	Lake 18m South	46.1	TIC	mg/L	V	TIC: past hold time, instrument out of service.	2
2011	06-Apr-11	2011004959	922	Lake 12m South	45.9	TIC	mg/L	V	TIC: past hold time, instrument out of service. TKN & TKN -F reprepped 4/29	2
2011	06-Apr-11	2011004957	920	Lake 6m South	45.5	TIC	mg/L	V	TIC: past hold time, instrument out of service.	2
2011	06-Apr-11	2011001744	934	Lake Upper Mixed Layer North - Duplicate	<2	BOD5	mg/L	V	criteria.	2
2011	06-Apr-11	2011004954	917	Lake Equip. Blk (Pump)	<0.5	TIC	mg/L	V	TIC: past hold time, instrument out of service.	2
2011	06-Apr-11	2011001740	933	Lake 18m North	46.0	TIC	mg/L	V	TIC: past hold time, instrument out of service.	2
2011	06-Apr-11	2011001743	935	Lake Lower Water Layer North	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	06-Apr-11	2011001742	934	Lake Upper Mixed Layer North	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	06-Apr-11	2011001741	929	Lake 6m North - Duplicate	46.0	TIC	mg/L	V	service.	2
2011	06-Apr-11	2011001736	929	Lake 6m North	45.8	TIC	mg/L	V	TIC: past hold time, instrument out of service.	2
2011	06-Apr-11	2011001734	927	Lake 0m North	45.9	TIC	mg/L	V	TIC: past hold time, instrument out of service.	2
2011	06-Apr-11	2011001738	931	Lake 12m North	45.9	TIC	mg/L	V	TIC: past hold time, instrument out of service.	2
2011	06-Apr-11	2011004955	918	Lake 0m South	45.6	TIC	mg/L	V	TIC: past hold time, instrument out of service.	2
2011	07-Apr-11	2011005111	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	07-Apr-11	2011005111	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	08-Apr-11	2011005170	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	08-Apr-11	2011005170	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	10-Apr-11	2011005182	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	10-Apr-11	2011005182	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	11-Apr-11	2011005288	789	Metro Final Effluent	<5	hane	µg/L	*	sample was less than the established limit.	2
2011	11-Apr-11	2011005288	789	Metro Final Effluent	<5	tadiene	µg/L	*	sample was less than the established limit.	2
2011	12-Apr-11	2011005344	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	12-Apr-11	2011005318	911	Crk-Harbor Brook @ Velasko Road - Duplicate	60.6	TIC	mg/L	V	Sample is duplicate of #2011005314. TIC: past hold time.	2
2011	12-Apr-11	2011005344	789	Metro Final Effluent	4	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	13-Apr-11	2011004913	630	Metro By-Pass Event #23	7	O&G	mg/L	N	grab 1 O&G(SPE):Dup outside acceptance criteria	1
2011	14-Apr-11	2011005472	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	14-Apr-11	2011005472	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	17-Apr-11	2011005248	630	Metro By-Pass Event #24	42	CBOD5	mg/L	V	criteria	2
2011	17-Apr-11	2011005242	630	Metro By-Pass Event #24	8	O&G	mg/L	V	grab 1 O&G(SPE):LCS standards failed the acceptance criteria	2
2011	17-Apr-11	2011005559	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	18-Apr-11	2011005647	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	21-Apr-11	2011005923	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	23-Apr-11	2011005892	630	Metro By-Pass Event #26	<6	O&G	mg/L	V	grab 2 O&G(SPE):No teflon liner	2
2011	24-Apr-11	2011006061	630	Metro By-Pass Event #27	<9	FCOLI-MF	count/100	V	grab 5	2
2011	26-Apr-11	2011006252	630	Metro By-Pass Event #29	26	CBOD5	mg/L	V	criteria.	2
2011	26-Apr-11	2011006155	905	Crk-Nine Mile Creek @ Lakeland Rt 48 - Duplicate	0.032	TDP	mg/L	X	however results are within range of uncertainty of the tests. SRP failed dup	1
2011	26-Apr-11	2011006155	905	Crk-Nine Mile Creek @ Lakeland Rt 48 - Duplicate	0.239	TP	mg/L	V	Balance verified. TDP < SRP, failed Limnological reasonableness however r	2
2011	26-Apr-11	2011006200	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	26-Apr-11	2011006200	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	26-Apr-11	2011006252	630	Metro By-Pass Event #29	45	BOD5	mg/L	V	Composite consists of 6 grabs. BOD5: Method blank outside acceptance criteria.	2
2011	27-Apr-11	2011006259	630	Metro By-Pass Event #30	26	CBOD5	mg/L	V	criteria	2
2011	27-Apr-11	2011006261	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	28-Apr-11	2011006362	789	Metro Final Effluent	0.515	TKN	mg/L	N	TKN duplicate result: 0.787 mg/L.	1
2011	29-Apr-11	2011006470	789	Metro Final Effluent	0.515	TKN	mg/L	N	TKN duplicate result: 0.691 mg/L	1
2011	30-Apr-11	2011006476	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	30-Apr-11	2011006476	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	30-Apr-11	2011006543	630	Metro By-Pass Event #33	44	BOD5	mg/L	V	Composite consists of 4 grabs. BOD5: Method blank outside acceptance criteria.	2
