

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0026298

Owner: City of Platte City
Address: 400 Main Street, Platte City, MO 64079

Continuing Authority: Same as above
Address: Same as above

Facility Name: Platte City Wastewater Treatment Plant
Facility Address: West terminus of W. Mill Street, Platte City, MO 64079

Legal Description: See Page 2.
UTM Coordinates: See Page 2.

Receiving Stream: See Page 2.
First Classified Stream and ID: See Page 2.
USGS Basin & Sub-watershed No.: See Page 2.

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

See Page 2.

This permit authorizes only wastewater and stormwater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 621.250 RSMo, Section 640.013 RSMo and Section 644.051.6 of the Law.

November 1, 2016
Effective Date


Harry D. Boroian, Director, Department of Natural Resources

June 30, 2020
Expiration Date


John Madras, Director, Water Protection Program

FACILITY DESCRIPTION (continued):

Outfall #001 – POTW – SIC #4952

The use or operation of this facility shall be by or under the supervision of a Certified B Operator.

Bar screen / flow equalization basin / two (2) sequencing batch reactor units / ultraviolet disinfection / two (2) aerobic digesters / screw press / three (3) sludge holding basins / sludge is land applied.

Design population equivalent is 5,534.

Design flow is 2.0 MGD.

Actual flow is 0.44 MGD.

Design sludge production is 120 dry tons/year.

Legal Description: SE ¼, NW ¼, Sec. 35, T53N, R35W, Platte County
UTM Coordinates: X= 345029, Y= 4358696
Receiving Stream: Platte River (P)
First Classified Stream and ID: Platte River (P) (312) 303(d) List
USGS Basin & Sub-watershed No.: (10240012-0903)

Outfall #002 – POTW – SIC #4952

Both Outfall #001 and Outfall #002 are located in the same structure. Outfall #001 is for normal operations while the river is at normal flow. Effluent is pumped to Outfall #002 when the river is above normal flow. All information for Outfall #001 is the same for Outfall #002, including the locational information.

Permitted Feature #SM1 – Instream Monitoring

Instream monitoring location – Upstream – See Special Condition #20.

Receiving Stream: Platte River (P)
First Classified Stream and ID: Platte River (P) (312) 303(d) List
USGS Basin & Sub-watershed No.: (10240012-0903)

OUTFALL #001 & #002	TABLE A-1. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS	PAGE NUMBER 3 of 10
		PERMIT NUMBER MO-0026298

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **November 1, 2016** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*		*	once/weekday***	24 hr. total
Biochemical Oxygen Demand ₅	mg/L		45	30	once/week	composite**
Total Suspended Solids	mg/L		45	30	once/week	composite**
Ammonia as N (Apr 1 – Sep 30) (Oct 1 – Mar 31)	mg/L	14.0 14.0		2.9 3.3	once/week	grab
<i>E. coli</i> (Note 1)	#/100mL		1,030	206	once/week	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE DECEMBER 28, 2016. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

Oil & Grease	mg/L	15		10	once/quarter *****	grab
Total Nitrogen	mg/L	*		*	once/quarter *****	grab
Total Phosphorus	mg/L	*		*	once/quarter *****	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2017.

EFFLUENT PARAMETER(S)	UNITS	MINIMUM		MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH – Units ****	SU	6.0		9.0	once/week	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE DECEMBER 28, 2016.

- * Monitoring requirement only.
- ** A 24-hour composite sample is composed of 12 aliquots (subsamples) collected at 2 hour intervals, based on the decant schedule of the SBR system.
- *** Once each weekday means: Monday, Tuesday, Wednesday, Thursday, and Friday.
- **** pH is measured in pH units and is not to be averaged.
- ***** See table below for quarterly sampling requirements.

Minimum Sampling Requirements			
Quarter	Months	Oil & Grease, Total Nitrogen, and Total Phosphorus	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 th
Second	April, May, June	Sample at least once during any month of the quarter	July 28th
Third	July, August, September	Sample at least once during any month of the quarter	October 28th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28th

Note 1 - Effluent limitations and monitoring requirements for *E. coli* are applicable only during the recreational season from April 1 through October 31. The Monthly Average Limit for *E. coli* is expressed as a geometric mean. The Weekly Average for *E. coli* will be expressed as a geometric mean if more than one (1) sample is collected during a calendar week (Sunday through Saturday).

OUTFALL #001 OR #002	TABLE A-2. WHOLE EFFLUENT TOXICITY FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS			PAGE NUMBER 4 of 10		
				PERMIT NUMBER MO-0026298		
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on November 1, 2016 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Acute Whole Effluent Toxicity (Note 2)	TU _a	*			once/year	composite**
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2017</u> .						
Chronic Whole Effluent Toxicity (Note 3)	TU _c	*			once/permit cycle	composite**
<u>WET TEST</u> REPORTS SHALL BE SUBMITTED <u>ONCE PER PERMIT CYCLE</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2020</u> .						

* Monitoring requirement only.

** A 24-hour composite sample is composed of 12 aliquots (subsamples) collected at 2 hour intervals, based on the decant schedule of the SBR system.

Note 2 – The Acute WET test shall be conducted once per year during the 1st, 2nd, and 4th year of the permit cycle. See Special Condition #23 for additional requirements.

Note 3 –The Chronic WET test shall be conducted during the 3rd year of the permit cycle. See Special Condition #24 for additional requirements.

TABLE B. INFLUENT MONITORING REQUIREMENTS			
The facility is required to meet a removal efficiency of 85% or more as a monthly average. The monitoring requirements shall become effective on November 1, 2016 and remain in effect until expiration of the permit. To determine removal efficiencies, the influent wastewater shall be monitored by the permittee as specified below:			
SAMPLING LOCATION AND PARAMETER(S)	UNITS	MONITORING REQUIREMENTS	
		MEASUREMENT FREQUENCY	SAMPLE TYPE
Biochemical Oxygen Demand ₅	mg/L	once/month	composite**
Total Suspended Solids	mg/L	once/month	composite**
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>DECEMBER 28, 2016</u> .			

** A 24-hour composite sample is composed of 12 aliquots (subsamples) collected at 2 hour intervals, based on the decant schedule of the SBR system.

PERMITTED FEATURE #SM1	TABLE C. INSTREAM MONITORING REQUIREMENTS				PAGE NUMBER 5 of 10	
					PERMIT NUMBER MO-0026298	
The monitoring requirements shall become effective on November 1, 2016 and remain in effect until expiration of the permit.						
PARAMETER(S)	UNITS	MONITORING REQUIREMENTS				SAMPLE TYPE
		DAILY MAXIMUM		MONTHLY AVERAGE	MEASUREMENT FREQUENCY	
Total Nitrogen	mg/L	*		*	once/quarter *****	grab
Total Phosphorus	mg/L	*		*	once/quarter *****	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2017</u> .						

* Monitoring requirement only.

***** See table below for quarterly sampling requirements.

Minimum Sampling Requirements			
Quarter	Months	Total Nitrogen & Total Phosphorus	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 th
Second	April, May, June	Sample at least once during any month of the quarter	July 28 th
Third	July, August, September	Sample at least once during any month of the quarter	October 28 th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 th

D. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Parts I, II, & III standard conditions dated August 1, 2014, May 1, 2013, and March 1, 2015, and hereby incorporated as though fully set forth herein.

E. SPECIAL CONDITIONS

- This permit establishes final ammonia limitations based on Missouri's current Water Quality Standard. On August 22, 2013, the U.S. Environmental Protection Agency (EPA) published a notice in the Federal Register announcing of the final national recommended ambient water quality criteria for protection of aquatic life from the effects of ammonia in freshwater. The EPA's guidance, Final Aquatic Life Ambient Water Quality Criteria for Ammonia – Fresh Water 2013, is not a rule, nor automatically part of a state's water quality standards. States must adopt new ammonia criteria consistent with EPA's published ammonia criteria into their water quality standards that protect the designated uses of the water bodies. The Department of Natural Resources has initiated stakeholder discussions on how to best incorporate these new criteria into the State's rules. A date for when this rule change will occur has not been determined. Also, refer to Section VI of this permit's factsheet for further information including estimated future effluent limits for this facility. It is recommended the permittee view the Department's 2013 EPA criteria Factsheet located at <http://dnr.mo.gov/pubs/pub2481.htm>.
- This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - controls any pollutant not limited in the permit.
 - Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test including acute and chronic Whole Effluent Toxicity (WET) tests, or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.

E. SPECIAL CONDITIONS (continued)

- (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.
- (d) Incorporate the requirement to develop a pretreatment program pursuant to 40 CFR 403.8(a) when the Director of the Water Protection Program determines that a pretreatment program is necessary due to any new introduction of pollutants into the Publicly Owned Treatment Works or any substantial change in the volume or character of pollutants being introduced. The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

- 3. All outfalls must be clearly marked in the field. This does not include instream monitoring locations.
- 4. Permittee will cease discharge by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B) within 90 days of notice of its availability.
- 5. Report as no-discharge when a discharge does not occur during the report period. For instream samples, report as "no flow" if no stream flow occurs during the report period.
- 6. Water Quality Standards
 - (a) To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
- 7. Changes in existing pollutants or the addition of new pollutants to the treatment facility

The permittee must provide adequate notice to the Director of the following:

- (a) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; and
 - (b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
 - (c) For purposes of this paragraph, adequate notice shall include information on:
 - (1) the quality and quantity of effluent introduced into the POTW, and
 - (2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.
- 8. Reporting of Non-Detects:
 - (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
 - (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.

E. SPECIAL CONDITIONS (continued)

- (c) The permittee shall provide the “Non-Detect” sample result using the less than sign and the minimum detection limit (e.g. <10).
 - (d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
 - (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
 - (f) When calculating monthly averages, one-half of the minimum detection limit (MDL) should be used instead of a zero. Where all data are below the MDL, the “<MDL” shall be reported as indicated in item (c).
9. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
10. The permittee shall comply with any applicable requirements listed in 10 CSR 20-9, unless the facility has received written notification that the Department has approved a modification to the requirements. The monitoring frequencies contained in this permit shall not be construed by the permittee as a modification of the monitoring frequencies listed in 10 CSR 20-9. If a modification of the monitoring frequencies listed in 10 CSR 20-9 is needed, the permittee shall submit a written request to the Department for review and, if deemed necessary, approval.
11. The permittee shall develop and implement a program for maintenance and repair of the collection system. The recommended guidance is the US EPA’s Guide For Evaluating Capacity, Management, Operation, And Maintenance (CMOM) Programs At Sanitary Sewer Collection Systems (Document number EPA 305-B-05-002) or the Departments’ CMOM Model located at <http://dnr.mo.gov/env/wpp/permits/docs/cmom-template.doc>. For additional information regarding the Departments’ CMOM Model, see the CMOM Plan Model Guidance document at <http://dnr.mo.gov/pubs/pub2574.htm>.
- The permittee shall also submit a report to the Kansas City Regional Office annually, by January 28th, for the previous calendar year. The report shall contain the following information:
- (a) A summary of the efforts to locate and eliminate sources of excessive infiltration and inflow into the collection system serving the facility for the previous year.
 - (b) A summary of the general maintenance and repairs to the collection system serving the facility for the previous year.
 - (c) A summary of any planned maintenance and repairs to the collection system serving the facility for the upcoming calendar year. This list shall include locations (GPS, 911 address, manhole number, etc.) and actions to be taken.
12. Bypasses are not authorized at this facility unless they meet the criteria in 40 CFR 122.41(m). If a bypass occurs, the permittee shall report in accordance to 40 CFR 122.41(m)(3), and with Standard Condition Part I, Section B, subsection 2.b. Bypasses are to be reported to the Kansas City Regional Office or by using the online Sanitary Sewer Overflow/Facility Bypass Application, located at: <http://dnr.mo.gov/modnrcag/> during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. Blending, which is the practice of combining a partially-treated wastewater process stream with a fully-treated wastewater process stream prior to discharge, is not considered a form of bypass. If the permittee wishes to utilize blending, the permittee shall file an application to modify this permit to facilitate the inclusion of appropriate monitoring conditions.
13. The facility must be sufficiently secured to restrict entry by children, livestock and unauthorized persons as well as to protect the facility from vandalism.
14. At least one gate must be provided to access the wastewater treatment facility and provide for maintenance and mowing. The gate shall remain closed except when temporarily opened by; the permittee to access the facility, perform operational monitoring, sampling, maintenance, mowing, or for inspections by the Department. The gate shall be closed and locked when the facility is not staffed.
15. At least one (1) warning sign shall be placed on each side of the facility enclosure in such positions as to be clearly visible from all directions of approach. There shall also be one (1) sign placed for every five hundred feet (500') (150 m) of the perimeter fence. A sign shall also be placed on each gate. Minimum wording shall be SEWAGE TREATMENT FACILITY—KEEP OUT. Signs shall be made of durable materials with characters at least two inches (2") high and shall be securely fastened to the fence, equipment or other suitable locations.
16. An Operation and Maintenance (O & M) manual shall be maintained by the permittee and made available to the operator. The O & M manual shall include key operating procedures and a brief summary of the operation of the facility.

E. SPECIAL CONDITIONS (continued)

17. An all-weather access road shall be provided to the treatment facility.
18. The discharge from the wastewater treatment facility shall be conveyed to the receiving stream via a closed pipe or a paved or rip-rapped open channel. Sheet or meandering drainage is not acceptable. The outfall sewer shall be protected against the effects of floodwater, ice or other hazards as to reasonably insure its structural stability and freedom from stoppage. The outfall shall be maintained so that a sample of the effluent can be obtained at a point after the final treatment process and before the discharge mixes with the receiving waters.
19. Land application of biosolids shall be conducted in accordance with Standard Conditions III and a Department approved biosolids management plan. Land application of biosolids during frozen, snow covered, or saturated soil conditions in accordance with the additional requirements specified in WQ426 shall occur only with prior approval from the Department.
20. Receiving Water Monitoring Conditions
 - (a) In the event that a safe, accessible location is not present at the location(s) listed, a suitable location can be negotiated with the Department. Samples should be taken at least four feet from the bank or from the middle of the stream (whichever is less) and 6-inches below the surface. The upstream receiving water sample should be collected at a point upstream from any influence of the effluent, where the water is visibly flowing down stream.
 - (b) When conducting in-stream monitoring, the permittee shall record observations that include: the time of day, weather conditions, unusual stream characteristics (e.g., septic conditions, algae growth, etc.), the stream segment (e.g., riffle, pool or run) from where the sample was collected. These observations shall be submitted with the sample results.
 - (c) Samples shall not be collected from areas with especially turbulent flow, still water or from the stream bank, unless these conditions are representative of the stream reach or no other areas are available for sample collection. Sampling should not be made when significant precipitation has occurred recently. The sampling event should be terminated and rescheduled if any of the following conditions occur:
 - If turbidity in the stream increases notably; or
 - If rainfall over the past two weeks exceeds 2.5 inches or exceeds 1 inch in the last 24 hours
 - (d) Always use the correct sampling technique and handling procedure specified for the parameter of interest. Please refer to the latest edition of Standard Methods for the Examination of Water and Wastewater for further discussion of proper sampling techniques. All analyses must be conducted in accordance with an approved EPA method. Meters shall be calibrated immediately (within 1 hour) prior to the sampling event.
 - (e) Please contact the Department if you need additional instructions or assistance.
21. Stormwater Pollution Prevention Plan (SWPPP): The facility shall develop and implement a SWPPP within 180 days of the effective date of the permit. The SWPPP must be kept on-site and should not be sent to the Department unless specifically requested. The SWPPP must be reviewed and updated every five (5) years or as site conditions change (see Rationale and Derivation: antidegradation analysis and SWPPP in the fact sheet). Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in February 2009 (www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf). The SWPPP must include:
 - (a) Identify any stormwater outfall from the facility, a listing of specific contaminants and their control measures (or BMPs), and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater. The BMPs should be designed to treat the stormwater up to the 10 year, 24 hour rain event. The stormwater outfalls shall be marked in the field and clearly marked on a map and maintained with the SWPPP.
 - (b) For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. Failure to implement and maintain the chosen BMP is a permit violation. For further guidance, consult the antidegradation implementation procedure at <http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf>.
 - (c) A schedule and procedure for site inspections. These inspections include:
 - (1) A once per month site inspection. The monthly routine inspection shall be documented in a brief written report, which shall include:
 - i. The person(s) conducting the inspection.
 - ii. The inspection date and time.
 - iii. Weather information for the day of the inspection.
 - iv. Precipitation information for the entire period since the last inspection.

E. SPECIAL CONDITIONS (continued)

- v. Description of the discharges observed, including visual quality of the discharges (sheen, turbid, etc.).
 - vi. Condition of BMPs
 - vii. If BMPs were replaced or repaired.
 - viii. Observations and evaluations of BMP effectiveness.
- (2) A once per year comprehensive site inspection. The annual inspection shall be documented in a written report, which shall include:
- i. The person(s) conducting the inspection.
 - ii. The inspection date and time.
 - iii. Findings from the areas of your facility that were examined;
 - iv. All observations relating to the implementation of your control measures including:
 - 1. Previously unidentified discharges from the site,
 - 2. Previously unidentified pollutants in existing discharges,
 - 3. Evidence of, or the potential for, pollutants entering the drainage system;
 - 4. Evidence of pollutants discharging to receiving waters at all facility outfall(s), and the condition of and around the outfall, and
 - 5. Additional control measures needed to address any conditions requiring corrective action identified during the inspection.
 - v. Any required revisions to the SWPPP resulting from the inspection;
 - vi. Any incidence of noncompliance observed or a certification stating that the facility is in compliance with Special Condition E.22.

Deficiencies discovered during the inspections shall be corrected as follows:

- i. Operational deficiencies must be corrected within seven (7) calendar days.
- ii. Minor structural deficiencies must be corrected within fourteen (14) calendar days.
- iii. Major structural deficiencies must be reported to the regional office within seven (7) days of discovery. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including the general timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. The permittee will work with the regional office to determine the best course of action, including but not limited to temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.

The inspection reports must be kept onsite with the SWPPP and maintained for a period of five (5) years. The inspection reports shall be made available to Department personnel upon request.

- (d) A provision for designating an individual to be responsible for environmental matters.
- (e) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the Department.

22. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP.

- (a) Permittee shall adhere to the following minimum Best Management Practices (BMPs):
 - (1) Minimize the exposure of industrial material storage areas, loading and unloading areas, dumpsters and other disposal areas, maintenance activities, and fueling operations to rain, snow, snowmelt, and runoff, by locating industrial materials and activities inside or protecting them with storm resistant coverings, if warranted and practicable.
 - (2) Provide good housekeeping practices on the site to prevent potential pollution sources from coming into contact with stormwater and provide collection facilities and arrange for proper disposal of waste products, including sludge.
 - (3) Implement a maintenance program to ensure that the structural control measures and industrial equipment is kept in good operating condition and to prevent or minimize leaks and other releases of pollutants.
 - (4) Prevent or minimize the spillage or leaks of fluids, oil, grease, fuel, etc. from equipment and vehicle maintenance, equipment and vehicle cleaning, or activities.
 - (5) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed.
 - (6) Provide stormwater runoff controls to divert, infiltrate, reuse, contain, or otherwise minimize pollutants in the stormwater discharge.
 - (7) Enclose or cover storage piles of salt or piles containing salt, used for deicing or other commercial or industrial purposes.
 - (8) Provide training to all employees who; work in areas where industrial materials or activities are exposed to stormwater, are responsible for stormwater inspections, are members of the Pollution Prevention Team. Training must cover the specific control measures and monitoring, inspection, planning, reporting and documentation requirements of this permit. Training is recommended annually for any applicable staff and whenever a new employee is hired who meets the description above.

E. SPECIAL CONDITIONS (continued)

- (9) Eliminate and prevent unauthorized non-stormwater discharges at the facility.
- (10) Minimize generation of dust and off-site tracking of raw, final, or waste materials by implementing appropriate control measures.
23. Acute Whole Effluent Toxicity (WET) tests shall be conducted as follows:
- (a) Freshwater Species and Test Methods: Species and short-term test methods for estimating the acute toxicity of NPDES effluents are found in the most recent edition of *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/821/R-02/012; Table IA, 40 CFR Part 136). The permittee shall concurrently conduct 48-hour, static, non-renewal toxicity tests with the following species:
 - o The fathead minnow, *Pimephales promelas* (Acute Toxicity EPA Test Method 2000.0).
 - o The daphnid, *Ceriodaphnia dubia* (Acute Toxicity EPA Test Method 2002.0).
 - (b) Chemical and physical analysis of the upstream control sample and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping. Where upstream receiving water is not available or known to be toxic, other approved control water may be used.
 - (c) Test conditions must meet all test acceptability criteria required by the EPA Method used in the analysis.
 - (d) The Allowable Effluent Concentration (AEC) for this facility is 84.9% with the dilution series being: 100%, 84.9%, 69.8%, 54.7%, and 39.6%.
 - (e) All chemical and physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% effluent concentration.
 - (f) All chemical analyses shall be performed and results shall be recorded in the appropriate field of the report form. The parameters for chemical analysis include Temperature (°F), pH (SU), Conductivity (µmohs/cm), Dissolved Oxygen (mg/L), Total Residual Chlorine (mg/L), Un-ionized Ammonia (mg/L), Total Alkalinity (mg/L), and Total Hardness (mg/L).
 - (g) The facility must submit a full laboratory report for all toxicity testing. The report must include a quantification of acute toxic units ($TU_a = 100/LC_{50}$) reported according to the test methods manual chapter on report preparation and test review. The Lethal Concentration 50 Percent (LC_{50}) is the effluent concentration that would cause death in 50 percent of the test organisms at a specific time.
24. Chronic Whole Effluent Toxicity (WET) tests shall be conducted as follows:
- (a) Freshwater Species and Test Methods: Species and short-term test methods for estimating the acute toxicity of NPDES effluents are found in the most recent edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013; Table IA, 40 CFR Part 136). The permittee shall concurrently conduct 7-day, static, renewal toxicity tests with the following species:
 - o The fathead minnow, *Pimephales promelas* (Survival and Growth Test Method 1000.0).
 - o The daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.0).
 - (b) Chemical and physical analysis of the upstream control sample and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping. Where upstream receiving water is not available or known to be toxic, other approved control water may be used.
 - (c) Test conditions must meet all test acceptability criteria required by the EPA Method used in the analysis.
 - (d) The Allowable Effluent Concentration (AEC) for this facility is 36.0% with the dilution series being: 90%, 72%, 54%, 36.0%, and 18.0%.
 - (e) All chemical and physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% effluent concentration.
 - (f) All chemical analyses shall be performed and results shall be recorded in the appropriate field of the report form. The parameters for chemical analysis include Temperature (°F), pH (SU), Conductivity (µmohs/cm), Dissolved Oxygen (mg/L), Total Residual Chlorine (mg/L), Un-ionized Ammonia (mg/L), Total Alkalinity (mg/L), and Total Hardness (mg/L).
 - (g) The facility must submit a full laboratory report for all toxicity testing. The report must include a quantification of chronic toxic units ($TU_c = 100/IC_{25}$) reported according to the *Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* chapter on report preparation and test review. The 25 percent Inhibition Effect Concentration (IC_{25}) is the toxic or effluent concentration that would cause 25 percent reduction in mean young per female or in growth for the test populations.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0026298
PLATTE CITY WASTEWATER TREATMENT PLANT

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for a Major.

Part I – Facility Information

Facility Type: POTW - SIC #4952

Facility Description:

Bar screen / flow equalization basin / two (2) sequencing batch reactor units / ultraviolet disinfection / two (2) aerobic digesters / screw press / three (3) sludge holding basins / sludge is land applied.

Design population equivalent is 5,534.

Design flow is 2.0 MGD.

Actual flow is 0.44 MGD.

Design sludge production is 120 dry tons/year.

Comments:

The facility is a mechanical plant that uses two parallel SBR units, flow equalization basins, two aerobic digesters (operated in series under normal conditions), screw press, three sludge holding basins/drying beds and UV disinfection. All decant water from the drying beds and from digesters return to the headworks and is treated again. Both Outfall #001 and Outfall #002 are located in the same structure. Outfall #001 is for normal operations while the river is at normal flow. Effluent is pumped to Outfall #002 when the river is above normal flow. All information for Outfall #001 is the same for Outfall #002, including the locational information. Data submitted by the permittee over the previous five (5) years was reviewed and utilized by combining the data for Outfall #001 and Outfall #002 as the outfalls discharge to the same location and receive effluent from the same wastewater treatment plant.

Monitoring for the purposes of compliance with permit requirements is conducted following UV disinfection but prior to Outfalls #001 and #002. Due to the fact that both outfalls discharge to the same receiving stream, and the influent and effluent for both outfalls is the same, monitoring for the purposes of compliance for both Outfalls #001 and #002 shall occur following UV disinfection. The facility should average all samples from this location in order to determine compliance with permit requirements.

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?

- Yes; it has been determined by the permit writer that there is an appropriate stream gauge upstream of the discharge to calculate low flow values of the receiving stream. As a result, final effluent limitations included in this permit were derived utilizing the mixing considerations calculated by the permit writer.

Application Date: 12/31/14

Expiration Date: 06/30/15

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE
#001	3.1	Secondary	Domestic
#002	<i>Alternate Discharge from Outfall #001 – River Levels Above Normal</i>		
#SM1	<i>Instream Monitoring Location - Upstream</i>		

Facility Performance History:

This facility was last inspected on November 14, 2012, May 3, 2013, and June 12, 2013. The inspection showed the following unsatisfactory features; sludge removal from the sludge holding/drying basin resulted in the wasting pipe to be nearly buried due to the backhoe being operated very close to the wasting pipe and failure to comply with effluent limitations.

Comments:

Changes in this permit include the addition of monitoring requirements for total nitrogen and total phosphorus of both the effluent and instream upstream of the outfall. See Part VII of the Fact Sheet for further information regarding the addition of effluent parameters. Special conditions were updated to include the addition of reporting of Non-detects, bypass reporting requirements, addition of instream monitoring requirements, and addition of requirements to develop and implement a SWPPP.

A Reasonable Potential Analysis (RPA) was conducted on appropriate parameters. A RPA analysis was completed for the last permit cycle and, due to permit synchronization, the previous permit cycle was reduced to a time period of less than five (5) years. Therefore, all RPA results from short term permit would typically have been carried over to this permit. However, it has been determined by the permit writer that an appropriate stream gauge should be utilized in order to calculate a site-specific mixing zone and zone of initial dilution. Final effluent limitations included in this permit have been derived including the mixing considerations from the stream gauge. Please see **APPENDIX – RPA RESULTS** for more information.

This facility discharges to a 303(d) listed stream. Platte River (P) (312) is listed on the 2014, originally 2010, Missouri 303(d) List for *Escherichia coli* (W). The 2014 Missouri 303(d) List identifies the source of the impairment as Rural Nonpoint Source. However, it is anticipated by the permit writer that the discharge from the facility will contribute to the impairment of Platte River (P) (312). Once a TMDL is developed, the permit may be modified to include WLAs from the TMDL.

Sampling and reporting frequency has been changed from the previous permit for BOD₅, TSS, ammonia, pH, and oil & grease. Sampling frequency for BOD₅, TSS, ammonia, and pH have been changed from once/month to once/week due to the design flow of the facility, per 10 CSR 20-7.015(2)(C)1., and the inconsistency of the effluent over the previous five (5) years. Sampling and reporting frequency for oil & grease has been changed from once/month to once/quarter due to the consistency of the effluent to meet final effluent limitations for oil & grease over the previous five (5) years. Weekly sampling is required for *E. coli*, per 10 CSR 20-7.015(9)(D)6.A.

The previous permit contained final effluent limitations for pH of 6.5-9.0 SU. However, final effluent limitations for pH of 6.0-9.0 SU [10 CSR 20-7.015] are protective of the water quality standard [10 CSR 20-7.031(5)(E)], due to the buffering capacity of the mixing zone. This permit includes final effluent limitations for pH of 6.0-9.0 SU. The previous permit included final effluent limitations for ammonia of 3.8 mg/L as a daily maximum and 1.5 mg/L as a monthly average for summer designated months (April 1 – September 30) and 12.1 mg/L as a daily maximum and 2.9 mg/L as a monthly average for winter designated months (October 1 – March 31). It has been determined by the permit writer that an appropriate stream gauge should be utilized in order to calculate a site-specific mixing zone and zone of initial dilution. As a result of this determination, final effluent limitations included in this permit have been derived including the mixing considerations from the stream gauge and are less stringent than previously established. The final effluent limitations in this permit are protective of water quality standards. Please see **Appendix – RPA Results** for more information on the RPA conducted for this permit renewal. WET testing requirements were changed from pass/fail to monitoring only for toxic units. This change reflects modifications to Missouri’s Effluent Regulation found at 10 CSR 20-7.015. 40 CFR 122.44(d)(1)(ii) requiring the department to establish effluent limitations to control all parameters which have the reasonable potential to cause or contribute to an excursion above any state water quality standard, including state narrative criteria. The previous permit imposed a pass/fail limitation without collecting sufficient numerical data to conduct an analytical reasonable potential analysis. The permit writer has made a reasonable potential determination which concluded the facility does not have reasonable potential at this time but monitoring is required. Implementation of the toxic unit monitoring requirement will allow the department to effect numeric criteria in accordance with water quality standards established under §303 of the CWA.

Part II – Operator Certification Requirements

- This facility is required to have a certified operator.

As per [10 CSR 20-6.010(8) Terms and Conditions of a Permit], the permittee shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators or supervisors of operations at regulated wastewater treatment facilities shall be certified in accordance with [10 CSR 20-9.020(2)] and any other applicable state law or regulation. As per [10 CSR 20-9.020(2)(A)], requirements for operation by certified personnel shall apply to all wastewater treatment systems, if applicable, as listed below:

Owned or operated by or for a

- | | |
|--|---|
| <input checked="" type="checkbox"/> - Municipalities | <input type="checkbox"/> - State agency |
| <input type="checkbox"/> - Federal agency | <input type="checkbox"/> - Private Sewer Company regulated by the Public Service Commission |
| <input type="checkbox"/> - County | <input type="checkbox"/> - Public Water Supply Districts |
| <input type="checkbox"/> - Public Sewer District | |

Each of the above entities are only applicable if they have a Population Equivalent greater than two hundred (200) or fifty (50) or more service connections.

This facility currently requires an operator with a B Certification Level. Please see **Appendix - Classification Worksheet**. Modifications made to the wastewater treatment facility may cause the classification to be modified.

Operator's Name: Daniel L. Stamper
Certification Number: 10518
Certification Level: B

The listing of the operator above only signifies that staff drafting this operating permit have reviewed appropriate Department records and determined that the name listed on the operating permit application has the correct and applicable Certification Level.

Part III– Operational Monitoring

- As per [10 CSR 20-9.010(4)], the facility is required to conduct operational monitoring.

Part IV – Receiving Stream Information

RECEIVING STREAM(S) TABLE: OUTFALLS #001 & #002

WATER-BODY NAME	CLASS	WBID	DESIGNATED USES*	12-DIGIT HUC	DISTANCE TO CLASSIFIED SEGMENT (MI)
Platte River	P	312	AQL, DWS, HHP, IRR, LWW, SCR, WBC-B	10240012-0903	Directly Discharges

* As per 10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission's water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream's beneficial water uses to be maintained are in the receiving stream table in accordance with [10 CSR 20-7.031(1)(C)].

Uses which may be found in the receiving streams table, above:

10 CSR 20-7.031(1)(C)1.:

AQL = Protection of aquatic life (Current narrative use(s) are defined to ensure the protection and propagation of fish shellfish and wildlife, which is further subcategorized as: **WWH** = Warm Water Habitat; **CDF** = Cold-water fishery (Current narrative use is cold-water habitat.); **CLF** = Cool-water fishery (Current narrative use is cool-water habitat); **EAH** = Ephemeral Aquatic Habitat; **MAH** = Modified Aquatic Habitat; **LAH** = Limited Aquatic Habitat. This permit uses AQL effluent limitations in 10 CSR 20-7.031 Table A for all habitat designations unless otherwise specified.)

10 CSR 20-7.031(1)(C)2.: Recreation in and on the water

WBC = Whole Body Contact recreation where the entire body is capable of being submerged;

WBC-A = Whole body contact recreation that supports swimming uses and has public access;

WBC-B = Whole body contact recreation that supports swimming;

SCR = Secondary Contact Recreation (like fishing, wading, and boating).

10 CSR 20-7.031(1)(C)3. to 7.:

HHP (formerly HHF) = Human Health Protection as it relates to the consumption of fish;

IRR = Irrigation for use on crops utilized for human or livestock consumption;

LWW = Livestock and wildlife watering (Current narrative use is defined as LWP = Livestock and Wildlife Protection);

DWS = Drinking Water Supply;

IND = Industrial water supply

10 CSR 20-7.031(1)(C)8-11.: Wetlands (10 CSR 20-7.031 Table A currently does not have corresponding habitat use criteria for these defined uses)

WSA = Storm- and flood-water storage and attenuation; WHP = Habitat for resident and migratory wildlife species;
WRC = Recreational, cultural, educational, scientific, and natural aesthetic values and uses; WHC = Hydrologic cycle maintenance.
10 CSR 20-7.031(6): **GRW** = Groundwater

RECEIVING STREAM(S) LOW-FLOW VALUES:

RECEIVING STREAM (C, E, P, P1)	LOW-FLOW VALUES (CFS)*		
	1Q10	7Q10	30Q10
Platte River (P)	19.20	22.09	35.73

* Data from USGS Gauge Station 06821190 located on the Platte River at Sharps Station, MO.

MIXING CONSIDERATIONS TABLE:

MIXING ZONE (CFS) [10 CSR 20-7.031(5)(A)4.B.(II)(a)]			ZONE OF INITIAL DILUTION (CFS) [10 CSR 20-7.031(5)(A)4.B.(II)(b)]		
1Q10	7Q10	30Q10	1Q10	7Q10	30Q10
4.80	5.52	8.93	0.48	0.55	0.89

RECEIVING STREAM MONITORING REQUIREMENTS:

Facilities with a design flow greater than 100,000 gallons per day are required to sample their effluent quarterly for Total Phosphorus and Total Nitrogen per 10 CSR 20-7.015(9)(D)7. Upstream monitoring for these parameters is necessary to determine background concentrations in order to complete calculations related to future effluent limit derivation where necessary or appropriate.

Permitted Feature SM1. (Upstream)

Receiving Water Body’s Water Quality

Currently, no stream survey has been conducted by the Department. When a stream survey is conducted, more information may be available about the receiving stream.

Part V – Rationale and Derivation of Effluent Limitations & Permit Conditions

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:

As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

- The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

ANTI-BACKSLIDING:

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(o); 40 CFR Part 122.44(l)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

- Limitations in this operating permit for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.

- Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.
- **pH.** The previous permit contained final effluent limitations for pH of 6.5-9.0 SU. However, final effluent limitations for pH of 6.0-9.0 SU [10 CSR 20-7.015] are protective of the water quality standard [10 CSR 20-7.031(5)(E)], due to the buffering capacity of the mixing zone. This permit includes final effluent limitations for pH of 6.0-9.0 SU.
 - **Ammonia.** The previous permit included final effluent limitations for ammonia of 3.8 mg/L as a daily maximum and 1.5 mg/L as a monthly average for summer designated months (April 1 – September 30) and 12.1 mg/L as a daily maximum and 2.9 mg/L as a monthly average for winter designated months (October 1 – March 31). It has been determined by the permit writer that an appropriate stream gauge should be utilized in order to calculate a site-specific mixing zone and zone of initial dilution. As a result of this determination, final effluent limitations included in this permit have been derived including the mixing considerations from the stream gauge and are less stringent than previously established. The final effluent limitations in this permit are protective of water quality standards. Please see **Appendix – RPA Results.**

- **Acute Whole Effluent Toxicity (WET) test.** WET testing requirements were changed from pass/fail to monitoring only for toxic units. This change reflects modifications to Missouri's Effluent Regulation found at 10 CSR 20-7.015. 40 CFR 122.44(d)(1)(ii) requiring the department to establish effluent limitations to control all parameters which have the reasonable potential to cause or contribute to an excursion above any state water quality standard, including state narrative criteria. The previous permit imposed a pass/fail limitation without collecting sufficient numerical data to conduct an analytical reasonable potential analysis. The permit writer has made a reasonable potential determination which concluded the facility does not have reasonable potential at this time but monitoring is required. Implementation of the toxic unit monitoring requirement will allow the department to effect numeric criteria in accordance with water quality standards established under §303 of the CWA.

ANTIDEGRADATION:

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(3)], for domestic wastewater discharge with new, altered, or expanding discharges, the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. In accordance with Missouri's water quality regulations for antidegradation [10 CSR 20-7.031(3)], degradation may be justified by documenting the socio-economic importance of a discharge after determining the necessity of the discharge. Facilities must submit the antidegradation review request to the department prior to establishing, altering, or expanding discharges. See <http://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm>

- No degradation proposed and no further review necessary. Facility did not apply for authorization to increase pollutant loading or to add additional pollutants to their discharge.

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:

As per [10 CSR 20-6.010(3)(B)], ...An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the Department.

BIOSOLIDS & SEWAGE SLUDGE:

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address: <http://extension.missouri.edu/main/DisplayCategory.aspx?C=74>, items WQ422 through WQ449.

- Permittee land applies biosolids in accordance with Standard Conditions III and a Department approved biosolids management plan.

COMPLIANCE AND ENFORCEMENT:

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

- The facility is not currently under Water Protection Program enforcement action.

DISCHARGE MONITORING REPORTS:

On July 30, 2013, EPA proposed the Clean Water Act National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, which requires electronic reporting of NPDES information rather than the currently-required paper-based reports from permitted facilities. To comply with the upcoming federal rule, the Department is asking all permittees to begin submitting discharge monitoring data online. For permittees already using the Department's eDMR data reporting system, those permittees will be required to exclusively use the eDMR data reporting system.

- The permittee/facility is not currently using the eDMR data reporting system. To sign up for the eDMR system, visit the Department's eDMR page at <http://dnr.mo.gov/env/wpp/edmr.htm>.

PRETREATMENT PROGRAM:

The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)].

Pretreatment programs are required at any POTW (or combination of POTW operated by the same authority) and/or municipality with a total design flow greater than 5.0 MGD and receiving industrial wastes that interfere with or pass through the treatment works or are otherwise subject to the pretreatment standards. Pretreatment programs can also be required at POTWs/municipals with a design flow less than 5.0 MGD if needed to prevent interference with operations or pass through.

Several special conditions pertaining to the permittee's pretreatment program may be included in the permit, and are as follows:

- Implementation and enforcement of the program,
- Annual pretreatment report submittal,
- Submittal of list of industrial users,
- Technical evaluation of need to establish local limitations, and
- Submittal of the results of the evaluation

- The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

REASONABLE POTENTIAL ANALYSIS (RPA):

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d)(1)(iii)] if the permit writer determines that any given pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

- A RPA was conducted on appropriate parameters. A RPA analysis was completed for the last permit cycle and, due to permit synchronization, the previous permit cycle was reduced to a time period of less than five (5) years. Therefore, all RPA results from short term permit would typically have been carried over to this permit. However, it has been determined by the permit writer that an appropriate stream gauge should be utilized in order to calculate a site-specific mixing zone and zone of initial dilution. Final effluent limitations included in this permit have been derived including the mixing considerations from the stream gauge. Please see

APPENDIX – RPA RESULTS.

REMOVAL EFFICIENCY:

Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD₅) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals.

- Secondary Treatment is 85% removal [40 CFR Part 133.102(a)(3) & (b)(3)].

SANITARY SEWER OVERFLOWS (SSO) AND INFLOW AND INFILTRATION (I&I):

Sanitary Sewer Overflows (SSOs) are defined as untreated sewage releases and are considered bypassing under state regulation [10 CSR 20-2.010(11)] and should not be confused with the federal definition of bypass. SSOs result from a variety of causes including blockages, line breaks, and sewer defects that can either allow wastewater to backup within the collection system during dry weather conditions or allow excess stormwater and groundwater to enter and overload the collection system during wet weather conditions. SSOs can also result from lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs include overflows out of manholes, cleanouts, broken pipes, and other into waters of the state and onto city streets, sidewalks, and other terrestrial locations.

Inflow and Infiltration (I&I) is defined as unwanted intrusion of stormwater or groundwater into a collection system. This can occur from points of direct connection such as sump pumps, roof drain downspouts, foundation drains, and storm drain cross-connections or through cracks, holes, joint failures, faulty line connections, damaged manholes, and other openings in the collection system itself. I&I results from a variety of causes including line breaks, improperly sealed connections, cracks caused by soil erosion/settling, penetration of vegetative roots, and other sewer defects. In addition, excess stormwater and groundwater entering the collection system from line breaks and sewer defects have the potential to negatively impact the treatment facility.

Missouri RSMo §644.026.1.(13) mandates that the Department issue permits for discharges of water contaminants into the waters of this state, and also for the operation of sewer systems. Such permit conditions shall ensure compliance with all requirements as established by sections 644.006 to 644.141. Standard Conditions Part I, referenced in the permit, contains provisions requiring proper operation and maintenance of all facilities and systems of treatment and control. Missouri RSMo §644.026.1.(15) instructs the Department to require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities. To ensure that public health and the environment are protected, any noncompliance which may endanger public health or the environment must be reported to the Department within 24 hours of the time the permittee becomes aware of the noncompliance. Standard Conditions Part I, referenced in the permit, contains the reporting requirements for the permittee when bypasses and upsets occur. The permit also contains requirements for permittees to develop and implement a program for maintenance and repair of the collection system. The permit requires that the permittee submit an annual report to the Department

for the previous calendar year that contains a summary of efforts taken by the permittee to locate and eliminate sources of excess I & I, a summary of general maintenance and repairs to the collection system, and a summary of any planned maintenance and repairs to the collection system for the upcoming calendar year.

- At this time, the Department recommends the US EPA's Guide for Evaluating Capacity, Management, Operation and Maintenance (CMOM) Programs At Sanitary Sewer Collection Systems (Document # EPA 305-B-05-002) or the Departments' CMOM Model located at <http://dnr.mo.gov/env/wpp/permits/docs/cmom-template.doc>. For additional information regarding the Departments' CMOM Model, see the CMOM Plan Model Guidance document at <http://dnr.mo.gov/pubs/pub2574.htm>. The CMOM identifies some of the criteria used to evaluate a collection system's management, operation, and maintenance and was intended for use by the EPA, state, regulated community, and/or third party entities. The CMOM is applicable to small, medium, and large systems; both public and privately owned; and both regional and satellite collection systems. The CMOM does not substitute for the Clean Water Act, the Missouri Clean Water Law, and both federal and state regulations, as it is not a regulation.

SCHEDULE OF COMPLIANCE (SOC):

Per 644.051.4 RSMo, a permit may be issued with a Schedule of Compliance (SOC) to provide time for a facility to come into compliance with new state or federal effluent regulations, water quality standards, or other requirements. Such a schedule is not allowed if the facility is already in compliance with the new requirement, or if prohibited by other statute or regulation. A SOC includes an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. *See also* Section 502(17) of the Clean Water Act, and 40 CFR §122.2. For new effluent limitations, the permit includes interim monitoring for the specific parameter to demonstrate the facility is not already in compliance with the new requirement. Per 40 CFR § 122.47(a)(1) and 10 CSR 20-7.031(11), compliance must occur as soon as possible. If the permit provides a schedule for meeting new water quality based effluent limits, a SOC must include an enforceable, final effluent limitation in the permit even if the SOC extends beyond the life of the permit.

A SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed. 40 CFR § 125.3.
- For a newly constructed facility in most cases. Newly constructed facilities must meet applicable effluent limitations when discharge begins, because the facility has installed the appropriate control technology as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit that was not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.
- To develop a TMDL, UAA, or other study associated with development of a site specific criterion. A facility is not prohibited from conducting these activities, but a SOC may not be granted for conducting these activities.

In order to provide guidance to Permit Writers in developing SOCs, and attain a greater level of consistency, on April 9, 2015 the Department issued an updated policy on development of SOCs. This policy provides guidance to Permit Writers on the standard time frames for schedules for common activities, and guidance on factors that may modify the length of the schedule such as a Cost Analysis for Compliance.

- This permit does not contain a SOC.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of stormwater discharges. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include, but is not limited to, minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures determined to be adequate to achieve the benchmark values discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and re-evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but should be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. Failure to implement and maintain the chosen BMP is a permit violation. For further guidance, consult the antidegradation implementation procedure (<http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf>).

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs that are reasonable and cost effective. The AA evaluation should include practices that are designed to be: 1) non-degrading; 2) less degrading; or 3) degrading water quality. The glossary of AIP defines these three terms. The chosen BMP will be the most reasonable and effective management strategy while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The AA evaluation must demonstrate why “no discharge” or “no exposure” is not a feasible alternative at the facility. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(3) Water Quality Standards and *Antidegradation Implementation Procedure* (AIP), Section II.B.

If parameter-specific numeric exceedances continue to occur and the permittee feels there are no practicable or cost-effective BMPs which will sufficiently reduce a pollutant concentration in the discharge to the benchmark values established in the permit, the permittee can submit a request to re-evaluate the benchmark values. This request needs to include 1) a detailed explanation of why the facility is unable to comply with the permit conditions and unable to establish BMPs to achieve the benchmark values; 2) financial data of the company and documentation of cost associated with BMPs for review and 3) the SWPPP, which should contain adequate documentation of BMPs employed, failed BMPs, corrective actions, and all other required information. This will allow the department to conduct a cost analysis on control measures and actions taken by the facility to determine cost-effectiveness of BMPs. The request shall be submitted in the form of an operating permit modification; the application is found at: <http://dnr.mo.gov/forms/index.html>.

