

STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**

MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

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

Permit No. MO-0003140

Owner: Polynt Composites USA, Inc.  
Address: 100 East Cottage Avenue, Carpentersville, IL 60110

Continuing Authority: Same as above  
Address: Same as above

Facility Name: Polynt Composites USA, Inc.  
Facility Address: 1412 Knox Street, North Kansas City, MO 64116

Legal Description: See page 2  
UTM Coordinates: See page 2

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

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

**FACILITY DESCRIPTION**

SEE PAGE 2

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

February 1, 2017  
Effective Date

  
Todd Sampsel, Acting Director, Department of Natural Resources

June 30, 2019  
Expiration Date

  
David J Lamb, Acting Director, Water Protection Program

## **FACILITY DESCRIPTION (CONTINUED)**

Polynt Composites USA, Inc. manufactures gel coats and polyester resin used in plastics, marine, sanitary, building construction, electrical, and related industries. This permit authorizes stormwater discharges only. Well water is no longer used by this facility, and all process water originates from municipal water. Wastewater and non-contact cooling water are treated using aeration basins before being discharged to the City of North Kansas City's Publically Owned Treatment Works.

### OUTFALL #001 –Stormwater; SIC # 2851, 2821; NAICS # 325510

Receives stormwater from the south and west parts of the facility. Concrete basin with weir.

Legal Description: NE¼, NE¼, Sec.23, T50N, R33W, Clay County  
UTM Coordinates: X = 364429, Y = 4333030  
Receiving Stream: Linn Jasper Separate Storm Sewer System  
First Classified Stream and ID: Missouri River (P) 356, 303(d)  
USGS Basin & Sub-watershed No.: Buckeye Creek-Missouri River (10300101-0301)  
Est. Flow in 10 yr 24 hr precip. event: 0.5 MGD  
Average Flow: Dependent on precipitation

### OUTFALL #002 Stormwater; SIC # 2851, 2821; NAICS # 325510

Stormwater from the northeast portion of the facility.

Legal Description: NE¼, NE¼, Sec.23, T50N, R33W, Clay County  
UTM Coordinates: X = 364271, Y = 4332831  
Receiving Stream: Linn Jasper Separate Storm Sewer System  
First Classified Stream and ID: Missouri River (P) 356, 303(d)  
USGS Basin & Sub-watershed No.: Buckeye Creek-Missouri River (10300101-0301)  
Est. Flow in 10 yr 24 hr precip. event: 0.5 MGD  
Average Flow: Dependent on precipitation

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)**

<b>OUTFALL #001-#002</b> <i>Stormwater Only</i>		<b>TABLE A-1</b> <b>FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>				
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on <b>February 1, 2017</b> and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCHMARKS	MONITORING REQUIREMENTS <sup>∞</sup>	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY <sup>◇</sup>	SAMPLE TYPE
<b>PHYSICAL</b>						
Flow	MGD	*		-	once/quarter	24 hr. est
Precipitation	inches	*		-	once/quarter	measured
<b>CONVENTIONAL</b>						
Chemical Oxygen Demand	mg/L	**		120	once/quarter	grab
Oil & Grease	mg/L	15		-	once/quarter	grab
pH <sup>Ω</sup>	SU	6.5 to 9.0		-	once/quarter	grab
Settleable Solids	mL/L/hr	**		1.5	once/quarter	grab
Total Suspended Solids	mg/L	100		-	once/quarter	grab
<b>NUTRIENTS</b>						
Ammonia, as N	mg/L	*		*	once/quarter	grab
<b>METALS</b>						
Copper, Total Recoverable	µg/L	**		22	once/quarter	grab
Iron, Total Recoverable	µg/L	**		4000	once/quarter	grab
Lead, Total Recoverable	µg/L	**		151	once/quarter	grab
Zinc, Total Recoverable	µg/L	**		181	once/quarter	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>APRIL 28, 2017</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

\* Monitoring requirement only.

\*\* Monitoring requirement with associated benchmark. See Special Conditions #9 through #12

∞ All samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. If a discharge does not occur within the reporting period, report as no discharge. The total amount of precipitation should be noted from the event from which the samples were collected.

Ω The facility will report the minimum and maximum values. pH is not to be averaged.

◇ Quarterly sampling

<b>MINIMUM QUARTERLY SAMPLING REQUIREMENTS</b>			
QUARTER	MONTHS	EFFLUENT PARAMETERS	REPORT IS DUE
First	January, February, March	Sample at least once during any month of the quarter	April 28 <sup>th</sup>
Second	April, May, June	Sample at least once during any month of the quarter	July 28 <sup>th</sup>
Third	July, August, September	Sample at least once during any month of the quarter	October 28 <sup>th</sup>
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 <sup>th</sup>

**B. STANDARD CONDITIONS**

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated August 1, 2014 and hereby incorporated as though fully set forth herein.

### C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test, or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
2. All outfalls must be clearly marked in the field.
3. Water Quality Standards
  - (a) To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
  - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
    - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
    - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
    - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
    - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
    - (5) There shall be no significant human health hazard from incidental contact with the water;
    - (6) There shall be no acute toxicity to livestock or wildlife watering;
    - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
    - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
4. Changes in Discharges of Toxic Pollutant  
In addition to the reporting requirements under §122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
  - (a) That an activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
    - (1) One hundred micrograms per liter (100 µg/L);
    - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
    - (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
    - (4) One milligram per liter (1 mg/L) for antimony;
    - (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
    - (6) The notification level established by the department in accordance with 40 CFR 122.44(f).
  - (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
    - (1) Five hundred micrograms per liter (500 µg/l);
    - (2) One milligram per liter (1 mg/l) for antimony;
    - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with §122.21(g)(7).
    - (4) The level established by the Director in accordance with §122.44(f).

### C. SPECIAL CONDITIONS (CONTINUED)

5. Report as no-discharge when a discharge does not occur during the report period.
6. Reporting of Non-Detects
  - (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
  - (b) The permittee shall not report a sample result as “Non-Detect” without also reporting the detection limit of the test. Reporting as “Non-Detect” without also including the detection limit will be considered failure to report, which is a violation of this permit.
  - (c) The permittee shall report the “Non-Detect” result using the less than sign and the minimum detection limit (e.g. <10).
  - (d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
  - (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
  - (f) When calculating monthly averages, one-half of the minimum detection limit (MDL) should be used instead of a zero. Where all data are below the MDL, the “<MDL” shall be reported as indicated in item (C).
7. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
8. Any pesticide discharge from any point source shall comply with the requirements of Federal Insecticide, Fungicide and Rodenticide Act, as amended (7 U.S.C. 136 *et. seq.*) and the use of such pesticides shall be in a manner consistent with its label.
9. The purpose of the Stormwater Pollution Prevention Plan (SWPPP) and the Best Management Practices (BMPs) listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effectively preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.
10. The facility’s SIC code(s) is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) hence shall implement a SWPPP which must be prepared and implemented upon permit issuance. The SWPPP must be kept on-site and should not be sent to the department unless specifically requested. The SWPPP must be reviewed and updated every five (5) years or as site conditions change (see Part III: Antidegradation Analysis and SWPPP sections in the fact sheet). The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in February 2009 ([www.epa.gov/npdes/pubs/industrial\\_swppp\\_guide.pdf](http://www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf)). The SWPPP must include:
  - (a) A listing of specific contaminants and their control measures (or BMPs) and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater. The BMPs should be designed to treat the stormwater up to the 10 year, 24 hour rain event.
  - (b) For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. Failure to implement and maintain the chosen BMP is a permit violation. For further guidance, consult the antidegradation implementation procedure at <http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf>.
  - (c) The SWPPP must include a schedule for once per month site inspections and brief written reports. The inspection report must include precipitation information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
    - i. Operational deficiencies must be corrected within seven (7) calendar days.
    - ii. Minor structural deficiencies must be corrected within fourteen (14) calendar days.
    - iii. Major structural deficiencies must be reported to the regional office within seven (7) days of discovery. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including the general timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. The permittee will work with the regional office to determine the best course of action, including but not limited to temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
    - iv. All actions taken to correct the deficiencies shall be included with the written report, including photographs.
    - v. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to department and EPA personnel upon request.
  - (d) A provision for designating an individual to be responsible for environmental matters.
  - (e) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the department.

C. SPECIAL CONDITIONS (CONTINUED)

11. This permit stipulates pollutant benchmarks applicable to your discharge. The benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Benchmark monitoring and visual inspections shall be used to determine the overall effectiveness of SWPPP and to assist you in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration you must review your SWPPP and your BMPs to determine what improvements or additional controls are needed to reduce that pollutant in your stormwater discharge(s).

Any time a benchmark exceedance occurs a Corrective Action Report (CAR) must be completed. A CAR is a document that records the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and available to the department upon request. If the efforts taken by the facility are not sufficient and subsequent exceedances of a benchmark occur, the facility must contact the department if a benchmark value cannot be achieved. Failure to take corrective action to address a benchmark exceedance and failure to make measureable progress towards achieving the benchmarks is a permit violation.

12. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
- (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of stormwater from these substances.
  - (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
  - (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
  - (d) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
  - (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property to comply with general water quality criteria, effluent limits, or benchmarks. This could include the use of straw bales, silt fences, or sediment basins, if needed.
  - (f) Ensure adequate provisions are provided to prevent surface water intrusion into the storage basin, to divert stormwater runoff around the storage basin, and to protect embankments from erosion.
13. To protect the general criteria found at 10 CSR 20-7.031(4), before releasing water accumulated in secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen. If the presence of odor or sheen is indicated, the water shall be treated using an appropriate method or disposed of in accordance with legally approved methods, such as being sent to a wastewater treatment facility. Following treatment, the water shall be tested for oil and grease, benzene, toluene, ethylbenzene, and xylene using 40 CFR part 136 methods. All pollutant levels must be below the most protective, applicable standards for the receiving stream, found in 10 CSR 20-7.031 Table A. Records of all testing and treatment of water accumulated in secondary containment shall be stored in the SWPPP to be available on demand to DNR and EPA personnel.
14. Release of a hazardous substance must be reported to the department in accordance with 10 CSR 24-3.010. A record of each reportable spill shall be retained with the SWPPP and made available to the department upon request.

**MISSOURI DEPARTMENT OF NATURAL RESOURCES**  
**FACT SHEET**  
**FOR THE PURPOSE OF RENEWAL**  
**OF**  
**MO-0003140**  
**POLYNT COMPOSITES USA, INC.**

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

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (MSOP or operating permit) listed below. A factsheet is not an enforceable part of an operating permit.

**Part I. FACILITY INFORMATION**

Facility Type: Categorical Industrial Stormwater  
 Facility SIC Code(s): 2851, 2821  
 Facility NAICS Code: 325510  
 Application Date: 11/08/2012  
 Modification Date: 01/20/2012  
 Expiration Date: 05/08/2013  
 Last Inspection: 10/06/2015 In Compliance

**FACILITY DESCRIPTION:**

Polynt Composites USA, Inc. was formerly known as CCP Composites. This permit renewal incorporates a modification in the facility's name and ownership. Polynt manufactures gel coats and polyester resin used in plastics, marine, sanitary, building construction, electrical, and related industries.

Changes have occurred at this facility or in the receiving water body that effects effluent limit derivation. This facility no longer discharges process wastewater or non-contact cooling water. Wastewater and non-contact cooling water are treated using aeration basins before being discharged to the City of North Kansas City's Publically Owned Treatment Works. Well water is no longer used by this facility, and all process water originates from municipal water. This permit authorizes stormwater discharges only.

**PERMITTED FEATURES TABLE:**

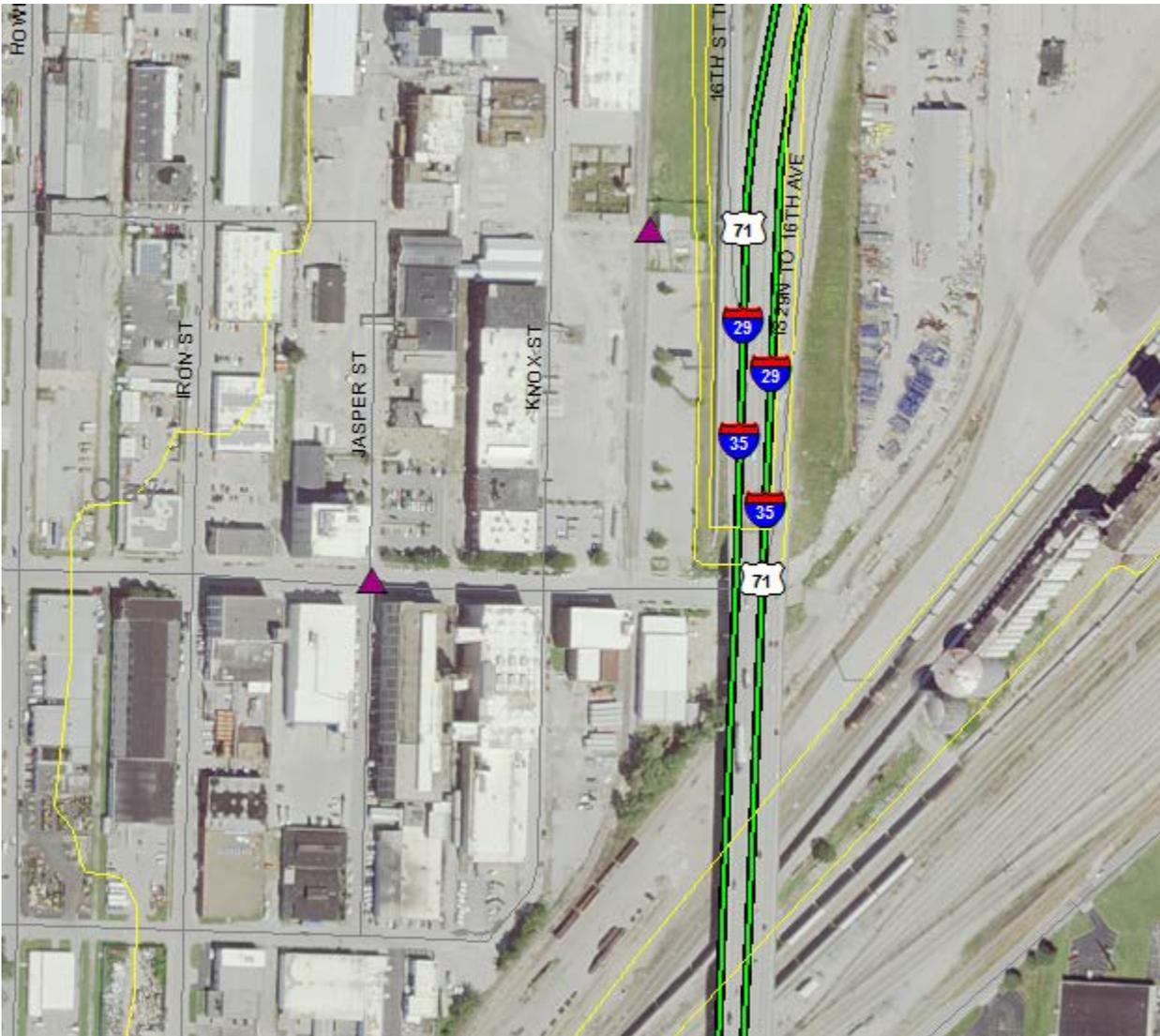
OUTFALL	AVERAGE FLOW (MGD)	EST FLOW IN 10 YR 24 HR PRECIPITATION EVENT (MGD)	TREATMENT LEVEL	EFFLUENT TYPE
#001	dependent on precipitation	0.5	BMPs	Industrial Stormwater
#002	dependent on precipitation	0.5	BMPs	Industrial Stormwater