2011	30-Apr-11	2011006543	630	Metro By-Pass Event #33	28	CBOD5	mg/L	V	criteria.	2
2011	03-May-11	2011006736	630	Metro By-Pass Event #36	6	O&G	mg/L	N	grab 1. O&G(SPE):Dup outside acceptance criteria	1
2011	03-May-11	2011006736	630	Metro By-Pass Event #36	0.622	SRP	mg/L	V	grab 1. SRP was flagged "V" due to past hold time.	2
2011	04-May-11	2011006787	789	Metro Effluent - Duplicate	0.506	TKN	mg/L	N	Sample is duplicate of #2011006745. TKN duplicate result: 0.690 mg/L	1
2011	05-May-11	2011006845	630	Metro By-Pass Event #38	33	CBOD5	mg/L	V	criteria.	2

YEAR	DATE	SAMPLE #	IC#	SOURCE	SRESULT	PARAMETER	UNITS	MARK CO	LAB COMMENTS	Qualify*
2011	05-May-11	2011006858	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	07-May-11	2011006918	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	10-May-11	2011007067	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	13-May-11	2011007303	789	Metro Final Effluent	0.686	TKN	mg/L	N	TKN duplicate result: 1.01 mg/L.	1
2011	17-May-11	2011007492	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	21-May-11	2011007710	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	23-May-11	2011007790	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	02-Jun-11	2011008369	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	04-Jun-11	2011008453	789	Metro Final Effluent	1.01	TKN	mg/L	N	TKN duplicate 1.36 mg/L.	1
2011	04-Jun-11	2011008453	789	Metro Final Effluent	<2	CBOD5	mg/L	U	failed the acceptance criteria.	1
2011	05-Jun-11	2011008459	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	05-Jun-11	2011008459	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	06-Jun-11	2011008520	789	Metro Final Effluent	<0.0150	Ni	mg/L	N	TDS:Drying temp outside established limits	1
2011	06-Jun-11	2011008520	789	Metro Final Effluent	1376	TDS	mg/L	V	TDS:Drying temp outside established limits	2
2011	06-Jun-11	2011008520	789	Metro Final Effluent	<0.0008	Cd	mg/L	N		1
2011	07-Jun-11	2011008567	918	Lake 0m South	929	TDS	mg/L	V	TDS:Drying temp outside established limits	2
2011	07-Jun-11	2011008574	920	Lake 6m South - Duplicate	930	TDS	mg/L	V	Sample is duplicate of #2011008569. TDS:Drying temp outside established limits	2
2011	07-Jun-11	2011008573	924	Lake 18m South	900	TDS	mg/L	V	TDS:Drying temp outside established limits	2
2011	07-Jun-11	2011008569	920	Lake 6m South	939	TDS	mg/L	V	TDS:Drying temp outside established limits	2
2011	07-Jun-11	2011008566	917	Lake Equip. Blk (Pump)	0.206	TKN-F	mg/L	X	TKN-F, failed Limnological reasonableness however results are within ran	1
2011	07-Jun-11	2011008566	917	Lake Equip. Blk (Pump)	0.163	TKN	mg/L	X	TKN-F, failed Limnological reasonableness however results are within ran	1
2011	07-Jun-11	2011008566	917	Lake Equip. Blk (Pump)	34	TDS	mg/L	V	TKN-F, failed Limnological reasonableness however results are within ran	2
2011	07-Jun-11	2011008571	922	Lake 12m South	901	TDS	mg/L	V	TDS:Drying temp outside established limits	2
2011	09-Jun-11	2011008778	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	11-Jun-11	2011007536	630	Metro By-Pass Event #42	8	O&G	mg/L	V	grab 1 O&G(SPE):LFS & Dup outside acceptance criteria	2
2011	14-Jun-11	2011008870	905	Crk-Nine Mile Creek @ Lakeland Rt 48	<0.003	CN-T	mg/L	V	CN bottle: Sample acceptance criteria not met pH=11.61.	2
2011	14-Jun-11	2011008870	905	Crk-Nine Mile Creek @ Lakeland Rt 48	51.4	TIC	mg/L	v	TIC: LFS failure.	2
2011	17-Jun-11	2011009165	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	20-Jun-11	2011009257	789	Metro Final Effluent	<0.002	Pb	mg/L	N		1
2011	20-Jun-11	2011009307	789	Metro Final Effluent	0.014	Phenol	mg/L	V	Phenol: method blank outside acceptance criteria.	2
2011	20-Jun-11	2011009257	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	21-Jun-11	2011009251	934	Lake Upper Mixed Layer North - Duplicate	<0.002	Pb	mg/L	N	metals.	1
2011	22-Jun-11	2011008249	630	Metro By-Pass Event #43	95	BOD5	mg/L	V	grab 1; one grab only BOD5: LCS standards failed the acceptance criteria.	2
2011	22-Jun-11	2011009443	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	28-Jun-11	2011009612	902	Crk-Harbor Brook @ Hiawatha	0.227	TKN	mg/L	N	TKN duplicate: 0.321 mg/L	1
2011	28-Jun-11	2011009613	882	Crk-Onondaga Creek @ Kirkpatrick	0.018	TDP	mg/L	V	TDP bottle: Sample acceptance criteria not met pH=1.29	2
2011	28-Jun-11	2011009624	796	Crk-Sawmill Crk @ Onondaga Lake Rec. Trail	2.90	DO-field	mg/L	V	DO-Field: DO membrane on YSI ripped	2
2011	29-Jun-11	2011009815	789	Metro Final Effluent - Duplicate	<2	CBOD5	mg/L	V	criteria.	2