- 10 CSR 20-6.200 and 40 CFR 122.26 includes treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that is located within the confines of the facility, with a design flow of 1.0 mgd or more, or are required to have an approved pretreatment program under 40 CFR part 403, as an industrial activity in which permit coverage is required.

In lieu of requiring sampling in the site-specific permit, the facility is required to develop and implement a Stormwater Pollution Prevention Plan. A facility can apply for conditional exclusion for “no exposure” of industrial activities and materials to stormwater by submitting to the Department a completed NPDES Form 3510-11 – No Exposure Certification for Exclusion from NPDES Stormwater Permitting. That document and additional information may be found at <http://water.epa.gov/polwaste/npdes/stormwater/Conditional-No-Exposure-Exclusion.cfm>. Upon approval of the “No Exposure”, the permit can be modified to remove the SWPPP requirements. If the facility chooses to retain the conditional exclusion for “no exposure”, the facility is required to renew the “No Exposure” exemption during the permit renewal period by submitting NPDES Form 3510-11 with Form B2.

VARIANCE:

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

- This operating permit is not drafted under premises of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010(78)], the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

- Wasteload allocations were calculated where applicable using water quality criteria or water quality model results and the dilution equation below:

$$C_e = \frac{(Q_e + Q_s)C - (Q_s \times C_s)}{(Q_e)} \quad (\text{EPA/505/2-90-001, Section 4.5.5})$$

Where C = downstream concentration C_e = effluent concentration
Cs = upstream concentration Q_e = effluent flow
Q_s = upstream flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's "Technical Support Document For Water Quality-based Toxics Control" (EPA/505/2-90-001).

Number of Samples "n":

Additionally, in accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying distribution or treatment performance, which should be, at a minimum, be targeted to comply with the values dictated by the WLA. Therefore, it is recommended that the actual planned frequency of monitoring normally be used to determine the value of "n" for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for "n" must be assumed for AML derivation purposes. Thus, the statistical procedure being employed using an assumed number of samples is "n = 4" at a minimum. For Total Ammonia as Nitrogen, "n = 30" is used.

WLA MODELING:

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

- A WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARDS:

Per [10 CSR 20-7.031(4)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:

- The permittee is required to conduct WET test for this facility.

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

Under the federal Clean Water Act (CWA) §101(a)(3), requiring WET testing is reasonably appropriate for site-specific Missouri State Operating Permits for discharges to waters of the state issued under the National Pollutant Discharge Elimination System (NPDES). WET testing is also required by 40 CFR 122.44(d)(1). WET testing ensures that the provisions in the 10 CSR 20-6.010(8)(A)7. and the Water Quality Standards 10 CSR 20-7.031(4)(D),(F),(G),(I)2.A & B are being met. Under [10 CSR 20-6.010(8)(A)4], the Department may require other terms and conditions that it deems necessary to assure compliance with the Clean Water Act and related regulations of the Missouri Clean Water Commission. In addition the following MCWL apply: §§644.051.3 requires the Department to set permit conditions that comply with the MCWL and CWA; 644.051.4 specifically references toxicity as an item we must consider in writing permits (along with water quality-based effluent limits, pretreatment, etc...); and 644.051.5 is the basic authority to require testing conditions. WET test will be required by facilities meeting the following criteria:

- Facility is a designated Major.
- Facility continuously or routinely exceeds its design flow.
- Facility that exceeds its design population equivalent (PE) for BOD₅ whether or not its design flow is being exceeded.
- Facility (whether primarily domestic or industrial) that alters its production process throughout the year.
- Facility handles large quantities of toxic substances, or substances that are toxic in large amounts.
- Facility has Water Quality-based Effluent Limitations for toxic substances (other than NH₃)
- Facility is a municipality with a Design Flow \geq 22,500 gpd.
- Other – please justify.

40 CFR 122.41(M) - BYPASSES:

The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from “bypassing” untreated or partially treated sewage (wastewater) beyond the headworks. A bypass is defined as an intentional diversion of waste streams from any portion of a treatment facility, [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-7.015(9)(G) states a bypass means the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending, to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri’s Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar devices designed for peak wet weather flows.

- This facility does not anticipate bypassing.

303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):

Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

- This facility discharges to a 303(d) listed stream. Platte River (P) (312) is listed on the 2014, originally 2010, Missouri 303(d) List for *Escherichia coli* (W). The 2014 Missouri 303(d) List identifies the source of the impairment as Rural Nonpoint Source. However, it is anticipated by the permit writer that the discharge from the facility will contribute to the impairment of Platte River (P) (312). Once a TMDL is developed, the permit may be modified to include WLAs from the TMDL.

Part VI –2013 Water Quality Criteria for Ammonia

Upcoming changes to the Water Quality Standard for ammonia may require significant upgrades to wastewater treatment facilities.

On August 22, 2013, the U.S. Environmental Protection Agency (EPA) finalized new water quality criteria for ammonia, based on toxicity studies of mussels and gill breathing snails. Missouri’s current ammonia criteria are based on toxicity testing of several species, but did not include data from mussels or gill breathing snails. Missouri is home to 69 of North America’s mussel species, which are spread across the state. According to the Missouri Department of Conservation nearly two-thirds of the mussel species in Missouri are considered to be “of conservation concern”. Nine species are listed as federally endangered, with an additional species currently proposed as endangered and another species proposed as threatened.

The adult forms of mussels that are seen in rivers, lakes, and streams are sensitive to pollutants because they are sedentary filter feeders. They vacuum up many pollutants with the food they bring in and cannot escape to new habitats, so they can accumulate toxins in their bodies and die. But very young mussels, called glochidia, are exceptionally sensitive to ammonia in water. As a result of a citizen suit, the EPA was compelled to conduct toxicity testing and develop ammonia water quality criteria that would be protective if young mussels may be present in a waterbody. These new criteria will apply to any discharge with ammonia levels that may pose a reasonable potential to violate the standards. Nearly all discharging domestic wastewater treatment facilities (cities, subdivisions, mobile home parks, etc.), as well as certain industrial and stormwater dischargers with ammonia in their effluent, will be affected by this change in the regulations.

When new water quality criteria are established by the EPA, states must adopt them into their regulations in order to keep their authorization to issue permits under the National Pollutant Discharge Elimination System (NPDES). States are required to review their water quality standards every three years, and if new criteria have been developed they must be adopted. States may be more

protective than the Federal requirements, but not less protective. Missouri does not have the resources to conduct the studies necessary for developing new water quality standards, and therefore our standards mirror those developed by the EPA; however, we will utilize any available flexibility based on actual species of mussels that are native to Missouri and their sensitivity to ammonia.

Many treatment facilities in Missouri are currently scheduled to be upgraded to comply with the current water quality standards. But these new ammonia standards may require a different treatment technology than the one being considered by the permittee. It is important that permittees discuss any new and upcoming requirements with their consulting engineers to ensure that their treatment systems are capable of complying with the new requirements. The Department encourages permittees to construct treatment technologies that can attain effluent quality that supports the EPA ammonia criteria.

Ammonia toxicity varies by temperature and by pH of the water. Assuming a stable pH value, but taking into account winter and summer temperatures, Missouri includes two seasons of ammonia effluent limitations. Current effluent limitations in this permit are:

Summer – 14.0 mg/L daily maximum, 2.9 mg/L monthly average.

Winter – 14.0 mg/L daily maximum, 3.3 mg/L monthly average.

Under the new EPA criteria, where mussels of the family Unionidae are present or expected to be present, the estimated effluent limitations for a facility in a location such as this that discharges to a receiving stream with the mixing consideration listed in Part IV of the Fact Sheet will be:

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg/L)	Total Ammonia Nitrogen CMC (mg/L)
Summer	26	7.8	0.7	3.4
Winter	6	7.8	2.3	13

Summer: April 1 – September 30

Chronic WLA: $C_e = ((3.1 + 8.93)0.7 - (8.93 * 0.01))/3.1$
 $C_e = 2.69 \text{ mg/L}$

Acute WLA: $C_e = ((3.1 + 0.48)3.4 - (0.48 * 0.01))/3.1$
 $C_e = 3.92 \text{ mg/L}$

$LTA_c = 2.69 \text{ mg/L} (0.524) = 1.41 \text{ mg/L}$

[CV = 1.66, 99th Percentile, 30 day avg.]

$LTA_a = 3.92 \text{ mg/L} (0.133) = 0.52 \text{ mg/L}$

[CV = 1.66, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

$MDL = 0.52 \text{ mg/L} (7.51) = 3.9 \text{ mg/L}$

[CV = 1.66, 99th Percentile]

$AML = 0.52 \text{ mg/L} (1.56) = 0.8 \text{ mg/L}$

[CV = 1.66, 95th Percentile, n =30]

Winter: October 1 – March 31

Chronic WLA: $C_e = ((3.1 + 8.93)2.3 - (8.93 * 0.01))/3.1$
 $C_e = 8.90 \text{ mg/L}$

Acute WLA: $C_e = ((3.1 + 0.48)13 - (0.48 * 0.01))/3.1$
 $C_e = 15.01 \text{ mg/L}$

$LTA_c = 8.90 \text{ mg/L} (0.599) = 5.33 \text{ mg/L}$

[CV = 1.29, 99th Percentile, 30 day avg.]

$LTA_a = 15.01 \text{ mg/L} (0.163) = 2.45 \text{ mg/L}$

[CV = 1.29, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

$MDL = 2.45 \text{ mg/L} (6.12) = 15.0 \text{ mg/L}$

[CV = 1.29, 99th Percentile]

$AML = 2.45 \text{ mg/L} (1.43) = 3.5 \text{ mg/L}$

[CV = 1.29, 95th Percentile, n =30]

Summer – 3.9 mg/L daily maximum, 0.8 mg/L monthly average.

Winter – 15.0 mg/L daily maximum, 3.5 mg/L monthly average.

These estimated limits above are based in part on the actual performance of the plant at the time of the drafting of this permit and should not be construed as future effluent limitations. Future effluent limits, based on the EPA's 2013 water quality criteria for ammonia, will depend in part on the actual performance of the facility at the time the permit is renewed.

Operating permits for facilities in Missouri must be written based on current statutes and regulations. Therefore permits will be written with the existing effluent limitations until the new standards are adopted. To aid permittees in decision making, an advisory will be added to permit Fact Sheets notifying permittees of the expected effluent limitations for ammonia. When setting schedules of compliance for ammonia effluent limitations, consideration will be given to facilities that have recently constructed upgraded facilities to meet the current ammonia limitations.

For more information on this topic feel free to contact the Missouri Department of Natural Resources, Water Protection Program, Water Pollution Control Branch, Operating Permits Section at (573) 751-1300.

Part VII – Effluent Limits Determination

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

As per Missouri’s Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall’s Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

- Missouri or Mississippi River [10 CSR 20-7.015(2)]
- Lake or Reservoir [10 CSR 20-7.015(3)]
- Losing [10 CSR 20-7.015(4)]
- Subsurface Water [10 CSR 20-7.015(7)]
- All Other Waters [10 CSR 20-7.015(8)]
- Metropolitan No-Discharge [10 CSR 20-7.015(5)]

OUTFALL #001 – MAIN FACILITY OUTFALL

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	Unit	Basis for Limits	Daily Maximum	Weekly Average	Monthly Average	Previous Permit Limit	Sampling Frequency	Reporting Frequency	Sample Type ****
Flow	MGD	1	*		*	*/*	1/week-days	monthly	T
BOD ₅	mg/L	1		45	30	45/30	1/week	monthly	C
TSS	mg/L	1		45	30	45/30	1/week	monthly	C
Ammonia as N (Apr 1 – Sep 30)	mg/L	2, 3	14.0		2.9	3.8/1.5	1/week	monthly	G
Ammonia as N (Oct 1 – Mar 31)	mg/L	2, 3	14.0		3.3	12.1/2.9	1/week	monthly	G
<i>Escherichia coli</i> **	#/100mL	1, 3		1,030	206	1,030 / 206	1/week	monthly	G
Oil & Grease	mg/L	1, 3	15		10	15/10	1/quarter	quarterly	G
Total Nitrogen	mg/L	1	*		*	***	1/quarter	quarterly	G
Total Phosphorus	mg/L	1	*		*	***	1/quarter	quarterly	G
Acute Whole Effluent Toxicity	TU _a	1, 9	*			pass / fail	1/year	annually	C
Chronic Whole Effluent Toxicity	TU _c	1, 9	*			***	1/permit cycle	1/permit cycle	C
PARAMETER	Unit	Basis for Limits	Minimum		Maximum	Previous Permit Limit	Sampling Frequency	Reporting Frequency	Sample Type
pH	SU	1	6.0		9.0	6.5-9.0	1/week	monthly	G

- * - Monitoring requirement only.
- ** - #/100mL; the Monthly Average for *E. coli* is a geometric mean.
- *** - Parameter not previously established in previous state operating permit.
- **** - C = 24-hour composite
G = Grab
T = 24-hour total
E = 24-hour estimate

Basis for Limitations Codes:

- 1. State or Federal Regulation/Law
- 2. Water Quality Standard (includes RPA)
- 3. Water Quality Based Effluent Limits
- 4. Antidegradation Review
- 5. Antidegradation Policy
- 6. Water Quality Model
- 7. Best Professional Judgment
- 8. TMDL or Permit in lieu of TMDL
- 9. WET Test Policy
- 10. Multiple Discharger Variance

OUTFALL #001 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Biochemical Oxygen Demand (BOD₅).** Effluent limitations have been retained from previous operating permit as the previous permit cycle was less than five (5) years due to permit synchronization. Please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Effluent Limits Determination.**
- **Total Suspended Solids (TSS).** Effluent limitations have been retained from previous operating permit as the previous permit cycle was less than five (5) years due to permit synchronization. Please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Effluent Limits Determination.**
- **Total Ammonia Nitrogen.** Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(5)(B)7.C. & Table B3]. Background total ammonia nitrogen = 0.01 mg/L.

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg/L)	Total Ammonia Nitrogen CMC (mg/L)
Summer	26	7.8	1.5	12.1
Winter	6	7.8	3.1	12.1

Summer: April 1 – September 30

Chronic WLA: $C_e = ((3.1 + 8.93)1.5 - (8.93 * 0.01))/3.1$
 $C_e = 5.79 \text{ mg/L}$

Acute WLA: $C_e = ((3.1 + 0.48)12.1 - (0.48 * 0.01))/3.1$
 $C_e = 13.97 \text{ mg/L}$

$LTA_c = 5.79 \text{ mg/L} (0.524) = 3.03 \text{ mg/L}$
 $LTA_a = 13.97 \text{ mg/L} (0.133) = 1.86 \text{ mg/L}$

[CV = 1.66, 99th Percentile, 30 day avg.]
 [CV = 1.66, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

MDL = 1.86 mg/L (7.51) = 14.0 mg/L
 AML = 1.86 mg/L (1.56) = 2.9 mg/L

[CV = 1.66, 99th Percentile]
 [CV = 1.66, 95th Percentile, n =30]

Winter: October 1 – March 31

Chronic WLA: $C_e = ((3.1 + 8.93)3.1 - (8.93 * 0.01))/3.1$
 $C_e = 12.00 \text{ mg/L}$

Acute WLA: $C_e = ((3.1 + 0.48)12.1 - (0.48 * 0.01))/3.1$
 $C_e = 13.97 \text{ mg/L}$

$LTA_c = 12.00 \text{ mg/L} (0.599) = 7.19 \text{ mg/L}$
 $LTA_a = 13.97 \text{ mg/L} (0.163) = 2.28 \text{ mg/L}$

[CV = 1.29, 99th Percentile, 30 day avg.]
 [CV = 1.29, 99th Percentile]

Use most protective number of LTA_c or LTA_a .

MDL = 2.28 mg/L (6.12) = 14.0 mg/L
 AML = 2.28 mg/L (1.43) = 3.3 mg/L

[CV = 1.29, 99th Percentile]
 [CV = 1.29, 95th Percentile, n =30]

- **Escherichia coli (E. coli).** Monthly average of 206 per 100 mL as a geometric mean and weekly average of 1,030 per 100 mL as a geometric mean during the recreational season (April 1 – October 31), to protect Whole Body Contact Recreation (B) designated use of the receiving stream, as per 10 CSR 20-7.031(5)(C). An effluent limit for both monthly average and weekly average is required by 40 CFR 122.45(d). The Geometric Mean is calculated by multiplying all of the data points and then taking the nth root of this product, where n = # of samples collected. For example: Five *E. coli* samples were collected with results of 1, 4, 6, 10, and 5 (#/100mL). Geometric Mean = 5th root of (1)(4)(6)(10)(5) = 5th root of 1,200 = 4.1 #/100mL.
- **Oil & Grease.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.

- **Total Nitrogen and Total Phosphorus.** Monitoring required for facilities greater than 100,000 gpd design flow per 10 CSR 20-7.015(9)(D)7. Total Nitrogen shall be determined by testing for Total Kjeldahl Nitrogen (TKN) and Nitrate + Nitrite and reporting the sum of the results (reported as N). Nitrate + Nitrite can be analyzed together or separately.
- **pH.** – 6.0-9.0 SU. pH limitations [10 CSR 20-7.015] are protective of the water quality standard [10 CSR 20-7.031(5)(E)], due to the buffering capacity of the mixing zone.

Whole Effluent Toxicity

- **Acute Whole Effluent Toxicity.** Monitoring requirement only. Monitoring is required to determine if reasonable potential exists for this facility's discharge to exceed water quality standards.

Classified P with other than default Mixing Considerations, the AEC% is determined as follows:

$$\text{Acute AEC\%} = \{[(\text{design flow}_{\text{cfs}} + \text{ZID}_{7\text{Q}10}) / \text{design flow}_{\text{cfs}}]^{-1}\} \times 100 = \#\\#\%$$

$$\text{Acute AEC\%} = \{[(3.1 + 0.55) / 3.1]^{-1}\} \times 100 = 84.9\%$$

- **Chronic Whole Effluent Toxicity.** Monitoring requirement only. Monitoring is required to determine if reasonable potential exists for this facility's discharge to exceed water quality standards.

(Classified P with other than default Mixing Considerations, the AEC% is determined as follows:

$$\text{Chronic AEC\%} = \{[(3.1 + 5.52) / 3.1]^{-1}\} \times 100 = 36.0\%$$

Sampling Frequency Justification:

Sampling and reporting frequency has been changed from the previous permit for BOD₅, TSS, ammonia, pH, and oil & grease. Sampling frequency for BOD₅, TSS, ammonia, and pH have been changed from once/month to once/week due to the design flow of the facility, per 10 CSR 20-7.015(2)(C)1., and the inconsistency of the effluent over the previous five (5) years. Sampling and reporting frequency for oil & grease has been changed from once/month to once/quarter due to the consistency of the effluent to meet final effluent limitations for oil & grease over the previous five (5) years. Weekly sampling is required for *E. coli*, per 10 CSR 20-7.015(9)(D)6.A.

WET Test Sampling Frequency Justification. WET Testing schedules and intervals are established in accordance with the Department's Permit Manual; Section 5.2 *Effluent Limits / WET Testing for Compliance Bio-monitoring*. It is recommended that WET testing be conducted during the period of lowest stream flow.

Acute Whole Effluent Toxicity

- No less than **ONCE/YEAR:**
 - Facility is designated as a Major facility or has a design flow \geq 1.0 MGD.
 - Facility incorporates a pretreatment program and dilution of the receiving stream is 100x or greater.
 - Facility continuously or routinely exceeds their design flow.
 - Facility exceeds its design population equivalent (PE) for BOD₅ whether or not its design flow is being exceeded.
 - Facility has Water Quality-based effluent limitations for toxic substances (other than NH₃).

Chronic Whole Effluent Toxicity

- No less than **ONCE/PERMIT CYCLE:**
 - POTW facilities with a design flow of greater than 1.0 million gallons per day, but less than 10 million gallons per day, shall conduct and submit to the Department a chronic WET test no less than once per five years.

Sampling Type Justification:

As per 10 CSR 20-7.015, BOD₅, TSS, and WET test samples collected for mechanical plants shall be a 24 hour composite sample. Grab samples, however, must be collected for pH, Ammonia as N, *E. coli*, Oil & Grease, and Total Phosphorus. This is due to the holding time restriction for *E. coli*, the volatility of Ammonia, and the fact that pH cannot be preserved and must be sampled in the field. As Ammonia, Oil & Grease, and Total Phosphorus samples must be immediately preserved, these samples are to be collected as a grab.

Part IX – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

PERMIT SYNCHRONIZATION:

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the Department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than 4 years old, that data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit. This permit will expire in the 2nd Quarter of calendar year 2020.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing. The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit. For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- The Public Notice period for this operating permit was from June 3, 2016 to July 5, 2016. Responses to the Public Notice of this operating permit did not warrant the modification of effluent limits and/or the terms and conditions of this permit.

DATE OF FACT SHEET: APRIL 13, 2016

COMPLETED BY:

**CAMERON EISTERHOLD, ENVIRONMENTAL SPECIALIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - DOMESTIC WASTEWATER UNIT
(573) 751-7326
cameron.eisterhold@dnr.mo.gov**

Appendices

APPENDIX - CLASSIFICATION WORKSHEET:

ITEM	POINTS POSSIBLE	POINTS ASSIGNED
Maximum Population Equivalent (P.E.) served (Max 10 pts.)	1 pt./10,000 PE or major fraction thereof.	0
Maximum: 10 pt Design Flow (avg. day) or peak month; use greater (Max 10 pts.)	1 pt. / MGD or major fraction thereof.	2
EFFLUENT DISCHARGE RECEIVING WATER SENSITIVITY:		
Missouri or Mississippi River	0	
All other stream discharges except to losing streams and stream reaches supporting whole body contact	1	
Discharge to lake or reservoir outside of designated whole body contact recreational area	2	
Discharge to losing stream, or stream, lake or reservoir area supporting whole body contact recreation	3	3
PRELIMINARY TREATMENT - Headworks		
Screening and/or comminution	3	3
Grit removal	3	
Plant pumping of main flow (lift station at the headworks)	3	3
PRIMARY TREATMENT		
Primary clarifiers	5	
Combined sedimentation/digestion	5	
Chemical addition (except chlorine, enzymes)	4	
REQUIRED LABORATORY CONTROL – performed by plant personnel (highest level only)		
Push – button or visual methods for simple test such as pH, Settleable solids	3	
Additional procedures such as DO, COD, BOD, titrations, solids, volatile content	5	
More advanced determinations such as BOD seeding procedures, fecal coliform, nutrients, total oils, phenols, etc.	7	7
Highly sophisticated instrumentation, such as atomic absorption and gas chromatograph	10	
ALTERNATIVE FATE OF EFFLUENT		
Direct reuse or recycle of effluent	6	
Land Disposal – low rate	3	
High rate	5	
Overland flow	4	
Total from page ONE (1)	----	18

APPENDIX - CLASSIFICATION WORKSHEET (CONTINUED):

ITEM	POINTS POSSIBLE	POINTS ASSIGNED
VARIATION IN RAW WASTE (highest level only) (DMR exceedances and Design Flow exceedances)		
Variation do not exceed those normally or typically expected	0	0
Recurring deviations or excessive variations of 100 to 200 % in strength and/or flow	2	
Recurring deviations or excessive variations of more than 200 % in strength and/or flow	4	
Raw wastes subject to toxic waste discharge	6	
SECONDARY TREATMENT		
Trickling filter and other fixed film media with secondary clarifiers	10	
Activated sludge with secondary clarifiers (including extended aeration and oxidation ditches)	15	15
Stabilization ponds without aeration	5	
Aerated lagoon	8	
Advanced Waste Treatment Polishing Pond	2	
Chemical/physical – without secondary	15	
Chemical/physical – following secondary	10	
Biological or chemical/biological	12	
Carbon regeneration	4	
DISINFECTION		
Chlorination or comparable	5	
Dechlorination	2	
On-site generation of disinfectant (except UV light)	5	
UV light	4	4
SOLIDS HANDLING - SLUDGE		
Solids Handling Thickening	5	
Anaerobic digestion	10	
Aerobic digestion	6	6
Evaporative sludge drying	2	2
Mechanical dewatering	8	8
Solids reduction (incineration, wet oxidation)	12	
Land application	6	6
Total from page TWO (2)	----	41
Total from page ONE (1)	---	18
Grand Total	---	59

- A: 71 points and greater
- B: 51 points – 70 points
- C: 26 points – 50 points
- D: 0 points – 25 points

APPENDIX – RPA RESULTS:

Parameter	CMC*	RWC Acute*	CCC*	RWC Chronic*	n**	Range max/min	CV***	MF	RP Yes/No
Total Ammonia as Nitrogen (Summer) mg/L	12.1	59.94	1.5	17.84	34.00	17.7/0.04	1.66	3.91	YES
Total Ammonia as Nitrogen (Winter) mg/L	12.1	55.09	3.1	16.40	29.00	18/0.2	1.29	3.53	YES

N/A – Not Applicable

* - Units are (µg/L) unless otherwise noted.

** - If the number of samples is 10 or greater, then the CV value must be used in the WQBEL for the applicable constituent. If the number of samples is < 10, then the default CV value must be used in the WQBEL for the applicable constituent.

*** - Coefficient of Variation (CV) is calculated by dividing the Standard Deviation of the sample set by the Mean of the same sample set.

RWC – Receiving Water Concentration. It is the concentration of a toxicant or the parameter toxicity in the receiving water after mixing (if applicable).

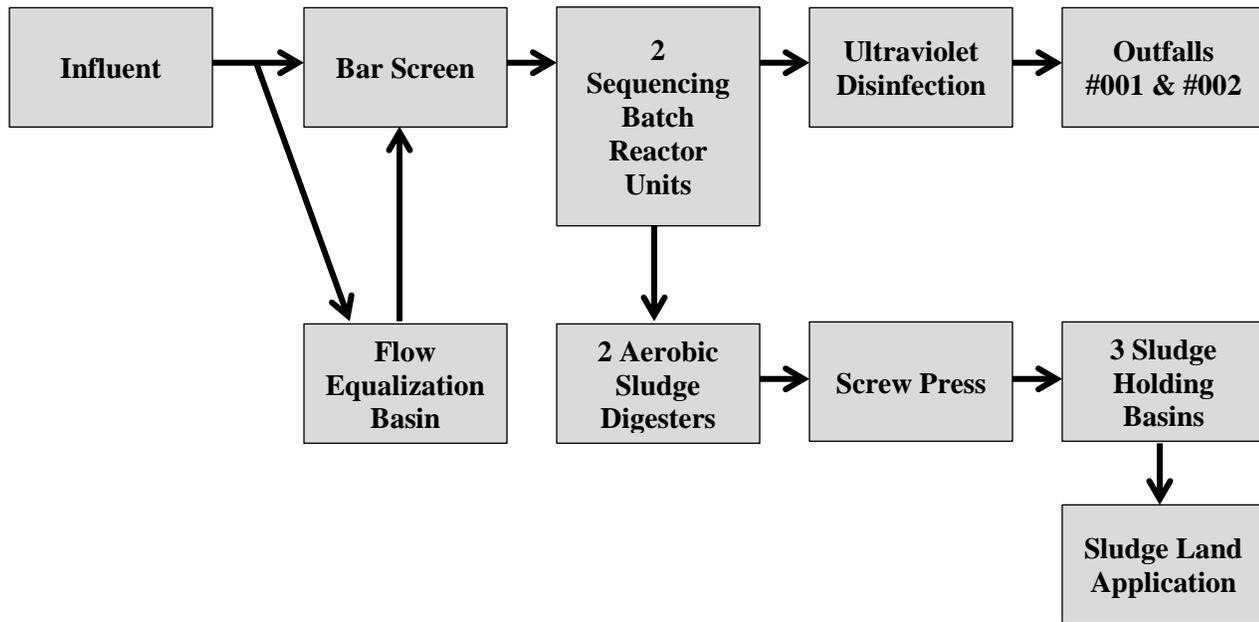
n – Is the number of samples.

MF – Multiplying Factor. 99% Confidence Level and 99% Probability Basis.

RP – Reasonable Potential. It is where an effluent is projected or calculated to cause an excursion above a water quality standard based on a number of factors including, as a minimum, the four factors listed in 40 CFR 122.44(d)(1)(ii).

Reasonable Potential Analysis is conducted as per (TSD, EPA/505/2-90-001, Section 3.3.2). A more detailed version including calculations of this RPA is available upon request.

APPENDIX – ALTERNATIVE: PROCESS FLOW DIAGRAM FOR PLATTE CITY WASTEWATER TREATMENT PLANT



APPENDIX – COST ANALYSIS FOR COMPLIANCE:

**Missouri Department of Natural Resources
Water Protection Program
Cost Analysis for Compliance
(In accordance with RSMo 644.145)**

**Platte City Wastewater Treatment Plant, Permit Renewal
City of Platte City
Missouri State Operating Permit #MO-0026298**

Section 644.145 RSMo requires the Department of Natural Resources (DNR) to make a “finding of affordability” when “issuing permits under” or “enforcing provisions of” state or federal clean water laws “pertaining to any portion of a combined or separate sanitary sewer system for publicly-owned treatment works.”

The Department is required to issue a permit with final effluent limits in accordance with 644.051.1.(1) RSMo, 644.051.1.(2) RSMo, and the Clean Water Act. The practical result of this analysis will be to allow longer compliance schedules to mitigate adverse impact to distressed populations resulting from the costs of upgrading the wastewater treatment facility.

This cost analysis is based on data available to the Department as provided by the permittee and data obtained from readily available sources. For the most accurate analysis, it is essential that the permittee provides the Department with current information about the City’s financial and socioeconomic situation. The financial questionnaire available to permittees on the DNR website (<http://dnr.mo.gov/forms/780-2511-f.pdf>) should have been submitted with the permit renewal application. If it was not received with the renewal application, the Department sent a request to complete it with the welcome letter.

Facility Description: **Bar screen / comminution / flow equalization basin / two (2) sequencing batch reactor units / ultraviolet disinfection / two (2) aerobic digesters / three (3) sludge holding basins / sludge is land applied.**

Residential Connections:	<u>1,697</u>
Commercial Connections:	<u>206</u>
Industrial Connections:	<u>0</u>
Total Connections for this facility:	<u>1,903</u>

New Permit Requirements:

The permit requires compliance with new quarterly monitoring requirements for total nitrogen and total phosphorus of the effluent and instream. This permit requires compliance with increased sampling and reporting requirements from once/month to once/week for BOD₅, TSS, ammonia, and pH. This permit requires compliance with new chronic Whole Effluent Toxicity (WET) test to be conducted once during the permit cycle. This permit includes requirements to develop and implement a Stormwater Pollution Prevention Plan (SWPPP).

Anticipated Costs Associated with Complying with the New Requirements:

The cost estimated for new quarterly monitoring requirements is \$800.00 annually. The cost estimated for increased sampling requirements for BOD₅, TSS, ammonia, and pH is \$4,420.00 annually. The cost estimated to conduct a chronic WET test once during the permit cycle is \$310.00 annually. The cost estimated to develop and implement a SWPPP is \$2,000.00 annually over five (5) years (500 hours for a \$20/hour employee = \$10,000.00 / 5 years = \$2,000.00 annually over five years). The total cost estimated for all new or increased requirements is \$7,530.00 annually. This cost, if financed through user fees, might cost each household an extra \$0.33¹ per month. A community sets their user rates based on several factors. The percentage of the current user rate that is available to cover new debt is unknown to the Department.

(1) A community’s financial capability and ability to raise or secure necessary funding;

Due to the minimal cost associated with this new permit requirement, the Department anticipates the City of Platte City has the means to raise \$7,530.00 annually.

(2) Affordability of pollution control options for the individuals or households at or below the median household income level of the community;

The total cost estimated for the new requirements is \$7,530.00 annually. This cost, if financed through user fees, might cost each household an extra \$0.33 per month. This would make the additional cost per household as a percent of median household income (MHI) 0.008%² based on the average State of Missouri MHI of \$49,008. Due to the minimal cost associated with this new requirement, the Department anticipates an extremely low to no rate increase will be necessary that could impact individuals or households of the community.

(3) An evaluation of the overall costs and environmental benefits of the control technologies;

The investment in wastewater treatment will provide several social, environmental and economic benefits. Improved wastewater provides benefits such as avoided health costs due to water-related illness, enhanced environmental ecosystem quality, and improved natural resources. The preservation of natural resources has been proven to increase the economic value and sustainability of the surrounding communities. Maintaining Missouri's water quality standards fulfill the goals of restoring and maintaining the chemical, physical and biological integrity of the receiving stream; and, where attainable, to achieve a level of water quality that provides for the protection and propagation of fish, shellfish, wildlife and recreation in and on the water.

Nutrient Monitoring

Nutrients are mineral compounds that are required for organisms to grow and thrive. Of the six (6) elemental macronutrients, Nitrogen and Phosphorus are generally not readily available and limit growth of organisms. Excess nitrogen and phosphorus will cause a shift in the ecosystem's food web. Once excess nitrogen and phosphorus are introduced into a waterbody, some species' populations will dramatically increase, while other populations will not be able to sustain life. Competition and productivity are two factors in which nutrients can alter aquatic ecosystems and the designated uses of a waterbody. For example, designated uses, such as drinking water sources and recreational uses become impaired when algal blooms take over a waterbody. These blooms can cause foul tastes and odors in the drinking water, unsightly appearance, and fish mortality in the waterbody. Some algae also produce toxins that may cause serious adverse health conditions such as liver damage, tumor promotion, paralysis, and kidney damage. The monitoring requirements for Nitrogen and Phosphorus have been added to the permit to provide data regarding the health of the receiving stream's aquatic life. A healthy ecosystem is beneficial as it provides reduced impacts on human and aquatic health as well as recreational opportunities.

Increase Sampling Requirements for BOD₅, TSS, Ammonia, and pH

Increased sampling will ensure that the facility will discharge effluent which is protective of Water Quality Standards. The facility is approaching a 20 year life and effluent quality has become inconsistent as evidence by Coefficient of Variation (CV) values calculated by the permit writer. Increased monitoring will allow the department and the wastewater treatment plant the opportunity to collect more data as it relates to effluent quality over the permit cycle.

Chronic Whole Effluent Toxicity (WET) test

The WET Test is a quantifiable method of determining if discharge from a facility may be causing toxicity to aquatic life by itself or in combination with receiving stream water. WET tests are required under 10 CSR 20-6.010(8)(A)4 to be performed by specialists properly trained in conducting the test according to 40 CFR 136. This test will help ensure that the existing permit limits are providing adequate protection for aquatic life at minimal expense to the permittee.

Stormwater Pollution Prevention Plan

Stormwater runoff is water from rain or snowmelt that does not immediately infiltrate into the ground and flows over or through natural or man-made storage or conveyance systems. When undeveloped areas are converted to land uses with impervious surfaces such as buildings, parking lots, and roads, the natural hydrology of the land is altered and can result in increased surface runoff rates, volumes, and pollutant loads. Stormwater runoff picks up industrial pollutants and typically discharges them directly into nearby waterbodies or indirectly via storm sewer systems. Runoff from areas where industrial activities occur can contain toxic pollutants (e.g., heavy metals and organic chemicals) and other pollutants such as trash, debris, and oil and grease, when facility practices allow exposure of industrial materials to stormwater. This increased flow and pollutant load can impair waterbodies, degrade biological habitats, pollute drinking water sources, and cause flooding and hydrologic changes to the receiving water, such as channel erosion. Industrial facilities typically perform a portion of their activities in outdoor areas exposed to the elements. This may include activities such as material storage and handling, vehicle fueling and maintenance, shipping and receiving, and salt storage, all of which can result in pollutants being exposed to precipitation and capable of being carried off in stormwater runoff. Also, facilities may have performed industrial activities outdoors in the past and materials from those activities still remain exposed to precipitation. In addition, accidental spills and leaks, improper waste disposal, and illicit connections to storm sewers may also lead to exposure of pollutants to stormwater.

A SWPPP is a written document that identifies the industrial activities conducted at the site, including any structural control practices, which the industrial facility operator will implement to prevent pollutants from making their way into stormwater runoff. The SWPPP also must include descriptions of other relevant information, such as the physical features of the facility, and procedures for spill prevention, conducting inspections, and training of employees. The SWPPP is intended to be a “living” document, updated as necessary, such that when industrial activities or stormwater control practices are modified or replaced, the SWPPP is similarly revised to reflect these changes.

(4) Inclusion of ongoing costs of operating and maintaining the existing wastewater collection and treatment system, including payments on outstanding debts for wastewater collection and treatment systems when calculating projected rates:

The community did not provide the Department with information, nor could it be found through readily available data.

(5) An inclusion of ways to reduce economic impacts on distressed populations in the community, including but not limited to low and fixed income populations. This requirement includes but is not limited to:

- (a) Allowing adequate time in implementation schedules to mitigate potential adverse impacts on distressed populations resulting from the costs of the improvements and taking into consideration local community economic considerations.
- (b) Allowing for reasonable accommodations for regulated entities when inflexible standards and fines would impose a disproportionate financial hardship in light of the environmental benefits to be gained.

Socioeconomic Data^{3-6:}

Potentially Distressed Populations – City of Platte City	
Unemployment	3.3%
Adjusted Median Household Income (MHI)*	\$63,424
Percent Change in MHI (1990-2012)	+36.8%
Percent Population Growth/Decline (1990-2012)	+23.4%
Change in Median Age in Years (1990-2012)	+1.0
Percent of Households in Poverty	15.5%
Percent of Households Relying on Food Stamps	12.8%

* The State’s average MHI of \$49,008 is used in this analysis

(6) An assessment of other community investments and operating costs relating to environmental improvements and public health protection;

The community did not report any other investments relating to environmental improvements.

(7) An assessment of factors set forth in the United States Environmental Protection Agency's guidance, including but not limited to the "Combined Sewer Overflow Guidance for Financial Capability Assessment and Schedule Development" that may ease the cost burdens of implementing wet weather control plans, including but not limited to small system considerations, the attainability of water quality standards, and the development of wet weather standards;

The new sampling requirements associated with this permit will not impose a financial burden on the community, nor will the new requirements require the City of Platte City to seek funding from an outside source.

(8) An assessment of any other relevant local community economic condition.

The community did not report any other relevant local economic conditions.

Conclusion and Finding

As a result of new regulations, the Department is proposing modifications to the current operating permit that may require the permittee to increase monitoring. The Department identified the actions for which cost analysis for compliance is required under Section 644.145 RSMo.

The Department estimates the cost for all new requirements of the permit is \$7,530.00 annually. Should these additional costs be financed through user fees, it may require user fees 0.008% of the community's MHI.

The Department considered the eight (8) criteria presented in subsection 644.145.3 when evaluating the cost associated with the relevant actions. Taking into consideration these criteria, this analysis examined whether the above referenced permit modifications affects the ability of an individual customer or household to pay a utility bill without undue hardship or unreasonable sacrifice in the essential lifestyle or spending patterns of the individual or household. As a result of reviewing the above criteria, the Department hereby finds that the action described above may result in a low burden with regard to the community's overall financial capability and a low financial impact for most individual customers/households; therefore, the new permit requirements are affordable.

References:

1. $((\$7,530.00/1,903)/12 \text{ months}) = \0.33
2. $(\$0.33/(49,008/12))*100 = 0.008\%$
3. Unemployment data was obtained from Missouri Department of Economic Development (July 2014) – <http://www.missourieconomy.org/pdfs/ure11407.pdf>
4. Median Household Income data from American Community Survey – Median income in the past 12 months – <http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?ftp=table>
5. Population trend data was obtained from online at: 2012 Census Bureau Population Data - <http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?ftp=table>, 2000 Census Bureau Population Data - <http://www.census.gov/popest/data/cities/totals/2009/tables/SUB-EST2009-04-29.xls>, 1990 Census Bureau Population Data - <http://www.census.gov/prod/cen1990/cp1/cp-1-27.pdf>
6. Poverty data – American Community Survey- <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>



STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions

Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
2. **Monitoring Requirements.**
 - a. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses.
 - b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.
3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.
4. **Test Procedures.** The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is “sufficiently sensitive” when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.
5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee’s sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
 - a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
 - b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B – Reporting Requirements

1. **Planned Changes.**
 - a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42;
 - iii. The alteration or addition results in a significant change in the permittee’s sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
 - iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.
2. **Non-compliance Reporting.**
 - a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.



STANDARD CONDITIONS FOR NPDES PERMITS
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- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - ii. Any upset which exceeds any effluent limitation in the permit.
 - iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
 - c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
3. **Anticipated Noncompliance.** The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.
 4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
 5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
 6. **Other Information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.
 7. **Discharge Monitoring Reports.**
 - a. Monitoring results shall be reported at the intervals specified in the permit.
 - b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
 - c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.
- b. Notice.
 - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
 - ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
 - c. Prohibition of bypass.
 - i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 3. The permittee submitted notices as required under paragraph 2. b. of this section.
 - ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.
3. **Upset Requirements.**
 - a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
 - b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - ii. The permitted facility was at the time being properly operated; and
 - iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
 - iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
 - c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section C – Bypass/Upset Requirements

1. **Definitions.**
 - a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
 - b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
 - c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
2. **Bypass Requirements.**
 - a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
 - a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
 - b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement



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- imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.
- d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed \$10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.
2. **Duty to Reapply.**
- a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
- c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
6. **Permit Actions.**
- a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
- i. Violations of any terms or conditions of this permit or the law;
- ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
- iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- iv. Any reason set forth in the Law or Regulations.
- b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
7. **Permit Transfer.**
- a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
- c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.
8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.



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10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.
12. **Closure of Treatment Facilities.**
 - a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
 - b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.
13. **Signatory Requirement.**
 - a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
 - b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
 - c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.
14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.



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PART II - SPECIAL CONDITIONS – PUBLICLY OWNED
TREATMENT WORKS
SECTION A – INDUSTRIAL USERS

1. Definitions

Definitions as set forth in the Missouri Clean Water Laws and approved by the Missouri Clean Water Commission shall apply to terms used herein.

Significant Industrial User (SIU). Except as provided in the *General Pretreatment Regulation* 10 CSR 20-6.100, the term Significant Industrial User means:

1. All Industrial Users subject to Categorical Pretreatment Standards; and
2. Any other Industrial User that: discharges an average of 25,000 gallons per day or more of process wastewater to the Publicly-Owned Treatment Works (POTW) (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority on the basis that the Industrial User has a reasonable potential for adversely affecting the POTW's or for violating any Pretreatment Standard or requirement.

Clean Water Act (CWA) is the the federal Clean Water Act of 1972, 33 U.S.C. § 1251 et seq. (2002).

2. Identification of Industrial Discharges

Pursuant to 40 CFR 122.44(j)(1), all POTWs shall identify, in terms of character and volume of pollutants, any Significant Industrial Users discharging to the POTW subject to Pretreatment Standards under section 307(b) of the CWA and 40 CFR 403.

3. Application Information

Applications for renewal or modification of this permit must contain the information about industrial discharges to the POTW pursuant to 40 CFR 122.21(j)(6)

4. Notice to the Department

Pursuant to 40 CFR 122.42(b), all POTWs must provide adequate notice of the following:

1. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging these pollutants; and
2. Any substantial change into the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
3. For purposes of this paragraph, adequate notice shall include information on:
 - i. the quality and quantity of effluent introduced into the POTW, and
 - ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

For POTWs without an approved pretreatment program, the notice of industrial discharges which was not included in the permit application shall be made as soon as practicable. For POTWs with an approved pretreatment program, notice is to be included in the annual pretreatment report required in the special conditions of this permit. Notice may be sent to:

Missouri Department of Natural Resources
Water Protection Program
Attn: Pretreatment Coordinator
P.O. Box 176
Jefferson City, MO 65102

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**PART III – SLUDGE AND BIOSOLIDS FROM DOMESTIC AND INDUSTRIAL WASTEWATER
TREATMENT FACILITIES**

SECTION A – GENERAL REQUIREMENTS

1. This permit pertains to sludge requirements under the Missouri Clean Water Law and regulation for domestic wastewater and industrial process wastewater. This permit also incorporates applicable federal sludge disposal requirements under 40 CFR 503 for domestic wastewater. The Environmental Protection Agency (EPA) has principal authority for permitting and enforcement of the federal sludge regulations under 40 CFR 503 for domestic wastewater. EPA has reviewed and accepted these standard sludge conditions. EPA may choose to issue a separate sludge addendum to this permit or a separate federal sludge permit at their discretion to further address the federal requirements.
2. These PART III Standard Conditions apply only to sludge and biosolids generated at domestic wastewater treatment facilities, including public owned treatment works (POTW), privately owned facilities and sludge or biosolids generated at industrial facilities.
3. Sludge and Biosolids Use and Disposal Practices:
 - a. The permittee is authorized to operate the sludge and biosolids treatment, storage, use, and disposal facilities listed in the facility description of this permit.
 - b. The permittee shall not exceed the design sludge volume listed in the facility description and shall not use sludge disposal methods that are not listed in the facility description, without prior approval of the permitting authority.
 - c. The permittee is authorized to operate the storage, treatment or generating sites listed in the Facility Description section of this permit.
4. Sludge Received from other Facilities:
 - a. Permittees may accept domestic wastewater sludge from other facilities including septic tank pumpings from residential sources as long as the design sludge volume is not exceeded and the treatment facility performance is not impaired.
 - b. The permittee shall obtain a signed statement from the sludge generator or hauler that certifies the type and source of the sludge
5. These permit requirements do not supersede nor remove liability for compliance with county and other local ordinances.
6. These permit requirements do not supersede nor remove liability for compliance with other environmental regulations such as odor emissions under the Missouri Air Pollution Control Law and regulations.
7. This permit may (after due process) be modified, or alternatively revoked and reissued, to comply with any applicable sludge disposal standard or limitation issued or approved under Section 405(d) of the Clean Water Act or under Chapter 644 RSMo.
8. In addition to STANDARD CONDITIONS, the Department may include sludge limitations in the special conditions portion or other sections of a site specific permit.
9. Alternate Limits in the Site Specific Permit.