**FACILITY PERFORMANCE HISTORY & COMMENTS:**

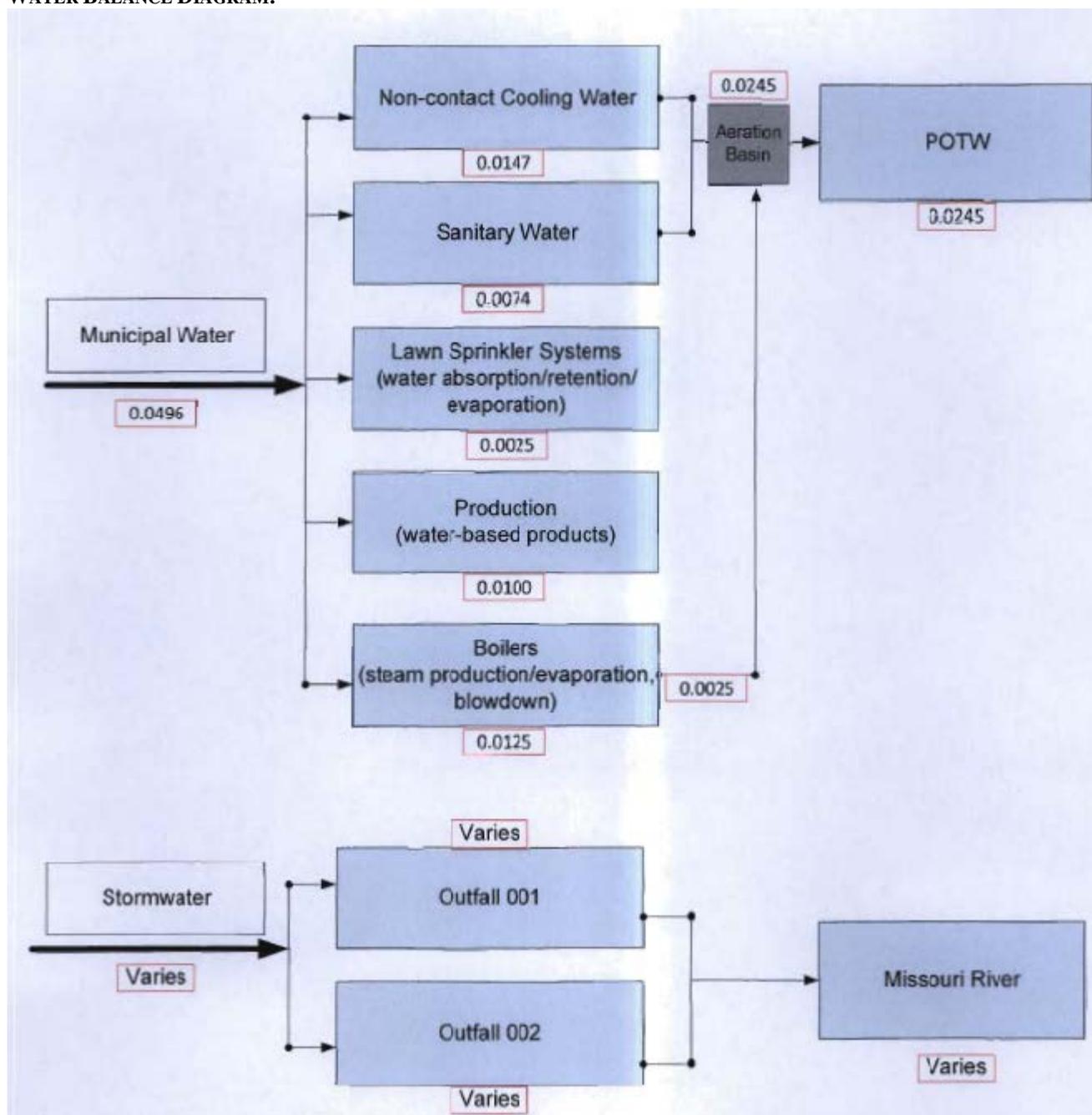
The discharge monitoring reports were reviewed for the last five years. A number of violations were noted, including copper, iron, lead, TSS, and oil and grease. All exceedances occurred in 2011, with the exception of those related to TSS and oil and grease. DMR reports also show WET test failure in 2014. Records show the permittee performed follow up WET tests which were passed. The last inspection was done 10/26/2015; the facility was found to be in compliance.

In the previous permit cycle a modification was done of the operating permit to switch metals limits to total dissolved as opposed to total recoverable. This was done in response to the facility being unable to meet total recoverable limits. The facility asserted the exceedances were attributable to the stormwater component of their effluent, and believed the pollutants were present in the soils of the facility. This permit renewal requires the facility to sample for and report the total recoverable metals in the effluent. The permit is now a stormwater only permit. The primary component of a stormwater permit is a SWPPP, which is developed to manage stormwater on site. Total suspended and settleable solids are pollutants of concern for stormwater, and DMR data shows this facility has had TSS discharges which may be of concern. Solids may adsorb to other pollutants, such as metals, which makes the control of sediment a primary method of controlling pollutants in stormwater discharge. Sampling for metals in the total recoverable fraction ensures the metals adsorbed to soils are reflected in analytical results, an important consideration when determining the effectiveness of stormwater BMP measures.

**FACILITY MAP:**



**WATER BALANCE DIAGRAM:**



**Part II. RECEIVING STREAM INFORMATION**

**RECEIVING WATER BODY'S WATER QUALITY:**

The North Kansas City Missouri Storm Sewer (Linn Jasper Separate Storm Sewer System) has no concurrent water quality data available. The first classified water body is the Missouri River (P) 356 has a large number of monitoring stations located along its length. As the Missouri is not the direct receiving stream, no relevant water quality data was found. It is found on the 2012 303(d) list for E. coli contamination. It also has a TMDL promulgated in 2006 for chlordane and PCBs. This facility is not expected to contribute to any of these impairments of the Missouri River. The Missouri River has a use designation for drinking water sources. It is in the best professional judgment of the permit writer to not apply drinking water standards to the effluent of this facility for the following reasons: the facility does not discharge directly to the Missouri River and the dilution afforded by the river will dilute any effluent before it reaches a drinking water uptake point, the nearest of which appears to be 50+ miles away.

**303(D) LIST:**

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

- ✓ Applicable; the Missouri River is listed on the 2012 Missouri 303(d) list for E. coli. This facility is not expected to contribute to this impairment.

**TOTAL MAXIMUM DAILY LOAD (TMDL):**

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan or TMDL may be developed. The TMDL shall include the WLA calculation. <http://dnr.mo.gov/env/wpp/tmdl/>

- ✓ Applicable; the Missouri River is associated with the 2006 EPA approved TMDL for chlordane and PCBs.
- ✓ This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment.

**APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:**

- ✓ As per Missouri's Effluent Regulations [10 CSR 20-7.015(1)(B)], the waters of the state are divided into the following seven categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's effluent limitation table and further discussed in the derivation & discussion of limits section.

- Missouri or Mississippi River:
- Lake or Reservoir:
- Losing:
- Metropolitan No-Discharge:
- Special Stream:
- Subsurface Water:
- All Other Waters:

**RECEIVING STREAMS TABLE:**

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	DISTANCE TO SEGMENT (MILES)	12-DIGIT HUC
#001	Linn Jasper Separate Storm Sewer System	n/a	n/a	GEN	0.0	Buckeye Creek-Missouri River 10300101-0301
	Missouri River	P	356	AQL, DWS, IND, IRR, LWV, SCR, WBC-B, HHP	0.75	
#002	Linn Jasper Separate Storm Sewer System	n/a	n/a	GEN	0.0	
	Missouri River	P	356	AQL, DWS, IND, IRR, LWV, SCR, WBC-B, HHP	0.95	

n/a not applicable

WBID = Waterbody IDentification: Missouri Use Designation Dataset 8-20-13 MUDD V1.0 data can be found as an ArcGIS shapefile on MSDIS at [ftp://msdis.missouri.edu/pub/Inland\\_Water\\_Resources/MO\\_2014\\_WQS\\_Stream\\_Classifications\\_and\\_Use\\_shp.zip](ftp://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_WQS_Stream_Classifications_and_Use_shp.zip)

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

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

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

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

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

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

**WBC-A** = Whole body contact recreation supporting swimming uses and has public access;

**WBC-B** = Whole body contact recreation supporting swimming;

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

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

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

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

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

**DWS** = Drinking Water Supply;

**IND** = Industrial water supply

10 CSR 20-7.031(6): GRW = Groundwater

**MIXING CONSIDERATIONS:**

Missouri River mixing is not afforded to this facility. The previous permit notes the water from this facility mingles with effluent from other facilities in the storm sewer system before being emptied into a small backwater to the Missouri River which severely limits the rivers flow and mixing capacity in the discharge area.

Mixing zone: not allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)].

Zone of initial dilution: not allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

**RECEIVING STREAM MONITORING REQUIREMENTS:**

No receiving water monitoring requirements are recommended at this time.

**Part III. RATIONALE AND DERIVATION OF EFFLUENT LIMITATIONS & PERMIT CONDITIONS**

**ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:**

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

- ✓ Not applicable; the facility does not discharge to a losing stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)].

**ANTI-BACKSLIDING:**

Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] require a reissued permit to be as stringent as the previous permit with some exceptions. Backsliding (a less stringent permit limitation) is only allowed under certain conditions.

- ✓ Limitations in this operating permit for the reissuance conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.
- ✓ Material and substantial alterations or additions to the permitted facility occurred after permit issuance justify the application of a less stringent effluent limitation.
  - This facility no longer discharges non-contact cooling water or wastewater. Additionally, groundwater is no longer used for any processes. Effluent limitations for temperature, barium, copper, iron, and lead were removed from this permit as they were tied to the non-contact cooling water at this facility, which was previously drawn from a groundwater well. In addition, the limits for these parameters in the previous permit were expressed in the dissolved fraction. These parameters will be monitored in the stormwater for the next permit cycle with benchmark limitations (see below) to determine the total recoverable amounts of these pollutants. Monitoring for barium was discontinued in stormwater due to the DMR data showing no reasonable potential for exceedances or values that lead the permit writer to believe barium is a pollutant of concern in the stormwater of this facility. WET testing was also removed as a parameter from this permit as it is not generally applied to stormwater. The results for WET testing, when performed on stormwater, are variable and often lack repeatability. Limits for TSS were raised from 45 mg/L daily maximum and 30 mg/L monthly average to 100 mg/L daily maximum. Previous limits were based on a constant discharge of wastewater, whereas this permit is for stormwater only.
- ✓ Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) which would have justified the application of a less stringent effluent limitation.
  - Five years of DMR data were available to the permit writer and support removing barium as a parameter for stormwater.
- ✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).
  - 5 years of DMR data were supplied to the permit writer which support conversions of some limits on outfall #001 and #002 to benchmarks; see below for more information.
  - The previous permit limits for outfall #001 and #002 were established based on limits for process wastewater; however, these are stormwater outfalls. This renewal establishes limits and benchmarks appropriate for stormwater discharges. Benchmark concentrations and required corrective actions within this permit are protective of the receiving stream's uses to be maintained.
  - Monthly averages were not implemented for outfalls #001 and #002 in this permit as the discharge consists of only stormwater which is not continuous pursuant to 40 CFR 122.45(d). Further, average monthly limitations are impracticable measures of non-continuous stormwater discharges because they vary widely in frequency, magnitude, and duration. This permit applies only acute short-term or daily maximum measures which represent stormwater discharges which are acute and sporadic in nature. Discharges of industrial stormwater rarely persist for long durations, making them impracticable to assess using measures with long term exposures or averaging periods. Last, the instream water quality target remains unchanged and the conditions of this permit are protective of both narrative and numeric water quality criteria.

#### **ANTIDegradation REVIEW:**

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

- ✓ Not applicable; the facility has not submitted information proposing expanded or altered process water discharge; no further degradation proposed therefore no further review necessary.

For stormwater discharges with new, altered, or expanding discharges, the stormwater BMP chosen for the facility, through the antidegradation analysis performed by the facility, must be implemented and maintained at the facility. Failure to implement and maintain the chosen BMP alternative is a permit violation; see SWPPP.

#### **BENCHMARKS:**

When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer. Benchmarks require the facility to monitor, and if necessary, replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation; however, failure to take corrective action is a violation of the permit. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective actions may be necessary to comply with the limitations of the permit.

Because of the fleeting nature of stormwater discharges, the department, under the direction of EPA guidance, has determined monthly averages are capricious measures of stormwater discharges. The *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001; 1991) Section 3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater only outfalls will generally only contain a maximum daily limit (MDL), benchmark, or monitoring requirement determined by the site specific conditions including the receiving water's current quality. While inspections of the stormwater BMPs occur monthly, facilities with no compliance issues are usually expected to sample stormwater quarterly.