2011	29-Jun-11	2011009788	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	29-Jun-11	2011009788	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	29-Jun-11	2011009815	789	Metro Final Effluent - Duplicate	3	BOD5	mg/L	V	criteria.	2
2011	04-Jul-11	2011010077	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	04-Jul-11	2011010077	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	05-Jul-11	2011010153	789	Metro Final Effluent	4	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010229	911	Crk-Harbor Brook @ Velasko Road	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010235	789	Crk-Merto Effluent - Duplicate	<2	BOD5	mg/L	V	acceptance criteria.	2
2011	06-Jul-11	2011010219	888	Crk-Blank Dunker Churn (Crew B)	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010234	1960	Crk-Harbor Brook @ Bellevue Avenue	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010236	1092	Crk-Bloody Brook near Thruway	5	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010233	794	Crk-Bloody Brk @ Onondaga Lake Parkway	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010232	796	Crk-Sawmill Crk @ Onondaga Lake Rec. Trail	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010231	789	Crk-Metro Effluent	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010230	910	Crk-Onondaga Creek @ Dorwin Ave.	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010228	1978	Crk-Allied East Flume-Manhole 015	4	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010227	904	Crk-Tributary 5a @ State Fair Blvd	4	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010225	1907	Crk-Onondaga Lake Outlet 12 ft.	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010224	1906	Crk-Onondaga Lake Outlet 2 ft.	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010223	908	Crk-Ley Creek @ Park Street	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010222	882	Crk-Onondaga Creek @ Kirkpatrick	6	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010220	901	Crk-Blank SS Pail (Crew A)	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010218	990	Crk-Blank Churn (Crew A)	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Jul-11	2011010221	902	Crk-Harbor Brook @ Hiawatha	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2

YEAR	DATE	SAMPLE #	IC#	SOURCE	SRESULT	PARAMETER	UNITS	MARK CO	LAB COMMENTS	Qualify*
2011	10-Jul-11	2011010400	789	Metro Final Effluent	2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	10-Jul-11	2011010400	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	11-Jul-11	2011010554	789	Metro Final Effluent	0.01	Phenol	mg/L	V	concentration parameter exceeds acceptable limits. Associated result <10X	2
2011	13-Jul-11	2011010744	1063	River Lake Outlet #2 Bottom	0.017	TDP	mg/L	X	TDP < SRP, failed Limnological reasonableness.	2
2011	13-Jul-11	2011010746	1067	River Lake Outlet #3 Bottom	0.016	SRP	mg/L	X	of uncertainty of the tests. TKN & TKN-F reprepped 7/25.	1
2011	13-Jul-11	2011010744	1063	River Lake Outlet #2 Bottom	0.036	SRP	mg/L	X	TDP < SRP, failed Limnological reasonableness.	2
2011	13-Jul-11	2011010736	970	River Buoy #212 Bottom	0.013	TDP	mg/L	X	TDP < SRP, failed Limnological reasonableness.	2
2011	13-Jul-11	2011010736	970	River Buoy #212 Bottom	0.022	SRP	mg/L	X	TDP < SRP, failed Limnological reasonableness.	2
2011	13-Jul-11	2011010728	948	River Buoy #255 Bottom	0.030	TDP	mg/L	X	TDP < SRP, failed Limnological reasonableness.	2
2011	13-Jul-11	2011010728	948	River Buoy #255 Bottom	0.040	SRP	mg/L	X	TDP < SRP, failed Limnological reasonableness.	2
2011	13-Jul-11	2011010746	1067	River Lake Outlet #3 Bottom	0.014	TDP	mg/L	X	of uncertainty of the tests. TKN & TKN-F reprepped 7/25.	1
2011	17-Jul-11	2011010962	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	18-Jul-11	2011009652	630	Metro By-Pass Event #46	9	O&G	mg/L	V	grab 1 O&G(SPE):LFS & Dup outside acceptance criteria	2
2011	18-Jul-11	2011011134	789	Metro Final Effluent	0.011	Phenol	mg/L	V	Associated result < 10X blank concentration, possible blank contamination.	2
2011	22-Jul-11	2011011452	789	Metro Final Effluent	4	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	22-Jul-11	2011011452	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	23-Jul-11	2011011458	789	Metro Final Effluent	<2	BOD5	mg/L	U	BOD5: LCS standards failed the acceptance criteria	1
2011	23-Jul-11	2011011458	789	Metro Final Effluent	<2	CBOD5	mg/L	U		1
2011	24-Jul-11	2011011464	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	24-Jul-11	2011011464	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	25-Jul-11	2011011670	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	26-Jul-11	2011009659	630	Metro By-Pass Event #47	8	O&G	mg/L	V	acceptance criteria	2
2011	26-Jul-11	2011011513	924	Lake 18m South	0.012	SRP	mg/L	X	TDP < SRP, failed Limnological reasonableness.	2
