

## Wilson, Tabatha

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**From:** Gilliam, Allen  
**Sent:** Thursday, April 10, 2014 2:54 PM  
**To:** little rock jeff davis  
**Cc:** Fuller, Kim; Wilson, Tabatha; Ramsey, David; Kaelin, Cynthia; Uyeda, Craig; Schluterman, Amy; Little Rock Stan Suel  
**Subject:** AR0021806\_Little Rocks March 2014 annual Pretreatment report with ADEQ reply\_20140410  
**Attachments:** Little Rock March 2014 Annual Pretreatment Report.pdf

Jeff,

Little Rock Wastewater's March 2014 annual Pretreatment report was received, reviewed, deemed compete and compliant with the reporting requirements per the Federal Pretreatment Reporting requirements in 40 CFR 403.12(i). There are no further action deemed necessary at this time.

Your influent/effluent "trends" graphs are always of interest. Out of curiosity, can you explain the seemingly increased levels for Cr, Se and total Phenols within the last five (5) to seven (7) years?

And with twelve (12) of your sixteen (16) categoricals permitted for "no discharge of regulated wastewater" would you want to explore a minor modification of your Pretreatment Program and Ordinance adopting the legal authority to regulate them as non-significant categoricals [definition: 40 CFR 403.3(v)(2)] under 40 CFR 403.8(f)(2)(iv)(B)?

Thank you for the timely and most comprehensive report remaining in compliance with the Federal Pretreatment Regulations in 40 CFR 403.

Sincerely,

Allen Gilliam  
ADEQ State Pretreatment Coordinator  
501.682.0625

E/NPDES/NPDES/Pretreatment/Reports



March 31, 2014

Director  
Arkansas Department of Environmental Quality  
NPDES Enforcement Section  
5301 Northshore Drive  
Little Rock, AR. 72118

RECEIVED  
MAR 31 2014  
K. G. S.

RE: 2013 Annual Pretreatment Program Report  
NPDES Permit AR0021806 – Adams Field WWTP  
NPDES Permit AR0040177 – Fourche Creek WWTP  
NPDES Permit AR0050849 – Little Maumelle WWTP

Gentlemen:

The purpose of this letter is to show compliance with the requirements found in 40 CFR 403.12(i) and the referenced NPDES permits issued to Little Rock Wastewater (LRW). During 2013 LRW continued activities pursuant to maintaining compliance with the General Pretreatment Regulations (40 CFR 403). Enclosed with this letter is the 2013 Annual Pretreatment Program Report.

Contained within Section III of the enclosed report is a summary of the number of industrial users that have been in significant violation or significant noncompliance since 1986. During 2013, no industry was in significant noncompliance with applicable pretreatment requirements according to criteria published in 40 CFR 403 and EPA, Region VI, policy on quarterly reviews of industrial user compliance.

Also included in this report is an Updated Industrial User List and LRW's Pretreatment Program Status Report outlining compliance, sampling, and inspection information. The following abbreviations are used in the Pretreatment Program Status Report: C = compliance, NC = noncompliance, SNC = significant noncompliance, RD = received, and NR = not required. LRW is also enclosing information on sampling results for the three (3) Wastewater Treatment Plants influent and effluent and biosolids 2013 sampling results as required by our NPDES permits.

If you have any questions concerning any of the information submitted, or require additional information, do not hesitate to contact Jeff Davis at 688-1495, or me at 688-1486.

Sincerely,

LITTLE ROCK WASTEWATER

  
Signature

3/31/2014  
Date

Stanley B. Suel  
Director of Environmental Assessment  
501-688-1486

Walter B. Collins, P.E.  
Interim Director of Operations  
501-688-1429

cc: Howell Anderson, LRW Interim CEO/Director of Maintenance  
Walter Collins, Interim Director of Operations  
Jeff Davis, Pretreatment Program Supervisor  
Susan Samples Ledbetter, Laboratory Supervisor  
Eric Wassell, Interim Plant Superintendent  
Mikel Murders, Plan Review/Environmental Sampling Supervisor



**Little Rock  
Wastewater**

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**ENVIRONMENTAL  
ASSESSMENT DIVISION**

**2013 ANNUAL  
PRETREATMENT  
PROGRAM REPORT**

**Submitted March 31, 2014**

**LITTLE ROCK WASTEWATER  
2013 ANNUAL PRETREATMENT PROGRAM REPORT**

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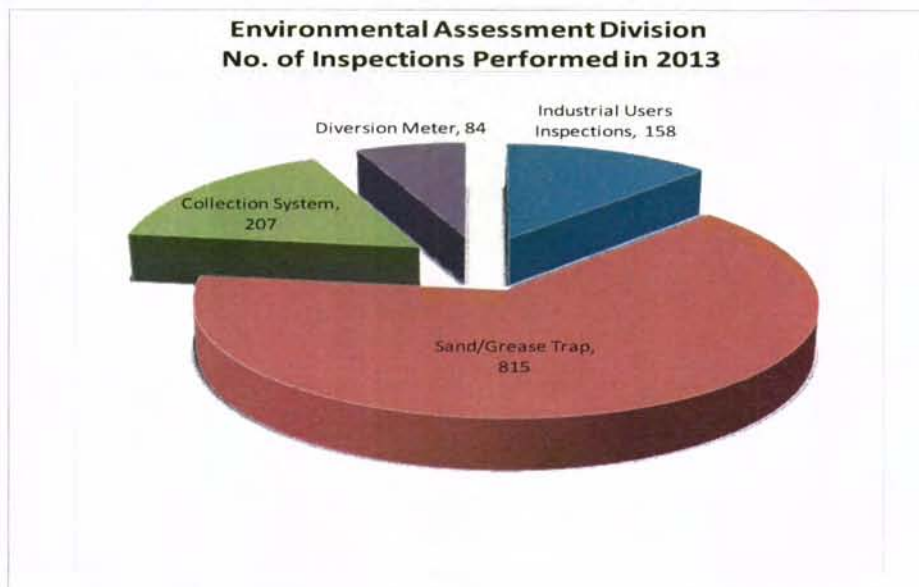
## LITTLE ROCK WASTEWATER ENVIRONMENTAL ASSESSMENT DIVISION

### Approved Pretreatment Program 2013 Accomplishments

The Environmental Assessment Division (EAD) Approved Pretreatment Program conducts the requirements of Code of Federal Regulations Title 40 Part 403(40 CFR 403) General Pretreatment Regulations. Objectives of 40 CFR 403 are to prevent introduction of pollutants that interfere with Little Rock Wastewater (LRW) Publicly Owned Treatment Works (POTW) operations and sludge disposal, prevent introduction of pollutants that may pass through or be incompatible with the POTW system, and protect worker safety.

There were thirty-eight (38) Significant Industrial Users (SIU), with active Industrial Wastewater Discharge Permits during 2013. Sixteen (16) of the thirty-eight (38) are categorical, subject to federal pretreatment standards. There are an additional twenty (20) non-SIU facilities that also held Permits or Short Term Authorizations for controlling and monitoring discharge requirements. Permits issued by LRW provide a control mechanism for sampling, inspecting, and tracking compliance with applicable Federal, State, and Local regulations.

A total of 1,264 inspections and investigations were conducted at industrial and commercial facilities. For industries subject to permit requirements, 158 inspections were conducted to evaluate wastewater sources and compliance. EAD also performed 815 Trap/Interceptor Program inspections at commercial facilities as measures to control discharge of prohibited solids and O&G. Trap/Interceptor inspections identified 118 items requiring corrective action. EAD conducted 84 inspections of diversion meters, used for non-sewered flow where users are allowed credit on sewer charges. EAD also conducted 207 collection system new connections and investigations.



EAD was successful with addressing industry non-compliance and requiring necessary corrective measures to obtain a return to compliance. During 2013, twelve (12) Violation Reports were completed to track industry numeric violations for a return to compliance.

Whole Effluent Toxicity (WET) tests were conducted on final effluents at Adams Field Wastewater Treatment Plant (AF-WWTP), Fourche Creek (FC-WWTP), and Little Maumelle (LM-WWTP). No lethal or sub-lethal toxic effects were observed for either AF-WWTP, FC-WWTP or LM-WWTP final effluent at any required NPDES effluent test dilutions.

Extra strength surcharges for COD, TS, TSS, and O&G loading to the collection system from industrial users, billed during the year, totaled approximately \$1,042,048. The City of Little Rock Sanitary Sewer Committee's adoption of the Consolidated Fee Schedule allowed EAD to administer fees totaling \$122,848 (permits/inspection fees, special discharge fees, Trap Control Program). Additionally, Landfill Leachate billing revenue was \$213,989. (Revenues are itemized in the Funding/Expenditure Report located at the end of this Section.)

During 2013, LRW implemented and accomplished the following pretreatment program activities:

### **Program Development**

- Pretreatment Program Audit Requirements and Recommendations response letter was submitted to ADEQ in January 2013. The only required action from the November 2012 Program Audit was to ensure that there is adequate signage to the hauled waste disposal station. LRW replaced old signage with new signs and directions for Septic Tank Pumpers upon entry to the AF-WWTP designated Disposal Station. Hauled liquid waste to LRW increased in 2013 due to the City of Benton discontinuing acceptance of septic tank pumper trucks.
- The 2012 Pretreatment Program Annual Report was submitted to ADEQ in March 2013. ADEQ responded that the Report was reviewed, deemed complete and compliant with Federal Pretreatment reporting requirements in 40 CFR 403.12(i).
- Pretreatment Program Staff Training:
  1. The Pretreatment Program Supervisor attended the 29th Region VI Pretreatment Association Workshop and gave a presentation: *Can the Grease and LRW FOG Control Programs*.
  2. The Pretreatment Inspectors attended the *Plumbing Inspector Training Course* that was held August 8-9, 2013, at Arkansas Rural Water Association. Inspectors received their Arkansas Department of Health Plumbing Inspectors License.
  3. The Pretreatment Inspector position was filled by promoting an EAD Laboratory Technician in 2013. The new inspector completed the following skill set California State University correspondence training courses: Pretreatment

- Facility Inspection, Treatment of Metal Waste Streams, Industrial Waste Treatment Vol. I, Industrial Waste Treatment Vol. II.
4. The Pretreatment Program staff attended the 82nd Annual AWW & WEA Conference in Hot Springs; April 28-29, 2013. A LRW Pretreatment Inspector served on the Program Committee.
  5. The Pretreatment Program Staff conducted a review of the EPA Document: Applicability of Categorical Pretreatment Standards to "Zero-Discharge" Industrial Users, Appendix E Guidance on the BMR and Requirements. The purpose was to affirm the Inspector's understanding of EPA's position on monitoring waivers and permit recommendations for this type of Industrial User (IU) group.
  6. The Pretreatment Program Supervisor attended Supervisor Training Course provided by the Human Resource Management Association of Arkansas, Inc.
- Emergency spill kits located at AF-WWTP and FC-WWTP were inspected and contents were replenished. EAD maintains these kits so sampling containers and preservatives are on site for immediate sampling if an industrial slug or spill occurs. EAD Pretreatment Inspectors also keep one mobile kit available in an inspection vehicle.
  - The Pretreatment Program Staff provided annual biosolids lagoon sample collection, delivery, and custody records. Biosolids disposed in 2013 were Class A Exceptional Quality. (see Section X).

### **Industrial Relations**

- In 2013, LRW mailed out forty four (44) Pretreatment Excellence Certificates Awards to those industries with perfect compliance for 2012.
- Special permitting activities in 2013 (new, modifications/extensions, and closures):
  1. **Welspun HFW**(High Frequency Welding) completed construction and began operations in 2013. This facility is regulated by 40 CFR 433 Metal Finishing due to a phosphate coating process. Welding and machining process wastewater from the cold forming line are also subject to Metal Finishing pretreatment standards. In 2013, the following events took place to evaluate and approve connection of process wastewater flows to the sanitary sewer:
    - a. Welspun HFW submitted an Industrial Wastewater Discharge Permit Application for the new plant built to manufacture 6-20 inch diameter steel pipe.
    - b. A Baseline Monitoring Report (BMR) requirement of 40 CFR 403.12 was received from the IU.
    - c. Construction plans were reviewed and LRW required plumbing changes to capture all regulated streams at the designated monitoring point.
    - d. Industrial Wastewater Discharge Permit C-96 was issued to the new Welspun HFW effective April 1, 2013. Under permit required



- notifications and LRW approval, controlled discharges may occur when the mill circulation pits need to be cleaned for maintenance. These pits discharge to the industrial process wastewater outfall regulated by 40 CFR 433 pretreatment standards.
- e. A 90 Day Compliance Report upon start up of the idle phosphate coating operation is pending. However the IU is already conducting monthly and/or two/year monitoring of the active ancillary streams for all metal finishing pretreatment standards as required by the Industrial Wastewater Discharge Permit.
2. An Industrial Wastewater Discharge Permit was issued to **Fiber Glass Systems** effective December 10, 2013. The following events took place to evaluate and approve connection of process wastewater flows to the sanitary sewer:
- a. LRW met with GBM<sup>c</sup> & Associates and Fiber Glass Systems representatives to discuss the options and requirements for connection of the facility wastewater treatment system to the sanitary sewer. The facility has a NPDES permit with ADEQ for direct discharge. In recent years, however, Fiber Glass Systems have not been able to meet NPDES permit limits for BOD and failed WET Testing intermittently.
  - b. Inspection of the facility production area and wastewater treatment system was conducted. The inspection addressed storm water infiltration and provided wastewater source knowledge as the facility moves forward with their request for connection to the sanitary sewer.
  - c. Application for an Industrial Wastewater Discharge Permit was received on April 12, 2013. GBM<sup>c</sup> & Associates, IU Consultant, provided WET testing data and Toxicity Identification Evaluations (TIE) for the Fiber Glass Systems NPDES outfall discharge (combined industrial process and storm water flow).
  - d. After LRW reviewed the application and flows schematics, GBM<sup>c</sup> & Associates agreed to conduct dye testing to identify storm water connections discharging to the onsite treatment system. Storm water connections must be removed if LRW approves connecting the outfall to the sanitary sewer.
  - e. LRW sampling was conducted at Fiber Glass Systems for Total Toxic Organics, Local Limits, and surcharge parameters in consideration to permit the facility once connected to the LRW collection system. Effluent limits and permit conditions were based on additional inspections to:
    - i. Identify and approve sources of wastewater,
    - ii. Approve changes in plumbing to include representative sampling locations and flow measurement.
3. **ITW Accessories Marketing** resubmitted a BMR for discharge to the sanitary sewer from their process line. ITW Accessories Marketing produces Slime Tire Sealant. The initial BMR (2012) showed levels of pollutants that exceeded 40 CFR 414 Organic Chemicals, Plastics, and Synthetic Fibers Subpart K pretreatment standards as well as local limits. Therefore, LRW permitted the industry as zero discharge of regulated wastewater. The IU failed to follow the recommendations of the engineering report included in the new BMR, and the

- industry did not meet federal requirements set forth for sampling and testing. The industry remains permitted as zero discharge for the regulated wastewater.
4. **Unilever** notified LRW that Hormel Foods has purchased the Little Rock facility. Hormel Foods submitted a written permit modification request including name change as parent company. A permit modification was issued to change the name to Skippy Foods LLC and ownership to Hormel Foods.
  5. Industrial Wastewater Discharge Permit for **Baptist Health Medical Center-Little Rock Southwest** was extended to February 28, 2014. The extension gave the IU time to determine future plans for the location. A permit renewal application was received.
  6. Industrial Wastewater Discharge Permit for **Diamond Bear Brewery** was extended to December 31, 2014. The IU is still in operation but reportedly moving to North Little Rock.
  7. A permit closure letter was mailed to **Coca-Cola Refreshments USA-Little Rock**. An inspection was conducted to verify removal of all production equipment for closure of the Industrial Wastewater Discharge Permit. The IU has ceased production and converted the facility to distribution only.
  8. **Odom's Tennessee Pride Sausage** ceased production on April 12, 2013. A written closure plan was submitted and LRW conducted weekly visits to monitor closure operations. A closure letter was mailed. The closure process included:
    - a. Initial equipment and plant cleaning.
    - b. Transferred ammonia from the cooling chillers and hauled off for reuse.
    - c. Locate ground water infiltration sources to basement sump to eliminate these leaks. Notice was given to the IU that storm water infiltration will not be allowed to the sanitary sewer.
    - d. Equipment auction, removal, and final floor cleaning.
    - e. Permit remained open until the sewer meter was taken out of service and the pretreatment outfall plugged.
    - f. LRW Maintenance installed a plug and lock on the process wastewater outfall after final wash.
    - g. Storm/ground water leakage into the basement sump has been approved by the City of Little Rock Public Works for storm drain discharge.
  9. A permit closure letter was mailed to the owner of **Ace Powder Coating**. A final inspection was conducted to verify the removal of powder coating equipment has been completed for closure of the Industrial Wastewater Discharge Permit.
  10. Waste Management notified LRW that they no longer wish to maintain the Industrial Wastewater Discharge Permits for **Two Pine Landfill** and **Jefferson County Landfill**. No leachate has been delivered from either of these locations in several years. Permit closure letters were mailed.
  11. Industrial Wastewater Discharge Permit closure letter for **Hawker Beechcraft Corporation** was mailed. The IU stopped production at the facility and has emptied the hangers and production areas. Little Rock National Airport will retain property ownership. LRW inspection verified that all work conducted by Hawker Beechcraft Corporation has ceased. All chemicals pretreatment system residue has been removed and shipped for disposal to Rineco.

12. Permit closure letter was mailed to **Arkansas Electrical Cooperative**. LRW was notified by letter that operations are now geared toward manufacture of new products and will not involve the generation of wastewater as part of the process. The repair of older, oiled-filled electrical equipment is no longer conducted as confirmed by LRW inspection. There are no wastewater sources from cleaning of any transformer parts. The wash bay sand/oil interceptor will only be used for washings of company vehicles.
  13. A Restricted Short Term Authorization was issued to **Delta Plastic of the South** to batch discharge 8,000 gallons of plastic molding contact cooling water from the circulation pit.
  14. A Restricted Short Term Authorization was issued to **CenterPoint Energy** for the discharge of hydrostatic testing wastewater. The discharge was estimated at 75,000 gallons. LRW inspection confirmed the project was completed.
  15. **Arkansas Portable Toilets** was issued a Restricted Short Term Authorization (RSTA) for Riverfest portable toilet waste disposal. The RSTA covered only Riverfest portable toilet domestic wastewater that was hauled to AF-WWTP Disposal Station. Arkansas Portable Toilets delivered six (6) loads of portable toilets waste (8,000 gallons).
- For 2013 no industry was in Significant Non Compliance (SNC) as defined by 40 CFR 403. Compliance Enforcement Action requiring corrective measures and return to compliance monitoring was conducted for all pretreatment standards and local limit violations listed in the table below:

**Reported Pretreatment Violations**

IU	Sample Date	Monitoring		Test Parameter	Reported Value	Violation of Max. Limit	
		LRW	Self			Daily (S.U.)	Monthly
Mountain Pure Holdings, LLC	1/22/2013	X		pH	4.73	5.0-12.0	
Little Rock Central Laundry	1/30/2013	X		pH	3.75	5.0-12.0	
Mountain Pure Holdings, LLC	3/19/2013	X		pH	3.07	5.0-12.0	
Mountain Pure Holdings, LLC	5/3/2013	X		pH	4.56	5.0-12.0	
Mountain Pure Holdings, LLC	5/6/2013	X		pH	4.84	5.0-12.0	
Mountain Pure Holdings, LLC	6/6/2013	X		pH	4.93	5.0-12.0	
Hiland Dairy	7/17/2013	X		pH	4.54	5.0-12.0	
Welspun Tubular	7/18/2013	X		pH	4.36	5.0-12.0	
Good Old Days Food	7/18/2013	X		pH	4.41	5.0-12.0	
Good Old Days Food	7/19/2013	X		pH	4.45	5.0-12.0	
Hiland Dairy	9/5/2013	X		pH	3.58	5.0-12.0	
Sage V Foods	12/18/2013	X		BOD	41,529	30,000 lb	

1. **Mountain Pure Holdings, LLC:** LRW sampling revealed five (5) pH violations at the facility in 2013. The violations occurred during fruit juice operations and Mountain Pure Holdings has made some changes to reduce low pH discharges to the sanitary sewer. The facility is no longer using fruit juice concentrate in liquid form; switching to a powder form for mixing. Waste juice is now placed in temporary barrels then discharged into the neutralization silo. For the second quarter the IU reached 24% non compliance for pH with no additional violations for 2013.
2. **Little Rock Central Laundry:** LRW sampling revealed a pH violation on January 30, 2013. There is no past history of compliance pH problems with this facility. The IU has a chemical feed system that applies detergents and disinfectants to the laundry and cart washers. Investigation revealed a representative of the chemical system was making adjustments for chemical dosages and caused the drop in pH due to miscalculations. To verify that the low pH was not disrupting FC-WWTP, a pH sample was collected at the Little Rock Port Pump Station with a result of 6.29 S.U. Corrections were made and confirmed by LRW compliance sampling.
3. **Hiland (Coleman) Dairy:** LRW sampling revealed a pH violation on January 17, 2013. The IU responded that two short batch tanks were cleaned, one right after another, not typical in the current work practices. By cleaning the two tanks back-to-back, the equalization tank was filled with waste at a low pH and did not have proper contact time to neutralize prior to discharge. Corrective actions have been made. LRW follow up testing shows return to compliance. Another pH violation on September 5, 2013 was reportedly caused when process tank cleaning batch discharges overloaded the equalization system due to a miscommunication between shifts. LRW follow up sampling showed returned to compliance.
4. **Welspun Tubular LLC:** LRW sampling revealed a pH violation on July 18, 2013. Inspection revealed the pH neutralization system was off line to replace a pump. The IU's pH meter was reading 5.87 S.U. when inspected. LRW follow up testing shows return to compliance with values above the lower limit of 5.0 S.U.
5. **Good Old Days Foods:** LRW sampling revealed a pH violations July 18-19, 2013. The IU agreed to confirm that pH neutralization procedures were followed and will check the pH to insure compliance. LRW follow up testing shows return to compliance.
6. In December 2013, **Sage V Foods** exceed the daily maximum BOD loading as listed in a Special Industrial Sewer Use Agreement (Industrial Wastewater Discharge Permit-Attachment 2). LRW BOD sampling was conducted on December 18, 2013, and the average gallons per day for the month of December was used to calculated the loading from the IU process wastewater discharge. A written Notice of Violation (NOV) was mailed to the IU.

## Inspection, IU Surveys, and Investigations

- Permitted IU investigations and corrective actions implemented for noncompliance:
  1. In early 2013, **Arkansas Children's Hospital (ACH)** and McClelland Engineering representatives met with LRW to discuss the ACH current sanitary sewer outfall locations, future growth plans, and share information that provides a direction for developing flow calculations for each outfall. McClelland conducted a 13 day period flow study at each outfall. The study showed the east outfall receives 75%, the west outfall receives 10%, and the new south outfall receives 15% of the total flow. LRW reassessed each outfall's extra strength loading rates using monthly flow values calculated from the contributions provided in the flow study. A permit renewal was issued to include the three outfalls.
  2. **Arkansas Children's Hospital** submitted MSDS for Rapiocide, a high level disinfectant (glutaraldehyde), used to disinfect gastrointestinal scopes in the automatic disinfections systems. The IU requested an exception to allow small volume from flushing filters to be discharged without neutralization on a regular basis. LRW denied the request as a prohibited discharge standard. The IU agreed to provide a mechanism for neutralization of the spent filter flushing solution prior to discharge.
  3. **BFI Waste Systems of Arkansas (BFI)** landfill leachate flows reported for January 2013 showed an increase in the monthly discharge to LRW. BFI stated maintenance was performed on the landfill leachate collection system resulting in a non routine wastewater discharge from the cleaning and flushing of materials and debris to LRW. Industrial Wastewater Discharge Permit N-10 requires BFI to notify LRW prior to any changes in wastewater discharges for approval. This notification allows LRW the opportunity to review the plans and make sure the sanitary sewer system is properly protected. LRW did not receive any advance notice. A Notice of Violation letter requiring written corrective actions was mailed to BFI. A response letter from BFI, dated March 4, 2013, showed corrective actions to be taken.
  4. **GBM<sup>C</sup> & Associates** submitted construction plans for the **Fiber Glass Systems** connection to the sanitary sewer. There are two sewer meters; one for the process wastewater treatment discharge and a second for the cooling towers/air compressor blow down/overflow connection. The IU was required to remove all storm water sources to the pretreatment system prior to connection to the sanitary sewer. EAD inspected the completion of re-routing storm water from the pretreatment system, meter installations, and identified process wastewater sources. Construction was completed and Industrial Wastewater Discharge Permit was issued.
  5. **Porocel Corporation** submitted construction plans for a new laboratory. LRW rejected the plans. The location of new private sewer lines connecting to the LRW collection system were not shown. Connection must be made prior to the final outfall sampling/inspection manhole. Additional clarification was requested for the laboratory plumbing fixtures connecting to a pretreatment system that is

- designed to remove mercury residuals generated during laboratory testing of a product. Plan revisions were provided and were approved.
6. In 2013, **Sage V Foods** experienced problems with the high strength wastewater (outfall 01) sewer meter (a bypass hose was placed in the flume box causing erroneous reading). LRW agreed to make billing adjustments due to meter failure. A NOV letter was mailed to the IU for failure to: (1) maintain sewer meter in satisfactory operating condition, (2) report bypass and (3) report change in plumbing. After corrections to their meter, the IU still contended that their process high strength wastewater sewer flow to FC-WWTP was much less than the billed flow. LRW Staff conducted additional calibration checks and found flow surges and turbulence in the parshall flume causing inaccurate flow measurements. The IU agreed and investigated the cause of the flow surges. Review of daily meter reading logs confirmed constant irregularities in the flow value ratios. Therefore, August and September monthly flow values for the high strength process outfall were calculated (process inflow water meter readings - outfall 02 sewer meter = outfall 01 high strength sewer flow volumes). Follow up confirmed flow through the parshall flume was corrected and considerably more stable and the meter calibration was recertified. The IU has a high level of water loss in product and evaporation in the boiling processes. The sewer meters, when properly operated enable accurate measurement of flow volumes to LRW.
  7. **Welspun Tubular High Frequency Weld (HFW)**, during plant startup and testing, requested approval to discharge wastewater that had collected in the hydro pressure test pit and the forming mill cooling water recirculation pit. LRW conducted a site visit to inspect the contents of the wastewater pits. LRW denied the request to discharge this wastewater to the sanitary sewer because of the presence of heavy floating oil due to recent hydraulic oil leaks during the mill testing phase. Welspun agreed to pump out and haul off the mill pit wastewater and will look at future pretreatment measures to remove oils. These pits were pumped out by FCC Environmental. Welspun installed a rope oil skimmer to remove floating oils to condition the water for future discharge to the sanitary sewer. A second request was made to batch discharge mill coolant water (approximately 7,000 gallons) from the mill coolant circulation pit. The IU was required to sample and test for oil/grease and submit the results prior to approval. The reported laboratory results of the oil/grease sample was 6.2 mg/L. LRW approved the discharge and set up sampling at the HFW permitted outfall for compliance testing with effluent limitations.
  7. **Welspun HFW** submitted a request for extension of the 90 Day Compliance Report that is due upon commencement of the Code of Federal Regulations Title 40 Part 433 Metal Finishing wastewater discharge. A site visit was conducted. LRW agreed to the extension since the core regulated process (phosphate coating) has not operated and has not discharged. LRW is requiring Welspun to conduct the monthly monitoring (433 Pretreatment Standards) at outfall 01 in accordance to the Industrial Wastewater Discharge Permit. Production wastewater sources (ancillary streams) discharging through the outfall 01 sewer meter must be identified on the Industrial User Self Monitoring (IUSM) monthly reports. The

- IUSM should state "no discharge of core regulated process" if phosphate coating is not being performed.
8. A NOV letter was mailed to **Welspun HFW**. In December 2013 the IU was in violation of the Industrial Wastewater Discharge Permit requirement to notify LRW prior to batch discharges from the mill recirculation pits. LRW received a request for discharge but upon arrival to inspect the pits, found the hydro test pit already near empty. Plant management was informed onsite of the permit violation. LRW inspection of the pits is required prior to discharge due to heavy use of hydraulic oils on the adjacent pipe mill. Oil spills were noticed near the pit area but it is unknown if the pit was contaminated since discharge occurred before inspection. Subsequent inspection of the Port Pump Station and FC-WWTP primary clarifiers showed no surface residuals of hydraulic oils. The IU provided a written corrective action to the NOV.
  9. In early 2013, **Interstate 30 Tank Wash** completed corrective action in response to NOV (October 2012) by replacing the sand trap final chamber drain line and removing the sump pump that caused pretreatment bypass. Permit renewal for food grade tanker/hopper interior washing was issued.
- The 2013 Industrial User Survey was conducted by LRW Pretreatment Staff. These items were reviewed to identify possible IU that may be subject to the LRW Pretreatment Program requirements:
    1. Central Arkansas Water list of users who bought over 730 hundred cubic feet of water in 2012,
    2. A copy of the Arkansas Directory of Manufacturers for the Little Rock area published by the Arkansas Economic Development Commission,
    3. A copy of the Little Rock Chamber of Commerce Central Arkansas Manufacturers Directory,
    4. The ADEQ Hazardous Waste Generators List was reviewed,
    5. New construction plans as routed by City Planning.
  - Twenty two (22) Survey Forms were mailed out to facilities identified by utilizing the listed sources in the Approved Pretreatment Manual for annual survey requirements of 40 CFR 403 (as stated above). This process provides LRW an avenue to locate unknown facilities that may be connected to the LRW collection system. When needed, inspections were conducted as noted below for the 2013 screening processes.
    1. **Arkansas Bolt Company** 2701 West Roosevelt Road. A survey inspection was conducted at this facility. The facilities principle operation is distribution of bolts and fasteners. There were no floor drains located in the warehouse, and no processes that produce any type of wastewater.
    2. **Arkansas Democrat Gazette** 1000 East 4<sup>th</sup> Street. A survey inspection was conducted. Processes include printing, sorting, stacking and delivery of the daily newspaper statewide. Wastewater generated is from cleaning and spent fountain solutions.

3. **Arkansas Highway Transportation Department** 10300 West Baseline Road. A survey inspection was conducted at the Sign Shop and Materials Division. The Sign Shop is where pre-treated and coated panels receive a reflective backing and are then screen printed to make highway signs. The silkscreen wash system process is a closed system using chemicals to remove inks from the screens. A final fresh water rinse station discharges to the sanitary sewer. The Materials Division laboratory waste chemicals are discharged to a 1000 gallon holding tank for disposal. The tank is pumped by Rineco annually or as needed. The Materials Laboratory is where the different materials that are used to construct roads and bridges are tested to ensure that they meet certain required specifications.
4. **Cantrell Drug Company** 7321 Cantrell Road. The facility returned the Wastewater Screening Form to LRW. The facility listed an SIC 2834 (Pharmaceutical Preparations) that may be subject to Code of Federal Regulations Title 40 Part 439 Pharmaceutical Manufacturing, Subpart D-Compounding (40CFR439.D). The facility provided a letter stating why pretreatment standards do not apply. This business was inspected to confirm it is not applicable to 40CFR439.D. Subpart D applies to discharges of process wastewater resulting in the manufacture of pharmaceutical products by mixing, compounding and formulating operations. Cantrell Drug Company is not defined as a manufacturer of compounded products. The only connections to the sanitary sewer were a few laboratory sinks and a residential-sized dishwasher for some glassware cleanup. Cleanup around the laboratory was mostly a dry process and product made was exact volume formulating. There is no discharge of waste product or returned product. The operations here are similar to a retail pharmacy.
5. **Lexicon Steel** 8900 Fourche Dam Pike. A survey inspection was conducted at Lexicon Steel to determine if the surface preparation, surface coating and cutting processes have a potential to discharge pollutants to the sanitary sewer. There were no floor drains found on the shop floors and the wastewater discharge is domestic only. The water used in the cutting tables is contained in an in-ground holding tank. This water is re-used until the pH drops below 6.0 S.U. The tank is then pumped and water hauled off.
6. **LM Wind Power** 8000 Frazier Pike. This facility manufactures windmill blades of varying length; from 29 to 48.8 meters long (160 feet) dependent upon customer order. There is no wastewater generated in the blade making process, and no floor drains located in the production area
7. **Metal Direct** 7420 Enmar Drive. The principle operation at this facility is distribution of sheet metal products used in metal roofing. The discharge from this facility is domestic only.
8. **Ozark Ridge Landfill** 10140 Ozark Ridge Access Lane, Danville, AR. A meeting was held with representatives of Waste Management to discuss delivery of leachate to the AF-WWTP for disposal. In previous years, Ozark Ridge Landfill was permitted; however, no loads of leachate were delivered and the permit was closed in November 2012. Ozark Ridge Landfill was considering several options, one of which includes hauling leachate for disposal to LRW. Estimates were given at maximum of 15,000 gallons of leachate delivered daily.



9. **Parker Solvents** 8909 Mabelvale Pike. The facility distributes petroleum based chemicals in various quantities to customers. On site are several silos labeled according to chemical type. There were no floor drains found in the warehouse. The pretreatment system treating contaminated ground water is no longer operated. The IU discontinued their NPDES permit with ADEQ in February 29, 2012. The IU's discharge to the sanitary sewer is domestic only.
  10. **Southern Star Concrete Incorporate** 6801 Allied Way. Requested to haul and dispose of approximately 10,000 gallons of water from an open recirculation pit. LRW inspected the contents of the pretreatment pit to determine if the wastewater meets LRW's approval for disposal at the AF-WWTP. LRW reviewed the information and determined this water would not be acceptable for disposal.
  11. **Sterile Compounding of America** 8821 Knoedl Court. A survey inspection was conducted to determine applicability to Code of Federal Regulations Title 40 Part 439 Pharmaceutical Manufacturing. The operation is small, no bulk storage of chemical other than pre-packaged IV solutions, and no floor drains or production waste discharge from the process.
  12. **The Steco Corporation/Tap Magic** 2330 Cantrell Road. A survey inspection was conducted. Steco is the manufacturer of a Tap Magic cutting fluid. The process is a closed process where the fluid is mixed and combined in barrels and then pumped into bottles to be filled for retail sale. No floor drains were noted or sewer connections other than domestic waste.
- Grease related Sanitary Sewer Overflows (SSO) Collection System Investigations
    1. **Kentucky Fried Chicken** 500 West Roosevelt Road. Arkansas Department of Health notified LRW that they had received word from ADEQ of a grease interceptor over flow. The interceptor was not actively overflowing, however it required cleaning. Nathan Charles, Public Works, was notified of the overflow occurrence.
    2. **Edwards Food Giant** 1701 South Main Street. Grease interceptor was actively overflowing when inspected and Little Rock Public Works was notified. Corrective actions completed.
    3. **Subway** 1 Stagecoach Village. Grease interceptor was in good condition when inspected. The cleanout next to the building was overflowing domestic waste indicating a line blockage. Little Rock Public Works was notified.

### **LRW Trap/Interceptor Program**

LRW's Trap/Interceptor Program works to reduce the discharge of fats, oils, grease, and solids to the sanitary sewer. The types of facilities inspected perform food preparation and automotive maintenance. A summary of the activities performed for this program is included at the end of this section.

EAD conducted 815 inspections of some type of interceptor or trap. Of those inspections 14% (118) corrective action items were required to clean or repair the interceptor or trap.

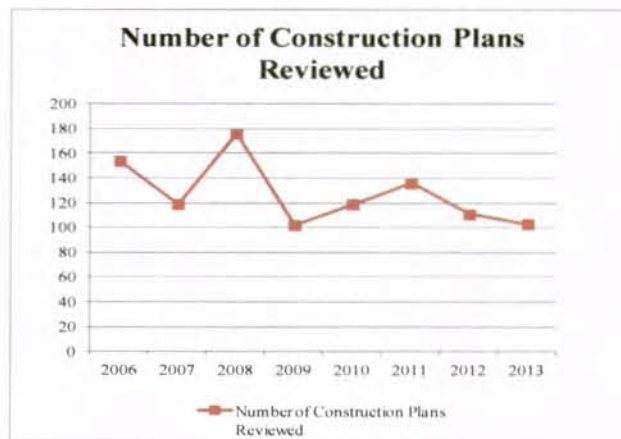
A total of 103 Construction Plans were reviewed with fifty (50) Grease or Sand Interceptor Sizing Approvals Forms issued in 2013. EAD reviews all commercial construction plans for new facilities which may require a sand, grease, or lint interceptor.