Where deemed appropriate, the Department may require an individual site specific permit in order to authorize alternate limitations:

 - a. A site specific permit must be obtained for each operating location, including application sites.
 - b. To request a site specific permit, an individual permit application, permit fee, and supporting documents shall be submitted for each operating location. This shall include a detailed sludge/biosolids management plan or engineering report.
10. Exceptions to these Standard Conditions may be authorized on a case-by-case basis by the Department, as follows:
 - a. The Department will prepare a permit modification and follow permit notice provisions as applicable under 10 CSR 20-6.020, 40 CFR 124.10, and 40 CFR 501.15(a)(2)(ix)(E). This includes notification of the owner of the property located adjacent to each land application site, where appropriate.
 - b. Exceptions cannot be granted where prohibited by the federal sludge regulations under 40 CFR 503.

SECTION B – DEFINITIONS

1. Best Management Practices include agronomic loading rates, soil conservation practices and other site restrictions.
2. Biosolids means organic fertilizer or soil amendment produced by the treatment of domestic wastewater sludge.
3. Biosolids land application facility is a facility where biosolids are spread onto the land at agronomic rates for production of food or fiber. The facility includes any structures necessary to store the biosolids until soil, weather, and crop conditions are favorable for land application.
4. Class A biosolids means a material that has met the Class A pathogen reduction requirements or equivalent treatment by a Process to Further Reduce Pathogens (PFRP) in accordance with 40 CFR 503.
5. Class B biosolids means a material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PFRP) in accordance with 40 CFR 503.
6. Domestic wastewater means wastewater originating from the sanitary conveniences of residences, commercial buildings, factories and institutions; or co-mingled sanitary and industrial wastewater processed by a (POTW) or a privately owned facility.
7. Industrial wastewater means any wastewater, also known as process water, not defined as domestic wastewater. Per 40 CFR Part 122, process water means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.
8. Mechanical treatment plants are wastewater treatment facilities that use mechanical devices to treat wastewater, including septic tanks, sand filters, extended aeration, activated sludge, contact stabilization, trickling filters, rotating biological discs, and other similar facilities. It does not include wastewater treatment lagoons and constructed wetlands for wastewater treatment.
9. Operating location as defined in 10 CSR 20-2.010 is all contiguous lands owned, operated or controlled by one (1) person or by two (2) or more persons jointly or as tenants in common.
10. Plant Available Nitrogen (PAN) is the nitrogen that will be available to plants during the growing seasons after biosolids application.
11. Public contact site is land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.
12. Sludge is the solid, semisolid, or liquid residue removed during the treatment of wastewater. Sludge includes septage removed from septic tanks or equivalent facilities. Sludge does not include carbon coal byproducts (CCBs)
13. Sludge lagoon is part of a mechanical wastewater treatment facility. A sludge lagoon is an earthen basin that receives sludge that has been removed from a wastewater treatment facility. It does not include a wastewater treatment lagoon or sludge treatment units that are not a part of a mechanical wastewater treatment facility.
14. Septage is the material pumped from residential septic tanks and similar treatment works (with a design population of less than 150 people). The standard for biosolids from septage is different from other sludges.

SECTION C – MECHANICAL WASTEWATER TREATMENT FACILITIES

1. Sludge shall be routinely removed from wastewater treatment facilities and handled according to the permit facility description and sludge conditions of this permit.
2. The permittee shall operate the facility so that there is no sludge discharged to waters of the state.
3. Mechanical treatment plants shall have separate sludge storage compartments in accordance with 10 CSR 20, Chapter 8. Failure to remove sludge from these storage compartments on the required design schedule is a violation of this permit.

SECTION D – SLUDGE DISPOSED AT OTHER TREATMENT FACILITY OR CONTRACT HAULER

1. This section applies to permittees that haul sludge to another treatment facility for disposal or use contract haulers to remove and dispose of sludge.
2. Permittees that use contract haulers are responsible for compliance with all the terms of this permit including final disposal, unless the hauler has a separate permit for sludge or biosolids disposal issued by the Department; or the hauler transports the sludge to another permitted treatment facility.
3. Haulers who land apply septage must obtain a state permit.
4. Testing of sludge, other than total solids content, is not required if sludge is hauled to a municipal wastewater treatment facility or other permitted wastewater treatment facility, unless it is required by the accepting facility.

SECTION E – INCINERATION OF SLUDGE

1. Sludge incineration facilities shall comply with the requirements of 40 CFR 503 Subpart E; air pollution control regulations under 10 CSR 10; and solid waste management regulations under 10 CSR 80.
2. Permittee may be authorized under the facility description of this permit to store incineration ash in lagoons or ash ponds. This permit does not authorize the disposal of incineration ash. Incineration ash shall be disposed in accordance with 10 CSR 80; or if the ash is determined to be hazardous with 10 CSR 25.
3. In addition to normal sludge monitoring, incineration facilities shall report the following as part of the annual report, quantity of sludge incinerated, quantity of ash generated, quantity of ash stored, and ash used or disposal method, quantity, and location. Permittee shall also provide the name of the disposal facility and the applicable permit number.

SECTION F – SURFACE DISPOSAL SITES AND SLUDGE LAGOONS

1. Surface disposal sites of domestic facilities shall comply with the requirements in 40 CFR 503 Subpart C; air pollution control regulations under 10 CSR 10; and solid waste management regulations under 10 CSR 80.
2. Sludge storage lagoons are temporary facilities and are not required to obtain a permit as a solid waste management facility under 10 CSR 80. In order to maintain sludge storage lagoons as storage facilities, accumulated sludge must be removed routinely, but not less than once every two years unless an alternate schedule is approved in the permit. The amount of sludge removed will be dependent on sludge generation and accumulation in the facility. Enough sludge must be removed to maintain adequate storage capacity in the facility.
 - a. In order to avoid damage to the lagoon seal during cleaning, the permittee may leave a layer of sludge on the bottom of the lagoon, upon prior approval of the Department; or
 - b. Permittee shall close the lagoon in accordance with Section H.

SECTION G – LAND APPLICATION

1. The permittee shall not land apply sludge or biosolids unless land application is authorized in the facility description or the special conditions of the issued NPDES permit.
2. Land application sites within a 20 miles radius of the wastewater treatment facility are authorized under this permit when biosolids are applied for beneficial use in accordance with these standard conditions unless otherwise specified in a site specific permit. If the permittee's land application site is greater than a 20 mile radius of the wastewater treatment facility, approval must be granted from the Department.
3. Land application shall not adversely affect a threatened or endangered species or its designated critical habitat.
4. Biosolids shall not be applied unless authorized in this permit or exempted under 10 CSR 20, Chapter 6.
 - a. This permit does not authorize the land application of domestic sludge except for when sludge meets the definition of biosolids.
 - b. This permit authorizes "Class A or B" biosolids derived from domestic wastewater and/or process water sludge to be land applied onto grass land, crop land, timber or other similar agricultural or silviculture lands at rates suitable for beneficial use as organic fertilizer and soil conditioner.
5. Public Contact Sites:

Permittees who wish to apply Class A biosolids to public contact sites must obtain approval from the Department after two years of proper operation with acceptable testing documentation that shows the biosolids meet Class A criteria. A shorter length of testing will be allowed with prior approval from the Department. Authorization for land applications must be provided in the special conditions section of this permit or in a separate site specific permit.

 - a. After Class B biosolids have been land applied, public access must be restricted for 12 months.
 - b. Class B biosolids are only land applied to root crops, home gardens or vegetable crops whose edible parts will not be for human consumption.
6. Agricultural and Silvicultural Sites:

Septage – Based on Water Quality guide 422 (WQ422) published by the University of Missouri

 - a. Haulers that land apply septage must obtain a state permit
 - b. Do not apply more than 30,000 gallons of septage per acre per year.
 - c. Septage tanks are designed to retain sludge for one to three years which will allow for a larger reduction in pathogens and vectors, as compared to other mechanical type treatment facilities.
 - d. To meet Class B sludge requirements, maintain septage at 12 pH for at least thirty (30) minutes before land application. 50 pounds of hydrated lime shall be added to each 1,000 gallons of septage in order to meet pathogen and vector stabilization for septage biosolids applied to crops, pastures or timberland.
 - e. Lime is to be added to the pump truck and not directly to the septic tanks, as lime would harm the beneficial bacteria of the septic tank.

Biosolids - Based on Water Quality guide 423, 424, and 425 (WQ423, WQ424, WQ425) published by the University of Missouri;

- a. Biosolids shall be monitored to determine the quality for regulated pollutants
- b. The number of samples taken is directly related to the amount of sludge produced by the facility (See Section I of these Standard Conditions). Report as dry weight unless otherwise specified in the site specific permit. Samples should be taken only during land application periods. When necessary, it is permissible to mix biosolids with lower concentrations of biosolids as well as other suitable Department approved material to reach the maximum concentration of pollutants allowed.
- c. Table 1 gives the maximum concentration allowable to protect water quality standards

TABLE 1

Biosolids ceiling concentration ¹	
Pollutant	Milligrams per kilogram dry weight
Arsenic	75
Cadmium	85
Copper	4,300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7,500

¹ Land application is not allowed if the sludge concentration exceeds the maximum limits for any of these pollutants

- d. The low metal concentration biosolids has reduced requirements because of its higher quality and can safely be applied for 100 years or longer at typical agronomic loading rates. (See Table 2)

TABLE 2

Biosolids Low Metal Concentration ¹	
Pollutant	Milligrams per kilogram dry weight
Arsenic	41
Cadmium	39
Copper	1,500
Lead	300
Mercury	17
Nickel	420
Selenium	36
Zinc	2,800

¹ You may apply low metal biosolids without tracking cumulative metal limits, provided the cumulative application of biosolids does not exceed 500 dry tons per acre.

- e. Each pollutant in Table 3 has an annual and a total cumulative loading limit, based on the allowable pounds per acre for various soil categories.

TABLE 3

Pollutant	CEC 15+		CEC 5 to 15		CEC 0 to 5	
	Annual	Total ¹	Annual	Total ¹	Annual	Total ¹
Arsenic	1.8	36.0	1.8	36.0	1.8	36.0
Cadmium	1.7	35.0	0.9	9.0	0.4	4.5
Copper	66.0	1,335.0	25.0	250.0	12.0	125.0
Lead	13.0	267.0	13.0	267.0	13.0	133.0
Mercury	0.7	15.0	0.7	15.0	0.7	15.0
Nickel	19.0	347.0	19.0	250.0	12.0	125.0
Selenium	4.5	89.0	4.5	44.0	1.6	16.0
Zinc	124.0	2,492.0	50.0	500.0	25.0	250.0

¹ Total cumulative loading limits for soils with equal or greater than 6.0 pH (salt based test) or 6.5 pH (water based test)

TABLE 4 - Guidelines for land application of other trace substances ¹

Cumulative Loading	
Pollutant	Pounds per acre
Aluminum	4,000 ²
Beryllium	100
Cobalt	50
Fluoride	800
Manganese	500
Silver	200
Tin	1,000
Dioxin	(10 ppt in soil) ³
Other	⁴

¹ Design of land treatment systems for Industrial Waste, 1979. Michael Ray Overcash, North Carolina State University and Land Treatment of Municipal Wastewater, EPA 1981.)

² This applies for a soil with a pH between 6.0 and 7.0 (salt based test) or a pH between 6.5 to 7.5 (water based test). Case-by-case review is required for higher pH soils.

³ Total Dioxin Toxicity Equivalents (TEQ) in soils, based on a risk assessment under 40 CFR 744, May 1998.

⁴ Case by case review. Concentrations in sludge should not exceed the 95th percentile of the National Sewage Sludge Survey, EPA, January 2009.

Best Management Practices – Based on Water Quality guide 426 (WQ426) published by the University of Missouri

- a. Use best management practices when applying biosolids.
- b. Biosolids cannot discharge from the land application site
- c. Biosolid application is subject to the Missouri Department of Agriculture State Milk Board concerning grazing restrictions of lactating dairy cattle.
- d. Biosolid application must be in accordance with section 4 of the Endangered Species Act.
- e. Do not apply more than the agronomic rate of nitrogen needed.
- f. The applicator must document the Plant Available Nitrogen (PAN) loadings, available nitrogen in the soil, and crop removal when either of the following occurs: 1) When biosolids are greater than 50,000 mg/kg TN; or 2) When biosolids are land applied at an application rate greater than two dry tons per acre per year.
 - i. PAN can be determined as follows and is in accordance with WQ426
(Nitrate + nitrite nitrogen) + (organic nitrogen x 0.2) + (ammonia nitrogen x volatilization factor¹).
¹Volatilization factor is 0.7 for surface application and 1 for subsurface application.
- g. Buffer zones are as follows:
 - i. 300 feet of a water supply well, sinkhole, lake, pond, water supply reservoir or water supply intake in a stream;
 - ii. 300 feet of a losing stream, no discharge stream, stream stretches designated for whole body contact recreation, wild and scenic rivers, Ozark National Scenic Riverways or outstanding state resource waters as listed in the Water Quality Standards, 10 CSR 20-7.031;
 - iii. 150 feet if dwellings;
 - iv. 100 feet of wetlands or permanent flowing streams;
 - v. 50 feet of a property line or other waters of the state, including intermittent flowing streams.
- h. Slope limitation for application sites are as follows;
 - i. A slope 0 to 6 percent has no rate limitation
 - ii. Applied to a slope 7 to 12 percent, the applicator may apply biosolids when soil conservation practices are used to meet the minimum erosion levels
 - iii. Slopes > 12 percent, apply biosolids only when grass is vegetated and maintained with at least 80 percent ground cover at a rate of two dry tons per acre per year or less.
- i. No biosolids may be land applied in an area that it is reasonably certain that pollutants will be transported into waters of the state.
- j. Do not apply biosolids to sites with soil that is snow covered, frozen or saturated with liquid without prior approval by the Department.
- k. Biosolids / sludge applicators must keep detailed records up to five years.

SECTION H – CLOSURE REQUIREMENTS

1. This section applies to all wastewater facilities (mechanical, industrial, and lagoons) and sludge or biosolids storage and treatment facilities and incineration ash ponds. It does not apply to land application sites.
2. Permittees of a domestic wastewater facility who plan to cease operation must obtain Department approval of a closure plan which addresses proper removal and disposal of all residues, including sludge, biosolids. Mechanical plants, sludge lagoons, ash ponds and other storage structures must obtain approval of a closure plan from the Department. Permittee must maintain this permit until the facility is closed in accordance with the approved closure plan per 10 CSR 20 – 6. 010 and 10 CSR 20 – 6.015.
3. Residuals that are left in place during closure of a lagoon or earthen structure or ash pond shall not exceed the agricultural loading rates as follows:
 - a. Residuals shall meet the monitoring and land application limits for agricultural rates as referenced in Section H of these standard conditions.
 - b. If a wastewater treatment lagoon has been in operation for 15 years or more without sludge removal, the sludge in the lagoon qualifies as a Class B biosolids with respect to pathogens due to anaerobic digestion, and testing for fecal coliform is not required. For other lagoons, testing for fecal coliform is required to show compliance with Class B biosolids limitations. In order to reach Class B biosolids requirements, fecal coliform must be less than 2,000,000 colony forming units or 2,000,000 most probable number. All fecal samples must be presented as geometric mean per gram.
 - c. The allowable nitrogen loading that may be left in the lagoon shall be based on the plant available nitrogen (PAN) loading. For a grass cover crop, the allowable PAN is 300 pounds/acre.
 - i. PAN can be determined as follows:
$$(\text{Nitrate} + \text{nitrite nitrogen}) + (\text{organic nitrogen} \times 0.2) + (\text{ammonia nitrogen} \times \text{volatilization factor}^1).$$

¹ Volatilization factor is 0.7 for surface application and 1 for subsurface application.
4. When closing a domestic wastewater treatment lagoon with a design treatment capacity equal or less than 150 persons, the residuals are considered “septage” under the similar treatment works definition. See Section B of these standard conditions. Under the septage category, residuals may be left in place as follows:
 - a. Testing for metals or fecal coliform is not required
 - b. If the wastewater treatment lagoon has been in use for less than 15 years, mix lime with the sludge at a rate of 50 pounds of hydrated lime per 1000 gallons (134 cubic feet) of sludge.
 - c. The amount of sludge that may be left in the lagoon shall be based on the plant available nitrogen (PAN) loading. 100 dry tons/acre of sludge may be left in the basin without testing for nitrogen. If 100 dry tons/acre or more will be left in the lagoon, test for nitrogen and determine the PAN using the calculation above. Allowable PAN loading is 300 pounds/acre.
5. Residuals left within the domestic lagoon shall be mixed with soil on at least a 1 to 1 ratio, the lagoon berm shall be demolished, and the site shall be graded and contain $\geq 70\%$ vegetative density over 100% of the site so as to avoid ponding of storm water and provide adequate surface water drainage without creating erosion.
6. Lagoons and/or earthen structure and/or ash pond closure activities shall obtain a storm water permit for land disturbance activities that equal or exceed one acre in accordance with 10 CSR 20-6.200
7. When closing a mechanical wastewater and/or industrial process wastewater plant; all sludge must be cleaned out and disposed of in accordance with the Department approved closure plan before the permit for the facility can be terminated.
 - a. Land must be stabilized which includes any grading, alternate use or fate upon approval by the Department, remediation, or other work that exposes sediment to stormwater per 10 CSR 20-6.200. The site shall be graded and contain $\geq 70\%$ vegetative density over 100% of the site, so as to avoid ponding of storm water and provide adequate surface water drainage without creating erosion.
 - b. Per 10 CSR 20-6.015(4)(B)6, Hazardous Waste shall not be land applied or disposed during industrial and mechanical plant closures unless in accordance with Missouri Hazardous Waste Management Law and Regulations under 10 CSR 25.
 - c. After demolition of the mechanical plant / industrial plant, the site must only contain clean fill defined in RSMo 260.200 (5) as uncontaminated soil, rock, sand, gravel, concrete, asphaltic concrete, cinderblocks, brick, minimal amounts of wood and metal, and inert solids as approved by rule or policy of the Department for fill or other beneficial use. Other solid wastes must be removed.
8. If sludge from the domestic lagoon or mechanical treatment plant exceeds agricultural rates under Section G and/or H, a landfill permit or solid waste disposal permit must be obtained if the permittee chooses to seek authorization for on-site sludge disposal under the Missouri Solid Waste Management Law and regulations per 10 CSR 80, and the permittee must comply with the surface disposal requirements under 40 CFR 503, Subpart C.

SECTION I – MONITORING FREQUENCY

- At a minimum, sludge or biosolids shall be tested for volume and percent total solids on a frequency that will accurately represent sludge quantities produced and disposed. Please see the table below.

TABLE 5

Design Sludge Production (dry tons per year)	Monitoring Frequency (See Notes 1, 2, and 3)			
	Metals, Pathogens and Vectors	Nitrogen TKN ¹	Nitrogen PAN ²	Priority Pollutants and TCLP ³
0 to 100	1 per year	1 per year	1 per month	1 per year
101 to 200	biannual	biannual	1 per month	1 per year
201 to 1,000	quarterly	quarterly	1 per month	1 per year
1,001 to 10,000	1 per month	1 per month	1 per week	-- ⁴
10,001 +	1 per week	1 per week	1 per day	-- ⁴

¹ Test total Kjeldahl nitrogen, if biosolids application is 2 dry tons per acre per year or less.

² Calculate plant available nitrogen (PAN) when either of the following occurs: 1) when biosolids are greater than 50,000 mg/kg TN; or 2) when biosolids are land applied at an application rate greater than two dry tons per acre per year.

³ Priority pollutants (40 CFR 122.21, Appendix D, Tables II and III) and toxicity characteristic leaching procedure (40 CFR 261.24) is required only for permit holders that must have a pre-treatment program.

⁴ One sample for each 1,000 dry tons of sludge.

Note 1: Total solids: A grab sample of sludge shall be tested one per day during land application periods for percent total solids.

This data shall be used to calculate the dry tons of sludge applied per acre.

Note 2: Total Phosphorus: Total phosphorus and total potassium shall be tested at the same monitoring frequency as metals.

Note 3: Table 5 is not applicable for incineration and permit holders that landfill their sludge.

- If you own a wastewater treatment lagoon or sludge lagoon that is cleaned out once a year or less, you may choose to sample only when the sludge is removed or the lagoon is closed. Test one composite sample for each 100 dry tons of sludge or biosolids removed from the lagoon during the year within the lagoon at closing. Composite sample must represent various areas at one-foot depth.
- Additional testing may be required in the special conditions or other sections of the permit. Permittees receiving industrial wastewater may be required to conduct additional testing upon request from the Department.
- At this time, the Department recommends monitoring requirements shall be performed in accordance with, "POTW Sludge Sampling and Analysis Guidance Document," United States Environmental Protection Agency, August 1989, and the subsequent revisions.

SECTION J – RECORD KEEPING AND REPORTING REQUIREMENTS

- The permittee shall maintain records on file at the facility for at least five years for the items listed in these standard conditions and any additional items in the Special Conditions section of this permit. This shall include dates when the sludge facility is checked for proper operation, records of maintenance and repairs and other relevant information.
- Reporting period
 - By January 28th of each year, an annual report shall be submitted for the previous calendar year period for all mechanical wastewater treatment facilities, sludge lagoons, and sludge or biosolids disposal facilities.
 - Permittees with wastewater treatment lagoons shall submit the above annual report only when sludge or biosolids are removed from the lagoon during the report period or when the lagoon is closed.
- Report Forms. The annual report shall be submitted on report forms provided by the Department or equivalent forms approved by the Department.
- Reports shall be submitted as follows:

Major facilities (those serving 10,000 persons or 1 million gallons per day) shall report to both the Department and EPA. Other facilities need to report only to the Department. Reports shall be submitted to the addresses listed as follows:

DNR regional office listed in your permit
(see cover letter of permit)
ATTN: Sludge Coordinator

EPA Region VII
Water Compliance Branch (WACM)
Sludge Coordinator
11201 Renner Blvd.
Lenexa, KS 66219

5. Annual report contents. The annual report shall include the following:
- a. Sludge and biosolids testing performed. Include a copy or summary of all test results, even if not required by the permit.
 - b. Sludge or biosolids quantity shall be reported as dry tons for quantity generated by the wastewater treatment facility, the quantity stored on site at the end of the year, and the quantity used or disposed.
 - c. Gallons and % solids data used to calculate the dry ton amounts.
 - d. Description of any unusual operating conditions.
 - e. Final disposal method, dates, and location, and person responsible for hauling and disposal.
 - i. This must include the name, address for the hauler and sludge facility. If hauled to a municipal wastewater treatment facility, sanitary landfill, or other approved treatment facility, give the name of that facility.
 - ii. Include a description of the type of hauling equipment used and the capacity in tons, gallons, or cubic feet.
 - f. Contract Hauler Activities:

If contract hauler, provide a copy of a signed contract from the contractor. Permittee shall require the contractor to supply information required under this permit for which the contractor is responsible. The permittee shall submit a signed statement from the contractor that he has complied with the standards contained in this permit, unless the contract hauler has a separate sludge or biosolids use permit.
 - g. Land Application Sites:
 - i. Report the location of each application site, the annual and cumulative dry tons/acre for each site, and the landowners name and address. The location for each spreading site shall be given as a legal description for nearest ¼, ¼, Section, Township, Range, and county, or UTM coordinates. The facility shall report PAN when either of the following occurs: 1) When biosolids are greater than 50,000 mg/kg TN; or 2) when biosolids are land applied at an application rate greater than two dry tons per acre per year.
 - ii. If the “Low Metals” criteria are exceeded, report the annual and cumulative pollutant loading rates in pounds per acre for each applicable pollutant, and report the percent of cumulative pollutant loading which has been reached at each site.
 - iii. Report the method used for compliance with pathogen and vector attraction requirements.
 - iv. Report soil test results for pH, CEC, and phosphorus. If none was tested during the year, report the last date when tested and results.

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DEC 31 2014

Narrative Form B-2

WATER PROTECTION PROGRAM

On December 29th I spoke with Cameron Eisterhold from DNR regarding questions I had about completing Form B-2 for our permit renewal and suggested I submit this narrative with his recommendation for further testing under Part D.

Under Part B-Additional Application Information for outfall #2, the effluent testing data needs to be based on at least three samples. We are not able to submit results from 3 BOD samples for the allotted time frame. Outfall #2 is only utilized when the receiving river is at a high level stage, which rarely happens, and therefore is seldom used. Because of the minimal usage, three BOD test results for this outfall are not available.

Under Part D-Expanded Effluent Testing Data for both outfalls, the effluent testing data must be based on at least three pollutant scans. Since these pollutants are only tested for during the permit renewal process we are only able to provide two for the allotted time frame, one from this December and the other from 2012. We will have a third sample tested and mail the results as soon as possible.

Any questions please call

Daniel Stamper

816-935-6065

DEC 31 2014

AP20391



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH

WATER PROTECTION PROGRAM

**FORM B2 – APPLICATION FOR OPERATING PERMIT FOR FACILITIES THAT RECEIVE
PRIMARILY DOMESTIC WASTE AND HAVE A DESIGN FLOW MORE THAN 100,000 GALLONS
PER DAY**

FACILITY NAME Platte City WWTP	
PERMIT NO. MO-0026298	COUNTY Platte

APPLICATION OVERVIEW

Form B2 has been developed in a modular format and consists of Parts A, B and C and a Supplemental Application Information (Parts D, E, F and G) packet. All applicants must complete Parts A, B and C. Some applicants must also complete parts of the Supplemental Application Information packet. The following items explain which parts of Form B2 you must complete. Submittal of an incomplete application may result in the application being returned.

BASIC APPLICATION INFORMATION

- A. Basic Application Information for all Applicants. All applicants must complete Part A.
- B. Additional Application Information for all Applicants. All applicants must complete Part B.
- C. Certification. All applicants must complete Part C.

SUPPLEMENTAL APPLICATION INFORMATION

- D. Expanded Effluent Testing Data. A treatment works that discharges effluent to surface water of the United States and meets one or more of the following criteria must complete *Part D - Expanded Effluent Testing Data*:
 - 1. Has a design flow rate greater than or equal to 1 million gallons per day.
 - 2. Is required to have or currently has a pretreatment program.
 - 3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data. A treatment works that meets one or more of the following criteria must complete *Part E - Toxicity Testing Data*:
 - 1. Has a design flow rate greater than or equal to 1 million gallons per day.
 - 2. Is required to have or currently has a pretreatment program.
 - 3. Is otherwise required by the permitting authority to provide the information.
- F. Industrial User Discharges and Resource Conservation and Recovery Act / Comprehensive Environmental Response, Compensation and Liability Act Wastes. A treatment works that accepts process wastewater from any significant industrial users, also known as SIUs, or receives a Resource Conservation and Recovery Act or CERCLA wastes must complete *Part F - Industrial User Discharges and Resource Conservation and Recovery Act / CERCLA Wastes*.
 SIUs are defined as:
 - 1. All Categorical Industrial Users, or CIUs, subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations 403.6 and 40 Code of Federal Regulations 403.6 and 40 CFR Chapter 1, Subchapter N.
 - 2. Any other industrial user that meets one or more of the following:
 - i. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions).
 - ii. Contributes a process waste stream that makes up five percent or more of the average dry weather hydraulic or organic capacity of the treatment plant.
 - iii. Is designated as an SIU by the control authority.
 - iv. Is otherwise required by the permitting authority to provide the information.
- G. Combined Sewer Systems. A treatment works that has a combined sewer system must complete *Part G - Combined Sewer Systems*.

ALL APPLICANTS MUST COMPLETE PARTS A, B and C

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DEC 31 2014

AP 20391



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH
FORM B2 – APPLICATION FOR AN OPERATING PERMIT FOR FACILITIES THAT RECEIVE PRIMARILY DOMESTIC WASTE AND HAVE A DESIGN FLOW MORE THAN 100,000 GALLONS PER DAY

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED	12/31/14
FEE SUBMITTED	Ⓟ

PART A – BASIC APPLICATION INFORMATION

1. THIS APPLICATION IS FOR:

An operating permit for a new or unpermitted facility. Construction Permit # _____
 (Please include completed Antidegradation Review or request to conduct an Antidegradation Review, see instructions)

An operating permit renewal: Permit #MO-0026298 Expiration Date 6-30-2015

An operating permit modification: Permit #MO-_____ Reason: _____

1.1 Is the appropriate fee included with the application (see instructions for appropriate fee)? YES NO

2. FACILITY

NAME Platte City WWTP		TELEPHONE NUMBER WITH AREA CODE 816-935-6065	
ADDRESS (PHYSICAL) 99 W. Mill Street	CITY Platte City	STATE MO	ZIP 64079
2.1 LEGAL DESCRIPTION (Facility Site): SE ¼, NW ¼, ¼, Sec. 35, T 53N, R 35W		COUNTY Platte	
2.2 UTM Coordinates Easting (X): 345029 Northing (Y): 4358696 For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)			
2.3 Name of receiving stream: Platte River			
2.4 Number of Outfalls: 2 wastewater outfalls, stormwater outfalls, instream monitoring sites			

3. OWNER

NAME Leonard Hendricks		E-MAIL ADDRESS lhendricks@plattcity.org	TELEPHONE NUMBER WITH AREA CODE 816-858-4815
ADDRESS 400 Main Street	CITY Platte City	STATE MO	ZIP 64079
3.1 Request review of draft permit prior to Public Notice?		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
3.2 Are you a Publically Owned Treatment Works (POTW)?		<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
3.3 Are you a Privately Owned Treatment Facility?		<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
3.4 Are you a Privately Owned Treatment Facility regulated by the Public Service Commission (PSC)?		<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

4. CONTINUING AUTHORITY: Permanent organization which will serve as the continuing authority for the operation, maintenance and modernization of the facility.

NAME City of Platte City		E-MAIL ADDRESS lhendricks@plattcity.org	TELEPHONE WITH AREA CODE 816-858-4815
ADDRESS 400 Main Street	CITY Platte City	STATE MO	ZIP 64079

If the Continuing Authority is different than the Owner, please include a copy of the contract agreement between the two parties and a description of the responsibilities of both parties within the agreement.

5. OPERATOR

NAME Daniel Stamper		TITLE WWTP Foreman	CERTIFICATE NUMBER (IF APPLICABLE) 10518
E-MAIL ADDRESS dstamper@plattcity.org		TELEPHONE NUMBER WITH AREA CODE 816-935-6065	

6. FACILITY CONTACT

NAME Daniel Stamper		TITLE WWTP Foreman	
E-MAIL ADDRESS dstamper@plattcity.org		TELEPHONE NUMBER WITH AREA CODE 816-935-6065	
ADDRESS 99 W. Mill Street	CITY Platte City	STATE MO	ZIP CODE 64079

KC
Platte

11/22
11/22

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 1
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PART A – BASIC APPLICATION INFORMATION

7. FACILITY INFORMATION

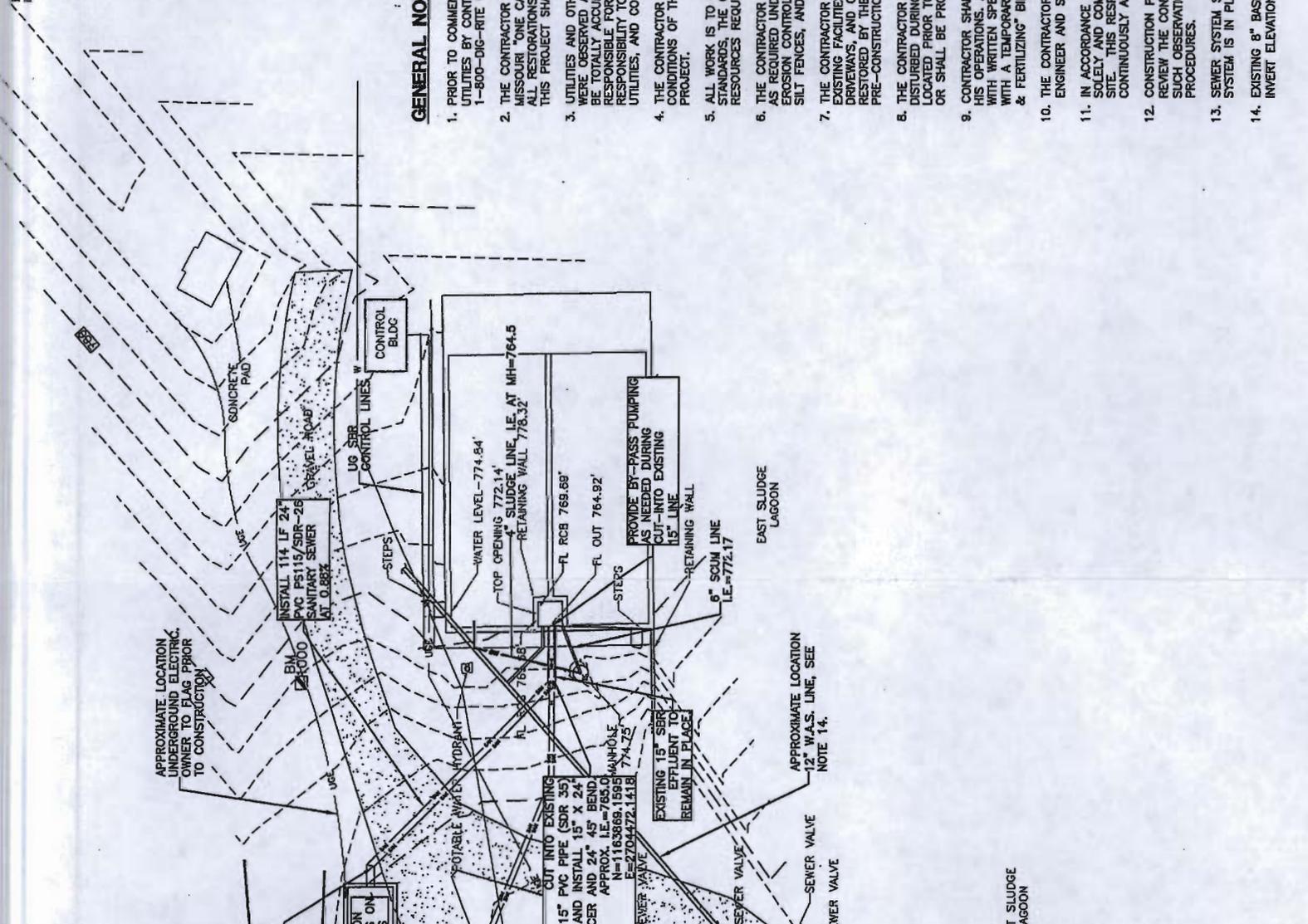
7.1 Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant. Show all of the treatment units, including disinfection (e.g. – Chlorination and Dechlorination), influents, and outfalls. Indicate any treatment process changes in the routing of wastewater during dry weather and peak wet weather. Include a brief narrative description of the diagram. Attach sheets as necessary.

AP.



GENERAL NOTES

1. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES BY CONTACTING THE VARIOUS UTILITY COMPANIES AND/OR UTILIZING AND CALLING 1-800-DIG-RITE UTILITY LOCATION SERVICE FOR MISSOURI.
2. THE CONTRACTOR IS TO BE AWARE THAT SOME UTILITIES DO NOT PARTICIPATE IN THE MISSOURI "ONE CALL" SYSTEM. THESE UTILITIES WILL NEED TO BE CONTACTED INDIVIDUALLY. ALL RESTORATIONS AND REPAIRS TO ANY PUBLIC OR PRIVATE PROPERTY DISTURBED DURING THIS PROJECT SHALL BE MADE AT THE EXPENSE OF THE CONTRACTOR.
3. UTILITIES AND OTHER UNDERGROUND FACILITIES HAVE BEEN SHOWN ONLY TO THE EXTENT THEY WERE OBSERVED AT THE SURFACE OR FROM INFORMATION PROVIDED BY OTHERS AND MAY NOT BE FULLY ACCURATE OR COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES, AND COORDINATE THE WORK WITH THE UTILITY OWNERS DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL REVIEW AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND SPECIAL CONDITIONS OF THE CONTRACT DOCUMENTS PRIOR TO BEGINNING CONSTRUCTION OF THIS PROJECT.
5. ALL WORK IS TO CONFORM TO CITY OF PLATTE CITY SANITARY SEWER SPECIFICATIONS AND STANDARDS, THE CLEAN WATER COMMISSION RULES AND THE DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS.
6. THE CONTRACTOR IS TO IMPLEMENT ALL NECESSARY EROSION CONTROL WORK AND METHODS AS REQUIRED UNDER THE LAND DISTURBANCE PERMIT. BEST MANAGEMENT PRACTICE FOR EROSION CONTROL MAY INCLUDE, BUT ARE NOT LIMITED TO, THE INSTALLATION OF BERMS, SILT FENCES, AND THE RE-ESTABLISHMENT OF VEGETATION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND EXPENSES OF ANY DAMAGE TO EXISTING FACILITIES CAUSED BY HIS CONSTRUCTION. ALL STRUCTURES, FENCES, PAVEMENT, DRIVEWAYS, AND OTHER IMPROVEMENTS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED BY THE CONTRACTOR TO THE CONDITION EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESETTING ANY PROPERTY OR LOT CORNERS DISTURBED DURING CONSTRUCTION. ALL PLATTED SUBDIVISION PROPERTY CORNERS SHALL BE LOCATED PRIOR TO CONSTRUCTION, SHALL BE TIED OUT PRIOR TO REMOVAL AND REPLACEMENT, OR SHALL BE PROTECTED PRIOR TO CONSTRUCTION OPERATIONS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL LANDSCAPED AREAS DISTURBED BY HIS OPERATIONS. ALL DISTURBED AREAS SHALL BE FERTILIZED AND SEEDED IN ACCORDANCE WITH WRITTEN SPECIFICATIONS. ANY DISTURBED SLOPES STEEPER THAN 3:1 SHALL BE SEEDING WITH A TEMPORARY EROSION CONTROL BLANKET. THIS WORK WILL BE SUBSIDIARY TO "SEEDING & FERTILIZING" BID ITEMS.
10. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE WORK AT ANYTIME FOR THE OWNER, ENGINEER AND STATE/FEDERAL/LOCAL OFFICIALS.
11. IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL STATUTES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS RELATED TO SAFETY. AT THIS JOB SITE, THIS RESPONSIBILITY FOR THE SAFETY OF PERSONS AND PROPERTY WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS.
12. CONSTRUCTION PROGRESS OBSERVATIONS CONDUCTED BY THE OWNER AND ENGINEER ARE TO REVIEW THE CONTRACTOR'S COMPLIANCE WITH THESE PLANS AND RELATED SPECIFICATIONS. SUCH OBSERVATIONS ARE NOT TO DETERMINE THE ADEQUACY OF THE CONTRACTOR'S SAFETY PROCEDURES.
13. SEWER SYSTEM SERVICE IS TO BE CONTINUAL FOR EXISTING USERS UNTIL THE NEW SYSTEM IS IN PLACE, TESTED, APPROVED, AND OPERATIONAL.
14. EXISTING 8" BASIN DRAIN CONNECTED TO EXISTING 12" CAST IRON RETURN FLOW PIPE, INVERT ELEVATION 55.5 (APPROXIMATE).



Section 7-1

Description of Flow

Influent comes into head works, head works pumps influent to flume where flow is calculated. Flow goes to both SBR 1 and 2. Influent is treated and waste goes to digesters, while effluent flows through ultraviolet lighting channel into weirs and out to the Platte River from the effluent structure.

There are two outfalls shown on the map, but both outfalls are out of the same structure. Outfall #1 is for normal operations, and while river is at normal flow. Outfall #2 is for when river level is above normal flow. At this time effluent is pumped to Outfall #2. All decant water from drying beds and from digesters returns to head works and is treated again.

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 2
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PART A – BASIC APPLICATION INFORMATION

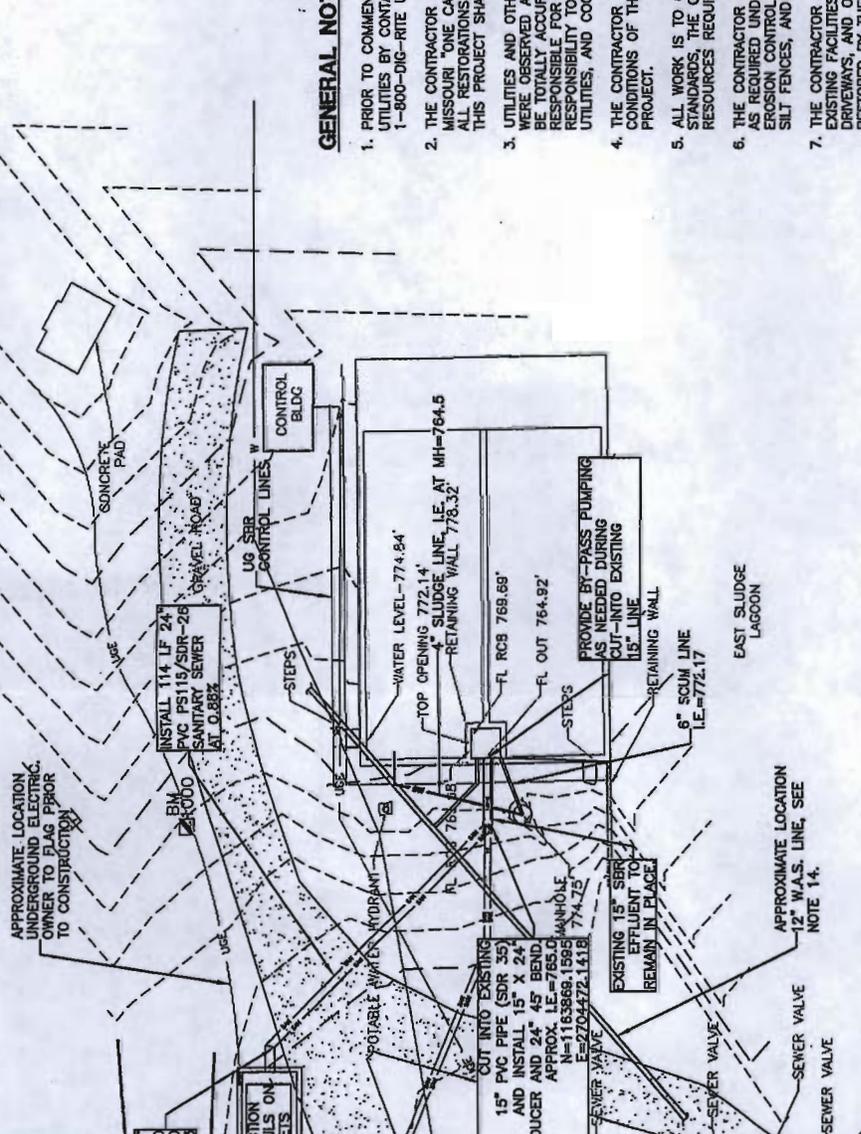
7. FACILITY INFORMATION

7.1 Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant. Show all of the treatment units, including disinfection (e.g. – Chlorination and Dechlorination), influents, and outfalls. Indicate any treatment process changes in the routing of wastewater during dry weather and peak wet weather. Include a brief narrative description of the diagram. Attach sheets as necessary.