2011	26-Jul-11	2011011513	924	Lake 18m South	0.008	TDP	mg/L	X	TDP < SRP, failed Limnological reasonableness.	2
2011	27-Jul-11	2011011799	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	27-Jul-11	2011011799	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	28-Jul-11	2011011830	918	Lake 0m South	11	ECOLI	count/100	N		1
2011	28-Jul-11	2011011918	789	Metro Final Effluent	<2	CBOD5	mg/L	V	acceptance criteria	2
2011	28-Jul-11	2011011822	988	Lake Nearshore (Willow Bay)	10	ECOLI	count/100	N		1
2011	28-Jul-11	2011011831	927	Lake 0m North	1	ECOLI	count/100	N		1
2011	28-Jul-11	2011011829	1935	Lake Nearshore (Onondaga Creek)	10	ECOLI	count/100	N		1
2011	28-Jul-11	2011011828	1938	Lake Nearshore (Westside Wastebeds)	8	ECOLI	count/100	N		1
2011	28-Jul-11	2011011827	895	Lake Nearshore (Bloody Brook)	3	ECOLI	count/100	N		1
2011	28-Jul-11	2011011826	986	Lake Nearshore (Ley Creek)	8	ECOLI	count/100	N		1
2011	28-Jul-11	2011011824	984	Lake Nearshore (Harbor Brook)	5	ECOLI	count/100	N		1
2011	28-Jul-11	2011011823	989	Lake Nearshore (Maple Bay)	13	ECOLI	count/100	N		1
2011	28-Jul-11	2011011918	789	Metro Final Effluent	3	BOD5	mg/L	V	acceptance criteria	2
2011	28-Jul-11	2011011821	987	Lake Nearshore (Eastside)	2	ECOLI	count/100	N		1
2011	28-Jul-11	2011011820	983	Lake Nearshore (Nine Mile Creek)	<1	ECOLI	count/100	N		1
2011	28-Jul-11	2011011825	985	Lake Nearshore (Metro/Outfall)	15	ECOLI	count/100	N		1
2011	29-Jul-11	2011010651	630	Metro By-Pass Event #48	120	BOD5	mg/L	V	Lab accident	2
2011	29-Jul-11	2011010651	630	Metro By-Pass Event #48	60	CBOD5	mg/L	V	grab 1; one grab only. CBOD5: Lab accident	2
2011	29-Jul-11	2011012004	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	30-Jul-11	2011012010	789	Metro Final Effluent	<2	CBOD5	mg/L	V		2
2011	30-Jul-11	2011012010	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	31-Jul-11	2011012016	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	01-Aug-11	2011012167	789	Metro Final Effluent	0.016	Phenol	mg/L	V	parameter exceeds acceptable limits. Associated results < 10X blank concentra	2
2011	01-Aug-11	2011012148	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012192	794	Crk-Bloody Brk @ Onondaga Lake Parkway	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012196	1092	Crk-Bloody Brook near Thruway	6	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012195	1960	Crk-Harbor Brook @ Bellevue Avenue	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012187	904	Crk-Tributary 5a @ State Fair Blvd	1396	TDS	mg/L	V	TDS:Final wt did not meet constant weight requirements.	2
2011	02-Aug-11	2011012193	794	Duplicate	<2	BOD5	mg/L	V	sample# 2011012192.	2
2011	02-Aug-11	2011012191	789	Crk-Metro Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012190	910	Crk-Onondaga Creek @ Dorwin Ave.	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012189	911	Crk-Harbor Brook @ Velasko Road	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012188	1978	Crk-Allied East Flume-Manhole 015	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012186	905	Crk-Nine Mile Creek @ Lakeland Rt 48	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012185	1907	Crk-Onondaga Lake Outlet 12 ft.	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012184	1906	Crk-Onondaga Lake Outlet 2 ft.	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012183	908	Crk-Ley Creek @ Park Street	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012182	882	Crk-Onondaga Creek @ Kirkpatrick	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2

YEAR	DATE	SAMPLE #	IC#	SOURCE	SRESULT	PARAMETER	UNITS	MARK CO	LAB COMMENTS	Qualify*
2011	02-Aug-11	2011012194	796	Crk-Sawmill Crk @ Onondaga Lake Rec. Trail	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012181	902	Crk-Harbor Brook @ Hiawatha	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012180	901	Crk-Blank SS Pail (Crew A)	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012179	888	Crk-Blank Dunker Churn (Crew B)	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012178	990	Crk-Blank Churn (Crew A)	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	02-Aug-11	2011012187	904	Crk-Tributary 5a @ State Fair Blvd	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	05-Aug-11	2011012432	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Aug-11	2011012438	789	Metro Final Effluent	<2	BOD5	mg/L	v	BOD5: LCS standards failed the acceptance criteria.	2
2011	06-Aug-11	2011012438	789	Metro Final Effluent	<2	CBOD5	mg/L	v	CBOD5: LCS standards failed the acceptance criteria.	2
2011	09-Aug-11	2011012636	916	Lake Equip. Blk (Dunker Churn)	2.58	Chloride	mg/L	P	Chloride result verified.	2