Numeric benchmark values are based on water quality standards or other stormwater permits including guidance forming the basis of Environmental Protection Agency's (EPA's) *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* (MSGP). Because precipitation events are sudden and momentary, benchmarks based on state or federal standards or recommendations use the Criteria Maximum Concentration (CMC) value, or acute standard. The CMC is the estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect. The CMC for aquatic life is intended to be protective of the vast majority of the aquatic communities in the United States.

- ✓ Applicable; this facility has stormwater-only outfalls with benchmark constraints. The benchmarks listed are consistently achieved in stormwater discharges by a variety of other industries with SWPPPs and is deemed protective of instream water quality and aquatic life.

#### **BIOSOLIDS & SEWAGE SLUDGE:**

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

- ✓ Not applicable; this condition is not applicable to the permittee for this facility.

#### **COMPLIANCE AND ENFORCEMENT:**

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

- ✓ Not applicable; the permittee/facility is not currently under Water Protection Program enforcement action.

#### **EFFLUENT LIMITATION GUIDELINE:**

Effluent Limitation Guidelines, or ELGs, are found at 40 CFR 400-499. These are limitations established by the EPA based on the SIC code and the type of work a facility is conducting. Most ELGs are for process wastewater and some address stormwater. All are technology based limitations which must be met by the applicable facility at all times.

- ✓ The facility has an associated ELG (40 CFR 414) but does not discharge wastewater to waters of the state; stormwater discharges are not addressed by the ELG.

#### **GROUNDWATER MONITORING:**

Groundwater is a water of the state according to 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6) and must be protected accordingly.

✓ This facility is not required to monitor groundwater for the water protection program.

#### **INDUSTRIAL SLUDGE:**

Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process wastewater in a treatment works; including but not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment process; scum and solids filtered from water supplies and backwashed; and a material derived from industrial sludge.

✓ Not applicable; sludge is not land applied at this facility.

#### **REASONABLE POTENTIAL ANALYSIS (RPA):**

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are (or may be) discharged at a level causing or have the reasonable potential to cause (or contribute to) an in-stream excursion above narrative or numeric water quality standards. If the permit writer determines any give pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant [40 CFR Part 122.44(d)(1)(iii)].

✓ Not applicable; an RPA was not conducted for this facility. This permit establishes permit limits and benchmarks for stormwater. The department has determined stormwater is not a continuous discharge and is therefore not necessarily dependent on mathematical RPAs. However, the permit writer completed an RPD, a reasonable potential determination, using best professional judgment for all of the appropriate parameters in this permit. A RPD consists of reviewing application data and/or discharge monitoring data for the last five years and comparing those data to narrative or numeric water quality criteria.

#### **SCHEDULE OF COMPLIANCE (SOC):**

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, effluent limits, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. SOCs are allowed under 40 CFR 122.47 providing certain conditions are met.

✓ Not applicable; this permit does not contain a SOC.

#### **SPILL REPORTING:**

Per 10 CSR 24-3.010, any emergency involving a hazardous substance must be reported to the department's 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. <http://dnr.mo.gov/env/esp/spillbill.htm>

#### **STORMWATER PERMITTING:**

A standard mass-balance equation cannot be calculated for stormwater from this facility because the stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day. The amount of stormwater discharged from the facility will vary based on previous rainfall, soil saturation, humidity, detention time, BMPs, surface permeability, etc. Flow in the receiving stream will vary based on climatic conditions, size of watershed, amount of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc. Decreased permeability increases the flash of the stream.

It is likely sufficient rainfall to cause a discharge for four continuous days from a facility will also cause some significant amount of flow in the receiving stream. Chronic WQSs are based on a four-day exposure (except ammonia, which is based on a thirty day exposure). In the event a discharge does occur from this facility for four continuous days, some amount of flow will occur in the receiving stream. This flow will dilute stormwater discharges from a facility. For these reasons, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

Sufficient rainfall to cause a discharge for one hour or more from a facility would not necessarily cause significant flow in a receiving stream. Acute WQSs are based on a one hour of exposure, and must be protected at all times in unclassified streams, and within mixing zones of class P streams [10 CSR 20-7.031(4) and (5)(4)4.B.]. Therefore, industrial stormwater facilities with toxic contaminants do have the potential to cause a violation of acute WQSs if those toxic contaminants occur in sufficient amounts.

It is due to the items stated above staff are unable to perform statistical Reasonable Potential Analysis (RPA). However, staff will use their best professional judgment in determining if a facility has a potential to violate Missouri's Water Quality Standards.

### **STORMWATER POLLUTION PREVENTION PLAN (SWPPP):**

In accordance with 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; 3) Numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to 1) identify sources of pollution or contamination, and 2) select and carry out actions which prevent or control the pollution of storm water discharges.

A SWPPP must be prepared by the permittee if the SIC code is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as necessitating better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

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

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

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

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

✓ Applicable; a SWPPP shall be developed and implemented for this facility.

**VARIANCE:**

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

- ✓ Not applicable; the operating permit is not drafted under premise of a petition for variance.

**WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:**

As per [10 CSR 20-2.010(78)], the WLA is the amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. If one limit does provide adequate protection for the receiving waters, then the other must be used.

- ✓ Not applicable; wasteload allocations were not calculated.

**WLA MODELING:**

Permittees may submit site specific studies to better determine the site specific wasteload allocations applied in permits.

- ✓ Not applicable; a WLA study was either not submitted or determined not applicable by department staff.

**WATER QUALITY STANDARDS:**

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

**WHOLE EFFLUENT TOXICITY (WET) TEST:**

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

- ✓ Not applicable; at this time, the permittee is not required to conduct WET testing for this facility. The previous permit required WET testing at this facility due to the non-contact cooling water component of the discharge, which was sourced from groundwater. Non-contact cooling water is no longer discharged from this facility, and WET tests are known to have repeatability issues in stormwater effluent and are not typically required for stormwater permits.

## Part IV. EFFLUENT LIMITS DETERMINATION

### OUTFALL #001 & #002– STORMWATER OUTFALLS

Effluent limitations derived and established in the below effluent limitations table are based on current operations of the facility. Effluent means both process water and stormwater. Any flow through the outfall is considered a discharge and must be sampled and reported as provided below. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

#### **EFFLUENT LIMITATIONS TABLE:**

PARAMETERS OUTFALLS #001 & #002	UNIT	BASIS	DAILY MAXIMUM LIMIT	BENCH- MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
<b>PHYSICAL</b>								
FLOW	MGD	1	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. EST.
PRECIPITATION	INCHES	6	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT.
<b>CONVENTIONAL</b>								
COD	MG/L	6, 8	**	120	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	MG/L	1, 3	15	-	15/10	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH ‡	SU	1, 3	6.5 TO 9.0	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
SETTLABLE SOLIDS	ML/L/HR	6	**	1.5	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
TEMPERATURE	REMOVED FROM THIS PERMIT							
TSS	MG/L	6, 8	100	-	45/30	ONCE/QUARTER	ONCE/QUARTER	GRAB
<b>NUTRIENTS</b>								
AMMONIA, AS N	MG/L	6	*	-	SEASONAL	ONCE/QUARTER	ONCE/QUARTER	GRAB
<b>METALS</b>								
BARIUM, DISSOLVED	REMOVED FROM THIS PERMIT							
COPPER, TOTAL RECOV. §	µg/L	6, 9	**	22	*	ONCE/QUARTER	ONCE/QUARTER	GRAB
IRON, TOTAL RECOV. §	µg/L	6	**	4000	*	ONCE/QUARTER	ONCE/QUARTER	GRAB
LEAD, TOTAL RECOV. §	µg/L	6,9	**	151	*	ONCE/QUARTER	ONCE/QUARTER	GRAB
ZINC, TOTAL RECOV. §	µg/L	6,8,9	**	181	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB

#### **NOTES:**

\* - Monitoring requirement only

\*\* - Monitoring with associated benchmark

‡ The facility will report the minimum and maximum pH values; pH is not to be averaged

NEW = Parameter not established in previous operating permit

§- The previous permit required these parameters be sampled and reported in the dissolved fraction. This permit requires the total recoverable fraction.

#### **Basis for Limitations Codes:**

- |  |                                   |  |
|--|-----------------------------------|--|
| 1. State or Federal Regulation/Law       | 5. Water Quality Model            | 9. Benchmark based on Missouri Water Quality Standards |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment     |  |
| 3. Water Quality Based Effluent Limits   | 7. TMDL or Permit in lieu of TMDL |  |
| 4. Antidegradation Review/Policy         | 8. Benchmark based on MSGP        |  |

#### **DERIVATION AND DISCUSSION OF LIMITS:**

##### **PHYSICAL:**

##### Flow

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the department, which may require the submittal of an operating permit modification. The facility will report the total flow in millions of gallons per day (MGD).

### **Precipitation**

Monitoring only requirement; measuring the amount of precipitation [(10 CSR 20-6.200(2)(C)1.E(VI)] during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of specific control measure that should be employed to ensure protection of water quality. The facility will provide the 24 hour accumulation value of precipitation from the day of sampling the other parameters. It is not necessary to report all days of precipitation during the quarter because of the readily available on-line data.

### **Temperature**

This parameter is removed from this permit. Temperature was in the previous permits due to the fact the facility was discharging non-contact cooling water. The facility is no longer discharging non-contact cooling water, and it is in the best professional judgment of the permit writer that monitoring temperature is unnecessary for stormwater.

## **CONVENTIONAL:**

### **Chemical Oxygen Demand (COD)**

Monitoring, with a technology based daily maximum benchmark of 120 mg/L. The previous permit required monitoring only for this parameter. There is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals coming into contact with stormwater that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 120 mg/L. This value falls within the range of values implemented in other permits that have similar industrial activities and is considered typical and achievable.

### **Oil & Grease**

Daily maximum limit of 15 mg/L. The previous permit required a maximum daily limit of 15 mg/L and a monthly average limit of 10 mg/L. After review of five years of DMR data, one exceedance of this parameter was noted. The oil and grease analysis is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as "Oil and grease". Oil and grease is considered a conventional pollutant. Per 10 CSR 20-7.031 Table A: *Criteria for Designated Uses*; 10 mg/L is the standard for protection of aquatic life for this parameter. 10 mg/L is also the level at which sheen is expected to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the permittee to visually observe the discharge and receiving waters for sheen or bottom deposits. The daily maximum was calculated using the *Technical Support Document for Water Quality-Based Toxics Control* (EPA/505/2-90-001). Section 5.4.2 indicates the waste load allocation can be set to a chronic standard. When the chronic standard is multiplied by 1.5, the daily maximum can be calculated. Hence,  $10 * 1.5 = 15$  mg/L for the daily maximum.

### **pH**

6.5 to 9.0 SU. The Water Quality Standard at 10 CSR 20-7.031(5)(E) states water contaminants shall not cause pH to be outside the range of 6.5 to 9.0 standard pH units.

### **Settleable Solids (SS)**

Monitoring, with a daily maximum benchmark set at 1.5 mL/L/hr. This is a new parameter in this permit. There is no water quality standard for SS; however, sediment discharges can negatively impact aquatic life. Increased settleable solids are known to interfere with multiple stages of the life cycle in many benthic organisms. For example, they can smother eggs and young or clog the crevasses that benthic organisms use for habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the permittee to identify increases in sediment and solids that may indicate uncontrolled materials leaving the site. The permit writer used best professional judgment to add this parameter after assessing past DMR data for this site. TSS was identified in the previous DMR data as a pollutant requiring limits in this permit. Settleable solids are a fraction of TSS, but may be controlled using BMPs in a different ways than total TSS. The facility can use data gathered about settleable solids discharge from the site to make BMP decisions related to controlling TSS.

### **Total Suspended Solids (TSS)**

Daily maximum limit of 100 mg/L. The previous permit required a daily maximum limit of 45 mg/L with a monthly average limit of 30 mg/L. The previous limits were based on the discharge of process water from this site. This facility no longer discharges wastewater or non-contact cooling water. 100 mg/L is achievable through proper operational procedures and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials

leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution.

**NUTRIENTS:**

**Ammonia, Total as Nitrogen**

Monitoring only. The previous permit required two seasons of limitations; Summer limits were a daily maximum of 3.7 mg/L with a monthly average limit of 1.9 mg/L, winter limitations were a daily maximum of 7.5 mg/L with a monthly average limit of 3.7 mg/L. It is in the best professional judgment of the permit writer to remove limitations from this parameter, as DMRs show no exceedances or values of concern. Monitoring for this parameter will continue quarterly.

**METALS:**

General warm-water habitat criteria apply (WWH) designated as AQL in 10 CSR 20-7.031 Table A. Additional use criterion (HHP, DWS, GRW, IRR, or LWW) may also be used as applicable to determine the most protective effluent limit for the stream class and uses. When ambient site specific hardness data is not available, standard water hardness of 162 mg/L is used in the conversion below. This value represents the 25<sup>th</sup> percentile of all watersheds’ in-stream hardness values throughout Missouri. Additionally, when there are no site specific translator studies, partitioning between the dissolved and absorbed phases is assumed minimal (Section 5.7.3, EPA/505/2-90-001). Freshwater criteria conversion factors for dissolved metals were used as the metals translator as recommended in guidance (Section 1.3, 1.5.3, and Table 1, EPA 823-B-96-007). If concurrent site-specific data for total recoverable metals, dissolved metals, hardness, and total suspended solids are provided to the department, the department may integrate those findings into derivation of the water quality limits. Conversion factors for Cd and Pb are hardness dependent. N/A means not applicable.

METAL	CONVERSION FACTORS USING HARDNESS OF 162 MG/L	
	ACUTE	CHRONIC
Copper	0.960	0.960
Iron	N/A	N/A
Lead	0.721	0.721

**Barium, Dissolved**

This parameter is removed from this permit. The previous permit required monitoring only for stormwater. This pollutant shows no reasonable potential for exceeding the water quality standards in the last five years of stormwater DMR data.