GENERAL NOTES

1. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES BY CONTACTING THE VARIOUS UTILITY COMPANIES AND/OR UTILIZING AND CALLING 1-800-DIG-RITE UTILITY LOCATION SERVICE FOR MISSOURI.
2. THE CONTRACTOR IS TO BE AWARE THAT SOME UTILITIES DO NOT PARTICIPATE IN THE MISSOURI "ONE CALL" SYSTEM. THESE UTILITIES WILL NEED TO BE CONTACTED INDIVIDUALLY. ALL RESTORATIONS AND REPAIRS TO ANY PUBLIC OR PRIVATE PROPERTY DISTURBED DURING THIS PROJECT SHALL BE MADE AT THE EXPENSE OF THE CONTRACTOR.
3. UTILITIES AND OTHER UNDERGROUND FACILITIES HAVE BEEN SHOWN ONLY TO THE EXTENT THEY WERE OBSERVED AT THE SURFACE OR FROM INFORMATION PROVIDED BY OTHERS AND MAY NOT BE TOTALLY ACCURATE OR ALL INCLUSIVE. THE OWNER OR ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY SUCH INFORMATION. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY TO VERIFY ALL UTILITY LOCATION AND DEPTH, PROTECT AND RESTORE ALL UTILITIES, AND COORDINATE THE WORK WITH THE UTILITY OWNERS DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL REVIEW AND BECOME FAMILIAR WITH THE SPECIFICATIONS AND SPECIAL CONDITIONS OF THE CONTRACT DOCUMENTS PRIOR TO BEGINNING CONSTRUCTION OF THIS PROJECT.
5. ALL WORK IS TO CONFORM TO CITY OF PLATTE CITY SANITARY SEWER SPECIFICATIONS AND STANDARDS, THE CLEAN WATER COMMISSION RULES AND THE DEPARTMENT OF NATURAL RESOURCES REQUIREMENTS.
6. THE CONTRACTOR IS TO IMPLEMENT ALL NECESSARY EROSION CONTROL WORK AND METHODS AS REQUIRED UNDER THE LAND DISTURBANCE PERMIT. BEST MANAGEMENT PRACTICE FOR EROSION CONTROL MAY INCLUDE, BUT ARE NOT LIMITED TO, THE INSTALLATION OF BERMS, SILT FENCES, AND THE RE-ESTABLISHMENT OF VEGETATION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND EXPENSES OF ANY DAMAGE TO EXISTING FACILITIES CAUSED BY HIS CONSTRUCTION. ALL STRUCTURES, FENCES, PAVEMENT, DRIVEWAYS, AND OTHER IMPROVEMENTS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED BY THE CONTRACTOR TO THE CONDITION EQUAL OR BETTER THAN PRE-CONSTRUCTION CONDITION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESETTling ANY PROPERTY OR LOT CORNERS DISTURBED DURING CONSTRUCTION. ALL PLATTED SUBDIVISION PROPERTY CORNERS SHALL BE LOCATED PRIOR TO CONSTRUCTION, SHALL BE TIED OUT PRIOR TO REMOVAL AND REPLACEMENT, OR SHALL BE PROTECTED PRIOR TO CONSTRUCTION OPERATIONS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL LANDSCAPED AREAS DISTURBED BY HIS OPERATIONS. ALL DISTURBED AREAS SHALL BE FERTILIZED AND SEEDED IN ACCORDANCE WITH WRITTEN SPECIFICATIONS. ANY DISTURBED SLOPES STEEPER THAN 3:1 SHALL BE SEEDED WITH A TEMPORARY EROSION CONTROL BLANKET. THIS WORK WILL BE SUBSIDIARY TO "SEEDING & FERTILIZING" BID ITEMS.
10. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE WORK AT ANYTIME FOR THE OWNER, ENGINEER AND STATE/FEDERAL/LOCAL OFFICIALS.
11. IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL STATUTES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS RELATED TO SAFETY AT THIS JOB SITE. THIS RESPONSIBILITY FOR THE SAFETY OF PERSONS AND PROPERTY WILL APPLY CONTINUOUSLY AND WILL NOT BE LIMITED TO NORMAL WORKING HOURS.
12. CONSTRUCTION PROGRESS OBSERVATIONS CONDUCTED BY THE OWNER AND ENGINEER ARE TO REVIEW THE CONTRACTOR'S COMPLIANCE WITH THESE PLANS AND RELATED SPECIFICATIONS. SUCH OBSERVATIONS ARE NOT TO DETERMINE THE ADEQUACY OF THE CONTRACTOR'S SAFETY PROCEDURES.
13. SEWER SYSTEM SERVICE IS TO BE CONTINUAL FOR EXISTING USERS UNTIL THE NEW SYSTEM IS IN PLACE, TESTED, APPROVED, AND OPERATIONAL.
14. EXISTING 8" BASIN DRAIN CONNECTED TO EXISTING 12" CAST IRON RETURN FLOW PIPE, INVERT ELEVATION 55.5 (APPROXIMATE).



APPROXIMATE LOCATION UNDERGROUND ELECTRIC. OWNER TO FLAG PRIOR TO CONSTRUCTION

APPROXIMATE LOCATION 12" W.A.S. LINE, SEE NOTE 14.

SECTION DETAILS ON SHEETS 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

Section 7-1

Description of Flow

Influent comes into head works, head works pumps influent to flume where flow is calculated. Flow goes to both SBR 1 and 2. Influent is treated and waste goes to digesters, while effluent flows through ultraviolet lighting channel into weirs and out to the Platte River from the effluent structure.

There are two outfalls shown on the map, but both outfalls are out of the same structure. Outfall #1 is for normal operations, and while river is at normal flow. Outfall #2 is for when river level is above normal flow. At this time effluent is pumped to Outfall #2. All decant water from drying beds and from digesters returns to head works and is treated again.

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 1
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PART A – BASIC APPLICATION INFORMATION

7. FACILITY INFORMATION (continued)

7.2 Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information.

- The area surrounding the treatment plant, including all unit processes.
- The location of the downstream landowner(s). (See Item 10.)
- The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- The actual point of discharge.
- Wells, springs, other surface water bodies and drinking water wells that are: 1) within ¼ mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, or disposed.

7.3 Facility SIC Code: 4952	Discharge SIC Code: 4952
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7.4 Number of people presently connected or population equivalent (P.E.): 4691	Design P.E. 5534
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7.5 Connections to the facility:

Number of units presently connected:

Homes 1403 Trailers 0 Apartments 294 Other (including industrial) 0

Number of Commercial Establishments: 206

7.6 Design Flow 2.0 MGD Peak- 1.0 MGD average	Actual Flow .5 MGD
---	------------------------------

7.7 Will discharge be continuous through the year? Yes No

Discharge will occur during the following months: 12 Months How many days of the week will discharge occur? 7 Days

7.8 Is industrial waste discharged to the facility? Yes No

If yes, please describe the number and types of industries that discharge to your facility.

Refer to the APPLICATION OVERVIEW to determine whether additional information is needed for Part F.

7.9 Does the facility accept or process leachate from landfills?: Yes No

7.10 Is wastewater land applied? Yes No

If yes, is Form I attached? Yes No

7.11 Does the facility discharge to a losing stream or sinkhole? Yes No

7.12 Has a wasteload allocation study been completed for this facility? Yes No

8. LABORATORY CONTROL INFORMATION

LABORATORY WORK CONDUCTED BY PLANT PERSONNEL

Lab work conducted outside of plant.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Push-button or visual methods for simple test such as pH, settleable solids.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Additional procedures such as Dissolved Oxygen, Chemical Oxygen Demand, Biological Oxygen Demand, titrations, solids, volatile content.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
More advanced determinations such as BOD seeding procedures, fecal coliform, nutrients, total oils, phenols, etc.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Highly sophisticated instrumentation, such as atomic absorption and gas chromatograph.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 1
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PART A – BASIC APPLICATION INFORMATION

9. SLUDGE HANDLING, USE AND DISPOSAL

9.1 Is the sludge a hazardous waste as defined by 10 CSR 25? Yes No

9.2 Sludge production (Including sludge received from others): Design Dry Tons/Year 120 Actual Dry Tons/Year 70

9.3 Sludge storage provided: 70944 Cubic feet; 788 Days of storage; 18.68 Average percent solids of sludge;
 No sludge storage is provided. Sludge is stored in lagoon.

9.4 Type of storage: Holding Tank Building
 Basin Lagoon
 Concrete Pad Other (Please describe) Earthen Drying Beds

9.5 Sludge Treatment:
 Anaerobic Digester Storage Tank Lime Stabilization Lagoon
 Aerobic Digester Air or Heat Drying Composting Other (Attach Description)

9.6 Sludge use or disposal:
 Land Application Contract Hauler Hauled to Another Treatment Facility Solid Waste Landfill
 Surface Disposal (Sludge Disposal Lagoon, Sludge Held For More Than Two Years) Incineration
 Other (Attach Explanation Sheet) _____

9.7 Person responsible for hauling sludge to disposal facility:
 By Applicant | By Others (complete below)

NAME		E-MAIL ADDRESS	
ADDRESS	CITY	STATE	ZIP CODE
CONTACT PERSON	TELEPHONE WITH AREA CODE	PERMIT NO. MO-	

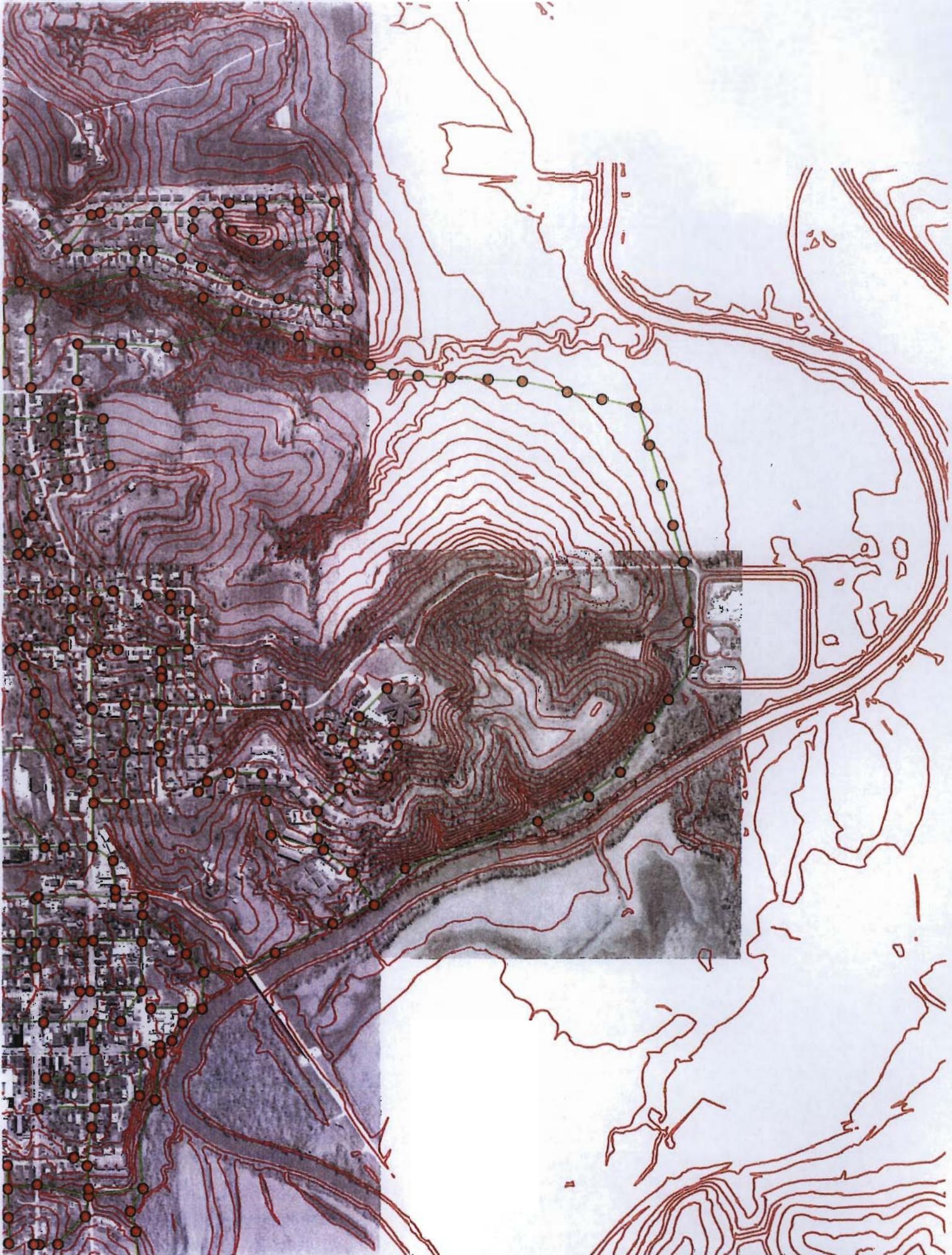
9.8 Sludge use or disposal facility:
 By Applicant By Others (Please complete below)

NAME		E-MAIL ADDRESS	
ADDRESS	CITY	STATE	ZIP CODE
CONTACT PERSON	TELEPHONE WITH AREA CODE	PERMIT NO. MO-	

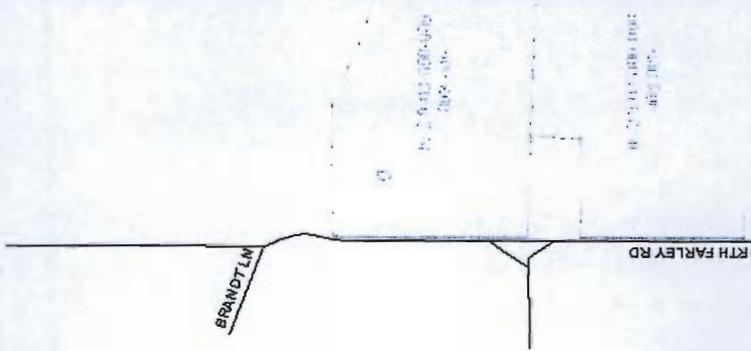
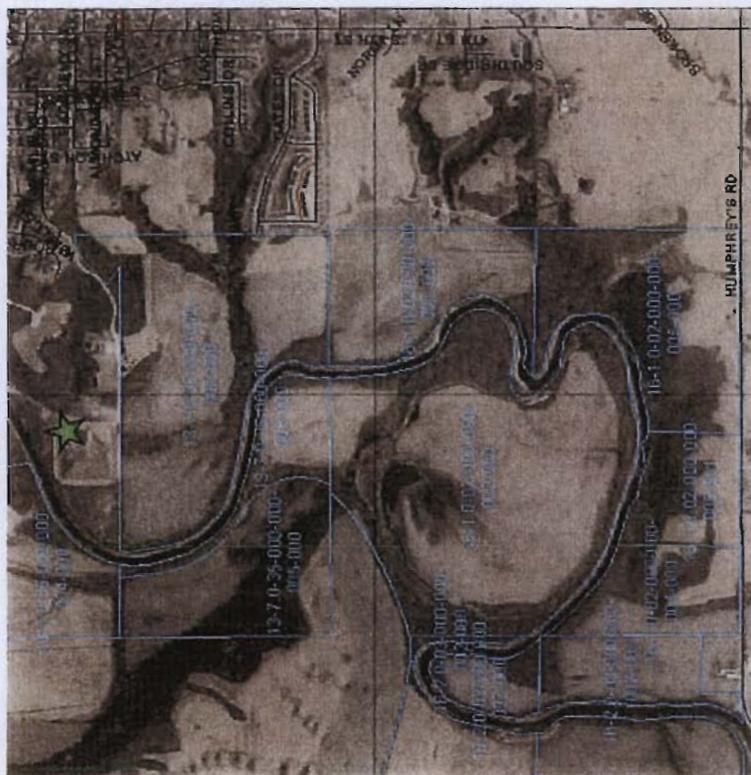
9.9 Does the sludge or biosolids disposal comply with Federal Sludge Regulation 40 CFR 503?
 Yes No (Please explain)

END OF PART A

Section 7.2 - Topographic Map



Section 7.2 - Parcel Map of Downstream Land Owners



FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 2
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PART A – BASIC APPLICATION INFORMATION

7. FACILITY INFORMATION (continued)

7.2 Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information.

- The area surrounding the treatment plant, including all unit processes.
- The location of the downstream landowner(s). (See Item 10.)
- The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- The actual point of discharge.
- Wells, springs, other surface water bodies and drinking water wells that are: 1) within ¼ mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, or disposed.

7.3 Facility SIC Code: 4952	Discharge SIC Code: 4952
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7.4 Number of people presently connected or population equivalent (P.E.): 4691 Design P.E. 5534

7.5 Connections to the facility:
 Number of units presently connected:
 Homes 1403 Trailers 0 Apartments 294 Other (including industrial) 0
 Number of Commercial Establishments: 206

7.6 Design Flow 2.0 MGD Peak- 1.0 MGD average Actual Flow .5 MGD

7.7 Will discharge be continuous through the year? Yes No
 Discharge will occur during the following months: How many days of the week will discharge occur?
 12 Months 7 Days

7.8 Is industrial waste discharged to the facility? Yes No
 If yes, please describe the number and types of industries that discharge to your facility.

 Refer to the APPLICATION OVERVIEW to determine whether additional information is needed for Part F.

7.9 Does the facility accept or process leachate from landfills? Yes No

7.10 Is wastewater land applied? Yes No
 If yes, is Form I attached? Yes No

7.11 Does the facility discharge to a losing stream or sinkhole? Yes No

7.12 Has a wasteload allocation study been completed for this facility? Yes No

8. LABORATORY CONTROL INFORMATION

LABORATORY WORK CONDUCTED BY PLANT PERSONNEL

Lab work conducted outside of plant.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Push-button or visual methods for simple test such as pH, settleable solids.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Additional procedures such as Dissolved Oxygen, Chemical Oxygen Demand, Biological Oxygen Demand, titrations, solids, volatile content.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
More advanced determinations such as BOD seeding procedures, fecal coliform, nutrients, total oils, phenols, etc.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Highly sophisticated instrumentation, such as atomic absorption and gas chromatograph.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 2
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PART A - BASIC APPLICATION INFORMATION

9. SLUDGE HANDLING, USE AND DISPOSAL

9.1 Is the sludge a hazardous waste as defined by 10 CSR 25? Yes No

9.2 Sludge production (Including sludge received from others): Design Dry Tons/Year 120 Actual Dry Tons/Year 70

9.3 Sludge storage provided: 70,944 Cubic feet; 788 Days of storage; 18.68 Average percent solids of sludge;
 No sludge storage is provided. Sludge is stored in lagoon.

9.4 Type of storage: Holding Tank Building
 Basin Lagoon
 Concrete Pad Other (Please describe) Earthen Drying Beds

9.5 Sludge Treatment:
 Anaerobic Digester Storage Tank Lime Stabilization Lagoon
 Aerobic Digester Air or Heat Drying Composting Other (Attach Description)

9.6 Sludge use or disposal:
 Land Application Contract Hauler Hauled to Another Treatment Facility Solid Waste Landfill
 Surface Disposal (Sludge Disposal Lagoon, Sludge Held For More Than Two Years) Incineration
 Other (Attach Explanation Sheet) _____

9.7 Person responsible for hauling sludge to disposal facility:
 By Applicant | By Others (complete below)

NAME		E-MAIL ADDRESS	
ADDRESS	CITY	STATE	ZIP CODE
CONTACT PERSON	TELEPHONE WITH AREA CODE	PERMIT NO. MO-	

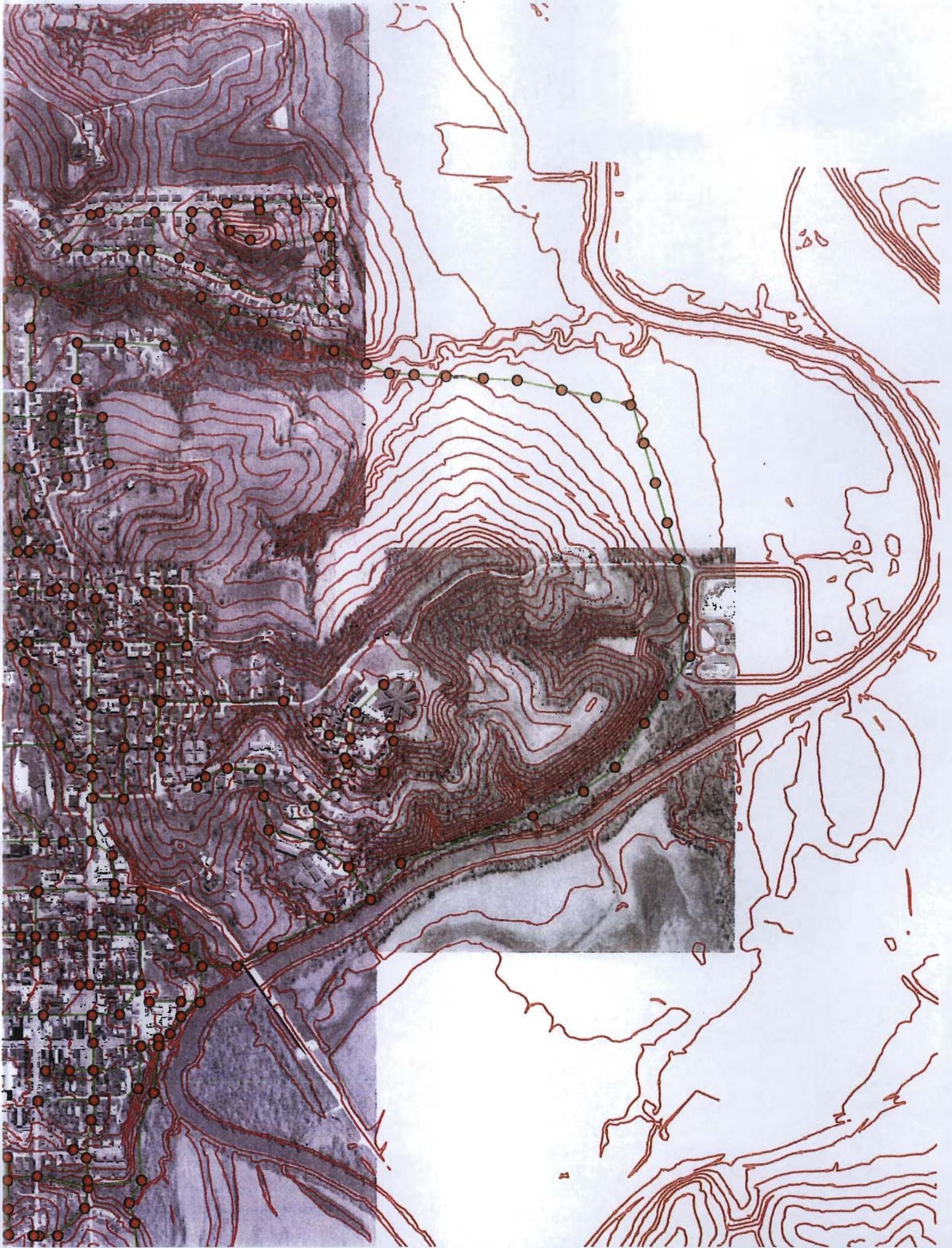
9.8 Sludge use or disposal facility:
 By Applicant By Others (Please complete below)

NAME		E-MAIL ADDRESS	
ADDRESS	CITY	STATE	ZIP CODE
CONTACT PERSON	TELEPHONE WITH AREA CODE	PERMIT NO. MO-	

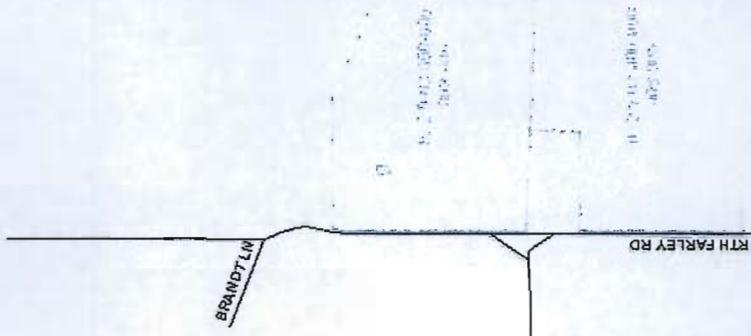
9.9 Does the sludge or biosolids disposal comply with Federal Sludge Regulation 40 CFR 503?
 Yes No (Please explain)

END OF PART A

Section 7:2 - Topographic Map



Section 7.2 - Parcel Map of Downstream Land Owners



FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 1
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PART B – ADDITIONAL APPLICATION INFORMATION

10. COLLECTION SYSTEM

10.1 Length of sanitary sewer collection system in miles
25.3

10.2 Does significant infiltration occur in the collection system? Yes No
If yes, briefly explain any steps underway or planned to minimize inflow and infiltration:
We have Insituformed approximately 3,500' of sewer main comming into wwtp.
We are scheduled to Insituform another 3,700' within the next year.

11. BYPASSING

Does any bypassing occur anywhere in the collection system or at the treatment facility? Yes No
If yes, explain:

12. OPERATION AND MAINTENANCE PERFORMED BY CONTRACTOR(S)

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of the contractor?
Yes No
If Yes, list the name, address, telephone number and status of each contractor and describe the contractor's responsibilities.
(Attach additional pages if necessary.)

NAME

MAILING ADDRESS

TELEPHONE NUMBER WITH AREA CODE

EMAIL ADDRESS

RESPONSIBILITIES OF CONTRACTOR

13. SCHEDULED IMPROVEMENTS AND SCHEDULES OF IMPLEMENTATION

Provide information about any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses for each.

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 1
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PART B – ADDITIONAL APPLICATION INFORMATION

14. EFFLUENT TESTING DATA

Applicants must provide effluent testing data for the following parameters. Provide the indicated effluent data for **each outfall through which effluent is discharged**. Do not include information of combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least **three samples** and must be no more than four and one-half years apart.

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.12	S.U.	7.16	S.U.	4
pH (Maximum)	7.2	S.U.	7.16	S.U.	4
Flow Rate	0.528	MGD	0.455	MGD	4

*For pH report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		

Conventional and Nonconventional Compounds

BIOCHEMICAL OXYGEN DEMAND (Report One)	BOD ₅	8	mg/L	6.3	mg/L	4	SM#507#16EDT	
	CBOD ₅		mg/L		mg/L			
E. COLI	45	#/100 mL	28.3	#/100 mL	3	SM 9223B Colilert		
TOTAL SUSPENDED SOLIDS (TSS)	7.5	mg/L	5.9	mg/L	4	SM209C#16edt		
AMMONIA (as N)	2.37	mg/L	0.964	mg/L	4	Hach#8155		
CHLORINE* (TOTAL RESIDUAL, TRC)		mg/L		mg/L				
DISSOLVED OXYGEN	8.45	mg/L	7.43	mg/L	4	SM21 4500-06		
OIL and GREASE	<5	mg/L	<5	mg/L	4	EPA 1664A		
OTHER		mg/L		mg/L				

*Report only if facility chlorinates

END OF PART B

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 2
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PART B – ADDITIONAL APPLICATION INFORMATION

10. COLLECTION SYSTEM

10.1 Length of sanitary sewer collection system in miles
25.3

10.2 Does significant infiltration occur in the collection system? Yes No
If yes, briefly explain any steps underway or planned to minimize inflow and infiltration:
We have Insituformed approximately 3,500' of sewer main coming into wwtp.
We are scheduled to Insituform another 3,700' within the next year.

11. BYPASSING

Does any bypassing occur anywhere in the collection system or at the treatment facility? Yes No
If yes, explain:

12. OPERATION AND MAINTENANCE PERFORMED BY CONTRACTOR(S)

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of the contractor?
Yes No
If Yes, list the name, address, telephone number and status of each contractor and describe the contractor's responsibilities. (Attach additional pages if necessary.)

NAME

MAILING ADDRESS

TELEPHONE NUMBER WITH AREA CODE

EMAIL ADDRESS

RESPONSIBILITIES OF CONTRACTOR

13. SCHEDULED IMPROVEMENTS AND SCHEDULES OF IMPLEMENTATION

Provide information about any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses for each.

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 2
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PART B – ADDITIONAL APPLICATION INFORMATION

14. EFFLUENT TESTING DATA

Applicants must provide effluent testing data for the following parameters. Provide the indicated effluent data for each outfall through which effluent is discharged. Do not include information of combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least **three samples** and must be no more than four and one-half years apart.

Outfall Number

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.18	S.U.	7.10	S.U.	3
pH (Maximum)	7.03	S.U.	7.10	S.U.	3
Flow Rate	1.37	MGD	0.994	MGD	3

*For pH report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Conc.	Units	Number of Samples		

Conventional and Nonconventional Compounds

BIOCHEMICAL OXYGEN DEMAND (Report One)	BOD ₅	8.8	mg/L	5.74	mg/L	2	SM#507#16EDT
	CBOD ₅		mg/L		mg/L		
E. COLI	63	#/100 mL	31	#/100 mL	3	SM 9223B Collert	
TOTAL SUSPENDED SOLIDS (TSS)	16.7	mg/L	8.22	mg/L	3	SM209C#16edt	
AMMONIA (as N)	1.85	mg/L	1.081	mg/L	3	Hach#8155	
CHLORINE* (TOTAL RESIDUAL, TRC)		mg/L		mg/L			
DISSOLVED OXYGEN	5.93	mg/L	5.76	mg/L	3	SM21 4500-06	
OIL and GREASE	<5	mg/L	<5	mg/L	3	EPA 1664A	
OTHER		mg/L		mg/L			

*Report only if facility chlorinates

END OF PART B

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 1 & 2
PART C – CERTIFICATION		
15. CERTIFICATION		
All applicants must complete the Certification Section. This certification must be signed by an officer of the company or city official. All applicants must complete all applicable sections as explained in the Application Overview. By signing this certification statement, applicants confirm that they have reviewed the entire form and have completed all sections that apply to the facility for which this application is submitted.		
ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.		
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.		
PRINTED NAME Leonard Hendricks	OFFICIAL TITLE (MUST BE AN OFFICER OF THE COMPANY OR CITY OFFICIAL) Public Works Director	
SIGNATURE 		
TELEPHONE NUMBER WITH AREA CODE (816) 858-4815		
DATE SIGNED 12-29-14		
Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.		
Send Completed Form to: <p style="text-align: center;">Department of Natural Resources Water Protection Program ATTN: NPDES Permits and Engineering Section P.O. Box 176 Jefferson City, MO 65102</p>		
END OF PART C		
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH PARTS OF FORM B2 YOU MUST COMPLETE.		
Do not complete the remainder of this application, unless at least one of the following statements applies to your facility:		
<ol style="list-style-type: none"> 1. Your facility design flow is equal to or greater than 1,000,000 gallons per day. 2. Your facility is a pretreatment treatment works. 3. Your facility is a combined sewer system. 		
Submittal of an incomplete application may result in the application being returned. Permit fees for returned applications shall be forfeited. Permit fees for applications being processed by the department that are withdrawn by the applicant shall be forfeited.		

MAKE ADDITIONAL COPIES OF THIS FORM FOR EACH OUTFALL

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 1
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PART D – EXPANDED EFFLUENT TESTING DATA

16. EXPANDED EFFLUENT TESTING DATA

Refer to the APPLICATION OVERVIEW to determine whether Part D applies to the treatment works.

If the treatment works has a design flow greater than or equal to 1 million gallons per day or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information for each outfall through which effluent is discharged. Do not include information of combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least **three pollutant scans** and must be no more than four and one-half years apart.

Outfall Number (Complete Once for Each Outfall Discharging Effluent to Waters of the State.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	No. of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS AND HARDNESS											
ANTIMONY					ND	ug/L	10.0	ug/L	2	EPA 200.7	
ARSENIC					ND	ug/L	10.0	ug/L	2	EPA 200.7	
BERYLLIUM					ND	ug/L	1.0	ug/L	2	EPA 200.7	
CADMIUM					ND	ug/L	5.0	ug/L	2	EPA 200.7	
CHROMIUM III					ND	ug/L	5.0	ug/L	2	EPA 200.7	
CHROMIUM VI					ND	ug/L	5.0	ug/L	2	EPA 200.7	
COPPER					ND	ug/L	10.0	ug/L	2	EPA 200.7	
LEAD					ND	ug/L	5.0	ug/L	2	EPA 200.7	
MERCURY					ND	ug/L	0.2	ug/L	2	EPA 200.7	
NICKEL					ND	ug/L	5.0	ug/L	2	EPA 200.7	
SELENIUM					ND	ug/L	15.0	ug/L	2	EPA 200.7	
SILVER					ND	ug/L	7.0	ug/L	2	EPA 200.7	
THALLIUM					ND	ug/L	20.0	ug/L	2	EPA 200.7	
ZINC					ND	ug/L	50.0	ug/L	2	EPA 200.7	
CYANIDE					0.00285	mg/L	0.0050	mg/L	2	SM 4500CNE	
TOTAL PHENOLIC COMPOUNDS					ND	mg/L	0.050	mg/L	2	EPA 420.1	
HARDNESS (as CaCO ₃)					155500	ug/L	500	ug/L	2	EPA 200.7	
VOLATILE ORGANIC COMPOUNDS											
ACROLEIN					ND	ug/L	100	ug/L	2	EPA 624 Low	
ACRYLONITRILE					ND	ug/L	20.0	ug/L	2	EPA 624 Low	
BENZENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
BROMOFORM					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
CARBON TETRACHLORIDE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
CHLOROBENZENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 1
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PART D – EXPANDED EFFLUENT TESTING DATA

16. EXPANDED EFFLUENT TESTING DATA

Complete Once for Each Outfall Discharging Effluent to Waters of the State

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	No. of Samples		
CHLORODIBROMO-METHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
CHLOROETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
2-CHLORO-ETHYLVINYL ETHER					ND	ug/L	10.0	ug/L	2	EPA 624 Low	
CHLOROFORM					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
DICHLOROBROMO-METHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,1-DICHLORO-ETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,2-DICHLORO-ETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
TRANS-1,2-DICHLOROETHYLENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,1-DICHLORO-ETHYLENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,2-DICHLORO-PROPANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,3-DICHLORO-PROPYLENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
ETHYLBENZENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
METHYL BROMIDE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
METHYL CHLORIDE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
METHYLENE CHLORIDE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,1,2,2-TETRA-CHLOROETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
TETRACHLORO-ETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
TOLUENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,1,1-TRICHLORO-ETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,1,2-TRICHLORO-ETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
TRICHLOROETHYLENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
VINYL CHLORIDE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	

ACID-EXTRACTABLE COMPOUNDS

P-CHLORO-M-CRESOL					ND	ug/L	5.0	ug/L	2	EPA 625	
2-CHLOROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
2,4-DICHLOROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
2,4-DIMETHYLPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
4,6-DINITRO-O-CRESOL					ND	ug/L	25.0	ug/L	2	EPA 625	
2,4-DINITROPHENOL					ND	ug/L	50.0	ug/L	2	EPA 625	
2-NITROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
4-NITROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 1
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PART D – EXPANDED EFFLUENT TESTING DATA

16. EXPANDED EFFLUENT TESTING DATA

Complete Once for Each Outfall Discharging Effluent to Waters of the State.

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	No. of Samples		
PENTACHLOROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
PHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
2,4,6-TRICHLOROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
BASE-NEUTRAL COMPOUNDS											
ACENAPHTHENE					ND	ug/L	5.0	ug/L	2	EPA 625	
ACENAPHTHYLENE					ND	ug/L	5.0	ug/L	2	EPA 625	
ANTHRACENE					ND	ug/L	5.0	ug/L	2	EPA 625	
BENZIDINE					ND	ug/L	50.0	ug/L	2	EPA 625	
BENZO(A)ANTHRACENE					ND	ug/L	5.0	ug/L	2	EPA 625	
BENZO(A)PYRENE					ND	ug/L	5.0	ug/L	2	EPA 625	
3,4-BENZO-FLUORANTHENE					ND	ug/L	5.0	ug/L	2	EPA 625	
BENZO(GH) PHERYLENE					ND	ug/L	5.0	ug/L	2	EPA 625	
BENZO(K) FLUORANTHENE					ND	ug/L	5.0	ug/L	2	EPA 625	
BIS (2-CHLOROTHOXY) METHANE					ND	ug/L	5.0	ug/L	2	EPA 625	
BIS (2-CHLOROETHYL) – ETHER					ND	ug/L	6.0	ug/L	2	EPA 625	
BIS (2-CHLOROISO-PROPYL) ETHER					ND	ug/L	6.0	ug/L	2	EPA 625	
BIS (2-ETHYLHEXYL) PHTHALATE					ND	ug/L	5.0	ug/L	2	EPA 625	
4-BROMOPHENYL PHENYL ETHER					ND	ug/L	5.0	ug/L	2	EPA 625	
BUTYL BENZYL PHTHALATE					ND	ug/L	5.0	ug/L	2	EPA 625	
2-CHLORONAPH-THALENE					ND	ug/L	5.0	ug/L	2	EPA 625	
4-CHLORPHENYL PHENYL ETHER					ND	ug/L	5.0	ug/L	2	EPA 625	
CHRYSENE					ND	ug/L	5.0	ug/L	2	EPA 625	
DI-N-BUTYL PHTHALATE					13.9	ug/L	5.0	ug/L	2	EPA 625	
DI-N-OCTYL PHTHALATE					ND	ug/L	5.0	ug/L	2	EPA 625	
DIBENZO (A,H) ANTHRACENE					ND	ug/L	5.0	ug/L	2	EPA 625	
1,2-DICHLORO-BENZENE					ND	ug/L	5.0	ug/L	2	EPA 625	
1,3-DICHLORO-BENZENE					ND	ug/L	5.0	ug/L	2	EPA 625	
1,4-DICHLORO-BENZENE					ND	ug/L	5.0	ug/L	2	EPA 625	
3,3-DICHLORO-BENZIDINE					ND	ug/L	20.0	ug/L	2	EPA 625	
DIETHYL PHTHALATE					ND	ug/L	5.0	ug/L	2	EPA 625	
DIMETHYL PHTHALATE					ND	ug/L	5.0	ug/L	2	EPA 625	

December 12, 2014

Mr. Daniel Stamper
City of Platte City
400 Main St
Platte City, MO 64079

2014 Permit Renewal

RE: Project: Effluent Testing
Pace Project No.: 60183697

Dear Mr. Stamper:

Enclosed are the analytical results for sample(s) received by the laboratory on December 03, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Trudy Gipson

Trudy Gipson
trudy.gipson@pacelabs.com
Project Manager

Enclosures

cc: Ms. Sharon Anderson, City of Platte City



REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
9608 Loiret Blvd.
Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: Effluent Testing
Pace Project No.: 60183697

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Effluent Testing
Pace Project No.: 60183697

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60183697001	OUTFALL 1	Water	12/03/14 12:56	12/03/14 15:25
60183697002	TRIP BLANK	Water	12/03/14 12:56	12/03/14 15:25

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Effluent Testing
Pace Project No.: 60183697

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60183697001	OUTFALL 1	EPA 200.7	JGP	15	PASI-K
		EPA 245.1	NDJ	1	PASI-K
		EPA 625	JMT	61	PASI-K
		EPA 624 Low	EAK	39	PASI-K
		EPA 420.1	AJM	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Effluent Testing
Pace Project No.: 60183697

Sample: OUTFALL 1	Lab ID: 60183697001	Collected: 12/03/14 12:56	Received: 12/03/14 15:25	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total								
Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Antimony	ND	ug/L	10.0	1	12/04/14 11:15	12/08/14 15:08	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/04/14 11:15	12/08/14 15:08	7440-38-2	
Beryllium	ND	ug/L	1.0	1	12/04/14 11:15	12/08/14 15:08	7440-41-7	
Cadmium	ND	ug/L	5.0	1	12/04/14 11:15	12/08/14 15:08	7440-43-9	
Calcium	62700	ug/L	100	1	12/04/14 11:15	12/08/14 15:08	7440-70-2	
Chromium	ND	ug/L	5.0	1	12/04/14 11:15	12/08/14 15:08	7440-47-3	
Copper	ND	ug/L	10.0	1	12/04/14 11:15	12/08/14 15:08	7440-50-8	
Lead	ND	ug/L	5.0	1	12/04/14 11:15	12/08/14 15:08	7439-92-1	
Magnesium	8700	ug/L	50.0	1	12/04/14 11:15	12/08/14 15:08	7439-95-4	
Nickel	ND	ug/L	5.0	1	12/04/14 11:15	12/08/14 15:08	7440-02-0	
Selenium	ND	ug/L	15.0	1	12/04/14 11:15	12/08/14 15:08	7782-49-2	
Silver	ND	ug/L	7.0	1	12/04/14 11:15	12/08/14 15:08	7440-22-4	
Thallium	ND	ug/L	20.0	1	12/04/14 11:15	12/08/14 15:08	7440-28-0	
Total Hardness by 2340B	192000	ug/L	500	1	12/04/14 11:15	12/08/14 15:08		
Zinc	73.7	ug/L	50.0	1	12/04/14 11:15	12/08/14 15:08	7440-66-6	
245.1 Mercury								
Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury	ND	ug/L	0.20	1	12/08/14 09:15	12/08/14 12:46	7439-97-6	
625 MSSV								
Analytical Method: EPA 625 Preparation Method: EPA 625								
Phenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	108-95-2	
bis(2-Chloroethyl) ether	ND	ug/L	6.0	1	12/05/14 00:00	12/09/14 14:14	111-44-4	
2-Chlorophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	95-57-8	
bis(2-Chloroisopropyl) ether	ND	ug/L	6.0	1	12/05/14 00:00	12/09/14 14:14	39638-32-9	
N-Nitroso-di-n-propylamine	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	621-64-7	
Nitrobenzene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	98-95-3	
Isophorone	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	78-59-1	
2-Nitrophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	88-75-5	
2,4-Dimethylphenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	105-67-9	
bis(2-Chloroethoxy)methane	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	111-91-1	
2,4-Dichlorophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	120-83-2	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	120-82-1	
Naphthalene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	91-20-3	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	87-68-3	
4-Chloro-3-methylphenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	59-50-7	
Hexachlorocyclopentadiene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	77-47-4	
2,4,6-Trichlorophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	88-06-2	
2-Chloronaphthalene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	91-58-7	
Dimethylphthalate	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	131-11-3	
Acenaphthylene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	208-96-8	
2,6-Dinitrotoluene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	606-20-2	
Acenaphthene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	83-32-9	
2,4-Dinitrophenol	ND	ug/L	50.0	1	12/05/14 00:00	12/09/14 14:14	51-28-5	
4-Nitrophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	100-02-7	
2,4-Dinitrotoluene	ND	ug/L	6.0	1	12/05/14 00:00	12/09/14 14:14	121-14-2	
Diethylphthalate	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	84-66-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Effluent Testing
Pace Project No.: 60183697

Sample: **OUTFALL 1** Lab ID: **60183697001** Collected: 12/03/14 12:56 Received: 12/03/14 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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625 MSSV

Analytical Method: EPA 625 Preparation Method: EPA 625

4-Chlorophenylphenyl ether	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	7005-72-3	
Fluorene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	86-73-7	
4,6-Dinitro-2-methylphenol	ND	ug/L	25.0	1	12/05/14 00:00	12/09/14 14:14	534-52-1	
N-Nitrosodiphenylamine	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	86-30-6	
4-Bromophenylphenyl ether	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	101-55-3	
Hexachlorobenzene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	118-74-1	
Pentachlorophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	87-86-5	
Phenanthrene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	85-01-8	
Anthracene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	120-12-7	
Di-n-butylphthalate	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	84-74-2	
Fluoranthene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	206-44-0	
Pyrene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	129-00-0	
Butylbenzylphthalate	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	85-68-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	1	12/05/14 00:00	12/09/14 14:14	91-94-1	L3
Benzo(a)anthracene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	56-55-3	
Chrysene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	218-01-9	
bis(2-Ethylhexyl)phthalate	7.8	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	117-81-7	
Di-n-octylphthalate	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	117-84-0	
Benzo(b)fluoranthene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	207-08-9	
Benzo(a)pyrene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	50-32-8	
Indeno(1,2,3-cd)pyrene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	193-39-5	
Dibenz(a,h)anthracene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	53-70-3	
Benzo(g,h,i)perylene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	191-24-2	
Benzidine	ND	ug/L	50.0	1	12/05/14 00:00	12/09/14 14:14	92-87-5	M1
N-Nitrosodimethylamine	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	62-75-9	
Hexachloroethane	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	67-72-1	
1,2-Diphenylhydrazine	ND	ug/L	8.0	1	12/05/14 00:00	12/09/14 14:14	122-66-7	
Aniline	ND	ug/L	20.0	1	12/05/14 00:00	12/09/14 14:14	62-53-3	N2
Surrogates								
Nitrobenzene-d5 (S)	77	%	33-120	1	12/05/14 00:00	12/09/14 14:14	4165-60-0	
2-Fluorobiphenyl (S)	78	%	39-120	1	12/05/14 00:00	12/09/14 14:14	321-60-8	
Terphenyl-d14 (S)	89	%	45-120	1	12/05/14 00:00	12/09/14 14:14	1718-51-0	
Phenol-d6 (S)	29	%	11-120	1	12/05/14 00:00	12/09/14 14:14	13127-88-3	
2-Fluorophenol (S)	37	%	17-120	1	12/05/14 00:00	12/09/14 14:14	367-12-4	
2,4,6-Tribromophenol (S)	92	%	39-120	1	12/05/14 00:00	12/09/14 14:14	118-79-6	

624 Volatile Organics

Analytical Method: EPA 624 Low

Acrolein	ND	ug/L	100	1		12/04/14 18:39	107-02-8	L3
Acrylonitrile	ND	ug/L	20.0	1		12/04/14 18:39	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 18:39	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 18:39	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 18:39	75-25-2	
Bromomethane	ND	ug/L	5.0	1		12/04/14 18:39	74-83-9	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 18:39	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 18:39	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 18:39	75-00-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Effluent Testing
Pace Project No.: 60183697