2011	09-Aug-11	2011012697	630	Metro By-Pass Event #51	10	O&G	mg/L	V	grab 1 O&G(SPE):Dup & LFS outside acceptance criteria.	2
2011	15-Aug-11	2011013126	789	Metro Final Effluent	<0.002	Pb	mg/L	N	NH3-N lab duplicate: 0.109 mg/L	1
2011	15-Aug-11	2011013176	789	Metro Final Effluent	0.026	Phenol	mg/L	V	Associated results < 10X blank concentration, possible blank contamination.	2
2011	15-Aug-11	2011013126	789	Metro Final Effluent	0.079	NH3-N	mg/L	N	NH3-N lab duplicate: 0.109 mg/L	1
2011	16-Aug-11	2011013189	910	Crk-Onondaga Creek @ Dorwin Ave.	0.118	TP	mg/L	N	TP filtered in the lab; matrix spike failure.	1
2011	18-Aug-11	2011013316	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	18-Aug-11	2011013316	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	22-Aug-11	2011013539	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	22-Aug-11	2011013539	789	Metro Final Effluent	1.05	TKN	mg/L	N	TKN lab duplicate: 1.38 mg/L.	1
2011	23-Aug-11	2011013708	904	Crk-Tributary 5a @ State Fair Blvd	0.008	SRP	mg/L	P	SRP results verified but exceeded acceptable limits for field duplicate.	2
2011	23-Aug-11	2011013716	904	Crk-Tributary 5a @ State Fair Blvd - Duplicate	0.004	SRP	mg/L	P	acceptable limits for field duplicate.	2
2011	24-Aug-11	2011013581	916	Lake Equip. Blk (Dunker Churn)	5	ALK-T	mg/L	P	Blank concentration of Alk-T exceeds acceptable limits.	2
2011	28-Aug-11	2011013295	630	Metro By-Pass Event #57	0.006	CN-T	mg/L	N	grab 1. CN-T: matrix spike and spike duplicate are outside of acceptable limits.	1
2011	30-Aug-11	2011014063	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	30-Aug-11	2011014063	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	31-Aug-11	2011014078	789	Metro Final Effluent	0.175	SRP	mg/L	X	reasonableness.	2
2011	31-Aug-11	2011013506	1025	River Buoy #316 BOD Composite - Duplicate	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	31-Aug-11	2011014155	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	31-Aug-11	2011013491	940	River Blank Dunker (Crew A)	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	31-Aug-11	2011013505	1025	River Buoy #316 BOD Composite	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	31-Aug-11	2011014186	789	Metro Final Effluent - Duplicate	<2	CBOD5	mg/L	V	acceptance criteria.	2
2011	04-Sep-11	2011014375	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	04-Sep-11	2011014375	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	05-Sep-11	2011014032	630	Metro By-Pass Event #58	4	O&G	mg/L	V	acceptance criteria.	2
2011	05-Sep-11	2011014032	630	Metro By-Pass Event #58	31	CBOD5	mg/L	V	acceptance criteria.	2
2011	05-Sep-11	2011014032	630	Metro By-Pass Event #58	46	BOD5	mg/L	V	acceptance criteria.	2
2011	05-Sep-11	2011014032	630	Metro By-Pass Event #58	0.159	Phenol	mg/L	V	parameter exceeds acceptance limits. Associated results <10x blank conc	2
2011	05-Sep-11	2011014405	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	05-Sep-11	2011014405	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	06-Sep-11	2011014466	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	06-Sep-11	2011014484	789	Metro Final Effluent	0.031	Phenol	mg/L	V	parameter exceeds acceptance limits. Associated results <10x blank concentra	2
2011	06-Sep-11	2011014466	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	08-Sep-11	2011014611	910	Crk-Onondaga Creek @ Dorwin Ave.	28.1	Balance	%		Charge Balance result verified.	2
2011	08-Sep-11	2011014335	630	Metro By-Pass Event #60	<9	FCOLI-MF	count/100	U	grab 1	1
2011	08-Sep-11	2011014335	630	Metro By-Pass Event #60	<3	O&G	mg/L	U	grab 1. O&G(SPE):Dup outside acceptance criteria.	1
2011	12-Sep-11	2011014752	789	Metro Final Effluent	<0.002	Pb	mg/L	N		1
2011	13-Sep-11	2011014438	924	Lake 18m South	7.64	SiO2-diss	mg/L	V	SiO2-diss: sample not refrigerated.	2
2011	13-Sep-11	2011014436	922	Lake 12m South	5.69	SiO2-diss	mg/L	V	SiO2-diss: sample not refrigerated.	2
2011	13-Sep-11	2011014434	920	Lake 6m South	2.58	SiO2-diss	mg/L	V	SiO2-diss: sample not refrigerated.	2
2011	13-Sep-11	2011014431	917	Lake Equip. Blk (Pump)	<0.5	SiO2-diss	mg/L	V	SiO2-diss: sample not refrigerated.	2
2011	13-Sep-11	2011014439	920	Lake 6m South - Duplicate	0.7	TKN	mg/L	N	0.540 mg/L. SiO2-diss: sample not refrigerated.	1
2011	13-Sep-11	2011014439	920	Lake 6m South - Duplicate	2.62	SiO2-diss	mg/L	V	0.540 mg/L. SiO2-diss: sample not refrigerated.	2
2011	14-Sep-11	2011014808	901	Crk-Blank SS Pail (Crew A)	<0.5	SiO2-diss	mg/L	V	SiO2-diss: sample not refrigerated.	2
2011	14-Sep-11	2011014837	911	Crk-Harbor Brook @ Velasko Road - Duplicate	5.74	SiO2-diss	mg/L	V	metals. SiO2-diss: sample not refrigerated; rerun 10/5.	2