**LITTLE ROCK WASTEWATER  
 TRAP CONTROL SUMMARY**

<b>I. General Information</b>	
Control Authority Name:	Little Rock Wastewater
Address:	11 Clearwater Drive
City:	Little Rock State/Zip: Arkansas 72204
Contact Person/Title:	Stanley Suel, EAD Director
Contact Telephone Number:	(501) 688-1486
Reporting Period	January 1, 2013 through December 31, 2013

<b>II. Trap Control Compliance Monitoring</b>		
1.	Number of Trap Inspections Performed	815
2.	Number of Traps Requiring Cleaning	45
3.	Number of Traps Requiring Cleanout Replacement or Repair	73
4.	Number of Traps Requiring Repair	0
5.	Number of Facilities Requiring Trap Installation	0

<b>III. Enforcement Actions</b>		
1.	Number of Notice of Violations (NOV) Issued	0
2.	Number of Compliance Orders and Schedules Issued	0
3.	Number of Administrative Orders Issued	0
4.	Number of Civil Suits Filed	0
5.	Amount of Penalties Collected (Total Dollars)	0
6.	Other Actions (occurrence fees)	\$450



**LITTLE ROCK WASTEWATER  
INDUSTRIAL PRETREATMENT PROGRAM  
FUNDING/EXPENDITURE REPORT**

	<u>2013 Actual</u>	<u>2014 Estimated</u>
<b>Funding</b>		
Surcharge Program	\$1,042,048	\$1,062,889
Landfill Leachate Program	\$213,989	\$218,269
Permitted Industrial Wastewater Discharge Fees	\$74,473	\$75,962
Trap/Interceptor Control Program Fees	\$450	\$459
Domestic Septage Waste Hauler Fees	\$22,240	\$22,685
Landfill Permit Fees	\$1,700	\$1,734
Diversion / Sewer Meter Fees	\$17,365	\$17,712
HLW/Special Discharge-Restricted Short Term Fees	\$6,620	\$6,752
<b>Total Funding</b>	<b>\$1,378,885</b>	<b>\$1,406,463</b>
<b>O&amp;M Expenditures</b>		
Salary		
Employee Salaries	\$515,312	\$584,763
Employee Benefits	\$204,349	\$357,013
Supplies/Maintenance		
Supplies/Equipment Maintenance	\$31,359	\$41,175
Vehicle Maintenance	\$13,936	\$13,050
Other		
Auto Liability	\$1,565	\$1,735
Training and Development	\$7,098	\$3,032
Contract Services	\$22,162	\$22,180
Telephone	\$4,194	\$4,390
<b>Total O&amp;M Expenditures</b>	<b>\$799,975</b>	<b>\$1,027,338</b>
<b>Capital Expenditures</b>		
Replace EAD Inspection Truck		\$22,000
<b>Total Capital Expenditures</b>	<b>\$0</b>	<b>\$22,000</b>
<b>Total Expenditures</b>	<b>\$799,975</b>	<b>\$1,049,338</b>

PRETREATMENT PERFORMANCE SUMMARY (PPS)

NOTE: ALL QUESTIONS REFER TO THE INDUSTRIAL PRETREATMENT PROGRAM AS APPROVED BY THE EPA. THE PERMITTEE SHOULD NOT ANSWER THE QUESTIONS BASED ON CHANGES MADE TO THE APPROVED PROGRAM WITHOUT EPA AUTHORIZATION.

I. General Information			
Control Authority Name	<u>Little Rock Wastewater</u>		
Address	<u>11 Clearwater Drive</u>		
City	<u>Little Rock</u>	State/Zip	<u>AR 72204</u>
Contact Person	<u>Stanley Suel</u>	Position	<u>Director EAD</u>
Contact Telephone Number	<u></u>		
NPDES Permit No's.	<u>AR 0040177, AR 0021806, and AR 0050849</u>		
Reporting Period	<u><b>January 1, 2013 through December 31, 2013</b></u>		
Total Number of Categorical IUs	<u>16</u>		
Total Number of Significant Non-categorical IUs	<u>22</u>		

II. Significant Industrial User Compliance			
		Significant Industrial Users	
		Categorical	Noncategorical
1	No. of SIUs Submitting BMRs/Total No. Required	<u>1 / 1</u>	<u>1 / 1</u>
2	No. of SIUs Submitting 90-Day Compliance Reports/No. Required	<u>0 / 0</u>	<u>0 / 0</u>
3	No. of SIUs Submitting Semiannual Reports/Total No. Required	<u>4 / 4</u>	<u>0 / 0</u>
4	No. of SIUs Meeting Compliance Schedule/Total No. Required to Meet Schedule	<u>0 / 0</u>	<u>0 / 0</u>
5	No. of SIUs in Significant Noncompliance/Total No. of SIUs	<u>0 / 16</u>	<u>0 / 22</u>
6	Rate of Significant Noncompliance for all SIUs	<u>0 / 38</u>	

III. Compliance Monitoring Program			
		Significant Industrial Users	
		Categorical	Noncategorical
1	No. of Control Documents Issued or Renewed / Total Number Required 2013	<u>3 / 3</u>	<u>9 / 9</u>
2	No. of Non-sampling Inspections Conducted	<u>27</u>	<u>62</u>
3	No. of Sampling Visits Conducted	<u>68</u>	<u>273</u>
4	No. of Facilities Inspected (non-sampling)	<u>16</u>	<u>22</u>
5	No. of Facilities Sampled	<u>10*</u>	<u>22</u>

IV. Enforcement Actions			
		Significant Industrial Users	
		Categorical	Noncategorical
1	No. of Compliance Schedules Issued/No. of Schedules Required	<u>0 / 0</u>	<u>0 / 0</u>
2	No. of Notices of Violations issued to SIUs	<u>1</u>	<u>1</u>
3	No. of Administrative Orders Issued to SIUs	<u>0</u>	<u>0</u>
4	No. of Civil Suits Filed	<u>0</u>	<u>0</u>
5	No. of Criminal Suits Filed	<u>0</u>	<u>0</u>
6	No. of Significant Violators (attach newspaper publication)	<u>0</u>	<u>0</u>
7	Amount of Penalties Collected (total dollars/IUs assessed) **	<u>\$232 / 1</u>	<u>\$1,857 / 6</u>
8	Other Actions (sewer bans, etc.)	<u>0</u>	<u>0</u>

\* Categorical IU's: Four (4) sampled for regulated wastewater discharges: CertainTeed Corp., Interstate Highway Sign, Welspun Tubular, and Welspun HFW. Six (6) sampled for unregulated wastewater only: Cameron Valve, Central Jet Flying Service, Dassault Falcon Jet, PPG Industries, Rheim Chemie Little Rock, and St. Vincent Hospital. Six (6) domestic wastewater discharge only - not sampled: Accessories Marketing, Ace Powder Coating, Arkansas Painting and Specialty, Hawker Beechcraft, Hillcrest Camshaft, and Progress Rail Service.

\*\* LRW Consolidate Fee Schedule allows for non-compliance fees based on sampling, testing and inspection costs.

The following certification must be signed in order for this form to be considered complete:

In accordance with the certification statement found in the NPDES Permits issued to Little Rock Wastewater (Part II D. 11. c.): 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 submitted 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.

Stanley Suel

Authorized Representative

Stanley B. Suel, Director of Environmental Assessment

3-31-2014

Date

**LITTLE ROCK WASTEWATER  
SUMMARY OF INDUSTRIAL USER NONCOMPLIANCE  
1986 THROUGH 2013**

<u>Year</u>	<u>Number of IUs In Significant Violation or Significant Noncompliance</u>
1986	18 – Significant Violation
1987	9 – Significant Violation
1988	8 – Significant Violation
1989	4 – Significant Violation
1990	4 – Significant Noncompliance
1991	1 – Significant Noncompliance
1992	2 – Significant Noncompliance
1993	1 – Significant Noncompliance
1994	3 – Significant Noncompliance
1995	0 – Significant Noncompliance
1996	0 – Significant Noncompliance
1997	4 – Significant Noncompliance
1998	1 – Significant Noncompliance
1999	2 – Significant Noncompliance
2000	3 – Significant Noncompliance
2001	1 – Significant Noncompliance
2002	2 – Significant Noncompliance
2003	3 – Significant Noncompliance
2004	1 – Significant Noncompliance
2005	1 – Significant Noncompliance
2006	1 – Significant Noncompliance
2007	0 – Significant Noncompliance
2008	1 – Significant Noncompliance
2009	1 – Significant Noncompliance
2010	0 – Significant Noncompliance
2011	0 – Significant Noncompliance
2012	0 – Significant Noncompliance
2013	0 – Significant Noncompliance

# LITTLE ROCK WASTEWATER 2013 PRETREATMENT PROGRAM STATUS REPORT

Facility Name	SIC	NAICS	Categorical Determination	Control Document		New User	Times Inspected	Times Sampled	Compliance Status				
				Last Action	Y/N				Reports				Effluent Limits
									BMR	90 Day Compliance	Semi-Annual	Self Monitoring	
Ace Powder Coating	2479	33281	40 CFR 433	CLOSED 10/25/2013	Y	Y	2	0	N/A	N/A	NR	NR	NO 433 DISCHARGE
Arkansas Painting and Specialties	3429	332510	40 CFR 433	RENEWED 01/01/2012	Y	N	1	0	RD 2/10/06	N/A	RD	RD	C-NO DISCHARGE
ITW Accessories Marketing	2869	325199	40 CFR 414	ISSUED 4/01/2012	Y	Y	2	0	RD 3/12/12	N/A	NR	NR	NO 414 DISCHARGE
Cameron Valve	3544	333511	40 CFR 433	RENEWED 10/01/2012	Y	N	1	4	N/A	N/A	NR	NR	NO 433 DISCHARGE
Central Flying Service, Little Rock	4581	488190	40 CFR 433	RENEWED 9/01/2012	Y	N	1	4	N/A	N/A	NR	NR	NO 433 DISCHARGE
CertainTeed Corp.	2952	324122	40 CFR 443	RENEWED 5/01/2012	Y	N	1	3	RD 4/14/00	N/A	RD	RD	C
Dassault Falcon Jet Corp	3728	336413	40 CFR 433	RENEWED 12/01/2012	Y	N	1	8	RD 9/9/90	N/A	NR	NR	NO 433 DISCHARGE
Hawker Beechcraft	3721	336411	40 CFR 433	CLOSED 10/29/2013	Y	N	3	0	N/A	N/A	NR	NR	NO 433 DISCHARGE
Hillcrest Camshaft Service, Inc.	3714	336310	40 CFR 433	RENEWED 9/01/2012	Y	N	1	0	RD 11/20/95	N/A	NR	NR	NO 433 DISCHARGE
Interstate Highway Sign	3993	339950	40 CFR 433	RENEWED 2/01/2012	Y	N	2	16	RD 3/25/92	N/A	RD	RD	C
Progress Rail Services	3562 3471	332991 332813	40 CFR 433	RENEWED 5/01/2013	Y	N	1	0	N/A	N/A	NR	NR	NO 433 DISCHARGE
PPG Industries	2851	325510	40 CFR 446	RENEWED 7/01/2012	N	N	1	1	N/A	N/A	NR	NR	NO 446 DISCHARGE
Rheim Chemie Little Rock	3011	326211	40 CFR 428	RENEWED 1/1/2013	Y	N	1	2	N/A	N/A	NR	NR	NO 428 DISCHARGE
St. Vincent Hospital	8062 2834	622110 325412	40 CFR 439	RENEWED 3/01/2012	Y	N	1	8	RD 5/14/04	N/A	NR	NR	NO 439 DISCHARGE
Welspun Tubular	3317	331210	40 CFR 433	RENEWED 6/01/2012	Y	N	2	16	RD 11/30/07	RD 10/28/08	RD	RD	NC-pH
Welspun Tubular HFW	3317	331210	40 CFR 433	ISSUED 4/01/2013	Y	N	6	6	RD 1/17/13	RD 6/26/13	RD	RD	C

Abbreviations: C = compliance, NC = noncompliance, SNC = significant noncompliance, RD = received, NR = not required



# LITTLE ROCK WASTEWATER 2013 PRETREATMENT PROGRAM STATUS REPORT

Facility Name	SIC	NAICS	Categorical Determination	Control Document		New User	Times Inspected	Times Sampled	Compliance Status				
				Last Action	Y/N				Reports				
									BMR	90 Day Compliance	Semi-Annual	Self Monitoring	Effluent Limits
Ameripride Linen and Apparel Services	7218	812332	N/A	RENEWED 1/01/2012	Y	N	1	12			By POTW		C
Arkansas Childrens Hospital	8062	622110	N/A	RENEWED 2/01/2009	Y	N	2	26			By POTW		C
Arkansas Heart Hospital	8062	622110	N/A	RENEWED 2/01/2011	Y	N	1	9			By POTW		C
Arkansas Mental Health Services	8063	622210	N/A	RENEWED 5/1/2013	Y	N	1	8			By POTW		C
Baptist Health Medical Center	8062	622110	N/A	RENEWED 7/01/2013	Y	N	1	24			By POTW		C
Coca-Cola Refreshments USA-LR	2086	312111 312112	N/A	CLOSED 1/18/2013	Y	N	1	0			By POTW		C
Fiber Glass Systems	3089	326122	N/A	ISSUED 12/10/2013	Y	Y	1	0			By POTW		C
George Fischer Sloane	3084	326122	N/A	RENEWED 11/01/2012	Y	N	1	3			By POTW		C
Griffin Industries Thibault	2077 4214	311613 484220	N/A	REVISED 5/01/2012	Y	N	1	6			By POTW		C
Hiland Dairy	2026	311511	N/A	RENEWED 10/01/2013	Y	N	2	31			By POTW		NC - pH
Jack Wilson WTP	4941	221310	N/A	RENEWED 2/01/2012	Y	N	1	12			By POTW		C
Little Rock Central Laundry	7218	812332	N/A	RENEWED 6/01/2013	Y	N	4	7			By POTW		NC - pH
Little Rock City Landfill	4953	562212	N/A	RENEWED 4/01/2012	Y	N	1	2			By POTW		C
Little Rock Medical Assoc (Doctors)	8062	622110	N/A	RENEWED 6/01/2011	Y	N	1	5			By POTW		C
McClellan VA Medical Hospital	8062	622110	N/A	RENEWED 6/01/2009	Y	N	1	4			By POTW		C
Mountain Pure Holding, L.L.C.	5149	312112	N/A	RENEWED 12/20/12	Y	N	7	32			By POTW		NC - pH

Abbreviations: C = compliance, NC = noncompliance, SNC = significant noncompliance, RD = received, NR = not required

**LITTLE ROCK WASTEWATER  
2013 PRETREATMENT PROGRAM STATUS REPORT**

Facility Name	SIC	NAICS	Categorical Determination	Control Document		New User	Times Inspected	Times Sampled	Compliance Status				
				Last Action	Y/N				Reports				Effluent Limits
									BMR	90 Day Compliance	Semi-Annual	Self Monitoring	
Odom's Tennessee Pride Sausage	2013	311612	N/A	CLOSED 8/30/2013	Y	N	17	13			By POTW		C
Ozark Point WTP	4941	221310	N/A	RENEWED 12/01/2013	Y	N	1	6			By POTW		C
Porocel Corporation	2819	331311	N/A	RENEWED 7/01/2013	Y	N	1	7			By POTW		C
Sage V Foods	2038 2044	311412 311212	N/A	RENEWED 9/01/2013	Y	N	13	51			By POTW		NC - BOD
Skippy Foods LLC	2099	311911	N/A	REVISED 3/13/2013	Y	N	2	11			By POTW		C
Univ. of Ark Med Center	8062	622110	N/A	RENEWED 2/01/2013	Y	N	1	4			By POTW		C

Abbreviations: C = compliance, NC = noncompliance, SNC = significant noncompliance, RD = received, NR = not required

**LITTLE ROCK WASTEWATER  
2013 INDUSTRIAL USER LIST**

<b>No. of Permitted IU's Classified as Federal Categorical</b>	<b>16</b>
<b>No. of Permitted IU's Classified as Significant Industrial Users</b>	<b>22</b>
<b>No. of Permitted IU's Classified as Non-Significant Industrial Users</b>	<b>14</b>
<b>No. of Special Permits for Landfill Leachate or RSTA</b>	<b>6</b>

**Total No. of IU's Permitted by LRW 58**

**Categorical Industries**

<b>Facility Name</b>	<b>Classification</b>	<b>Federal Cat. Standard No.</b>	<b>Manufacturing Process</b>	<b>Total Flow (gpd)avg</b>	<b>Work Days/Month</b>	<b>Routine Pollutant Monitoring/Other</b>
Arkansas Painting and Specialties	Federal Categorical	40 CFR 433	Phosphate Coating	1,097	22	pH, Zn, CN, Ni, Cu, Pb, Cd, Cr, Ag
Ace Powder Coating	Federal Categorical	40 CFR 433	Powder Coating	200	22	Permit to discharge domestic wastewater
Cameron Valve	Federal Categorical	40 CFR 433	Steel Oil Field Valves	23,894	22	Zn, Pb, pH, Ni, Permit to discharge nonregulated wastewater
Central Flying Service - Little Rock	Federal Categorical	40 CFR 433	Aircraft Refurbishing	4,718	30	pH, Permit to discharge nonregulated wastewater
CertainTeed Corporation	Federal Categorical	40 CFR 443	Asphalt Rolled Roofing Production	10,651	30	TSS, O&G, pH
Dassault Falcon Jet Corp	Federal Categorical	40 CFR 433	Custom Jet Aircraft	16,626	22	COD, pH, Permit to discharge domestic wastewater only
Hawker Beechcraft	Federal Categorical	40 CFR 433	Custom Jet Aircraft	1,704	30	Permit to discharge domestic wastewater only
Hillcrest Camshaft Service, Inc.	Federal Categorical	40 CFR 433	Electroplating New Source	2,572	22	Permit to discharge domestic wastewater only
Interstate Sign Ways	Federal Categorical	40 CFR 433	Highway Signs	2,630	22	Cr, pH, Cu, Zn, Pb, Cd, Ni, Ag, CN, TTO
ITW Accessories Marketing	Federal Categorical	40 CFR 414	Tire Sealant	2,502	22	Permit to discharge domestic wastewater only
PPG	Federal Categorical	40 CFR 446	Paint and Coating	4,154	22	COD, pH, Permit to discharge domestic wastewater only
Progress Rail Services	Federal Categorical	40 CFR 433	Chrome Plating	1,944	22	Permit to discharge domestic wastewater only
Rheim Chemie Little Rock	Federal Categorical	40 CFR 428	Rubber Tire Curing Bladders	13,838	30	pH, Zn, Ni, Cu, O&G, Permit to discharge nonregulated wastewater
St Vincent Hospital	Federal Categorical	40 CFR 439	Hospital/PETNET	109,567	30	Zero discharge for 40 CFR 439. COD, pH, Hg
Welspun Tubular	Federal Categorical	40 CFR 433	Spiral Pipe and Coating	73,978	30	Zn, Cr, Pb, pH, Cd, CN, Ni, Cu, Ag, COD, TSS, O&G
Welspun Tubular, HFW	Federal Categorical	40 CFR 433	High Frequency Welding, Steel pipe	3,682	30	Zn, Cr, Pb, pH, Cd, CN, Ni, Cu, Ag, TTO

**LITTLE ROCK WASTEWATER  
2013 INDUSTRIAL USER LIST**

**Significant Non-Categorical Industries**

Facility Name	Classification	Federal Cat. Standard No.	Manufacturing Process	Total Flow (gpd)avg	Work Days/Month	Routine Pollutant Monitoring/Other
Ameripride Linen and Apparel	SIU		Laundry	50,042	22	COD, TSS, O&G, pH
Arkansas Children's Hospital	SIU		Hospital	93,262	30	East: COD, TSS, pH West: COD, TSS, O&G, pH
Arkansas Heart Hospital	SIU		Hospital	27,921	30	COD, TSS, O&G, pH, Hg
Arkansas Mental Health Services	SIU		Hospital	23,466	30	COD, TSS, pH
Baptist Health Medical Center	SIU		Hospital	239,179	30	COD, TSS, O&G, pH, Hg
Coca-Cola Refreshments USA-LR	SIU		Soft Drink Bottling	1,201	22	process closed Jan. 2013
Hiland Dairy	SIU		Dairy Products & Bottled Water	83,822	30	COD, TSS, O&G, pH
Fiber Glass Systems	SIU		Fiberglass reinforced epoxy and vinylester resin piping systems	28,356	22	As, Cd, Cu, Cr, Pb, Ni, Hg, Ag, Se, Zn, B, Mn, pH, CN, TTO
George F. Sloane, Inc.	SIU		Plastic Molding	23,385	30	COD, TSS, O&G, pH
Griffin Industries Thibault Rd.	SIU		Grease Recycling	747	22	COD, TSS, O&G, pH
Jack Wilson WTP	SIU		Water Treatment Plant	105,005	30	COD, TSS, pH
Little Rock Central Laundry	SIU		Industrial Laundry	41,814	22	COD, TSS, O&G, pH
Little Rock Landfill	SIU		Municipal Landfill	22,965	26	As, Cd, Cu, Cr, Pb, Ni, Mo, Hg, Ag, Se, Zn, B, Mn, pH, CN, volatiles, pesticides, TSS, O&G, COD, NH3-N
Little Rock Medical Associates (Doctors)	SIU		Hospital	19,282	30	COD, pH, Ag, Hg, BOD, TSS, O&G
McClellan VA Hospital	SIU		Hospital	119,256	30	COD, pH, Hg, Ag
Mountain Pure Holding	SIU		Fruit Juice and Water Bottling	15,230	22	COD, TSS, O&G, pH
Odom's Tennessee Pride Sausage	SIU		Slaughter & Package Pork	166,851	22	COD, TSS, O&G, pH closed Aug. 2013
Ozark Point WTP	SIU		Water Treatment Plant	44,793	30	COD, TSS, pH
Porocel Corporation	SIU		Mineral Milling	403	30	COD, TSS, Zn, As, Cu, Cr, Ni, Hg, pH
Sage V Foods	SIU		Rice Cooking	227,790	30	BOD, TSS, O&G, pH, COD, TS, Temp
Unilever	SIU		Peanut Butter	31,714	22	COD, TSS, O&G, pH
Univ. of Ark Med Center	SIU		Hospital	207,433	30	TSS, O&G, pH, Hg, Ag, COD

**LITTLE ROCK WASTEWATER  
2013 INDUSTRIAL USER LIST**

**Non-Significant Industries**

Facility Name	Classification	Federal Cat. Standard No.	Manufacturing Process	Total Flow (gpd)avg	Work Days/Month	Routine Pollutant Monitoring/Other
Arkansas Electric Cooperative	Non-SIU		Electrical Equipment Repair	250 / Batch	22	PCB's, O&G, pH, Cu, Pb, Zn, Cd
Arkansas Dust Control & Linen Service	Non-SIU		Industrial Laundry	4,001	22	COD, TSS, O&G, pH
BHMC- LR South Campus	Non-SIU		Hospital	1,610	30	COD, TSS, O&G, pH, Ag, Hg
BFI Landfill	Non-SIU		Landfill	5,945	30	As, Cd, Cu, Cr, Pb, Ni, Mo, Hg, Ag, Se, Zn, B, Mn, pH, CN, volatiles, pesticides, TSS, O&G, COD NH3-N
Clark Machinery	Non-SIU		Construction Equipment	1,298	22	COD, TSS, O&G, pH
Democrat Printing and Litho	Non-SIU		Printing Company	3,125	22	COD, pH, TSS, O&G
Diamond Bear Brewing	Non-SIU		Beer Brewery	3,295	24	COD, TSS, O&G, pH
Dusty Mop and Mat	Non-SIU		Industrial Laundry	19,386	22	COD, TSS, O&G, pH
Good Old Days Foods	Non-SIU		Frozen Fruit Cobbler	4,077	22	COD, TSS, O&G, pH
Griffin Industries	Non-SIU		Pork Hide Drying	408	22	COD, TSS, O&G, pH
I-30 Tank Wash	Non-SIU		Truck Wash	1,884	22	COD, TSS, O&G, pH
Martinous Oriental Rug	Non-SIU		Retail Rug Sales & Cleaning	125	22	pH
Phelps Fan	Non-SIU		Fan Manufacturer	5,400 / Batch	22	pH, Cr, Ni, Cu
Ryerson	Non-SIU		Metal Fabrication	760	30	pH, Cu, Zn

**Restricted Short Term Authorizations and Landfill Leachate**

Facility Name	Classification	Federal Cat. Standard No.	Manufacturing Process	Total gal/2013	Work Days/Month	Routine Pollutant Monitoring/Other
Arkansas Port Toilets	RSTA		Portable	6,000 / Truck	N/A	Approved domestic Only
CenterPoint Energy	RSTA		Natural gas	75,000 / Batch	N/A	BTEX, O&G, TOC, pH
Delta Plastics of the South	RSTA		Plastic irrigation pipe	8,600 / Batch	N/A	Cooling water only
Jones & Sons Mobile Pressure Wash	RSTA		Pressure Washer	500 gal Tank	N/A	Approved Wash Water Only
Two Pine Landfill	Special Non-SIU		Landfill -HLW	0	30	Permit closed 10/22/2013
Jefferson County Landfill	Special Non-SIU		Landfill -HLW	0	30	Permit closed 10/22/2013

## SUMMARY OF ANALYTICAL RESULTS

### ADAMS FIELD WASTEWATER TREATMENT PLANT (AF-WWTP) INFLUENT AND EFFLUENT ANALYSES

Priority Pollutant Scans were conducted on the Little Rock Wastewater Treatment Plant influent and effluent flows in accordance with NPDES permit requirements. Compounds analyzed include metals, cyanide, phenols, volatile organics, base/neutral and acid compounds, and pesticides/PCBs. Results of the analyses are organized in the following order:

- AF-WWTP 2013 Sample Results - This information includes a summary page of influent and effluent required test data for parameters from 40 CFR Part 122, Appendix D, Table III reported in a format requested by ADEQ. The summary page is followed by separate influent and effluent data tables.

Sampling and testing frequency requirements for Table III parameters are quarterly (NPDES Permit AR 0021806 Part II). Influent and effluent samples were collected with respect to the detention time across the treatment plant for the sampling events. Table III parameters include total arsenic, cadmium, copper, chromium, lead, mercury, nickel, silver, selenium, zinc, antimony, thallium, beryllium, cyanide and phenols. Other parameters collected quarterly include molybdenum and oil and grease.

- Treatment Plant Removal Efficiencies - This page includes the metals percent removal rates for AF-WWTP. These removal rates are calculated based on the influent and effluent concentrations reported in the data table provided.
- AF-WWTP 2013 Priority Pollutant Scan - Organic Fractions - This information includes required test data from 40 CFR Part 122, Appendix D, Table II divided into two parts. Item I: Identifies the positive measurements of organic compounds in the AF-WWTP influent and effluent during 2013. Item II: Influent/Effluent organic fraction detections trend chart for 1991 through 2013. Item III is the long term summary of positive results. 40 CFR Part 122, Appendix D, Table II monitoring frequency for 2013 is once per year in accordance with the NPDES Permit 0021806.
- AF-WWTP Plant Concentration Trends - This information includes graphs showing AF-WWTP influent and effluent concentration trends for the past twenty years, 1994-2013. Some peaks may be due to changes in test methods and detection limits.

**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT**  
**REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**  
**CITY OF LITTLE ROCK - ADAMS FIELD WASTEWATER TREATMENT PLANT**  
**NPDES PERMIT NO.: AR0021806**

**AVERAGE POTW FLOW: 21.85 MGD**

**PERCENT (%) IU FLOW: 6.0 %**

METALS, CYANIDE and PHENOLS	MAHC (Total) (µg/l)	INFLUENT DATES SAMPLED (µg/l) Once/quarter				WQ level/limit (µg/l)	EFFLUENT DATES SAMPLED (µg/l) Once/quarter				LABORATORY ANALYSIS		
		Start Date	Start Date	Start Date	Start Date		Start Date	Start Date	Start Date	Start Date	EPA MQL (µg/l)	EPA Method Used	Detection Level Achieved
		1/14/2013	4/15/2013	7/15/2013	10/16/2013		1/14/2013	4/15/2013	7/15/2013	10/16/2013			
Antimony		< 60	< 60	< 60	< 60		< 60	< 60	< 60	< 60	60	200.8	60
Cadmium	9	< 0.5	< 0.5	< 0.5	< 0.5	54	< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Copper	270	15.0	23.0	48.0	44.0	214	5.9	7.5	5.3	7.0	0.5	200.8	0.5
Lead	50	3.0	1.9	5.7	3.1	198	0.69	0.59	1.30	0.97	0.5	200.8	0.5
Mercury	0.20	0.1340	0.0244	0.1569	0.1010	0.1	0.0049	0.0044	0.0065	0.0008	0.005	1631E	0.0002
Nickel	160	2.8	3.8	5.4	7.1	4,990	2.6	2.8	4.0	2.4	0.5	200.8	0.5
Selenium	10	< 5	< 5	< 5	< 5	56	< 5	< 5	< 5	< 5	5	200.8	5
Silver	180	< 0.5	0.9	0.5	0.5	57	< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Zinc	360	60	90	150	120	1,700	30	30	30	30	20	200.8	20
Chromium	260	12	< 10	< 10	< 10	11,200	< 10	< 10	< 10	< 10	10	200.8	10
Cyanide	90	< 0.9	< 1.9	< 10.0	< 10.0	50	1.1	2.1	< 10.0	< 10.0	10	SM20 4500 C&E	0.9/10
Arsenic	14	1.2	1.4	2.5	3.3	2,380	0.7	0.5	0.8	0.9	0.5	200.8	0.5
Molybdenum		< 8	< 8	< 8	< 8		< 8	< 8	< 8	< 8		200.8	8
Phenols		10.7	64.0	61.0	41.0		4.2	35.0	33.0	12.0	5	420.1	2.4/5
Beryllium		< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Thallium		< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Barium				47					16			200.8	2
Boron				200					200			200.8	100
Manganese				630					570			200.8	2
Oil and Grease		13,000	16,000	< 5,000	< 19,000		< 5,000	5,000	< 5,000	< 5,000		1664A	5,000
Flow, MGD		49.58	24.80	13.51	27.05		45.42	23.98	12.39	17.35			

**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT  
REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**

TREATMENT PLANT: CITY OF LITTLE ROCK - ADAMS FIELD WASTEWATER TREATMENT PLANT

NPDES PERMIT NO.: AR0021806

AVERAGE POTW FLOW: 21.85 MGD

PERCENT (%) IU FLOW: 6 %

PLANT INFLUENT	Flow MGD	O&G mg/L	CN- mg/L	Zn mg/L	Cd µg/L	Cr µg/L	Ag µg/L	Cu µg/L	Mo µg/L	Ni µg/L	Pb µg/L	As µg/L	Se µg/L	Hg µg/L	Phenol µg/L	Sb mg/L	Be mg/L	Tl mg/L	Mn mg/L	Ba mg/L	B mg/l
EPA Test Method Used	1664A	SM20th 4500 C&E	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	1631E	420.1	200.8	200.8	200.8	200.8	200.8	200.8
Detection Level Achieved	5	0.0009/0.01	0.02	0.5	10	0.5	0.5	0.5	8	0.5	0.5	0.5	5	0.0002	2.4/5	0.06	0.0005	0.0005	0.002	0.002	0.1
01/14/2013	49.58			0.06 < 0.5		12 < 0.5		15.0 < 8		2.8	3.00	1.2 < 5			< 0.06	< 0.0005	< 0.0005				
03/04/2013	21.89	13 < 0.0009												0.1340	10.7						
04/15/2013	24.80			0.09 < 0.5		< 10	0.9	23.0 < 8		3.8	1.90	1.4 < 5			< 0.06	< 0.0005	< 0.0005				
05/17/2013	22.23	16 < 0.0019												0.0244	64.0						
07/15/2013	13.51			0.15 < 0.5		< 10	0.5	48.0 < 8		5.4	5.70	2.5 < 5			< 0.06	< 0.0005	< 0.0005	0.630	0.047	0.2	
08/28/2013	14.90	< 5 < 0.0100												0.1569	61.0						
10/16/2013	27.05			0.12 < 0.5		< 10 < 0.5		44.0 < 8		7.1	3.10	3.3 < 5			< 0.06	< 0.0005	< 0.0005				
11/20/2013	15.30	< 19 < 0.0100												0.1010	41.0						
<b>Average</b>	23.66	13 < 0.0057		0.11 < 0.5		11	0.6	32.5 < 8		4.8	3.43	2.1 < 5		0.1041	44.2	< 0.06	< 0.0005	< 0.0005	0.630	0.047	0.2
<b>Maximum</b>	49.58	19 < 0.0100		0.15 < 0.5		12	0.9	48.0 < 8		7.1	5.70	3.3 < 5		0.1569	64.0	< 0.06	< 0.0005	< 0.0005	0.630	0.047	0.2
<b>Minimum</b>	13.51	< 5 < 0.0009		0.06 < 0.5		< 10 < 0.5		15.0 < 8		2.8	1.90	1.2 < 5		0.0244	10.7	< 0.06	< 0.0005	< 0.0005	0.630	0.047	0.2
<b>Headworks limit</b>			0.09	0.36	9.0	260.0	180.0	270		160	50	14	10	0.2							

Comments: None



**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT  
REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**

TREATMENT PLANT: CITY OF LITTLE ROCK - ADAMS FIELD WASTEWATER TREATMENT PLANT

NPDES PERMIT NO.: AR0021806

AVERAGE POTW FLOW: 21.85 MGD

PERCENT (%) IU FLOW: 6 %

FINAL EFFLUENT	Flow MGD	O&G mg/L	CN- mg/L	Zn mg/L	Cd µg/L	Cr µg/L	Ag µg/L	Cu µg/L	Mo µg/L	Ni µg/L	Pb µg/L	As µg/L	Se µg/L	Hg µg/L	Phenol µg/L	Sb mg/L	Be mg/L	Tl mg/L	Mn mg/L	Ba mg/L	B mg/L
EPA Test Method Used	1664A	SM20th 4500 C&E	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	1631E	420.1	200.8	200.8	200.8	200.8	200.8	200.8
Detection Level Achieved	5	0.0009/0.01	0.02	0.5	10	0.5	0.5	8	0.5	0.5	0.5	5	0.0002	2.4/5	0.06	0.0005	0.0005	0.002	0.002	0.1	
01/14/2013	45.42			0.03 < 0.5	< 10	< 0.5	5.9 < 8	2.6	0.69	0.7 < 5					< 0.06	< 0.0005	< 0.0005				
03/04/2013	20.54	< 5	0.0011											0.0049	4.2						
04/15/2013	23.98			0.03 < 0.5	< 10	< 0.5	7.5 < 8	2.8	0.59	0.5 < 5					< 0.06	< 0.0005	< 0.0005				
05/15/2013	20.06	< 5	0.0021											0.0044	35.0						
07/15/2013	12.39			0.03 < 0.5	< 10	< 0.5	5.3 < 8	4.0	1.30	0.8 < 5					< 0.06	< 0.0005	< 0.0005	0.570	0.016	0.2	
08/28/2013	14.02	< 5	< 0.0100											0.0065	33.0						
10/16/2013	17.35			0.03 < 0.5	< 10	< 0.5	7.0 < 8	2.4	0.97	0.9 < 5					< 0.06	< 0.0005	< 0.0005				
11/20/2013	13.93	< 5	< 0.0100											0.0008	12.0						
Average	20.96	< 5	0.0058	0.03 < 0.5	< 10	< 0.5	6.4 < 8	3.0	0.89	0.7 < 5				0.0042	21.1	< 0.06	< 0.0005	< 0.0005	0.570	0.016	0.2
Maximum	45.42	< 5	0.0100	0.03 < 0.5	< 10	< 0.5	7.5 < 8	4	1.30	0.9 < 5				0.0065	35.0	< 0.06	< 0.0005	< 0.0005	0.570	0.016	0.2
Minimum	12.39	< 5	< 0.0011	0.03 < 0.5	< 10	< 0.5	5.3 < 8	2.4	0.59	0.52 < 5				0.0008	4.2	< 0.06	< 0.0005	< 0.0005	0.570	0.016	0.2
<b>WQS Effluent Level</b>																					
Day Max.			0.058	1.700	54.0	11200.0	57.0	214		4990	198	2380	56	0.1							
Month Avg.			0.029	0.850	27.0	5590.0	28.0	106		2490	98	1190	28	0.07							

Comments: None

**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT  
TREATMENT PLANT PERCENT REMOVAL EFFICIENCIES  
REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**

**Adams Field Wastewater Treatment Plant - NPDES Permit No. AR0021806**

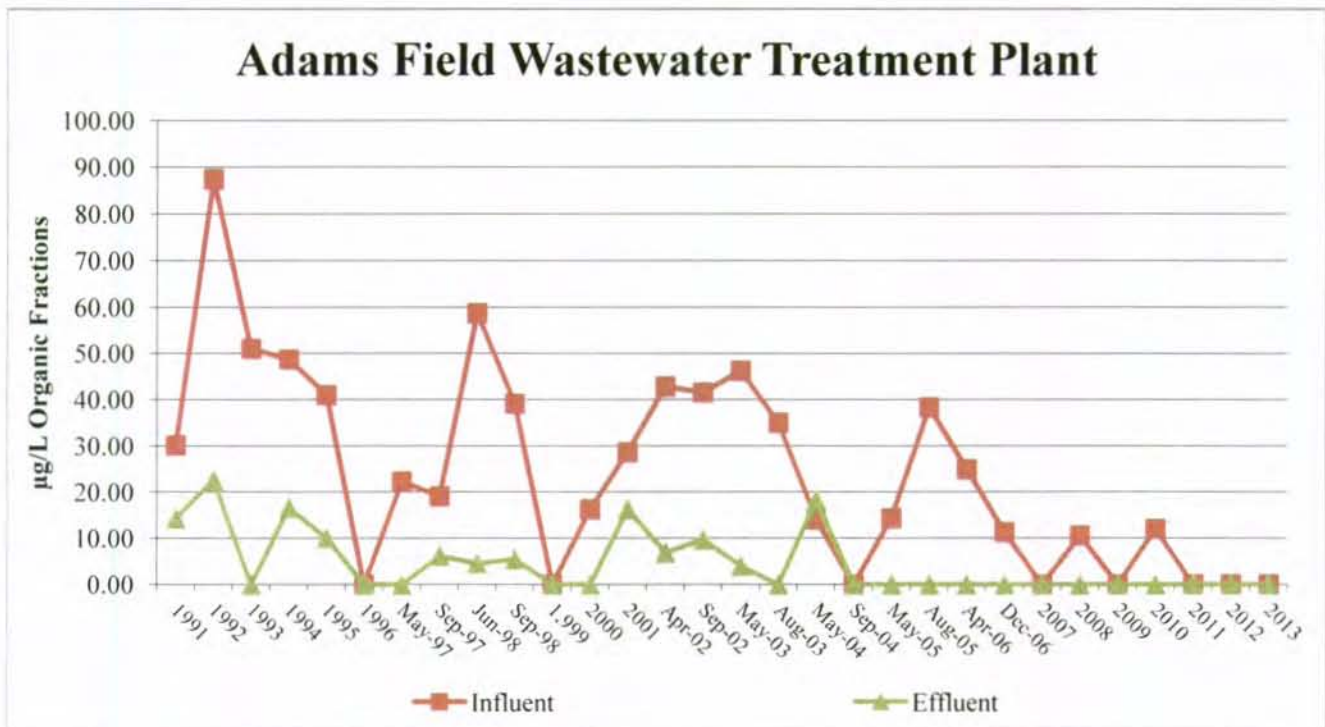
	O&G	CN-	Zn	Cd	Cr	Ag	Cu	Mo	Ni	Pb	As	Se	Hg	Phenol	Sb	Be	Tl	Mn	Ba	B
01/14/2013			46.6%	0.0%	16.7%	0.0%	60.7%	0.0%	7.1%	77.0%	41.7%	0.0%			0.0%	0.0%	0.0%			
03/04/2013	61.5%	-22.2%											96.3%	60.7%						
04/15/2013			70.2%	0.0%	0.0%	41.9%	67.4%	0.0%	26.3%	68.9%	62.9%	0.0%			0.0%	0.0%	0.0%			
05/15/2013	68.8%	-10.5%											82.1%	45.3%						
07/15/2013			79.3%	0.0%	0.0%	2.0%	89.0%	0.0%	25.9%	77.2%	69.2%	0.0%			0.0%	0.0%	0.0%	9.5%	66.0%	-9.1%
08/28/2013	0.0%	0.0%											95.9%	45.9%						
10/16/2013			72.5%	0.0%	0.0%	0.0%	84.1%	0.0%	66.2%	68.7%	73.6%	0.0%			0.0%	0.0%	0.0%			
11/20/2013	73.7%	0.0%											99.2%	70.7%						
Average	51.0%	-8.2%	67.1%	0.0%	4.2%	11.0%	75.3%	0.0%	31.4%	73.0%	61.8%	0.0%	93.4%	55.7%	0.0%	0.0%	0.0%	9.5%	66.0%	-9.1%

I. 2013 POSITIVE RESULTS, µg/L

ADAMS FIELD WASTEWATER TREATMENT PLANT		
Sample Date	Compound	Influent
8/28/2013	Volatiles	ND
9/10/2013	Base/Neutral, Acid Compounds, Pesticides/PCBs, Chlorpyrifos	ND
Sample Date	Compound	Effluent
8/28/2013	Volatiles	ND
8/28/2013	Base/Neutral, Acid Compounds, Pesticides/PCBs, Chlorpyrifos	ND

Comments: ND - No Detection

II. TREND OF POSITIVE RESULTS - REPORTING PERIOD 1991 THROUGH 2013



LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 ADAMS FIELD WASTEWATER TREATMENT PLANT INFLUENT/FINAL EFFLUENT  
 PRIORITY POLLUTANT SCAN - ORGANIC FRACTIONS

March 31, 2014  
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III. SUMMARY OF POSITIVE RESULTS - REPORTING PERIOD 2008 THROUGH 2013

Adams Field Wastewater Treatment Plant

PPS, µg/L Parameter	2008		2009		2010		2011		2012		2013	
	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF
Bis(2-ethylhexyl)Phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	10.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachlorethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toulene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibutylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	12.0	ND	ND	ND	ND	ND	ND	ND
Trichlorethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Total</b>	<b>10.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>12.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Comments

III. SUMMARY OF POSITIVE RESULTS - REPORTING PERIOD 2003 THROUGH 2007

Adams Field Wastewater Treatment Plant

PPS, µg/L Parameter	Aug-03		May-04		Sep-04		May-05		Aug-Oct-05 <sup>1</sup>		Apr-06		Oct-Dec-06 <sup>2</sup>		2007 <sup>3</sup>	
	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF
Bis(2-ethylhexyl)Phthalate	14.0	ND	ND	ND	ND	ND	14.3	ND	15.3	ND	13.5	ND	11.3	ND	ND	ND
Chloroform	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachlorethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toulene	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibutylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	ND	ND	14.0	18.3	ND	ND	ND	ND	ND	ND	11.4	ND	ND	ND	ND	ND
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	23	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Total</b>	<b>35.0</b>	<b>0.0</b>	<b>14.0</b>	<b>18.3</b>	<b>0.0</b>	<b>0.0</b>	<b>14.3</b>	<b>0.0</b>	<b>38.3</b>	<b>0.0</b>	<b>24.9</b>	<b>0.0</b>	<b>11.3</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

Comments

1. Grab samples for volatiles collected in August 2005; 24 hour composite samples (12/24 HFC) collected in October, 2005.
2. Influent 001P-015 24-HFC was invalid due to the wrong flows used to calculate the discrete volumes needed to prepare the composite sample.
3. NPDES permit effective January 1, 2007, monitoring frequency for toxic pollutants listed in 40 CFR 122 Appendix D Table II changed to at least once/year.