Sample: OUTFALL 1	Lab ID: 60183697001	Collected: 12/03/14 12:56	Received: 12/03/14 15:25	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624 Volatile Organics		Analytical Method: EPA 624 Low						
2-Chloroethylvinyl ether	ND ug/L		10.0	1		12/04/14 18:39	110-75-8	
Chloroform	ND ug/L		1.0	1		12/04/14 18:39	67-66-3	
Chloromethane	ND ug/L		1.0	1		12/04/14 18:39	74-87-3	
Dibromochloromethane	ND ug/L		1.0	1		12/04/14 18:39	124-48-1	
1,2-Dichlorobenzene	ND ug/L		1.0	1		12/04/14 18:39	95-50-1	
1,3-Dichlorobenzene	ND ug/L		1.0	1		12/04/14 18:39	541-73-1	
1,4-Dichlorobenzene	ND ug/L		1.0	1		12/04/14 18:39	106-46-7	
1,1-Dichloroethane	ND ug/L		1.0	1		12/04/14 18:39	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	1		12/04/14 18:39	107-06-2	
1,1-Dichloroethene	ND ug/L		1.0	1		12/04/14 18:39	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	1		12/04/14 18:39	156-59-2	N2
trans-1,2-Dichloroethene	ND ug/L		1.0	1		12/04/14 18:39	156-60-5	
1,2-Dichloropropane	ND ug/L		1.0	1		12/04/14 18:39	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		1.0	1		12/04/14 18:39	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		1.0	1		12/04/14 18:39	10061-02-6	
Ethylbenzene	ND ug/L		1.0	1		12/04/14 18:39	100-41-4	
Methylene chloride	ND ug/L		1.0	1		12/04/14 18:39	75-09-2	
1,1,2,2-Tetrachloroethane	ND ug/L		1.0	1		12/04/14 18:39	79-34-5	N2
Tetrachloroethene	ND ug/L		1.0	1		12/04/14 18:39	127-18-4	
Toluene	ND ug/L		1.0	1		12/04/14 18:39	108-88-3	
1,1,1-Trichloroethane	ND ug/L		1.0	1		12/04/14 18:39	71-55-6	
1,1,2-Trichloroethane	ND ug/L		1.0	1		12/04/14 18:39	79-00-5	
Trichloroethene	ND ug/L		1.0	1		12/04/14 18:39	79-01-6	
Trichlorofluoromethane	ND ug/L		1.0	1		12/04/14 18:39	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		12/04/14 18:39	75-01-4	
Xylene (Total)	ND ug/L		3.0	1		12/04/14 18:39	1330-20-7	N2
Surrogates								
4-Bromofluorobenzene (S)	102 %		80-120	1		12/04/14 18:39	460-00-4	
Toluene-d8 (S)	101 %		80-120	1		12/04/14 18:39	2037-26-5	
1,2-Dichloroethane-d4 (S)	96 %		80-120	1		12/04/14 18:39	17060-07-0	
Preservation pH	7.0		1.0	1		12/04/14 18:39		
Phenolics, Total Recoverable		Analytical Method: EPA 420.1						
Phenolics, Total Recoverable	ND mg/L		0.050	1		12/10/14 15:08		
4500CNE Cyanide, Total		Analytical Method: SM 4500-CN-E						
Cyanide	ND mg/L		0.0050	1		12/09/14 16:15	57-12-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

QC Batch: MERP/9119 Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury
Associated Lab Samples: 60183697001

METHOD BLANK: 1490260 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	12/08/14 12:26	

LABORATORY CONTROL SAMPLE: 1490261

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1490262 1490263

Parameter	Units	60183732002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Mercury	ug/L	ND	5	5	5.2	4.8	105	97	70-130	8 20	

MATRIX SPIKE SAMPLE: 1490264

Parameter	Units	60183677001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	5	0.75	15	70-130	M1

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

QC Batch: MPRP/30043 Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 60183697001

METHOD BLANK: 1488379 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	10.0	12/08/14 14:26	
Arsenic	ug/L	ND	10.0	12/08/14 14:26	
Beryllium	ug/L	ND	1.0	12/08/14 14:26	
Cadmium	ug/L	ND	5.0	12/08/14 14:26	
Calcium	ug/L	ND	100	12/08/14 14:26	
Chromium	ug/L	ND	5.0	12/08/14 14:26	
Copper	ug/L	ND	10.0	12/08/14 14:26	
Lead	ug/L	ND	5.0	12/08/14 14:26	
Magnesium	ug/L	ND	50.0	12/08/14 14:26	
Nickel	ug/L	ND	5.0	12/08/14 14:26	
Selenium	ug/L	ND	15.0	12/08/14 14:26	
Silver	ug/L	ND	7.0	12/08/14 14:26	
Thallium	ug/L	ND	20.0	12/08/14 14:26	
Total Hardness by 2340B	ug/L	ND	500	12/08/14 14:26	
Zinc	ug/L	ND	50.0	12/08/14 14:26	

LABORATORY CONTROL SAMPLE: 1488380

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	1000	1030	103	85-115	
Arsenic	ug/L	1000	998	100	85-115	
Beryllium	ug/L	1000	1010	101	85-115	
Cadmium	ug/L	1000	1020	102	85-115	
Calcium	ug/L	10000	9860	99	85-115	
Chromium	ug/L	1000	1000	100	85-115	
Copper	ug/L	1000	1020	102	85-115	
Lead	ug/L	1000	1020	102	85-115	
Magnesium	ug/L	10000	10000	100	85-115	
Nickel	ug/L	1000	1040	104	85-115	
Selenium	ug/L	1000	1000	100	85-115	
Silver	ug/L	500	502	100	85-115	
Thallium	ug/L	1000	1020	102	85-115	
Total Hardness by 2340B	ug/L		65900			
Zinc	ug/L	1000	1010	101	85-115	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1488381													1488382	
Parameter	Units	60183248001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	Qual		
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	RPD	RPD				
Antimony	ug/L	11.3	1000	1000	1040	1060	102	105	70-130	2	20			
Arsenic	ug/L	ND	1000	1000	1030	1040	102	104	70-130	2	20			
Beryllium	ug/L	ND	1000	1000	989	1010	99	101	70-130	3	20			
Cadmium	ug/L	ND	1000	1000	1020	1040	102	104	70-130	1	20			
Calcium	ug/L	44200	10000	10000	52100	53700	79	95	70-130	3	20			
Chromium	ug/L	ND	1000	1000	1010	1020	101	102	70-130	1	20			
Copper	ug/L	22.7	1000	1000	1020	1030	100	101	70-130	1	20			
Lead	ug/L	44.7	1000	1000	1010	1040	97	99	70-130	2	20			
Magnesium	ug/L	20900	10000	10000	30100	30800	92	99	70-130	2	20			
Nickel	ug/L	7.0	1000	1000	997	1020	99	102	70-130	3	20			
Selenium	ug/L	ND	1000	1000	900	1040	90	104	70-130	15	20			
Silver	ug/L	ND	500	500	518	524	103	105	70-130	1	20			
Thallium	ug/L	ND	1000	1000	761	784	76	78	70-130	3	20			
Total Hardness by 2340B	ug/L	197000			254000	261000					3			
Zinc	ug/L	480	1000	1000	1440	1490	96	101	70-130	3	20			

SAMPLE DUPLICATE: 1490524

Parameter	Units	60183605003	Dup	RPD	Max RPD	Qualifiers
		Result	Result			
Antimony	ug/L	12.8	12.9	0	20	
Arsenic	ug/L	245	245	0	25	
Beryllium	ug/L	ND	ND		20	
Cadmium	ug/L	ND	ND		20	
Calcium	ug/L	256000	259000	1	20	
Chromium	ug/L	34.8	35.4	2	28	
Copper	ug/L	ND	ND		20	
Lead	ug/L	5.0	4.4J		27	
Magnesium	ug/L	191000	192000	0	20	
Nickel	ug/L	25.7	25.9	1	25	
Selenium	ug/L	ND	3.1J		20	
Silver	ug/L	ND	ND		20	
Thallium	ug/L	ND	ND		20	
Total Hardness by 2340B	ug/L	1420000	1440000	1		
Zinc	ug/L	ND	24.5J		20	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

QC Batch: MSV/66174 Analysis Method: EPA 624 Low
QC Batch Method: EPA 624 Low Analysis Description: 624 MSV
Associated Lab Samples: 60183697001

METHOD BLANK: 1488341 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	12/04/14 17:56	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	12/04/14 17:56	N2
1,1,2-Trichloroethane	ug/L	ND	1.0	12/04/14 17:56	
1,1-Dichloroethane	ug/L	ND	1.0	12/04/14 17:56	
1,1-Dichloroethene	ug/L	ND	1.0	12/04/14 17:56	
1,2-Dichlorobenzene	ug/L	ND	1.0	12/04/14 17:56	
1,2-Dichloroethane	ug/L	ND	1.0	12/04/14 17:56	
1,2-Dichloropropane	ug/L	ND	1.0	12/04/14 17:56	
1,3-Dichlorobenzene	ug/L	ND	1.0	12/04/14 17:56	
1,4-Dichlorobenzene	ug/L	ND	1.0	12/04/14 17:56	
2-Chloroethylvinyl ether	ug/L	ND	10.0	12/04/14 17:56	
Acrolein	ug/L	ND	100	12/04/14 17:56	
Acrylonitrile	ug/L	ND	20.0	12/04/14 17:56	
Benzene	ug/L	ND	1.0	12/04/14 17:56	
Bromodichloromethane	ug/L	ND	1.0	12/04/14 17:56	
Bromoform	ug/L	ND	1.0	12/04/14 17:56	
Bromomethane	ug/L	ND	5.0	12/04/14 17:56	
Carbon tetrachloride	ug/L	ND	1.0	12/04/14 17:56	
Chlorobenzene	ug/L	ND	1.0	12/04/14 17:56	
Chloroethane	ug/L	ND	1.0	12/04/14 17:56	
Chloroform	ug/L	ND	1.0	12/04/14 17:56	
Chloromethane	ug/L	ND	1.0	12/04/14 17:56	
cis-1,2-Dichloroethene	ug/L	ND	1.0	12/04/14 17:56	N2
cis-1,3-Dichloropropene	ug/L	ND	1.0	12/04/14 17:56	
Dibromochloromethane	ug/L	ND	1.0	12/04/14 17:56	
Ethylbenzene	ug/L	ND	1.0	12/04/14 17:56	
Methylene chloride	ug/L	ND	1.0	12/04/14 17:56	
Tetrachloroethene	ug/L	ND	1.0	12/04/14 17:56	
Toluene	ug/L	ND	1.0	12/04/14 17:56	
trans-1,2-Dichloroethene	ug/L	ND	1.0	12/04/14 17:56	
trans-1,3-Dichloropropene	ug/L	ND	1.0	12/04/14 17:56	
Trichloroethene	ug/L	ND	1.0	12/04/14 17:56	
Trichlorofluoromethane	ug/L	ND	1.0	12/04/14 17:56	
Vinyl chloride	ug/L	ND	1.0	12/04/14 17:56	
Xylene (Total)	ug/L	ND	3.0	12/04/14 17:56	N2
1,2-Dichloroethane-d4 (S)	%	97	80-120	12/04/14 17:56	
4-Bromofluorobenzene (S)	%	100	80-120	12/04/14 17:56	
Toluene-d8 (S)	%	102	80-120	12/04/14 17:56	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

LABORATORY CONTROL SAMPLE: 1488342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.4	102	67-129	
1,1,2,2-Tetrachloroethane	ug/L	20	18.9	94	67-127	N2
1,1,2-Trichloroethane	ug/L	20	19.7	99	67-124	
1,1-Dichloroethane	ug/L	20	20.4	102	64-121	
1,1-Dichloroethene	ug/L	20	20.1	100	67-128	
1,2-Dichlorobenzene	ug/L	20	20.8	104	74-123	
1,2-Dichloroethane	ug/L	20	20.5	103	70-126	
1,2-Dichloropropane	ug/L	20	19.6	98	70-127	
1,3-Dichlorobenzene	ug/L	20	21.0	105	74-121	
1,4-Dichlorobenzene	ug/L	20	19.8	99	74-120	
2-Chloroethylvinyl ether	ug/L	20	13.3	66	27-155	
Acrolein	ug/L	200	337	169	88-118	L0
Acrylonitrile	ug/L	200	210	105	71-133	
Benzene	ug/L	20	20.0	100	75-120	
Bromodichloromethane	ug/L	20	20.8	104	68-125	
Bromoform	ug/L	20	20.3	101	65-127	
Bromomethane	ug/L	20	17.3	86	13-157	
Carbon tetrachloride	ug/L	20	19.9	100	70-131	
Chlorobenzene	ug/L	20	20.7	103	72-122	
Chloroethane	ug/L	20	13.5	68	47-133	
Chloroform	ug/L	20	19.7	99	65-127	
Chloromethane	ug/L	20	21.0	105	18-145	
cis-1,2-Dichloroethene	ug/L	20	19.9	100	68-127	N2
cis-1,3-Dichloropropene	ug/L	20	19.2	96	67-128	
Dibromochloromethane	ug/L	20	19.6	98	70-129	
Ethylbenzene	ug/L	20	20.8	104	74-122	
Methylene chloride	ug/L	20	19.9	99	64-129	
Tetrachloroethene	ug/L	20	20.1	101	73-125	
Toluene	ug/L	20	21.0	105	69-126	
trans-1,2-Dichloroethene	ug/L	20	20.2	101	66-129	
trans-1,3-Dichloropropene	ug/L	20	18.9	95	73-133	
Trichloroethene	ug/L	20	20.3	102	71-123	
Trichlorofluoromethane	ug/L	20	22.8	114	57-123	
Vinyl chloride	ug/L	20	22.3	112	43-129	
Xylene (Total)	ug/L	60	65.7	110	75-121	N2
1,2-Dichloroethane-d4 (S)	%			103	80-120	
4-Bromofluorobenzene (S)	%			94	80-120	
Toluene-d8 (S)	%			101	80-120	

MATRIX SPIKE SAMPLE: 1488343

Parameter	Units	60183691001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	20	20.9	105	52-155	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	16.9	85	46-146	N2
1,1,2-Trichloroethane	ug/L	ND	20	20.1	101	52-143	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

MATRIX SPIKE SAMPLE: 1488343		60183691001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,1-Dichloroethane	ug/L	ND	20	19.2	96	59-140	
1,1-Dichloroethene	ug/L	ND	20	20.8	104	38-153	
1,2-Dichlorobenzene	ug/L	ND	20	22.2	111	37-138	
1,2-Dichloroethane	ug/L	ND	20	18.8	94	49-144	
1,2-Dichloropropane	ug/L	ND	20	20.0	100	37-147	
1,3-Dichlorobenzene	ug/L	ND	20	22.7	113	59-138	
1,4-Dichlorobenzene	ug/L	ND	20	21.9	110	33-140	
2-Chloroethylvinyl ether	ug/L	ND	20	11.3	56	10-160	
Acrolein	ug/L	ND	200	6.2J	3	88-118	M0
Acrylonitrile	ug/L	ND	200	187	93	71-128	
Benzene	ug/L	ND	20	19.9	100	37-151	
Bromodichloromethane	ug/L	2.6	20	23.1	103	35-142	
Bromoform	ug/L	ND	20	21.3	105	45-142	
Bromomethane	ug/L	ND	20	17.0	85	10-158	
Carbon tetrachloride	ug/L	ND	20	22.3	111	70-140	
Chlorobenzene	ug/L	ND	20	21.7	108	38-139	
Chloroethane	ug/L	ND	20	12.5	63	19-152	
Chloroform	ug/L	3.9	20	22.2	92	51-138	
Chloromethane	ug/L	ND	20	20.7	103	10-148	
cis-1,2-Dichloroethene	ug/L	ND	20	18.8	94	34-147	N2
cis-1,3-Dichloropropene	ug/L	ND	20	18.9	94	36-140	
Dibromochloromethane	ug/L	ND	20	22.3	112	53-142	
Ethylbenzene	ug/L	ND	20	23.1	115	40-142	
Methylene chloride	ug/L	ND	20	19.6	97	31-144	
Tetrachloroethene	ug/L	ND	20	22.3	112	64-148	
Toluene	ug/L	ND	20	20.8	103	47-150	
trans-1,2-Dichloroethene	ug/L	ND	20	19.7	98	54-151	
trans-1,3-Dichloropropene	ug/L	ND	20	19.0	95	38-147	
Trichloroethene	ug/L	ND	20	24.1	120	71-149	
Trichlorofluoromethane	ug/L	ND	20	24.7	123	26-156	
Vinyl chloride	ug/L	ND	20	24.0	120	22-146	
Xylene (Total)	ug/L	ND	60	70.0	117	37-144	N2
1,2-Dichloroethane-d4 (S)	%				95	80-120	
4-Bromofluorobenzene (S)	%				99	80-120	
Toluene-d8 (S)	%				97	80-120	
Preservation pH		7.0		7.0			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

QC Batch: OEXT/47391 Analysis Method: EPA 625
QC Batch Method: EPA 625 Analysis Description: 625 MSS
Associated Lab Samples: 60183697001

METHOD BLANK: 1489097 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	5.0	12/09/14 13:11	
1,2-Diphenylhydrazine	ug/L	ND	8.0	12/09/14 13:11	
2,4,6-Trichlorophenol	ug/L	ND	5.0	12/09/14 13:11	
2,4-Dichlorophenol	ug/L	ND	5.0	12/09/14 13:11	
2,4-Dimethylphenol	ug/L	ND	5.0	12/09/14 13:11	
2,4-Dinitrophenol	ug/L	ND	50.0	12/09/14 13:11	
2,4-Dinitrotoluene	ug/L	ND	6.0	12/09/14 13:11	
2,6-Dinitrotoluene	ug/L	ND	5.0	12/09/14 13:11	
2-Chloronaphthalene	ug/L	ND	5.0	12/09/14 13:11	
2-Chlorophenol	ug/L	ND	5.0	12/09/14 13:11	
2-Nitrophenol	ug/L	ND	5.0	12/09/14 13:11	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	12/09/14 13:11	
4,6-Dinitro-2-methylphenol	ug/L	ND	25.0	12/09/14 13:11	
4-Bromophenylphenyl ether	ug/L	ND	5.0	12/09/14 13:11	
4-Chloro-3-methylphenol	ug/L	ND	5.0	12/09/14 13:11	
4-Chlorophenylphenyl ether	ug/L	ND	5.0	12/09/14 13:11	
4-Nitrophenol	ug/L	ND	5.0	12/09/14 13:11	
Acenaphthene	ug/L	ND	5.0	12/09/14 13:11	
Acenaphthylene	ug/L	ND	5.0	12/09/14 13:11	
Aniline	ug/L	ND	20.0	12/09/14 13:11	N2
Anthracene	ug/L	ND	5.0	12/09/14 13:11	
Benzidine	ug/L	ND	50.0	12/09/14 13:11	
Benzo(a)anthracene	ug/L	ND	5.0	12/09/14 13:11	
Benzo(a)pyrene	ug/L	ND	5.0	12/09/14 13:11	
Benzo(b)fluoranthene	ug/L	ND	5.0	12/09/14 13:11	
Benzo(g,h,i)perylene	ug/L	ND	5.0	12/09/14 13:11	
Benzo(k)fluoranthene	ug/L	ND	5.0	12/09/14 13:11	
bis(2-Chloroethoxy)methane	ug/L	ND	5.0	12/09/14 13:11	
bis(2-Chloroethyl) ether	ug/L	ND	6.0	12/09/14 13:11	
bis(2-Chloroisopropyl) ether	ug/L	ND	6.0	12/09/14 13:11	
bis(2-Ethylhexyl)phthalate	ug/L	ND	5.0	12/09/14 13:11	
Butylbenzylphthalate	ug/L	ND	5.0	12/09/14 13:11	
Chrysene	ug/L	ND	5.0	12/09/14 13:11	
Di-n-butylphthalate	ug/L	ND	5.0	12/09/14 13:11	
Di-n-octylphthalate	ug/L	ND	5.0	12/09/14 13:11	
Dibenz(a,h)anthracene	ug/L	ND	5.0	12/09/14 13:11	
Diethylphthalate	ug/L	ND	5.0	12/09/14 13:11	
Dimethylphthalate	ug/L	ND	5.0	12/09/14 13:11	
Fluoranthene	ug/L	ND	5.0	12/09/14 13:11	
Fluorene	ug/L	ND	5.0	12/09/14 13:11	
Hexachloro-1,3-butadiene	ug/L	ND	5.0	12/09/14 13:11	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

METHOD BLANK: 1489097 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachlorobenzene	ug/L	ND	5.0	12/09/14 13:11	
Hexachlorocyclopentadiene	ug/L	ND	5.0	12/09/14 13:11	
Hexachloroethane	ug/L	ND	5.0	12/09/14 13:11	
Indeno(1,2,3-cd)pyrene	ug/L	ND	5.0	12/09/14 13:11	
Isophorone	ug/L	ND	5.0	12/09/14 13:11	
N-Nitroso-di-n-propylamine	ug/L	ND	5.0	12/09/14 13:11	
N-Nitrosodimethylamine	ug/L	ND	5.0	12/09/14 13:11	
N-Nitrosodiphenylamine	ug/L	ND	5.0	12/09/14 13:11	
Naphthalene	ug/L	ND	5.0	12/09/14 13:11	
Nitrobenzene	ug/L	ND	5.0	12/09/14 13:11	
Pentachlorophenol	ug/L	ND	5.0	12/09/14 13:11	
Phenanthrene	ug/L	ND	5.0	12/09/14 13:11	
Phenol	ug/L	ND	5.0	12/09/14 13:11	
Pyrene	ug/L	ND	5.0	12/09/14 13:11	
2,4,6-Tribromophenol (S)	%	84	39-120	12/09/14 13:11	
2-Fluorobiphenyl (S)	%	70	39-120	12/09/14 13:11	
2-Fluorophenol (S)	%	30	17-120	12/09/14 13:11	
Nitrobenzene-d5 (S)	%	67	33-120	12/09/14 13:11	
Phenol-d6 (S)	%	21	11-120	12/09/14 13:11	
Terphenyl-d14 (S)	%	81	45-120	12/09/14 13:11	

LABORATORY CONTROL SAMPLE: 1489098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	36.4	73	46-120	
1,2-Diphenylhydrazine	ug/L	50	42.9	86	57-120	
2,4,6-Trichlorophenol	ug/L	50	36.6	73	49-120	
2,4-Dichlorophenol	ug/L	50	35.0	70	48-120	
2,4-Dimethylphenol	ug/L	50	31.1	62	36-119	
2,4-Dinitrophenol	ug/L	50	33.2J	66	23-126	
2,4-Dinitrotoluene	ug/L	50	41.8	84	51-120	
2,6-Dinitrotoluene	ug/L	50	40.6	81	51-120	
2-Chloronaphthalene	ug/L	50	38.7	77	60-118	
2-Chlorophenol	ug/L	50	29.9	60	47-120	
2-Nitrophenol	ug/L	50	37.3	75	46-120	
3,3'-Dichlorobenzidine	ug/L	50	87.0	174	31-160 LO	
4,6-Dinitro-2-methylphenol	ug/L	50	40.0	80	40-133	
4-Bromophenylphenyl ether	ug/L	50	41.4	83	53-120	
4-Chloro-3-methylphenol	ug/L	50	37.2	74	50-120	
4-Chlorophenylphenyl ether	ug/L	50	40.4	81	51-120	
4-Nitrophenol	ug/L	50	14.4	29	11-120	
Acenaphthene	ug/L	50	39.3	79	51-120	
Acenaphthylene	ug/L	50	39.5	79	49-120	
Aniline	ug/L	50	51.2	102	16-142 N2	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

LABORATORY CONTROL SAMPLE: 1489098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Anthracene	ug/L	50	42.2	84	53-120	
Benztidine	ug/L	50	44.5J	89	1-120	
Benzo(a)anthracene	ug/L	50	42.6	85	54-120	
Benzo(a)pyrene	ug/L	50	43.3	87	51-120	
Benzo(b)fluoranthene	ug/L	50	49.3	99	54-120	
Benzo(g,h,i)perylene	ug/L	50	41.3	83	53-120	
Benzo(k)fluoranthene	ug/L	50	39.1	78	52-120	
bis(2-Chloroethoxy)methane	ug/L	50	39.1	78	50-120	
bis(2-Chloroethyl) ether	ug/L	50	36.2	72	48-120	
bis(2-Chloroisopropyl) ether	ug/L	50	37.6	75	48-120	
bis(2-Ethylhexyl)phthalate	ug/L	50	41.2	82	49-127	
Butylbenzylphthalate	ug/L	50	41.9	84	52-120	
Chrysene	ug/L	50	42.2	84	54-120	
Di-n-butylphthalate	ug/L	50	42.5	85	54-118	
Di-n-octylphthalate	ug/L	50	43.2	86	51-122	
Dibenz(a,h)anthracene	ug/L	50	41.3	83	52-120	
Diethylphthalate	ug/L	50	42.0	84	53-114	
Dimethylphthalate	ug/L	50	40.4	81	52-112	
Fluoranthene	ug/L	50	42.4	85	53-120	
Fluorene	ug/L	50	41.3	83	59-120	
Hexachloro-1,3-butadiene	ug/L	50	34.6	69	44-116	
Hexachlorobenzene	ug/L	50	41.6	83	51-120	
Hexachlorocyclopentadiene	ug/L	100	36.0	36	24-120	
Hexachloroethane	ug/L	50	32.6	65	43-113	
Indeno(1,2,3-cd)pyrene	ug/L	50	41.2	82	52-120	
Isophorone	ug/L	50	40.7	81	50-120	
N-Nitroso-di-n-propylamine	ug/L	50	41.0	82	49-120	
N-Nitrosodimethylamine	ug/L	50	17.4	35	28-120	
N-Nitrosodiphenylamine	ug/L	50	41.6	83	51-120	
Naphthalene	ug/L	50	37.1	74	48-120	
Nitrobenzene	ug/L	50	38.7	77	48-120	
Pentachlorophenol	ug/L	50	38.6	77	47-120	
Phenanthrene	ug/L	50	42.1	84	54-120	
Phenol	ug/L	50	12.5	25	16-112	
Pyrene	ug/L	50	43.1	86	56-115	
2,4,6-Tribromophenol (S)	%			83	39-120	
2-Fluorobiphenyl (S)	%			79	39-120	
2-Fluorophenol (S)	%			34	17-120	
Nitrobenzene-d5 (S)	%			76	33-120	
Phenol-d6 (S)	%			24	11-120	
Terphenyl-d14 (S)	%			86	45-120	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

MATRIX SPIKE SAMPLE:	1489099		60183697001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers	
1,2,4-Trichlorobenzene	ug/L	ND	50	30.8	62	44-120		
1,2-Diphenylhydrazine	ug/L	ND	50	34.6	69	42-120		
2,4,6-Trichlorophenol	ug/L	ND	50	32.8	66	50-120		
2,4-Dichlorophenol	ug/L	ND	50	30.6	61	45-120		
2,4-Dimethylphenol	ug/L	ND	50	31.0	62	32-119		
2,4-Dinitrophenol	ug/L	ND	50	32.6J	65	10-150		
2,4-Dinitrotoluene	ug/L	ND	50	37.0	74	46-122		
2,6-Dinitrotoluene	ug/L	ND	50	37.9	76	50-120		
2-Chloronaphthalene	ug/L	ND	50	33.4	67	60-118		
2-Chlorophenol	ug/L	ND	50	25.8	52	45-120		
2-Nitrophenol	ug/L	ND	50	30.8	62	29-133		
3,3'-Dichlorobenzidine	ug/L	ND	50	49.7	99	10-160		
4,6-Dinitro-2-methylphenol	ug/L	ND	50	35.9	72	10-160		
4-Bromophenylphenyl ether	ug/L	ND	50	36.1	72	53-120		
4-Chloro-3-methylphenol	ug/L	ND	50	32.4	65	43-120		
4-Chlorophenylphenyl ether	ug/L	ND	50	35.0	70	49-120		
4-Nitrophenol	ug/L	ND	50	15.5	31	10-120		
Acenaphthene	ug/L	ND	50	34.4	69	48-120		
Acenaphthylene	ug/L	ND	50	34.2	68	46-120		
Aniline	ug/L	ND	50	20.2	40	16-142 N2		
Anthracene	ug/L	ND	50	37.0	74	51-120		
Benzidine	ug/L	ND	50	ND	0	1-120 M1		
Benzo(a)anthracene	ug/L	ND	50	36.6	73	52-120		
Benzo(a)pyrene	ug/L	ND	50	37.2	74	48-120		
Benzo(b)fluoranthene	ug/L	ND	50	39.5	79	50-120		
Benzo(g,h,i)perylene	ug/L	ND	50	36.7	73	51-120		
Benzo(k)fluoranthene	ug/L	ND	50	36.9	74	50-120		
bis(2-Chloroethoxy)methane	ug/L	ND	50	32.7	65	45-120		
bis(2-Chloroethyl) ether	ug/L	ND	50	31.7	63	44-120		
bis(2-Chloroisopropyl) ether	ug/L	ND	50	31.9	64	46-120		
bis(2-Ethylhexyl)phthalate	ug/L	7.8	50	43.7	72	46-131		
Butylbenzylphthalate	ug/L	ND	50	37.5	75	51-129		
Chrysene	ug/L	ND	50	37.4	75	52-120		
Di-n-butylphthalate	ug/L	ND	50	37.3	75	53-118		
Di-n-octylphthalate	ug/L	ND	50	38.4	77	52-133		
Dibenz(a,h)anthracene	ug/L	ND	50	36.6	73	51-120		
Diethylphthalate	ug/L	ND	50	37.1	74	52-114		
Dimethylphthalate	ug/L	ND	50	36.1	72	51-112		
Fluoranthene	ug/L	ND	50	37.9	76	53-120		
Fluorene	ug/L	ND	50	35.8	72	50-120		
Hexachloro-1,3-butadiene	ug/L	ND	50	29.7	59	39-116		
Hexachlorobenzene	ug/L	ND	50	35.5	71	51-120		
Hexachlorocyclopentadiene	ug/L	ND	100	32.2	32	11-120		
Hexachloroethane	ug/L	ND	50	29.1	58	40-113		
Indeno(1,2,3-cd)pyrene	ug/L	ND	50	36.7	73	50-120		
Isophorone	ug/L	ND	50	33.6	67	44-120		
N-Nitroso-di-n-propylamine	ug/L	ND	50	34.5	69	41-120		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing

Pace Project No.: 60183697

MATRIX SPIKE SAMPLE:		1489099		60183697001		Spike	MS	MS	% Rec	Qualifiers
Parameter	Units	Result	Conc.	Result	% Rec	Limits				
N-Nitrosodimethylamine	ug/L	ND	50	18.2	36	16-120				
N-Nitrosodiphenylamine	ug/L	ND	50	36.8	74	43-120				
Naphthalene	ug/L	ND	50	31.4	63	45-120				
Nitrobenzene	ug/L	ND	50	32.4	65	38-120				
Pentachlorophenol	ug/L	ND	50	36.5	73	43-135				
Phenanthrene	ug/L	ND	50	36.2	72	54-120				
Phenol	ug/L	ND	50	12.3	25	13-112				
Pyrene	ug/L	ND	50	38.0	76	53-115				
2,4,6-Tribromophenol (S)	%				75	39-120				
2-Fluorobiphenyl (S)	%				68	39-120				
2-Fluorophenol (S)	%				32	17-120				
Nitrobenzene-d5 (S)	%				65	33-120				
Phenol-d6 (S)	%				24	11-120				
Terphenyl-d14 (S)	%				75	45-120				

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QUALITY CONTROL DATA

Project: Effluent Testing
 Pace Project No.: 60183697

QC Batch: WETA/32119 Analysis Method: EPA 420.1
 QC Batch Method: EPA 420.1 Analysis Description: 420.1 Phenolics Macro
 Associated Lab Samples: 60183697001

METHOD BLANK: 1491476 Matrix: Water
 Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	0.050	12/10/14 14:59	

LABORATORY CONTROL SAMPLE: 1491477

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	.5	0.54	107	90-110	

MATRIX SPIKE SAMPLE: 1491478

Parameter	Units	60183593001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	.5	0.52	94	90-110	

MATRIX SPIKE SAMPLE: 1491479

Parameter	Units	60183595001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	.5	0.50	96	90-110	

SAMPLE DUPLICATE: 1491480

Parameter	Units	60183607002 Result	Dup Result	RPD	Max RPD	Qualifiers
Phenolics, Total Recoverable	mg/L	<0.050	ND		20	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

QC Batch: WETA/32096 Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 60183697001

METHOD BLANK: 1490637 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	12/09/14 15:59	

LABORATORY CONTROL SAMPLE: 1490638

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.090	90	69-126	

MATRIX SPIKE SAMPLE: 1490639

Parameter	Units	60183631002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	.1	0.095	95	41-136	

SAMPLE DUPLICATE: 1490640

Parameter	Units	60183697001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	ND	ND		26	

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QUALIFIERS

Project: Effluent Testing
Pace Project No.: 60183697

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-K Pace Analytical Services - Kansas City

ANALYTE QUALIFIERS

L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

N2 The lab does not hold TNI accreditation for this parameter.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Effluent Testing
Pace Project No.: 60183697

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60183697001	OUTFALL 1	EPA 200.7	MPRP/30043	EPA 200.7	ICP/22478
60183697001	OUTFALL 1	EPA 245.1	MERP/9119	EPA 245.1	MERC/9072
60183697001	OUTFALL 1	EPA 625	OEXT/47391	EPA 625	MSSV/15298
60183697001	OUTFALL 1	EPA 624 Low	MSV/66174		
60183697001	OUTFALL 1	EPA 420.1	WETA/32119		
60183697001	OUTFALL 1	SM 4500-CN-E	WETA/32096		

REPORT OF LABORATORY ANALYSIS

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WO#: 60183697

60183697

Client Name: Platte City

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____ Pace Shipping Label Used? Yes No

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No

Packing Material: Bubble Wrap Bubble Bags Foam None Other 2P1C

Thermometer Used: T-230 / T-194 Type of Ice: Wet Blue None Samples received on ice, cooling process has begun. (circle one)

Cooler Temperature: 1.7

Optional
Proj Due Date:
Proj Name:

Date and initials of person examining contents: _____

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Includes date/time/ID/analyses Matrix: <u>WT</u>		13.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers needing preservation are found to be in compliance with EPA recommendation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Exceptions: <u>VOA</u> coliform, TOC, <u>CSG</u> , WI-DRO (water), Phenolics <u>P-12/13/14</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
Trip Blank present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased): <u>COVER</u>		15.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17. List State:

Client Notification/ Resolution: Copy COC to Client? Y / (N) Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature] Date: 12.4.14

October 05, 2012

Mr. Daniel Stamper
City of Platte City
400 Main St
Platte City, MO 64079

2012 Permit Renewal

RE: Project: Effluent Testing
Pace Project No.: 60130021

Dear Mr. Stamper:

Enclosed are the analytical results for sample(s) received by the laboratory on September 28, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Trudy Gipson

Trudy Gipson

trudy.gipson@pacelabs.com
Project Manager

Enclosures

cc: Ms. Sharon Anderson, City of Platte City



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Effluent Testing
Pace Project No.: 60130021

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 12-019-0
Illinois Certification #: 002885
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-12-3
Utah Certification #: KS000212012-2

SAMPLE SUMMARY

Project: Effluent Testing
Pace Project No.: 60130021

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60130021001	OUTFALL 1	Water	09/28/12 11:44	09/28/12 13:18
60130021002	TRIP BLANK	Water	09/28/12 00:00	09/28/12 13:18

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Effluent Testing
Pace Project No.: 60130021

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60130021001	OUTFALL 1	EPA 200.7	JGP, SMW	15
		EPA 245.1	TDS	1
		EPA 625	JMT	60
		EPA 624 Low	RNS	40
		EPA 420.1	OL	1
		SM 4500-CN-E	OL	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Effluent Testing
Pace Project No.: 60130021

Sample: **OUTFALL 1** Lab ID: 60130021001 Collected: 09/28/12 11:44 Received: 09/28/12 13:18 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total Analytical Method: EPA 200.7 Preparation Method: EPA 200.7								
Antimony	ND	ug/L	10.0	1	10/02/12 10:30	10/04/12 20:27	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/02/12 10:30	10/04/12 20:27	7440-38-2	
Beryllium	ND	ug/L	1.0	1	10/02/12 10:30	10/04/12 20:27	7440-41-7	
Cadmium	ND	ug/L	5.0	1	10/02/12 10:30	10/04/12 20:27	7440-43-9	
Calcium	39800	ug/L	100	1	10/02/12 10:30	10/04/12 20:27	7440-70-2	
Chromium	ND	ug/L	5.0	1	10/02/12 10:30	10/04/12 20:27	7440-47-3	
Copper	ND	ug/L	10.0	1	10/02/12 10:30	10/04/12 20:27	7440-50-8	
Lead	ND	ug/L	5.0	1	10/02/12 10:30	10/04/12 20:27	7439-92-1	
Magnesium	4740	ug/L	50.0	1	10/02/12 10:30	10/04/12 20:27	7439-95-4	
Nickel	ND	ug/L	5.0	1	10/02/12 10:30	10/04/12 20:27	7440-02-0	
Selenium	ND	ug/L	15.0	1	10/02/12 10:30	10/04/12 20:27	7782-49-2	
Silver	ND	ug/L	7.0	1	10/02/12 10:30	10/04/12 20:27	7440-22-4	
Thallium	ND	ug/L	20.0	1	10/02/12 10:30	10/04/12 20:27	7440-28-0	
Total Hardness by 2340B	119000	ug/L	500	1	10/02/12 10:30	10/04/12 20:27		
Zinc	ND	ug/L	50.0	1	10/02/12 10:30	10/05/12 14:20	7440-66-6	
245.1 Mercury Analytical Method: EPA 245.1 Preparation Method: EPA 245.1								
Mercury	ND	ug/L	0.20	1	10/01/12 13:00	10/02/12 10:05	7439-97-6	
625 MSSV Analytical Method: EPA 625 Preparation Method: EPA 625								
Acenaphthene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	83-32-9	
Acenaphthylene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	208-96-8	
Anthracene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	120-12-7	
Benzidine	ND	ug/L	50.0	1	10/03/12 00:00	10/04/12 20:12	92-87-5	
Benzo(a)anthracene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	56-55-3	
Benzo(a)pyrene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	207-08-9	
4-Bromophenylphenyl ether	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	101-55-3	
Butylbenzylphthalate	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	59-50-7	
bis(2-Chloroethoxy)methane	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	6.0	1	10/03/12 00:00	10/04/12 20:12	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	6.0	1	10/03/12 00:00	10/04/12 20:12	39638-32-9	
2-Chloronaphthalene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	91-58-7	
2-Chlorophenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	7005-72-3	
Chrysene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	53-70-3	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	1	10/03/12 00:00	10/04/12 20:12	91-94-1	L3
2,4-Dichlorophenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	120-83-2	
Diethylphthalate	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	84-66-2	
2,4-Dimethylphenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	105-67-9	
Dimethylphthalate	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	131-11-3	
Di-n-butylphthalate	27.9	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	84-74-2	1e,B,L1

ANALYTICAL RESULTS

Project: Effluent Testing
Pace Project No.: 60130021

Sample: **OUTFALL 1** Lab ID: 60130021001 Collected: 09/28/12 11:44 Received: 09/28/12 13:18 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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625 MSSV

Analytical Method: EPA 625 Preparation Method: EPA 625

4,6-Dinitro-2-methylphenol	ND ug/L		25.0	1	10/03/12 00:00	10/04/12 20:12	534-52-1	
2,4-Dinitrophenol	ND ug/L		50.0	1	10/03/12 00:00	10/04/12 20:12	51-28-5	
2,4-Dinitrotoluene	ND ug/L		6.0	1	10/03/12 00:00	10/04/12 20:12	121-14-2	
2,6-Dinitrotoluene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	606-20-2	
Di-n-octylphthalate	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	117-84-0	
1,2-Diphenylhydrazine	ND ug/L		8.0	1	10/03/12 00:00	10/04/12 20:12	122-66-7	
bis(2-Ethylhexyl)phthalate	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	117-81-7	
Fluoranthene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	206-44-0	
Fluorene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	86-73-7	
Hexachloro-1,3-butadiene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	87-68-3	
Hexachlorobenzene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	118-74-1	
Hexachlorocyclopentadiene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	77-47-4	
Hexachloroethane	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	193-39-5	
Isophorone	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	78-59-1	
Naphthalene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	91-20-3	
Nitrobenzene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	98-95-3	
2-Nitrophenol	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	88-75-5	
4-Nitrophenol	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	100-02-7	
N-Nitrosodimethylamine	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	621-64-7	
N-Nitrosodiphenylamine	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	86-30-6	
Pentachlorophenol	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	87-86-5	
Phenanthrene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	85-01-8	
Phenol	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	108-95-2	
Pyrene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	129-00-0	
1,2,4-Trichlorobenzene	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	120-82-1	
2,4,6-Trichlorophenol	ND ug/L		5.0	1	10/03/12 00:00	10/04/12 20:12	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	70 %		32-120	1	10/03/12 00:00	10/04/12 20:12	4165-60-0	
2-Fluorobiphenyl (S)	72 %		36-120	1	10/03/12 00:00	10/04/12 20:12	321-60-8	
Terphenyl-d14 (S)	92 %		44-120	1	10/03/12 00:00	10/04/12 20:12	1718-51-0	
Phenol-d6 (S)	28 %		12-120	1	10/03/12 00:00	10/04/12 20:12	13127-88-3	
2-Fluorophenol (S)	42 %		18-120	1	10/03/12 00:00	10/04/12 20:12	367-12-4	
2,4,6-Tribromophenol (S)	88 %		39-119	1	10/03/12 00:00	10/04/12 20:12	118-79-6	

624 Volatile Organics

Analytical Method: EPA 624 Low

Acrolein	ND ug/L		100	1		10/01/12 17:48	107-02-8	L3
Acrylonitrile	ND ug/L		20.0	1		10/01/12 17:48	107-13-1	
Benzene	ND ug/L		1.0	1		10/01/12 17:48	71-43-2	
Bromodichloromethane	ND ug/L		1.0	1		10/01/12 17:48	75-27-4	
Bromoform	ND ug/L		1.0	1		10/01/12 17:48	75-25-2	
Bromomethane	ND ug/L		5.0	1		10/01/12 17:48	74-83-9	
Carbon tetrachloride	ND ug/L		1.0	1		10/01/12 17:48	56-23-5	
Chlorobenzene	ND ug/L		1.0	1		10/01/12 17:48	108-90-7	
Chloroethane	ND ug/L		1.0	1		10/01/12 17:48	75-00-3	
2-Chloroethylvinyl ether	ND ug/L		10.0	1		10/01/12 17:48	110-75-8	L3

Date: 10/05/2012 04:55 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Effluent Testing
Pace Project No.: 60130021

Sample: OUTFALL 1	Lab ID: 60130021001	Collected: 09/28/12 11:44	Received: 09/28/12 13:18	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624 Volatile Organics		Analytical Method: EPA 624 Low						
Chloroform	ND	ug/L	1.0	1		10/01/12 17:48	67-66-3	
Chloromethane	ND	ug/L	1.0	1		10/01/12 17:48	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		10/01/12 17:48	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		10/01/12 17:48	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		10/01/12 17:48	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		10/01/12 17:48	106-46-7	
1,1-Dichloroethane	ND	ug/L	1.0	1		10/01/12 17:48	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		10/01/12 17:48	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		10/01/12 17:48	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/01/12 17:48	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/01/12 17:48	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	1		10/01/12 17:48	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		10/01/12 17:48	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		10/01/12 17:48	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	1		10/01/12 17:48	100-41-4	
Methylene chloride	ND	ug/L	1.0	1		10/01/12 17:48	75-09-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/01/12 17:48	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/01/12 17:48	127-18-4	
Toluene	ND	ug/L	1.0	1		10/01/12 17:48	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/01/12 17:48	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/01/12 17:48	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/01/12 17:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		10/01/12 17:48	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		10/01/12 17:48	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		10/01/12 17:48	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	97 %		80-120	1		10/01/12 17:48	1868-53-7	
4-Bromofluorobenzene (S)	99 %		80-120	1		10/01/12 17:48	460-00-4	
Toluene-d8 (S)	95 %		80-120	1		10/01/12 17:48	2037-26-5	
1,2-Dichloroethane-d4 (S)	99 %		80-120	1		10/01/12 17:48	17060-07-0	
Preservation pH	7.0		1.0	1		10/01/12 17:48		
Phenolics, Total Recoverable		Analytical Method: EPA 420.1						
Phenolics, Total Recoverable	ND	mg/L	0.050	1		10/04/12 11:03		
4500CNE Cyanide, Total		Analytical Method: SM 4500-CN-E						
Cyanide	0.0057	mg/L	0.0050	1		10/01/12 13:14	57-12-5	

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

QC Batch: MERP/6674 Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury
Associated Lab Samples: 60130021001

METHOD BLANK: 1070829 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	10/02/12 10:01	

LABORATORY CONTROL SAMPLE: 1070830

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.3	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1070831 1070832

Parameter	Units	60130021001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Mercury	ug/L	ND	5	5	5.3	5.1	106	103	70-130	3	20

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

QC Batch: MPRP/19734 Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 60130021001

METHOD BLANK: 1071178 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	10.0	10/04/12 20:24	
Arsenic	ug/L	ND	10.0	10/04/12 20:24	
Beryllium	ug/L	ND	1.0	10/04/12 20:24	
Cadmium	ug/L	ND	5.0	10/04/12 20:24	
Calcium	ug/L	ND	100	10/04/12 20:24	
Chromium	ug/L	ND	5.0	10/04/12 20:24	
Copper	ug/L	ND	10.0	10/04/12 20:24	
Lead	ug/L	ND	5.0	10/04/12 20:24	
Magnesium	ug/L	ND	50.0	10/04/12 20:24	
Nickel	ug/L	ND	5.0	10/04/12 20:24	
Selenium	ug/L	ND	15.0	10/04/12 20:24	
Silver	ug/L	ND	7.0	10/04/12 20:24	
Thallium	ug/L	ND	20.0	10/04/12 20:24	
Total Hardness by 2340B	ug/L	ND	500	10/04/12 20:24	
Zinc	ug/L	ND	50.0	10/05/12 14:16	

LABORATORY CONTROL SAMPLE: 1071179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	1000	978	98	85-115	
Arsenic	ug/L	1000	980	98	85-115	
Beryllium	ug/L	1000	944	94	85-115	
Cadmium	ug/L	1000	975	98	85-115	
Calcium	ug/L	10000	9420	94	85-115	
Chromium	ug/L	1000	1030	103	85-115	
Copper	ug/L	1000	972	97	85-115	
Lead	ug/L	1000	1050	105	85-115	
Magnesium	ug/L	10000	10400	104	85-115	
Nickel	ug/L	1000	1020	102	85-115	
Selenium	ug/L	1000	952	95	85-115	
Silver	ug/L	500	499	100	85-115	
Thallium	ug/L	1000	1000	100	85-115	
Total Hardness by 2340B	ug/L		66500			
Zinc	ug/L	1000	970	97	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1071180 1071181