2011	14-Sep-11	2011014817	1907	Crk-Onondaga Lake Outlet 12 ft.	0.009	TDP	mg/L	V	Sample acceptance criteria not met TDP bottle pH=2.32	2
2011	14-Sep-11	2011014815	1906	Crk-Onondaga Lake Outlet 2 ft.	<0.0008	Cd	mg/L	N	Concentration procedure used for some metals.	1
2011	14-Sep-11	2011014809	902	Crk-Harbor Brook @ Hiawatha	5.93	SiO2-diss	mg/L	V	refrigerated.	2
2011	14-Sep-11	2011014807	888	Crk-Blank Dunker Churn (Crew B)	<0.5	SiO2-diss	mg/L	V	refrigerated.	2
2011	14-Sep-11	2011014806	990	Crk-Blank Churn (Crew A)	<0.5	SiO2-diss	mg/L	V	SiO2-diss: sample not refrigerated.	2
2011	14-Sep-11	2011014811	882	Crk-Onondaga Creek @ Kirkpatrick	6.85	SiO2-diss	mg/L	V	SiO2-diss: sample not refrigerated.	2
2011	17-Sep-11	2011015034	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	17-Sep-11	2011015034	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2

YEAR	DATE	SAMPLE #	IC#	SOURCE	SRESULT	PARAMETER	UNITS	MARK CO	LAB COMMENTS	Qualify*
2011	19-Sep-11	2011015111	789	Metro Final Effluent	0.018	Phenol	mg/L	V	Associated results <10X blank concentration, possible blank contamination.	2
2011	20-Sep-11	2011015193	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	20-Sep-11	2011015193	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	20-Sep-11	2011015136	933	Lake 18m North	<2	TSS	mg/L	U		1
2011	20-Sep-11	2011015136	933	Lake 18m North	1.21	TKN-F	mg/L	X	range of uncertainty.	1
2011	20-Sep-11	2011015136	933	Lake 18m North	1.26	NH3-N	mg/L	X	range of uncertainty.	1
2011	20-Sep-11	2011015136	933	Lake 18m North	<0.05	ORG-N	mg/L	U		1
2011	23-Sep-11	2011015380	789	Metro Final Effluent	0.153	NH3-N	mg/L	N	NH3-N lab duplicate: 0.115 mg/L	1
2011	27-Sep-11	2011015509	990	Crk-Blank Churn (Crew A)	3	ALK-T	mg/L	P	samples associated with this event had concentrations > 150 mg/L and	2
2011	27-Sep-11	2011015513	882	Crk-Onondaga Creek @ Kirkpatrick	0.023	SRP	mg/L	X	TDP < SRP, failed Limnological reasonableness. TDP result verified.	2
2011	27-Sep-11	2011015513	882	Crk-Onondaga Creek @ Kirkpatrick	0.006	TDP	mg/L	X	TDP < SRP, failed Limnological reasonableness. TDP result verified.	2
2011	29-Sep-11	2011014650	630	Metro By-Pass Event #61	12	O&G	mg/L	N	grab 1O&G(SPE):Dup outside acceptance criteria	1
2011	03-Oct-11	2011015790	789	Metro Final Effluent	<10	clopentadiene	µg/L	*	result of the laboratory control sample was less than the established limi	2
2011	03-Oct-11	2011015789	789	Metro Final Effluent	<0.01	Phenol	mg/L	V	concentration parameter exceeds acceptable limits. Associated results	2
2011	03-Oct-11	2011015771	789	Metro Final Effluent	<2	CBOD5	mg/L	V	failed the acceptance criteria	2
2011	06-Oct-11	2011016034	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	06-Oct-11	2011016034	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	10-Oct-11	2011016187	789	Metro Final Effluent	<0.002	As	mg/L	N		1
2011	10-Oct-11	2011016187	789	Metro Final Effluent	<0.002	Pb	mg/L	N		1
2011	10-Oct-11	2011016206	789	Metro Final Effluent	<0.003	CN-A	mg/L	V	pH=12.76.	2
2011	10-Oct-11	2011016206	789	Metro Final Effluent	0.005	CN-Cl2	mg/L	V	pH=12.76. Phenol reprepped.	2
2011	10-Oct-11	2011016206	789	Metro Final Effluent	<0.003	CN-T	mg/L	V	pH=12.76.	2
2011	11-Oct-11	2011016170	902	Crk-Harbor Brook @ Hiawatha - Duplicate	0.22	TKN	mg/L	N	Sample is duplicate of sample 2011016156. TKN laboratory duplicate: 0.173 mg/L.	1
2011	12-Oct-11	2011016300	789	Metro Final Effluent	0.864	TKN	mg/L	N	TKN laboratory duplicate: 0.665 mg/L.	1
2011	13-Oct-11	2011016356	789	Metro Final Effluent	<2	BOD5	mg/L	X	of the test.	1
2011	13-Oct-11	2011016356	789	Metro Final Effluent	3	CBOD5	mg/L	X	of the test.	1
2011	19-Oct-11	2011016679	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	19-Oct-11	2011016679	789	Metro Final Effluent	0.076	NH3-N	mg/L	N	NH3-N laboratory duplicate: 0.108 mg/L.	1
2011	19-Oct-11	2011016679	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	20-Oct-11	2011015870	630	Metro By-Pass Event #64	6	O&G	mg/L	V	acceptance criteria	2
2011	20-Oct-11	2011015870	630	Metro By-Pass Event #64	70	BOD5	mg/L	V	acceptance criteria	2
2011	20-Oct-11	2011016761	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	21-Oct-11	2011016809	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	22-Oct-11	2011016814	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	23-Oct-11	2011016819	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	24-Oct-11	2011016860	789	Metro Final Effluent	<0.003	CN-T	mg/L	N	Associated results <10x blank concentration, possible blank contamination. CN	1
2011	24-Oct-11	2011016906	789	Metro Final Effluent	2	CBOD5	mg/L	V	acceptance criteria	2