III. SUMMARY OF POSITIVE RESULTS - REPORTING PERIOD 1998 THROUGH 2003

Adams Field Wastewater Treatment Plant

PPS, µg/L Parameter	Jun-98		Sep-98		1999		2000		2001		Apr-02		Sep-02		May-03	
	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF <sup>1</sup>	EFF <sup>1</sup>
Bis(2-ethylhexyl)Phthalate	14.0	ND	12.0	3.1	ND	ND	ND	ND	17.5	ND	12.0	ND	12.0	3.6	15.0	ND
Chloroform	11.00	4.6	9.4	2.4	ND	ND	ND	ND	ND	ND	8.2	6.8	5.9	3.4	8.2	4
Tetrachlorethylene	8.80	ND	ND	ND	ND	ND	16.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toulene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	ND	ND	0.02	ND	ND	ND	ND	ND	ND	ND	0.018	0.013	ND	0.016	ND	0.021
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0045	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0063	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	8.4	ND	6.9	ND	ND	ND	ND	ND	ND	ND	7.1	ND	7.2	ND	6.2	ND
Dibutylphthalate	7.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	ND	ND	5.4	ND	ND	ND	ND	ND	11.1	16.3	5.0	ND	5.0	2.7	9.2	ND
Butylbenzylphthalate	4.4	ND	3.4	ND	ND	ND	ND	ND	ND	ND	5.3	ND	4.2	ND	4.6	ND
Phenol	4.5	ND	2.0	ND	ND	ND	ND	ND	ND	ND	5.2	ND	7.2	ND	3.0	ND
Trichlorethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Total</b>	<b>58.70</b>	<b>4.60</b>	<b>39.12</b>	<b>5.50</b>	<b>0.00</b>	<b>0.00</b>	<b>16.20</b>	<b>0.0</b>	<b>28.60</b>	<b>16.30</b>	<b>42.82</b>	<b>6.82</b>	<b>41.50</b>	<b>9.72</b>	<b>46.2</b>	<b>4.02</b>

Comments

1. May-2003 parameters were retested due to elevated detection limits for some parameters due to dilution factors used in laboratory.

LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 ADAMS FIELD WASTEWATER TREATMENT PLANT INFLUENT/FINAL EFFLUENT  
 PRIORITY POLLUTANT SCAN - ORGANIC FRACTIONS

March 31, 2014  
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III. SUMMARY OF POSITIVE RESULTS - REPORTING PERIOD 1991 THROUGH 1997

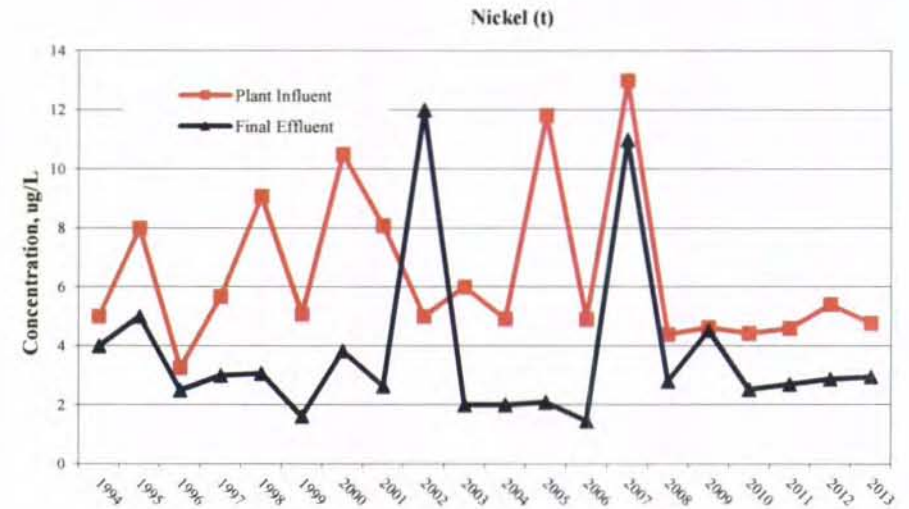
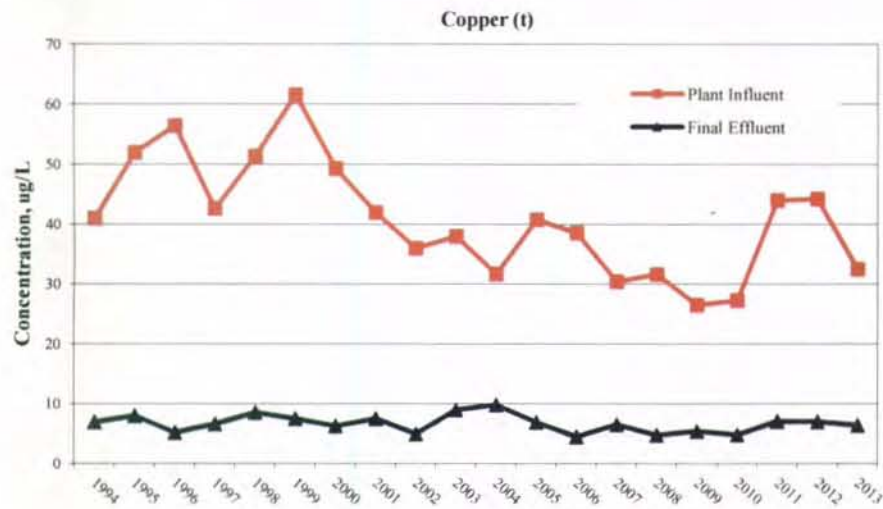
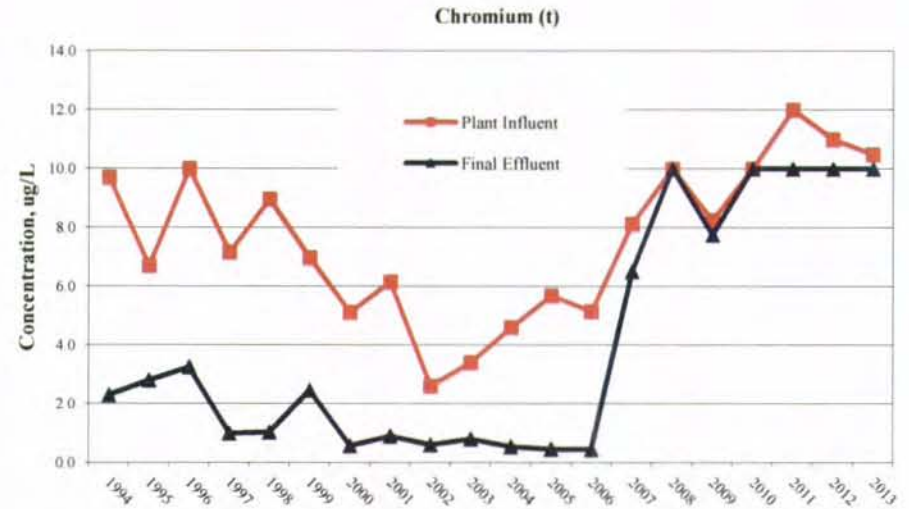
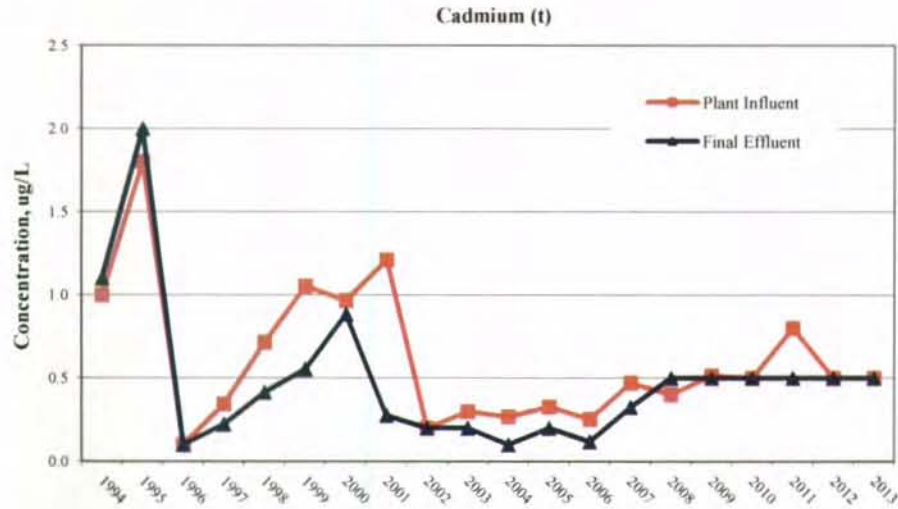
Adams Field Wastewater Treatment Plant

PPS, µg/L Parameter	1991		1992		1993		1994		1995		1996		May-97		Sep-97	
	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF
Bis(2-ethylhexyl)Phthalate	ND	4.20	82.0	5.30	24.0	ND	35.00	13.00	ND	3.7	ND	ND	ND	ND	11.8	6.22
Chloroform	14.00	10.00	5.40	5.30	ND	ND	3.70	3.60	12	6.4	ND	ND	10.40	ND	7.3	ND
Tetrachlorethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.90	ND	ND	ND
Toulene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	0.13	0.08	ND	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	16.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	ND	ND	ND	12.00	ND	ND	10.00	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibutylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorethene	ND	ND	ND	ND	27.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	29.00	ND	ND	ND	ND	ND	ND	ND
<b>Total</b>	<b>30.13</b>	<b>14.28</b>	<b>87.4</b>	<b>22.62</b>	<b>51.0</b>	<b>0.0</b>	<b>48.70</b>	<b>16.60</b>	<b>41.00</b>	<b>10.10</b>	<b>0.00</b>	<b>0.00</b>	<b>22.30</b>	<b>0.00</b>	<b>19.10</b>	<b>6.22</b>

Comments

LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 ADAMS FIELD TREATMENT PLANT CONCENTRATION TRENDS  
 1994 THROUGH 2013

March 31, 2014  
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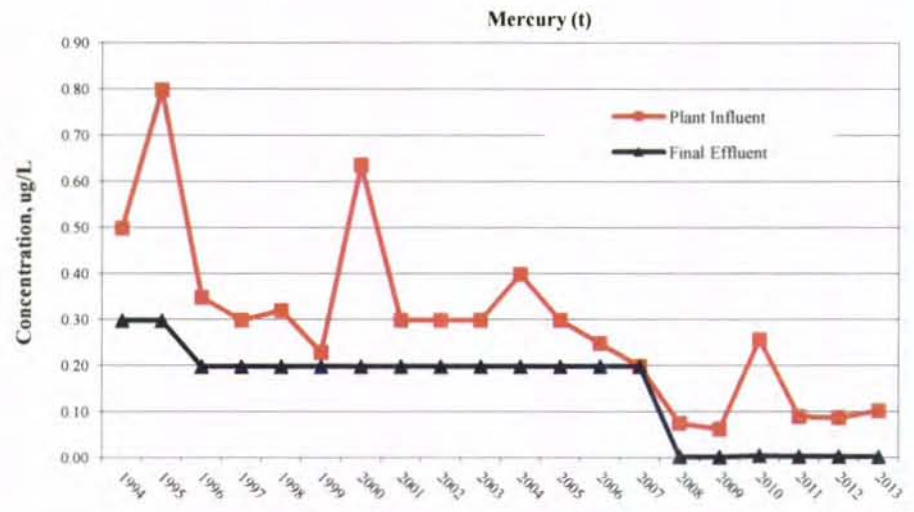
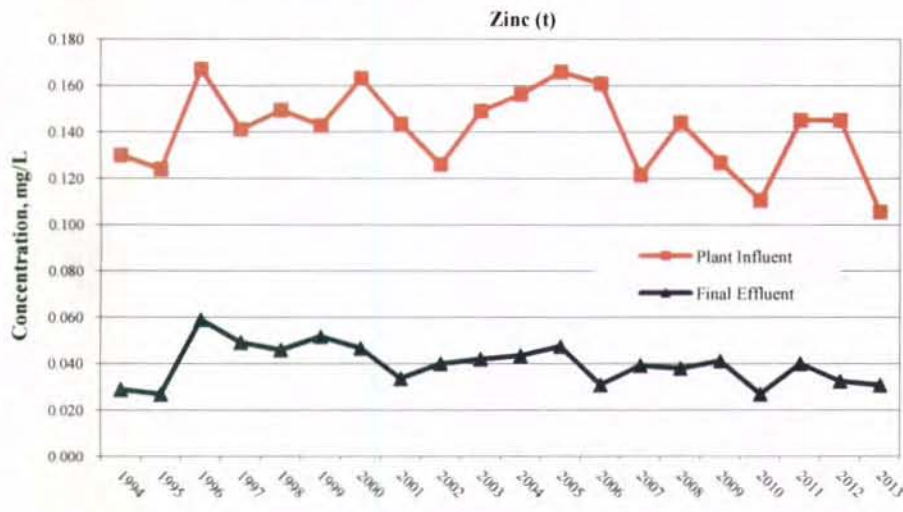
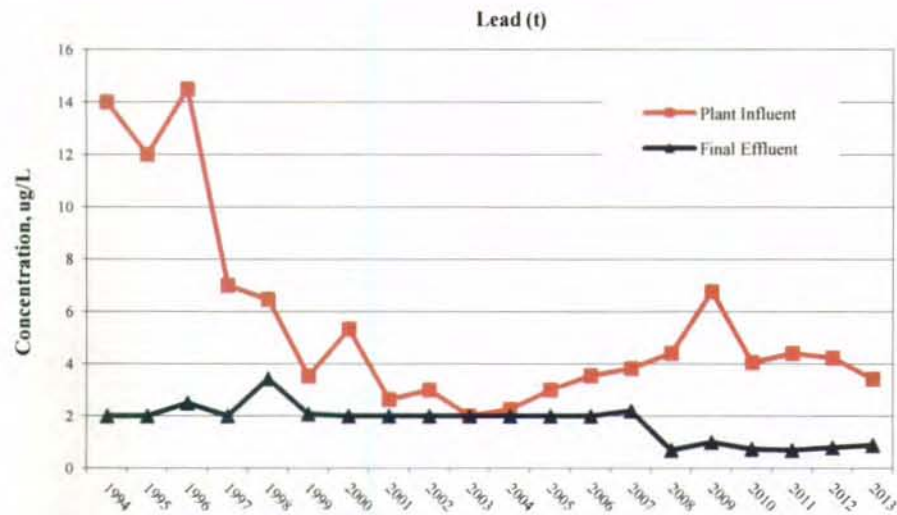


	Cadmium(t)	Copper (t)	Chromium (t)	Nickel(t)
Influent Headworks Limit	9 ug/L	270 ug/L	260 ug/L	160 ug/L
Effluent Water Quality Criteria (Acute)	27 ug/L	106 ug/L	5,590 ug/L	2,490 ug/L



LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 ADAMS FIELD TREATMENT PLANT CONCENTRATION TRENDS  
 1994 THROUGH 2013

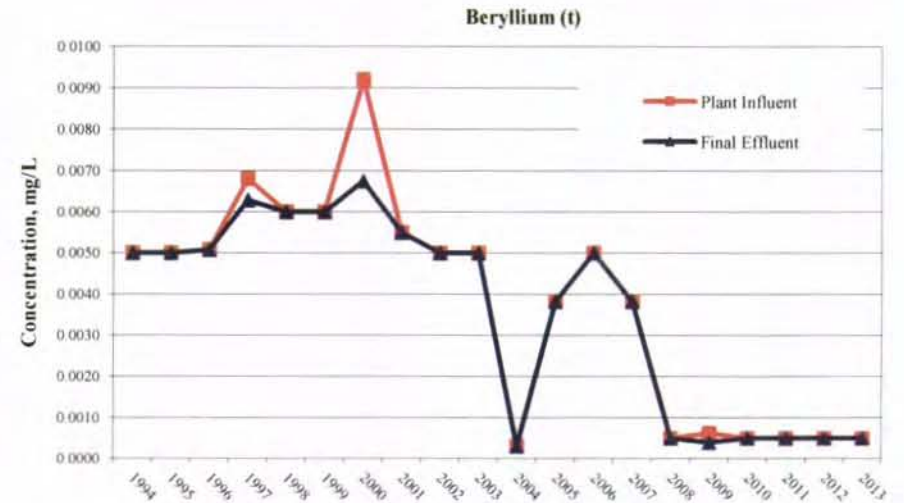
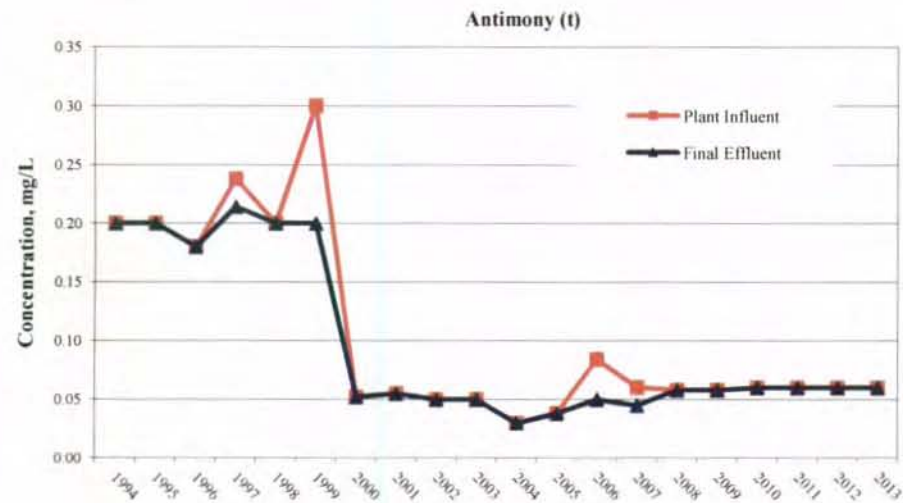
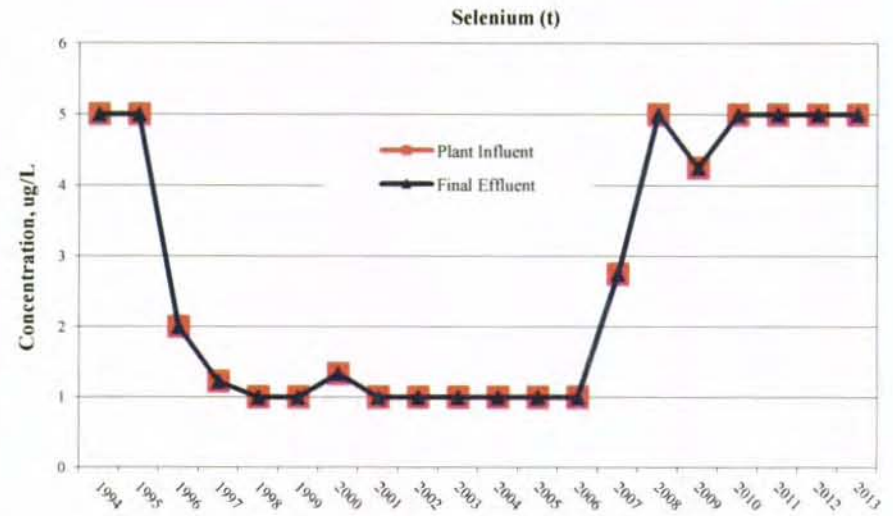
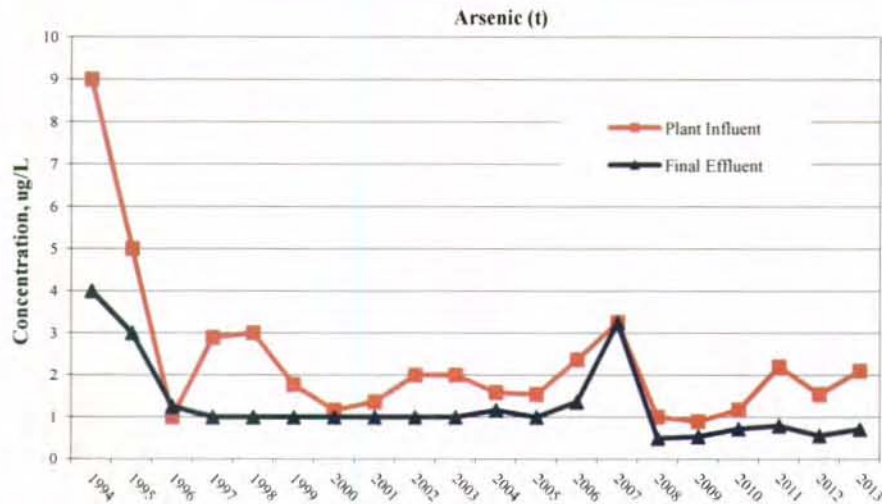
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	Lead (t)	Zinc(t)	Silver(t)	Mercury(t)
Influent Headworks Limit	50 ug/L	0.36 mg/L	180 ug/L	0.2 ug/L
Effluent Water Quality Criteria (Acute)	98 ug/L	0.85 mg/L	28 ug/L	0.07 ug/L

LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 ADAMS FIELD TREATMENT PLANT CONCENTRATION TRENDS  
 1994 THROUGH 2013

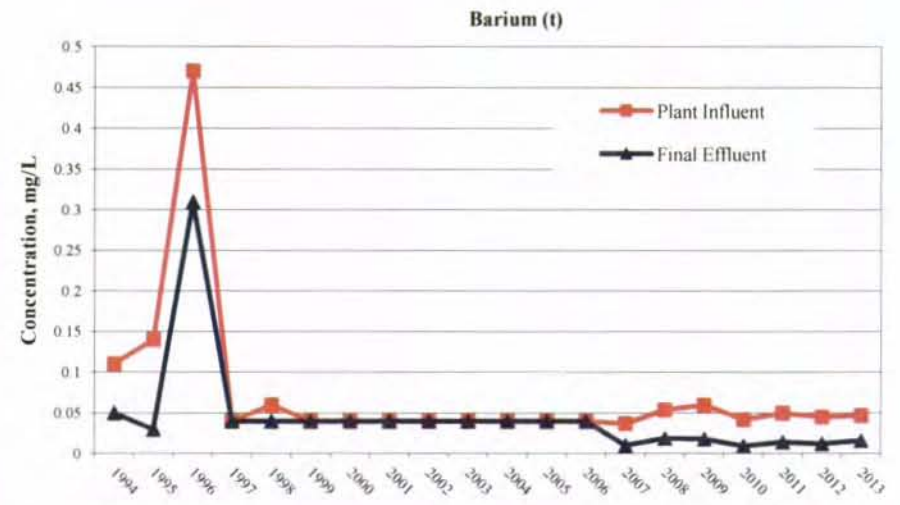
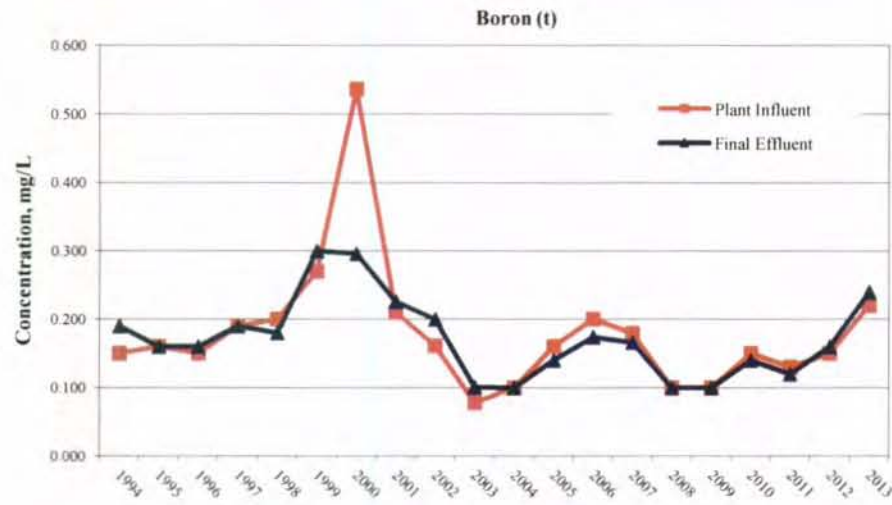
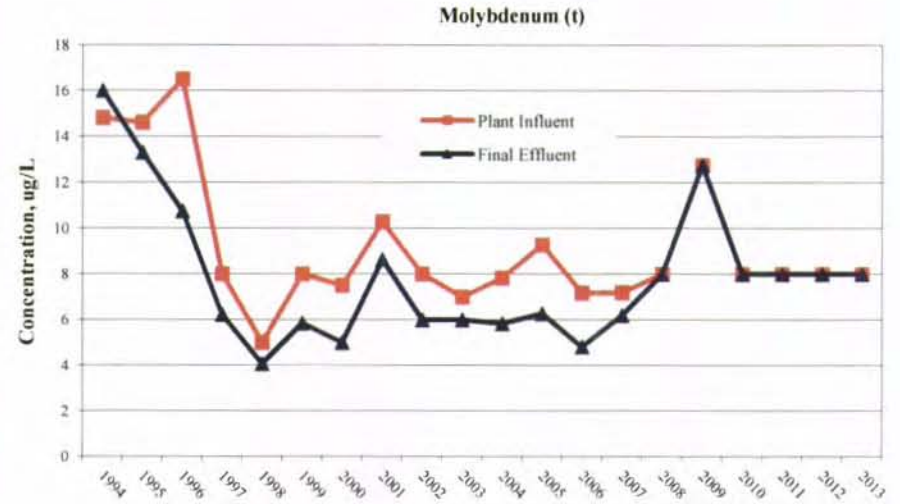
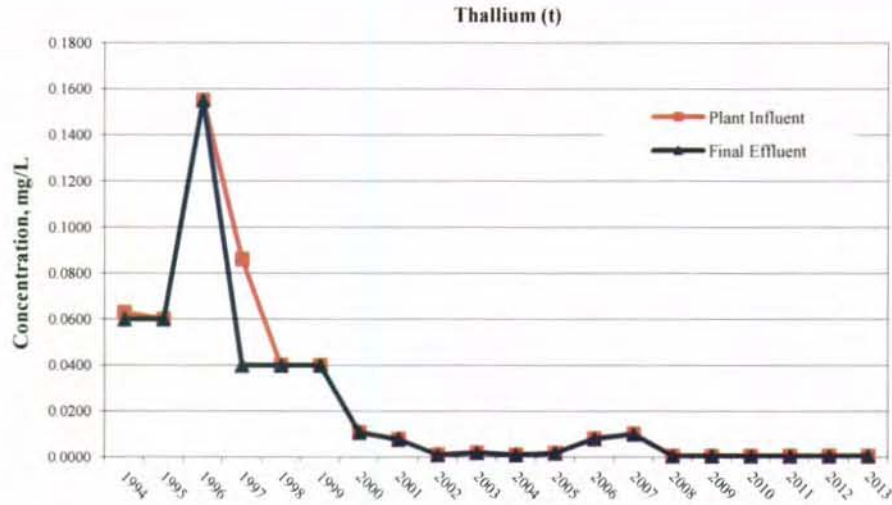
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	Arsenic(t)	Antimony (t)	Selenium (t)	Beryllium (t)
Influent Headworks Limit	14 ug/L	None	10 ug/L	None
Effluent Water Quality Criteria (Acute)	1,190 ug/L	None	28 ug/L	None

LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 ADAMS FIELD TREATMENT PLANT CONCENTRATION TRENDS  
 1994 THROUGH 2013

March 31, 2014  
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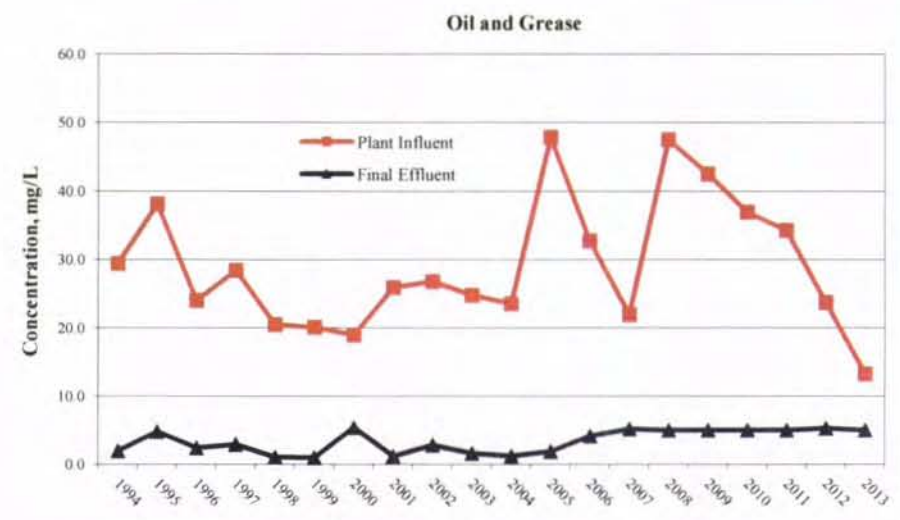
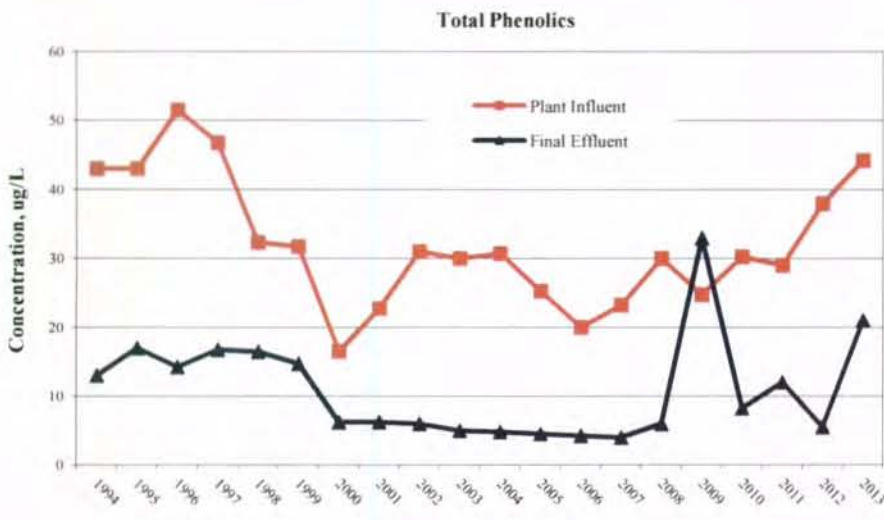
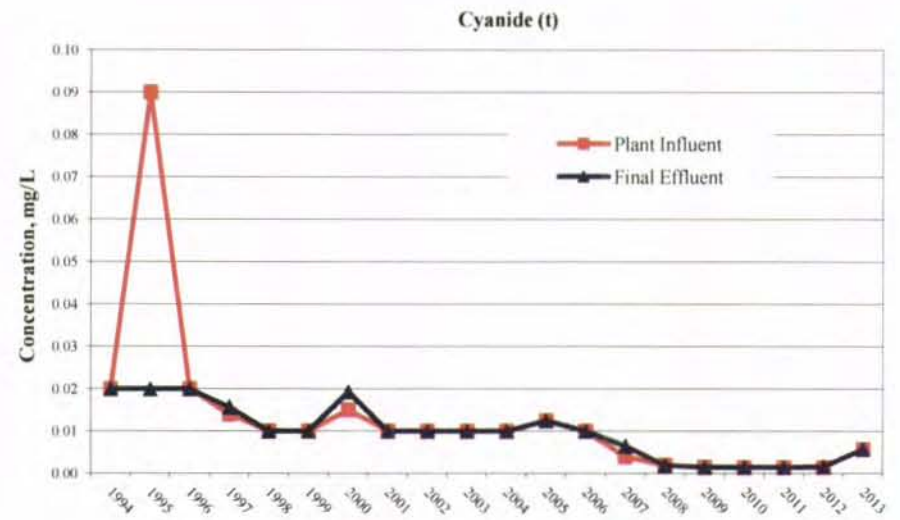
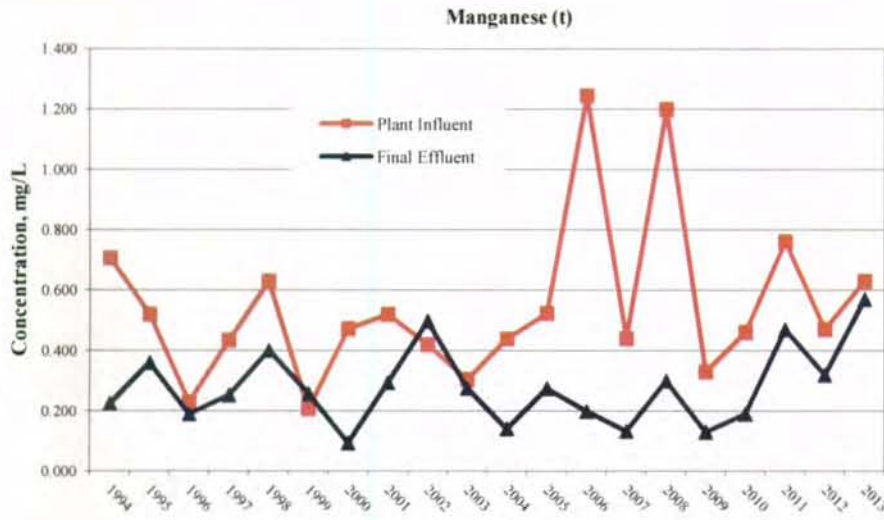


	Thallium (t)	Boron (t)	Molybdenum(t)	Barium(t)
Influent Headworks Limit	None	None	None	None
Effluent Water Quality Criteria (Acute)	None	None	None	None



LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 ADAMS FIELD TREATMENT PLANT CONCENTRATION TRENDS  
 1994 THROUGH 2013

March 31, 2014  
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	Manganese (t)	Total Phenols	Cyanide (t)	Oil&Grease
Influent Headworks Limit	None	None	0.09 mg/L	None
Effluent Water Quality Criteria (Acute)	None	None	0.29 mg/L	None

## SUMMARY OF ANALYTICAL RESULTS

### FOURCHE CREEK WASTEWATER TREATMENT PLANT (FC-WWTP) INFLUENT AND EFFLUENT ANALYSES

Priority Pollutant Scans were conducted on the Little Rock Wastewater Treatment Plant influent and effluent flows in accordance with NPDES permit requirements. Compounds analyzed include metals, cyanide, phenols, volatile organics, base/neutral and acid compounds, and pesticides/PCBs. Results of the analyses are organized in the following order:

- FC-WWTP 2013 Sample Results - This information includes a summary page of influent and effluent required test data for parameters from 40 CFR Part 122, Appendix D, Table III reported in a format requested by ADEQ. The summary page is followed by separate influent and effluent data tables.