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		60130021001 Result	Spike Conc.	Spike Conc.	MS Result					
Antimony	ug/L	ND	1000	1000	981	969	98	97	70-130	1 7

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

Parameter	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1071180		1071181		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
	Units	60130021001 Result	MS Spike Conc.	MSD Spike Conc.							
Arsenic	ug/L	ND	1000	1000	1000	993	100	99	70-130	1	10
Beryllium	ug/L	ND	1000	1000	943	932	94	93	70-130	1	7
Cadmium	ug/L	ND	1000	1000	982	968	98	97	70-130	1	10
Calcium	ug/L	39800	10000	10000	49200	49000	94	91	70-130	1	9
Chromium	ug/L	ND	1000	1000	1020	1010	102	101	70-130	1	10
Copper	ug/L	ND	1000	1000	973	954	97	95	70-130	2	11
Lead	ug/L	ND	1000	1000	1020	1010	102	101	70-130	1	10
Magnesium	ug/L	4740	10000	10000	15000	14800	102	101	70-130	1	9
Nickel	ug/L	ND	1000	1000	1010	992	100	99	70-130	1	10
Selenium	ug/L	ND	1000	1000	959	954	96	95	70-130	1	10
Silver	ug/L	ND	500	500	507	497	101	99	70-130	2	10
Thallium	ug/L	ND	1000	1000	958	947	96	95	70-130	1	6
Total Hardness by 2340B	ug/L	119000			185000	183000				1	
Zinc	ug/L	ND	1000	1000	1020	1000	97	96	70-130	2	11

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

QC Batch: MSV/48886 Analysis Method: EPA 624 Low
QC Batch Method: EPA 624 Low Analysis Description: 624 MSV
Associated Lab Samples: 60130021001

METHOD BLANK: 1070835 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/01/12 15:33	
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	10/01/12 15:33	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/01/12 15:33	
1,1-Dichloroethane	ug/L	ND	1.0	10/01/12 15:33	
1,1-Dichloroethene	ug/L	ND	1.0	10/01/12 15:33	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/01/12 15:33	
1,2-Dichloroethane	ug/L	ND	1.0	10/01/12 15:33	
1,2-Dichloropropane	ug/L	ND	1.0	10/01/12 15:33	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/01/12 15:33	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/01/12 15:33	
2-Chloroethylvinyl ether	ug/L	ND	10.0	10/01/12 15:33	
Acrolein	ug/L	ND	100	10/01/12 15:33	
Acrylonitrile	ug/L	ND	20.0	10/01/12 15:33	
Benzene	ug/L	ND	1.0	10/01/12 15:33	
Bromodichloromethane	ug/L	ND	1.0	10/01/12 15:33	
Bromoform	ug/L	ND	1.0	10/01/12 15:33	
Bromomethane	ug/L	ND	5.0	10/01/12 15:33	
Carbon tetrachloride	ug/L	ND	1.0	10/01/12 15:33	
Chlorobenzene	ug/L	ND	1.0	10/01/12 15:33	
Chloroethane	ug/L	ND	1.0	10/01/12 15:33	
Chloroform	ug/L	ND	1.0	10/01/12 15:33	
Chloromethane	ug/L	ND	1.0	10/01/12 15:33	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/01/12 15:33	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/01/12 15:33	
Dibromochloromethane	ug/L	ND	1.0	10/01/12 15:33	
Ethylbenzene	ug/L	ND	1.0	10/01/12 15:33	
Methylene chloride	ug/L	ND	1.0	10/01/12 15:33	
Tetrachloroethene	ug/L	ND	1.0	10/01/12 15:33	
Toluene	ug/L	ND	1.0	10/01/12 15:33	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/01/12 15:33	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/01/12 15:33	
Trichloroethene	ug/L	ND	1.0	10/01/12 15:33	
Trichlorofluoromethane	ug/L	ND	1.0	10/01/12 15:33	
Vinyl chloride	ug/L	ND	1.0	10/01/12 15:33	
Xylene (Total)	ug/L	ND	3.0	10/01/12 15:33	
1,2-Dichloroethane-d4 (S)	%	101	80-120	10/01/12 15:33	
4-Bromofluorobenzene (S)	%	105	80-120	10/01/12 15:33	
Dibromofluoromethane (S)	%	99	80-120	10/01/12 15:33	
Toluene-d8 (S)	%	98	80-120	10/01/12 15:33	

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

LABORATORY CONTROL SAMPLE: 1070836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	23.8	119	71-131	
1,1,2,2-Tetrachloroethane	ug/L	20	20.6	103	58-120	
1,1,2-Trichloroethane	ug/L	20	22.0	110	63-120	
1,1-Dichloroethane	ug/L	20	21.5	108	69-120	
1,1-Dichloroethene	ug/L	20	24.4	122	60-144	
1,2-Dichlorobenzene	ug/L	20	20.1	101	61-124	
1,2-Dichloroethane	ug/L	20	22.7	113	68-124	
1,2-Dichloropropane	ug/L	20	24.2	121	66-126	
1,3-Dichlorobenzene	ug/L	20	21.1	105	59-121	
1,4-Dichlorobenzene	ug/L	20	20.3	102	61-120	
2-Chloroethylvinyl ether	ug/L	20	25.7	129	49-121	LO
Acrolein	ug/L	200	6550	3277	88-118	LO
Acrylonitrile	ug/L	200	220	110	71-135	
Benzene	ug/L	20	22.5	112	66-126	
Bromodichloromethane	ug/L	20	21.9	109	62-120	
Bromoform	ug/L	20	18.8	94	58-125	
Bromomethane	ug/L	20	19.8	99	10-160	
Carbon tetrachloride	ug/L	20	24.8	124	74-137	
Chlorobenzene	ug/L	20	22.4	112	62-120	
Chloroethane	ug/L	20	20.5	102	34-160	
Chloroform	ug/L	20	22.1	111	63-120	
Chloromethane	ug/L	20	16.6	83	10-160	
cis-1,2-Dichloroethene	ug/L	20	22.2	111	69-120	
cis-1,3-Dichloropropene	ug/L	20	22.7	114	65-120	
Dibromochloromethane	ug/L	20	22.9	114	62-125	
Ethylbenzene	ug/L	20	21.9	109	65-122	
Methylene chloride	ug/L	20	18.3	91	62-135	
Tetrachloroethene	ug/L	20	23.5	117	67-130	
Toluene	ug/L	20	22.3	111	59-127	
trans-1,2-Dichloroethene	ug/L	20	22.9	115	72-147	
trans-1,3-Dichloropropene	ug/L	20	25.4	127	63-127	
Trichloroethene	ug/L	20	23.5	117	71-129	
Trichlorofluoromethane	ug/L	20	27.3	136	63-149	
Vinyl chloride	ug/L	20	26.1	130	39-160	
Xylene (Total)	ug/L	60	64.7	108	62-121	
1,2-Dichloroethane-d4 (S)	%			95	80-120	
4-Bromofluorobenzene (S)	%			98	80-120	
Dibromofluoromethane (S)	%			97	80-120	
Toluene-d8 (S)	%			97	80-120	

MATRIX SPIKE SAMPLE: 1070837

Parameter	Units	60129812001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	20	23.0	115	52-159	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	17.3	87	46-137	
1,1,2-Trichloroethane	ug/L	ND	20	19.8	99	52-129	
1,1-Dichloroethane	ug/L	ND	20	20.5	103	59-151	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

MATRIX SPIKE SAMPLE:		1070837						
Parameter	Units	60129812001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers	
1,1-Dichloroethene	ug/L	ND	20	24.3	121	38-160		
1,2-Dichlorobenzene	ug/L	ND	20	15.7	78	26-138		
1,2-Dichloroethane	ug/L	ND	20	19.3	97	49-137		
1,2-Dichloropropane	ug/L	ND	20	20.7	103	39-141		
1,3-Dichlorobenzene	ug/L	ND	20	15.5	77	59-136		
1,4-Dichlorobenzene	ug/L	ND	20	15.8	79	28-131		
2-Chloroethylvinyl ether	ug/L	ND	20	22.9	115	10-160		
Acrolein	ug/L	ND	200	179	90	88-118		
Acrylonitrile	ug/L	ND	200	200	100	71-135		
Benzene	ug/L	ND	20	20.2	101	37-149		
Bromodichloromethane	ug/L	ND	20	18.9	95	39-132		
Bromoform	ug/L	ND	20	16.0	80	45-144		
Bromomethane	ug/L	ND	20	20.3	101	10-160		
Carbon tetrachloride	ug/L	ND	20	23.7	118	70-140		
Chlorobenzene	ug/L	ND	20	18.9	95	37-135		
Chloroethane	ug/L	ND	20	20.3	101	14-160		
Chloroform	ug/L	ND	20	19.7	99	51-138		
Chloromethane	ug/L	ND	20	13.7	68	10-160		
cis-1,2-Dichloroethene	ug/L	ND	20	21.3	106	43-136		
cis-1,3-Dichloropropene	ug/L	ND	20	19.8	99	34-134		
Dibromochloromethane	ug/L	ND	20	20.2	101	53-146		
Ethylbenzene	ug/L	ND	20	19.7	98	37-145		
Methylene chloride	ug/L	ND	20	16.8	84	31-152		
Tetrachloroethene	ug/L	ND	20	20.7	104	64-148		
Toluene	ug/L	ND	20	19.5	97	47-139		
trans-1,2-Dichloroethene	ug/L	ND	20	22.0	110	54-156		
trans-1,3-Dichloropropene	ug/L	ND	20	22.2	111	32-141		
Trichloroethene	ug/L	ND	20	20.9	105	71-148		
Trichlorofluoromethane	ug/L	ND	20	27.1	136	32-160		
Vinyl chloride	ug/L	ND	20	24.0	120	10-160		
Xylene (Total)	ug/L	ND	60	56.3	94	40-138		
1,2-Dichloroethane-d4 (S)	%				99	80-120		
4-Bromofluorobenzene (S)	%				99	80-120		
Dibromofluoromethane (S)	%				100	80-120		
Toluene-d8 (S)	%				99	80-120		
Preservation pH			7.0		7.0			

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

QC Batch: OEXT/35314 Analysis Method: EPA 625
QC Batch Method: EPA 625 Analysis Description: 625 MSS
Associated Lab Samples: 60130021001

METHOD BLANK: 1071874 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	5.0	10/04/12 19:31	
1,2-Diphenylhydrazine	ug/L	ND	8.0	10/04/12 19:31	
2,4,6-Trichlorophenol	ug/L	ND	5.0	10/04/12 19:31	
2,4-Dichlorophenol	ug/L	ND	5.0	10/04/12 19:31	
2,4-Dimethylphenol	ug/L	ND	5.0	10/04/12 19:31	
2,4-Dinitrophenol	ug/L	ND	50.0	10/04/12 19:31	
2,4-Dinitrotoluene	ug/L	ND	6.0	10/04/12 19:31	
2,6-Dinitrotoluene	ug/L	ND	5.0	10/04/12 19:31	
2-Chloronaphthalene	ug/L	ND	5.0	10/04/12 19:31	
2-Chlorophenol	ug/L	ND	5.0	10/04/12 19:31	
2-Nitrophenol	ug/L	ND	5.0	10/04/12 19:31	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	10/04/12 19:31	
4,6-Dinitro-2-methylphenol	ug/L	ND	25.0	10/04/12 19:31	
4-Bromophenylphenyl ether	ug/L	ND	5.0	10/04/12 19:31	
4-Chloro-3-methylphenol	ug/L	ND	5.0	10/04/12 19:31	
4-Chlorophenylphenyl ether	ug/L	ND	5.0	10/04/12 19:31	
4-Nitrophenol	ug/L	ND	5.0	10/04/12 19:31	
Acenaphthene	ug/L	ND	5.0	10/04/12 19:31	
Acenaphthylene	ug/L	ND	5.0	10/04/12 19:31	
Anthracene	ug/L	ND	5.0	10/04/12 19:31	
Benzidine	ug/L	ND	50.0	10/04/12 19:31	
Benzo(a)anthracene	ug/L	ND	5.0	10/04/12 19:31	
Benzo(a)pyrene	ug/L	ND	5.0	10/04/12 19:31	
Benzo(b)fluoranthene	ug/L	ND	5.0	10/04/12 19:31	
Benzo(g,h,i)perylene	ug/L	ND	5.0	10/04/12 19:31	
Benzo(k)fluoranthene	ug/L	ND	5.0	10/04/12 19:31	
bis(2-Chloroethoxy)methane	ug/L	ND	5.0	10/04/12 19:31	
bis(2-Chloroethyl) ether	ug/L	ND	6.0	10/04/12 19:31	
bis(2-Chloroisopropyl) ether	ug/L	ND	6.0	10/04/12 19:31	
bis(2-Ethylhexyl)phthalate	ug/L	ND	5.0	10/04/12 19:31	
Butylbenzylphthalate	ug/L	ND	5.0	10/04/12 19:31	
Chrysene	ug/L	ND	5.0	10/04/12 19:31	
Di-n-butylphthalate	ug/L	8.1	5.0	10/04/12 19:31	
Di-n-octylphthalate	ug/L	ND	5.0	10/04/12 19:31	
Dibenz(a,h)anthracene	ug/L	ND	5.0	10/04/12 19:31	
Diethylphthalate	ug/L	ND	5.0	10/04/12 19:31	
Dimethylphthalate	ug/L	ND	5.0	10/04/12 19:31	
Fluoranthene	ug/L	ND	5.0	10/04/12 19:31	
Fluorene	ug/L	ND	5.0	10/04/12 19:31	
Hexachloro-1,3-butadiene	ug/L	ND	5.0	10/04/12 19:31	
Hexachlorobenzene	ug/L	ND	5.0	10/04/12 19:31	
Hexachlorocyclopentadiene	ug/L	ND	5.0	10/04/12 19:31	
Hexachloroethane	ug/L	ND	5.0	10/04/12 19:31	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

METHOD BLANK: 1071874 Matrix: Water

Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Indeno(1,2,3-cd)pyrene	ug/L	ND	5.0	10/04/12 19:31	
Isophorone	ug/L	ND	5.0	10/04/12 19:31	
N-Nitroso-di-n-propylamine	ug/L	ND	5.0	10/04/12 19:31	
N-Nitrosodimethylamine	ug/L	ND	5.0	10/04/12 19:31	
N-Nitrosodiphenylamine	ug/L	ND	5.0	10/04/12 19:31	
Naphthalene	ug/L	ND	5.0	10/04/12 19:31	
Nitrobenzene	ug/L	ND	5.0	10/04/12 19:31	
Pentachlorophenol	ug/L	ND	5.0	10/04/12 19:31	
Phenanthrene	ug/L	ND	5.0	10/04/12 19:31	
Phenol	ug/L	ND	5.0	10/04/12 19:31	
Pyrene	ug/L	ND	5.0	10/04/12 19:31	
2,4,6-Tribromophenol (S)	%	87	39-119	10/04/12 19:31	
2-Fluorobiphenyl (S)	%	78	36-120	10/04/12 19:31	
2-Fluorophenol (S)	%	43	18-120	10/04/12 19:31	
Nitrobenzene-d5 (S)	%	79	32-120	10/04/12 19:31	
Phenol-d6 (S)	%	28	12-120	10/04/12 19:31	
Terphenyl-d14 (S)	%	95	44-120	10/04/12 19:31	

LABORATORY CONTROL SAMPLE: 1071875

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	38.1	76	44-120	
1,2-Diphenylhydrazine	ug/L	50	39.2	78	49-120	
2,4,6-Trichlorophenol	ug/L	50	42.0	84	48-120	
2,4-Dichlorophenol	ug/L	50	38.8	78	48-120	
2,4-Dimethylphenol	ug/L	50	26.1	52	37-119	
2,4-Dinitrophenol	ug/L	50	43J	86	15-153	
2,4-Dinitrotoluene	ug/L	50	46.0	92	54-120	
2,6-Dinitrotoluene	ug/L	50	47.3	95	52-120	
2-Chloronaphthalene	ug/L	50	40.3	81	60-118	
2-Chlorophenol	ug/L	50	33.6	67	44-120	
2-Nitrophenol	ug/L	50	43.1	86	43-120	
3,3'-Dichlorobenzidine	ug/L	50	89.3	179	23-160 LO	
4,6-Dinitro-2-methylphenol	ug/L	50	48.8	98	31-147	
4-Bromophenylphenyl ether	ug/L	50	44.2	88	53-120	
4-Chloro-3-methylphenol	ug/L	50	39.0	78	50-120	
4-Chlorophenylphenyl ether	ug/L	50	41.3	83	54-120	
4-Nitrophenol	ug/L	50	15.0	30	10-120	
Acenaphthene	ug/L	50	39.9	80	51-120	
Acenaphthylene	ug/L	50	40.0	80	51-120	
Anthracene	ug/L	50	42.5	85	54-120	
Benzidine	ug/L	50	13.6J	27	1-124	
Benzo(a)anthracene	ug/L	50	45.2	90	54-120	
Benzo(a)pyrene	ug/L	50	44.4	89	54-120	
Benzo(b)fluoranthene	ug/L	50	45.4	91	57-120	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

LABORATORY CONTROL SAMPLE: 1071875

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(g,h,i)perylene	ug/L	50	45.9	92	54-120	
Benzo(k)fluoranthene	ug/L	50	45.5	91	52-121	
bis(2-Chloroethoxy)methane	ug/L	50	38.0	76	51-120	
bis(2-Chloroethyl) ether	ug/L	50	36.6	73	48-120	
bis(2-Chloroisopropyl) ether	ug/L	50	36.6	73	43-120	
bis(2-Ethylhexyl)phthalate	ug/L	50	51.5	103	51-126	
Butylbenzylphthalate	ug/L	50	54.1	108	45-129	
Chrysene	ug/L	50	44.1	88	54-120	
Di-n-butylphthalate	ug/L	50	59.3	119	57-118 LO	
Di-n-octylphthalate	ug/L	50	52.7	105	48-130	
Dibenz(a,h)anthracene	ug/L	50	44.8	90	56-119	
Diethylphthalate	ug/L	50	41.9	84	55-114	
Dimethylphthalate	ug/L	50	41.6	83	54-112	
Fluoranthene	ug/L	50	43.1	86	56-120	
Fluorene	ug/L	50	40.8	82	59-120	
Hexachloro-1,3-butadiene	ug/L	50	37.7	75	41-116	
Hexachlorobenzene	ug/L	50	44.0	88	53-120	
Hexachlorocyclopentadiene	ug/L	100	68.2	68	31-120	
Hexachloroethane	ug/L	50	36.0	72	40-113	
Indeno(1,2,3-cd)pyrene	ug/L	50	44.9	90	55-120	
Isophorone	ug/L	50	37.8	76	51-120	
N-Nitroso-di-n-propylamine	ug/L	50	42.1	84	47-120	
N-Nitrosodimethylamine	ug/L	50	21.9	44	28-120	
N-Nitrosodiphenylamine	ug/L	50	41.0	82	53-120	
Naphthalene	ug/L	50	38.0	76	48-120	
Nitrobenzene	ug/L	50	38.8	78	47-120	
Pentachlorophenol	ug/L	50	44.0	88	43-127	
Phenanthrene	ug/L	50	42.0	84	55-120	
Phenol	ug/L	50	12.9	26	15-112	
Pyrene	ug/L	50	45.5	91	55-115	
2,4,6-Tribromophenol (S)	%			93	39-119	
2-Fluorobiphenyl (S)	%			80	36-120	
2-Fluorophenol (S)	%			40	18-120	
Nitrobenzene-d5 (S)	%			79	32-120	
Phenol-d6 (S)	%			25	12-120	
Terphenyl-d14 (S)	%			101	44-120	

MATRIX SPIKE SAMPLE: 1071876

Parameter	Units	60129896001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	50	41.5	83	44-120	
1,2-Diphenylhydrazine	ug/L	ND	50	40.6	81	55-120	
2,4,6-Trichlorophenol	ug/L	ND	50	47.0	94	37-121	
2,4-Dichlorophenol	ug/L	ND	50	42.7	85	39-120	
2,4-Dimethylphenol	ug/L	ND	50	40.1	80	32-119	
2,4-Dinitrophenol	ug/L	ND	50	50.6	101	20-157	
2,4-Dinitrotoluene	ug/L	ND	50	50.5	101	39-130	

Date: 10/05/2012 04:55 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

MATRIX SPIKE SAMPLE:		1071876						
Parameter	Units	60129896001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers	
2,6-Dinitrotoluene	ug/L	ND	50	50.4	101	50-128		
2-Chloronaphthalene	ug/L	ND	50	43.7	87	60-118		
2-Chlorophenol	ug/L	ND	50	37.2	74	35-120		
2-Nitrophenol	ug/L	ND	50	47.3	95	29-123		
3,3'-Dichlorobenzidine	ug/L	ND	50	2.2J	4	10-160 M0		
4,6-Dinitro-2-methylphenol	ug/L	ND	50	52.4	105	27-146		
4-Bromophenylphenyl ether	ug/L	ND	50	46.9	94	53-124		
4-Chloro-3-methylphenol	ug/L	ND	50	43.8	88	33-123		
4-Chlorophenylphenyl ether	ug/L	ND	50	44.6	89	34-125		
4-Nitrophenol	ug/L	ND	50	19.5	39	10-120		
Acenaphthene	ug/L	ND	50	42.8	86	47-120		
Acenaphthylene	ug/L	ND	50	42.9	86	33-120		
Anthracene	ug/L	ND	50	44.0	88	36-121		
Benzidine	ug/L	ND	50	ND	0	1-120 M1		
Benzo(a)anthracene	ug/L	ND	50	45.8	92	37-127		
Benzo(a)pyrene	ug/L	ND	50	47.2	94	34-125		
Benzo(b)fluoranthene	ug/L	ND	50	48.4	97	37-131		
Benzo(g,h,i)perylene	ug/L	ND	50	49.2	98	35-128		
Benzo(k)fluoranthene	ug/L	ND	50	48.5	97	34-130		
bis(2-Chloroethoxy)methane	ug/L	ND	50	39.7	79	33-120		
bis(2-Chloroethyl) ether	ug/L	ND	50	40.1	80	32-120		
bis(2-Chloroisopropyl) ether	ug/L	ND	50	38.3	77	36-120		
bis(2-Ethylhexyl)phthalate	ug/L	ND	50	54.3	109	38-137		
Butylbenzylphthalate	ug/L	ND	50	57.4	115	43-136		
Chrysene	ug/L	ND	50	45.7	91	36-127		
Di-n-butylphthalate	ug/L	ND	50	54.8	105	38-118		
Di-n-octylphthalate	ug/L	ND	50	62.0	124	40-140		
Dibenz(a,h)anthracene	ug/L	ND	50	50.0	100	35-131		
Diethylphthalate	ug/L	ND	50	45.9	92	33-114		
Dimethylphthalate	ug/L	ND	50	45.3	91	34-112		
Fluoranthene	ug/L	ND	50	45.8	92	38-125		
Fluorene	ug/L	ND	50	43.9	88	59-121		
Hexachloro-1,3-butadiene	ug/L	ND	50	41.5	83	27-116		
Hexachlorobenzene	ug/L	ND	50	45.4	91	34-124		
Hexachlorocyclopentadiene	ug/L	ND	100	81.3	81	11-120		
Hexachloroethane	ug/L	ND	50	38.6	77	40-113		
Indeno(1,2,3-cd)pyrene	ug/L	ND	50	48.7	97	38-127		
Isophorone	ug/L	ND	50	39.9	80	31-120		
N-Nitroso-di-n-propylamine	ug/L	ND	50	45.4	91	30-120		
N-Nitrosodimethylamine	ug/L	ND	50	22.8	46	29-120		
N-Nitrosodiphenylamine	ug/L	ND	50	44.9	90	10-139		
Naphthalene	ug/L	ND	50	40.8	82	32-120		
Nitrobenzene	ug/L	ND	50	41.2	82	35-128		
Pentachlorophenol	ug/L	ND	50	51.1	102	38-133		
Phenanthrene	ug/L	ND	50	44.1	88	54-120		
Phenol	ug/L	ND	50	14.1	28	13-112		
Pyrene	ug/L	ND	50	47.7	95	52-115		
2,4,6-Tribromophenol (S)	%				103	39-119		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

MATRIX SPIKE SAMPLE:		1071876					
Parameter	Units	60129896001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2-Fluorobiphenyl (S)	%				85	36-120	
2-Fluorophenol (S)	%				42	18-120	
Nitrobenzene-d5 (S)	%				83	32-120	
Phenol-d6 (S)	%				28	12-120	
Terphenyl-d14 (S)	%				102	44-120	

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

QC Batch: WETA/21884 Analysis Method: EPA 420.1
QC Batch Method: EPA 420.1 Analysis Description: 420.1 Phenolics Macro
Associated Lab Samples: 60130021001

METHOD BLANK: 1072608 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	0.050	10/04/12 10:59	

LABORATORY CONTROL SAMPLE: 1072609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	.5	0.46	92	90-110	

MATRIX SPIKE SAMPLE: 1072610

Parameter	Units	60129981001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	.5	0.47	94	73-122	

MATRIX SPIKE SAMPLE: 1072612

Parameter	Units	60130233001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	.5	0.47	94	73-122	

SAMPLE DUPLICATE: 1072611

Parameter	Units	60130021001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	.038J		35	

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

QC Batch: WETA/21844 Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 60130021001

METHOD BLANK: 1070740 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	10/01/12 13:11	

LABORATORY CONTROL SAMPLE: 1070741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	100	69-126	

MATRIX SPIKE SAMPLE: 1069555

Parameter	Units	60129653001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.0058	.1	0.086	80	41-136	

MATRIX SPIKE SAMPLE: 1070743

Parameter	Units	60130013003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.0054	.1	0.020	14	41-136 M1	

SAMPLE DUPLICATE: 1070763

Parameter	Units	60129817008 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	0.28	0.28	0	26	

QUALIFIERS

Project: Effluent Testing
Pace Project No.: 60130021

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- 1e Analyte is a possible laboratory contaminant.
- B Analyte was detected in the associated method blank.
- L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
- L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Effluent Testing
Pace Project No.: 60130021

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60130021001	OUTFALL 1	EPA 200.7	MPRP/19734	EPA 200.7	ICP/16255
60130021001	OUTFALL 1	EPA 245.1	MERP/6674	EPA 245.1	MERC/6630
60130021001	OUTFALL 1	EPA 625	OEXT/35314	EPA 625	MSSV/11092
60130021001	OUTFALL 1	EPA 624 Low	MSV/48886		
60130021001	OUTFALL 1	EPA 420.1	WETA/21884		
60130021001	OUTFALL 1	SM 4500-CN-E	WETA/21844		



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company	City of Platte City	Report To:	Daniel Stamper	Attention:	Sharon Anderson
Address:	400 Main St Platte City, MO 64079	Copy To:	Sharon Anderson (sanderson@plattacity.org)	Company Name:	City of Platte City
Email To:	dlistamper@plattacity.org	Purchase Order No.:	Credit Card	Address:	400 Main St Platte City, MO 64079
Phone:	816-858-5381	Project Name:	Effluent Testing	Pace Quote Reference:	
Requested Due Date:	10-5-12	Project Number:		Pace Project Manager:	Trudy Gipson 913-563-1405
				Pace Profile #:	2903 Line 3

ITEM #	Valid Matrix Codes MATRIX DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSUE	Valid Matrix Codes DW WT WW P SL OL WP AK AT TS	COLLECTED		DATE	TIME	DATE	TIME	SAMPLE TYPE (G=Grav C=Comp)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	PRESERVATIVES HCl HNO ₃ H ₂ SO ₄ Unpreserved	ANALYSIS TESTS Metals/Hardness Mercury Cyanide Phenols SVOC	Requested Analysis Filtered (Y/N)	Temp in °C	Received on	Custody Sealed	Cooler (Y/N)	Samples Inact	
			COMPOSITE START	COMPOSITE END/GRAB																
1	Outfall / 2AG1U 5D944		9-28-12	11:14	11:14	11:14	11:14	G	WW	11	8	1	1	1	10.6	9/28/12	Y	N	Y	
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Daniel Stamper	9-28-12	11:15	Daniel Stamper	9/28/12	13:18	10.6
SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	
		Daniel Stamper		Daniel Stamper		09/28/12	



Sample Condition Upon Receipt

Client Name: City of Platte city Project # 00130021

Courier: Fed Ex UPS USPS Client Commercial Pace Other
Tracking #: _____ Pace Shipping Label Used? Yes No
Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No
Packing Material: Bubble Wrap Bubble Bags Foam None Other ZPLC
Thermometer Used: T-191/T-194 Type of Ice: Wet Blue None Samples on Ice, cooling process has begun

Optional
Proj. Due Date: 10/10
Proj. Name: _____

Cooler Temperature: 10.6
Temperature should be above freezing to 6°C

Date and Initials of person examining contents: 9-28-12 BA

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5. <u>4:04 9-30-12</u>
Short Hold Time analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time requested:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7. <u>10-5-12</u>
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
-Includes date/time/ID/analyses Matrix: <u>WT</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Phenolics	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed _____ Lot # of added preservative _____
Trip Blank present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Pace Trip Blank lot # (if purchased): <u>041612-3</u>		
Headspace in VOA vials (>6mm).	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17. List State: _____ <u>la</u>

Client Notification/ Resolution: Copy COC to Client? Y / (N) Field Data Required? Y / N
Person Contacted: _____ Date/Time: _____
Comments/ Resolution: _____

Project Manager Review: [Signature] Date: 9-30-12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

MAKE ADDITIONAL COPIES OF THIS FORM FOR EACH OUTFALL

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 2
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PART D – EXPANDED EFFLUENT TESTING DATA

16. EXPANDED EFFLUENT TESTING DATA

Refer to the APPLICATION OVERVIEW to determine whether Part D applies to the treatment works.

If the treatment works has a design flow greater than or equal to 1 million gallons per day or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information for each outfall through which effluent is discharged. Do not include information of combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least **three pollutant scans** and must be no more than four and one-half years apart.

Outfall Number (Complete Once for Each Outfall Discharging Effluent to Waters of the State.)

POLLUTANT	MAXIMUM DAILY DISCHARGE			AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units		

METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS AND HARDNESS

ANTIMONY					ND	ug/L	10.0	ug/L	2	EPA 200.7	
ARSENIC					ND	ug/L	10.0	ug/L	2	EPA 200.7	
BERYLLIUM					ND	ug/L	1.0	ug/L	2	EPA 200.7	
CADMIUM					ND	ug/L	5.0	ug/L	2	EPA 200.7	
CHROMIUM III					ND	ug/L	5.0	ug/L	2	EPA 200.7	
CHROMIUM VI					ND	ug/L	5.0	ug/L	2	EPA 200.7	
COPPER					ND	ug/L	10.0	ug/L	2	EPA 200.7	
LEAD					ND	ug/L	5.0	ug/L	2	EPA 200.7	
MERCURY					ND	ug/L	0.2	ug/L	2	EPA 200.7	
NICKEL					ND	ug/L	5.0	ug/L	2	EPA 200.7	
SELENIUM					ND	ug/L	15.0	ug/L	2	EPA 200.7	
SILVER					ND	ug/L	7.0	ug/L	2	EPA 200.7	
THALLIUM					ND	ug/L	20.0	ug/L	2	EPA 200.7	
ZINC					ND	ug/L	50.0	ug/L	2	EPA 200.7	
CYANIDE					0.00285	mg/L	0.0050	mg/L	2	SM 4500CNE	
TOTAL PHENOLIC COMPOUNDS					ND	mg/L	0.050	mg/L	2	EPA 420.1	
HARDNESS (as CaCO ₃)					155500	ug/L	500	ug/L	2	EPA 200.7	

VOLATILE ORGANIC COMPOUNDS

ACROLEIN					ND	ug/L	100	ug/L	2	EPA 624 Low	
ACRYLONITRILE					ND	ug/L	20.0	ug/L	2	EPA 624 Low	
BENZENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
BROMOFORM					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
CARBON TETRACHLORIDE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
CHLOROBENZENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 2
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PART D – EXPANDED EFFLUENT TESTING DATA

16. EXPANDED EFFLUENT TESTING DATA

Complete Once for Each Outfall Discharging Effluent to Waters of the State

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	No. of Samples		
CHLORODIBROMO-METHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
CHLOROETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
2-CHLORO-ETHYL VINYL ETHER					ND	ug/L	10.0	ug/L	2	EPA 624 Low	
CHLOROFORM					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
DICHLOROBROMO-METHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,1-DICHLORO-ETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,2-DICHLORO-ETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
TRANS-1,2-DICHLOROETHYLENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,1-DICHLORO-ETHYLENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,2-DICHLORO-PROPANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,3-DICHLORO-PROPYLENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
ETHYLBENZENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
METHYL BROMIDE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
METHYL CHLORIDE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
METHYLENE CHLORIDE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,1,2,2-TETRA-CHLOROETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
TETRACHLORO-ETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
TOLUENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,1,1-TRICHLORO-ETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
1,1,2-TRICHLORO-ETHANE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
TRICHLORETHYLENE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	
VINYL CHLORIDE					ND	ug/L	1.0	ug/L	2	EPA 624 Low	

ACID-EXTRACTABLE COMPOUNDS

P-CHLORO-M-CRESOL					ND	ug/L	5.0	ug/L	2	EPA 625	
2-CHLOROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
2,4-DICHLOROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
2,4-DIMETHYLPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
4,6-DINITRO-O-CRESOL					ND	ug/L	25.0	ug/L	2	EPA 625	
2,4-DINITROPHENOL					ND	ug/L	50.0	ug/L	2	EPA 625	
2-NITROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
4-NITROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 2
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PART D – EXPANDED EFFLUENT TESTING DATA

16. EXPANDED EFFLUENT TESTING DATA

Complete Once for Each Outfall Discharging Effluent to Waters of the State.

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	No. of Samples		
PENTACHLOROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
PHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
2,4,6-TRICHLOROPHENOL					ND	ug/L	5.0	ug/L	2	EPA 625	
BASE-NEUTRAL COMPOUNDS											
ACENAPHTHENE					ND	ug/L	5.0	ug/L	2	EPA 625	
ACENAPHTHYLENE					ND	ug/L	5.0	ug/L	2	EPA 625	
ANTHRACENE					ND	ug/L	5.0	ug/L	2	EPA 625	
BENZIDINE					ND	ug/L	50.0	ug/L	2	EPA 625	
BENZO(A)ANTHRACENE					ND	ug/L	5.0	ug/L	2	EPA 625	
BENZO(A)PYRENE					ND	ug/L	5.0	ug/L	2	EPA 625	
3,4-BENZO-FLUORANTHENE					ND	ug/L	5.0	ug/L	2	EPA 625	
BENZO(GH) PHERYLENE					ND	ug/L	5.0	ug/L	2	EPA 625	
BENZO(K) FLUORANTHENE					ND	ug/L	5.0	ug/L	2	EPA 625	
BIS (2-CHLOROTHOXY) METHANE					ND	ug/L	5.0	ug/L	2	EPA 625	
BIS (2-CHLOROETHYL) – ETHER					ND	ug/L	6.0	ug/L	2	EPA 625	
BIS (2-CHLOROISO-PROPYL) ETHER					ND	ug/L	6.0	ug/L	2	EPA 625	
BIS (2-ETHYLHEXYL) PHTHALATE					ND	ug/L	5.0	ug/L	2	EPA 625	
4-BROMOPHENYL PHENYL ETHER					ND	ug/L	5.0	ug/L	2	EPA 625	
BUTYL BENZYL PHTHALATE					ND	ug/L	5.0	ug/L	2	EPA 625	
2-CHLORONAPH-THALENE					ND	ug/L	5.0	ug/L	2	EPA 625	
4-CHLORPHENYL PHENYL ETHER					ND	ug/L	5.0	ug/L	2	EPA 625	
CHRYSENE					ND	ug/L	5.0	ug/L	2	EPA 625	
DI-N-BUTYL PHTHALATE					13.9	ug/L	5.0	ug/L	2	EPA 625	
DI-N-OCTYL PHTHALATE					ND	ug/L	5.0	ug/L	2	EPA 625	
DIBENZO (A,H) ANTHRACENE					ND	ug/L	5.0	ug/L	2	EPA 625	
1,2-DICHLORO-BENZENE					ND	ug/L	5.0	ug/L	2	EPA 625	
1,3-DICHLORO-BENZENE					ND	ug/L	5.0	ug/L	2	EPA 625	
1,4-DICHLORO-BENZENE					ND	ug/L	5.0	ug/L	2	EPA 625	
3,3-DICHLORO-BENZIDINE					ND	ug/L	20.0	ug/L	2	EPA 625	
DIETHYL PHTHALATE					ND	ug/L	5.0	ug/L	2	EPA 625	
DIMETHYL PHTHALATE					ND	ug/L	5.0	ug/L	2	EPA 625	

December 12, 2014

Mr. Daniel Stamper
City of Platte City
400 Main St
Platte City, MO 64079

2014 Permit Renewal

RE: Project: Effluent Testing
Pace Project No.: 60183697

Dear Mr. Stamper:

Enclosed are the analytical results for sample(s) received by the laboratory on December 03, 2014. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Trudy Gipson

Trudy Gipson
trudy.gipson@pacelabs.com
Project Manager

Enclosures

cc: Ms. Sharon Anderson, City of Platte City



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Effluent Testing
Pace Project No.: 60183697

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
WY STR Certification #: 2456.01
Arkansas Certification #: 13-012-0
Illinois Certification #: 003097
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407
Utah Certification #: KS00021

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Effluent Testing
Pace Project No.: 60183697

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60183697001	OUTFALL 1	Water	12/03/14 12:56	12/03/14 15:25
60183697002	TRIP BLANK	Water	12/03/14 12:56	12/03/14 15:25

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Effluent Testing
Pace Project No.: 60183697

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60183697001	OUTFALL 1	EPA 200.7	JGP	15	PASI-K
		EPA 245.1	NDJ	1	PASI-K
		EPA 625	JMT	61	PASI-K
		EPA 624 Low	EAK	39	PASI-K
		EPA 420.1	AJM	1	PASI-K
		SM 4500-CN-E	AJM	1	PASI-K

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Effluent Testing
Pace Project No.: 60183697

Sample: **OUTFALL 1** Lab ID: **60183697001** Collected: 12/03/14 12:56 Received: 12/03/14 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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200.7 Metals, Total

Analytical Method: EPA 200.7 Preparation Method: EPA 200.7

Antimony	ND	ug/L	10.0	1	12/04/14 11:15	12/08/14 15:08	7440-36-0	
Arsenic	ND	ug/L	10.0	1	12/04/14 11:15	12/08/14 15:08	7440-38-2	
Beryllium	ND	ug/L	1.0	1	12/04/14 11:15	12/08/14 15:08	7440-41-7	
Cadmium	ND	ug/L	5.0	1	12/04/14 11:15	12/08/14 15:08	7440-43-9	
Calcium	62700	ug/L	100	1	12/04/14 11:15	12/08/14 15:08	7440-70-2	
Chromium	ND	ug/L	5.0	1	12/04/14 11:15	12/08/14 15:08	7440-47-3	
Copper	ND	ug/L	10.0	1	12/04/14 11:15	12/08/14 15:08	7440-50-8	
Lead	ND	ug/L	5.0	1	12/04/14 11:15	12/08/14 15:08	7439-92-1	
Magnesium	8700	ug/L	50.0	1	12/04/14 11:15	12/08/14 15:08	7439-95-4	
Nickel	ND	ug/L	5.0	1	12/04/14 11:15	12/08/14 15:08	7440-02-0	
Selenium	ND	ug/L	15.0	1	12/04/14 11:15	12/08/14 15:08	7782-49-2	
Silver	ND	ug/L	7.0	1	12/04/14 11:15	12/08/14 15:08	7440-22-4	
Thallium	ND	ug/L	20.0	1	12/04/14 11:15	12/08/14 15:08	7440-28-0	
Total Hardness by 2340B	192000	ug/L	500	1	12/04/14 11:15	12/08/14 15:08		
Zinc	73.7	ug/L	50.0	1	12/04/14 11:15	12/08/14 15:08	7440-66-6	

245.1 Mercury

Analytical Method: EPA 245.1 Preparation Method: EPA 245.1

Mercury	ND	ug/L	0.20	1	12/08/14 09:15	12/08/14 12:46	7439-97-6	
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625 MSSV

Analytical Method: EPA 625 Preparation Method: EPA 625

Phenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	108-95-2	
bis(2-Chloroethyl) ether	ND	ug/L	6.0	1	12/05/14 00:00	12/09/14 14:14	111-44-4	
2-Chlorophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	95-57-8	
bis(2-Chloroisopropyl) ether	ND	ug/L	6.0	1	12/05/14 00:00	12/09/14 14:14	39638-32-9	
N-Nitroso-di-n-propylamine	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	621-64-7	
Nitrobenzene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	98-95-3	
Isophorone	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	78-59-1	
2-Nitrophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	88-75-5	
2,4-Dimethylphenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	105-67-9	
bis(2-Chloroethoxy)methane	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	111-91-1	
2,4-Dichlorophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	120-83-2	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	120-82-1	
Naphthalene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	91-20-3	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	87-68-3	
4-Chloro-3-methylphenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	59-50-7	
Hexachlorocyclopentadiene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	77-47-4	
2,4,6-Trichlorophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	88-06-2	
2-Chloronaphthalene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	91-58-7	
Dimethylphthalate	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	131-11-3	
Acenaphthylene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	208-96-8	
2,6-Dinitrotoluene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	606-20-2	
Acenaphthene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	83-32-9	
2,4-Dinitrophenol	ND	ug/L	50.0	1	12/05/14 00:00	12/09/14 14:14	51-28-5	
4-Nitrophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	100-02-7	
2,4-Dinitrotoluene	ND	ug/L	6.0	1	12/05/14 00:00	12/09/14 14:14	121-14-2	
Diethylphthalate	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	84-66-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Effluent Testing
Pace Project No.: 60183697

Sample: **OUTFALL 1** Lab ID: 60183697001 Collected: 12/03/14 12:56 Received: 12/03/14 15:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV Analytical Method: EPA 625 Preparation Method: EPA 625								
4-Chlorophenylphenyl ether	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	7005-72-3	
Fluorene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	86-73-7	
4,6-Dinitro-2-methylphenol	ND	ug/L	25.0	1	12/05/14 00:00	12/09/14 14:14	534-52-1	
N-Nitrosodiphenylamine	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	86-30-6	
4-Bromophenylphenyl ether	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	101-55-3	
Hexachlorobenzene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	118-74-1	
Pentachlorophenol	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	87-86-5	
Phenanthrene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	85-01-8	
Anthracene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	120-12-7	
Di-n-butylphthalate	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	84-74-2	
Fluoranthene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	206-44-0	
Pyrene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	129-00-0	
Butylbenzylphthalate	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	85-68-7	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	1	12/05/14 00:00	12/09/14 14:14	91-94-1	L3
Benzo(a)anthracene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	56-55-3	
Chrysene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	218-01-9	
bis(2-Ethylhexyl)phthalate	7.8	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	117-81-7	
Di-n-octylphthalate	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	117-84-0	
Benzo(b)fluoranthene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	205-99-2	
Benzo(k)fluoranthene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	207-08-9	
Benzo(a)pyrene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	50-32-8	
Indeno(1,2,3-cd)pyrene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	193-39-5	
Dibenz(a,h)anthracene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	53-70-3	
Benzo(g,h,i)perylene	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	191-24-2	
Benzidine	ND	ug/L	50.0	1	12/05/14 00:00	12/09/14 14:14	92-87-5	M1
N-Nitrosodimethylamine	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	62-75-9	
Hexachloroethane	ND	ug/L	5.0	1	12/05/14 00:00	12/09/14 14:14	67-72-1	
1,2-Diphenylhydrazine	ND	ug/L	8.0	1	12/05/14 00:00	12/09/14 14:14	122-66-7	
Aniline	ND	ug/L	20.0	1	12/05/14 00:00	12/09/14 14:14	62-53-3	N2
Surrogates								
Nitrobenzene-d5 (S)	77 %		33-120	1	12/05/14 00:00	12/09/14 14:14	4165-60-0	
2-Fluorobiphenyl (S)	78 %		39-120	1	12/05/14 00:00	12/09/14 14:14	321-60-8	
Terphenyl-d14 (S)	89 %		45-120	1	12/05/14 00:00	12/09/14 14:14	1718-51-0	
Phenol-d6 (S)	29 %		11-120	1	12/05/14 00:00	12/09/14 14:14	13127-88-3	
2-Fluorophenol (S)	37 %		17-120	1	12/05/14 00:00	12/09/14 14:14	367-12-4	
2,4,6-Tribromophenol (S)	92 %		39-120	1	12/05/14 00:00	12/09/14 14:14	118-79-6	

624 Volatile Organics Analytical Method: EPA 624 Low

Acrolein	ND	ug/L	100	1		12/04/14 18:39	107-02-8	L3
Acrylonitrile	ND	ug/L	20.0	1		12/04/14 18:39	107-13-1	
Benzene	ND	ug/L	1.0	1		12/04/14 18:39	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		12/04/14 18:39	75-27-4	
Bromoform	ND	ug/L	1.0	1		12/04/14 18:39	75-25-2	
Bromomethane	ND	ug/L	5.0	1		12/04/14 18:39	74-83-9	
Carbon tetrachloride	ND	ug/L	1.0	1		12/04/14 18:39	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		12/04/14 18:39	108-90-7	
Chloroethane	ND	ug/L	1.0	1		12/04/14 18:39	75-00-3	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Effluent Testing
 Pace Project No.: 60183697