**Copper, Total Recoverable**

Monitoring, with a daily maximum benchmark set at 22 µg/L. The previous permit required monitoring only for dissolved copper. It is in the best professional judgment to require the permittee sample for and report the total recoverable copper at this site. In 2011, prior to modifying the permit to allow for dissolved fraction sampling and reporting, the facility reported a maximum value of 18 µg/L of copper. This value does not exceed the standard for protection of aquatic life found at 10 CSR 20-7.031 Table A, but does show it is a potential pollutant of concern at this site. Monitoring will be continued to ascertain the amount of total recoverable copper in the effluent at this facility.

Acute AQL WQS:  $e^{(0.9422 * \ln 162 - 1.7003)} * 0.960 = 21.163$  [at Hardness 162]  
 Acute TR WQS:  $21.163 \div 0.96 = 22.048$  [Total Recoverable Conversion]  
 Daily maximum benchmark = 22 µg/L

**Iron, Total Recoverable**

Monitoring, with a daily maximum benchmark set at 4000 µg/L. The previous permit required monitoring only for dissolved iron. It is in the best professional judgment to require the permittee sample for and report the total recoverable iron at this site. In 2011, prior to modifying the permit to allow for dissolved fraction sampling and reporting, the facility reported a maximum value of 8040 µg/L of iron. This value exceeds the chronic standard for protection of aquatic life found at 10 CSR 20-7.031 Table A, and shows it is a pollutant of concern at this site. Monitoring will be continued to ascertain the amount of total recoverable iron in the effluent at this facility.

Due to the sporadic nature of stormwater discharges, the Department, under the direction of EPA guidance, has determined chronic standards are capricious measures of stormwater discharges. Chronic effluent limitations are based on the organism’s ability to survive within the designated concentration for four days. Stormwater is rarely discharged continuously for four days. Conversely, acute water quality standards are applicable, but are non-existent for iron. It is in the best professional judgment of the permit writer that a discharge from this outfall at 4000 µg/L per storm event is unlikely to cause an exceedance of the chronic water quality standard of 1000 µg/L over four days. After reviewing other sources of data and studies, it is in the permit writer’s best professional judgment to require a 4000 µg/L daily maximum limit for this facility. In accordance with the department’s current stormwater permitting, under the direction of EPA guidance, it is the permit writer’s best professional judgment that an iron limit of 4000 µg/L is protective of water quality at this facility.

### **Lead, Total Recoverable**

Monitoring, with a daily maximum benchmark set at 151 µg/L. The previous permit required monitoring only for dissolved lead. It is in the best professional judgment to require the permittee sample for and report the total recoverable lead at this site. In 2011, prior to modifying the permit to allow for dissolved fraction sampling and reporting, the facility reported a maximum value of 587 µg/L of lead. This value exceeds the standard for protection of aquatic life found at 10 CSR 20-7.031 Table A, and shows it is a potential pollutant of concern at this site. Due to changes in the effluent at this site, the permit writer uses best professional judgment to require monitoring of to ascertain the amount of total recoverable lead in the effluent at this facility currently.

Acute AQL WQS:  $e^{(1.273 * \ln 162 - 1.460448)} * (1.46203 - \ln 162 * 0.145712) = 108.69$  [at Hardness 162]  
 Acute TR WQS:  $108.69 \div 0.7207 = 150.816$  [Total Recoverable Conversion]  
 Daily maximum benchmark = 151 µg/L

### **Zinc, Total Recoverable**

Monitoring, with a daily maximum benchmark set at 181 µg/L. This parameter is added using the permit writer's best professional judgment. Zinc is a pollutant of concern for this industry, as identified in the federal MSGP. A benchmark is set for this pollutant which has been shown to be achievable at other industrial sites using BMPs.

Acute AQL WQS:  $e^{(0.8473 * \ln 162 + 0.884)} * 0.98 = 176.71$  [at Hardness 162]  
 Acute TR WQS:  $176.71 \div 0.978 = 180.69$  [Total Recoverable Conversion]  
 Daily maximum benchmark = 181 µg/L

## **Part V. SAMPLING AND REPORTING REQUIREMENTS:**

Refer to each outfall's derivation and discussion of limits section to review individual sampling and reporting frequencies and sampling type. Additionally, see Standard Conditions Part I attached at the end of this permit and fully incorporated within.

### **ELECTRONIC DISCHARGE MONITORING REPORTING:**

Due to new federal regulations, all facilities must begin submitting their discharge monitoring reports electronically, called the eDMR system (certain exemptions are allowed; see National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule in 80 FR 64063; effective 12/21/2015). To begin the process with the department, please visit <http://dnr.mo.gov/pubs/pub2474.pdf>. This process will save time, lessen paperwork, and reduce operating costs for both facilities and the water protection program. Additional information may also be found at <http://dnr.mo.gov/env/wpp/edmr.htm>.

### **SAMPLING FREQUENCY JUSTIFICATION:**

Sampling and reporting frequency was generally retained from previous permit. 40 CFR 122.45(d)(1) indicates all continuous discharges shall be permitted with daily maximum and monthly average limits. Sampling frequency for stormwater-only outfalls is typically quarterly even though BMP inspection occurs monthly. The facility may sample more frequently if additional data is required to determine if best management operations and technology are performing as expected.

### **SAMPLING TYPE JUSTIFICATION:**

Sampling type was continued from the previous permit. The sampling types are representative of the discharges, and are protective of water quality. Discharges with altering effluent should have composite sampling; discharges with uniform effluent can have grab samples. Grab samples are usually appropriate for stormwater. Parameters which must have grab sampling are: pH, ammonia, *E. coli*, total residual chlorine, free available chlorine, hexavalent chromium, dissolved oxygen, total phosphorus, and volatile organic samples.

### **SUFFICIENTLY SENSITIVE ANALYTICAL METHODS:**

Please review Standard Conditions Part 1, section A, number 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 and/or 40 CFR 136 unless alternates are approved by the department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method quantifies the pollutant below the level of the applicable water quality criterion or; 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015 and or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A permittee is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive. 40 CFR 136 lists the approved methods accepted by the department. Table A at 10 CFR 20-7.031 shows water quality standards.

## **Part VI. ADMINISTRATIVE REQUIREMENTS**

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

### **PERMIT SYNCHRONIZATION:**

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

✓ *This permit will become synchronized by expiring the end of the 2<sup>nd</sup> quarter, 2019.*

### **PUBLIC NOTICE:**

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. <http://dnr.mo.gov/env/wpp/permits/pn/index.html> Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- The Public Notice period for this operating permit was from 11-23-2016 to 12-23-2016. No responses were received.

**DATE OF FACT SHEET:** 10/04/2016

### **COMPLETED BY:**

AMBERLY SCHULZ, ENVIRONMENTAL SPECIALIST  
MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM  
OPERATING PERMITS SECTION - INDUSTRIAL UNIT  
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These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

## Part I – General Conditions

### Section A – Sampling, Monitoring, and Recording

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

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

### Section B – Reporting Requirements

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



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

## Section C – Bypass/Upset Requirements

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

## Section D – Administrative Requirements

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



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



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

AP 13963



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH  
FORM A - APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT  
UNDER MISSOURI CLEAN WATER LAW

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED 11/8/12	FEE SUBMITTED \$ 86

**Note** ▶ PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

An operating permit and antidegradation review public notice

A construction permit following an appropriate operating permit and antidegradation review public notice

A construction permit and concurrent operating permit and antidegradation review public notice

A construction permit (submitted before Aug. 30, 2008 or antidegradation review is not required)

An operating permit for a new or unpermitted facility      Construction Permit # \_\_\_\_\_

An operating permit renewal: permit # MO- 0003140      Expiration Date May 8, 2013

An operating permit modification: permit # MO- \_\_\_\_\_      Reason: \_\_\_\_\_

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

**2. FACILITY**

NAME CCP COMPOSITES US		TELEPHONE WITH AREA CODE (816) 391-6000	
		FAX (816) 391-6093	
ADDRESS (PHYSICAL) 920 EAST 14TH AVENUE	CITY NORTH KANSAS CITY	STATE MO	ZIP CODE 64116

**3. OWNER**

NAME CCP COMPOSITES US		E-MAIL ADDRESS		TELEPHONE WITH AREA CODE (816) 391-6000	
				FAX (816) 391-6093	
ADDRESS (MAILING) P.O. BOX 419389	CITY KANSAS CITY	STATE MO	ZIP CODE 64141		

3.1 Request review of draft permit prior to public notice?  YES  NO

**4. CONTINUING AUTHORITY**

NAME CCP COMPOSITES US		TELEPHONE WITH AREA CODE (816) 391-6000	
		FAX (816) 391-6093	
ADDRESS (MAILING) P.O. BOX 419389	CITY KANSAS CITY	STATE MO	ZIP CODE 64141

**5. OPERATOR**

NAME CCP COMPOSITES US		CERTIFICATE NUMBER NOT APPLICABLE		TELEPHONE WITH AREA CODE (816) 391-6000	
				FAX (816) 391-6093	
ADDRESS (MAILING) 920 EAST 14TH AVENUE	CITY NORTH KANSAS CITY	STATE MO	ZIP CODE 64116		

**6. FACILITY CONTACT**

NAME ERIC NELSON		TITLE DIRECTOR, HSEQ		TELEPHONE WITH AREA CODE (816) 391-6324	
				FAX (816) 391-6093	

**7. ADDITIONAL FACILITY INFORMATION**

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

001 NE ¼ NE ¼ Sec 23 T 50 N R 33 W CLAY County  
 UTM Coordinates Easting (X): 364443 Northing (Y): 4333022  
*For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)*

002 NE ¼ NE ¼ Sec 23 T 50 N R 33 W CLAY County  
 UTM Coordinates Easting (X): 364272 Northing (Y): 433283

003 ¼ ¼ Sec T R County  
 UTM Coordinates Easting (X): Northing (Y):

004 ¼ ¼ Sec T R County  
 UTM Coordinates Easting (X): Northing (Y):

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

001 - SIC 2851 and NAICS 32551      002 - SIC 2851 and NAICS 32551

003 - SIC \_\_\_\_\_ and NAICS \_\_\_\_\_      004 - SIC \_\_\_\_\_ and NAICS \_\_\_\_\_

NOV 08 2012

**8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION**  
 (Complete all forms that are applicable.)

- A. Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? YES  NO   
 If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below).
- B. Is your facility considered a "Primary Industry" under EPA guidelines: YES  NO   
 If yes, complete Forms C and D.
- C. Is application for storm water discharges only? YES  NO   
 If yes, complete EPA Form 2F.
- D. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.
- E. Is wastewater land applied? If yes, complete Form I. YES  NO
- F. Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? YES  NO   
 If yes, complete Form R.

**9. DOWNSTREAM LANDOWNER(S)** Attach additional sheets as necessary. See Instructions.  
 (PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE).

NAME SEEBURG WAREHOUSE			
ADDRESS 1015 EAST 14TH AVENUE	CITY NORTH KANSAS CITY	STATE MO	ZIP CODE 64116

**10.** I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law to the Missouri Clean Water Commission.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) ERIC NELSON, DIRECTOR HSEQ	TELEPHONE WITH AREA CODE (816) 391-6324
SIGNATURE 	DATE SIGNED 11/7/2012

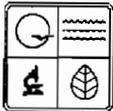
MO 780-1479 (01-09)

**BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.**

Submittal of an incomplete application may result in the application being returned.

HAVE YOU INCLUDED:

- Appropriate Fees?
- Map at 1" = 2000' scale?
- Signature?
- Form C, if applicable?
- Form D, if applicable?
- Form 2F, if applicable?
- Form I (Irrigation), if applicable?
- Form R (Sludge), if applicable?



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH  
**FORM C – APPLICATION FOR DISCHARGE PERMIT –**  
**MANUFACTURING, COMMERCIAL, MINING,**  
**SILVICULTURE OPERATIONS, PROCESS & STORM WATER**

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

**TE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS**

1.00 NAME OF FACILITY  
 CCP COMPOSITES US

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER  
 MO-0003140

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 2851 B. SECOND 2821

C. THIRD \_\_\_\_\_ D. FOURTH \_\_\_\_\_

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 SEC \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ COUNTY \_\_\_\_\_

001 NE 1/4 NE 1/4 SEC 23 T 50N R 33 W CLAY

002 NE 1/4 NE 1/4 SEC 23 T 50N R 33 W CLAY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
001	MISSOURI RIVER VIA NORTH KANSAS CITY
002	MISSOURI STORM SEWER
	MISSOURI RIVER VIA NORTH KANSAS CITY
	MISSOURI STORM SEWER

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS  
 MANUFACTURER OF GEL COATS AND POLYESTER RESINS USED IN PLASTICS, MARINE, SANITARY, BUILDING CONSTRUCTION, ELECTRICAL AND RELATED INDUSTRIES.

RECEIVED

NOV 08 2012

WATER PROTECTION PROGRAM



**2.40 CONTINUED**

C. EXCEPT FOR STORM RUNOFF, LEAKS OR SPILLS, ARE ANY OF THE DISCHARGES DESCRIBED IN ITEMS A OR B INTERMITTENT OR SEASONAL?  
 YES (COMPLETE THE FOLLOWING TABLE)       NO (GO TO SECTION 2.50)

1. OUTFALL NUMBER <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</i>		
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	

2.50 MAXIMUM PRODUCTION

A. DOES AN EFFLUENT GUIDELINE LIMITATION PROMULGATED BY EPA UNDER SECTION 304 OF THE CLEAN WATER ACT APPLY TO YOUR FACILITY?  
 YES (COMPLETE B.)       NO (GO TO SECTION 2.60)

B. ARE THE LIMITATIONS IN THE APPLICABLE EFFLUENT GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?  
 YES (COMPLETE c.)       NO (GO TO SECTION 2.60)

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS AN ACTUAL MEASUREMENT OF YOUR MAXIMUM LEVEL OF PRODUCTION, EXPRESSED IN THE TERMS AND UNITS USED IN THE APPLICABLE EFFLUENT GUIDELINE AND INDICATE THE AFFECTED OUTFALLS.