Sampling and testing frequency requirements for Table III parameters are quarterly (NPDES Permit AR 0040177 Part II). Influent and effluent samples were collected with respect to the detention time across the treatment plant for the sampling events. Table III parameters include total arsenic, cadmium, copper, chromium, lead, mercury, nickel, silver, selenium, zinc, antimony, thallium, beryllium, cyanide and phenols. Other parameters collected quarterly include molybdenum and oil and grease.

- Treatment Plant Removal Efficiencies - This page includes the metals percent removal rates for the FC-WWTP. These removal rates are calculated based on the influent and effluent concentrations reported in the data tables provided.
- FC-WWTP 2013 Priority Pollutant Scan - Organic Fractions - This information includes required test data from 40 CFR Part 122, Appendix D, Table II divided into two parts. Item I: Identifies the positive measurements of organic compounds in the FC-WWTP influent and effluent during 2013. Item II: Influent/Effluent organic fraction detections trend chart for 1991 through 2013. Item III is the long term summary of positive results. 40 CFR Part 122, Appendix D, Table II monitoring frequency for 2013 is once per year in accordance with the NPDES Permit 0040177.
- FC-WWTP Concentration Trends - This information includes graphs showing FC-WWTP influent and effluent concentration trends for the past twenty years, 1994-2013. Some peaks may be due to changes in test methods and detection limits.

**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT**  
**REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**  
**CITY OF LITTLE ROCK - FOURCHE CREEK WASTEWATER TREATMENT PLANT**  
**NPDES PERMIT NO.: AR0040177**

**AVERAGE POTW FLOW: 10.33 MGD**

**PERCENT (%) IU FLOW: 6.0 %**

METALS, CYANIDE and PHENOLS	MAHC (Total) (µg/l)	INFLUENT DATES SAMPLED (µg/l) Once/quarter				WQ level/limit (µg/l)	EFFLUENT DATES SAMPLED (µg/l) Once/quarter				LABORATORY ANALYSIS		
		Start Date	Start Date	Start Date	Start Date		Start Date	Start Date	Start Date	Start Date	EPA MQL (µg/l)	EPA Method Used	Detection Level Achieved
		1/14/2013	4/15/2013	7/22/2013	10/22/2013		1/15/2013	4/16/2013	7/23/2013	10/23/2013			
Antimony		< 60	< 60	< 60	< 60		< 60	< 60	< 60	< 60	60	200.8	60
Cadmium	9	< 0.5	< 0.5	< 0.5	< 0.5	107	< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Copper	270	13.0	23.0	51.0	28.0	619	4.6	5.1	4.9	11.0	0.5	200.8	0.5
Lead	50	1.9	1.9	5.7	3.2	395	0.6	0.6	< 0.5	1.2	0.5	200.8	0.5
Mercury	0.20	0.0241	0.0198	0.1120	0.0313	0.27	0.0079	0.0008	0.0038	0.0016	0.005	1631E	0.0002
Nickel	160	3.7	8.0	18.0	5.9	9,980	2.8	5.5	4.8	3.2	0.5	200.8	0.5
Selenium	10	< 5	< 5	< 5	< 5	112	< 5	< 5	< 5	< 5	5	200.8	5
Silver	180	< 0.5	< 0.5	< 0.5	< 0.5	165	< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Zinc	360	50	90	190	130	4,940	< 20	20	20	30	20	200.8	20
Chromium	260	< 10	< 10	< 10	< 10	23,500	< 10	< 10	< 10	< 10	10	200.8	10
Cyanide	90	1.5	2.2	< 10.0	< 10.0	116	1.8	2.9	< 10.0	< 10.0	10	SM20 4500 C&E	0.9/10
Arsenic	14	1.0	1.2	2.5	< 0.5	6,900	1.0	0.8	1.2	1.3	0.5	200.8	0.5
Molybdenum		< 8	< 8	< 8	< 8		< 8	< 8	< 8	< 8		200.8	8
Phenols		54.3	170.0	190.0	102.0		2.6	30.0	15.0	19.0	5	420.1	2.4/5
Beryllium		< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Thallium		< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Barium				45					3			200.8	2
Boron				200					300			200.8	100
Manganese				400					230			200.8	2
Oil and Grease		32,000	43,000	17,000	23,000		9,000	6,000	< 5,000	< 5,000		1664A	5000
Flow, MGD		28.01	8.86	8.58	7.35		26.53	9.31	10.18	5.83			

**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT  
REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**

TREATMENT PLANT: CITY OF LITTLE ROCK - FOURCHE CREEK WASTEWATER TREATMENT PLANT

NPDES PERMIT NO.: AR0040177

AVERAGE POTW FLOW: 10.33 MGD

PERCENT (%) IU FLOW: 6 %

PLANT INFLUENT	Flow MGD	O&G mg/L	CN- mg/L	Zn mg/L	Cd µg/L	Cr µg/L	Ag µg/L	Cu µg/L	Mo µg/L	Ni µg/L	Pb µg/L	As µg/L	Se µg/L	Hg µg/L	Phenol µg/L	Sb mg/L	Be mg/L	Tl mg/L	Mn mg/L	Ba mg/L	B mg/l
EPA Test Method Used	1664A	SM2010 4300 C&E	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	1631E	420.1	200.8	200.8	200.8	200.8	200.8	200.8
Detection Level Achieved	5	0.0009/0.01	0.02	0.5	10	0.5	0.5	8	0.5	0.5	0.5	5	0.0002	2.4/5	0.06	0.0005	0.0005	0.002	0.002	0.1	
01/14/2013	28.01			0.05 < 0.5	< 10	< 0.5	13.0 < 8	3.7	1.9	1.0 < 5					< 0.06	< 0.0005	< 0.0005				
03/04/2013	9.48	32	0.0015											0.0241	54.3						
04/15/2013	8.86			0.09 < 0.5	< 10	< 0.5	23.0 < 8	8.0	1.9	1.2 < 5					< 0.06	< 0.0005	< 0.0005				
05/15/2013	7.02	43	0.0022											0.0198	170.0						
07/22/2013	8.58			0.19 < 0.5	< 10	< 0.5	51.0 < 8	18.0	5.7	2.5 < 5					< 0.06	< 0.0005	< 0.0005	0.400	0.045	0.2	
08/28/2013	6.80	17	< 0.0100											0.1120	190.0						
10/22/2013	7.35			0.13 < 0.5	< 10	< 0.5	28.0 < 8	5.9	3.2	< 0.5 < 5					< 0.06	< 0.0005	< 0.0005				
11/20/2013	8.13	23	< 0.0100											0.0313	102.0						
<b>Average</b>	10.53	29	0.0059	0.12 < 0.5	< 10	< 0.5	28.8 < 8	8.9	3.2	1.3 < 5				0.0468	129.1	< 0.06	< 0.0005	< 0.0005	0.400	0.045	0.2
<b>Maximum</b>	28.01	43	< 0.0100	0.19 < 0.5	< 10	< 0.5	51.0 < 8	18.0	5.7	2.5 < 5				0.1120	190.0	< 0.06	< 0.0005	< 0.0005	0.400	0.045	0.2
<b>Minimum</b>	6.80	17	< 0.0015	0.05 < 0.5	< 10	< 0.5	13.0 < 8	3.7	1.9	< 0.5 < 5				0.0198	54.3	< 0.06	< 0.0005	< 0.0005	0.400	0.045	0.2
<b>Headworks limit</b>			0.09	0.360	9.0	260.0	180.0	270		160	50	14	10	0.2							

Comments: None

**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT  
REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**

TREATMENT PLANT: CITY OF LITTLE ROCK - FOURCHE CREEK WASTEWATER TREATMENT PLANT

NPDES PERMIT NO.: AR0040177

AVERAGE POTW FLOW: 10.33 MGD

PERCENT (%) IU FLOW: 6 %

FINAL EFFLUENT	Flow MGD	O&G mg/L	CN- mg/L	Zn mg/L	Cd µg/L	Cr µg/L	Ag µg/L	Cu µg/L	Mo µg/L	Ni µg/L	Pb µg/L	As µg/L	Se µg/L	Hg µg/L	Phenol µg/L	Sb mg/L	Be mg/L	Tl mg/L	Mn mg/L	Ba mg/L	B mg/l
EPA Test Method Used	1664A	SM20th 4500 C&E	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	1631E	420.1	200.8	200.8	200.8	200.8	200.8	200.8
Detection Level Achieved	5	0.0009/0.01	0.02	0.5	10	0.5	0.5	0.5	8	0.5	0.5	0.5	5	0.0002	2.4/5	0.06	0.0005	0.0005	0.002	0.002	0.1
01/15/2013	26.53		< 0.02	< 0.5	< 10	< 0.5	4.6	< 8	2.8	0.6	1.0	< 5			< 0.06	< 0.0005	< 0.0005				
03/04/2013	10.65	9	0.0018											0.0079	2.6						
04/16/2013	9.31		0.02	< 0.5	< 10	< 0.5	5.1	< 8	5.5	0.6	0.8	< 5			< 0.06	< 0.0005	< 0.0005				
05/15/2013	7.67	6	0.0029											0.0008	30						
07/23/2013	10.18		0.02	< 0.5	< 10	< 0.5	4.9	< 8	4.8	< 0.5	1.2	< 5			< 0.06	< 0.0005	< 0.0005	0.230	0.003	0.3	
08/28/2013	7.37	< 5	< 0.0100											0.0038	15.0						
10/23/2013	5.83		0.03	< 0.5	< 10	< 0.5	11	< 8	3.2	1.2	1.3	< 5			< 0.06	< 0.0005	< 0.0005				
11/20/2013	9.41	< 5	< 0.0100											0.0016	19						
<b>Average</b>	10.87	6	0.0062	0.02	< 0.5	< 10	< 0.5	6.4	< 8	4.1	0.7	1.1	< 5	0.0035	16.7	< 0.06	< 0.0005	< 0.0005	0.230	0.003	0.3
<b>Maximum</b>	26.53	9	< 0.0100	0.03	< 0.5	< 10	< 0.5	11.0	< 8	5.5	1.2	1.3	< 5	0.0079	30.0	< 0.06	< 0.0005	< 0.0005	0.230	0.003	0.3
<b>Minimum</b>	5.83	< 5	0.0018	< 0.02	< 0.5	< 10	< 0.5	4.6	< 8	2.8	< 0.5	< 0.8	< 5	0.0008	2.6	< 0.06	< 0.0005	< 0.0005	0.230	0.003	0.3
<b>WQS Effluent Level</b>																					
Day Max.			0.116	4.94	107	23500	165	619		9980	395	6900	112	0.27							
Month Avg.			0.058	2.46	53	11700	82	309		4980	197	3440	56	0.14							

Comments:



**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT  
TREATMENT PLANT PERCENT REMOVAL EFFICIENCIES  
REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**

**Fourche Creek Wastewater Treatment Plant - NPDES Permit No. AR0040177**

	O&G	CN-	Zn	Cd	Cr	Ag	Cu	Mo	Ni	Pb	As	Se	Hg	Phenol	Sb	Be	Tl	Mn	Ba	B
01/14/2013			60.8%	0.0%	0.0%	0.0%	64.6%	0.0%	24.3%	71.1%	4.0%	0.0%			0.0%	0.0%	0.0%			
03/04/2013	71.9%	-20.0%											67.3%	95.2%						
04/15/2013			75.5%	0.0%	0.0%	0.0%	77.8%	0.0%	31.3%	66.8%	36.7%	0.0%			0.0%	0.0%	0.0%			
05/15/2013	86.5%	-31.8%											96.2%	82.4%						
07/22/2013			87.9%	0.0%	0.0%	0.0%	90.4%	0.0%	73.3%	91.2%	52.0%	0.0%			0.0%	0.0%	0.0%	42.5%	93.1%	-50.0%
08/28/2013	70.6%	0.0%											96.6%	92.1%						
10/22/2013			79.2%	0.0%	0.0%	0.0%	60.7%	0.0%	45.8%	62.5%	-160.0%	0.0%			0.0%	0.0%	0.0%			
11/20/2013	78.3%	0.0%											95.0%	81.4%						
Average	76.8%	-13.0%	80.9%	0.0%	0.0%	0.0%	73.4%	0.0%	43.7%	72.9%	-16.8%	0.0%	88.8%	87.8%	0.0%	0.0%	0.0%	42.5%	93.1%	-50.0%

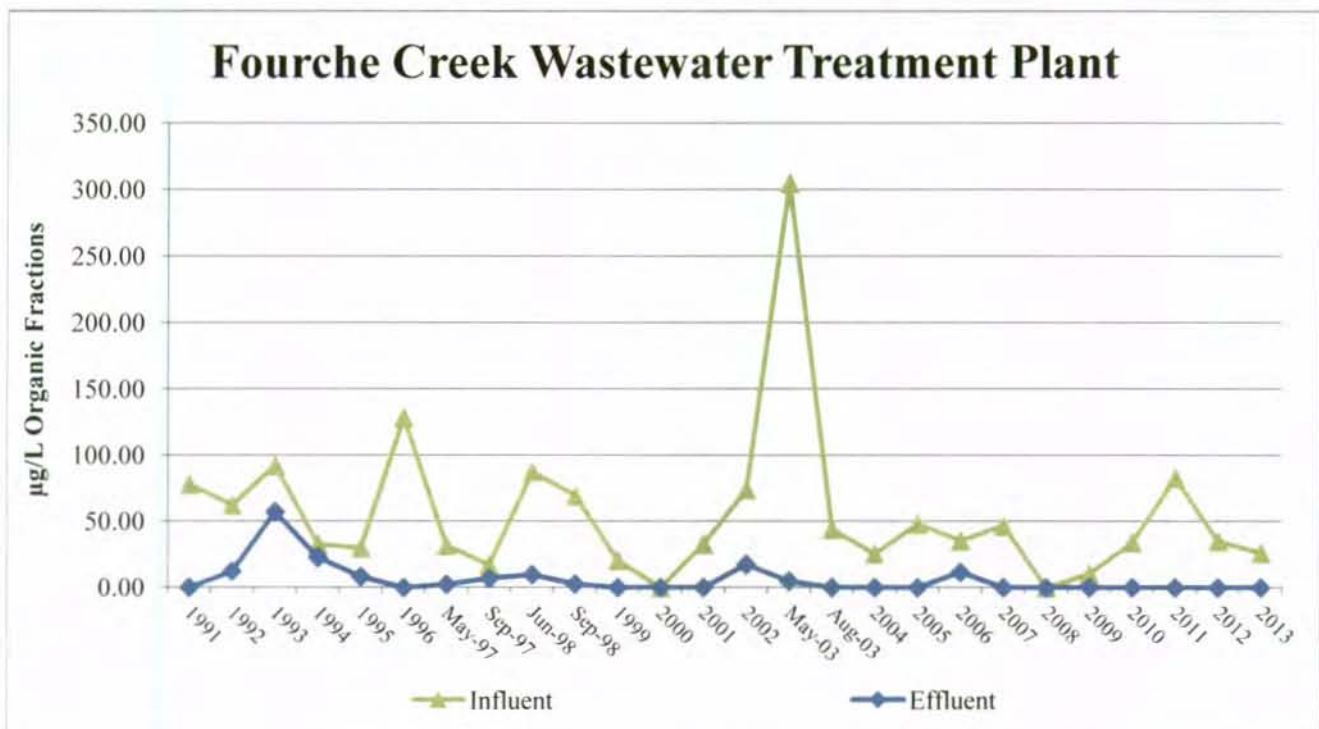
LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 FOURCHE CREEK WASTEWATER TREATMENT PLANT INFLUENT/FINAL EFFLUENT  
 PRIORITY POLLUTANT SCAN - ORGANIC FRACTIONS

I. 2013 POSITIVE RESULTS, µg/L

FOURCHE CREEK WASTEWATER TREATMENT PLANT		
Sample Date	Compound	Influent
8/28/2103	Volatiles	ND
9/17/2013	Phenol	16
9/17/2013	Bis(2-ethylhexyl) Phthalate	10
Sample Date	Compound	Effluent
8/28/2013	Volatiles	ND
9/17/2013	Base/Neutral, Acid Compounds, Pesticides/PCBs, Chlorpyrifos	ND

Comments: ND - No Detection

II. TREND OF POSITIVE RESULTS - REPORTING PERIOD 1991 THROUGH 2013



**III. SUMMARY OF POSITIVE RESULTS - REPORTING PERIOD 1991 THROUGH 2013**

**Fourche Creek Wastewater Treatment Plant**

PPS, µg/L Parameter	2012		2013	
	INF	EFF	INF	EFF
Bis(2-ethylhexyl)Phthalate	ND	ND	10.0	ND
Chloroform	ND	ND	ND	ND
1,1,1 Trichloroethane	ND	ND	ND	ND
Tetrachloroethane	ND	ND	ND	ND
Toluene	16	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND
4'-DDE	ND	ND	ND	ND
Di-n-butyl phthalate	ND	ND	ND	ND
Diethylphthalate	ND	ND	ND	ND
Butylbenzylphthalate	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND
Phenol	19	ND	16	ND
Dibutylphthalate	ND	ND	ND	ND
2,4, Dimethyl phenol	ND	ND	ND	ND
Aldrin	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND
Gamma-BHC	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND
Di-n-Octyl phthalate	ND	ND	ND	ND
Hexachlorobenzene	ND	ND	ND	ND
1,3,Dichlorobenzene	ND	ND	ND	ND
Endrin aldehyde	ND	ND	ND	ND
<b>Total</b>	<b>35.00</b>	<b>0.00</b>	<b>26.00</b>	<b>0.00</b>

Comments

III. SUMMARY OF POSITIVE RESULTS - REPORTING PERIOD 2004 THROUGH 2011

Fourche Creek Wastewater Treatment Plant

PPS, µg/L Parameter	2004		2005		2006		2007		2008		2009		2010		2011	
	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF <sup>1</sup>	EFF <sup>1</sup>	INF	EFF	INF	EFF	INF	EFF
Bis(2-ethylhexyl)Phthalate	12.5	ND	22.4	ND	18.1	ND	19.2	ND	ND	ND	10.3	ND	ND	ND	11.0	ND
Chloroform	13.0	ND	12.8	ND	ND	ND	12.8	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1 Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4'4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	ND	ND	ND	ND	17.4	11.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	12.8	ND	ND	ND	14.5	ND	ND	ND	ND	ND	34	ND	19	ND
Dibutylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4, Dimethyl phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-Octyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,Dichlorobenzene															2.8	ND
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
<b>Total</b>	<b>25.50</b>	<b>0.00</b>	<b>48.00</b>	<b>0.00</b>	<b>35.50</b>	<b>11.60</b>	<b>46.50</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>10.30</b>	<b>0.00</b>	<b>34.00</b>	<b>0.00</b>	<b>82.80</b>	<b>0.00</b>

Comments

- Parameters were retested due to elevated detection limits for some parameters due to dilution factors used in laboratory.

III. SUMMARY OF POSITIVE RESULTS - REPORTING PERIOD 1998 THROUGH 2003

Fourche Creek Wastewater Treatment Plant

PPS, µg/L Parameter	Jun-98		Sep-98		1999		2000		2001		2002		May-03		Aug-03	
	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF <sup>1</sup>	EFF <sup>1</sup>	INF <sup>2</sup>	EFF <sup>2</sup>
Bis(2-ethylhexyl)Phthalate	23.0	3.60	26.0	ND	20.4	ND	ND	ND	15.0	ND	18.0	2.7	75.0	ND	21.0	ND
Chloroform	12.00	3.80	8.2	2.6	ND	ND	ND	ND	ND	ND	15.0	7.5	9.5	4.8	13.0	ND
1,1,1 Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethane	4.20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	14.00	ND	7.1	ND	ND	ND	ND	ND	17.9	ND	6.7	ND	9.6	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	210	ND	ND	ND
4'4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.82	ND	ND	ND
Di-n-butyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.1	4.6	ND	ND	10	ND
Diethylphthalate	9.20	ND	8.6	ND	ND	ND	ND	ND	ND	ND	9.7	ND	ND	ND	ND	ND
Butylbenzylphthalate	3.90	ND	4.0	ND	ND	ND	ND	ND	ND	ND	6.0	2.6	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	ND	ND	ND	ND	ND
Phenol	12.00	ND	6.9	ND	ND	ND	ND	ND	ND	ND	10	ND	ND	ND	ND	ND
Dibutylphthalate	5.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4, Dimethyl phenol	4.40	ND	8.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.019	ND	ND	ND	ND
Dieldrin	ND	ND	0.004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.014	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.032	ND	ND
Gamma-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.036	0.017	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.032	ND	ND
Di-n-Octyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	ND	2.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,Dichlorobenzene																
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.025	ND	ND	ND	ND
<b>Total</b>	<b>87.70</b>	<b>9.90</b>	<b>69.50</b>	<b>2.60</b>	<b>20.40</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>32.90</b>	<b>0.00</b>	<b>74.15</b>	<b>17.46</b>	<b>304.92</b>	<b>4.86</b>	<b>44.00</b>	<b>0.00</b>

Comments

1. May-2003 parameters were retested due to elevated detection limits for some parameters due to dilution factors used in laboratory.
2. Parameters were retested due to elevated detection limits for some parameters due to dilution factors used in laboratory.

LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 FOURCHE CREEK WASTEWATER TREATMENT PLANT INFLUENT/FINAL EFFLUENT  
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III. SUMMARY OF POSITIVE RESULTS - REPORTING PERIOD 1991 THROUGH 1997

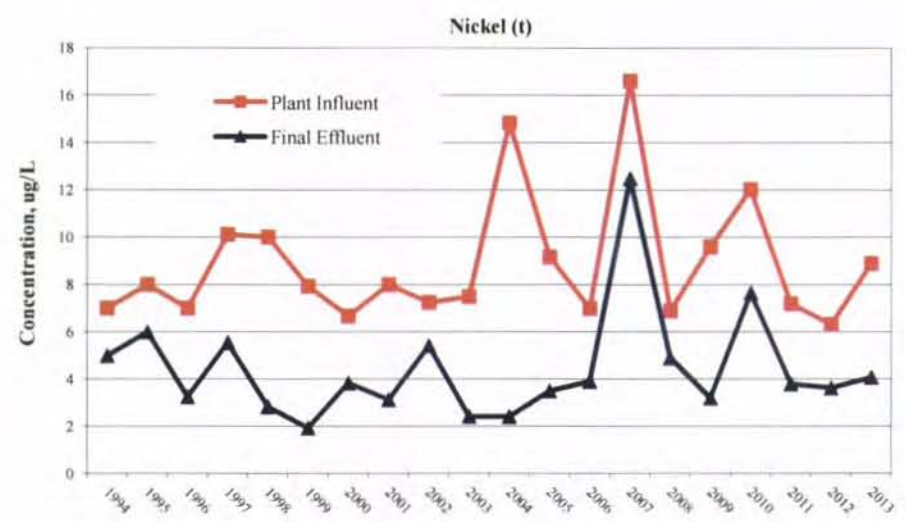
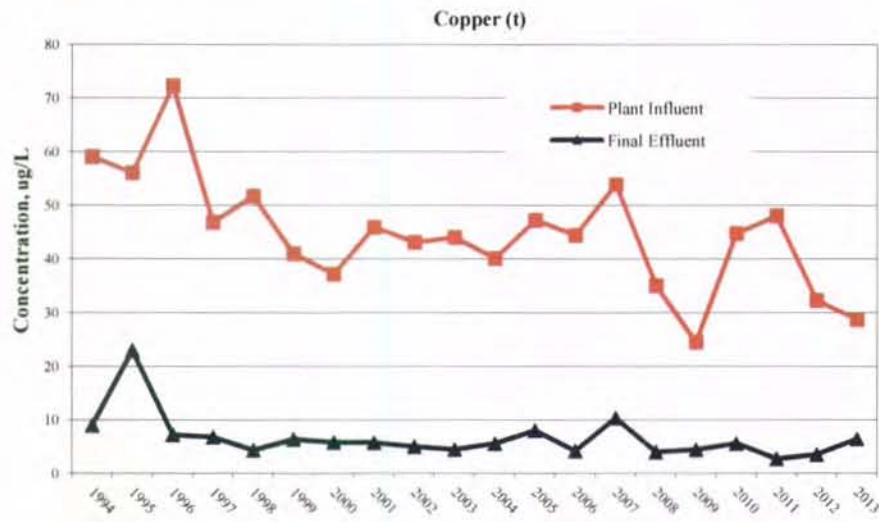
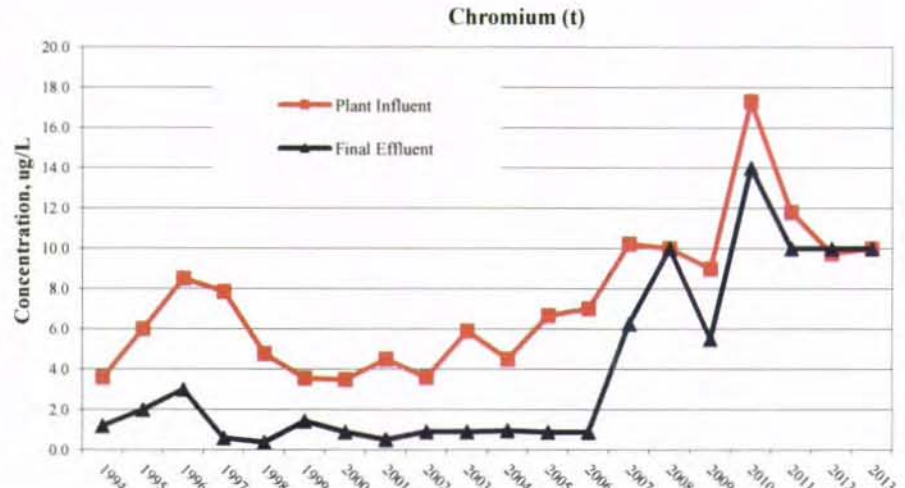
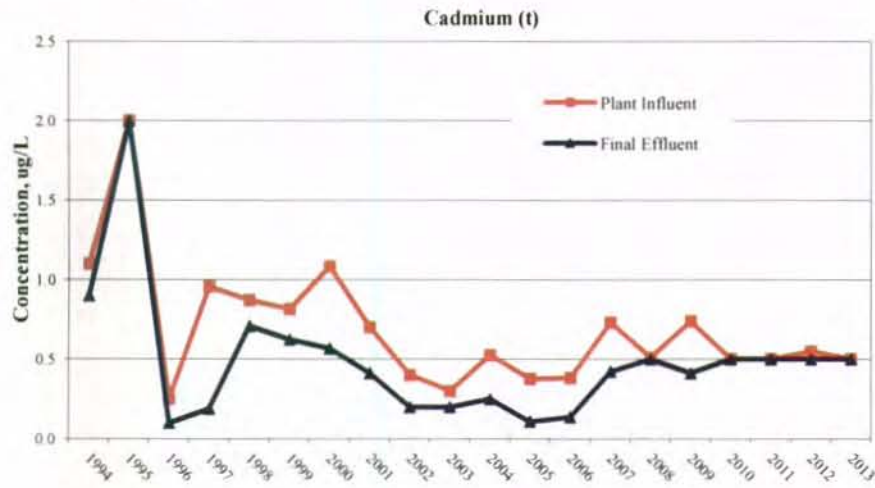
Fourche Creek Wastewater Treatment Plant

PPS, µg/L Parameter	1991		1992		1993		1994		1995		1996		May-97		Sep-97	
	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF
Bis(2-ethylhexyl)Phthalate	24.00	ND	23.0	7.0	44.0	18.0	11.60	ND	30.0	5.8	ND	ND	17.2	ND	ND	6.98
Chloroform	ND	ND	17.0	5.4	8.9	27.0	10.70	ND	ND	ND	ND	ND	14.50	ND	8.0	ND
1,1,1 Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	17.6	ND	ND	ND	ND	ND
Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	89.8	ND	ND	ND	ND	ND
Toluene	ND	ND	7.70	ND	10.0	ND	ND	ND	ND	ND	20.8	ND	ND	ND	8.8	ND
Methylene Chloride	ND	ND	3.80	ND	ND	ND	10.40	22.90	ND	ND	ND	ND	ND	ND	ND	ND
4'4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	ND	ND	ND	ND	9.4	3.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	ND	ND	11.0	ND	14.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibutylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4, Dimethyl phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gamma-BHC	54.00	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-Octyl phthalate	ND	ND	ND	ND	5.9	8.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.50	ND	ND	ND	2.50	ND	ND
1,3,Dichlorobenzene																
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.48	ND	ND	ND	0.48	ND
<b>Total</b>	<b>78.00</b>	<b>0.00</b>	<b>62.50</b>	<b>12.40</b>	<b>92.2</b>	<b>57.3</b>	<b>32.70</b>	<b>22.90</b>	<b>30.00</b>	<b>8.30</b>	<b>128.68</b>	<b>0.00</b>	<b>31.70</b>	<b>2.50</b>	<b>17.28</b>	<b>6.98</b>

Comments

**LITTLE ROCK WASTEWATER  
ENVIRONMENTAL ASSESSMENT DIVISION  
FOURCHE CREEK TREATMENT PLANT CONCENTRATION TRENDS  
1994 THROUGH 2013**

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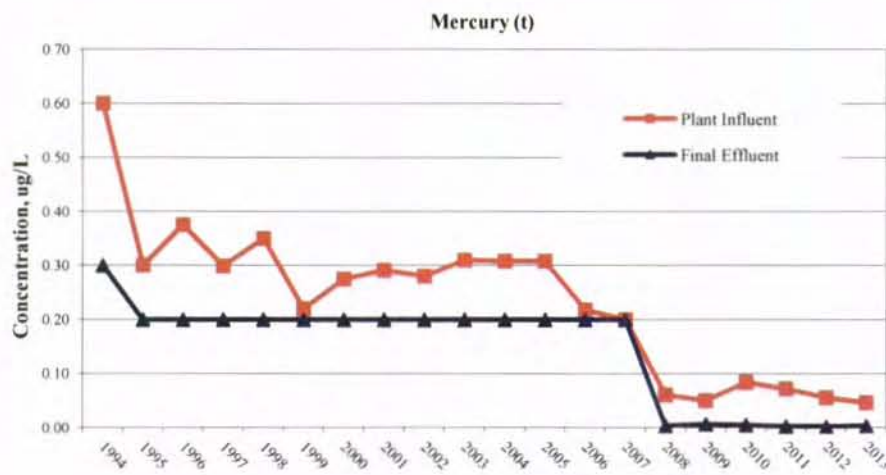
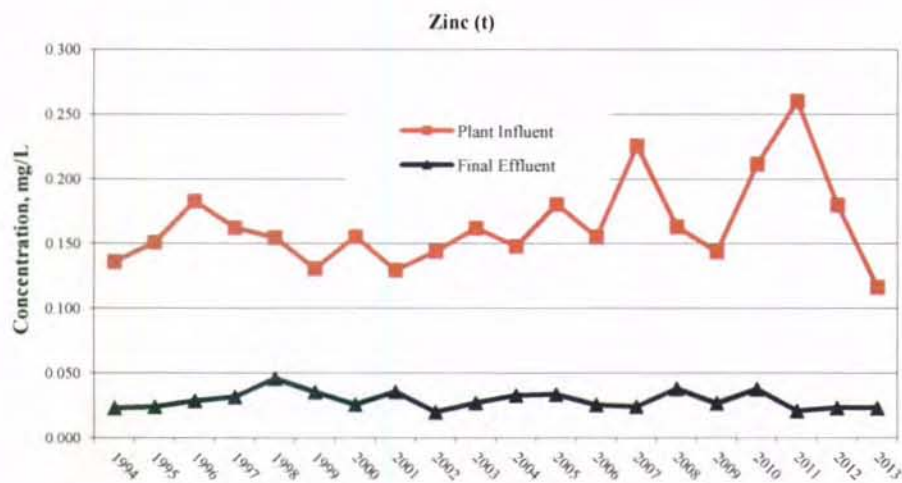
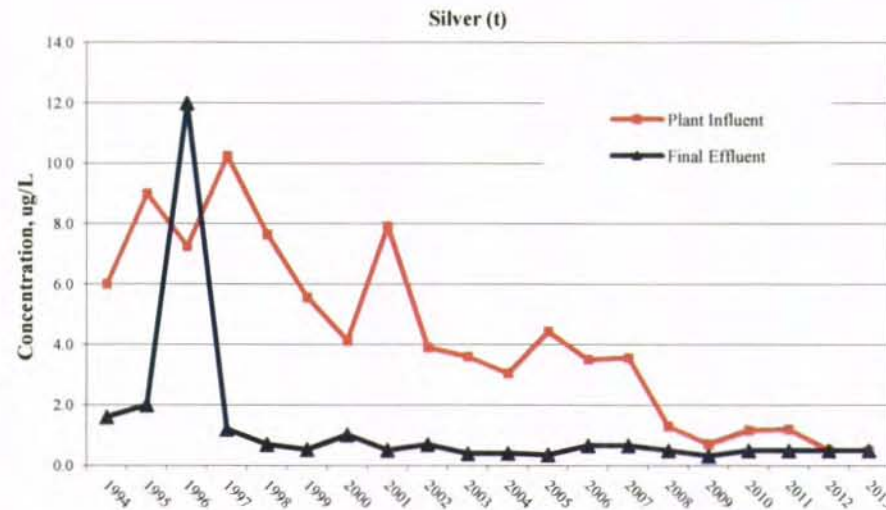
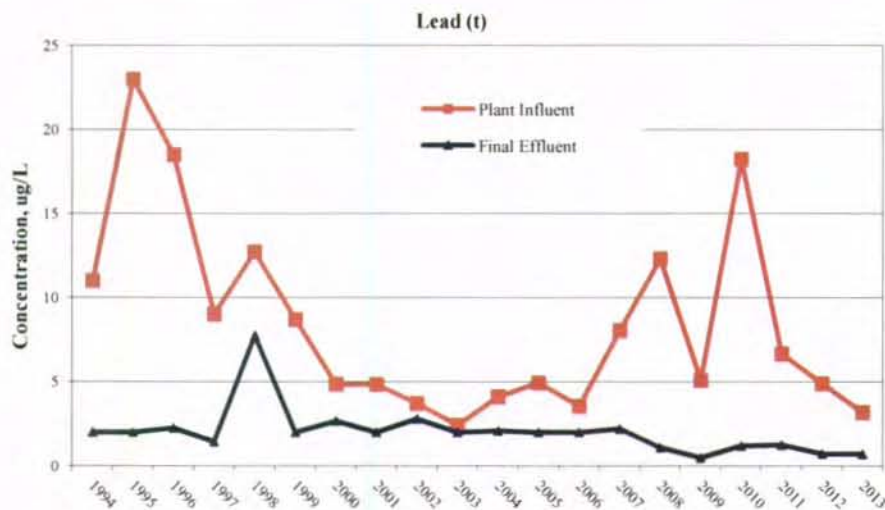


	Cadmium(t)	Copper (t)	Chromium (t)	Nickel(t)
Influent Headworks Limit	9 ug/L	270 ug/L	260 ug/L	160 ug/L
Effluent Water Quality Criteria	53 ug/L	395 ug/L	11,700 ug/L	4,980 ug/L



LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 FOURCHE CREEK TREATMENT PLANT CONCENTRATION TRENDS  
 1994 THROUGH 2013