2011	24-Oct-11	2011016906	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	24-Oct-11	2011016906	789	Metro Final Effluent	<0.002	As	mg/L	N		1
2011	24-Oct-11	2011016860	789	Metro Final Effluent	0.028	Phenol	mg/L	V	Associated results <10x blank concentration, possible blank contamination. CN	2
2011	24-Oct-11	2011016741	915	Lake Equip. Blk (Teflon Dunker-Glass)	<0.05	Hg-methyl	ng/l	*	concentration is an approximate value.**Indicates the analyte was analyzed f	1
2011	24-Oct-11	2011016740	780	Lake Field Blk (Teflon Dunker)	<0.50	Hg	ng/l	*	concentration is an approximate value.	1
2011	26-Oct-11	2011017021	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	27-Oct-11	2011016869	630	Metro By-Pass Event #65	41	CBOD5	mg/L	V	criteria.	2
2011	27-Oct-11	2011017063	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	27-Oct-11	2011016863	630	Metro By-Pass Event #65	<0.003	CN-T	mg/L	N	grab 1. CN-T: spike and spike duplicate failure.	1
2011	30-Oct-11	2011017110	789	Metro Final Effluent	<2	BOD5	mg/L	V	or assurance criteria.	2
2011	30-Oct-11	2011017110	789	Metro Final Effluent	<2	CBOD5	mg/L	V	control or assurance criteria.	2
2011	31-Oct-11	2011017199	789	Metro Final Effluent	0.0067	Mo-GFA	mg/L	N		1
2011	31-Oct-11	2011017199	789	Metro Final Effluent	<2	BOD5	mg/L	V	or assurance criteria.	2
2011	31-Oct-11	2011017199	789	Metro Final Effluent	<2	CBOD5	mg/L	V	control or assurance criteria.	2
2011	01-Nov-11	2011017243	909	Crk-Onondaga Creek @ Spencer St	106	SO4	mg/L	V	SO4: improper preservation.	2
2011	01-Nov-11	2011017137	901	Crk-Blank SS Pail (Crew A)	<2	BOD5	mg/L	V	or assurance criteria.	2
2011	01-Nov-11	2011017255	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	01-Nov-11	2011017255	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	01-Nov-11	2011017151	794	Duplicate	<2	BOD5	mg/L	V	estimated due to variance from quality control or assurance criteria.	2
2011	01-Nov-11	2011017244	881	Crk-Spencepatrick Spring Wellpoint	4150	SO4	mg/L	V	SO4: improper preservation.	2
2011	01-Nov-11	2011017135	990	Crk-Blank Churn (Crew A)	<2	BOD5	mg/L	V	or assurance criteria.	2
2011	01-Nov-11	2011017136	888	Crk-Blank Dunker Churn (Crew B)	<2	BOD5	mg/L	V	or assurance criteria.	2
2011	01-Nov-11	2011017150	1960	Crk-Harbor Brook @ Bellevue Avenue	<2	BOD5	mg/L	V	control or assurance criteria.	2
2011	01-Nov-11	2011017149	794	Crk-Bloody Brk @ Onondaga Lake Parkway	<2	BOD5	mg/L	V	or assurance criteria.	2
2011	01-Nov-11	2011017148	789	Crk-Metro Effluent	<2	BOD5	mg/L	V	control or assurance criteria.	2

YEAR	DATE	SAMPLE #	IC#	SOURCE	SRESULT	PARAMETER	UNITS	MARK CO	LAB COMMENTS	Qualify*
2011	01-Nov-11	2011017146	911	Crk-Harbor Brook @ Velasko Road	<2	BOD5	mg/L	V	control or assurance criteria.	2
2011	01-Nov-11	2011017145	1978	Crk-Allied East Flume-Manhole 015	<2	BOD5	mg/L	V	control or assurance criteria.	2
2011	01-Nov-11	2011017143	905	Crk-Nine Mile Creek @ Lakeland Rt 48	<2	BOD5	mg/L	V	or assurance criteria.	2
2011	01-Nov-11	2011017142	1907	Crk-Onondaga Lake Outlet 12 ft.	<2	BOD5	mg/L	V	control or assurance criteria.	2
2011	01-Nov-11	2011017138	902	Crk-Harbor Brook @ Hiawatha	<2	BOD5	mg/L	V	or assurance criteria.	2
2011	01-Nov-11	2011017147	910	Crk-Onondaga Creek @ Dorwin Ave.	4	BOD5	mg/L	V	control or assurance criteria.	2
2011	01-Nov-11	2011017142	1907	Crk-Onondaga Lake Outlet 12 ft.	<0.002	As	mg/L	N	Concentration procedure used for some metals.	1
2011	01-Nov-11	2011017141	1906	Crk-Onondaga Lake Outlet 2 ft.	<2	BOD5	mg/L	V	or assurance criteria.	2
2011	01-Nov-11	2011017140	908	Crk-Ley Creek @ Park Street	7	BOD5	mg/L	V	or assurance criteria.	2
2011	01-Nov-11	2011017139	882	Crk-Onondaga Creek @ Kirkpatrick	<2	BOD5	mg/L	V	or assurance criteria.	2
2011	02-Nov-11	2011017337	789	Metro Final Effluent	<2	CBOD5	mg/L	V	control or assurance criteria.	2
2011	02-Nov-11	2011017363	789	Metro Final Effluent - Duplicate	<2	BOD5	mg/L	V	estimated due to variance from quality control or assurance criteria.	2
2011	02-Nov-11	2011017363	789	Metro Final Effluent - Duplicate	<2	CBOD5	mg/L	V	estimated due to variance from quality control or assurance criteria.	2
2011	02-Nov-11	2011017337	789	Metro Final Effluent	<2	BOD5	mg/L	V	or assurance criteria.	2
2011	04-Nov-11	2011017451	789	Metro Final Effluent	4	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	04-Nov-11	2011017451	789	Metro Final Effluent	4	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	06-Nov-11	2011017461	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	07-Nov-11	2011017502	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	07-Nov-11	2011017502	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	07-Nov-11	2011017523	789	Metro Final Effluent	<0.003	CN-T	mg/L	N	duplicate %RPD failure.	1