1. MAXIMUM QUANTITY			2. AFFECTED OUTFALLS <i>(list outfall numbers)</i>
QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. <i>(specify)</i>	

2.60 IMPROVEMENTS

A. ARE YOU NOW REQUIRED BY ANY FEDERAL, STATE OR LOCAL AUTHORITY TO MEET, ANY IMPLEMENTATION SCHEDULE FOR THE CONSTRUCTION, UPGRADING OR OPERATION OF WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.  
 YES (COMPLETE THE FOLLOWING TABLE)       NO (GO TO 3.00)

1. IDENTIFICATION OF CONDITION AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
				A. REQUIRED	B. PROJECTED

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS (OR OTHER ENVIRONMENTAL PROJECTS THAT MAY AFFECT YOUR DISCHARGES) YOU NOW HAVE UNDER WAY OR ARE YOU PLANNING. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.  
 MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED.



3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.)  NO (GO TO 3.20)

AN ACUTE TOXICITY TEST WAS PERFORMED ON THE EFFLUENT FROM OUTFALL 001 USING MISSOURI RIVER WATER FOR DILUTION. THE TEST WAS COMPLETED JULY 2010, JULY 2011 AND JULY 2012 TO MEET THE REQUIREMENTS OF MISSOURI STATE PERMIT #MO-0003140. THE EFFLUENT PASSED THE ACUTE TOXICITY TESTING PERFORMED DURING THE DATES MENTIONED ABOVE.

3.20 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

YES (LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.)  NO (GO TO 3.30)

A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)
ESC LAB SCIENCES	12065 LEBANON RD. MT. JULIET, TN 37122	615-758-5858	ACUTE TOXICITY
TEST AMERICA	WESTFIELD EXECUTIVE PARK 53 SOUTH HAMPTON RD. WESTFIELD, MA 01085	413-572-4000	ACUTE TOXICITY
PACE ANALYTICAL	9608 LORIE BLVD LENEXA, KS 66219	913-599-5665	COD TSS OIL & GREASE AMMONIA BARIUM COPPER IRON LEAD

3.30 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) ERIC NELSON, DIRECTOR, HSEQ	TELEPHONE NUMBER WITH AREA CODE (816) 391-6324
SIGNATURE (SEE INSTRUCTIONS) 	DATE SIGNED 11/07/2012

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet instead of completing these pages.  
 (Use the same format)  
 SEE INSTRUCTIONS

FORM C  
 TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS												OUTFALL NO. 001	
PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.													
1. POLLUTANT	2. EFFLUENT				3. UNITS (specify if blank)				4. INTAKE (optional)				
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES	
(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION				(2) MASS			
A. Biochemical Oxygen Demand (BOD)	NOT REQUIRED BY PERMIT												
B. Chemical Oxygen Demand (COD)	19.8					13.8	3	MG/L					
C. Total organic Carbon (TOC)	NOT REQUIRED BY PERMIT												
D. Total Suspended Solids (TSS)	19					19	3	MG/L					
E. Ammonia (as N)	ND					ND	3	MG/L					
F. Flow	VALUE < 1					VALUE < 1	3	MGD					
G. Temperature (winter)	VALUE 5.6					VALUE 5.6		°C					
H. Temperature (summer)	VALUE 22.8					VALUE 22.8		°C					
I. pH	MINIMUM 7.5	MAXIMUM 8.9				MAXIMUM	3	STANDARD UNITS					
PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.													
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE	
(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION				(2) MASS	
A. Bromide (24959-67-9)		X											
B. Chlorine Total Residual		X											
C. Color		X											
D. Fecal Coliform		X											
E. Fluoride (16984-48-8)		X											
F. Nitrate—Nitrate (as N)		X											

Outfall 001

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
G. Nitrogen Total Organic (as N)		X										
H. Oil and Grease	X		ND			ND		MG/L				
I. Phosphorus (as P) Total (7723-14-0)		X										
J. Sulfate (as SO <sub>4</sub> ) (14808-79-8)		X										
K. Sulfide (as S)		X										
L. Sulfite (as SO <sub>3</sub> ) (14265-45-3)		X										
M. Surfactants		X										
N. Aluminum Total (7429-90-5)	X		3.10*			3.10		UG/L		2.13*		1
O. Barium Total (7440-39-3)	X		88.2			48.8		UG/L		4.46*		1
P. Boron Total (7440-42-8)	X		1.47*			1.47		UG/L		1.51*		1
Q. Cobalt Total (7440-48-4)		X										
R. Iron Total (7439-89-6)	X		380			351		UG/L		11.2*		1
S. Magnesium Total (7439-95-4)	X		29.1*			29.1		MG/L		31.1*		1
T. Molybdenum Total (7439-98-7)		X										
U. Manganese Total (7439-96-5)	X		780*			382		UG/L		402*		4
V. Tin Total (7440-31-5)		X										
W. Titanium Total (7440-32-6)		X										

\* Source: Comprehensive Groundwater Monitoring Evaluation Prepared by Missouri Dept. Natural Resources

Outfall 001

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS			5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVRG. VALUE		A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS	
<b>METALS, AND TOTAL PHENOLS</b>													
1M. Antimony, Total (7440-36-9)		X											
2M. Beryllium, Total (7440-41-7)		X											
3M. Magnesium, Total (7439-95-4)		X											
4M. Molybdenum, Total (7439-98-7)		X											
5M. Tin, Total (7440-31-5)		X											
6M. Titanium, Total (7440-32-6)		X											
7M. Mercury, Total (7439-97-6)		X											
8M. Selenium, Total (7782-49-2)		X											
9M. Thallium, Total (7440-28-0)		X											
10M. Phenols, Total		X											
<b>RADIOACTIVITY</b>													
(1) Alpha Total		X											
(2) Beta Total		X											
(3) Radium Total		X											
(4) Radium 226 Total		X											

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet instead of completing these pages.  
 (Use the same format)  
 SEE INSTRUCTIONS

FORM C  
 TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS												OUTFALL NO.	
PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.												002	
1. POLLUTANT	2. EFFLUENT				3. UNITS (specify if blank)				4. INTAKE (optional)				
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES	
(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION				(2) MASS			
A. Biochemical Oxygen Demand (BOD) (COD)	NOT REQUIRED BY CURRENT PERMIT						1	MG/L					
B. Chemical Oxygen Demand (COD)	16.6			16.6			1	MG/L					
C. Total organic Carbon (TOC)	NOT REQUIRED BY CURRENT PERMIT						1	MG/L					
D. Total Suspended Solids (TSS)	14			14			1	MG/L					
E. Ammonia (as N)	ND			ND			1	MG/L					
F. Flow	VALUE < 1			VALUE < 1			1	MGD					
G. Temperature (winter)	VALUE			VALUE					°C				
H. Temperature (summer)	VALUE 22.3			VALUE 22.3					°C				
I. pH	MINIMUM 8.5	MAXIMUM 8.5		MINIMUM 8.5	MAXIMUM 8.5		1		STANDARD UNITS				
PART B - Mark 'X' in column 2-a for each pollutant you know or have reason to believe is present. Mark 'X' in column 2-b for each pollutant you believe to be absent. If you mark column 2-a for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.													
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE	
(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION				(2) MASS	
A. Bromide (24959-67-9)		X											
B. Chlorine Total Residual		X											
C. Color		X											
D. Fecal Coliform		X											
E. Fluoride (16984-48-8)		X											
F. Nitrate—Nitrate (as N)		X											

Outfall 002

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS			5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	D. NO. OF ANALYSES		(1) CONCENTRATION	(2) MASS	B. NO. OF ANALYSES
G. Nitrogen Total Organic (as N)		X											
H. Oil and Grease	X		ND				ND			1	MG/L		
I. Phosphorus (as P) Total (7723-14-0)		X											
J. Sulfate (as SO <sub>4</sub> ) (14808-79-8)		X											
K. Sulfide (as S)		X											
L. Sulfite (as SO <sub>3</sub> ) (14265-45-3)		X											
M. Surfactants		X											
N. Aluminum Total (7429-90-5)		X											
O. Barium Total (7440-39-3)	X		ND					ND		1	UG/L		
P. Boron Total (7440-42-8)		X											
Q. Cobalt Total (7440-48-4)		X											
R. Iron Total (7439-89-6)	X		77.9					77.9		1	UG/L		
S. Magnesium Total (7439-95-4)		X											
T. Molybdenum Total (7439-98-7)		X											
U. Manganese Total (7439-96-5)		X											
V. Tin Total (7440-31-5)		X											
W. Titanium Total (7440-32-6)		X											

Outfall 002

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS			5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVRG. VALUE		A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS	
<b>METALS, AND TOTAL PHENOLS</b>													
1M. Antimony, Total (7440-36-9)		X											
2M. Beryllium, Total (7440-41-7)		X											
3M. Magnesium, Total (7439-95-4)		X											
4M. Molybdenum, Total (7439-98-7)		X											
5M. Tin, Total (7440-31-5)		X											
6M. Titanium, Total (7440-32-6)		X											
7M. Mercury, Total (7439-97-6)		X											
8M. Selenium, Total (7782-49-2)		X											
9M. Thallium, Total (7440-28-0)		X											
10M. Phenols, Total		X											
<b>RADIOACTIVITY</b>													
(1) Alpha Total		X											
(2) Beta Total		X											
(3) Radium Total		X											
(4) Radium 226 Total		X											



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH  
**FORM – APPLICATION FOR DISCHARGE PERMIT**  
**PRIMARY INDUSTRIES**

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

**NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS**

1.00 NAME OF FACILITY  
 CCP COMPOSITES US

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER  
**MO - 0003140**

This form is to be filled out in addition to forms A and C "Application for Discharge Permit" for the Industries listed below.

**INDUSTRY CATEGORY**

- |                                   |   |
|-----------------------------------|---|
| Adhesives and sealants            | Ore mining                                    |
| Aluminum forming                  | Organic chemicals manufacturing               |
| Auto and other laundries          | Paint and ink formulation                     |
| Battery manufacturing             | Pesticides                                    |
| Coal mining                       | Petroleum refining                            |
| Coil coating                      | Pharmaceutical preparations                   |
| Copper forming                    | Photographic equipment and supplies           |
| Electric and electronic compounds | Plastic and synthetic materials manufacturing |
| Electroplating                    | Plastic processing                            |
| Explosives manufacturing          | Porcelain enameling                           |
| Foundries                         | Printing and publishing                       |
| Gum and wood chemicals            | Pulp and paperboard mills                     |
| Inorganic chemicals manufacturing | Rubber processing                             |
| Iron and steel manufacturing      | Soap and detergent manufacturing              |
| Leather tanning and finishing     | Steam electric power plants                   |
| Landfill                          | Textile mills                                 |
| Mechanical products manufacturing | Timber products processing                    |
| Nonferrous metals manufacturing   |   |

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WATER PROTECTION PROGRAM

**APPLICATION FOR DISCHARGE PERMIT  
FORM D – PRIMARY INDUSTRIES**

<b>TABLE II</b>	
NPDES # (IF ASSIGNED) MO-0003140	OUTFALL NUMBER 001

**1.30** If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
<b>METALS, AND TOTAL PHENOLS</b>										
1M. Antimony, Total (7440-36-9)			✓							
2M. Beryllium, Total (7440-41-7)			✓							
3M. Magnesium Total (7439-95-4)		✓			29.1		29.1		31.1	1
4M. Molybdenum Total (7439-98-7)			✓							
5M. Tin Total (7440-31-5)			✓							
6M. Titanium Total (7440-32-6)			✓							
7M. Mercury, Total (7439-97-6)			✓							
8M. Selenium, Total (7782-49-2)			✓							
9M. Thallium, Total (7440-28-0)			✓							
10M. Phenols, Total			✓							
<b>DIOXIN</b>										
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)			✓							

**DESCRIBE RESULTS**

CONTINUED FROM PAGE 3

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)			
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>												
1V. Acrolein (107-02-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
2V. Acrylonitrile (107-13-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
3V. Benzene (71-43-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
4V. Bis (Chloromethyl) Ether (542-88-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5V. Bromoform (75-25-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
6V. Carbon Tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
7V. Chlorobenzene (108-90-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
8V. Chlorodibromomethane (124-48-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
9V. Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
10V. 2-Chloroethyvinyl Ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
11V. Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
12V. Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
13V. Dichlorodifluoromethane (75-71-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
14V. 1,1 - Dichloroethane (75-34-3)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		ND							
15V. 1,2 - Dichloroethane (107-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
16V. 1,1 - Dichloroethylene (75-35-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
17V. 1,2 - Dichloropropane (78-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
18V. 1,2 - Dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
19V. Ethylbenzene (100-41-4)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		8.9			3.1			0.36	5
20V. Methyl Bromide (74-83-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
21V. Methyl Chloride (74-87-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		B. NO OF ANALYSES
	A. TESTING RE-REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. MASS	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				
<b>GC/MS FRACTION – VOLATILE COMPOUNDS (continued)</b>											
22V. Methylene Chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
24V. Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
25V. Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
26V. 1,2 – Trans Dichloroethylene (156-60-5)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.36		0.52		UG/L	1.63		5
27V. 1,1,1 – Tri – chloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
28V. 1,1,2 – Tri – chloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
29V. Trichloro – ethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
30V. Trichloro – fluoromethane (75-69-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
31V. Vinyl Chloride (75-01-4)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1.14		0.38		UG/L	1.1		5
<b>GC/MS FRACTION – ACID COMPOUNDS</b>											
1A. 2 – Chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
2A. 2,4 – Dichloro – phenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
3A. 2,4 – Dimethyl – phenol (105-67-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
4A. 4,6 – Dinitro - O- Cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
5A. 2,4 – Dinitro – phenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
6A. 2-Nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
7A. 4-Nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
8A. P – Chloro – M Cresol (59-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
9A. Pentachloro – phenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
10A. Phenol (108-952)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								
11A. 2,4,6 – Trichloro-phenol (88-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>								