Sample:	Lab ID:	Collected:	Received:	Matrix:									
OUTFALL 1	60183697001	12/03/14 12:56	12/03/14 15:25	Water	Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624 Volatile Organics		Analytical Method: EPA 624 Low											
2-Chloroethylvinyl ether	ND ug/L	10.0	1	12/04/14 18:39	110-75-8								
Chloroform	ND ug/L	1.0	1	12/04/14 18:39	67-66-3								
Chloromethane	ND ug/L	1.0	1	12/04/14 18:39	74-87-3								
Dibromochloromethane	ND ug/L	1.0	1	12/04/14 18:39	124-48-1								
1,2-Dichlorobenzene	ND ug/L	1.0	1	12/04/14 18:39	95-50-1								
1,3-Dichlorobenzene	ND ug/L	1.0	1	12/04/14 18:39	541-73-1								
1,4-Dichlorobenzene	ND ug/L	1.0	1	12/04/14 18:39	106-46-7								
1,1-Dichloroethane	ND ug/L	1.0	1	12/04/14 18:39	75-34-3								
1,2-Dichloroethane	ND ug/L	1.0	1	12/04/14 18:39	107-06-2								
1,1-Dichloroethene	ND ug/L	1.0	1	12/04/14 18:39	75-35-4								
cis-1,2-Dichloroethene	ND ug/L	1.0	1	12/04/14 18:39	156-59-2								N2
trans-1,2-Dichloroethene	ND ug/L	1.0	1	12/04/14 18:39	156-60-5								
1,2-Dichloropropane	ND ug/L	1.0	1	12/04/14 18:39	78-87-5								
cis-1,3-Dichloropropene	ND ug/L	1.0	1	12/04/14 18:39	10061-01-5								
trans-1,3-Dichloropropene	ND ug/L	1.0	1	12/04/14 18:39	10061-02-6								
Ethylbenzene	ND ug/L	1.0	1	12/04/14 18:39	100-41-4								
Methylene chloride	ND ug/L	1.0	1	12/04/14 18:39	75-09-2								
1,1,2,2-Tetrachloroethane	ND ug/L	1.0	1	12/04/14 18:39	79-34-5								N2
Tetrachloroethene	ND ug/L	1.0	1	12/04/14 18:39	127-18-4								
Toluene	ND ug/L	1.0	1	12/04/14 18:39	108-88-3								
1,1,1-Trichloroethane	ND ug/L	1.0	1	12/04/14 18:39	71-55-6								
1,1,2-Trichloroethane	ND ug/L	1.0	1	12/04/14 18:39	79-00-5								
Trichloroethene	ND ug/L	1.0	1	12/04/14 18:39	79-01-6								
Trichlorofluoromethane	ND ug/L	1.0	1	12/04/14 18:39	75-69-4								
Vinyl chloride	ND ug/L	1.0	1	12/04/14 18:39	75-01-4								
Xylene (Total)	ND ug/L	3.0	1	12/04/14 18:39	1330-20-7								N2
Surrogates													
4-Bromofluorobenzene (S)	102 %	80-120	1	12/04/14 18:39	460-00-4								
Toluene-d8 (S)	101 %	80-120	1	12/04/14 18:39	2037-26-5								
1,2-Dichloroethane-d4 (S)	96 %	80-120	1	12/04/14 18:39	17060-07-0								
Preservation pH	7.0	1.0	1	12/04/14 18:39									
Phenolics, Total Recoverable		Analytical Method: EPA 420.1											
Phenolics, Total Recoverable	ND mg/L	0.050	1	12/10/14 15:08									
4500CNE Cyanide, Total		Analytical Method: SM 4500-CN-E											
Cyanide	ND mg/L	0.0050	1	12/09/14 16:15	57-12-5								

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

QC Batch: MERP/9119 Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury
Associated Lab Samples: 60183697001

METHOD BLANK: 1490260 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	12/08/14 12:26	

LABORATORY CONTROL SAMPLE: 1490261

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.2	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1490262 1490263

Parameter	Units	60183732002		1490263		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MS Spike Conc.	MSD Result	MSD Spike Conc.						
Mercury	ug/L	ND	5	5	5.2	4.8	105	97	70-130	8	20

MATRIX SPIKE SAMPLE: 1490264

Parameter	Units	60183677001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	5	0.75	15	70-130	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

QC Batch: MPRP/30043 Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 60183697001

METHOD BLANK: 1488379 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	10.0	12/08/14 14:26	
Arsenic	ug/L	ND	10.0	12/08/14 14:26	
Beryllium	ug/L	ND	1.0	12/08/14 14:26	
Cadmium	ug/L	ND	5.0	12/08/14 14:26	
Calcium	ug/L	ND	100	12/08/14 14:26	
Chromium	ug/L	ND	5.0	12/08/14 14:26	
Copper	ug/L	ND	10.0	12/08/14 14:26	
Lead	ug/L	ND	5.0	12/08/14 14:26	
Magnesium	ug/L	ND	50.0	12/08/14 14:26	
Nickel	ug/L	ND	5.0	12/08/14 14:26	
Selenium	ug/L	ND	15.0	12/08/14 14:26	
Silver	ug/L	ND	7.0	12/08/14 14:26	
Thallium	ug/L	ND	20.0	12/08/14 14:26	
Total Hardness by 2340B	ug/L	ND	500	12/08/14 14:26	
Zinc	ug/L	ND	50.0	12/08/14 14:26	

LABORATORY CONTROL SAMPLE: 1488380

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	1000	1030	103	85-115	
Arsenic	ug/L	1000	998	100	85-115	
Beryllium	ug/L	1000	1010	101	85-115	
Cadmium	ug/L	1000	1020	102	85-115	
Calcium	ug/L	10000	9860	99	85-115	
Chromium	ug/L	1000	1000	100	85-115	
Copper	ug/L	1000	1020	102	85-115	
Lead	ug/L	1000	1020	102	85-115	
Magnesium	ug/L	10000	10000	100	85-115	
Nickel	ug/L	1000	1040	104	85-115	
Selenium	ug/L	1000	1000	100	85-115	
Silver	ug/L	500	502	100	85-115	
Thallium	ug/L	1000	1020	102	85-115	
Total Hardness by 2340B	ug/L		65900			
Zinc	ug/L	1000	1010	101	85-115	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1488381 1488382

Parameter	Units	60183248001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual	
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD		
Antimony	ug/L	11.3	1000	1000	1040	1060	102	105	70-130	2	20	
Arsenic	ug/L	ND	1000	1000	1030	1040	102	104	70-130	2	20	
Beryllium	ug/L	ND	1000	1000	989	1010	99	101	70-130	3	20	
Cadmium	ug/L	ND	1000	1000	1020	1040	102	104	70-130	1	20	
Calcium	ug/L	44200	10000	10000	52100	53700	79	95	70-130	3	20	
Chromium	ug/L	ND	1000	1000	1010	1020	101	102	70-130	1	20	
Copper	ug/L	22.7	1000	1000	1020	1030	100	101	70-130	1	20	
Lead	ug/L	44.7	1000	1000	1010	1040	97	99	70-130	2	20	
Magnesium	ug/L	20900	10000	10000	30100	30800	92	99	70-130	2	20	
Nickel	ug/L	7.0	1000	1000	997	1020	99	102	70-130	3	20	
Selenium	ug/L	ND	1000	1000	900	1040	90	104	70-130	15	20	
Silver	ug/L	ND	500	500	518	524	103	105	70-130	1	20	
Thallium	ug/L	ND	1000	1000	761	784	76	78	70-130	3	20	
Total Hardness by 2340B	ug/L	197000			254000	261000					3	
Zinc	ug/L	480	1000	1000	1440	1490	96	101	70-130	3	20	

SAMPLE DUPLICATE: 1490524

Parameter	Units	60183605003	Dup	RPD	Max RPD	Qualifiers
		Result	Result			
Antimony	ug/L	12.8	12.9	0	20	
Arsenic	ug/L	245	245	0	25	
Beryllium	ug/L	ND	ND		20	
Cadmium	ug/L	ND	ND		20	
Calcium	ug/L	256000	259000	1	20	
Chromium	ug/L	34.8	35.4	2	28	
Copper	ug/L	ND	ND		20	
Lead	ug/L	5.0	4.4J		27	
Magnesium	ug/L	191000	192000	0	20	
Nickel	ug/L	25.7	25.9	1	25	
Selenium	ug/L	ND	3.1J		20	
Silver	ug/L	ND	ND		20	
Thallium	ug/L	ND	ND		20	
Total Hardness by 2340B	ug/L	1420000	1440000	1		
Zinc	ug/L	ND	24.5J		20	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

QC Batch: MSV/66174 Analysis Method: EPA 624 Low
QC Batch Method: EPA 624 Low Analysis Description: 624 MSV
Associated Lab Samples: 60183697001

METHOD BLANK: 1488341 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	12/04/14 17:56	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	12/04/14 17:56	N2
1,1,2-Trichloroethane	ug/L	ND	1.0	12/04/14 17:56	
1,1-Dichloroethane	ug/L	ND	1.0	12/04/14 17:56	
1,1-Dichloroethene	ug/L	ND	1.0	12/04/14 17:56	
1,2-Dichlorobenzene	ug/L	ND	1.0	12/04/14 17:56	
1,2-Dichloroethane	ug/L	ND	1.0	12/04/14 17:56	
1,2-Dichloropropane	ug/L	ND	1.0	12/04/14 17:56	
1,3-Dichlorobenzene	ug/L	ND	1.0	12/04/14 17:56	
1,4-Dichlorobenzene	ug/L	ND	1.0	12/04/14 17:56	
2-Chloroethylvinyl ether	ug/L	ND	10.0	12/04/14 17:56	
Acrolein	ug/L	ND	100	12/04/14 17:56	
Acrylonitrile	ug/L	ND	20.0	12/04/14 17:56	
Benzene	ug/L	ND	1.0	12/04/14 17:56	
Bromodichloromethane	ug/L	ND	1.0	12/04/14 17:56	
Bromoform	ug/L	ND	1.0	12/04/14 17:56	
Bromomethane	ug/L	ND	5.0	12/04/14 17:56	
Carbon tetrachloride	ug/L	ND	1.0	12/04/14 17:56	
Chlorobenzene	ug/L	ND	1.0	12/04/14 17:56	
Chloroethane	ug/L	ND	1.0	12/04/14 17:56	
Chloroform	ug/L	ND	1.0	12/04/14 17:56	
Chloromethane	ug/L	ND	1.0	12/04/14 17:56	
cis-1,2-Dichloroethene	ug/L	ND	1.0	12/04/14 17:56	N2
cis-1,3-Dichloropropene	ug/L	ND	1.0	12/04/14 17:56	
Dibromochloromethane	ug/L	ND	1.0	12/04/14 17:56	
Ethylbenzene	ug/L	ND	1.0	12/04/14 17:56	
Methylene chloride	ug/L	ND	1.0	12/04/14 17:56	
Tetrachloroethene	ug/L	ND	1.0	12/04/14 17:56	
Toluene	ug/L	ND	1.0	12/04/14 17:56	
trans-1,2-Dichloroethene	ug/L	ND	1.0	12/04/14 17:56	
trans-1,3-Dichloropropene	ug/L	ND	1.0	12/04/14 17:56	
Trichloroethene	ug/L	ND	1.0	12/04/14 17:56	
Trichlorofluoromethane	ug/L	ND	1.0	12/04/14 17:56	
Vinyl chloride	ug/L	ND	1.0	12/04/14 17:56	
Xylene (Total)	ug/L	ND	3.0	12/04/14 17:56	N2
1,2-Dichloroethane-d4 (S)	%	97	80-120	12/04/14 17:56	
4-Bromofluorobenzene (S)	%	100	80-120	12/04/14 17:56	
Toluene-d8 (S)	%	102	80-120	12/04/14 17:56	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

LABORATORY CONTROL SAMPLE: 1488342

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.4	102	67-129	
1,1,2,2-Tetrachloroethane	ug/L	20	18.9	94	67-127	N2
1,1,2-Trichloroethane	ug/L	20	19.7	99	67-124	
1,1-Dichloroethane	ug/L	20	20.4	102	64-121	
1,1-Dichloroethene	ug/L	20	20.1	100	67-128	
1,2-Dichlorobenzene	ug/L	20	20.8	104	74-123	
1,2-Dichloroethane	ug/L	20	20.5	103	70-126	
1,2-Dichloropropane	ug/L	20	19.6	98	70-127	
1,3-Dichlorobenzene	ug/L	20	21.0	105	74-121	
1,4-Dichlorobenzene	ug/L	20	19.8	99	74-120	
2-Chloroethylvinyl ether	ug/L	20	13.3	66	27-155	
Acrolein	ug/L	200	337	169	88-118	L0
Acrylonitrile	ug/L	200	210	105	71-133	
Benzene	ug/L	20	20.0	100	75-120	
Bromodichloromethane	ug/L	20	20.8	104	68-125	
Bromoform	ug/L	20	20.3	101	65-127	
Bromomethane	ug/L	20	17.3	86	13-157	
Carbon tetrachloride	ug/L	20	19.9	100	70-131	
Chlorobenzene	ug/L	20	20.7	103	72-122	
Chloroethane	ug/L	20	13.5	68	47-133	
Chloroform	ug/L	20	19.7	99	65-127	
Chloromethane	ug/L	20	21.0	105	18-145	
cis-1,2-Dichloroethene	ug/L	20	19.9	100	68-127	N2
cis-1,3-Dichloropropene	ug/L	20	19.2	96	67-128	
Dibromochloromethane	ug/L	20	19.6	98	70-129	
Ethylbenzene	ug/L	20	20.8	104	74-122	
Methylene chloride	ug/L	20	19.9	99	64-129	
Tetrachloroethene	ug/L	20	20.1	101	73-125	
Toluene	ug/L	20	21.0	105	69-126	
trans-1,2-Dichloroethene	ug/L	20	20.2	101	66-129	
trans-1,3-Dichloropropene	ug/L	20	18.9	95	73-133	
Trichloroethene	ug/L	20	20.3	102	71-123	
Trichlorofluoromethane	ug/L	20	22.8	114	57-123	
Vinyl chloride	ug/L	20	22.3	112	43-129	
Xylene (Total)	ug/L	60	65.7	110	75-121	N2
1,2-Dichloroethane-d4 (S)	%			103	80-120	
4-Bromofluorobenzene (S)	%			94	80-120	
Toluene-d8 (S)	%			101	80-120	

MATRIX SPIKE SAMPLE: 1488343

Parameter	Units	60183691001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	20	20.9	105	52-155	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	16.9	85	46-146	N2
1,1,2-Trichloroethane	ug/L	ND	20	20.1	101	52-143	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

MATRIX SPIKE SAMPLE:	1488343	60183691001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,1-Dichloroethane	ug/L	ND	20	19.2	96	59-140	
1,1-Dichloroethene	ug/L	ND	20	20.8	104	38-153	
1,2-Dichlorobenzene	ug/L	ND	20	22.2	111	37-138	
1,2-Dichloroethane	ug/L	ND	20	18.8	94	49-144	
1,2-Dichloropropane	ug/L	ND	20	20.0	100	37-147	
1,3-Dichlorobenzene	ug/L	ND	20	22.7	113	59-138	
1,4-Dichlorobenzene	ug/L	ND	20	21.9	110	33-140	
2-Chloroethylvinyl ether	ug/L	ND	20	11.3	56	10-160	
Acrolein	ug/L	ND	200	6.2J	3	88-118 M0	
Acrylonitrile	ug/L	ND	200	187	93	71-128	
Benzene	ug/L	ND	20	19.9	100	37-151	
Bromodichloromethane	ug/L	2.6	20	23.1	103	35-142	
Bromoform	ug/L	ND	20	21.3	105	45-142	
Bromomethane	ug/L	ND	20	17.0	85	10-158	
Carbon tetrachloride	ug/L	ND	20	22.3	111	70-140	
Chlorobenzene	ug/L	ND	20	21.7	108	38-139	
Chloroethane	ug/L	ND	20	12.5	63	19-152	
Chloroform	ug/L	3.9	20	22.2	92	51-138	
Chloromethane	ug/L	ND	20	20.7	103	10-148	
cis-1,2-Dichloroethene	ug/L	ND	20	18.8	94	34-147 N2	
cis-1,3-Dichloropropene	ug/L	ND	20	18.9	94	36-140	
Dibromochloromethane	ug/L	ND	20	22.3	112	53-142	
Ethylbenzene	ug/L	ND	20	23.1	115	40-142	
Methylene chloride	ug/L	ND	20	19.6	97	31-144	
Tetrachloroethene	ug/L	ND	20	22.3	112	64-148	
Toluene	ug/L	ND	20	20.8	103	47-150	
trans-1,2-Dichloroethene	ug/L	ND	20	19.7	98	54-151	
trans-1,3-Dichloropropene	ug/L	ND	20	19.0	95	38-147	
Trichloroethene	ug/L	ND	20	24.1	120	71-149	
Trichlorofluoromethane	ug/L	ND	20	24.7	123	26-156	
Vinyl chloride	ug/L	ND	20	24.0	120	22-146	
Xylene (Total)	ug/L	ND	60	70.0	117	37-144 N2	
1,2-Dichloroethane-d4 (S)	%				95	80-120	
4-Bromofluorobenzene (S)	%				99	80-120	
Toluene-d8 (S)	%				97	80-120	
Preservation pH		7.0		7.0			

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

QC Batch: OEXT/47391 Analysis Method: EPA 625
QC Batch Method: EPA 625 Analysis Description: 625 MSS
Associated Lab Samples: 60183697001

METHOD BLANK: 1489097 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	5.0	12/09/14 13:11	
1,2-Diphenylhydrazine	ug/L	ND	8.0	12/09/14 13:11	
2,4,6-Trichlorophenol	ug/L	ND	5.0	12/09/14 13:11	
2,4-Dichlorophenol	ug/L	ND	5.0	12/09/14 13:11	
2,4-Dimethylphenol	ug/L	ND	5.0	12/09/14 13:11	
2,4-Dinitrophenol	ug/L	ND	50.0	12/09/14 13:11	
2,4-Dinitrotoluene	ug/L	ND	6.0	12/09/14 13:11	
2,6-Dinitrotoluene	ug/L	ND	5.0	12/09/14 13:11	
2-Chloronaphthalene	ug/L	ND	5.0	12/09/14 13:11	
2-Chlorophenol	ug/L	ND	5.0	12/09/14 13:11	
2-Nitrophenol	ug/L	ND	5.0	12/09/14 13:11	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	12/09/14 13:11	
4,6-Dinitro-2-methylphenol	ug/L	ND	25.0	12/09/14 13:11	
4-Bromophenylphenyl ether	ug/L	ND	5.0	12/09/14 13:11	
4-Chloro-3-methylphenol	ug/L	ND	5.0	12/09/14 13:11	
4-Chlorophenylphenyl ether	ug/L	ND	5.0	12/09/14 13:11	
4-Nitrophenol	ug/L	ND	5.0	12/09/14 13:11	
Acenaphthene	ug/L	ND	5.0	12/09/14 13:11	
Acenaphthylene	ug/L	ND	5.0	12/09/14 13:11	
Aniline	ug/L	ND	20.0	12/09/14 13:11	N2
Anthracene	ug/L	ND	5.0	12/09/14 13:11	
Benzidine	ug/L	ND	50.0	12/09/14 13:11	
Benzo(a)anthracene	ug/L	ND	5.0	12/09/14 13:11	
Benzo(a)pyrene	ug/L	ND	5.0	12/09/14 13:11	
Benzo(b)fluoranthene	ug/L	ND	5.0	12/09/14 13:11	
Benzo(g,h,i)perylene	ug/L	ND	5.0	12/09/14 13:11	
Benzo(k)fluoranthene	ug/L	ND	5.0	12/09/14 13:11	
bis(2-Chloroethoxy)methane	ug/L	ND	5.0	12/09/14 13:11	
bis(2-Chloroethyl) ether	ug/L	ND	6.0	12/09/14 13:11	
bis(2-Chloroisopropyl) ether	ug/L	ND	6.0	12/09/14 13:11	
bis(2-Ethylhexyl)phthalate	ug/L	ND	5.0	12/09/14 13:11	
Butylbenzylphthalate	ug/L	ND	5.0	12/09/14 13:11	
Chrysene	ug/L	ND	5.0	12/09/14 13:11	
Di-n-butylphthalate	ug/L	ND	5.0	12/09/14 13:11	
Di-n-octylphthalate	ug/L	ND	5.0	12/09/14 13:11	
Dibenz(a,h)anthracene	ug/L	ND	5.0	12/09/14 13:11	
Diethylphthalate	ug/L	ND	5.0	12/09/14 13:11	
Dimethylphthalate	ug/L	ND	5.0	12/09/14 13:11	
Fluoranthene	ug/L	ND	5.0	12/09/14 13:11	
Fluorene	ug/L	ND	5.0	12/09/14 13:11	
Hexachloro-1,3-butadiene	ug/L	ND	5.0	12/09/14 13:11	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

METHOD BLANK: 1489097 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachlorobenzene	ug/L	ND	5.0	12/09/14 13:11	
Hexachlorocyclopentadiene	ug/L	ND	5.0	12/09/14 13:11	
Hexachloroethane	ug/L	ND	5.0	12/09/14 13:11	
Indeno(1,2,3-cd)pyrene	ug/L	ND	5.0	12/09/14 13:11	
Isophorone	ug/L	ND	5.0	12/09/14 13:11	
N-Nitroso-di-n-propylamine	ug/L	ND	5.0	12/09/14 13:11	
N-Nitrosodimethylamine	ug/L	ND	5.0	12/09/14 13:11	
N-Nitrosodiphenylamine	ug/L	ND	5.0	12/09/14 13:11	
Naphthalene	ug/L	ND	5.0	12/09/14 13:11	
Nitrobenzene	ug/L	ND	5.0	12/09/14 13:11	
Pentachlorophenol	ug/L	ND	5.0	12/09/14 13:11	
Phenanthrene	ug/L	ND	5.0	12/09/14 13:11	
Phenol	ug/L	ND	5.0	12/09/14 13:11	
Pyrene	ug/L	ND	5.0	12/09/14 13:11	
2,4,6-Tribromophenol (S)	%	84	39-120	12/09/14 13:11	
2-Fluorobiphenyl (S)	%	70	39-120	12/09/14 13:11	
2-Fluorophenol (S)	%	30	17-120	12/09/14 13:11	
Nitrobenzene-d5 (S)	%	67	33-120	12/09/14 13:11	
Phenol-d6 (S)	%	21	11-120	12/09/14 13:11	
Terphenyl-d14 (S)	%	81	45-120	12/09/14 13:11	

LABORATORY CONTROL SAMPLE: 1489098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	36.4	73	46-120	
1,2-Diphenylhydrazine	ug/L	50	42.9	86	57-120	
2,4,6-Trichlorophenol	ug/L	50	36.6	73	49-120	
2,4-Dichlorophenol	ug/L	50	35.0	70	48-120	
2,4-Dimethylphenol	ug/L	50	31.1	62	36-119	
2,4-Dinitrophenol	ug/L	50	33.2J	66	23-126	
2,4-Dinitrotoluene	ug/L	50	41.8	84	51-120	
2,6-Dinitrotoluene	ug/L	50	40.6	81	51-120	
2-Chloronaphthalene	ug/L	50	38.7	77	60-118	
2-Chlorophenol	ug/L	50	29.9	60	47-120	
2-Nitrophenol	ug/L	50	37.3	75	46-120	
3,3'-Dichlorobenzidine	ug/L	50	87.0	174	31-160 L0	
4,6-Dinitro-2-methylphenol	ug/L	50	40.0	80	40-133	
4-Bromophenylphenyl ether	ug/L	50	41.4	83	53-120	
4-Chloro-3-methylphenol	ug/L	50	37.2	74	50-120	
4-Chlorophenylphenyl ether	ug/L	50	40.4	81	51-120	
4-Nitrophenol	ug/L	50	14.4	29	11-120	
Acenaphthene	ug/L	50	39.3	79	51-120	
Acenaphthylene	ug/L	50	39.5	79	49-120	
Aniline	ug/L	50	51.2	102	16-142 N2	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

LABORATORY CONTROL SAMPLE: 1489098

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Anthracene	ug/L	50	42.2	84	53-120	
Benidine	ug/L	50	44.5J	89	1-120	
Benzo(a)anthracene	ug/L	50	42.6	85	54-120	
Benzo(a)pyrene	ug/L	50	43.3	87	51-120	
Benzo(b)fluoranthene	ug/L	50	49.3	99	54-120	
Benzo(g,h,i)perylene	ug/L	50	41.3	83	53-120	
Benzo(k)fluoranthene	ug/L	50	39.1	78	52-120	
bis(2-Chloroethoxy)methane	ug/L	50	39.1	78	50-120	
bis(2-Chloroethyl) ether	ug/L	50	36.2	72	48-120	
bis(2-Chloroisopropyl) ether	ug/L	50	37.6	75	48-120	
bis(2-Ethylhexyl)phthalate	ug/L	50	41.2	82	49-127	
Butylbenzylphthalate	ug/L	50	41.9	84	52-120	
Chrysene	ug/L	50	42.2	84	54-120	
Di-n-butylphthalate	ug/L	50	42.5	85	54-118	
Di-n-octylphthalate	ug/L	50	43.2	86	51-122	
Dibenz(a,h)anthracene	ug/L	50	41.3	83	52-120	
Diethylphthalate	ug/L	50	42.0	84	53-114	
Dimethylphthalate	ug/L	50	40.4	81	52-112	
Fluoranthene	ug/L	50	42.4	85	53-120	
Fluorene	ug/L	50	41.3	83	59-120	
Hexachloro-1,3-butadiene	ug/L	50	34.6	69	44-116	
Hexachlorobenzene	ug/L	50	41.6	83	51-120	
Hexachlorocyclopentadiene	ug/L	100	36.0	36	24-120	
Hexachloroethane	ug/L	50	32.6	65	43-113	
Indeno(1,2,3-cd)pyrene	ug/L	50	41.2	82	52-120	
Isophorone	ug/L	50	40.7	81	50-120	
N-Nitroso-di-n-propylamine	ug/L	50	41.0	82	49-120	
N-Nitrosodimethylamine	ug/L	50	17.4	35	28-120	
N-Nitrosodiphenylamine	ug/L	50	41.6	83	51-120	
Naphthalene	ug/L	50	37.1	74	48-120	
Nitrobenzene	ug/L	50	38.7	77	48-120	
Pentachlorophenol	ug/L	50	38.6	77	47-120	
Phenanthrene	ug/L	50	42.1	84	54-120	
Phenol	ug/L	50	12.5	25	16-112	
Pyrene	ug/L	50	43.1	86	56-115	
2,4,6-Tribromophenol (S)	%			83	39-120	
2-Fluorobiphenyl (S)	%			79	39-120	
2-Fluorophenol (S)	%			34	17-120	
Nitrobenzene-d5 (S)	%			76	33-120	
Phenol-d6 (S)	%			24	11-120	
Terphenyl-d14 (S)	%			86	45-120	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

MATRIX SPIKE SAMPLE:	1489099	60183697001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	50	30.8	62	44-120	
1,2-Diphenylhydrazine	ug/L	ND	50	34.6	69	42-120	
2,4,6-Trichlorophenol	ug/L	ND	50	32.8	66	50-120	
2,4-Dichlorophenol	ug/L	ND	50	30.6	61	45-120	
2,4-Dimethylphenol	ug/L	ND	50	31.0	62	32-119	
2,4-Dinitrophenol	ug/L	ND	50	32.6J	65	10-150	
2,4-Dinitrotoluene	ug/L	ND	50	37.0	74	46-122	
2,6-Dinitrotoluene	ug/L	ND	50	37.9	76	50-120	
2-Chloronaphthalene	ug/L	ND	50	33.4	67	60-118	
2-Chlorophenol	ug/L	ND	50	25.8	52	45-120	
2-Nitrophenol	ug/L	ND	50	30.8	62	29-133	
3,3'-Dichlorobenzidine	ug/L	ND	50	49.7	99	10-160	
4,6-Dinitro-2-methylphenol	ug/L	ND	50	35.9	72	10-160	
4-Bromophenylphenyl ether	ug/L	ND	50	36.1	72	53-120	
4-Chloro-3-methylphenol	ug/L	ND	50	32.4	65	43-120	
4-Chlorophenylphenyl ether	ug/L	ND	50	35.0	70	49-120	
4-Nitrophenol	ug/L	ND	50	15.5	31	10-120	
Acenaphthene	ug/L	ND	50	34.4	69	48-120	
Acenaphthylene	ug/L	ND	50	34.2	68	46-120	
Aniline	ug/L	ND	50	20.2	40	16-142	N2
Anthracene	ug/L	ND	50	37.0	74	51-120	
Benzidine	ug/L	ND	50	ND	0	1-120	M1
Benzo(a)anthracene	ug/L	ND	50	36.6	73	52-120	
Benzo(a)pyrene	ug/L	ND	50	37.2	74	48-120	
Benzo(b)fluoranthene	ug/L	ND	50	39.5	79	50-120	
Benzo(g,h,i)perylene	ug/L	ND	50	36.7	73	51-120	
Benzo(k)fluoranthene	ug/L	ND	50	36.9	74	50-120	
bis(2-Chloroethoxy)methane	ug/L	ND	50	32.7	65	45-120	
bis(2-Chloroethyl) ether	ug/L	ND	50	31.7	63	44-120	
bis(2-Chloroisopropyl) ether	ug/L	ND	50	31.9	64	46-120	
bis(2-Ethylhexyl)phthalate	ug/L	7.8	50	43.7	72	46-131	
Butylbenzylphthalate	ug/L	ND	50	37.5	75	51-129	
Chrysene	ug/L	ND	50	37.4	75	52-120	
Di-n-butylphthalate	ug/L	ND	50	37.3	75	53-118	
Di-n-octylphthalate	ug/L	ND	50	38.4	77	52-133	
Dibenz(a,h)anthracene	ug/L	ND	50	36.6	73	51-120	
Diethylphthalate	ug/L	ND	50	37.1	74	52-114	
Dimethylphthalate	ug/L	ND	50	36.1	72	51-112	
Fluoranthene	ug/L	ND	50	37.9	76	53-120	
Fluorene	ug/L	ND	50	35.8	72	50-120	
Hexachloro-1,3-butadiene	ug/L	ND	50	29.7	59	39-116	
Hexachlorobenzene	ug/L	ND	50	35.5	71	51-120	
Hexachlorocyclopentadiene	ug/L	ND	100	32.2	32	11-120	
Hexachloroethane	ug/L	ND	50	29.1	58	40-113	
Indeno(1,2,3-cd)pyrene	ug/L	ND	50	36.7	73	50-120	
Isophorone	ug/L	ND	50	33.6	67	44-120	
N-Nitroso-di-n-propylamine	ug/L	ND	50	34.5	69	41-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

Parameter	Units	60183697001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
MATRIX SPIKE SAMPLE:		1489099					
N-Nitrosodimethylamine	ug/L	ND	50	18.2	36	16-120	
N-Nitrosodiphenylamine	ug/L	ND	50	36.8	74	43-120	
Naphthalene	ug/L	ND	50	31.4	63	45-120	
Nitrobenzene	ug/L	ND	50	32.4	65	38-120	
Pentachlorophenol	ug/L	ND	50	36.5	73	43-135	
Phenanthrene	ug/L	ND	50	36.2	72	54-120	
Phenol	ug/L	ND	50	12.3	25	13-112	
Pyrene	ug/L	ND	50	38.0	76	53-115	
2,4,6-Tribromophenol (S)	%				75	39-120	
2-Fluorobiphenyl (S)	%				68	39-120	
2-Fluorophenol (S)	%				32	17-120	
Nitrobenzene-d5 (S)	%				65	33-120	
Phenol-d6 (S)	%				24	11-120	
Terphenyl-d14 (S)	%				75	45-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

QC Batch: WETA/32119 Analysis Method: EPA 420.1
QC Batch Method: EPA 420.1 Analysis Description: 420.1 Phenolics Macro
Associated Lab Samples: 60183697001

METHOD BLANK: 1491476 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	0.050	12/10/14 14:59	

LABORATORY CONTROL SAMPLE: 1491477

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	.5	0.54	107	90-110	

MATRIX SPIKE SAMPLE: 1491478

Parameter	Units	60183593001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	.5	0.52	94	90-110	

MATRIX SPIKE SAMPLE: 1491479

Parameter	Units	60183595001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	.5	0.50	96	90-110	

SAMPLE DUPLICATE: 1491480

Parameter	Units	60183607002 Result	Dup Result	RPD	Max RPD	Qualifiers
Phenolics, Total Recoverable	mg/L	<0.050	ND		20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60183697

QC Batch: WETA/32096 Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 60183697001

METHOD BLANK: 1490637 Matrix: Water
Associated Lab Samples: 60183697001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	12/09/14 15:59	

LABORATORY CONTROL SAMPLE: 1490638

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.090	90	69-126	

MATRIX SPIKE SAMPLE: 1490639

Parameter	Units	60183631002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	.1	0.095	95	41-136	

SAMPLE DUPLICATE: 1490640

Parameter	Units	60183697001 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	ND	ND		26	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Effluent Testing
Pace Project No.: 60183697

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-K Pace Analytical Services - Kansas City

ANALYTE QUALIFIERS

- L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- N2 The lab does not hold TNI accreditation for this parameter.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Effluent Testing
Pace Project No.: 60183697

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60183697001	OUTFALL 1	EPA 200.7	MPRP/30043	EPA 200.7	ICP/22478
60183697001	OUTFALL 1	EPA 245.1	MERP/9119	EPA 245.1	MERC/9072
60183697001	OUTFALL 1	EPA 625	OEXT/47391	EPA 625	MSSV/15298
60183697001	OUTFALL 1	EPA 624 Low	MSV/66174		
60183697001	OUTFALL 1	EPA 420.1	WETA/32119		
60183697001	OUTFALL 1	SM 4500-CN-E	WETA/32096		

REPORT OF LABORATORY ANALYSIS

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WO#: 60183697



60183697

Client Name: Platte City

Optional
Proj Due Date:
Proj Name:

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____ Pace Shipping Label Used? Yes No

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No

Packing Material: Bubble Wrap Bubble Bags Foam None Other 2PIC

Thermometer Used: T-239 / T-194 Type of Ice: Wet Blue None Samples received on ice, cooling process has begun.

Cooler Temperature: 1.7

(circle one)

Date and initials of person examining contents: _____

Temperature should be above freezing to 6°C

Chain of Custody present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody filled out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler name & signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples arrived within holding time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time analyses (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Pace containers used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Containers intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Unpreserved 5035A soils frozen w/in 48hrs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Filtered volume received for dissolved tests?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Includes date/time/ID/analyses Matrix: <u>WT</u>		13.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
All containers needing preservation are found to be in compliance with EPA recommendation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14.
Exceptions: <u>VOA</u> coliform, TCC, <u>COB</u> , <u>WI-DRO</u> (water), Phenolics <u>PHENOLIC</u>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
Trip Blank present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Lot # of added preservative
Pace Trip Blank lot # (if purchased): <u>Cover</u>		15.
Headspace in VOA vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Project sampled in USDA Regulated Area:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17. List State:

Client Notification/ Resolution: Copy COC to Client? Y / (N) Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature]

Date: 12-4-14



CHAIN-OF-CUSTODY / Analytical Request Document

efc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A
 Required Client Information:
 Company: City of Platte City
 Address: 400 Main St
 Platte City, MO 64079
 Email To: dstamp@plattcity.org
 Phone: 816-858-5381 Fax: 816-858-4816
 Requested Due Date/TAT: Ship/del

Section B
 Required Project Information:
 Report To: Daniel Stampler
 Copy To: Sharon Anderson (sanderson@plattcity.org)
 Purchase Order No.: Credit Card
 Project Name: Effluent Testing
 Project Number:

Section C
 Invoice Information:
 Attention: Sharon Anderson
 Company Name: City of Platte City
 Address: 400 Main St Platte City, MO 64079
 Pace Quote Reference: Trudy Gipson 913-563-1405
 Pace Profile #: 2903 Line 3

REGULATORY AGENCY
 NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER

Site Location: MO

ITEM #	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WATER P PRODUCT SL SOIL/SOLID OL OIL WP WIPE AR AIR OT OTHER TS TISSE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	SAMPLE TEMP AT COLLECTION	PRESERVATIVES		Analysis Test	Metals/Hardness	Mercury	Cyanide	Phenols	VOC	SVOC	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
		COMPOSITE START	COMPOSITE END/GRAB				DATE	TIME									
1				G	WW												601826A7
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

ADDITIONAL COMMENTS
 *Sp.-As.-Bb.-Cd.-Cr.-Cu.-Pb.-Ni.-Se.-Ag.-Tl.-Zn.-Ca.-Mg

REQUISITIONED BY/AFFILIATION: Daniel Stampler
 DATE: 12-3-14
 TIME: 3:25

ACCESSED BY/AFFILIATION: Daniel Stampler
 DATE: 12/19/14
 TIME: 1525

SAMPLE CONDITIONS
 Received on Ice (Y/N): X
 Custody Sealed (Y/N): X
 Cooler (Y/N): X
 Samples Intact (Y/N): X

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Daniel Stampler
 SIGNATURE of SAMPLER: [Signature]
 DATE Signed (MM/DD/YYYY): 12-3-14

*Important! Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to file charges of 1.5% per month for any invoices not paid within 30 days.

October 05, 2012

Mr. Daniel Stamper
City of Platte City
400 Main St
Platte City, MO 64079

2012 Permit Renewal

RE: Project: Effluent Testing
Pace Project No.: 60130021

Dear Mr. Stamper:

Enclosed are the analytical results for sample(s) received by the laboratory on September 28, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Trudy Gipson

Trudy Gipson

trudy.gipson@pacelabs.com
Project Manager

Enclosures

cc: Ms. Sharon Anderson, City of Platte City



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Effluent Testing

Pace Project No.: 60130021

Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 12-019-0
Illinois Certification #: 002885
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-12-3
Utah Certification #: KS000212012-2

SAMPLE SUMMARY

Project: Effluent Testing
Pace Project No.: 60130021

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60130021001	OUTFALL 1	Water	09/28/12 11:44	09/28/12 13:18
60130021002	TRIP BLANK	Water	09/28/12 00:00	09/28/12 13:18

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Effluent Testing
Pace Project No.: 60130021

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60130021001	OUTFALL 1	EPA 200.7	JGP, SMW	15
		EPA 245.1	TDS	1
		EPA 625	JMT	60
		EPA 624 Low	RNS	40
		EPA 420.1	OL	1
		SM 4500-CN-E	OL	1

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: Effluent Testing

Pace Project No.: 60130021

Sample: OUTFALL 1 Lab ID: 60130021001 Collected: 09/28/12 11:44 Received: 09/28/12 13:18 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Antimony	ND	ug/L	10.0	1	10/02/12 10:30	10/04/12 20:27	7440-36-0	
Arsenic	ND	ug/L	10.0	1	10/02/12 10:30	10/04/12 20:27	7440-38-2	
Beryllium	ND	ug/L	1.0	1	10/02/12 10:30	10/04/12 20:27	7440-41-7	
Cadmium	ND	ug/L	5.0	1	10/02/12 10:30	10/04/12 20:27	7440-43-9	
Calcium	39800	ug/L	100	1	10/02/12 10:30	10/04/12 20:27	7440-70-2	
Chromium	ND	ug/L	5.0	1	10/02/12 10:30	10/04/12 20:27	7440-47-3	
Copper	ND	ug/L	10.0	1	10/02/12 10:30	10/04/12 20:27	7440-50-8	
Lead	ND	ug/L	5.0	1	10/02/12 10:30	10/04/12 20:27	7439-92-1	
Magnesium	4740	ug/L	50.0	1	10/02/12 10:30	10/04/12 20:27	7439-95-4	
Nickel	ND	ug/L	5.0	1	10/02/12 10:30	10/04/12 20:27	7440-02-0	
Selenium	ND	ug/L	15.0	1	10/02/12 10:30	10/04/12 20:27	7782-49-2	
Silver	ND	ug/L	7.0	1	10/02/12 10:30	10/04/12 20:27	7440-22-4	
Thallium	ND	ug/L	20.0	1	10/02/12 10:30	10/04/12 20:27	7440-28-0	
Total Hardness by 2340B	119000	ug/L	500	1	10/02/12 10:30	10/04/12 20:27		
Zinc	ND	ug/L	50.0	1	10/02/12 10:30	10/05/12 14:20	7440-66-6	
245.1 Mercury		Analytical Method: EPA 245.1 Preparation Method: EPA 245.1						
Mercury	ND	ug/L	0.20	1	10/01/12 13:00	10/02/12 10:05	7439-97-6	
625 MSSV		Analytical Method: EPA 625 Preparation Method: EPA 625						
Acenaphthene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	83-32-9	
Acenaphthylene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	208-96-8	
Anthracene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	120-12-7	
Benzidine	ND	ug/L	50.0	1	10/03/12 00:00	10/04/12 20:12	92-87-5	
Benzo(a)anthracene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	56-55-3	
Benzo(a)pyrene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	207-08-9	
4-Bromophenylphenyl ether	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	101-55-3	
Butylbenzylphthalate	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	59-50-7	
bis(2-Chloroethoxy)methane	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	6.0	1	10/03/12 00:00	10/04/12 20:12	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	6.0	1	10/03/12 00:00	10/04/12 20:12	39638-32-9	
2-Chloronaphthalene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	91-58-7	
2-Chlorophenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	7005-72-3	
Chrysene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	53-70-3	
3,3'-Dichlorobenzidine	ND	ug/L	20.0	1	10/03/12 00:00	10/04/12 20:12	91-94-1	L3
2,4-Dichlorophenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	120-83-2	
Diethylphthalate	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	84-66-2	
2,4-Dimethylphenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	105-67-9	
Dimethylphthalate	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	131-11-3	
Di-n-butylphthalate	27.9	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	84-74-2	1e,B,L1

ANALYTICAL RESULTS

Project: Effluent Testing

Pace Project No.: 60130021

Sample: OUTFALL 1 Lab ID: 60130021001 Collected: 09/28/12 11:44 Received: 09/28/12 13:18 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
625 MSSV Analytical Method: EPA 625 Preparation Method: EPA 625								
4,6-Dinitro-2-methylphenol	ND	ug/L	25.0	1	10/03/12 00:00	10/04/12 20:12	534-52-1	
2,4-Dinitrophenol	ND	ug/L	50.0	1	10/03/12 00:00	10/04/12 20:12	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	6.0	1	10/03/12 00:00	10/04/12 20:12	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	606-20-2	
Di-n-octylphthalate	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	117-84-0	
1,2-Diphenylhydrazine	ND	ug/L	8.0	1	10/03/12 00:00	10/04/12 20:12	122-66-7	
bis(2-Ethylhexyl)phthalate	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	117-81-7	
Fluoranthene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	206-44-0	
Fluorene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	87-68-3	
Hexachlorobenzene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	77-47-4	
Hexachloroethane	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	193-39-5	
Isophorone	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	78-59-1	
Naphthalene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	91-20-3	
Nitrobenzene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	98-95-3	
2-Nitrophenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	88-75-5	
4-Nitrophenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	100-02-7	
N-Nitrosodimethylamine	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	62-75-9	
N-Nitroso-di-n-propylamine	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	86-30-6	
Pentachlorophenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	87-86-5	
Phenanthrene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	85-01-8	
Phenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	108-95-2	
Pyrene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	120-82-1	
2,4,6-Trichlorophenol	ND	ug/L	5.0	1	10/03/12 00:00	10/04/12 20:12	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	70 %		32-120	1	10/03/12 00:00	10/04/12 20:12	4165-60-0	
2-Fluorobiphenyl (S)	72 %		36-120	1	10/03/12 00:00	10/04/12 20:12	321-60-8	
Terphenyl-d14 (S)	92 %		44-120	1	10/03/12 00:00	10/04/12 20:12	1718-51-0	
Phenol-d6 (S)	28 %		12-120	1	10/03/12 00:00	10/04/12 20:12	13127-88-3	
2-Fluorophenol (S)	42 %		18-120	1	10/03/12 00:00	10/04/12 20:12	367-12-4	
2,4,6-Tribromophenol (S)	88 %		39-119	1	10/03/12 00:00	10/04/12 20:12	118-79-6	

624 Volatile Organics Analytical Method: EPA 624 Low

Acrolein	ND	ug/L	100	1		10/01/12 17:48	107-02-8	L3
Acrylonitrile	ND	ug/L	20.0	1		10/01/12 17:48	107-13-1	
Benzene	ND	ug/L	1.0	1		10/01/12 17:48	71-43-2	
Bromodichloromethane	ND	ug/L	1.0	1		10/01/12 17:48	75-27-4	
Bromoform	ND	ug/L	1.0	1		10/01/12 17:48	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/01/12 17:48	74-83-9	
Carbon tetrachloride	ND	ug/L	1.0	1		10/01/12 17:48	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		10/01/12 17:48	108-90-7	
Chloroethane	ND	ug/L	1.0	1		10/01/12 17:48	75-00-3	
2-Chloroethylvinyl ether	ND	ug/L	10.0	1		10/01/12 17:48	110-75-8	L3

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Effluent Testing
Pace Project No.: 60130021