2011	08-Nov-11	2011017539	920	Lake 6m South - Duplicate	0.275	NH3-N	mg/L	P	Sample is duplicate of #2011017534. NH3-N reprepped.	2
2011	10-Nov-11	2011017652	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	14-Nov-11	2011016870	630	Metro By-Pass Event #66	11	O&G	mg/L	V	grab 1 O&G(SPE):LFS outside acceptance criteria	2
2011	15-Nov-11	2011017845	910	Crk-Onondaga Creek @ Dorwin Ave.	0.042	SRP	mg/L	X	uncertainty of the tests.	1
2011	15-Nov-11	2011017845	910	Crk-Onondaga Creek @ Dorwin Ave.	0.041	TDP	mg/L	X	uncertainty of the tests.	1
2011	22-Nov-11	2011017245	630	Metro By-Pass Event #67	12	O&G	mg/L	V	grab 1 O&G(SPE):LFS outside acceptance criteria	2
2011	26-Nov-11	2011018231	789	Metro Final Effluent	0.757	TKN	mg/L	N	TKN lab duplicate: 1.02 mg/L .	1
2011	26-Nov-11	2011018231	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	26-Nov-11	2011018231	789	Metro Final Effluent	0.222	NH3-N	mg/L	N	NH3-N lab duplicate: 0.176 mg/L.	1
2011	29-Nov-11	2011017972	630	Metro By-Pass Event #68	6	O&G	mg/L	V	criteria.	2
2011	02-Dec-11	2011018568	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: Method blank outside acceptance criteria.	2
2011	02-Dec-11	2011018568	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: Method blank outside acceptance criteria.	2
2011	06-Dec-11	2011018710	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	07-Dec-11	2011018849	789	Metro Final Effluent - Duplicate	0.383	NH3-N	mg/L	P	Sample is duplicate of #2011018810. NH3-N reprepped 12/14. NH3>20% RPD.	2
2011	07-Dec-11	2011018849	789	Metro Final Effluent - Duplicate	<2	CBOD5	mg/L	V	acceptance criteria.	2
2011	07-Dec-11	2011018849	789	Metro Final Effluent - Duplicate	3	BOD5	mg/L	V	criteria.	2
2011	07-Dec-11	2011018810	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	07-Dec-11	2011018810	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	08-Dec-11	2011018919	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	08-Dec-11	2011018919	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	09-Dec-11	2011018958	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	09-Dec-11	2011018958	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	10-Dec-11	2011018963	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	10-Dec-11	2011018963	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	11-Dec-11	2011018968	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	11-Dec-11	2011018968	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	12-Dec-11	2011019010	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	12-Dec-11	2011019010	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	13-Dec-11	2011019063	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	13-Dec-11	2011019042	920	Lake 6m South - Duplicate	0.019	TDP	mg/L	P	"P" due to field duplicate exceedance.	2
2011	13-Dec-11	2011019063	789	Metro Final Effluent	2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	14-Dec-11	2011019154	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	14-Dec-11	2011019154	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	15-Dec-11	2011019224	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	15-Dec-11	2011019224	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	16-Dec-11	2011019263	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	16-Dec-11	2011019263	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	17-Dec-11	2011019268	789	Metro Final Effluent	<2	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	23-Dec-11	2011018537	630	Metro By-Pass Event #70	6	O&G	mg/L	V	grab 1, one grab only. O&G(SPE):LFS outside acceptance criteria	2
2011	23-Dec-11	2011018537	630	Metro By-Pass Event #70	110	BOD5	mg/L	V	grab 1, one grab only. BOD5: LCS standards failed the acceptance criteria.	2
2011	23-Dec-11	2011018537	630	Metro By-Pass Event #70	63	CBOD5	mg/L	V	grab 1, one grab only. CBOD5: LCS standards failed the acceptance criteria.	2
2011	23-Dec-11	2011019533	789	Metro Final Effluent	4	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2

YEAR	DATE	SAMPLE #	IC#	SOURCE	SRESULT	PARAMETER	UNITS	MARK C	LAB COMMENTS	Qualify*
2011	23-Dec-11	2011019533	789	Metro Final Effluent	2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	24-Dec-11	2011019538	789	Metro Final Effluent	3	BOD5	mg/L	V	BOD5: LCS standards failed the acceptance criteria.	2
2011	24-Dec-11	2011019538	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2
2011	25-Dec-11	2011019543	789	Metro Final Effluent	<2	CBOD5	mg/L	V	CBOD5: LCS standards failed the acceptance criteria.	2

* Note:
1 denotes for use in the AMP Annual Report related calculations.
2 denotes rejected in the AMP annual report related calculations.