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)			
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>												
1B. Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
2B. Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
3B. Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
4B. Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5B. Benzo (a) Anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
6B. Benzo (a) Pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
7B. 3,4 - Benzo[fluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
8B. Benzo (ghi) Perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
9B. Benzo (k) Fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
15B. Butyl Benzyl Phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
16B. 2-Chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
18B. Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
19B. Dibenzo (a,h) Anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
20B. 1,2-Dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
21B. 1,3-Dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)	
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>										
22B. 1, 4-Dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
24B. Diethyl Phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
25B. Dimethyl Phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
26B. Di-N-butyl Phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
27B. 2,4-Dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
28B. 2,6-Dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
29B. Di-N-Octyl Phthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
31B. Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
32B. Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
33B. Hexachlorobenzene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
34B. Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
35B. Hexachloro-cyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
36B. Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
37B. indeno (1,2,3-c-d) Pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
38B. Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
39B. Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
40B. Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
41B. N-Nitro-sodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVRG. VALUE		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>															
42B. N-Nitroso N-Propylamine (621-64-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
43B. N-Nitrosodiphenylamine (86-30-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
44B. Phenanthrene (85-01-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
45B. Pyrene (129-00-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
46B. 1,2,4-Tri chlorobenzene (120-82-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
<b>GC/MS FRACTION - PESTICIDES</b>															
1P. Aldrin (309-00-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
2P. α-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
3P. β-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
4P. γ-BHC (58-89-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
5P. δ-BHC (319-86-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
6P. Chlordane (57-74-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
7P. 4,4'-DDT (50-29-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
8P. 4,4'-DDE (72-55-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
9P. 4,4'-DDD (72-54-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
10P. Dieldrin (60-57-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
11P. α-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
12P. β-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
13P. Endosulfan Sulfate (1031-07-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
14P. Endrin (72-20-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
15P. Endrin Aldehyde (7421-93-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
16P. Heptachlor (76-44-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												



**APPLICATION FOR DISCHARGE PERMIT  
FORM D – PRIMARY INDUSTRIES**

<b>TABLE II</b>	
NPDES # (IF ASSIGNED) MO-0003140	OUTFALL NUMBER 002

**1.30** If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT				4. UNITS		5. INTAKE (optional)			
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS
<b>METALS, AND TOTAL PHENOLS</b>													
1M. Antimony, Total (7440-36-9)			✓										
2M. Beryllium, Total (7440-41-7)			✓										
3M. Magnesium Total (7439-95-4)			✓										
4M. Molybdenum Total (7439-98-7)		✓											
5M. Tin Total (7440-31-5)		✓											
6M. Titanium Total (7440-32-6)		✓											
7M. Mercury, Total (7439-97-6)		✓											
8M. Selenium, Total (7782-49-2)		✓											
9M. Thallium, Total (7440-28-0)		✓											
10M. Phenols, Total		✓											
<b>DIOXIN</b>													
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)			✓										

CONTINUED FROM PAGE 3

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)			
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)	D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>												
1V. Acrolein (107-02-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
2V. Acrylonitrile (107-13-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
3V. Benzene (71-43-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
4V. Bis (Chloromethyl) Ether (542-88-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5V. Bromoform (75-25-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
6V. Carbon Tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
7V. Chlorobenzene (108-90-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
8V. Chlorodibromomethane (124-48-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
9V. Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
10V. 2-Chloroethylvinyl Ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
11V. Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
12V. Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
13V. Dichlorodifluoromethane (75-71-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
14V. 1,1 - Dichloroethane (75-34-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
15V. 1,2 - Dichloroethane (107-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
16V. 1,1 - Dichloroethylene (75-35-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
17V. 1,2 - Dichloropropane (78-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
18V. 1,2 - Dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
19V. Ethylbenzene (100-41-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
20V. Methyl Bromide (74-83-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
21V. Methyl Chloride (74-87-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. TESTING RE-REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
<b>GC/MS FRACTION – VOLATILE COMPOUNDS (continued)</b>															
22V. Methylene Chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
23V. 1,1,2,2 – Tetra- chloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
24V. Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
25V. Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
26V. 1,2 – Trans Dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
27V. 1,1,1 – Tri- chloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
28V. 1,1,2 – Tri- chloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
29V. Trichloro – ethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
30V. Trichloro – fluoromethane (75-69-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
31V. Vinyl Chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
<b>GC/MS FRACTION – ACID COMPOUNDS</b>															
1A. 2 – Chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
2A. 2,4 – Dichloro – phenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
3A. 2,4 – Dimethyl – phenol (105-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
4A. 4,6 – Dinitro - O- Cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
5A. 2,4 – Dinitro – phenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
6A. 2-Nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
7A. 4-Nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
8A. P – Chloro – M Cresol (59-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
9A. Pentachloro – phenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
10A. Phenol (108-952)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
11A. 2,4,6 – Trichloro- phenol (88-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT				4. UNITS		5. INTAKE (optional)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS</b>												
1B. Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
2B. Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
3B. Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
4B. Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5B. Benzo (a) Anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
6B. Benzo (a) Pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
7B. 3,4 - Benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
8B. Benzo (ghi) Perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
9B. Benzo (k) Fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
15B. Butyl Benzyl Phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
16B. 2-Chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
18B. Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
19B. Dibenzo (a,h) Anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
20B. 1,2 - Dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
21B. 1,3 - Dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

CONTINUED FROM THE PAGE 5

NPDES # (IF ASSIGNED)  
MO-0003140

OUTFALL NUMBER  
002

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT				4. UNITS		5. INTAKE (optional)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS
<b>GCMS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>												
22B. 1, 4-Dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
24B. Diethyl Phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
25B. Dimethyl Phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
26B. Di-N-butyl Phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
27B. 2,4-Dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
28B. 2,6-Dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
29B. Di-N-Octyl Phthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
31B. Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
32B. Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
33B. Hexachlorobenzene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
34B. Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
35B. Hexachlorocyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
36B. Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
38B. Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
39B. Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
40B. Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
41B. N-Nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT				4. UNITS		5. INTAKE (optional)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
<b>GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)</b>												
42B. N-Nitroso N-Propylamine (621-64-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
43B. N-Nitrosodiphenylamine (86-30-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
44B. Phenanthrene (85-01-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
45B. Pyrene (129-00-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
46B. 1,2,4-Trichlorobenzene (120-82-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
<b>GC/MS FRACTION - PESTICIDES</b>												
1P. Aldrin (309-00-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
2P. α-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
3P. β-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
4P. γ-BHC (58-89-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5P. δ-BHC (319-86-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
6P. Chlordane (57-74-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
7P. 4,4'-DDT (50-29-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
8P. 4,4'-DDE (72-55-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
9P. 4,4'-DDD (72-54-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
10P. Dieldrin (60-57-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
11P. α-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
12P. β-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
13P. Endosulfan Sulfate (1031-07-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
14P. Endrin (72-20-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
15P. Endrin Aldehyde (7421-93-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
16P. Heptachlor (76-44-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>									



2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. IS ANY POLLUTANT LISTED IN ITEM 1.30 A SUBSTANCE OR A COMPONENT OF A SUBSTANCE WHICH YOU DO OR EXPECT THAT YOU WILL OVER THE NEXT FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?

YES (LIST ALL SUCH POLLUTANTS BELOW)  NO (GO TO B)

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE YEARS EXCEED TWO TIMES THE MAXIMUM VALUES REPORTED IN ITEM 1.30?

YES (COMPLETE C BELOW)  NO (GO TO SECTION 3.00)

C. IF YOU ANSWERED "YES" TO ITEM B, EXPLAIN BELOW AND DESCRIBE IN DETAIL THE SOURCES AND EXPECTED LEVELS OF SUCH POLLUTANTS THAT YOU ANTICIPATE WILL BE DISCHARGED FROM EACH OUTFALL OVER THE NEXT FIVE YEARS, TO THE BEST OF YOUR ABILITY AT THIS TIME. CONTINUE ON ADDITIONAL SHEETS IF YOU NEED MORE SPACE.

3.00 CONTRACT ANALYSIS INFORMATION

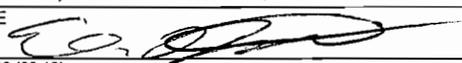
WERE ANY OF THE ANALYSES REPORTED IN 1.30 PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

YES (LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW)  
 NO (GO TO SECTION 4.00)

A. NAME	B. ADDRESS	C. TELEPHONE NUMBER WITH AREA CODE	D. POLLUTANTS ANALYZED (list)
SEVERN TRENT	4955 YARROW ST. ARVADA, CO 80002	(303) 736-0100	VOCS, MANANESE, ARSENIC
PACE ANALYTICAL	9608 LORIENT BLVD LENEXA, KS 66219	(913) 599-5665	LEAD, COPPER, VOCS
MISSOURI ENV. SERVICES	2710 WEST MAIN ST. JEFFERSON CITY, MO		METALS, VOCS

4.00 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) ERIC NELSON, DIRECTOR HSEQ	TELEPHONE NUMBER WITH AREA CODE (816) 391-6324
SIGNATURE 	DATE SIGNED 11/07/2012



SCALE IN FEET

From USGS No. Kansas City MO-KS  
7.5 minute quadrangle map.



Figure 1  
SITE LOCATION MAP  
CCP - POLYESTER POWDER  
COATING PROJECT  
N. KANSAS CITY, MISSOURI

k:\p\l\reports\17\1701\plan\site\map.dwg

**BUILDING INDEX**

BLDG 1	PLANT OFFICES
BLDG 2	FINISHED PRODUCTS STORAGE AND SHIPPING AREA
BLDG 3	FINISHED PRODUCTS STORAGE AND SHIPPING AREA
BLDG 6	MAINTENANCE SPARE PARTS STORAGE
BLDG 7	MAINTENANCE
BLDG 8	MAINTENANCE
BLDG 9	PIPEFITTING SHOP
BLDG 10	MAINTENANCE OFFICE
BLDG 11A	MAINTENANCE LOCKER ROOM
BLDG 11	MAINTENANCE
BLDG 12	MISC. STORAGE
BLDG 15	FLAMMABLE LIQUID MAINTENANCE
BLDG 22	MISC. STORAGE IDLED (NO STORAGE)
BLDG 23	RAW MATERIAL STORAGE
BLDG 23 A	BOILER ROOM
BLDG 23 B	COMPRESSOR ROOM
BLDG 24	IDLED (NO STORAGE)
BLDG 25	GEL COAT BIG BATCH-PACKOUT IDLED
BLDG 26A	IDLED
BLDG 27	IDLED
BLDG 27D	IDLED
BLDG 29	IDLED
BLDG 30	IDLED
BLDG 37	GEL COAT SMALL BATCH PRODUCTION
<del>BLDG 40</del>	<del>DEMOLISHED</del>
<del>BLDG R40</del>	<del>DEMOLISHED</del>
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BLDG 51	CORPORATE OFFICES
BLDG 51A	LABORATORIES
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BLDG 53	TECHNOLOGY CENTER
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<del>BLDG 56</del>	<del>DEMOLISHED</del>
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BLDG 60	MAINTENANCE AREA PARTS STORAGE
BLDG 80	POWDER POLYESTER RESIN PRODUCTION BUILDING

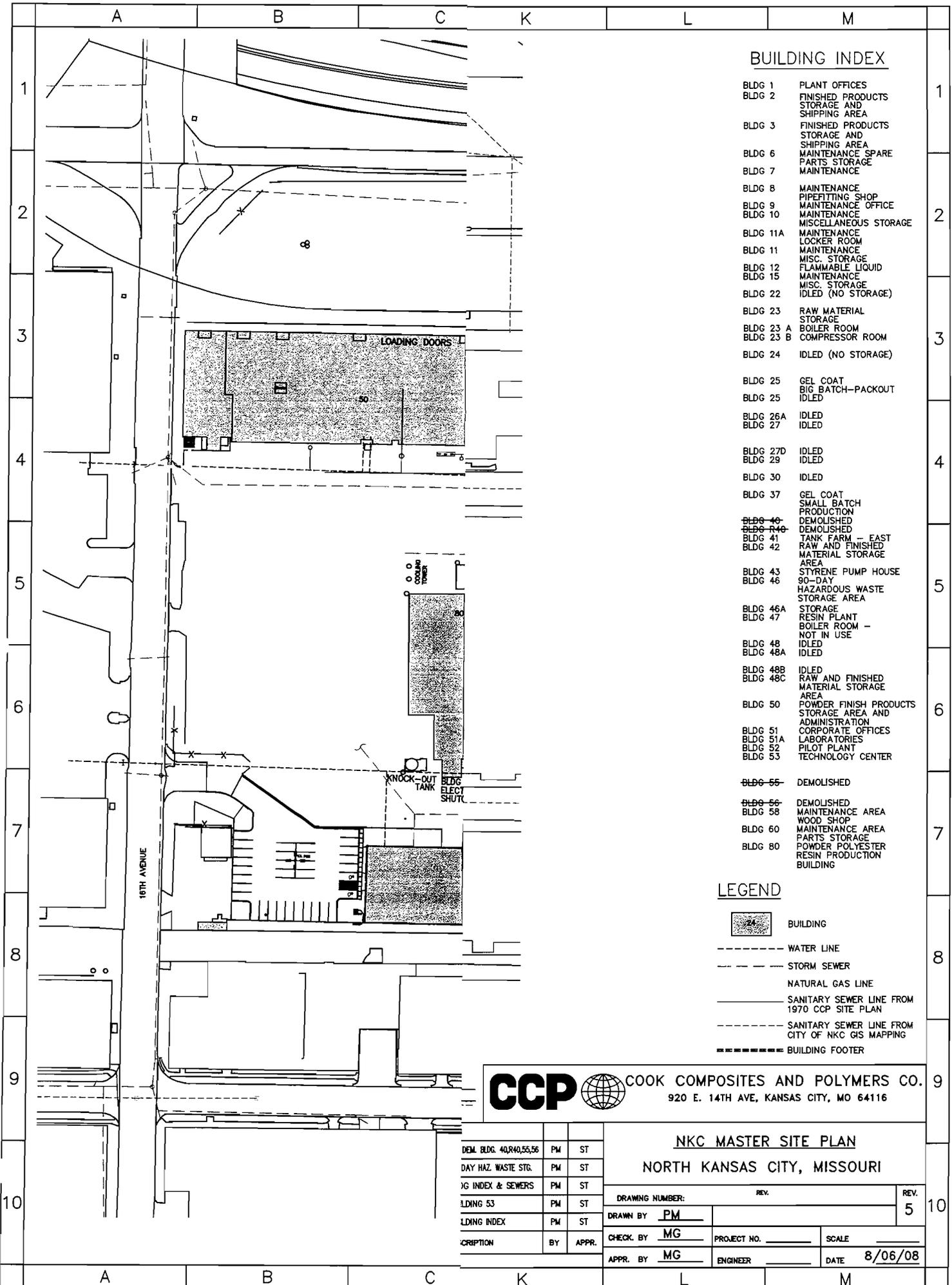
**LEGEND**

-  BUILDING
- WATER LINE
- - - - - STORM SEWER
- NATURAL GAS LINE
- SANITARY SEWER LINE FROM 1970 CCP SITE PLAN
- - - - - SANITARY SEWER LINE FROM CITY OF NKC GIS MAPPING
- BUILDING FOOTER