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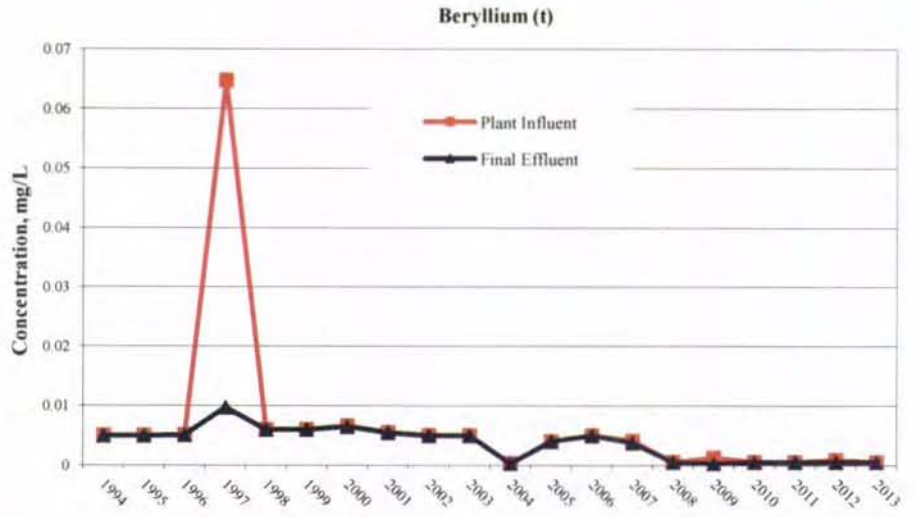
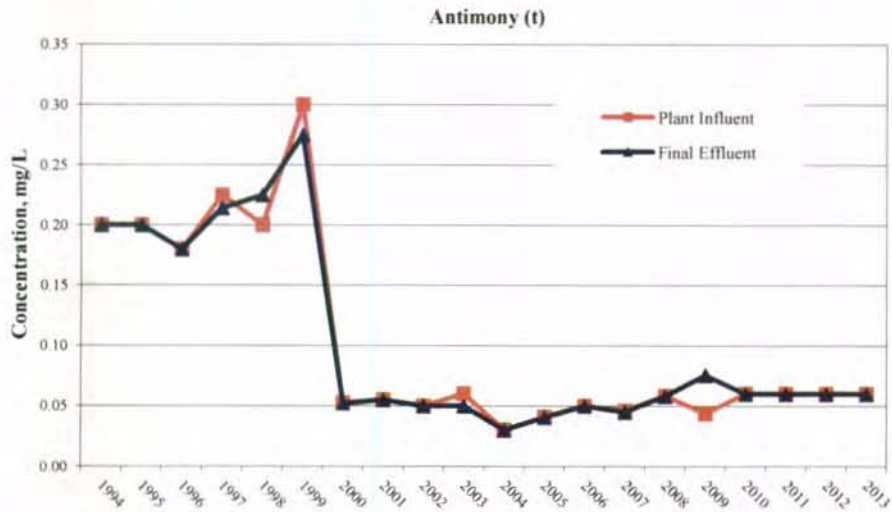
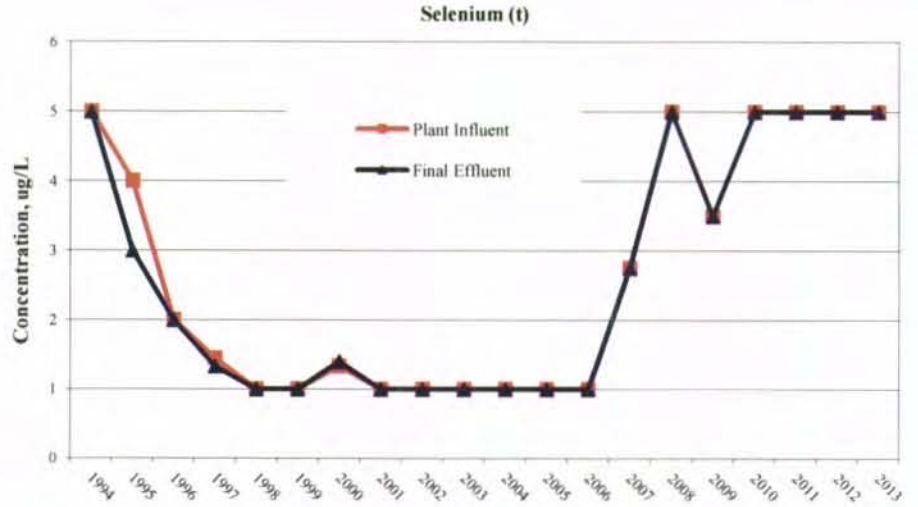
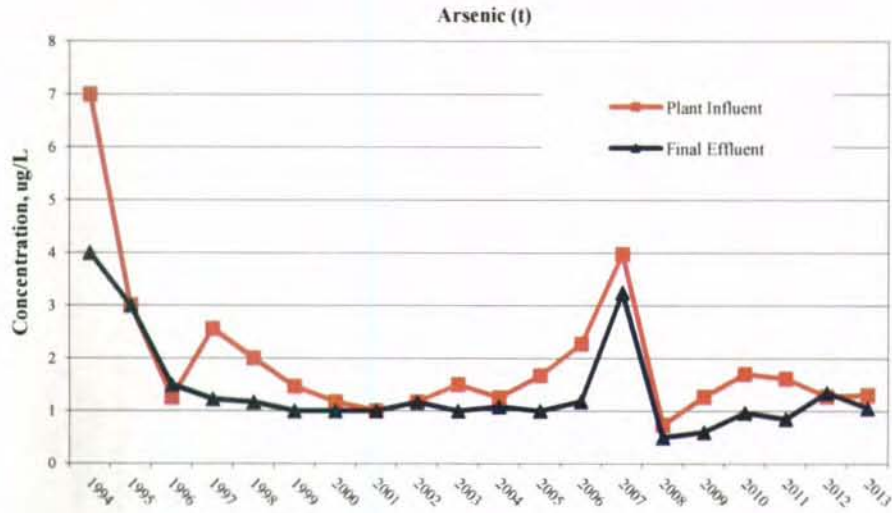


	Lead (t)	Zinc(t)	Silver(t)	Mercury(t)
Influent Headworks Limit	50 ug/L	0.36 mg/L	180 ug/L	0.2 ug/L
Effluent Water Quality Criteria	197 ug/L	2.46 mg/L	56 ug/L	0.14 ug/L



LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 FOURCHE CREEK TREATMENT PLANT CONCENTRATION TRENDS  
 1994 THROUGH 2013

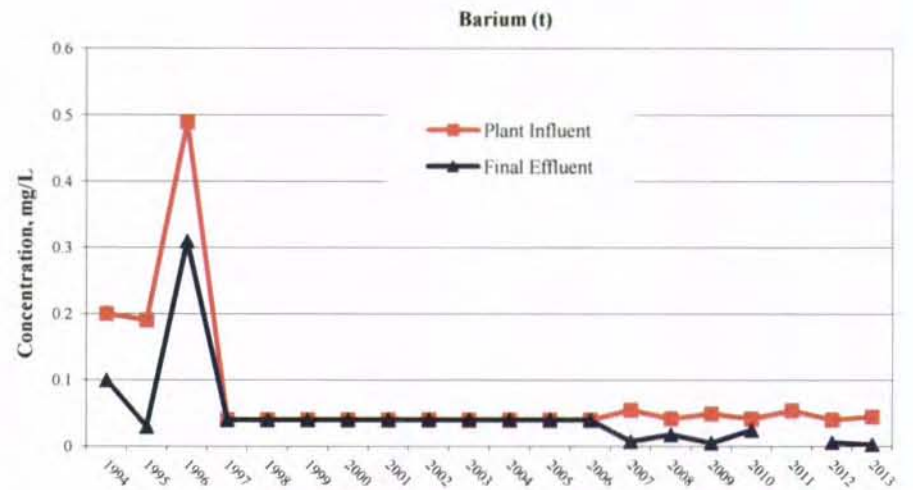
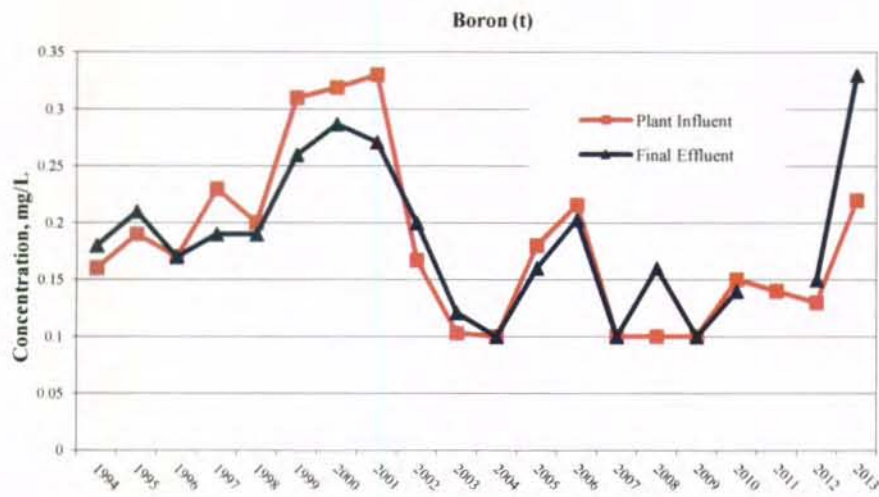
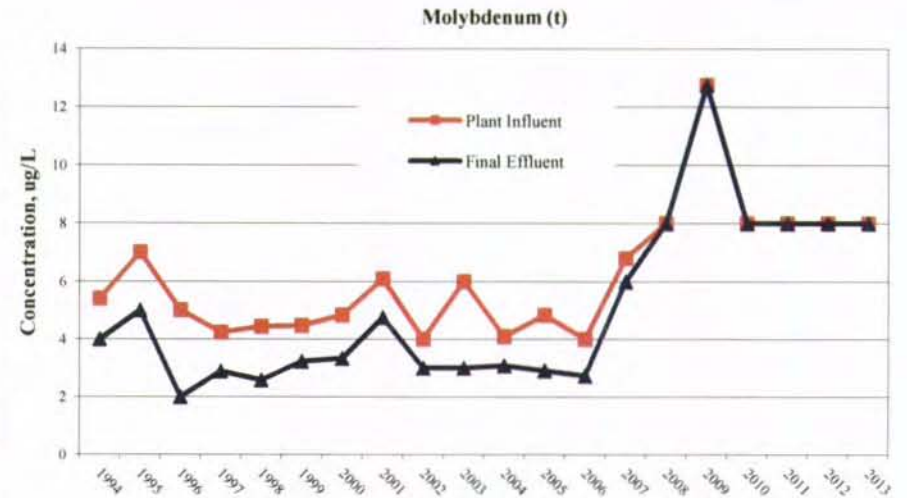
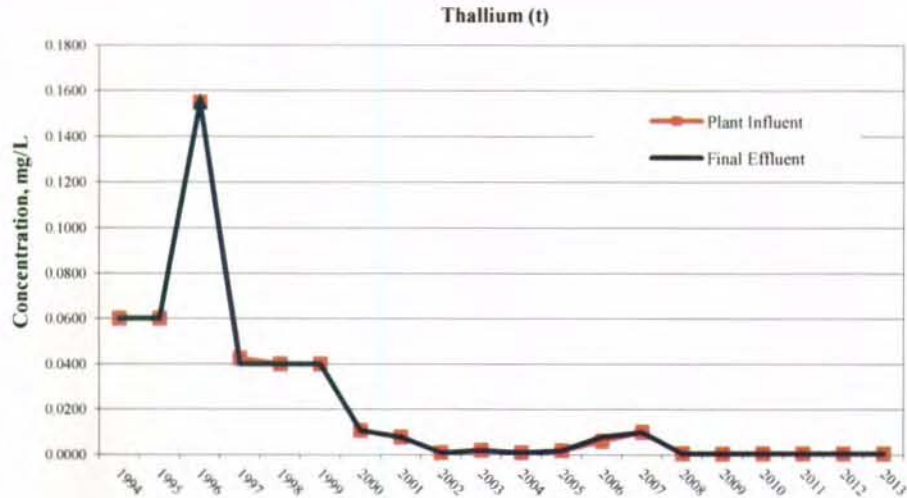
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	Arsenic(t)	Antimony (t)	Selenium (t)	Beryllium (t)
Influent Headworks Limit	14 ug/L	None	10 ug/L	None
Effluent Water Quality Criteria	3,440 ug/L	None	56 ug/L	None

LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 FOURCHE CREEK TREATMENT PLANT CONCENTRATION TRENDS  
 1994 THROUGH 2013

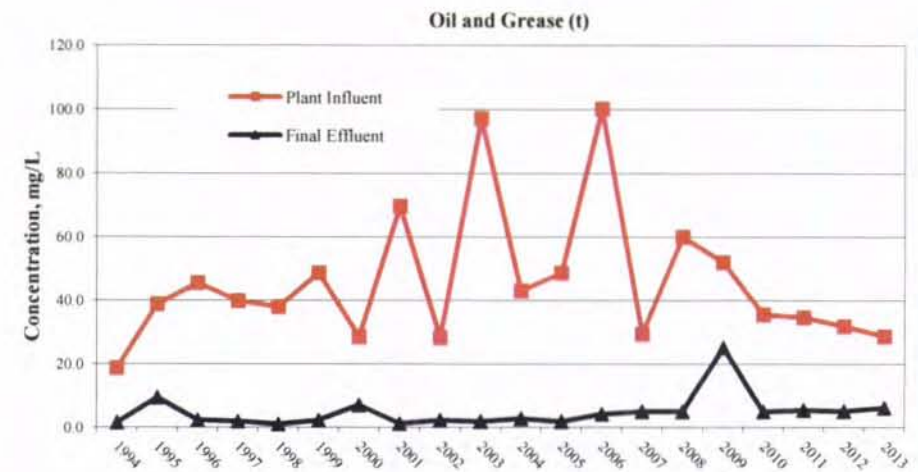
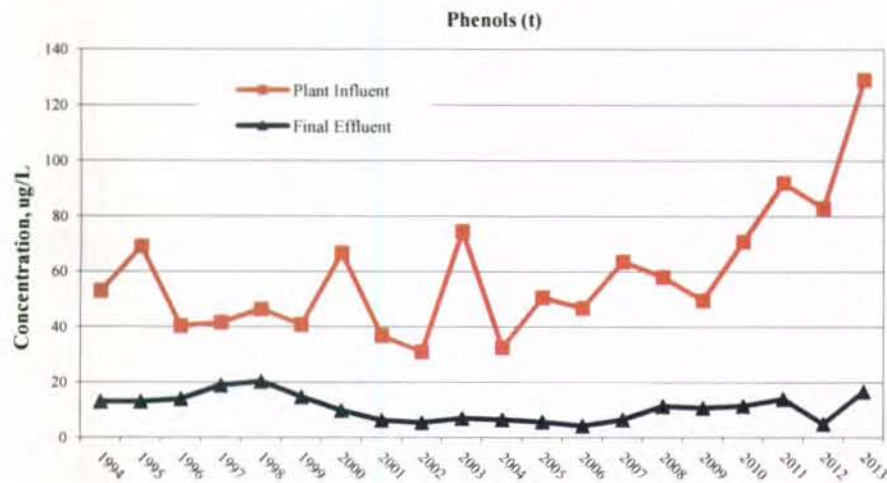
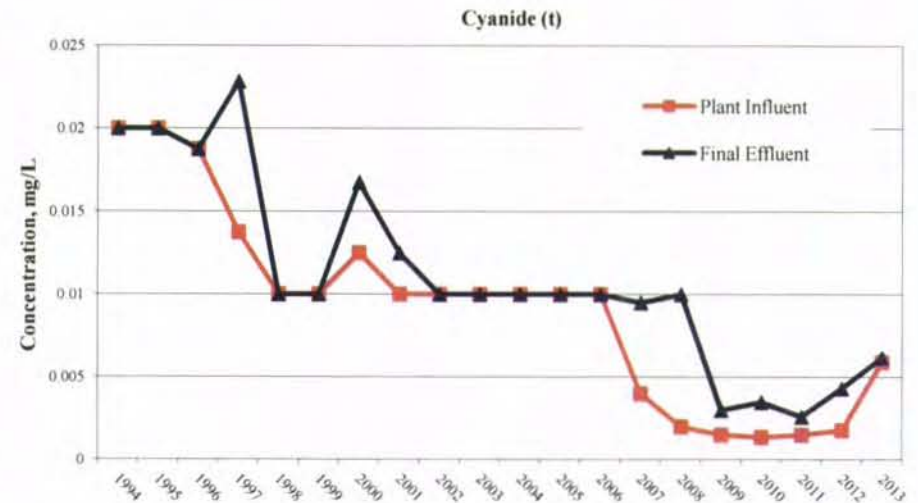
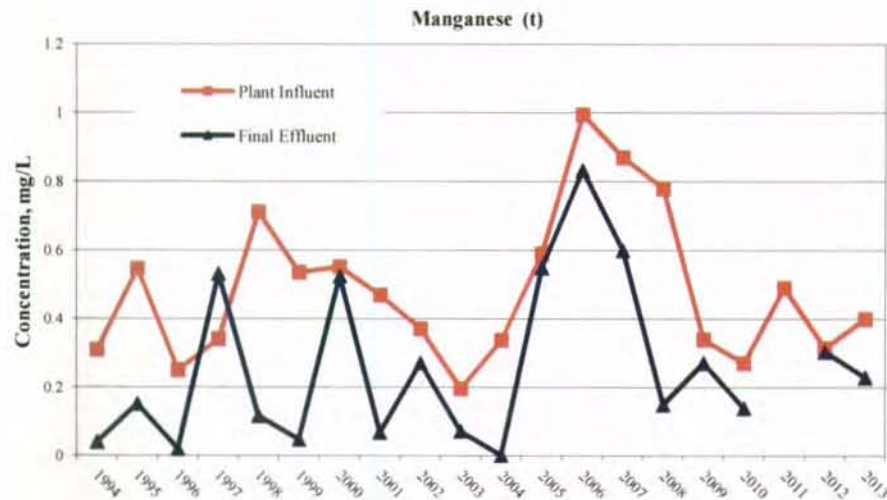
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	Thallium (t)	Boron (t)	Molybdenum(t)	Barium(t)
Influent Headworks Limit	None	None	None	None
Effluent Water Quality Criteria	None	None	None	None

LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 FOURCHE CREEK TREATMENT PLANT CONCENTRATION TRENDS  
 1994 THROUGH 2013

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	Manganese (t)	Total Phenols	Cyanide (t)	Oil&Grease
Influent Headworks Limit	None	None	0.09 mg/L	None
Effluent Water Quality Criteria	None	None	0.058 mg/L	None

## SUMMARY OF ANALYTICAL RESULTS

### LITTLE MAUMELLE WASTEWATER TREATMENT PLANT (LM-WWTP) INFLUENT AND EFFLUENT ANALYSES

Priority Pollutant Scans were conducted on the Little Rock Wastewater Treatment Plant influent and effluent flows in accordance with our NPDES permit requirements. Compounds analyzed include metals, cyanide, phenols, volatile organics, base/neutral and acid compounds, and pesticides/PCBs. Results of the analyses are organized in the following order:

- LM-WWTP 2013 Sample Results - This information includes a summary page of influent and effluent required test data for parameters from 40 CFR Part 122, Appendix D, Table III reported in a format requested by ADEQ. The summary page is followed by separate influent and effluent data tables.

Sampling and testing frequency requirements for Table III parameters are quarterly (NPDES Permit AR 0050849 Part II). Influent and effluent samples were collected with respect to the detention time across the treatment plant for the sampling events. Table III parameters include total arsenic, cadmium, copper, chromium, lead, mercury, nickel, silver, selenium, zinc, antimony, thallium, beryllium, cyanide and phenols. Other parameters collected quarterly include molybdenum and oil and grease.

- Treatment Plant Removal Efficiencies - This page includes the metals percent removal rates for the LM-WWTP. These removal rates are calculated based on the influent and effluent concentrations reported in the data tables provided.
- LM-WWTP 2013 Priority Pollutant Scan - Organic Fractions - This information includes required test data from 40 CFR Part 122, Appendix D, Table II divided into two parts. Item I: Identifies the positive measurements of organic compounds in the LM-WWTP influent and effluent during 2013. Item II: Influent/Effluent organic fraction detections trend chart for 2011 through 2013. Item III is the long term summary of positive results. 40 CFR Part 122, Appendix D, Table II monitoring frequency for 2013 is once per year in accordance with the NPDES Permit 0050849.
- LM-WWTP Concentration Trends - This information includes graphs showing LM-WWTP influent and effluent concentration trends for the past three years 2011-2013. Some peaks may be due to changes in test methods and detection limits.



**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT**  
**REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**  
**CITY OF LITTLE ROCK - LITTLE MAUMELLE WASTEWATER TREATMENT PLANT**  
**NPDES PERMIT NO.: AR0050849**

**AVERAGE POTW FLOW: 2.27 MGD**

**PERCENT (%) IU FLOW: 0 %**

METALS, CYANIDE and PHENOLS	MAHC (Total) (µg/l)	INFLUENT DATES SAMPLED (µg/l) Once/quarter				WQ level/limit (µg/l)	EFFLUENT DATES SAMPLED (µg/l) Once/quarter				LABORATORY ANALYSIS		
		Start Date	Start Date	Start Date	Start Date		Start Date	Start Date	Start Date	Start Date	EPA MQL (µg/l)	EPA Method Used	Detection Level Achieved
		1/14/2013	4/22/2013	7/29/2013	10/21/2013		1/14/2013	4/22/2013	7/29/2013	10/21/2013			
Antimony		< 60	< 60	< 60	< 60		< 60	< 60	< 60	< 60	60	200.8	60
Cadmium	9	< 0.5	< 0.5	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Copper	270	16.0	20.0	23.0	30.0	N/A	6.3	5.6	11.0	7.1	0.5	200.8	0.5
Lead	50	0.7	0.8	0.8	0.9	N/A	< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Mercury	0.20	0.1040	0.0260	0.0557	0.0317	N/A	0.0043	0.0011	0.0038	0.0013	0.005	1631E	0.0002
Nickel	160	2.1	2.4	3.1	2.6	N/A	1.7	1.5	1.8	1.5	0.5	200.8	0.5
Selenium	10	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	5	200.8	5
Silver	180	< 0.5	< 0.5	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Zinc	360	80	100	90	120	N/A	50	50	60	60	20	200.8	20
Chromium	260	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	10	200.8	10
Cyanide	90	1.1	1.9	10.0	10.0	N/A	< 0.9	< 1.9	< 10.0	< 10.0	10	SM20 4500 C&E	0.9/10
Arsenic	14	0.7	0.8	1.1	1.3	N/A	< 0.5	< 0.5	0.6	0.6	0.5	200.8	0.5
Molybdenum		< 8	< 8	< 8	< 8		< 8	< 8	< 8	< 8		200.8	8
Phenols		44.1	73.0	64.0	85.0		2.4	30.5	24.0	19.0	5	420.1	2.4/5
Beryllium		< 0.5	< 0.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	0.5	200.8	0.5
Thallium				290.0			0.5	< 5.0	< 5.0	< 5.0	0.5	200.8	0.5
Barium				20					9			200.8	2
Boron				300					300			200.8	100
Manganese				470					52			200.8	2
Oil and Grease		9,000	12,000	11,000	16,000		< 5,000	< 5,000	< 5,000	< 5,000		1664A	5000
Flow, MGD		3.97	2.39	1.75	1.71		3.28	2.10	1.88	1.59			

**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT  
REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**

TREATMENT PLANT: CITY OF LITTLE ROCK -LITTLE MAUMELLE WASTEWATER TREATMENT PLANT

NPDES PERMIT NO.: AR0050849

AVERAGE POTW FLOW: 2.27 MGD PERCENT (%) IU FLOW: 0 %

PLANT INFLUENT	Flow MGD	O&G mg/L	CN- mg/L	Zn mg/L	Cd µg/L	Cr µg/L	Ag µg/L	Cu µg/L	Mo µg/L	Ni µg/L	Pb µg/L	As µg/L	Se µg/L	Hg µg/L	Phenol µg/L	Sb mg/L	Be mg/L	Tl mg/L	Mn mg/L	Ba mg/L	B mg/L
EPA Test Method Used	1664A	SM20th 4500 C&E	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	1631E	420.1	200.8	200.8	200.8	200.8	200.8	200.8
Detection Level Achieved	5	0.0009/0.01	0.02	0.5	10	0.5	0.5	8	0.5	0.5	0.5	5	0.0002	2.4/5	0.06	0.0005	0.0005	0.002	0.002	0.1	
01/14/2013	3.97			0.08	< 0.5	< 10	< 0.5	16.0	< 8	2.1	0.7	0.7	< 5		< 0.06	< 0.0005	< 0.0005				
03/04/2013	2.08	9	0.0011											0.1040	44.1						
04/22/2013	2.39			0.10	< 0.5	< 10	< 0.5	20.0	< 8	2.4	0.8	0.8	< 5		< 0.06	< 0.0005	< 0.0005				
05/15/2013	1.63	12	< 0.0019											0.0260	73.0						
07/29/2013	1.75			0.09	< 0.5	< 10	< 0.5	23.0	< 8	3.1	0.8	1.1	< 5		< 0.06	< 0.0005	< 0.0005	0.470	0.020	0.3	
08/28/2013	1.52	11	< 0.0100											0.0557	64.0						
10/21/2013	1.71			0.12	< 0.5	< 10	< 0.5	30.0	< 8	2.6	0.9	1.3	< 5		< 0.06	< 0.0005	< 0.0005				
11/20/2013	1.56	16	< 0.0100											0.0317	85.0						
Average	2.08	12	0.0058	0.09	< 0.5	< 10	< 0.5	22.3	< 8	2.6	0.8	1.0	< 5	0.0543	66.5	< 0.06	< 0.0005	0.0005	0.470	0.020	0.3
Maximum	3.97	16	< 0.0100	0.12	< 0.5	< 10	< 0.5	30.0	< 8	3.1	0.9	1.3	< 5	0.1040	85.0	< 0.06	< 0.0005	0.0005	0.470	0.020	0.3
Minimum	1.52	9	0.0011	0.08	< 0.5	< 10	< 0.5	16.0	< 8	2.1	0.7	0.7	< 5	0.0260	44.1	< 0.06	< 0.0005	0.0005	0.470	0.020	0.3
Headworks limit			0.09	0.36	9.0	260.0	180.0	270		160	50	14	10	0.2							

Comments: None

**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT  
REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**

TREATMENT PLANT: CITY OF LITTLE ROCK -LITTLE MAUMELLE WASTEWATER TREATMENT PLANT

NPDES PERMIT NO.: AR0050849

AVERAGE POTW FLOW: 2.27 MGD

PERCENT (%) IU FLOW: 0 %

FINAL EFFLUENT	Flow MGD	O&G mg/L	CN- mg/L	Zn mg/L	Cd μg/L	Cr μg/L	Ag μg/L	Cu μg/L	Mo μg/L	Ni μg/L	Pb μg/L	As μg/L	Se μg/L	Hg μg/L	Phenol μg/L	Sb mg/L	Be mg/L	Tl mg/L	Mn mg/L	Ba mg/L	B mg/L
EPA Test Method Used	1664A	SM20th 4500 C&E	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	200.8	1631E	420.1	200.8	200.8	200.8	200.8	200.8	200.8
Detection Level Achieved	5	0.0009/0.01	0.02	0.5	10	0.5	0.5	0.5	8	0.5	0.5	0.5	5	0.0002	2.4/5	0.06	0.0005	0.0005	0.002	0.002	0.1
01/15/2013	3.28			0.05	< 0.5	< 10	< 0.5	6.3	< 8	1.7	< 0.5	< 0.5	< 5			< 0.06	< 0.0005	0.0005			
03/04/2013	1.96	< 5.0	< 0.0009											0.0043	2.4						
04/24/2013	2.10			0.05	< 0.5	< 10	< 0.5	5.6	< 8	1.5	< 0.5	< 0.5	< 5			< 0.06	< 0.0005	< 0.0005			
05/15/2013	1.51	< 5.0	< 0.0019											0.0011	30.5						
07/31/2013	1.88			0.06	< 0.5	< 10	< 0.5	11.0	< 8	1.8	< 0.5	0.6	< 5			< 0.06	< 0.0005	< 0.0005	0.0520	0.009	0.3
08/28/2013	1.50	< 5.0	< 0.0100											0.0038	24.0						
10/22/2013	1.59			0.06	< 0.5	< 10	< 0.5	7.1	< 8	1.5	< 0.5	0.6	< 5			< 0.06	< 0.0005	< 0.0005			
11/20/2013	1.56	< 5.0	< 0.0100											0.0013	19.0						
Average	1.92	< 5.0	< 0.0057	0.05	< 0.5	< 10	< 0.5	7.5	< 8	1.6	< 0.5	0.6	< 5	0.0026	19.0	< 0.06	< 0.0005	0.0005	0.0520	0.009	0.3
Maximum	3.28	< 5.0	< 0.0100	0.06	< 0.5	< 10	< 0.5	11	< 8	1.8	< 0.5	0.6	< 5	0.0043	30.5	< 0.06	< 0.0005	0.0005	0.0520	0.009	0.3
Minimum	1.50	< 5.0	< 0.0009	0.05	< 0.5	< 10	< 0.5	5.6	< 8	1.5	< 0.5	< 0.5	< 5	0.0011	2.4	< 0.06	< 0.0005	< 0.0005	0.0520	0.009	0.3
WQS Effluent Level			n/a	n/a	n/a	n/a	n/a	n/a		n/a	n/a	n/a	n/a	n/a							
Day Max.																					
Month Avg.																					

Comments: None

**MONITORING RESULTS FOR THE ANNUAL PRETREATMENT REPORT  
TREATMENT PLANT PERCENT REMOVAL EFFICIENCIES  
REPORTING YEAR: JANUARY 1, 2013 TO DECEMBER 31, 2013**

**Little Maumelle Wastewater Treatment Plant - NPDES Permit No. AR0050849**

	O&G	CN-	Zn	Cd	Cr	Ag	Cu	Mo	Ni	Pb	As	Se	Hg	Phenol	Sb	Be	Tl	Mn	Ba	B
01/14/2013			39.5%	0.0%	0.0%	0.0%	60.6%	0.0%	19.0%	26.5%	31.5%	0.0%			0.0%	0.0%				
03/04/2013	46.2%	18.2%											95.9%	94.6%						
04/22/2013			48.5%	0.0%	0.0%	0.0%	72.0%	0.0%	37.5%	33.3%	36.7%	0.0%			0.0%	0.0%				
05/15/2013	58.3%	0.0%											95.8%	58.2%						
07/29/2013			32.6%	0.0%	0.0%	0.0%	52.2%	0.0%	41.9%	35.1%	46.4%	0.0%			0.0%	0.0%	0.0%	88.9%	53.0%	6.9%
08/28/2013	54.5%	0.0%											93.2%	62.5%						
10/21/2013			49.2%	0.0%	0.0%	0.0%	76.3%	0.0%	42.3%	42.5%	53.1%	0.0%			0.0%	0.0%				
11/20/2013	68.8%	0.0%											96.0%	77.6%						
Average	57.0%	4.5%	43.4%	0.0%	0.0%	0.0%	65.3%	0.0%	35.2%	34.3%	41.9%	0.0%	95.2%	73.2%	0.0%	0.0%	0.0%	88.9%	53.0%	6.9%

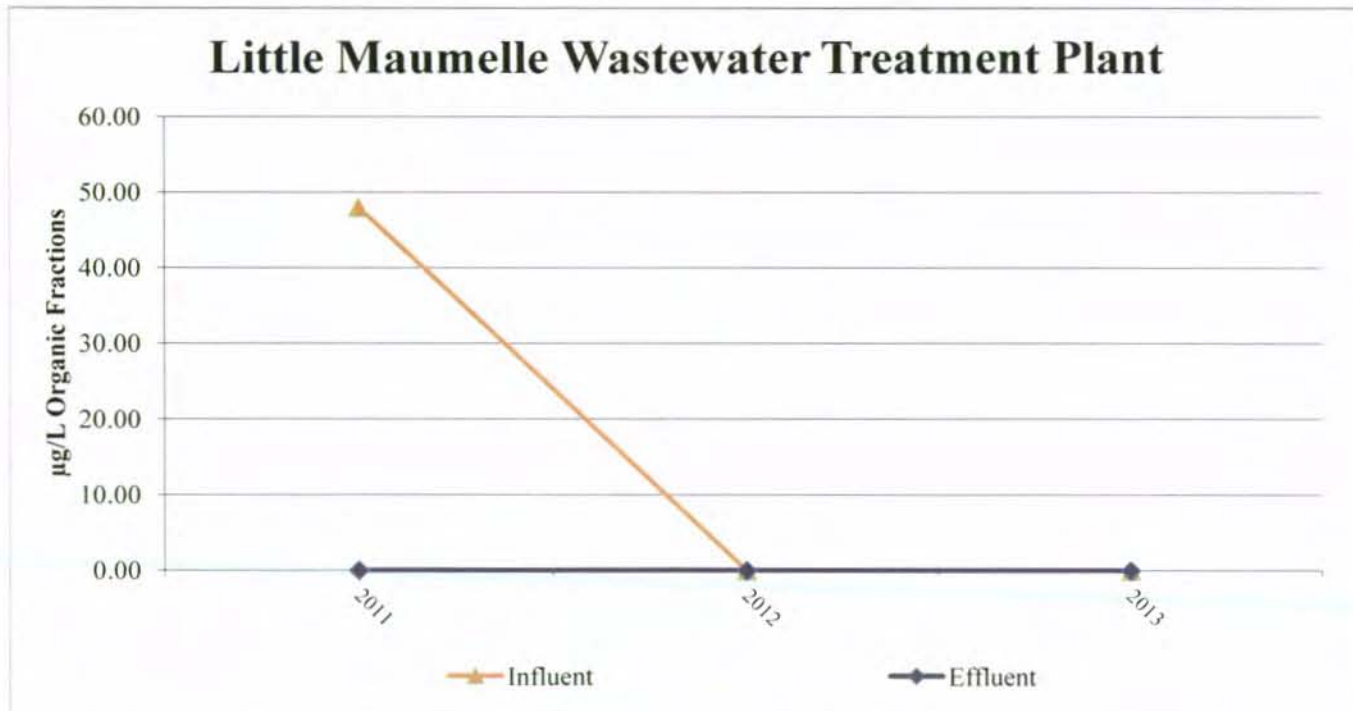


I. 2013 POSITIVE RESULTS,  $\mu\text{g/L}$

LITTLE MAUMELLE WASTEWATER TREATMENT PLANT		
Sample Date	Compound	Influent
8/28/2013	Volatiles	ND
9/24/2013	Base/Neutral, Acid Compounds, Pesticides/PCBs, Chlorpyrifos	ND
Sample Date	Compound	Effluent
8/28/2013	Volatiles	ND
9/24/2013	Base/Neutral, Acid Compounds, Pesticides/PCBs, Chlorpyrifos	ND

Comments: ND - No Detection

II. TREND OF POSITIVE RESULTS - REPORTING PERIOD 2011 THROUGH 2013

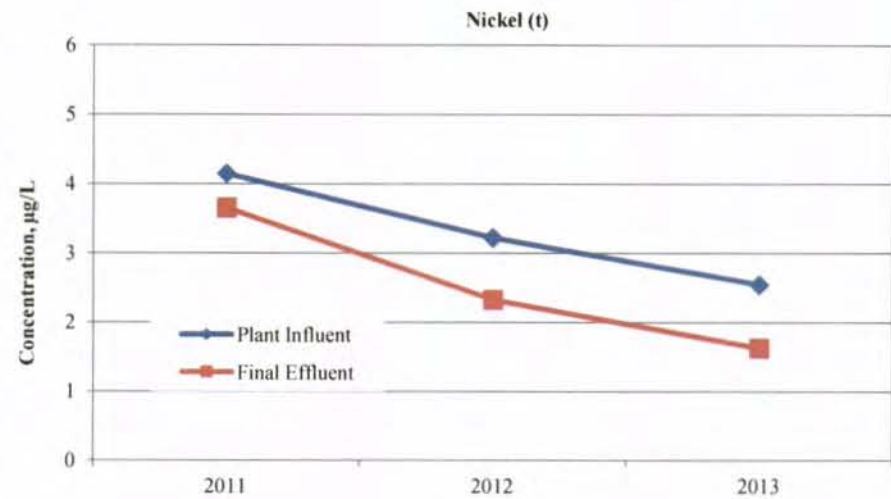
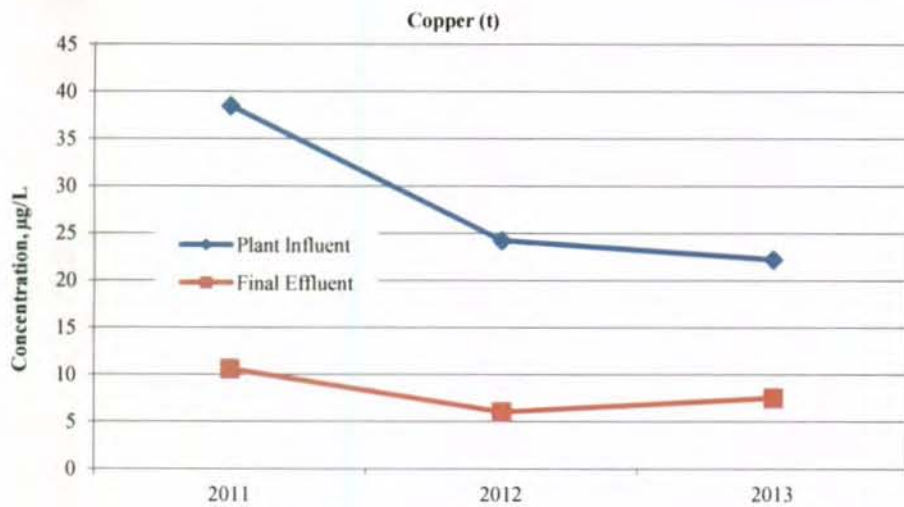
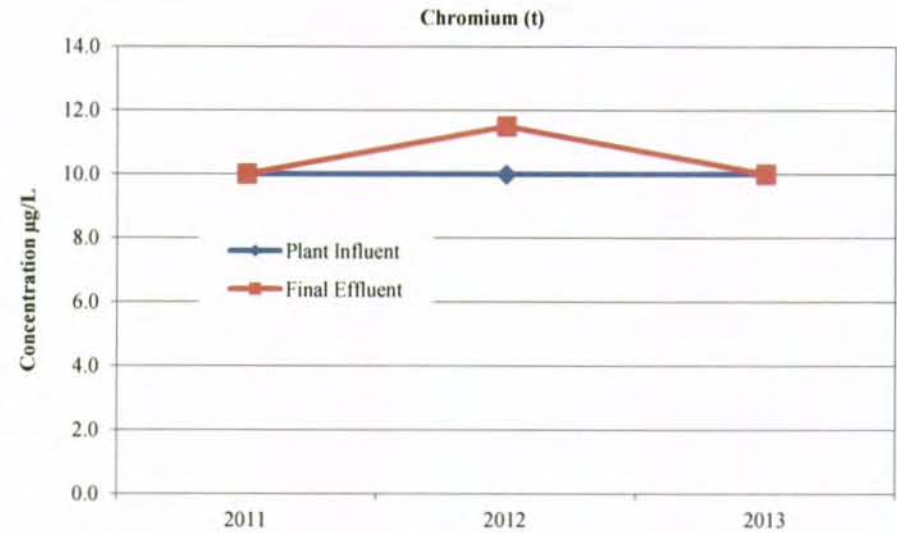
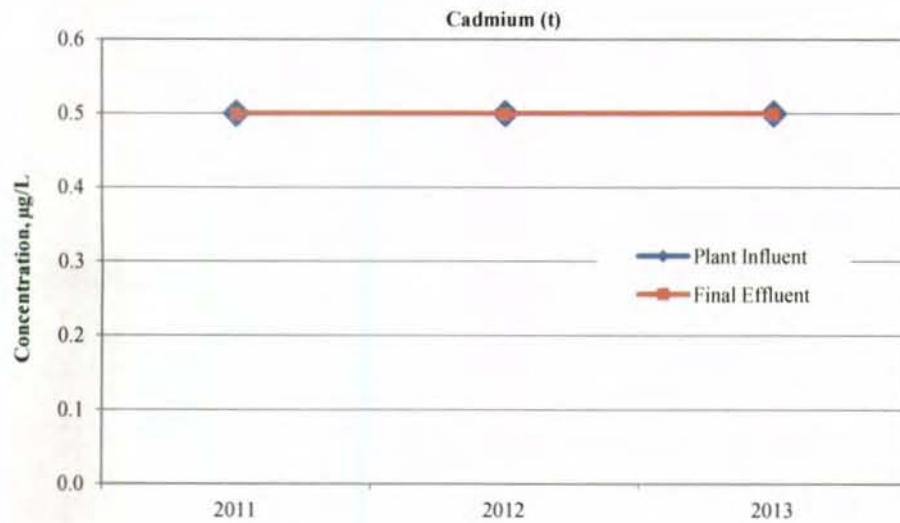