Sample: **OUTFALL 1** Lab ID: 60130021001 Collected: 09/28/12 11:44 Received: 09/28/12 13:18 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
624 Volatile Organics		Analytical Method: EPA 624 Low						
Chloroform	ND ug/L		1.0	1		10/01/12 17:48	67-66-3	
Chloromethane	ND ug/L		1.0	1		10/01/12 17:48	74-87-3	
Dibromochloromethane	ND ug/L		1.0	1		10/01/12 17:48	124-48-1	
1,2-Dichlorobenzene	ND ug/L		1.0	1		10/01/12 17:48	95-50-1	
1,3-Dichlorobenzene	ND ug/L		1.0	1		10/01/12 17:48	541-73-1	
1,4-Dichlorobenzene	ND ug/L		1.0	1		10/01/12 17:48	106-46-7	
1,1-Dichloroethane	ND ug/L		1.0	1		10/01/12 17:48	75-34-3	
1,2-Dichloroethane	ND ug/L		1.0	1		10/01/12 17:48	107-06-2	
1,1-Dichloroethene	ND ug/L		1.0	1		10/01/12 17:48	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		1.0	1		10/01/12 17:48	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		1.0	1		10/01/12 17:48	156-60-5	
1,2-Dichloropropane	ND ug/L		1.0	1		10/01/12 17:48	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		1.0	1		10/01/12 17:48	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		1.0	1		10/01/12 17:48	10061-02-6	
Ethylbenzene	ND ug/L		1.0	1		10/01/12 17:48	100-41-4	
Methylene chloride	ND ug/L		1.0	1		10/01/12 17:48	75-09-2	
1,1,2,2-Tetrachloroethane	ND ug/L		1.0	1		10/01/12 17:48	79-34-5	
Tetrachloroethene	ND ug/L		1.0	1		10/01/12 17:48	127-18-4	
Toluene	ND ug/L		1.0	1		10/01/12 17:48	108-88-3	
1,1,1-Trichloroethane	ND ug/L		1.0	1		10/01/12 17:48	71-55-6	
1,1,2-Trichloroethane	ND ug/L		1.0	1		10/01/12 17:48	79-00-5	
Trichloroethene	ND ug/L		1.0	1		10/01/12 17:48	79-01-6	
Trichlorofluoromethane	ND ug/L		1.0	1		10/01/12 17:48	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		10/01/12 17:48	75-01-4	
Xylene (Total)	ND ug/L		3.0	1		10/01/12 17:48	1330-20-7	
Surrogates								
Dibromofluoromethane (S)	97 %		80-120	1		10/01/12 17:48	1868-53-7	
4-Bromofluorobenzene (S)	99 %		80-120	1		10/01/12 17:48	460-00-4	
Toluene-d8 (S)	95 %		80-120	1		10/01/12 17:48	2037-26-5	
1,2-Dichloroethane-d4 (S)	99 %		80-120	1		10/01/12 17:48	17060-07-0	
Preservation pH	7.0			1.0	1	10/01/12 17:48		
Phenolics, Total Recoverable		Analytical Method: EPA 420.1						
Phenolics, Total Recoverable	ND mg/L		0.050	1		10/04/12 11:03		
4500CNE Cyanide, Total		Analytical Method: SM 4500-CN-E						
Cyanide	0.0057 mg/L		0.0050	1		10/01/12 13:14	57-12-5	

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

QC Batch: MERP/6674 Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury
Associated Lab Samples: 60130021001

METHOD BLANK: 1070829 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	10/02/12 10:01	

LABORATORY CONTROL SAMPLE: 1070830

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.3	106	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1070831 1070832

Parameter	60130021001		MS Spike	MSD Spike	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
	Units	Result	Conc.	Conc.							
Mercury	ug/L	ND	5	5	5.3	5.1	106	103	70-130	3	20

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

QC Batch: MPRP/19734 Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total
Associated Lab Samples: 60130021001

METHOD BLANK: 1071178 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	10.0	10/04/12 20:24	
Arsenic	ug/L	ND	10.0	10/04/12 20:24	
Beryllium	ug/L	ND	1.0	10/04/12 20:24	
Cadmium	ug/L	ND	5.0	10/04/12 20:24	
Calcium	ug/L	ND	100	10/04/12 20:24	
Chromium	ug/L	ND	5.0	10/04/12 20:24	
Copper	ug/L	ND	10.0	10/04/12 20:24	
Lead	ug/L	ND	5.0	10/04/12 20:24	
Magnesium	ug/L	ND	50.0	10/04/12 20:24	
Nickel	ug/L	ND	5.0	10/04/12 20:24	
Selenium	ug/L	ND	15.0	10/04/12 20:24	
Silver	ug/L	ND	7.0	10/04/12 20:24	
Thallium	ug/L	ND	20.0	10/04/12 20:24	
Total Hardness by 2340B	ug/L	ND	500	10/04/12 20:24	
Zinc	ug/L	ND	50.0	10/05/12 14:16	

LABORATORY CONTROL SAMPLE: 1071179

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	1000	978	98	85-115	
Arsenic	ug/L	1000	980	98	85-115	
Beryllium	ug/L	1000	944	94	85-115	
Cadmium	ug/L	1000	975	98	85-115	
Calcium	ug/L	10000	9420	94	85-115	
Chromium	ug/L	1000	1030	103	85-115	
Copper	ug/L	1000	972	97	85-115	
Lead	ug/L	1000	1050	105	85-115	
Magnesium	ug/L	10000	10400	104	85-115	
Nickel	ug/L	1000	1020	102	85-115	
Selenium	ug/L	1000	952	95	85-115	
Silver	ug/L	500	499	100	85-115	
Thallium	ug/L	1000	1000	100	85-115	
Total Hardness by 2340B	ug/L		66500			
Zinc	ug/L	1000	970	97	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1071180 1071181

Parameter	Units	60130021001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Antimony	ug/L	ND	1000	981	1000	969	98	97	70-130	1	7	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1071180		1071181		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		60130021001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Arsenic	ug/L	ND	1000	1000	1000	993	100	99	70-130	1	10	
Beryllium	ug/L	ND	1000	1000	943	932	94	93	70-130	1	7	
Cadmium	ug/L	ND	1000	1000	982	968	98	97	70-130	1	10	
Calcium	ug/L	39800	10000	10000	49200	49000	94	91	70-130	1	9	
Chromium	ug/L	ND	1000	1000	1020	1010	102	101	70-130	1	10	
Copper	ug/L	ND	1000	1000	973	954	97	95	70-130	2	11	
Lead	ug/L	ND	1000	1000	1020	1010	102	101	70-130	1	10	
Magnesium	ug/L	4740	10000	10000	15000	14800	102	101	70-130	1	9	
Nickel	ug/L	ND	1000	1000	1010	992	100	99	70-130	1	10	
Selenium	ug/L	ND	1000	1000	959	954	96	95	70-130	1	10	
Silver	ug/L	ND	500	500	507	497	101	99	70-130	2	10	
Thallium	ug/L	ND	1000	1000	958	947	96	95	70-130	1	6	
Total Hardness by 2340B	ug/L	119000			185000	183000					1	
Zinc	ug/L	ND	1000	1000	1020	1000	97	96	70-130	2	11	

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

QC Batch: MSV/48886 Analysis Method: EPA 624 Low
QC Batch Method: EPA 624 Low Analysis Description: 624 MSV
Associated Lab Samples: 60130021001

METHOD BLANK: 1070835 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	10/01/12 15:33	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/01/12 15:33	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/01/12 15:33	
1,1-Dichloroethane	ug/L	ND	1.0	10/01/12 15:33	
1,1-Dichloroethene	ug/L	ND	1.0	10/01/12 15:33	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/01/12 15:33	
1,2-Dichloroethane	ug/L	ND	1.0	10/01/12 15:33	
1,2-Dichloropropane	ug/L	ND	1.0	10/01/12 15:33	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/01/12 15:33	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/01/12 15:33	
2-Chloroethylvinyl ether	ug/L	ND	10.0	10/01/12 15:33	
Acrolein	ug/L	ND	100	10/01/12 15:33	
Acrylonitrile	ug/L	ND	20.0	10/01/12 15:33	
Benzene	ug/L	ND	1.0	10/01/12 15:33	
Bromodichloromethane	ug/L	ND	1.0	10/01/12 15:33	
Bromoform	ug/L	ND	1.0	10/01/12 15:33	
Bromomethane	ug/L	ND	5.0	10/01/12 15:33	
Carbon tetrachloride	ug/L	ND	1.0	10/01/12 15:33	
Chlorobenzene	ug/L	ND	1.0	10/01/12 15:33	
Chloroethane	ug/L	ND	1.0	10/01/12 15:33	
Chloroform	ug/L	ND	1.0	10/01/12 15:33	
Chloromethane	ug/L	ND	1.0	10/01/12 15:33	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/01/12 15:33	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/01/12 15:33	
Dibromochloromethane	ug/L	ND	1.0	10/01/12 15:33	
Ethylbenzene	ug/L	ND	1.0	10/01/12 15:33	
Methylene chloride	ug/L	ND	1.0	10/01/12 15:33	
Tetrachloroethene	ug/L	ND	1.0	10/01/12 15:33	
Toluene	ug/L	ND	1.0	10/01/12 15:33	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/01/12 15:33	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/01/12 15:33	
Trichloroethene	ug/L	ND	1.0	10/01/12 15:33	
Trichlorofluoromethane	ug/L	ND	1.0	10/01/12 15:33	
Vinyl chloride	ug/L	ND	1.0	10/01/12 15:33	
Xylene (Total)	ug/L	ND	3.0	10/01/12 15:33	
1,2-Dichloroethane-d4 (S)	%	101	80-120	10/01/12 15:33	
4-Bromofluorobenzene (S)	%	105	80-120	10/01/12 15:33	
Dibromofluoromethane (S)	%	99	80-120	10/01/12 15:33	
Toluene-d8 (S)	%	98	80-120	10/01/12 15:33	

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

LABORATORY CONTROL SAMPLE: 1070836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	23.8	119	71-131	
1,1,2,2-Tetrachloroethane	ug/L	20	20.6	103	58-120	
1,1,2-Trichloroethane	ug/L	20	22.0	110	63-120	
1,1-Dichloroethane	ug/L	20	21.5	108	69-120	
1,1-Dichloroethene	ug/L	20	24.4	122	60-144	
1,2-Dichlorobenzene	ug/L	20	20.1	101	61-124	
1,2-Dichloroethane	ug/L	20	22.7	113	68-124	
1,2-Dichloropropane	ug/L	20	24.2	121	66-126	
1,3-Dichlorobenzene	ug/L	20	21.1	105	59-121	
1,4-Dichlorobenzene	ug/L	20	20.3	102	61-120	
2-Chloroethylvinyl ether	ug/L	20	25.7	129	49-121 LO	
Acrolein	ug/L	200	6550	3277	88-118 LO	
Acrylonitrile	ug/L	200	220	110	71-135	
Benzene	ug/L	20	22.5	112	66-126	
Bromodichloromethane	ug/L	20	21.9	109	62-120	
Bromoform	ug/L	20	18.8	94	58-125	
Bromomethane	ug/L	20	19.8	99	10-160	
Carbon tetrachloride	ug/L	20	24.8	124	74-137	
Chlorobenzene	ug/L	20	22.4	112	62-120	
Chloroethane	ug/L	20	20.5	102	34-160	
Chloroform	ug/L	20	22.1	111	63-120	
Chloromethane	ug/L	20	16.6	83	10-160	
cis-1,2-Dichloroethene	ug/L	20	22.2	111	69-120	
cis-1,3-Dichloropropene	ug/L	20	22.7	114	65-120	
Dibromochloromethane	ug/L	20	22.9	114	62-125	
Ethylbenzene	ug/L	20	21.9	109	65-122	
Methylene chloride	ug/L	20	18.3	91	62-135	
Tetrachloroethene	ug/L	20	23.5	117	67-130	
Toluene	ug/L	20	22.3	111	59-127	
trans-1,2-Dichloroethene	ug/L	20	22.9	115	72-147	
trans-1,3-Dichloropropene	ug/L	20	25.4	127	63-127	
Trichloroethene	ug/L	20	23.5	117	71-129	
Trichlorofluoromethane	ug/L	20	27.3	136	63-149	
Vinyl chloride	ug/L	20	26.1	130	39-160	
Xylene (Total)	ug/L	60	64.7	108	62-121	
1,2-Dichloroethane-d4 (S)	%			95	80-120	
4-Bromofluorobenzene (S)	%			98	80-120	
Dibromofluoromethane (S)	%			97	80-120	
Toluene-d8 (S)	%			97	80-120	

MATRIX SPIKE SAMPLE: 1070837

Parameter	Units	60129812001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	20	23.0	115	52-159	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	17.3	87	46-137	
1,1,2-Trichloroethane	ug/L	ND	20	19.8	99	52-129	
1,1-Dichloroethane	ug/L	ND	20	20.5	103	59-151	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

MATRIX SPIKE SAMPLE:	1070837						
Parameter	Units	60129812001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1-Dichloroethene	ug/L	ND	20	24.3	121	38-160	
1,2-Dichlorobenzene	ug/L	ND	20	15.7	78	26-138	
1,2-Dichloroethane	ug/L	ND	20	19.3	97	49-137	
1,2-Dichloropropane	ug/L	ND	20	20.7	103	39-141	
1,3-Dichlorobenzene	ug/L	ND	20	15.5	77	59-136	
1,4-Dichlorobenzene	ug/L	ND	20	15.8	79	28-131	
2-Chloroethylvinyl ether	ug/L	ND	20	22.9	115	10-160	
Acrolein	ug/L	ND	200	179	90	88-118	
Acrylonitrile	ug/L	ND	200	200	100	71-135	
Benzene	ug/L	ND	20	20.2	101	37-149	
Bromodichloromethane	ug/L	ND	20	18.9	95	39-132	
Bromoform	ug/L	ND	20	16.0	80	45-144	
Bromomethane	ug/L	ND	20	20.3	101	10-160	
Carbon tetrachloride	ug/L	ND	20	23.7	118	70-140	
Chlorobenzene	ug/L	ND	20	18.9	95	37-135	
Chloroethane	ug/L	ND	20	20.3	101	14-160	
Chloroform	ug/L	ND	20	19.7	99	51-138	
Chloromethane	ug/L	ND	20	13.7	68	10-160	
cis-1,2-Dichloroethene	ug/L	ND	20	21.3	106	43-136	
cis-1,3-Dichloropropene	ug/L	ND	20	19.8	99	34-134	
Dibromochloromethane	ug/L	ND	20	20.2	101	53-146	
Ethylbenzene	ug/L	ND	20	19.7	98	37-145	
Methylene chloride	ug/L	ND	20	16.8	84	31-152	
Tetrachloroethene	ug/L	ND	20	20.7	104	64-148	
Toluene	ug/L	ND	20	19.5	97	47-139	
trans-1,2-Dichloroethene	ug/L	ND	20	22.0	110	54-156	
trans-1,3-Dichloropropene	ug/L	ND	20	22.2	111	32-141	
Trichloroethene	ug/L	ND	20	20.9	105	71-148	
Trichlorofluoromethane	ug/L	ND	20	27.1	136	32-160	
Vinyl chloride	ug/L	ND	20	24.0	120	10-160	
Xylene (Total)	ug/L	ND	60	56.3	94	40-138	
1,2-Dichloroethane-d4 (S)	%				99	80-120	
4-Bromofluorobenzene (S)	%				99	80-120	
Dibromofluoromethane (S)	%				100	80-120	
Toluene-d8 (S)	%				99	80-120	
Preservation pH			7.0		7.0		

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

QC Batch: OEXT/35314 Analysis Method: EPA 625
QC Batch Method: EPA 625 Analysis Description: 625 MSS
Associated Lab Samples: 60130021001

METHOD BLANK: 1071874 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	5.0	10/04/12 19:31	
1,2-Diphenylhydrazine	ug/L	ND	8.0	10/04/12 19:31	
2,4,6-Trichlorophenol	ug/L	ND	5.0	10/04/12 19:31	
2,4-Dichlorophenol	ug/L	ND	5.0	10/04/12 19:31	
2,4-Dimethylphenol	ug/L	ND	5.0	10/04/12 19:31	
2,4-Dinitrophenol	ug/L	ND	50.0	10/04/12 19:31	
2,4-Dinitrotoluene	ug/L	ND	6.0	10/04/12 19:31	
2,6-Dinitrotoluene	ug/L	ND	5.0	10/04/12 19:31	
2-Chloronaphthalene	ug/L	ND	5.0	10/04/12 19:31	
2-Chlorophenol	ug/L	ND	5.0	10/04/12 19:31	
2-Nitrophenol	ug/L	ND	5.0	10/04/12 19:31	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	10/04/12 19:31	
4,6-Dinitro-2-methylphenol	ug/L	ND	25.0	10/04/12 19:31	
4-Bromophenylphenyl ether	ug/L	ND	5.0	10/04/12 19:31	
4-Chloro-3-methylphenol	ug/L	ND	5.0	10/04/12 19:31	
4-Chlorophenylphenyl ether	ug/L	ND	5.0	10/04/12 19:31	
4-Nitrophenol	ug/L	ND	5.0	10/04/12 19:31	
Acenaphthene	ug/L	ND	5.0	10/04/12 19:31	
Acenaphthylene	ug/L	ND	5.0	10/04/12 19:31	
Anthracene	ug/L	ND	5.0	10/04/12 19:31	
Benzidine	ug/L	ND	50.0	10/04/12 19:31	
Benzo(a)anthracene	ug/L	ND	5.0	10/04/12 19:31	
Benzo(a)pyrene	ug/L	ND	5.0	10/04/12 19:31	
Benzo(b)fluoranthene	ug/L	ND	5.0	10/04/12 19:31	
Benzo(g,h,i)perylene	ug/L	ND	5.0	10/04/12 19:31	
Benzo(k)fluoranthene	ug/L	ND	5.0	10/04/12 19:31	
bis(2-Chloroethoxy)methane	ug/L	ND	5.0	10/04/12 19:31	
bis(2-Chloroethyl) ether	ug/L	ND	6.0	10/04/12 19:31	
bis(2-Chloroisopropyl) ether	ug/L	ND	6.0	10/04/12 19:31	
bis(2-Ethylhexyl)phthalate	ug/L	ND	5.0	10/04/12 19:31	
Butylbenzylphthalate	ug/L	ND	5.0	10/04/12 19:31	
Chrysene	ug/L	ND	5.0	10/04/12 19:31	
Di-n-butylphthalate	ug/L	8.1	5.0	10/04/12 19:31	
Di-n-octylphthalate	ug/L	ND	5.0	10/04/12 19:31	
Dibenz(a,h)anthracene	ug/L	ND	5.0	10/04/12 19:31	
Diethylphthalate	ug/L	ND	5.0	10/04/12 19:31	
Dimethylphthalate	ug/L	ND	5.0	10/04/12 19:31	
Fluoranthene	ug/L	ND	5.0	10/04/12 19:31	
Fluorene	ug/L	ND	5.0	10/04/12 19:31	
Hexachloro-1,3-butadiene	ug/L	ND	5.0	10/04/12 19:31	
Hexachlorobenzene	ug/L	ND	5.0	10/04/12 19:31	
Hexachlorocyclopentadiene	ug/L	ND	5.0	10/04/12 19:31	
Hexachloroethane	ug/L	ND	5.0	10/04/12 19:31	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

METHOD BLANK: 1071874 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Indeno(1,2,3-cd)pyrene	ug/L	ND	5.0	10/04/12 19:31	
Isophorone	ug/L	ND	5.0	10/04/12 19:31	
N-Nitroso-di-n-propylamine	ug/L	ND	5.0	10/04/12 19:31	
N-Nitrosodimethylamine	ug/L	ND	5.0	10/04/12 19:31	
N-Nitrosodiphenylamine	ug/L	ND	5.0	10/04/12 19:31	
Naphthalene	ug/L	ND	5.0	10/04/12 19:31	
Nitrobenzene	ug/L	ND	5.0	10/04/12 19:31	
Pentachlorophenol	ug/L	ND	5.0	10/04/12 19:31	
Phenanthrene	ug/L	ND	5.0	10/04/12 19:31	
Phenol	ug/L	ND	5.0	10/04/12 19:31	
Pyrene	ug/L	ND	5.0	10/04/12 19:31	
2,4,6-Tribromophenol (S)	%	87	39-119	10/04/12 19:31	
2-Fluorobiphenyl (S)	%	78	36-120	10/04/12 19:31	
2-Fluorophenol (S)	%	43	18-120	10/04/12 19:31	
Nitrobenzene-d5 (S)	%	79	32-120	10/04/12 19:31	
Phenol-d6 (S)	%	28	12-120	10/04/12 19:31	
Terphenyl-d14 (S)	%	95	44-120	10/04/12 19:31	

LABORATORY CONTROL SAMPLE: 1071875

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	38.1	76	44-120	
1,2-Diphenylhydrazine	ug/L	50	39.2	78	49-120	
2,4,6-Trichlorophenol	ug/L	50	42.0	84	48-120	
2,4-Dichlorophenol	ug/L	50	38.8	78	48-120	
2,4-Dimethylphenol	ug/L	50	26.1	52	37-119	
2,4-Dinitrophenol	ug/L	50	43J	86	15-153	
2,4-Dinitrotoluene	ug/L	50	46.0	92	54-120	
2,6-Dinitrotoluene	ug/L	50	47.3	95	52-120	
2-Chloronaphthalene	ug/L	50	40.3	81	60-118	
2-Chlorophenol	ug/L	50	33.6	67	44-120	
2-Nitrophenol	ug/L	50	43.1	86	43-120	
3,3'-Dichlorobenzidine	ug/L	50	89.3	179	23-160 LO	
4,6-Dinitro-2-methylphenol	ug/L	50	48.8	98	31-147	
4-Bromophenylphenyl ether	ug/L	50	44.2	88	53-120	
4-Chloro-3-methylphenol	ug/L	50	39.0	78	50-120	
4-Chlorophenylphenyl ether	ug/L	50	41.3	83	54-120	
4-Nitrophenol	ug/L	50	15.0	30	10-120	
Acenaphthene	ug/L	50	39.9	80	51-120	
Acenaphthylene	ug/L	50	40.0	80	51-120	
Anthracene	ug/L	50	42.5	85	54-120	
Benzidine	ug/L	50	13.6J	27	1-124	
Benzo(a)anthracene	ug/L	50	45.2	90	54-120	
Benzo(a)pyrene	ug/L	50	44.4	89	54-120	
Benzo(b)fluoranthene	ug/L	50	45.4	91	57-120	

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

LABORATORY CONTROL SAMPLE: 1071876

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(g,h,i)perylene	ug/L	50	45.9	92	54-120	
Benzo(k)fluoranthene	ug/L	50	45.5	91	52-121	
bis(2-Chloroethoxy)methane	ug/L	50	38.0	76	51-120	
bis(2-Chloroethyl) ether	ug/L	50	36.6	73	48-120	
bis(2-Chloroisopropyl) ether	ug/L	50	36.6	73	43-120	
bis(2-Ethylhexyl)phthalate	ug/L	50	51.5	103	51-126	
Butylbenzylphthalate	ug/L	50	54.1	108	45-129	
Chrysene	ug/L	50	44.1	88	54-120	
Di-n-butylphthalate	ug/L	50	59.3	119	57-118 LO	
Di-n-octylphthalate	ug/L	50	52.7	105	48-130	
Dibenz(a,h)anthracene	ug/L	50	44.8	90	56-119	
Diethylphthalate	ug/L	50	41.9	84	55-114	
Dimethylphthalate	ug/L	50	41.6	83	54-112	
Fluoranthene	ug/L	50	43.1	86	56-120	
Fluorene	ug/L	50	40.8	82	59-120	
Hexachloro-1,3-butadiene	ug/L	50	37.7	75	41-116	
Hexachlorobenzene	ug/L	50	44.0	88	53-120	
Hexachlorocyclopentadiene	ug/L	100	68.2	68	31-120	
Hexachloroethane	ug/L	50	36.0	72	40-113	
Indeno(1,2,3-cd)pyrene	ug/L	50	44.9	90	55-120	
Isophorone	ug/L	50	37.8	76	51-120	
N-Nitroso-di-n-propylamine	ug/L	50	42.1	84	47-120	
N-Nitrosodimethylamine	ug/L	50	21.9	44	28-120	
N-Nitrosodiphenylamine	ug/L	50	41.0	82	53-120	
Naphthalene	ug/L	50	38.0	76	48-120	
Nitrobenzene	ug/L	50	38.8	78	47-120	
Pentachlorophenol	ug/L	50	44.0	88	43-127	
Phenanthrene	ug/L	50	42.0	84	55-120	
Phenol	ug/L	50	12.9	26	15-112	
Pyrene	ug/L	50	45.5	91	55-115	
2,4,6-Tribromophenol (S)	%			93	39-119	
2-Fluorobiphenyl (S)	%			80	36-120	
2-Fluorophenol (S)	%			40	18-120	
Nitrobenzene-d5 (S)	%			79	32-120	
Phenol-d6 (S)	%			25	12-120	
Terphenyl-d14 (S)	%			101	44-120	

MATRIX SPIKE SAMPLE: 1071876

Parameter	Units	60129896001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	50	41.5	83	44-120	
1,2-Diphenylhydrazine	ug/L	ND	50	40.6	81	55-120	
2,4,6-Trichlorophenol	ug/L	ND	50	47.0	94	37-121	
2,4-Dichlorophenol	ug/L	ND	50	42.7	85	39-120	
2,4-Dimethylphenol	ug/L	ND	50	40.1	80	32-119	
2,4-Dinitrophenol	ug/L	ND	50	50.6	101	20-157	
2,4-Dinitrotoluene	ug/L	ND	50	50.5	101	39-130	

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QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

MATRIX SPIKE SAMPLE:	1071876						
Parameter	Units	60129896001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2,6-Dinitrotoluene	ug/L	ND	50	50.4	101	50-128	
2-Chloronaphthalene	ug/L	ND	50	43.7	87	60-118	
2-Chlorophenol	ug/L	ND	50	37.2	74	35-120	
2-Nitrophenol	ug/L	ND	50	47.3	95	29-123	
3,3'-Dichlorobenzidine	ug/L	ND	50	2.2J	4	10-160 M0	
4,6-Dinitro-2-methylphenol	ug/L	ND	50	52.4	105	27-146	
4-Bromophenylphenyl ether	ug/L	ND	50	46.9	94	53-124	
4-Chloro-3-methylphenol	ug/L	ND	50	43.8	88	33-123	
4-Chlorophenylphenyl ether	ug/L	ND	50	44.6	89	34-125	
4-Nitrophenol	ug/L	ND	50	19.5	39	10-120	
Acenaphthene	ug/L	ND	50	42.8	86	47-120	
Acenaphthylene	ug/L	ND	50	42.9	86	33-120	
Anthracene	ug/L	ND	50	44.0	88	36-121	
Benzidine	ug/L	ND	50	ND	0	1-120 M1	
Benzo(a)anthracene	ug/L	ND	50	45.8	92	37-127	
Benzo(a)pyrene	ug/L	ND	50	47.2	94	34-125	
Benzo(b)fluoranthene	ug/L	ND	50	48.4	97	37-131	
Benzo(g,h,i)perylene	ug/L	ND	50	49.2	98	35-128	
Benzo(k)fluoranthene	ug/L	ND	50	48.5	97	34-130	
bis(2-Chloroethoxy)methane	ug/L	ND	50	39.7	79	33-120	
bis(2-Chloroethyl) ether	ug/L	ND	50	40.1	80	32-120	
bis(2-Chloroisopropyl) ether	ug/L	ND	50	38.3	77	36-120	
bis(2-Ethylhexyl)phthalate	ug/L	ND	50	54.3	109	38-137	
Butylbenzylphthalate	ug/L	ND	50	57.4	115	43-136	
Chrysene	ug/L	ND	50	45.7	91	36-127	
Di-n-butylphthalate	ug/L	ND	50	54.8	105	38-118	
Di-n-octylphthalate	ug/L	ND	50	62.0	124	40-140	
Dibenz(a,h)anthracene	ug/L	ND	50	50.0	100	35-131	
Diethylphthalate	ug/L	ND	50	45.9	92	33-114	
Dimethylphthalate	ug/L	ND	50	45.3	91	34-112	
Fluoranthene	ug/L	ND	50	45.8	92	38-125	
Fluorene	ug/L	ND	50	43.9	88	59-121	
Hexachloro-1,3-butadiene	ug/L	ND	50	41.5	83	27-116	
Hexachlorobenzene	ug/L	ND	50	45.4	91	34-124	
Hexachlorocyclopentadiene	ug/L	ND	100	81.3	81	11-120	
Hexachloroethane	ug/L	ND	50	38.6	77	40-113	
Indeno(1,2,3-cd)pyrene	ug/L	ND	50	48.7	97	38-127	
Isophorone	ug/L	ND	50	39.9	80	31-120	
N-Nitroso-di-n-propylamine	ug/L	ND	50	45.4	91	30-120	
N-Nitrosodimethylamine	ug/L	ND	50	22.8	46	29-120	
N-Nitrosodiphenylamine	ug/L	ND	50	44.9	90	10-139	
Naphthalene	ug/L	ND	50	40.8	82	32-120	
Nitrobenzene	ug/L	ND	50	41.2	82	35-128	
Pentachlorophenol	ug/L	ND	50	51.1	102	38-133	
Phenanthrene	ug/L	ND	50	44.1	88	54-120	
Phenol	ug/L	ND	50	14.1	28	13-112	
Pyrene	ug/L	ND	50	47.7	95	52-115	
2,4,6-Tribromophenol (S)	%				103	39-119	

Date: 10/05/2012 04:55 PM

REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, Inc..

QUALITY CONTROL DATA

Project: Effluent Testing

Pace Project No.: 60130021

MATRIX SPIKE SAMPLE:		1071876					
Parameter	Units	60129896001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
2-Fluorobiphenyl (S)	%				85	36-120	
2-Fluorophenol (S)	%				42	18-120	
Nitrobenzene-d5 (S)	%				83	32-120	
Phenol-d6 (S)	%				28	12-120	
Terphenyl-d14 (S)	%				102	44-120	

QUALITY CONTROL DATA

Project: Effluent Testing

Pace Project No.: 60130021

QC Batch: WETA/21884

Analysis Method: EPA 420.1

QC Batch Method: EPA 420.1

Analysis Description: 420.1 Phenolics Macro

Associated Lab Samples: 60130021001

METHOD BLANK: 1072608

Matrix: Water

Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	0.050	10/04/12 10:59	

LABORATORY CONTROL SAMPLE: 1072609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	.5	0.46	92	90-110	

MATRIX SPIKE SAMPLE: 1072610

Parameter	Units	60129981001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	.5	0.47	94	73-122	

MATRIX SPIKE SAMPLE: 1072612

Parameter	Units	60130233001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	.5	0.47	94	73-122	

SAMPLE DUPLICATE: 1072611

Parameter	Units	60130021001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phenolics, Total Recoverable	mg/L	ND	.038J		35	

QUALITY CONTROL DATA

Project: Effluent Testing
Pace Project No.: 60130021

QC Batch: WETA/21844 Analysis Method: SM 4500-CN-E
QC Batch Method: SM 4500-CN-E Analysis Description: 4500CNE Cyanide, Total
Associated Lab Samples: 60130021001

METHOD BLANK: 1070740 Matrix: Water
Associated Lab Samples: 60130021001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	10/01/12 13:11	

LABORATORY CONTROL SAMPLE: 1070741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	100	69-126	

MATRIX SPIKE SAMPLE: 1069555

Parameter	Units	60129653001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.0058	.1	0.086	80	41-136	

MATRIX SPIKE SAMPLE: 1070743

Parameter	Units	60130013003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.0054	.1	0.020	14	41-136 M1	

SAMPLE DUPLICATE: 1070763

Parameter	Units	60129817008 Result	Dup Result	RPD	Max RPD	Qualifiers
Cyanide	mg/L	0.28	0.28	0	26	

QUALIFIERS

Project: Effluent Testing

Pace Project No.: 60130021

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

- 1e Analyte is a possible laboratory contaminant.
- B Analyte was detected in the associated method blank.
- L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
- L3 Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
- M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Effluent Testing
Pace Project No.: 60130021

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60130021001	OUTFALL 1	EPA 200.7	MPRP/19734	EPA 200.7	ICP/16255
60130021001	OUTFALL 1	EPA 245.1	MERP/6674	EPA 245.1	MERC/6630
60130021001	OUTFALL 1	EPA 625	OEXT/35314	EPA 625	MSSV/11092
60130021001	OUTFALL 1	EPA 624 Low	MSV/48886		
60130021001	OUTFALL 1	EPA 420.1	WETA/21884		
60130021001	OUTFALL 1	SM 4500-CN-E	WETA/21844		



Sample Condition Upon Receipt

Client Name: City of Platte city Project # 60130021

Courier: [] Fed Ex [] UPS [] USPS [x] Client [] Commercial [] Pace [] Other
Tracking #:
Custody Seal on Cooler/Box Present: [] Yes [x] No Seals intact: [] Yes [x] No
Packing Material: [] Bubble Wrap [x] Bubble Bags [x] Foam [] None [x] Other ZPLC
Thermometer Used: T-191 / T-194 Type of Ice: Wet Blue None [x] Samples on ice, cooling process has begun

Optional
Proj. Due Date: 10/10
Proj. Name:

Cooler Temperature: 10.6
Temperature should be above freezing to 6°C

Date and Initials of person examining contents: 9-28-12 BA

Table with 17 rows and 3 columns: Description, Yes/No/N/A checkboxes, and numerical ID. Includes items like Chain of Custody, Samples arrived within holding time, and Project sampled in USDA Regulated Area.

Client Notification/ Resolution: Copy COC to Client? Y / (N) Field Data Required? Y / N
Person Contacted: Date/Time:
Comments/ Resolution:

Project Manager Review: [Signature] Date: 9-30-12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

MAKE ADDITIONAL COPIES OF THIS FORM FOR EACH OUTFALL

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 1
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PART E – TOXICITY TESTING DATA

17. TOXICITY TESTING DATA

Refer to the APPLICATION OVERVIEW to determine whether Part E applies to the treatment works.

Publicly owned treatment works, or POTWs, meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points.

- A. POTWs with a design flow rate greater than or equal to 1 million gallons per day
- B. POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403)
- C. POTWs required by the permitting authority to submit data for these parameters
 - At a minimum, these results must include quarterly testing for a 12-month period within the past one year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute or chronic toxicity, depending on the range of receiving water dilution. Do not include information about combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
 - If EPA methods were not used, report the reason for using alternative methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E. If no biomonitoring data is required, do not complete Part E. Refer to the application overview for directions on which other sections of the form to complete.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years: _____ chronic 5 acute

Complete the following chart for the last three whole effluent toxicity tests. Allow one column per test. Copy this page if more than three tests are being reported.

	Most Recent	2 ND Most Recent	3 RD Most Recent
A. Test Information			
Test Method Number	EPA 821/R-02/012	EPA 821/R-02/012	EPA 821/R-02/012
Final Report Number	60177554002	60150920002	60127023
Outfall Number	1	1	1
Dates Sample Collected	9-9-2014	8-13-2013	8-14-2012
Date Test Started	9-10-2014	8-14-2013	8-15-2012
Duration	9-12-2014	8-16-2013	8-17-2012
B. Toxicity Test Methods Followed			
Manual Title	USEPA	USEPA	USEPA
Edition Number and Year of Publication	EPA 2000 & 2002	EPA 2000 & 2002	EPA 2000 & 2002
Page Number(s)			
C. Sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used			
24-Hour Composite	X	X	X
Grab			
D. Indicate where the sample was taken in relation to disinfection (Check all that apply for each)			
Before Disinfection			
After Disinfection	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
After Dechlorination			
E. Describe the point in the treatment process at which the sample was collected			
Sample Was Collected:	End of Treatment	End of Treatment	End of Treatment
F. Indicate whether the test was intended to assess chronic toxicity, acute toxicity, or both			
Chronic Toxicity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acute Toxicity	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
G. Provide the type of test performed			
Static	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Static-renewal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flow-through	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Source of dilution water. If laboratory water, specify type; if receiving water, specify source			
Laboratory Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Receiving Water	<input checked="" type="checkbox"/> Platte River	<input checked="" type="checkbox"/> Platte River	<input checked="" type="checkbox"/> Platte River

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 1
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PART E – TOXICITY TESTING DATA

17. TOXICITY TESTING DATA (continued)

	Most Recent	2 ND Most Recent	3 RD Most Recent
I. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh Water			
Salt Water			
J. Percentage of effluent used for all concentrations in the test series			
Effluent	100%	100%	100%
K. Parameters measured during the test (State whether parameter meets test method specifications)			
pH	7.44	7.87	8.21
Salinity			
Temperature	25 Degrees C	25 Degrees C	25 Degrees C
Ammonia			.42
Dissolved Oxygen	7.44 Yes	7.9 Yes	7.1 Yes
L. Test Results			
Acute:			
Percent Survival in 100% Effluent	100 %	100%	100%
LC ₅₀	>100%	>100%	>100%
95% C.I.			
Control Percent Survival	100%	100%	100%
Other (Describe)			
Chronic:			
NOEC			
IC ₂₅			
Control Percent Survival			
Other (Describe)			
M. Quality Control/ Quality Assurance			
Is reference toxicant data available?	Yes	Yes	Yes
Was reference toxicant test within acceptable bounds?	Yes	Yes	Yes
What date was reference toxicant test run (MM/DD/YYYY)?	8-13-2014	7-24-2013	8-1-2012
Other (Describe)			
Is the treatment works involved in a toxicity reduction evaluation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
If yes, describe:			
If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.			
Date Submitted (MM/DD/YYYY)			
Summary of Results (See Instructions)			

END OF PART E

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM B2 YOU MUST COMPLETE.

MAKE ADDITIONAL COPIES OF THIS FORM FOR EACH OUTFALL

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 2
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PART E – TOXICITY TESTING DATA

17. TOXICITY TESTING DATA

Refer to the APPLICATION OVERVIEW to determine whether Part E applies to the treatment works.

Publicly owned treatment works, or POTWs, meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points.

- A. POTWs with a design flow rate greater than or equal to 1 million gallons per day
- B. POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403)
- C. POTWs required by the permitting authority to submit data for these parameters
 - At a minimum, these results must include quarterly testing for a 12-month period within the past one year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute or chronic toxicity, depending on the range of receiving water dilution. Do not include information about combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
 - If EPA methods were not used, report the reason for using alternative methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E. If no biomonitoring data is required, do not complete Part E. Refer to the application overview for directions on which other sections of the form to complete.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years: _____ chronic 5 acute

Complete the following chart for the last three whole effluent toxicity tests. Allow one column per test. Copy this page if more than three tests are being reported.

	Most Recent	2 ND Most Recent	3 RD Most Recent
A. Test Information			
Test Method Number	EPA 821/R-02/012	EPA 821/R-02/012	EPA 821/R-02/012
Final Report Number	60177554002	60150920002	60127023
Outfall Number	2	2	2
Dates Sample Collected	9-9-2014	8-13-2013	8-14-2012
Date Test Started	9-10-2014	8-14-2013	8-15-2012
Duration	9-12-2014	8-16-2013	8-17-2012
B. Toxicity Test Methods Followed			
Manual Title	USEPA	USEPA	USEPA
Edition Number and Year of Publication	EPA 2000 & 2002	EPA 2000 & 2002	EPA 2000 & 2002
Page Number(s)			
C. Sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used			
24-Hour Composite	X	X	X
Grab			
D. Indicate where the sample was taken in relation to disinfection (Check all that apply for each)			
Before Disinfection			
After Disinfection	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
After Dechlorination			
E. Describe the point in the treatment process at which the sample was collected			
Sample Was Collected:	End of Treatment	End of Treatment	End of Treatment
F. Indicate whether the test was intended to assess chronic toxicity, acute toxicity, or both			
Chronic Toxicity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acute Toxicity	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
G. Provide the type of test performed			
Static	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Static-renewal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flow-through	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Source of dilution water. If laboratory water, specify type; if receiving water, specify source			
Laboratory Water	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Receiving Water	<input type="checkbox"/> Platte River	<input checked="" type="checkbox"/> Platte River	<input checked="" type="checkbox"/> Platte River

FACILITY NAME Platte City WWTP	PERMIT NO. MO- 0026298	OUTFALL NO. 2
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PART E – TOXICITY TESTING DATA

17. TOXICITY TESTING DATA (continued)

	Most Recent	2 ND Most Recent	3 RD Most Recent
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I. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.			
Fresh Water			
Salt Water			

J. Percentage of effluent used for all concentrations in the test series			
Effluent	100%	100%	100%

K. Parameters measured during the test (State whether parameter meets test method specifications)			
pH	7.44	7.87	8.21
Salinity			
Temperature	25 Degrees C	25 Degrees C	25 Degrees C
Ammonia			.42
Dissolved Oxygen	7.44 Yes	7.9 Yes	7.1 Yes

L. Test Results			
Acute:			
Percent Survival in 100% Effluent	100 %	100%	100%
LC ₅₀	>100%	>100%	>100%
95% C.I.			
Control Percent Survival	100%	100%	100%
Other (Describe)			

Chronic:			
NOEC			
IC ₂₅			
Control Percent Survival			
Other (Describe)			

M. Quality Control/ Quality Assurance			
Is reference toxicant data available?	Yes	Yes	Yes
Was reference toxicant test within acceptable bounds?	Yes	Yes	Yes
What date was reference toxicant test run (MM/DD/YYYY)?	8-13-2014	7-24-2013	8-1-2012
Other (Describe)			

Is the treatment works involved in a toxicity reduction evaluation? Yes No
 If yes, describe:

If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date Submitted (MM/DD/YYYY)

Summary of Results (See Instructions)

END OF PART E

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM B2 YOU MUST COMPLETE.

INSTRUCTIONS FOR COMPLETING FORM B2
APPLICATION FOR OPERATING PERMIT FOR FACILITIES THAT RECEIVE PRIMARILY DOMESTIC WASTE AND
HAVE A DESIGN FLOW MORE THAN 100,000 GALLONS PER DAY. Form 780-1805
(Facilities less than or equal to 100,000 gallons per day of domestic waste must use Form B - 780-1512.)

PART A – BASIC APPLICATION INFORMATION

1. Check the appropriate box. **Do not check more than one item.** Operating permits refer to permits issued by the Department of Natural Resources, Water Protection Program. If an Antidegradation Review has not been conducted, please submit the application located at the following link to the Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102: dnr.mo.gov/forms/780-1893-f.pdf.

1.1 **Fees Information:**

DOMESTIC OPERATING PERMIT FEES – PRIVATE

Annual operating permit fees are based on flow.

Annual fee/Design flow	Annual fee/Design flow	Annual fee/Design flow
\$100.....<5,000 gpd	\$375.....10,000-10,999 gpd	\$650.....16,000-16,999 gpd
\$150.....5,000-5,999 gpd	\$400.....11,000-11,999 gpd	\$800.....17,000-19,999 gpd
\$175.....6,000-6,999 gpd	\$450.....12,000-12,999 gpd	\$1,000.....20,000-22,999 gpd
\$200.....7,000-7,999 gpd	\$500.....13,000-13,999 gpd	\$2,000.....23,000-24,999 gpd
\$225.....8,000-8,999 gpd	\$550.....14,000-14,999 gpd	\$2,500.....25,000-29,999 gpd
\$250.....9,000-9,999 gpd	\$600.....15,000-15,999 gpd	\$3,000.....30,000 gpd -1 mgd

New domestic wastewater treatment facilities must submit the annual fee with the original application.

If the application is for a site-specific permit re-issuance, send no fees. You will be invoiced separately by the department on the anniversary date of the original permit. Permit fees must be current for the department to reissue the operating permit. Late fees of two percent per month are charged and added to outstanding annual fees.

PUBLIC SEWER SYSTEM OPERATING PERMIT FEES (City, Public Sewer District, Public Water District, or other publicly owned treatment works). Annual fee is based on number of service connections. The table of fees is in 10 CSR 20-6.011 and is available at www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf. New Public Sewer System facilities should not submit any fee as the department will invoice the permittee.

OPERATING PERMIT MODIFICATIONS, including transfers, are subject to the following fees:

- a. Municipals - \$200 each.
- b. All others – \$100 each.

Note: Facility name or address changes where owner, operator and continuing authority remain the same are not considered transfers.

2. Name of Facility – Include the name by which this facility is locally known. Example: Southwest Sewage Treatment Plant, Country Club Mobile Home Park, etc. Provide the street address or location of the facility. If the facility lacks a street name or route number, provide the names of the closest intersection, highway, country road, etc.
- 2.1 Self-explanatory.
- 2.2 Global Positioning System, or GPS, is a satellite-based navigation system. The department prefers that a GPS receiver is used and the displayed coordinates submitted. If access to a GPS receiver is not available, use a mapping system to approximate the coordinates; the department's mapping system is available at www.dnr.mo.gov/internetmapviewer/.
- 2.3-2.4 Self-explanatory.
3. Owner – Provide the legal name, mailing address, phone number, and e-mail address of the owner.
- 3.1 Prior to submitting a permit to public notice, the Department of Natural Resources shall provide the permit applicant 15 days to review the draft permit for nonsubstantive drafting errors. In the interest of expediting permit issuance, permit applicants may waive the opportunity to review draft permits prior to public notice.
- 3.2-3.4 Self-explanatory.
4. Continuing Authority – Provide information for the permanent organization which will serve as the continuing authority for the operation, maintenance, and modernization of the facility. The regulatory requirement regarding continuing authority is available at www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf or contact the Department of Natural Resources Water Protection Program (see contact information below).
5. Operator – Provide the name, certificate number, title, mailing address, phone number, and e-mail address of the operator of the facility.
6. Provide the name, title, mailing address, work phone number, and e-mail address of a person who is thoroughly familiar with the operation of the facility and with the facts reported in this application and who can be contacted by the department.