**CCP**  **COOK COMPOSITES AND POLYMERS CO.**  
 920 E. 14TH AVE, KANSAS CITY, MO 64116

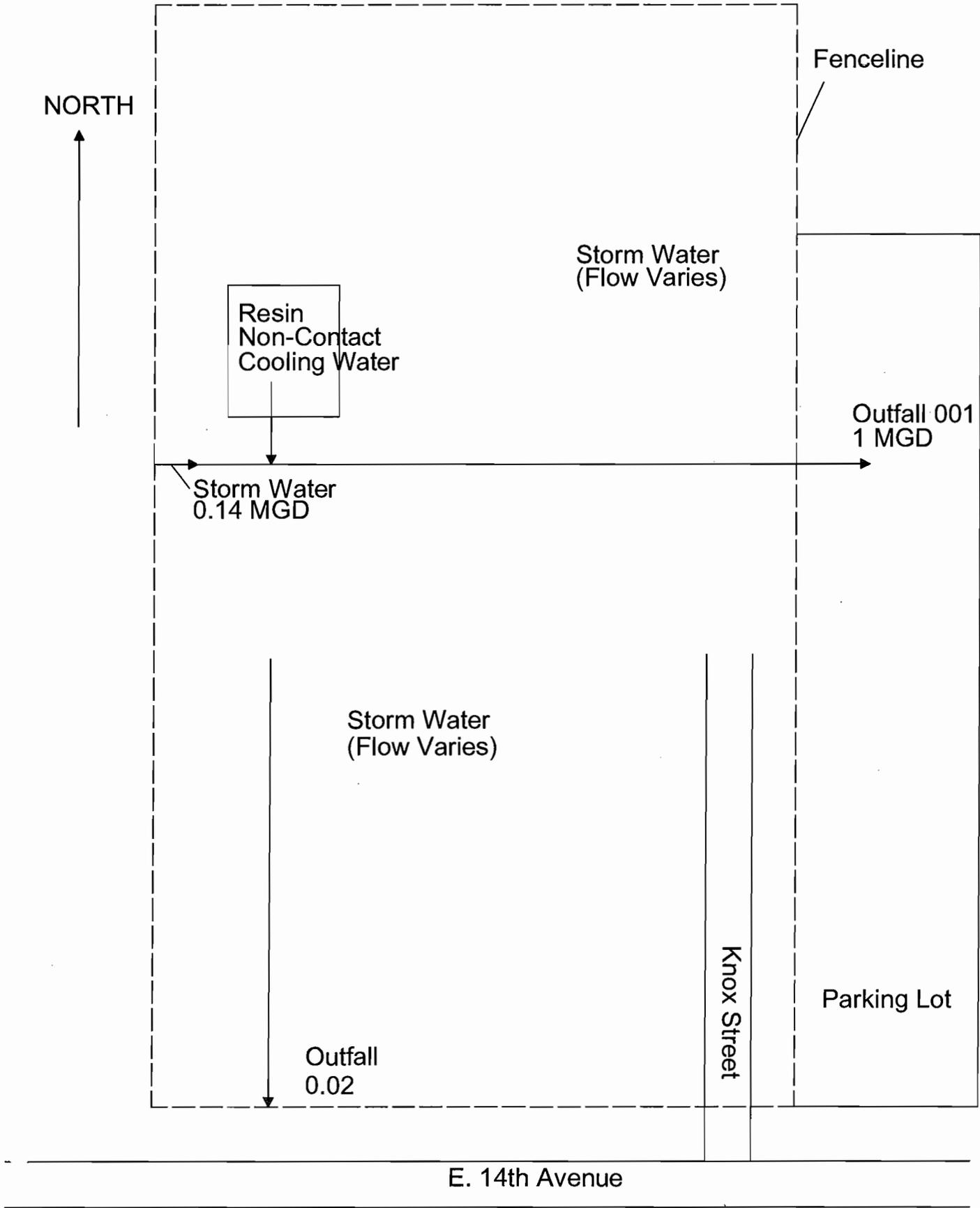
**NKC MASTER SITE PLAN**  
**NORTH KANSAS CITY, MISSOURI**

DEM. BLDG. 40,R40,55,56	PM	ST	DRAWING NUMBER: _____	REV. _____	REV. <b>5</b>
DAY HAZ. WASTE STG.	PM	ST			
CG INDEX & SEWERS	PM	ST	DRAWN BY <b>PM</b>		
BLDG 53	PM	ST	CHECK BY <b>MG</b>	PROJECT NO. _____	SCALE _____
BLDG INDEX	PM	ST	APPR. BY <b>MG</b>	ENGINEER _____	DATE <b>8/06/08</b>
DESCRIPTION	BY	APPR.			



# CCP Composites

## Storm Water and Non-Contact Cooling Water



## **Analytical Reports**

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Outfall 001 - Monitoring Results  
 Cook Composites and Polymers Co.  
 North Kansas City, MO

**Table 1. Storm Event - Discharge of Single-pass Non-contact Cooling Water & Storm Water**

Sample Name: OUTFALL-001	
Date Collected: 2/28/2007	
Sample Delivery Group: D7C020240	
Lab Number:	
Parameter	Units
Toxic Pollutants and Hazardous Substances (Table B Constituents)	
Methyl methacrylate	ug/L 7.90
Styrene	ug/L 5.60
Xylenes (total)	ug/L 0.71

**Table 2. Non-storm Event - Discharge of Single-pass Non-contact Cooling Water**

Sample Name: OUTFALL-001NSW	
Date Collected: 3/1/2007	
Sample Delivery Group: D7C020240	
Lab Number:	
Parameter	Units
Toxic Pollutants and Hazardous Substances (Table B Constituents)	
Methyl methacrylate	ug/L ND
Styrene	ug/L ND
Xylenes (total)	ug/L 32

**Table 3. Storm Event - Discharge of Single-pass Non-contact Cooling Water & Storm Water**

Sample Name: OUTFALL-001	
Date Collected: 2/28/2007	
Sample Delivery Group: D7C020240	
Lab Number:	
Parameter	Units
<b>Additional Constituents Believed Present</b>	
4-Methyl-2-pentanone (MIBK)	ug/L ND
cis-1,2-Dichloroethene	ug/L 9.30
Methyl-tert-butyl ether	ug/L 0.98
trans-1,2-Dichloroethene	ug/L 0.20
Trichloroethene	ug/L ND
1,4-Dioxane	ug/L 2.1

**Table 4. Non-storm Event - Discharge of Single-pass Non-contact Cooling Water**

Sample Name: OUTFALL-001NSW	
Date Collected: 3/1/2007	
Sample Delivery Group: D7C020240	
Lab Number:	
Parameter	Units
<b>Additional Constituents Believed Present</b>	
4-Methyl-2-pentanone (MIBK)	ug/L ND
cis-1,2-Dichloroethene	ug/L ND
Methyl-tert-butyl ether	ug/L ND
trans-1,2-Dichloroethene	ug/L ND
Trichloroethene	ug/L ND
1,4-Dioxane	ug/L 420

**Production Well**  
**Comprehensive Groundwater Monitoring Results**  
*Cook Composites and Polymers Co. - North Kansas City, Missouri*

Sample Name:		PRODWELL-1/GW00	PRODWELL-1/GW03	PRODWELL-1/GW04	PRODWELL-1/GW06
Date Collected:		3/7/2003	7/8/2005	12/22/2005	11/16/2006
Sample Delivery Group:		6068148	D5G120350	D5L240121	D6K180171
Lab Number:		605877091	D5G120350011	D5L240121014	D6K180171-004
Comments:					
Parameter	Units				
<b>Dissolved Metals</b>					
Arsenic, Filtered	ug/l	100 U	15 U	15 U	5.2 J
Barium, Filtered	ug/l	466	510	480	460
Cadmium, Filtered	ug/l	5 U	5 U	5 U	5 U
Chromium, Filtered	ug/l	5 U	10 U	10 U	10 U
Lead, Filtered	ug/l	5 U	3 U	3 U	9 U
Manganese, Filtered	ug/l	420	410	430	420
Mercury, Filtered	ug/l	0.2 U	0.2 U	0.2 U	0.2 U
Selenium, Filtered	ug/l	150 U R	15 U	15 U	15 U
Silver, Filtered	ug/l	7 U	10 U	10 U	10 U
<b>Total Metals</b>					
Arsenic, Total	ug/l	NA	15 U	15 U	15 U
Barium, Total	ug/l	NA	500	490	470
Cadmium, Total	ug/l	NA	5 U	5 U	5 U
Chromium, Total	ug/l	NA	10 U	10 U	10 U
Lead, Total	ug/l	NA	3.5	3 U	9 U
Manganese, Total	ug/l	NA	400	420	420
Mercury, Total	ug/l	NA	0.2 U	0.2 U	0.2 U
Selenium, Total	ug/l	NA	15 U	15 U J*	15 U
Silver, Total	ug/l	NA	10 U	10 U	10 U
<b>Semivolatile Organic Compounds</b>					
1,2,4-Trichlorobenzene	ug/l	11 U	NA	NA	NA
1,2-Dichlorobenzene	ug/l	11 U	NA	NA	NA
1,3-Dichlorobenzene	ug/l	11 U	NA	NA	NA
1,4-Dichlorobenzene	ug/l	11 U	NA	NA	NA
2,4,5-Trichlorophenol	ug/l	53 U	NA	NA	NA
2,4,6-Trichlorophenol	ug/l	11 U	NA	NA	NA
2,4-Dichlorophenol	ug/l	11 U	NA	NA	NA
2,4-Dimethylphenol	ug/l	11 U	NA	NA	NA
2,4-Dinitrophenol	ug/l	53 U	NA	NA	NA
2,4-Dinitrotoluene	ug/l	11 U	NA	NA	NA
2,6-Dinitrotoluene	ug/l	11 U	NA	NA	NA
2-Chloronaphthalene	ug/l	11 U	NA	NA	NA
2-Chlorophenol	ug/l	11 U	NA	NA	NA
2-Methylnaphthalene	ug/l	11 U	NA	NA	NA
2-Methylphenol (o-Cresol)	ug/l	11 U	NA	NA	NA
2-Nitroaniline	ug/l	53 U	NA	NA	NA
2-Nitrophenol	ug/l	11 U	NA	NA	NA
3,3'-Dichlorobenzidine	ug/l	21 U	NA	NA	NA
3-Methylphenol (m-Cresol)	ug/l	21 U	NA	NA	NA
3-Nitroaniline	ug/l	53 U	NA	NA	NA
4,6-Dinitro-2-methylphenol	ug/l	53 U	NA	NA	NA
4-Bromophenylphenyl ether	ug/l	11 U	NA	NA	NA
4-Chloro-3-methylphenol	ug/l	21 U	NA	NA	NA
4-Chloroaniline	ug/l	21 U	NA	NA	NA
4-Chlorophenylphenyl ether	ug/l	11 U	NA	NA	NA
4-Methylphenol (p-Cresol)	ug/l	11 U	NA	NA	NA
4-Nitroaniline	ug/l	53 U	NA	NA	NA
4-Nitrophenol	ug/l	53 U	NA	NA	NA
Acenaphthene	ug/l	11 U	NA	NA	NA
Acenaphthylene	ug/l	11 U	NA	NA	NA

**Production Well**  
**Comprehensive Groundwater Monitoring Results**  
*Cook Composites and Polymers Co. - North Kansas City, Missouri*

Sample Name:		PRODWELL-1/GW00	PRODWELL-1/GW03	PRODWELL-1/GW04	PRODWELL-1/GW05
Date Collected:		3/7/2003	7/8/2005	12/22/2006	11/16/2006
Sample Delivery Group:		6068148	D5G120350	D5L240121	D6K180171
Lab Number:		605877091	D5G120350011	D5L240121014	D6K180171-004
Comments:					
Parameter	Units				
<b>Semivolatile Organic Compounds (continued)</b>					
Anthracene	ug/l	11 U	NA	NA	NA
Benzo(a)anthracene	ug/l	11 U	NA	NA	NA
Benzo(a)pyrene	ug/l	11 U	NA	NA	NA
Benzo(b)fluoranthene	ug/l	11 U	NA	NA	NA
Benzo(g,h,i)perylene	ug/l	11 U	NA	NA	NA
Benzo(k)fluoranthene	ug/l	11 U	NA	NA	NA
Benzoic acid	ug/l	53 U	NA	NA	NA
Benzyl alcohol	ug/l	21 U	NA	NA	NA
bis(2-Chloroethoxy)methane	ug/l	11 U	NA	NA	NA
bis(2-Chloroethyl)ether	ug/l	11 U	NA	NA	NA
bis(2-Chloroisopropyl)ether	ug/l	11 U	NA	NA	NA
bis(2-Ethylhexyl)phthalate	ug/l	11 U	NA	NA	NA
Butylbenzylphthalate	ug/l	11 U	NA	NA	NA
Chrysene	ug/l	11 U	NA	NA	NA
Di-n-butylphthalate	ug/l	11 U	NA	NA	NA
Di-n-octylphthalate	ug/l	11 U	NA	NA	NA
Dibenz(a,h)anthracene	ug/l	11 U	NA	NA	NA
Dibenzofuran	ug/l	11 U	NA	NA	NA
Diethylphthalate	ug/l	11 U	NA	NA	NA
Dimethylphthalate	ug/l	11 U	NA	NA	NA
Fluoranthene	ug/l	11 U	NA	NA	NA
Fluorene	ug/l	11 U	NA	NA	NA
Hexachlorobenzene	ug/l	11 U	NA	NA	NA
Hexachlorobutadiene	ug/l	11 U	NA	NA	NA
Hexachlorocyclopentadiene	ug/l	11 U	NA	NA	NA
Hexachloroethane	ug/l	11 U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	ug/l	11 U	NA	NA	NA
Isophorone	ug/l	11 U	NA	NA	NA
N-Nitroso-di-n-propylamine	ug/l	11 U	NA	NA	NA
N-Nitrosodiphenylamine	ug/l	11 U	NA	NA	NA
Naphthalene	ug/l	11 U	NA	NA	NA
Nitrobenzene	ug/l	11 U	NA	NA	NA
Pentachlorophenol	ug/l	53 U	NA	NA	NA
Phenanthrene	ug/l	11 U	NA	NA	NA
Phenol	ug/l	11 U	NA	NA	NA
Pyrene	ug/l	11 U	NA	NA	NA
<b>Volatile / Semivolatile Organic Compound</b>					
1,4-Dioxane	ug/l	100 U	1.4	3.5	4.2 J*
<b>Volatile Organic Compounds</b>					
1,1,1-Trichloroethane	ug/l	1 U	2.5 U	1 U	1 U
1,1,2,2-Tetrachloroethane	ug/l	1 U	2.5 U	1 U	1 U
1,1,2-Trichloroethane	ug/l	1 U	2.5 U	1 U	1 U
1,1-Dichloroethane	ug/l	1 U	2.5 U	0.33 J	0.32 J
1,1-Dichloroethene	ug/l	1 U	2.5 U	1 U	1 U
1,2-Dibromoethane (EDB)	ug/l	1 U	2.5 U	1 U	1 U
1,2-Dichloroethane	ug/l	1 U	2.5 U	1 U	1 U
1,2-Dichloropropane	ug/l	1 U	2.5 U	1 U	1 U
2-Butanone (MEK)	ug/l	10 U	12 U	5 U	5 U
2-Hexanone	ug/l	10 U	12 U	5 U	5 U
4-Methyl-2-pentanone (MIBK)	ug/l	10 U	12 U	5 U	1.1 J