III. SUMMARY OF POSITIVE RESULTS - REPORTING PERIOD 1991 THROUGH 2013

Little Maumelle Wastewater Treatment Plant

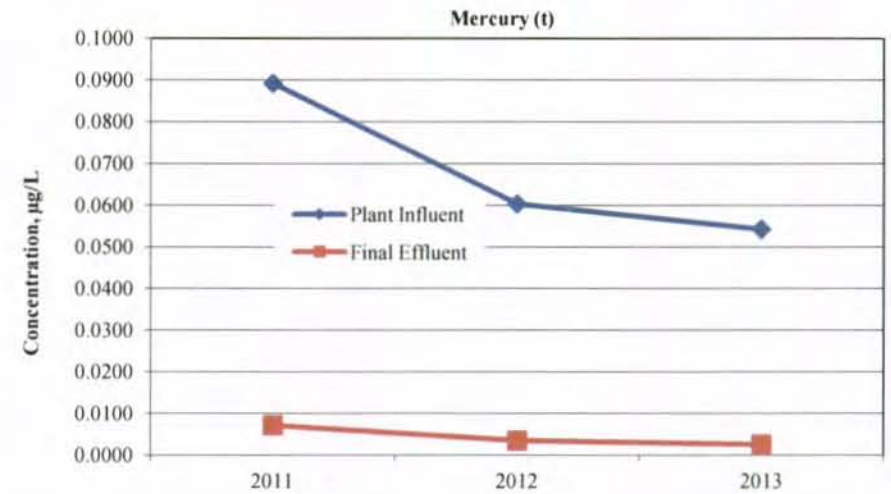
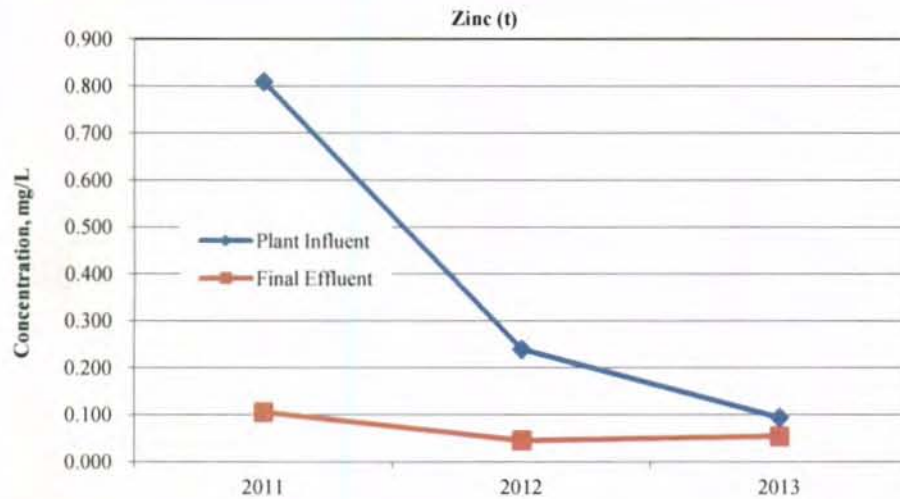
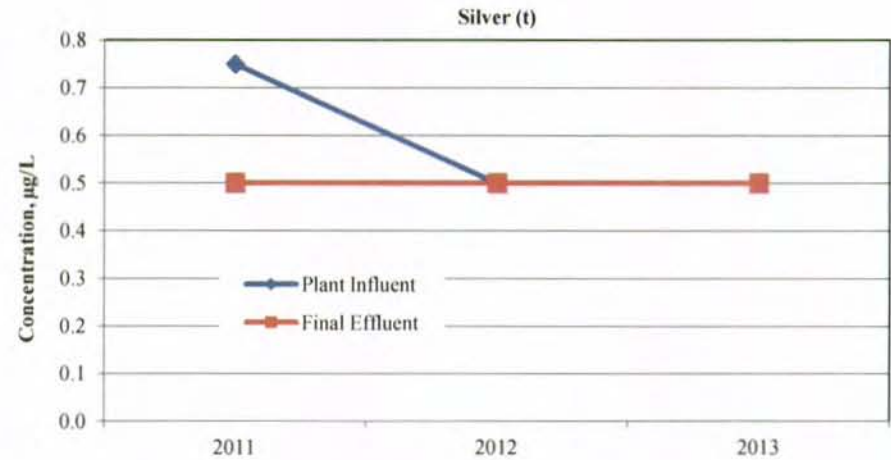
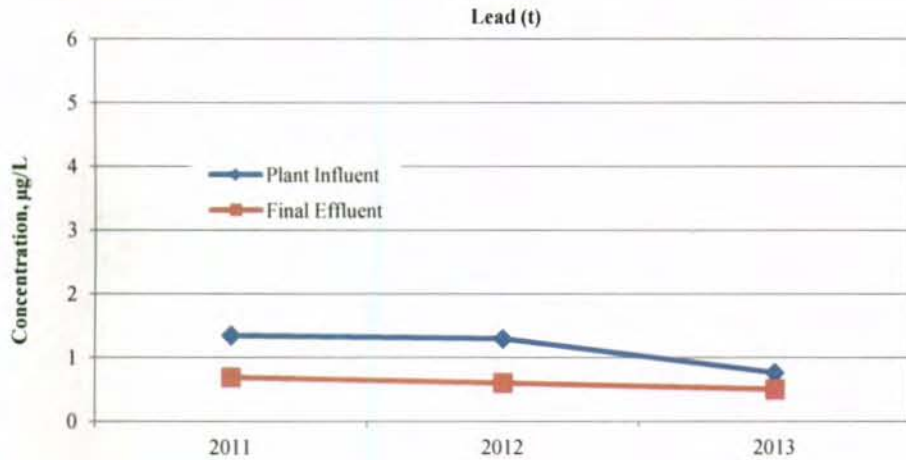
PPS, µg/L Parameter	2011		2012		2013	
	INF	EFF	INF	EFF	INF	EFF
Toluene	37	ND	ND	ND	ND	ND
Diethylphthalate	11	ND	ND	ND	ND	ND
Total	48.00	0.00	0.00	0.00	0.00	0.00

LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 LITTLE MAUMELLE TREATMENT PLANT CONCENTRATION TRENDS  
 2011 THROUGH 2013



	Cadmium(t)	Copper (t)	Chromium (t)	Nickel(t)
<b>Influent Headworks Limit</b>	9 ug/L	270 ug/L	260 ug/L	160 ug/L
<b>Effluent Water Quality Criteria (Acute)</b>	N/A	N/A	N/A	N/A

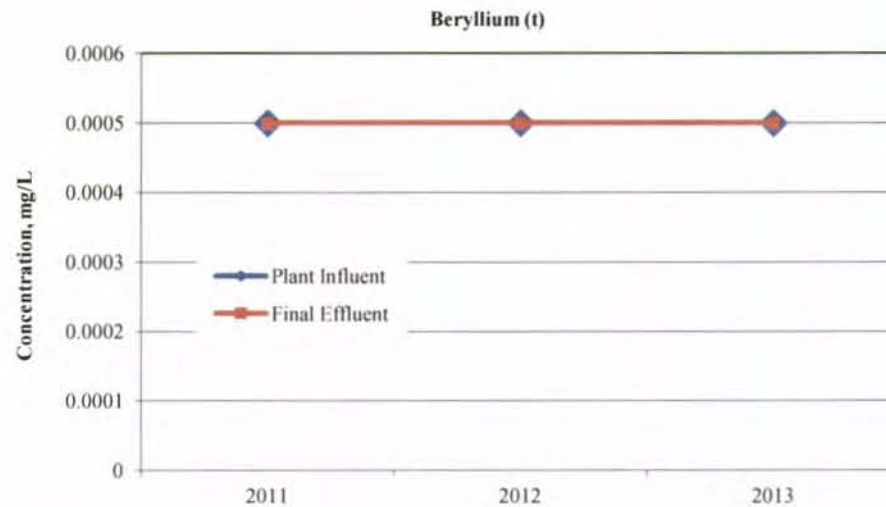
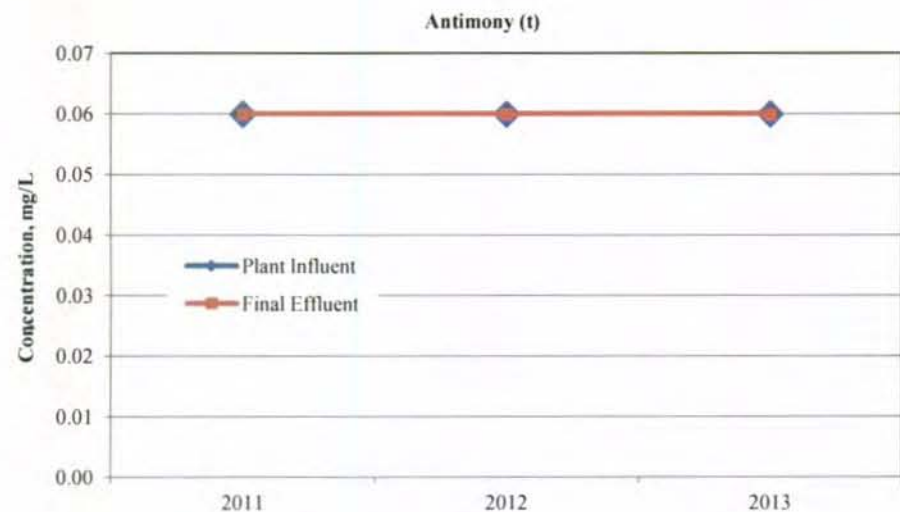
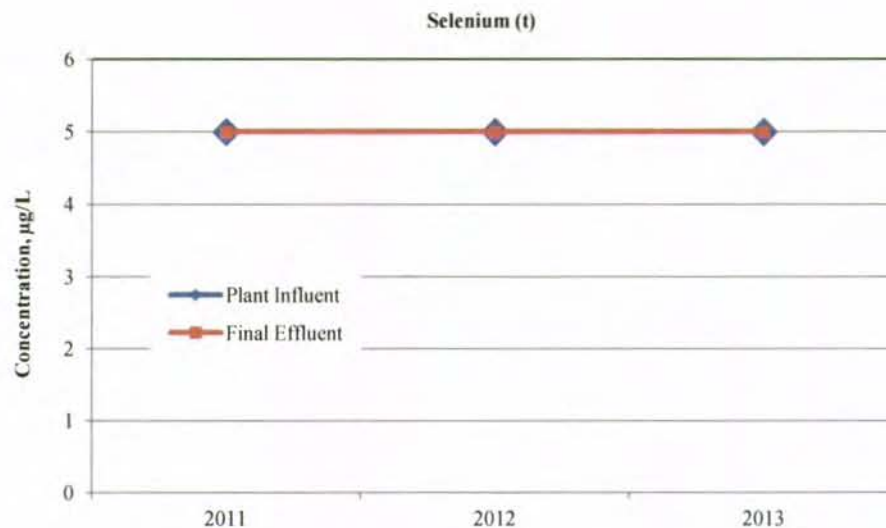
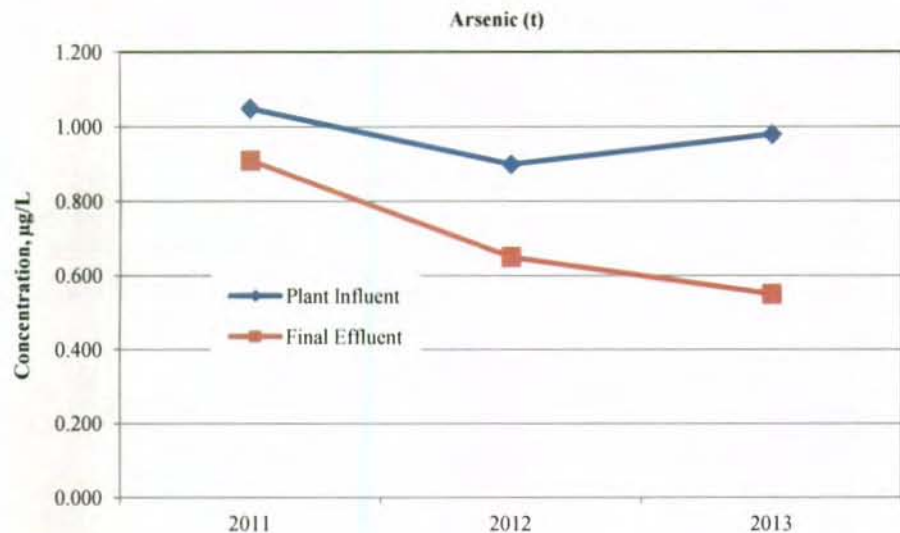
LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 LITTLE MAUMELLE TREATMENT PLANT CONCENTRATION TRENDS  
 2011 THROUGH 2013



	Lead (t)	Zinc(t)	Silver(t)	Mercury(t)
Influent Headworks Limit	50 ug/L	0.36 mg/L	180 ug/L	0.2 ug/L
Effluent Water Quality Criteria (Acute)	N/A	N/A	N/A	N/A

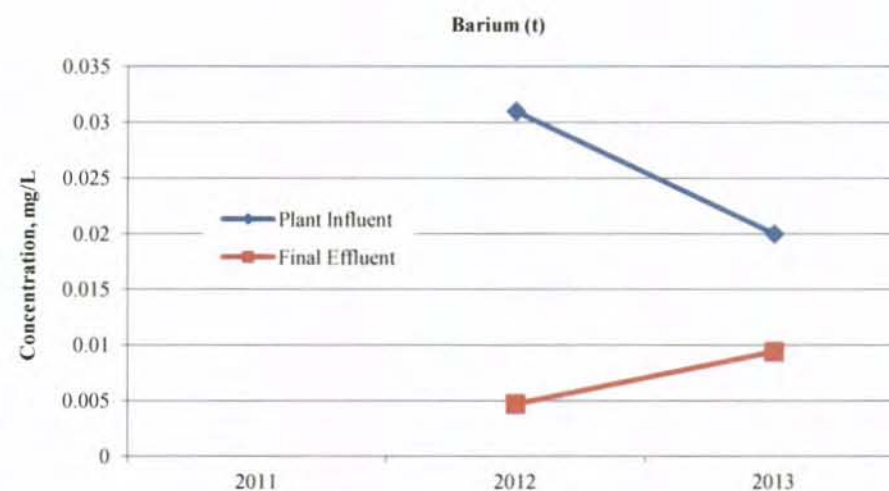
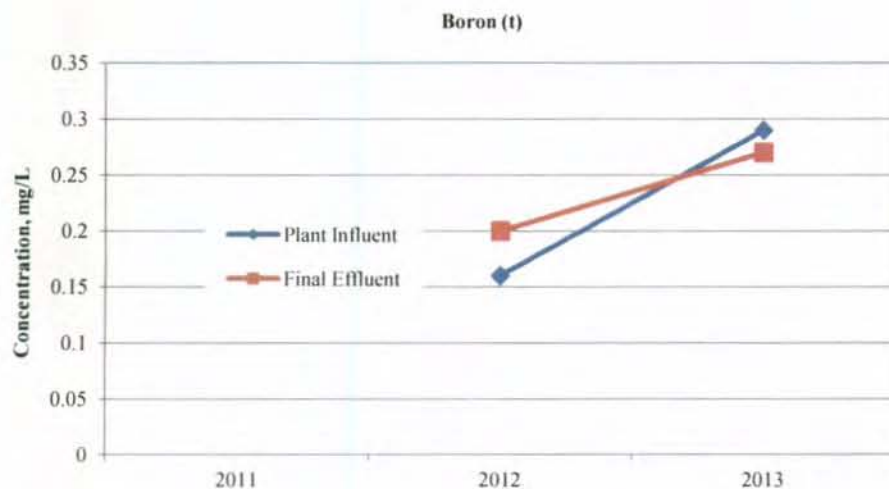
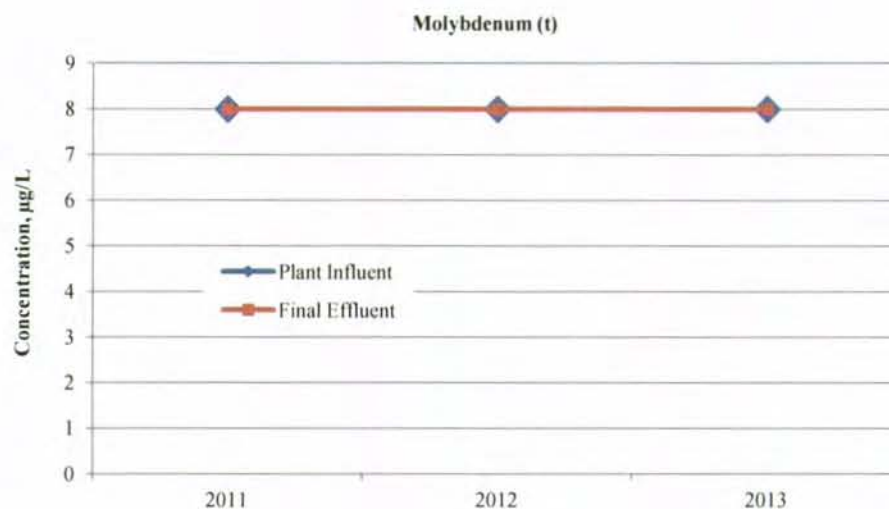
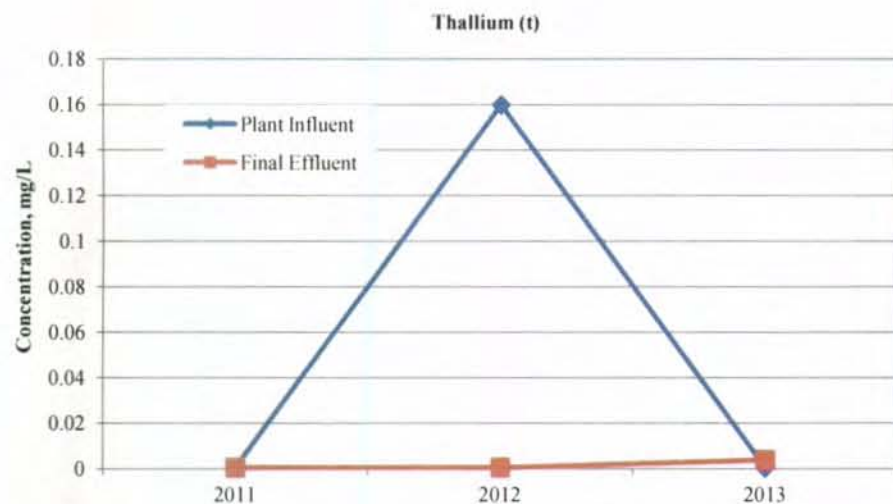


LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 LITTLE MAUMELLE TREATMENT PLANT CONCENTRATION TRENDS  
 2011 THROUGH 2013



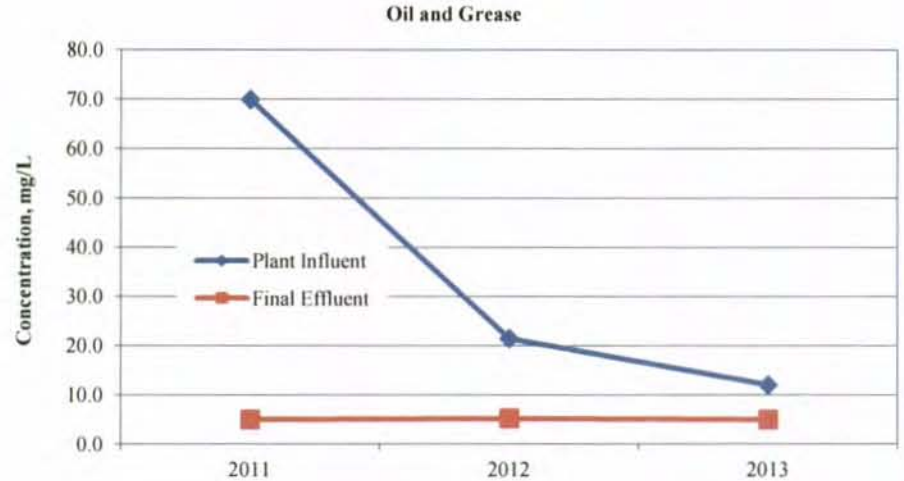
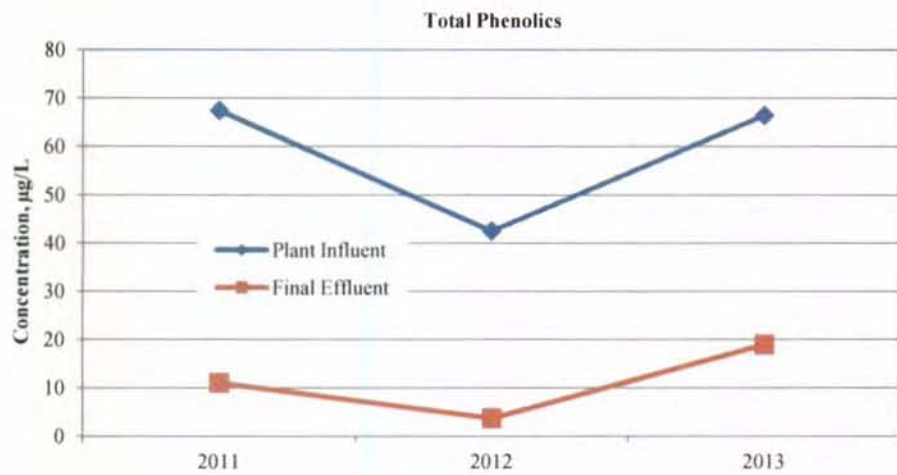
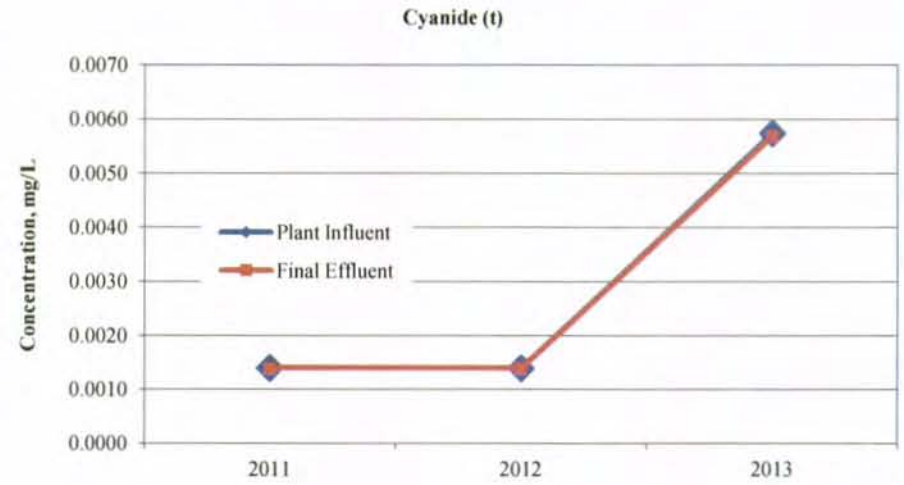
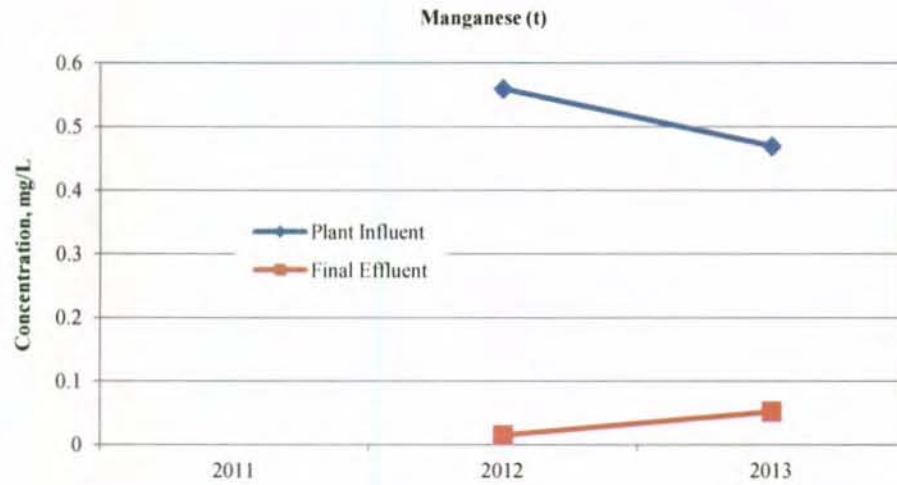
	Arsenic(t)	Antimony (t)	Selenium (t)	Beryllium (t)
Influent Headworks Limit	14 ug/L	None	10 ug/L	None
Effluent Water Quality Criteria (Acute)	N/A	N/A	N/A	N/A

LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 LITTLE MAUMELLE TREATMENT PLANT CONCENTRATION TRENDS  
 2011 THROUGH 2013



	Thallium (t)	Boron (t)	Molybdenum(t)	Barium(t)
Influent Headworks Limit	None	None	None	None
Effluent Water Quality Criteria (Acute)	N/A	N/A	N/A	N/A

LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 LITTLE MAUMELLE TREATMENT PLANT CONCENTRATION TRENDS  
 2011 THROUGH 2013



	Manganese (t)	Total Phenols	Cyanide (t)	Oil&Grease
Influent Headworks Limit	None	None	0.09 mg/L	None
Effluent Water Quality Criteria (Acute)	N/A	N/A	N/A	N/A

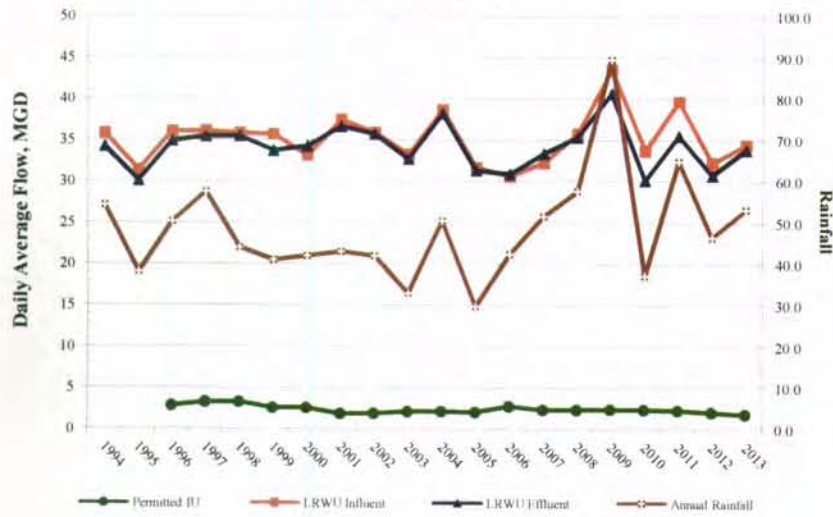
## SUMMARY OF WASTEWATER TREATMENT PLANT LOADING TRENDS

Trend charts are used to evaluate pollutant loading for the Little Rock Wastewater (LRW) system, for each wastewater treatment plant and to evaluate Industrial User (IU) contributions. Little Maumelle Treatment Plant came on line in 2011 and is included on the charts beginning 2011. The charts are organized in the following order:

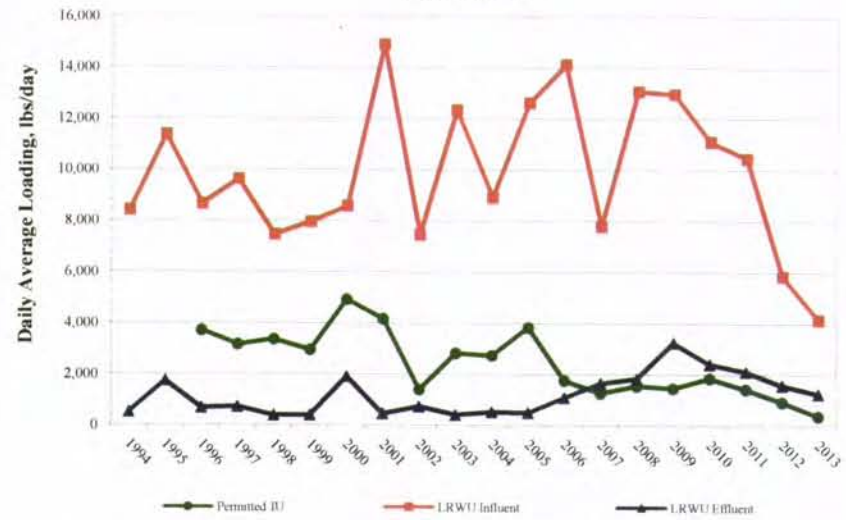
- Total System Loading Trends - These charts show 1994 - 2013 loading, lbs/day, for the total cumulative influent/effluent loading for the AF-WWTP, FC-WWTP, and LM-WWTP. The cumulative loading from permitted IU's is also included. Parameters include flow, BOD, TSS, O&G and local limit pollutant parameters. The BOD trend does not include LM-WWTP data since the NPDES Permit is for CBOD. For each individual analytical point the lbs/day is calculated using the flow for each sample date. In cases where the concentration is reported as less than the detection limit the detection limit number was used to calculate the lbs/day. This causes the loading (lbs/day) to be higher than what it would be if zero values were used in those instances.
- IU Percent Contributions 1996 - 2013 - These charts show IU percent contributions to the LRW system starting 1996 to date. When test results (IU and LRW) are reported as less than detection or reporting limit, the detection limit value is used to total lbs calculations.
- POTW Loading Trends - Influent/Effluent Loading, lbs/day, comparison charts were developed for the AF-WWTP and FC-WWTP for 1994 - 2013. LM-WWTP loading data (lbs/day) for 2011 - 2013 was added to the comparison charts (except for BOD). These charts reveal trends in loading for each treatment plant. (% removal efficiencies, based on wastewater treatment plant influent/effluent concentration values, can be found in Section VI, VII, and VIII of this report.)



Hydraulic



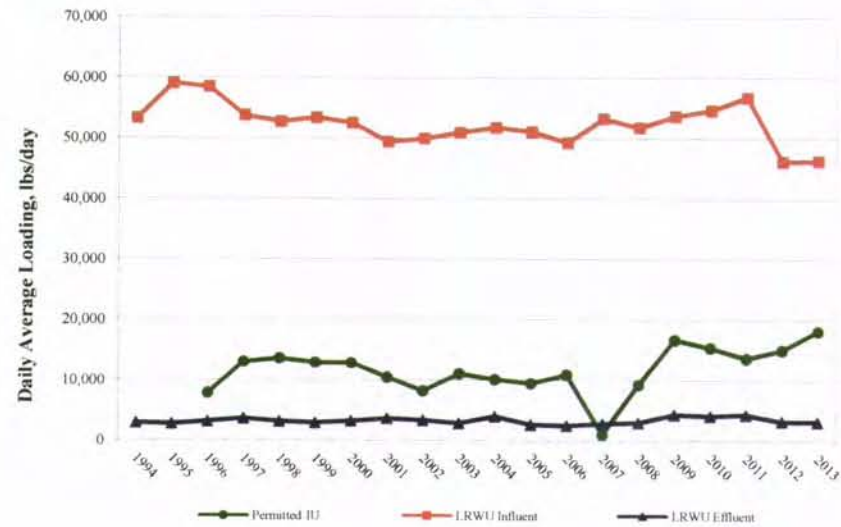
Oil & Grease



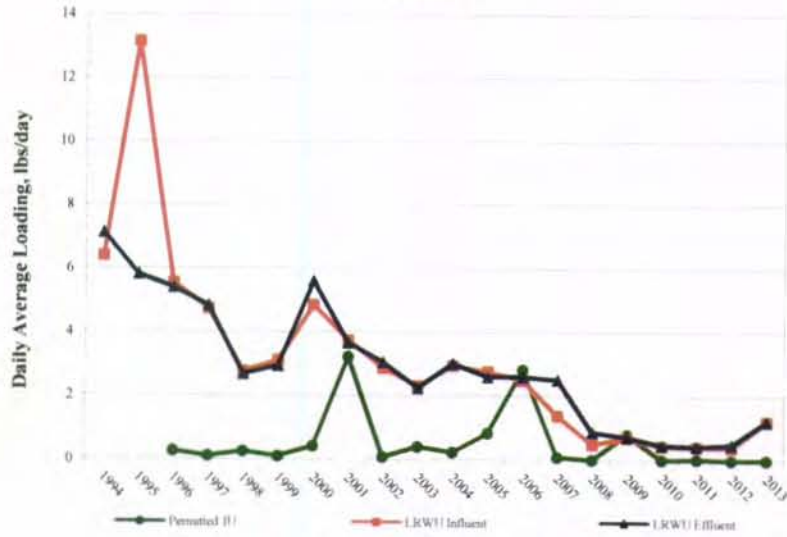
BOD<sub>5</sub>



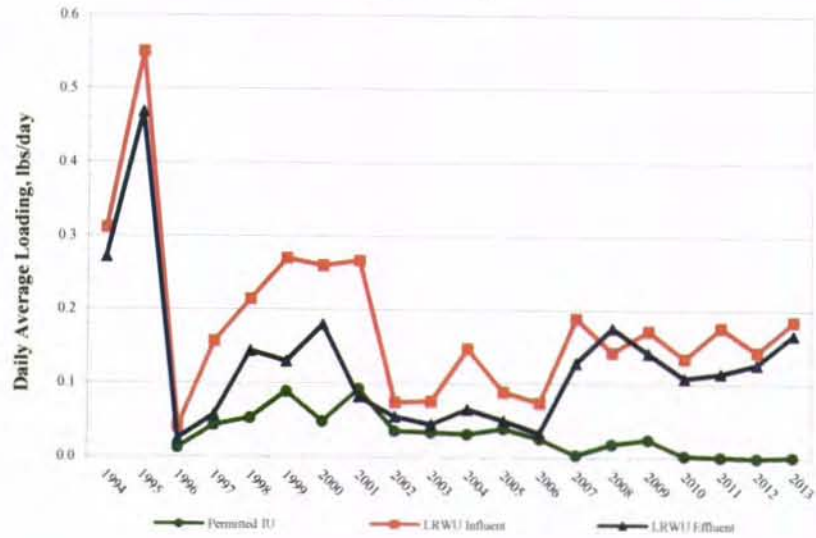
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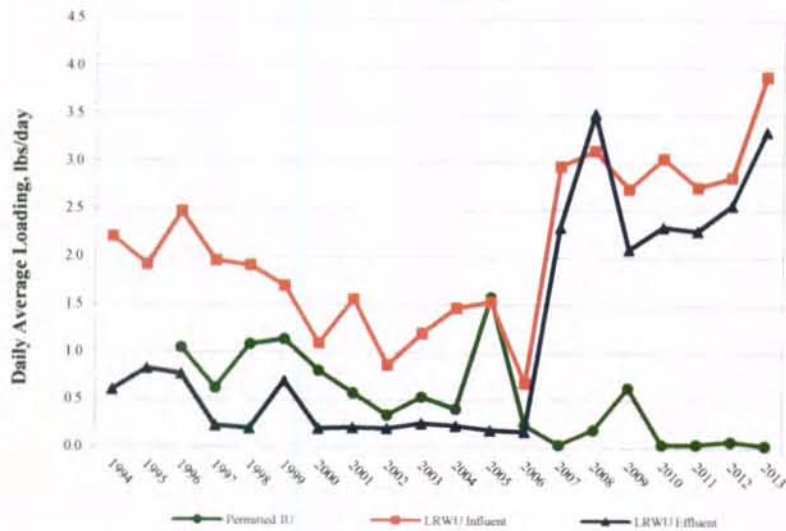
Cyanide (t)



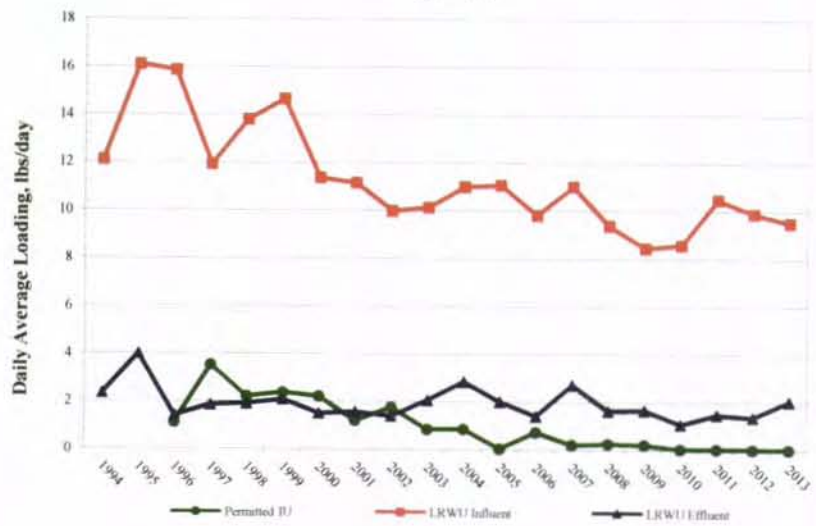
Cadmium (t)



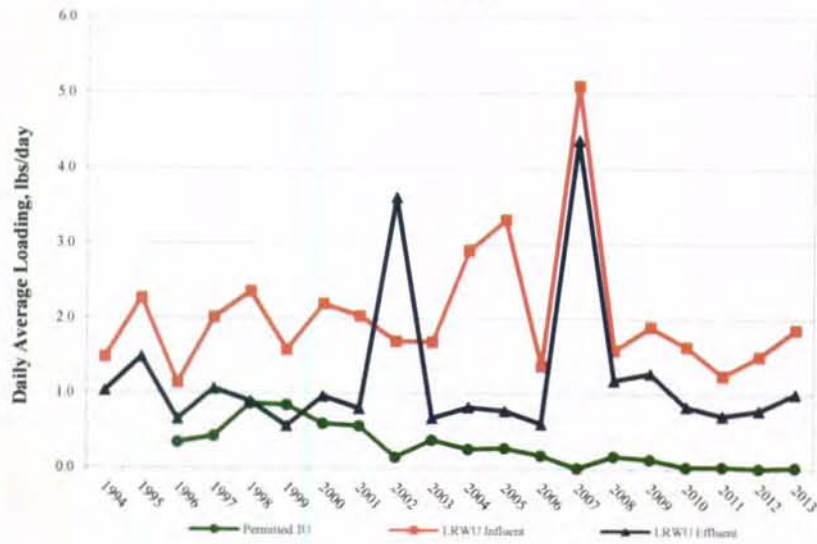
Chromium (t)



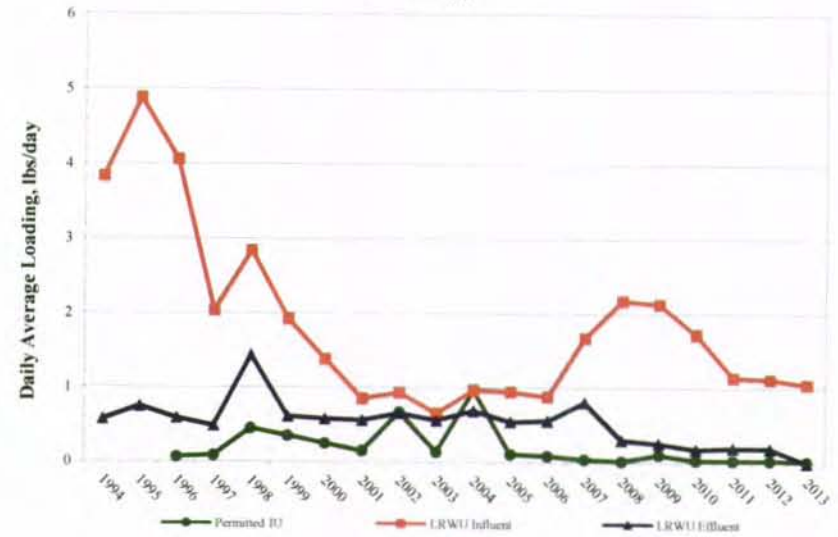
Copper (t)



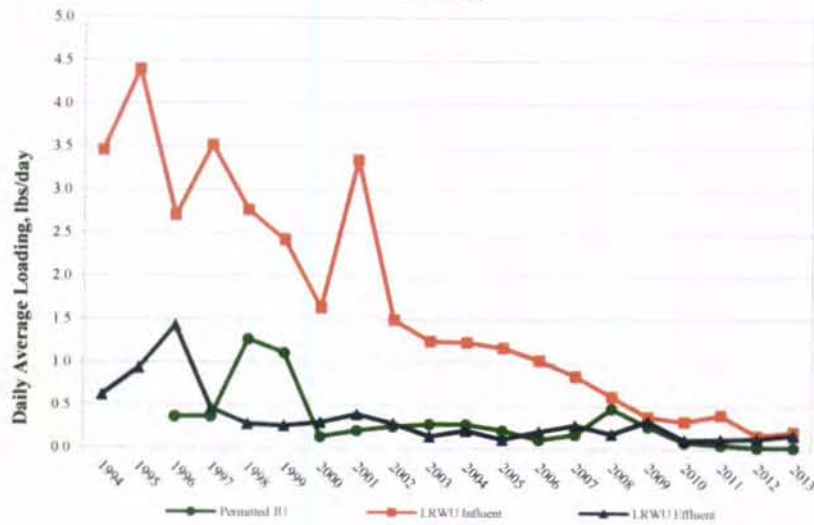
Nickel (t)



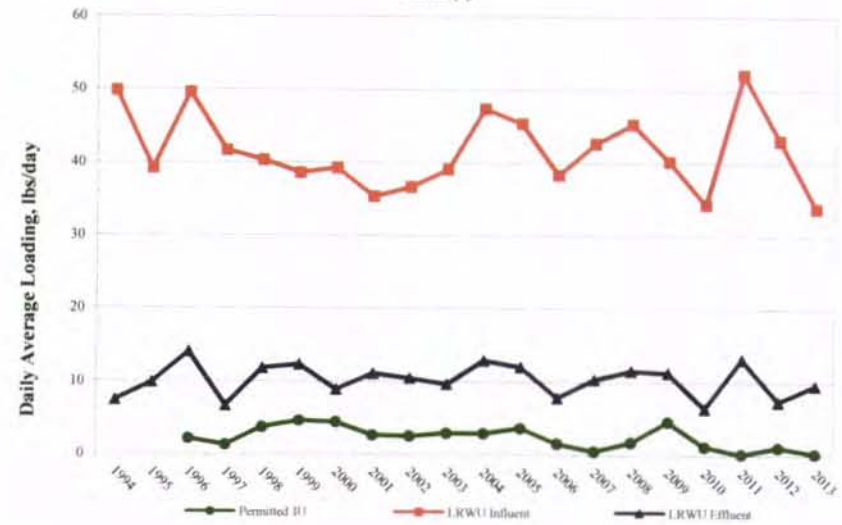
Lead (t)



Silver (t)

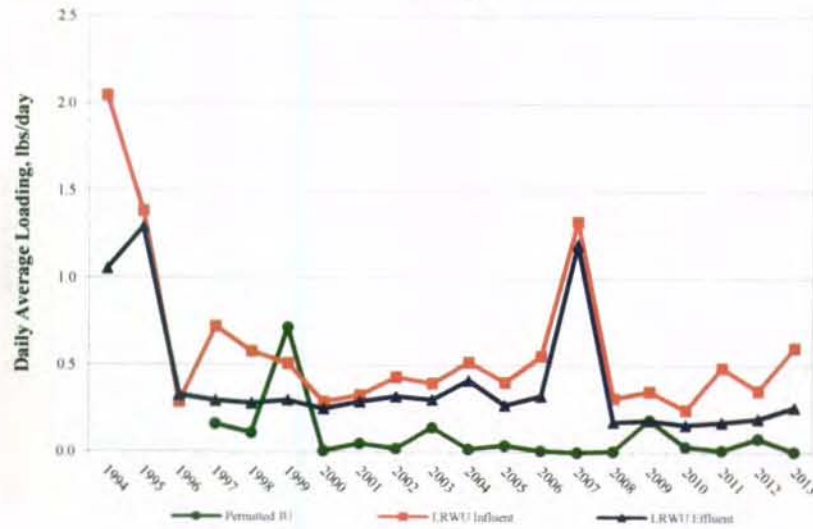


Zinc (t)

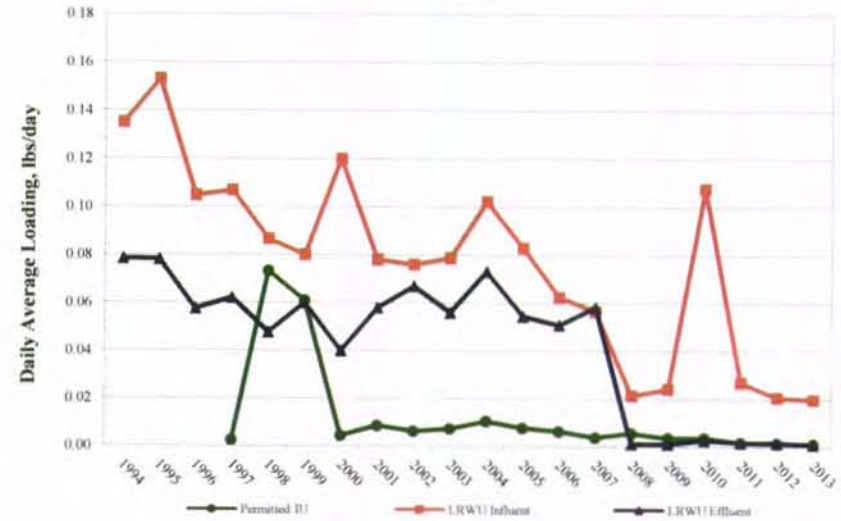




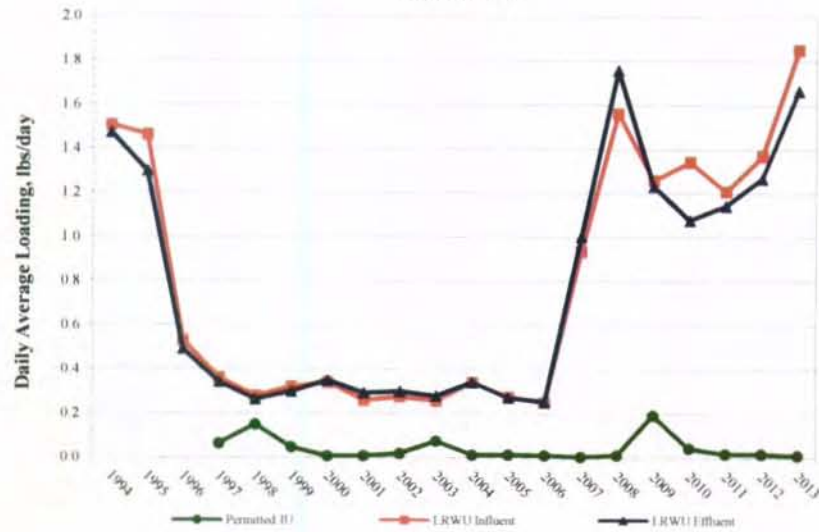
Arsenic (t)



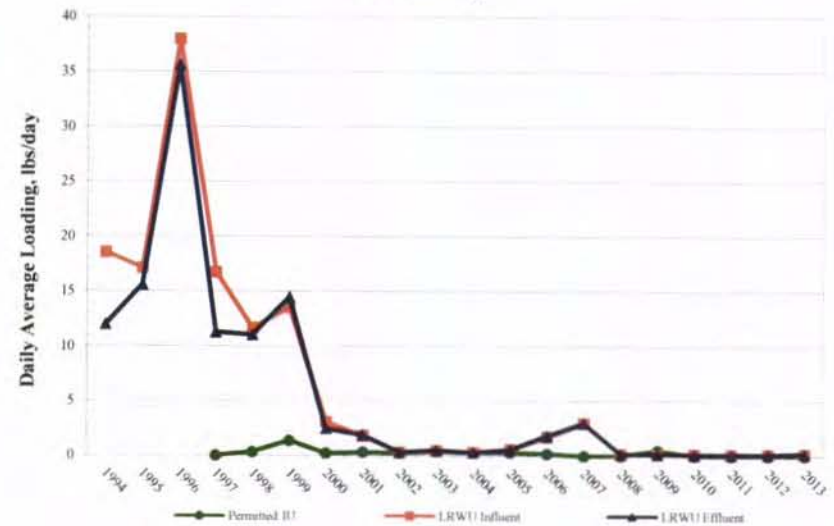
Mercury (t)

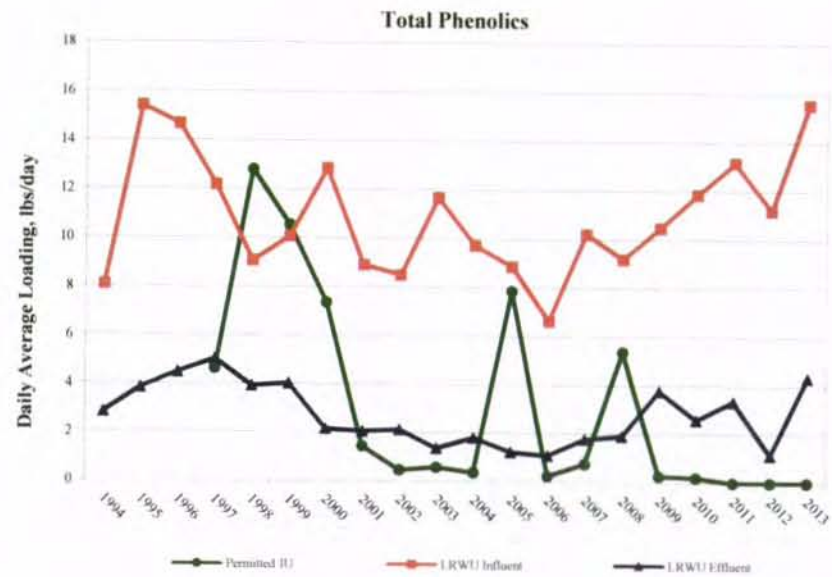
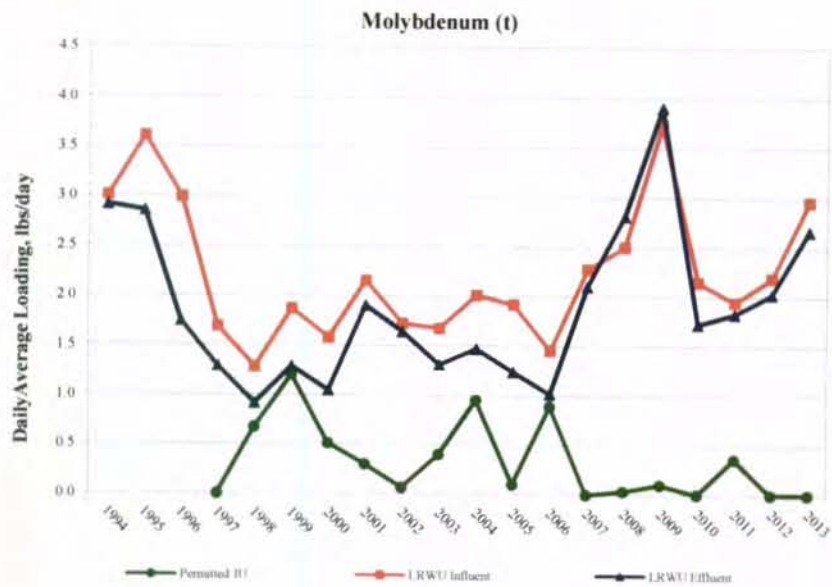
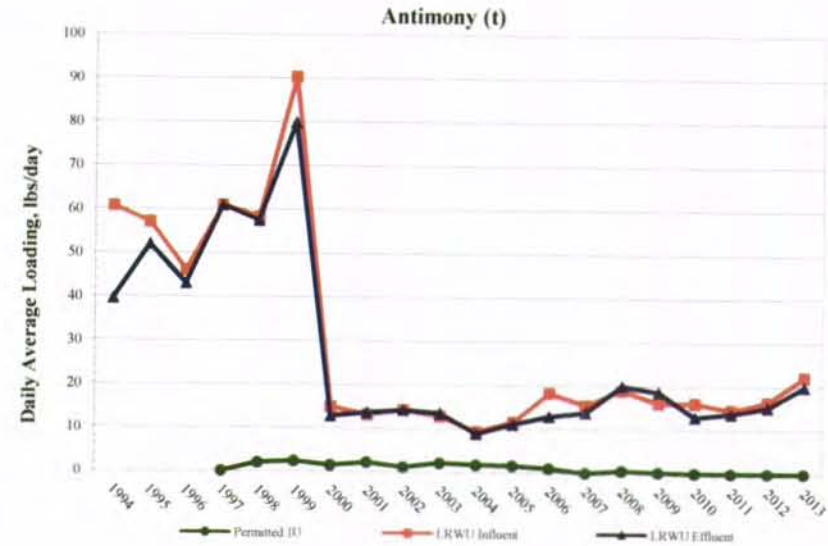
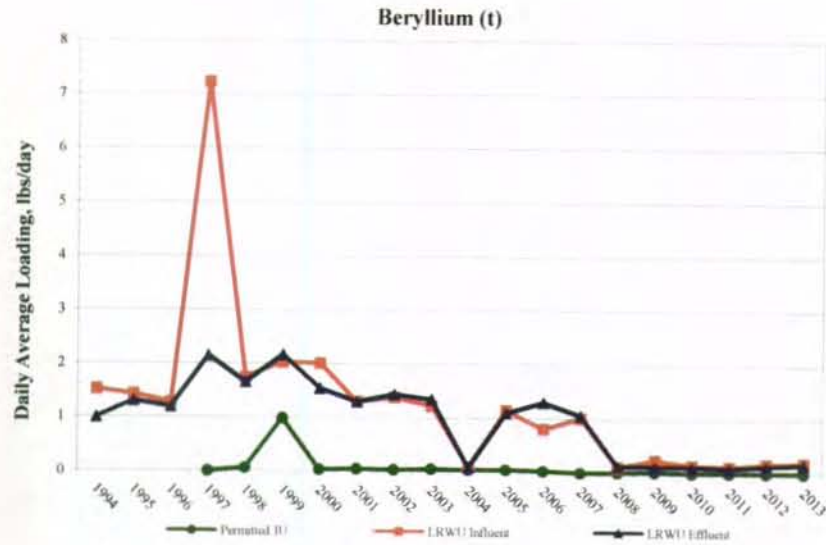


Selenium (t)



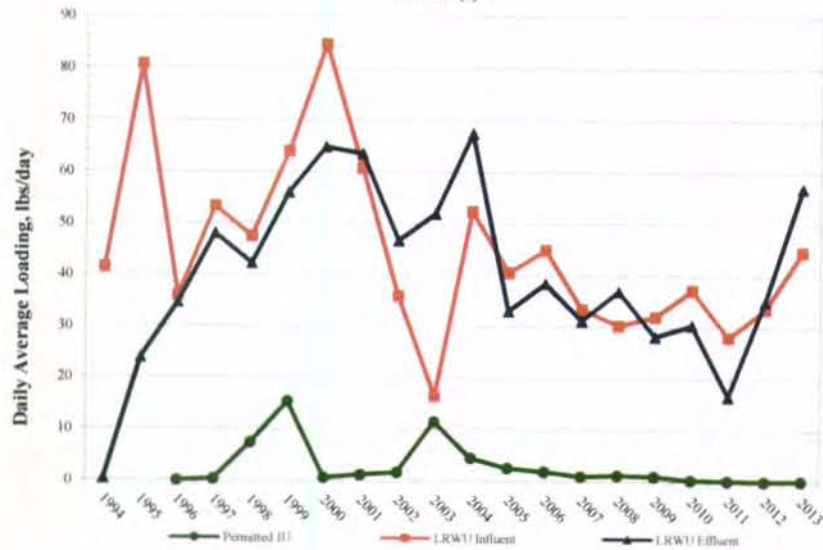
Thallium (t)



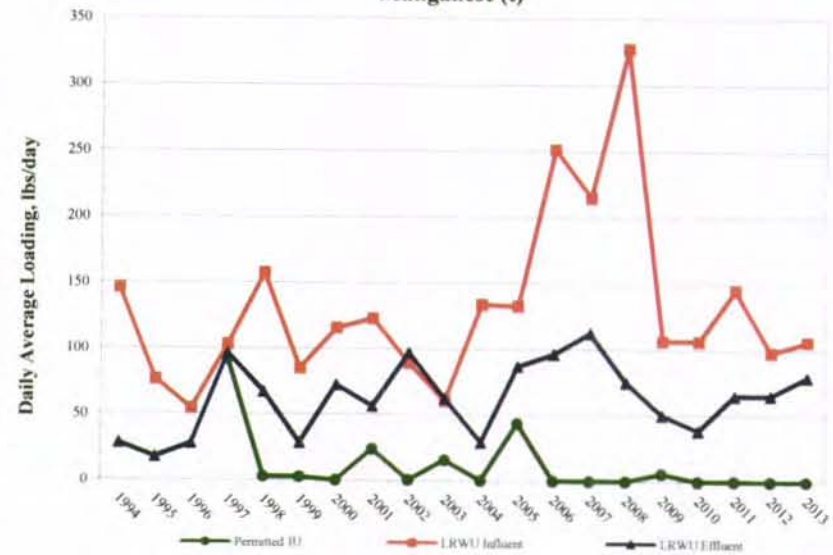


LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 LRW TOTAL SYSTEM LOADING TRENDS

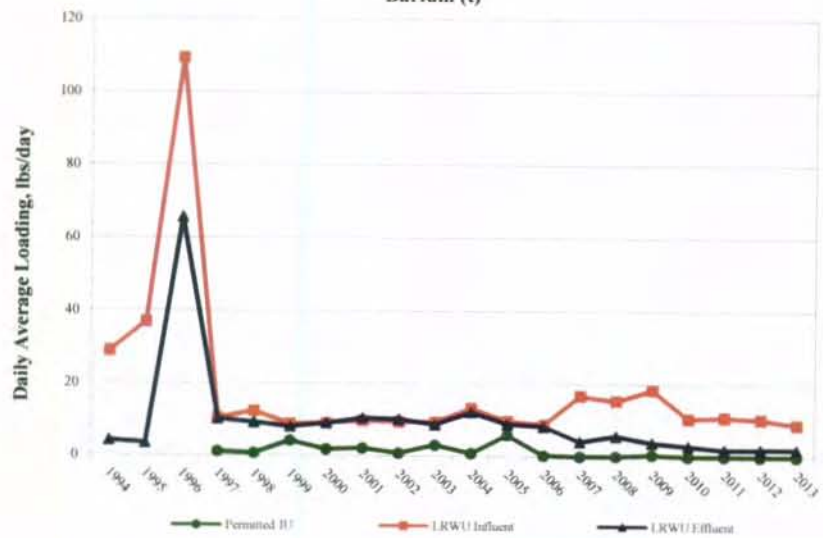
Boron (t)



Manganese (t)



Barium (t)

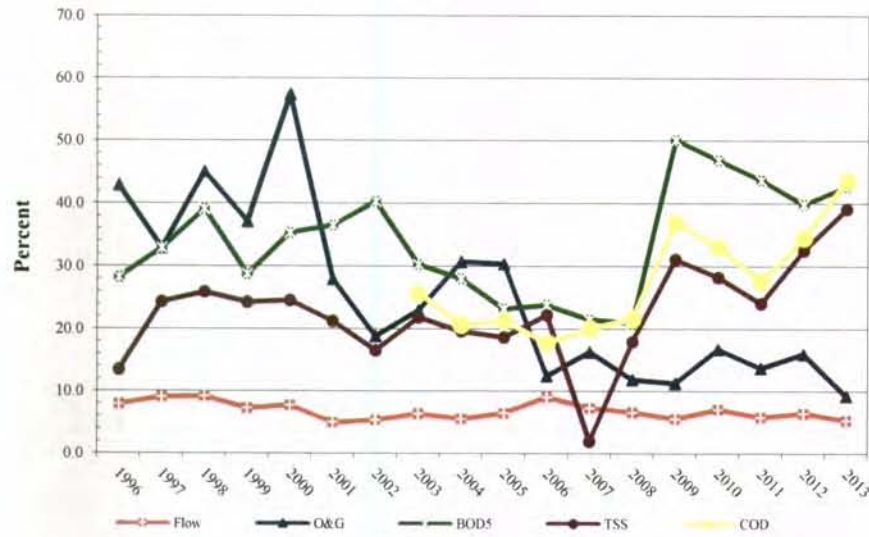




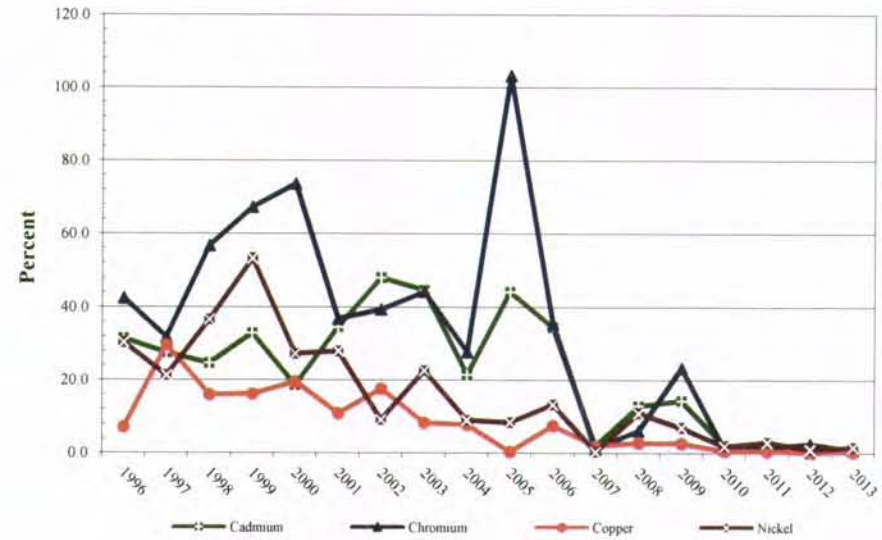
LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 IU PERCENT CONTRIBUTIONS

March 31, 2014  
 Page 1 of 2

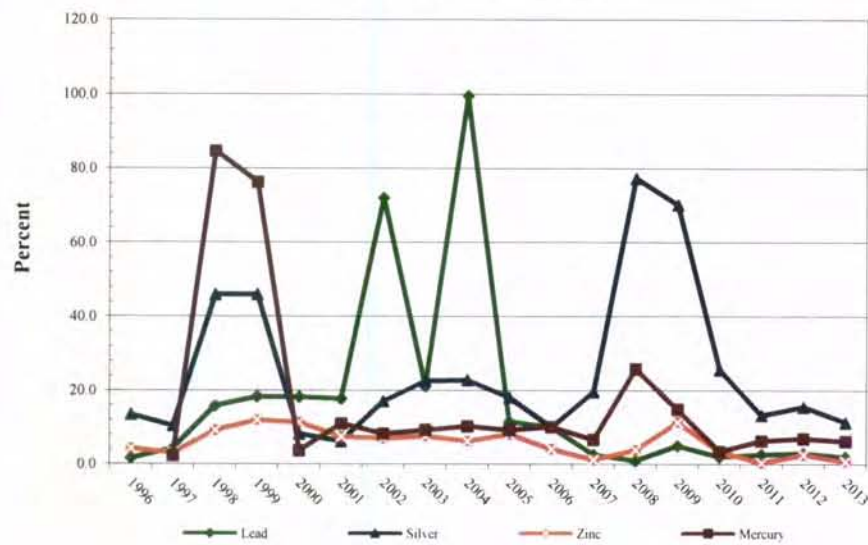
IU % Contributions



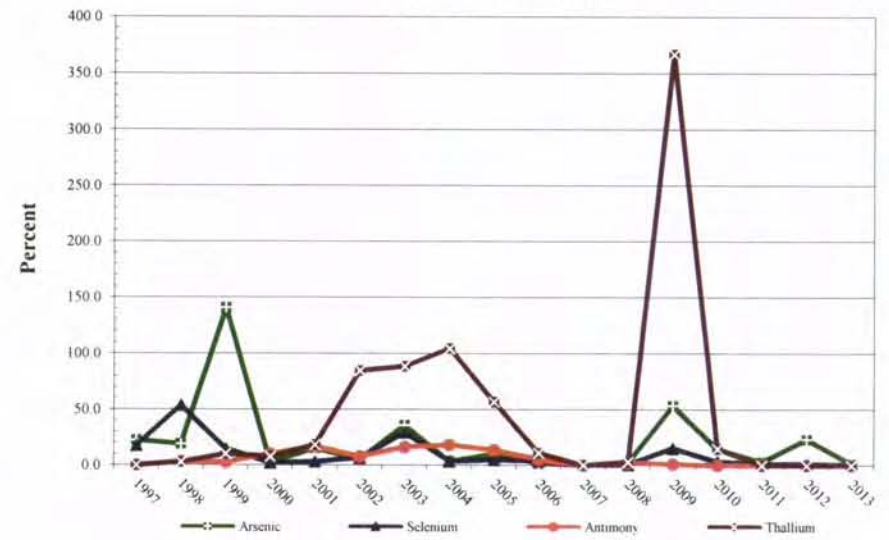
IU % Contributions



IU % Contributions



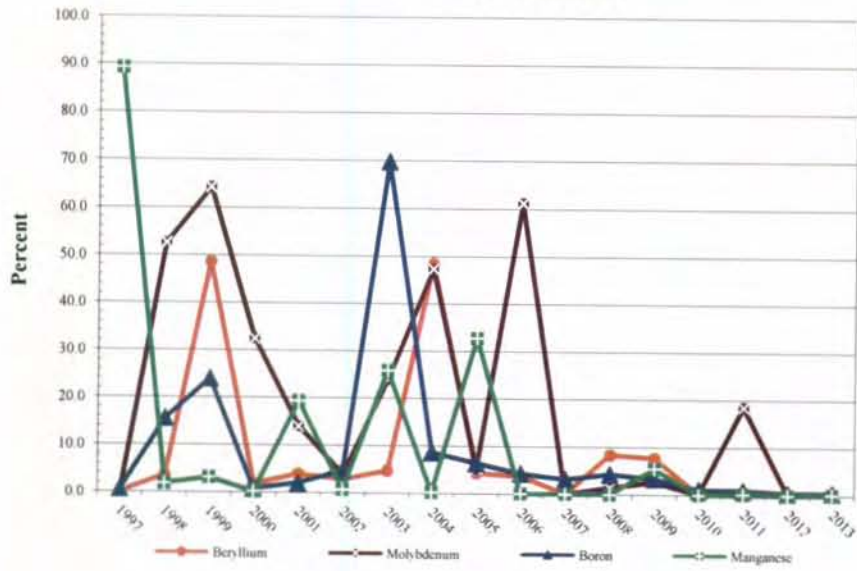
IU % Contributions



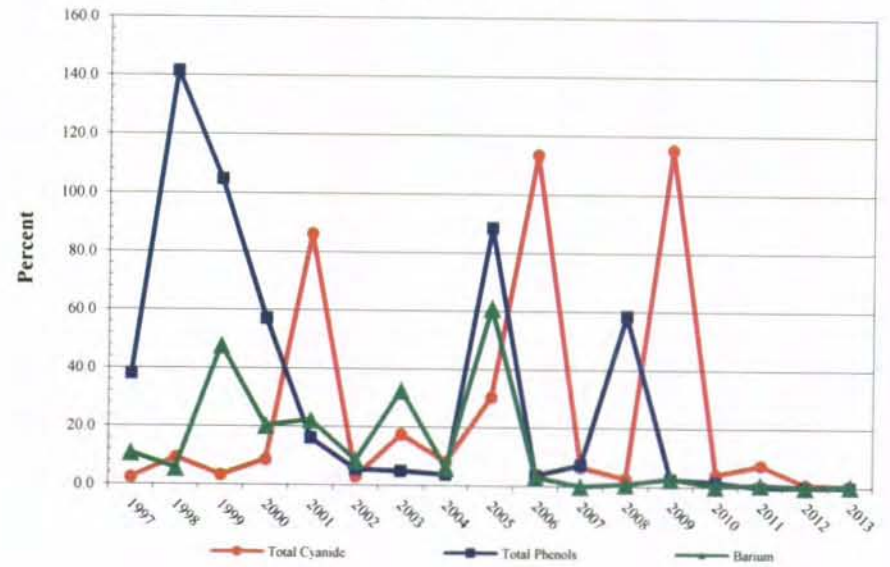
LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 IU PERCENT CONTRIBUTIONS

March 31, 2014  
 Page 2 of 2

IU % Contributions

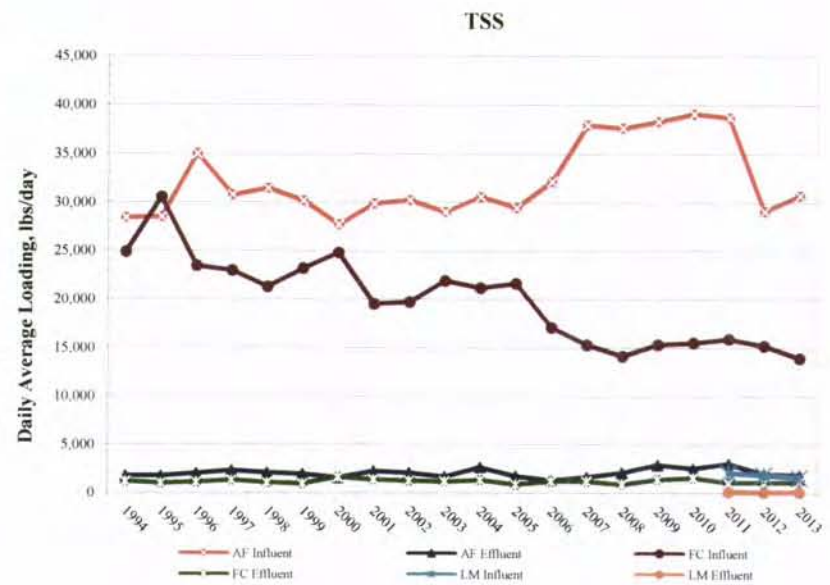
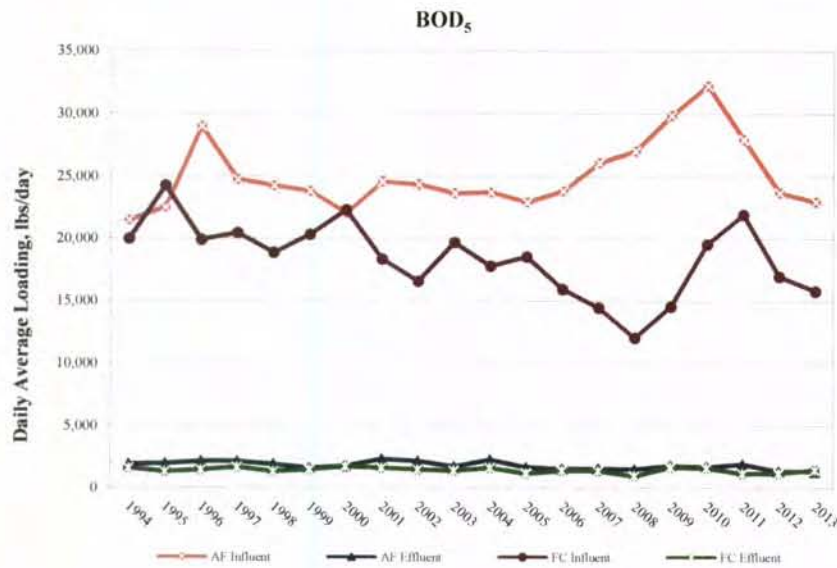
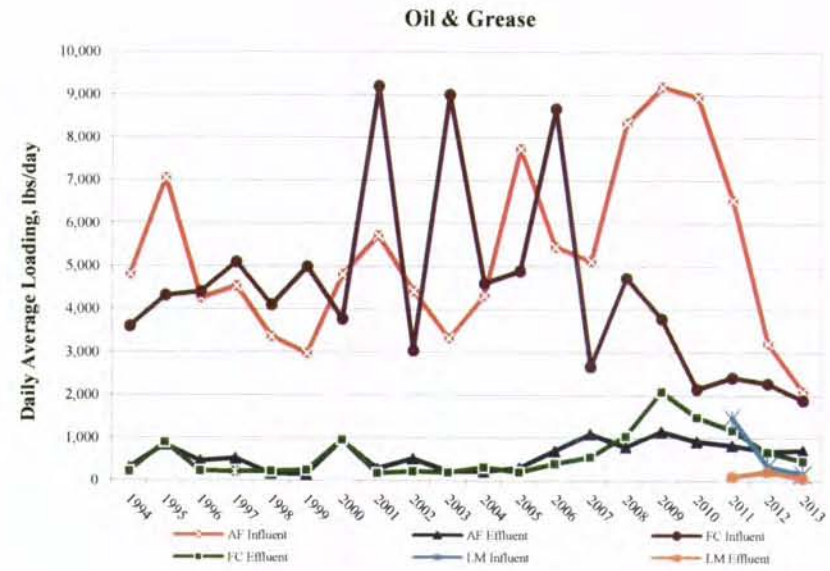
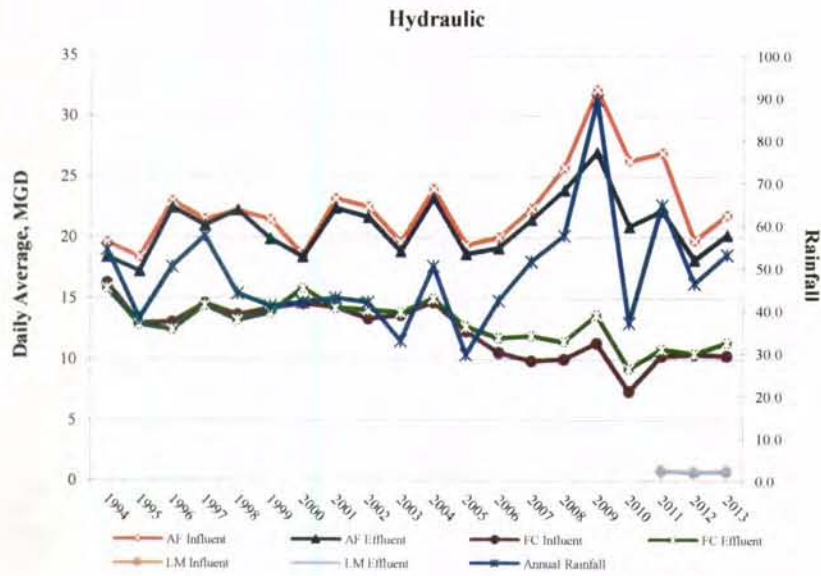


IU % Contributions



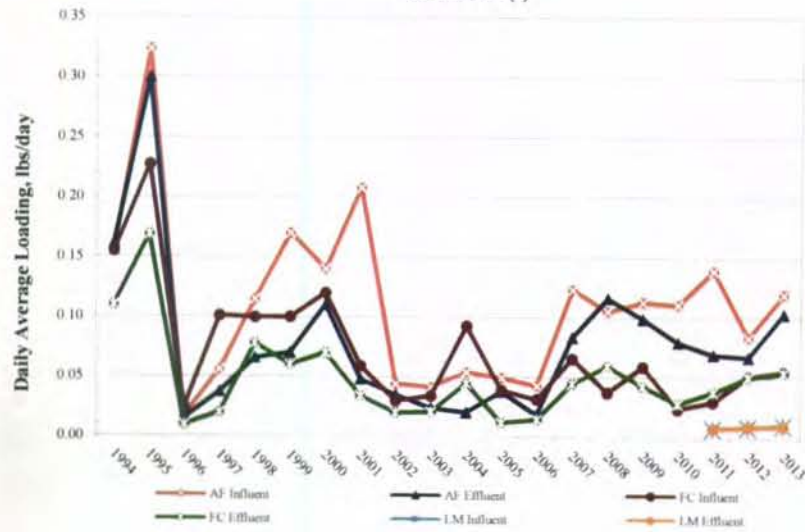


LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 POTW PLANT INFLUENT/FINAL EFFLUENT LOADING TRENDS

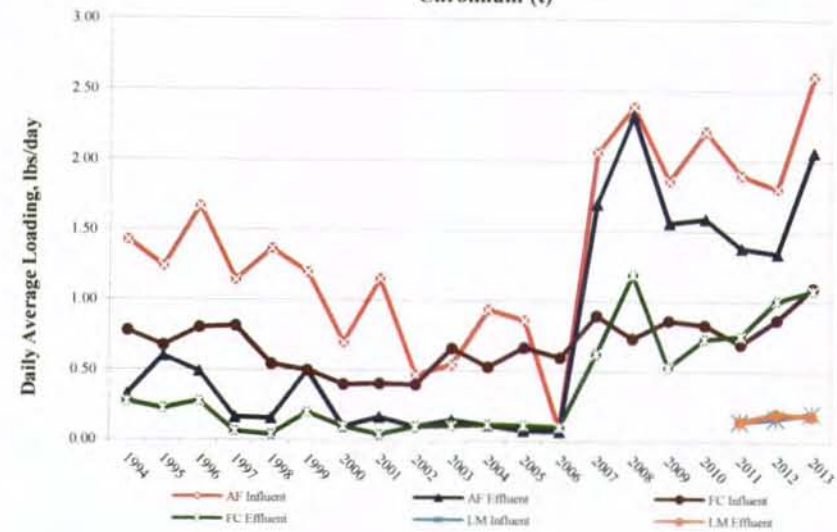


LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 POTW PLANT INFLUENT/FINAL EFFLUENT LOADING TRENDS

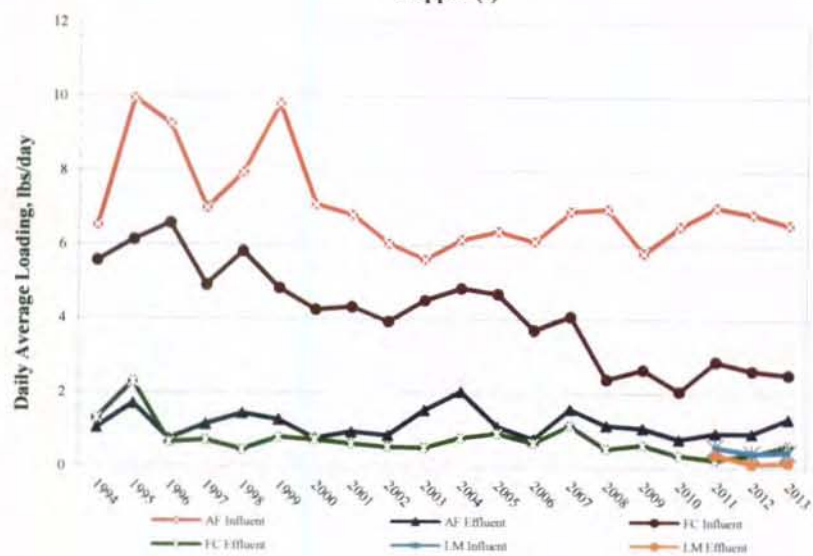
Cadmium (t)



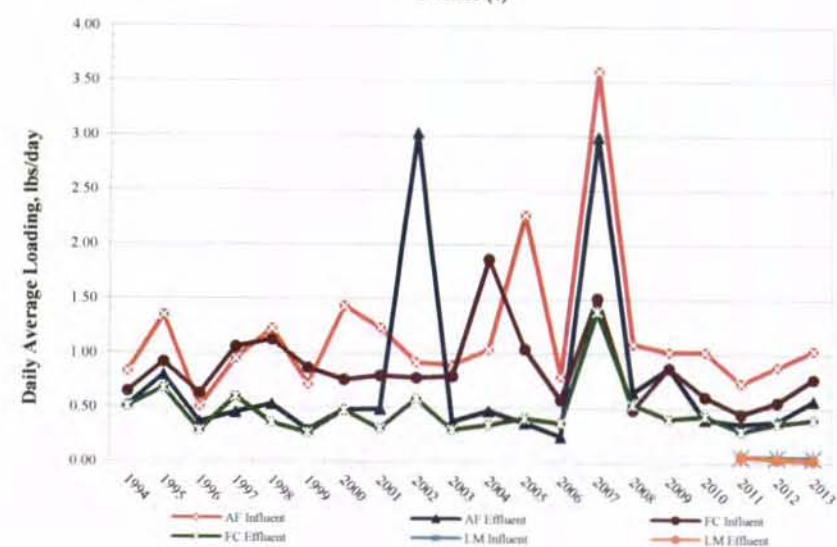
Chromium (t)



Copper (t)



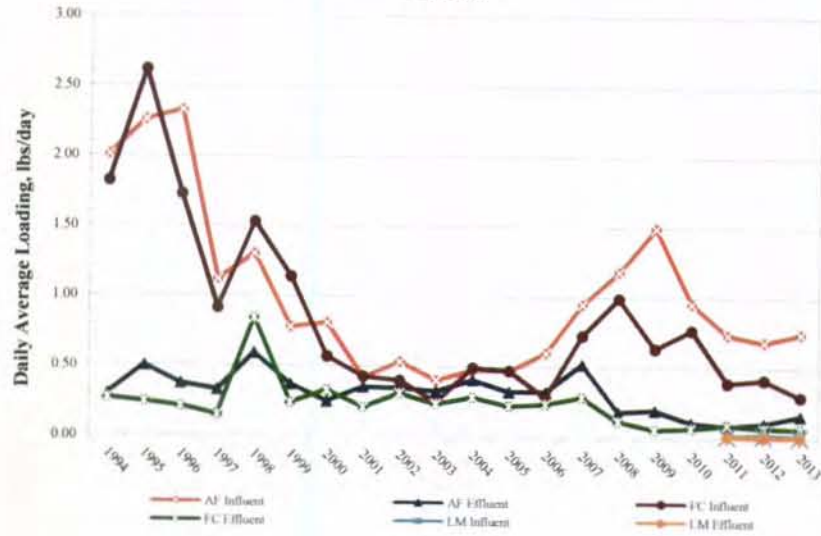
Nickel (t)



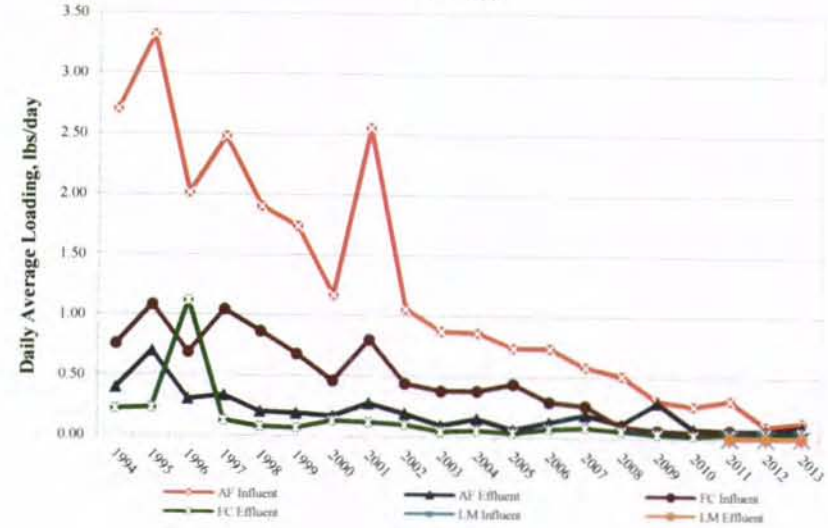
LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 POTW PLANT INFLUENT/FINAL EFFLUENT LOADING TRENDS

March 31, 2014  
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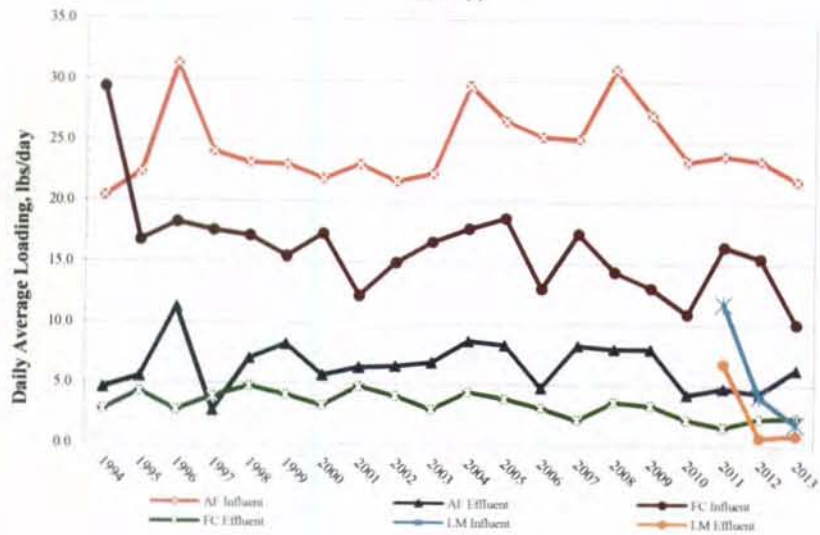
Lead (t)



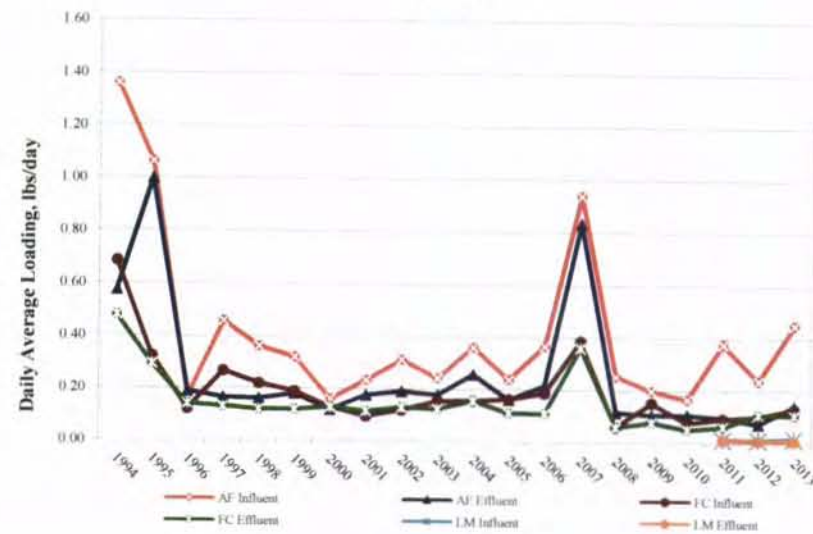
Silver (t)



Zinc (t)



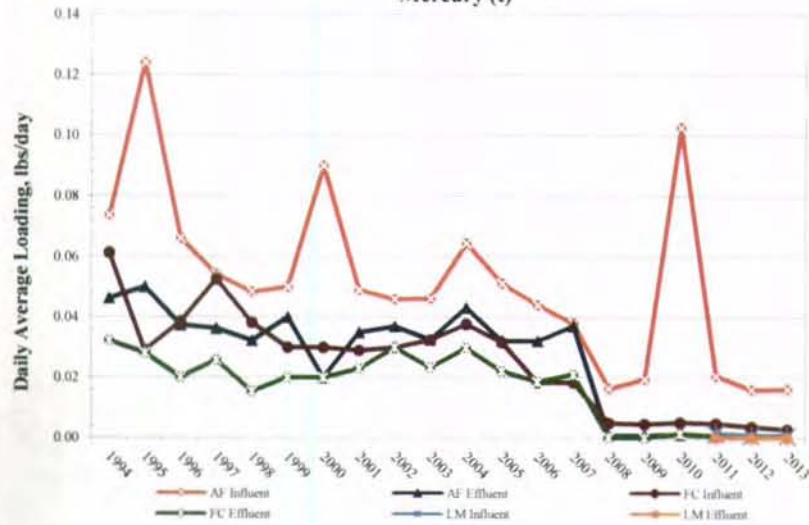
Arsenic (t)



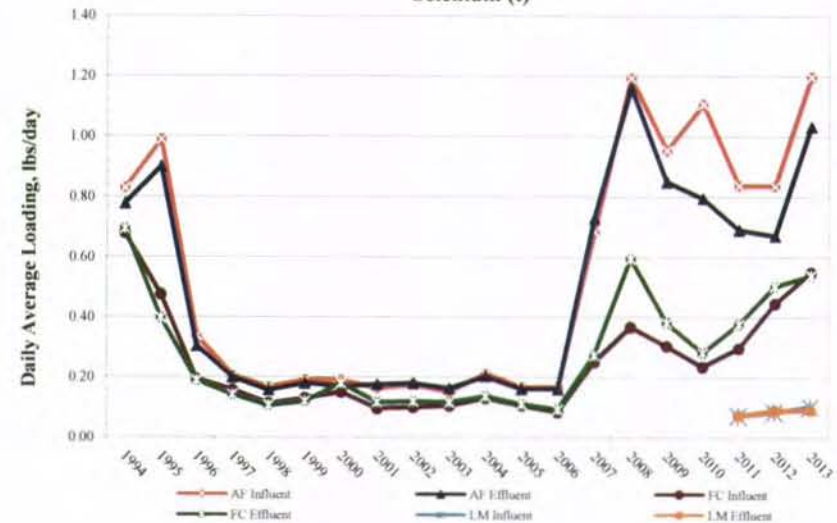


LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 POTW PLANT INFLUENT/FINAL EFFLUENT LOADING TRENDS

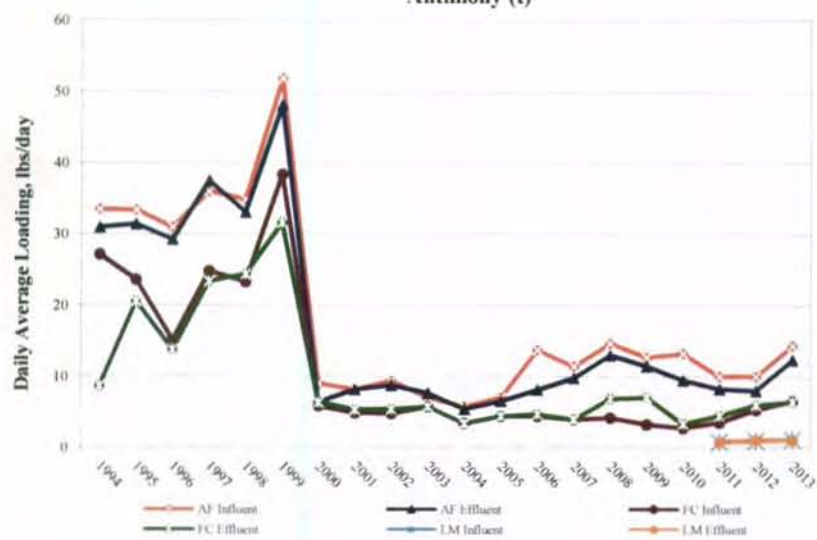
Mercury (t)



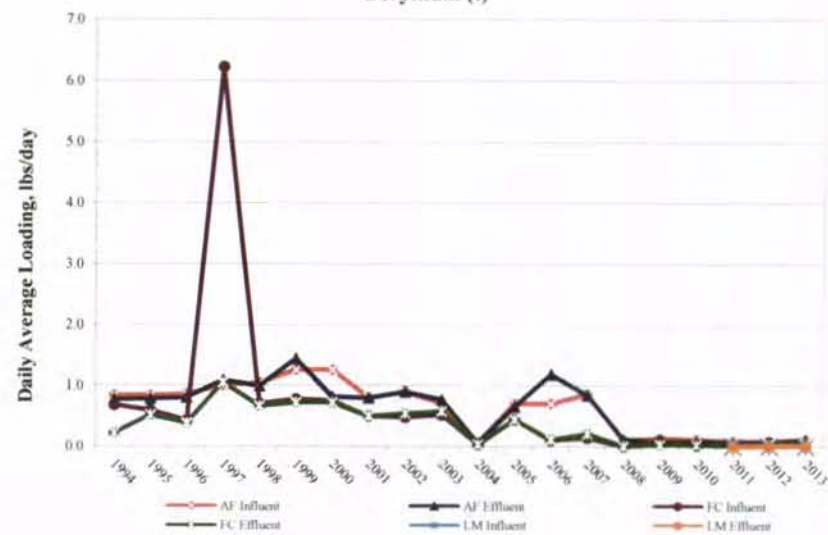
Selenium (t)



Antimony (t)

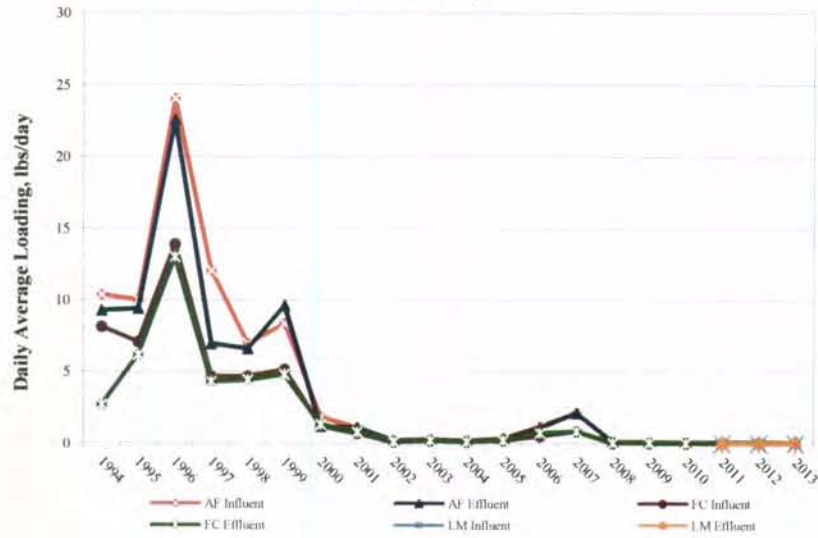


Beryllium (t)

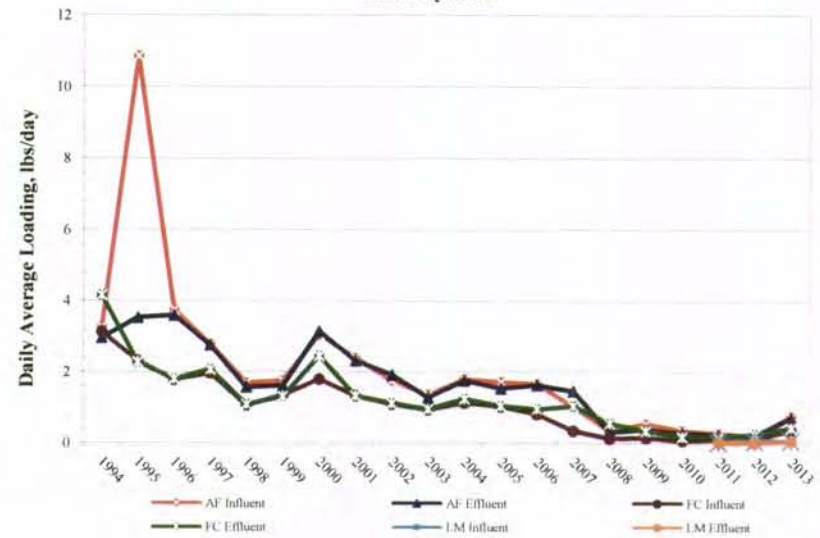


LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 POTW PLANT INFLUENT/FINAL EFFLUENT LOADING TRENDS

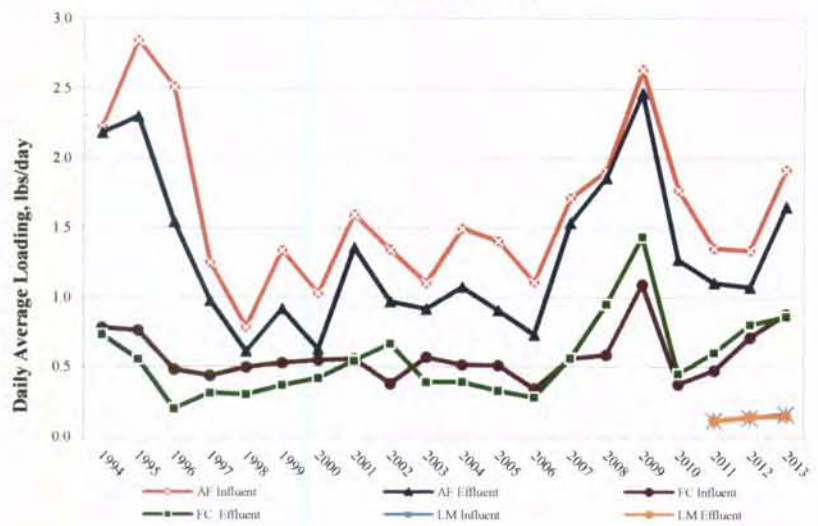
Thallium (t)



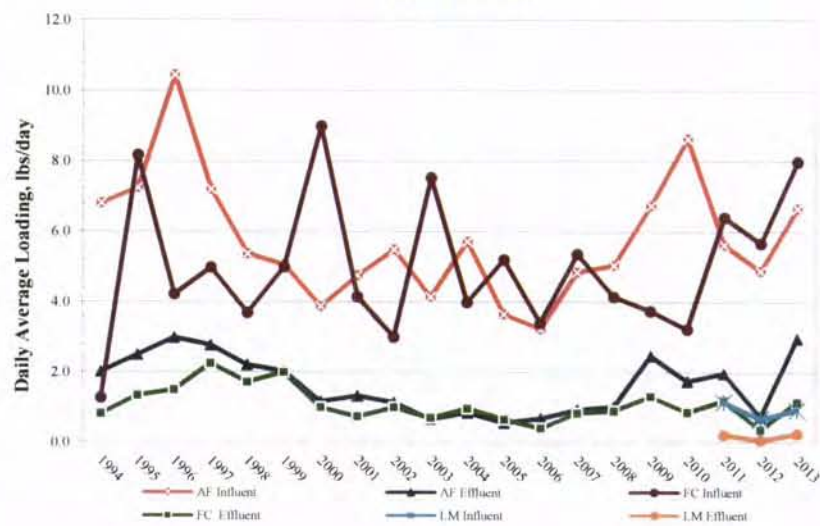
Total Cyanide



Molybdenum (t)

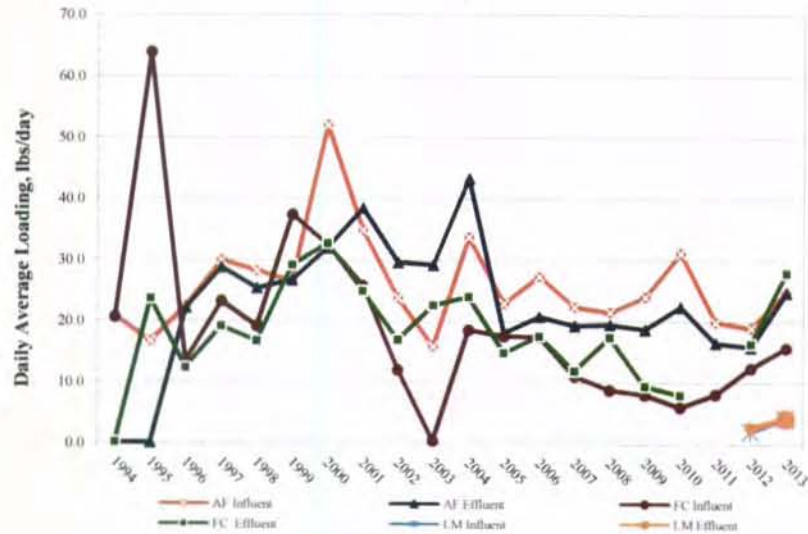


Total Phenolics

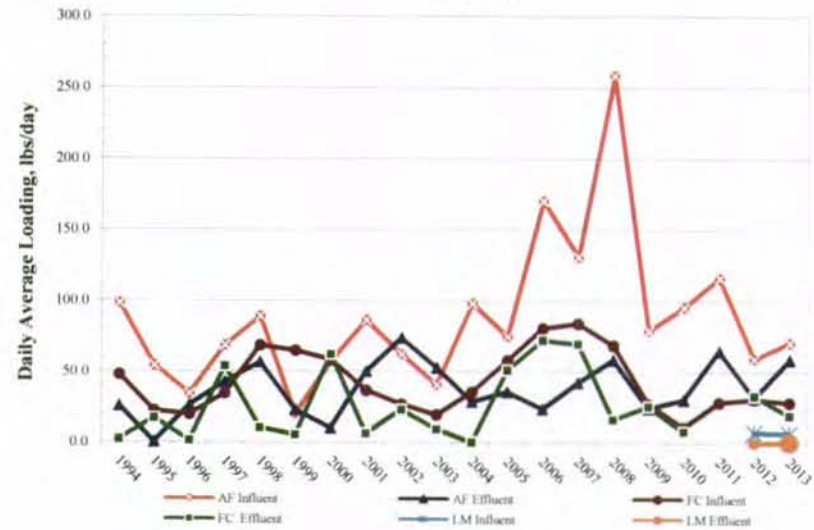


LITTLE ROCK WASTEWATER  
 ENVIRONMENTAL ASSESSMENT DIVISION  
 POTW PLANT INFLUENT/FINAL EFFLUENT LOADING TRENDS

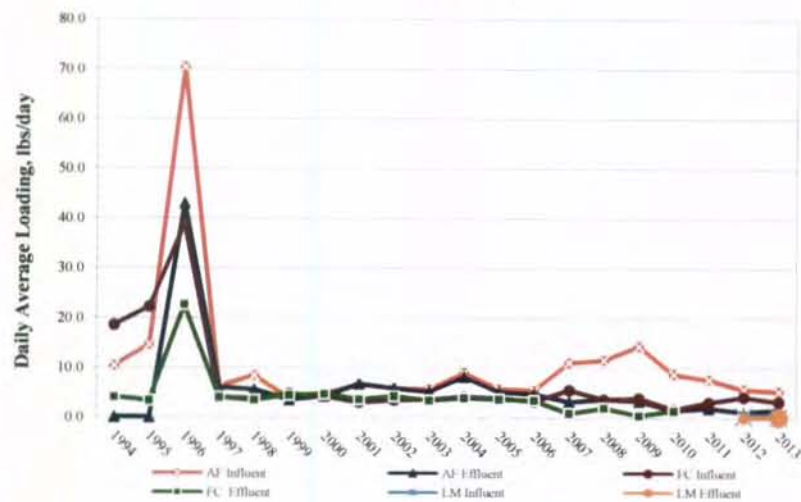
Boron (t)



Manganese (t)



Barium (t)



**BIOSOLIDS 2013**  
**SUMMARY OF ANALYTICAL RESULTS**

FOURCHE CREEK WASTEWATER TREATMENT PLANT (FC-WWTP)  
BIOSOLIDS ANALYSES

Sludge from Little Maumelle, Adams Field and Fourche Creek Wastewater Treatment Plant's are anaerobically digested at the FC-WWTP. The stabilized biosolids are further treated by lagooning for a period of two to four years. Biosolids are land applied as a soil conditioner/fertilizer on grass farms and pasture lands in Pulaski County, Arkansas. A total of 5,500 dry tons of biosolids were land applied during 2013.

Biosolids from Lagoon 3 and 4 were below the ceiling and pollutant concentrations listed in 40 CFR 503. Biosolids from both lagoons met Class A pathogen requirements stated in 40 CFR 503.32(a)(6). The data collected prior to land application is organized in the following tables:

- Metal Analyses Summary for FC-WWTP Biosolids Lagoon Number 3 and 4 - This table includes the required metal test data from 40 CFR Part 503. The metals concentrations were below the 503.13 Table 1 Ceiling Concentrations and the 503.13 Table 3 Pollutant Concentrations. The ceiling concentrations and pollutant concentration limits, where applicable, are included in the table for comparison.
- Nutrient Analyses Summary for FC-WWTP Biosolids Lagoon Number 3 and 4 - This table includes the Nutrient, PCB, and TCLP results from sampling conducted prior to land application.
- Biosolids % of the 503 Pollutant Concentration (EQ) Limit - This graph is a long term trend chart that plots the actual average values for all metal tests conducted each year against the metal concentrations of 40 CFR 503 Pollutant Concentration Limits (Table 3 of 503.13) required for certification of Exceptional Quality (EQ) Biosolids.

**FOURCHE CREEK WASTEWATER TREATMENT PLANT  
BIOSOLIDS 2013-LAGOONS 3 AND 4  
METAL ANALYSIS SUMMARY**

Sample Date	Sample Location	Sample Type	Test Parameters - Reported in mg/kg dry													% volatile		
			As(t)	Cd(t)	Cr(t)	Cu(t)	Pb(t)	Hg(t)	Mo(t)	Ni(t)	Se(t)	Ag(t)	Zn(t)	CN-(t)	% solids	solids	pH	
3/13/2013	046-3-001	grab	< 5.0	1.2	52	340	43	< 2.0	13.0	18	< 7.0	11	890	< 148.0	6.27	54.97	7.86	
	046-3-002	grab	13.0	1	47	280	36	< 3.0	12.0	17	< 7.0	9.4	790		6.9	54.67	7.90	
	046-3-003	grab	17.0	1.3	61	360	45	< 2.0	14.0	19	< 7.0	10	980		6.42	54.73	7.89	
	046-3-004	grab	16.0	1	57	320	42	< 2.0	14.0	19	< 7.0	7.8	940		5.87	55.47	7.99	
	046-3-005	grab	15.0	1.9	67	360	61	< 2.0	13.0	29	< 7.0	18	1000		8.12	35.89	7.76	
	046-3-006	grab	13.0	1.5	59	340	48	< 2.0	12.0	25	< 7.0	14	930		8.47	45.56	8.07	
	<b>Lagoon 3</b>	<b>AVG</b>	<b>&lt; 13.2</b>	<b>1.3</b>	<b>57</b>	<b>333</b>	<b>46</b>	<b>&lt; 2.2</b>	<b>13.0</b>	<b>21.2</b>	<b>&lt; 7.0</b>	<b>11.7</b>	<b>922</b>	<b>&lt; 148.0</b>	<b>7.01</b>	<b>50.22</b>	<b>7.91</b>	
3/13/2013	046-4-001	grab	11.0	0.7	39	250	32	< 2.0	9.7	15	< 7.0	6.7	710	< 150.3	6.21	55.79	7.92	
	046-4-002	grab	15.0	1.6	61	360	50	< 2.0	14.0	22	< 7.0	15	980		6.87	53.31	7.93	
	046-4-003	grab	< 5.0	1.6	60	350	37	< 2.0	13.0	21	< 7.0	8.7	900		5.80	56.71	7.61	
	046-4-004	grab	< 5.0	1.7	56	360	45	< 2.0	15.0	21	7.9	9.5	1000		5.98	55.1	7.98	
	046-4-005	grab	< 5.0	1.1	35	360	26	< 2.0	8.3	13	< 7.0	6.1	990		6.28	55.64	8.00	
	046-4-006	grab	< 5.0	1.7	53	330	36	2.4	12.0	20	< 7.0	8.8	880		6.07	55.64	7.91	
	<b>Lagoon 4</b>	<b>AVG</b>	<b>7.7</b>	<b>1.4</b>	<b>51</b>	<b>335</b>	<b>38</b>	<b>&lt; 2.1</b>	<b>12.0</b>	<b>18.7</b>	<b>7.2</b>	<b>9.1</b>	<b>910</b>	<b>&lt; 150.3</b>	<b>6.20</b>	<b>55.37</b>	<b>7.89</b>	

<b>Average</b>	<b>10.4</b>	<b>1.4</b>	<b>54</b>	<b>334</b>	<b>42</b>	<b>2.1</b>	<b>12.5</b>	<b>19.9</b>	<b>7.1</b>	<b>10.4</b>	<b>916</b>	<b>&lt; 149.2</b>	<b>6.61</b>	<b>52.79</b>	<b>7.84</b>
<b>Maximum</b>	<b>17.0</b>	<b>1.9</b>	<b>67</b>	<b>360</b>	<b>61</b>	<b>&lt; 3</b>	<b>15.0</b>	<b>29</b>	<b>7.9</b>	<b>18</b>	<b>1000</b>	<b>&lt; 150.3</b>	<b>8.47</b>	<b>56.71</b>	<b>8.07</b>
<b>Minimum</b>	<b>&lt; 5.0</b>	<b>0.7</b>	<b>35</b>	<b>250</b>	<b>26</b>	<b>&lt; 2.0</b>	<b>8.3</b>	<b>13.0</b>	<b>&lt; 7.0</b>	<b>6.1</b>	<b>710</b>	<b>&lt; 148.0</b>	<b>5.80</b>	<b>35.89</b>	<b>7.61</b>

<b>*Ceiling Conc., mg/kg dry</b>	<b>75.0</b>	<b>85</b>	<b>n/a</b>	<b>4300</b>	<b>840</b>	<b>57</b>	<b>75.0</b>	<b>420.0</b>	<b>100.0</b>	<b>n/a</b>	<b>7500</b>	<b>n/a</b>
<b>*Pollutant Conc., mg/kg dry</b>	<b>41.0</b>	<b>39</b>	<b>n/a</b>	<b>1500</b>	<b>300</b>	<b>17</b>	<b>n/a</b>	<b>420.0</b>	<b>36.0</b>	<b>n/a</b>	<b>2800</b>	<b>n/a</b>

\*40CFR Part 503.13 Table 1 and 3 Limits for Land Application

Biosolids analysis were performed using EPA SW-846 test methods for evaluation of solid waste



NUTRIENTS

**FOURCHE CREEK WASTEWATER TREATMENT PLANT  
BIOSOLIDS 2013-LAGOONS 3 AND 4  
NUTRIENTS ANALYSIS SUMMARY**

Sample Date	Sample Location	Sample Type	Test Parameters - Reported in mg/kg dry							PCB*	TCLP*
			Nitrate(NO3)	Nitrite(NO2)	Phosphorus	Potassium	Ammonia as N	Total Kjeldahl Nitrogen			
3/13/2013	046-3-001	Grab	< 7.0	< 7.0	35000	2600	18000	51000			
	046-3-002	Grab	< 10.0	< 10.0	37000	2900	21000	51000			
	046-3-003	Grab	< 6.0	< 6.0	35000	2800	14000	35000			
	046-3-004	Grab	< 8.0	< 8.0	36000	2500	20000	46000			
	046-3-005	Grab	< 6.0	< 6.0	33000	3100	14000	30000			
	046-3-006	Grab	< 7.0	< 7.0	36000	3000	17000	39000			
	<b>Lagoon 3</b>	<b>AVG</b>	<b>7.3</b>	<b>7.3</b>	<b>35333</b>	<b>2817</b>	<b>17333</b>	<b>42000</b>	<b>&lt; 0.6</b>	<b>Pass</b>	
3/13/2013	046-4-001	Grab	< 7.0	< 7.0	36000	4200	17000	46000			
	046-4-002	Grab	< 6.0	< 6.0	33000	3500	15000	38000			
	046-4-003	Grab	< 8.0	< 8.0	33000	2700	17000	45000			
	046-4-004	Grab	< 7.0	< 7.0	37000	3600	18000	38000			
	046-4-005	Grab	< 7.0	< 7.0	33000	3300	18000	44000			
	046-4-006	Grab	< 8.0	< 8.0	36000	3400	18000	42000			
	<b>Lagoon 4</b>	<b>AVG</b>	<b>7.2</b>	<b>7.2</b>	<b>34667</b>	<b>3450</b>	<b>17167</b>	<b>42167</b>	<b>&lt; 0.6</b>	<b>Pass</b>	
	<b>Average</b>		<b>&lt; 7.3</b>	<b>&lt; 7.3</b>	<b>35000</b>	<b>3133</b>	<b>17250</b>	<b>42083</b>	<b>0.6</b>	<b>Pass</b>	
	<b>Maximum</b>		<b>&lt; 10.0</b>	<b>&lt; 10.0</b>	<b>37000</b>	<b>4200</b>	<b>21000</b>	<b>51000</b>	<b>0.6</b>		
	<b>Minimum</b>		<b>&lt; 6.0</b>	<b>&lt; 6.0</b>	<b>33000</b>	<b>2500</b>	<b>14000</b>	<b>30000</b>	<b>0.6</b>		

\* 503.6(e) 503 does not establish requirements for use or disposal if determined to be hazardous in accordance to 40CFR261.

\* 503.6(f) 503 does not establish requirements for use or disposal if concentration of PCBs is equal to or greater than 50 mg/kg dry.

Biosolids analysis were performed using EPA SW-846 test methods for evaluation of solid waste

PCB and TCLP sample for each lagoon was 6 part composite intergrated by weight.

## Biosolids % of 503 Pollutant Concentration (EQ) Limit