**Production Well**  
**Comprehensive Groundwater Monitoring Results**  
*Cook Composites and Polymers Co. - North Kansas City, Missouri*

Sample Name:		PRODWELL-1/GW00	PRODWELL-1/GW03	PRODWELL-1/GW04	PRODWELL-1/GW05
Date Collected:		3/7/2003	7/8/2006	12/22/2006	11/16/2006
Sample Delivery Group:		6068148	D5G120350	D6L240121	D6K180171
Lab Number:		605877091	D5G120350011	D5L240121014	D6K180171-004
Comments:					
Parameter	Units				
<b>Volatile Organic Compounds (continued)</b>					
Acetone	ug/l	10 U J*	25 U	4.4 J U*	10 U
Benzene	ug/l	1 U	2.5 U	1 U	1 U
Bromodichloromethane	ug/l	1 U	2.5 U	1 U	1 U
Bromoform	ug/l	1 U	2.5 U	1 U	1 U
Bromomethane	ug/l	1 U	5 U	2 U	2 U
Carbon disulfide	ug/l	5 U	2.5 U	1 U	1 U
Carbon tetrachloride	ug/l	1 U	2.5 U	1 U	1 U
Chlorobenzene	ug/l	1 U	2.5 U	1 U	1 U
Chloroethane	ug/l	1 U	5 U	2 U	2 U
Chloroform	ug/l	1 U	2.5 U	1 U	1 U
Chloromethane	ug/l	1 U J*	5 U	2 U	2 U J*
cis-1,2-Dichloroethene	ug/l	31	66	48	51
cis-1,3-Dichloropropene	ug/l	1 U	2.5 U	1 U	1 U
Dibromochloromethane	ug/l	1 U	2.5 U	1 U	1 U
Ethylbenzene	ug/l	1 U	1.8 J	1 U	1 U
Methyl-tert-butyl ether	ug/l	1.1	3.1 J	5 U	2.9 J
Methylene chloride	ug/l	1 U	12 U	0.36 JB U*	0.56 J U*
Styrene	ug/l	1 U	2.5 U	1 U	1 U
Tetrachloroethene	ug/l	1 U	2.5 U	1 U	1 U
Toluene	ug/l	1 U	2.5 U	0.4 J U*	0.18 J U*
trans-1,2-Dichloroethene	ug/l	1	1.8 J	1.5	1.2
trans-1,3-Dichloropropene	ug/l	1 U	2.5 U	1 U	1 U
Trichloroethene	ug/l	1 U	0.65 J	0.28 J	1 U
Vinyl chloride	ug/l	1 U	1.4 J	0.88 J	0.53 J
Xylenes (total)	ug/l	3 U	1.4 J	2 U	2 U

**Bold** = Compound was detected.

ug/l = micrograms per liter

B = Compound was detected in associated lab method blank.

J = Compound was detected below the lab's reporting limit.

J\* = Estimated value. Result was estimated during review during to potential bias.

NA = Not Analyzed

R = Qualified as rejected during the data review.

U = Compound was not detected. Value is the reporting limit.

U\* = Compound was not detected. Disregarded as false positive during the data review.

**Sample:** 050404001-01      **Facility ID:** \_\_\_\_\_      **Site:** \_\_\_\_\_      **Cooks Composites**  
**Customer #:** 0500674      **County:** Clay      **Collector:** Doug Thompson      **Affiliation:** ESP      **Collected Date:** 4/12/05  
**Matrix:** Nonpotable Water      **Sample Comment:** Discharge into manhole 29-24.      **Collected Time:** 2:15 PM

Test	Parameter	Result	Qualifier	Units	QC BatchID	Method
VOAs	Methylmethacrylate	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Methyl-t-butyl ether	2.56		ug/L	Q50405-03VOA	8260B
VOAs	Naphthalene	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	n-Butylbenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Nitrobenzene	5.00	ND	ug/L	Q50405-03VOA	8260B
VOAs	n-Propylbenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	o-Xylene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Perchloroethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	p-Isopropyltoluene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Propionitrile	10.0	ND	ug/L	Q50405-03VOA	8260B
VOAs	sec-Butylbenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Styrene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	tert-Butylbenzene	1.00	ND	ug/L	Q50405-03VOA	8260B
VOAs	Tetrachloroethene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Tetrahydrofuran	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Toluene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Total Xylenes	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	trans-1,2-Dichloroethene	1.06	ND	ug/L	Q50405-03VOA	8260B
VOAs	trans-1,3-Dichloropropene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	trans-1,4-Dichloro-2-butene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Trichloroethene	0.69	05	ug/L	Q50405-03VOA	8260B
VOAs	Trichlorofluoromethane	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Vinyl Chloride	0.56	05	ug/L	Q50405-03VOA	8260B
Zn	Zinc	11.6		ug/L	Q50405-03VOA	SW 846 6020 (ICP-MS)

**Sample:** 050404001-02      **Facility ID:** \_\_\_\_\_      **Site:** \_\_\_\_\_      **Cooks Composites**  
**Customer #:** 0500675      **County:** Clay      **Collector:** Doug Thompson      **Affiliation:** ESP      **Collected Date:** 4/12/05  
**Matrix:** Nonpotable Water      **Sample Comment:** CCP outfall #1.      **Collected Time:** \_\_\_\_\_

Test	Parameter	Result	Qualifier	Units	QC BatchID	Method
Aluminum	Aluminum	3.10	05	ug/L	Q50405-03	SW 846 6020 (ICP-MS)
Ammonia as N	Ammonia as N	0.62		mg/L	Q50405-03	EPA 350.1
Antimony	Antimony	0.25	ND	ug/L	Q50405-03	SW 846 6020 (ICP-MS)

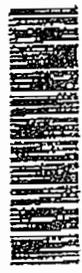


Sample: 050404001-02 Facility ID: Cookies Composites Site: Collect Date: 4/12/2005

Customer #: 0500675 County: Clay Collector: Doug Thompson Affiliation: ESP Collect Time:

Matrix: Nonpotable Water Sample Comment: CCP outfall #1

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
02	Arsenic-Total in Water	1.00	ND	ug/L		SW 846 6020 (ICP-MS)
00	Barium-Total in Water	390		ug/L		SW 846 6020 (ICP-MS)
00	Beryllium-Total in Water	0.25	ND	ug/L		SW 846 6020 (ICP-MS)
00	Boron-Total in Water	147		ug/L		SW 846 6020 (ICP-MS)
00	Cadmium-Total in Water	0.25	ND	ug/L		SW 846 6020 (ICP-MS)
00	Calcium	119		mg/L		SW 846 60108 (ICP)
00	Chemical Oxygen Demand	16.0		mg/L	Q50429-03	SM 5250-D
00	Chromium-Total in Water	0.28	05	ug/L		SW 846 6020 (ICP-MS)
00	Cobalt-Total in Water	1.00	ND	ug/L		SW 846 6020 (ICP-MS)
00	Copper-Total in Water	1.89		ug/L		SW 846 6020 (ICP-MS)
00	Field pH	7.80		pH Units		EPA 150.1
00	Field Specific Conductivity	1020		umhos/cm		SM 2510
00	Field Temperature	16.5		degrees C		EPA 170.1
00	Iron-Total in Water	0.88707		ug/L		SW 846 60108 (ICP)
00	Lead-Total in Water	0.25	ND	ug/L		SW 846 6020 (ICP-MS)
00	Lithium-Total in Water	30.4		ug/L		SW 846 60108 (ICP)
00	Magnesium-Total in Water	29.1		mg/L		SW 846 6020 (ICP-MS)
00	Manganese-Total in Water	326		ug/L		SW 846 6020 (ICP-MS)
00	Mercury-Total in Water	0.20	ND	ug/L		SW 846 6020 (ICP-MS)
00	Molybdenum-Total in Water	2.00	ND	ug/L		SW 846 6020 (ICP-MS)
00	Nickel-Total in Water	1.26		ug/L		SW 846 6020 (ICP-MS)
00	Non-Filterable Residue	13.0		mg/L	Q50413-02mh	SM 2540-D
00	Oil and Grease	1.00	ND	mg/L		1564
00	Potassium-Total in Water	7.22		mg/L		SW 846 60108 (ICP)
00	Selenium-Total in Water	1.00	ND	ug/L		SW 846 6020 (ICP-MS)
00	Silver-Total in Water	0.25	ND	ug/L		SW 846 6020 (ICP-MS)
00	Sodium-Total in Water	43.3		mg/L		SW 846 60108 (ICP)
00	Strontium-Total in Water	787		ug/L		SW 846 6020 (ICP-MS)
00	Thallium-Total in Water	0.25	ND	ug/L		SW 846 6020 (ICP-MS)
00	Tin-Total in Water	2.08	ND	ug/L		SW 846 6020 (ICP-MS)
00	Titanium-Total in Water	5.00	ND	ug/L		SW 846 6020 (ICP-MS)
00	Vanadium-Total in Water	2.00	ND	ug/L		SW 846 6020 (ICP-MS)
00	VOAs	1,1,2-Tetrachloroethane	ND	ug/L	Q50405-03VOA	8260B
00	VOAs	1,1,1-Trichloroethane	ND	ug/L	Q50405-03VOA	8260B
00	VOAs	1,1,2,2-Tetrachloroethane	ND	ug/L	Q50405-03VOA	8260B



**Sample:** 050404001-02 **Facility ID:** \_\_\_\_\_ **Site:** Cook's Composites  
**Customer #:** 0500675 **County:** Clay **Collector:** Doug Thompson **Affiliation:** ESP  
**Matrix:** Nonpolar Water **Sample Comment:** CCP outfall #1

**Collect Date:** 4/12/05  
**Collect Time:** \_\_\_\_\_

Test	Parameter	Result	Qualifier	Units	QC BatchID	Method
VOAs	1,1,2-Trichloroethane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,1-Dichloroethane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,1-Dichloroethane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,1-Dichloropropane	1.00	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,1-Dichloropropane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,2,3-Trichlorobenzene	2.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,2,3-Trichloropropane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,2,4-Trichlorobenzene	2.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,2,4-Trimethylbenzene	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,2-Dibromo-3-chloropropane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,2-Dibromoethane (BDEB)	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,2-Dichlorobenzene	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,2-Dichloroethane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,2-Dichloropropane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,3,5-Trimethylbenzene	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,3-Dichlorobenzene	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,3-Dichloropropane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1,4-Dichlorobenzene	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	1-Chlorobutane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	2,2-Dichloropropane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	2-Butanone (MEK)	2.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	2-Chlorotoluene	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	2-Hexanone	1.00	ND	ug/L	Q50405-03VOA	B260B
VOAs	2-Nitropropane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	4-Chlorotoluene	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	4-Methyl-2-pentanone (MIBK)	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	acetone	10.0	ND	ug/L	Q50405-03VOA	B260B
VOAs	Acetonitrile	1.00	ND	ug/L	Q50405-03VOA	B260B
VOAs	Allyl Chloride	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	Benzene	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	Bromobenzene	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	Bromochloromethane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	Bromodichloromethane	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	Bromotribrom	0.50	ND	ug/L	Q50405-03VOA	B260B
VOAs	Bromomethane	2.50	ND	ug/L	Q50405-03VOA	B260B

**Sample:** 050404001-02      **Facility ID:**      **Site:**      **Cooks Composites**  
**Customer #:** 0500675      **County:** Clay      **Collector:** Doug Thompson      **Affiliation:** ESP  
**Matrix:** Nonpotable Water      **Sample Comment:** CCP outfall #1.

**Collect Date:** 4/12/05  
**Collect Time:**

Test	Parameter	Result	Qualifier	Units	QC BatchID	Method
VOAS	Carbon disulfide	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Carbon Tetrachloride	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Chloroacetonitrile	10.0	ND	ug/L	Q50405-03VOA	8260B
VOAS	Chlorobenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Chloroethane	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Chloroform	0.71	Q5	ug/L	Q50405-03VOA	8260B
VOAS	Chloromethane	10.0	ND	ug/L	Q50405-03VOA	8260B
VOAS	cis-1,2-dichloroethane	55.3	ND	ug/L	Q50405-03VOA	8260B
VOAS	cis-1,3-Dichloropropene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Dibromochloromethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Dibromomethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Dibromodifluoromethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Diethyl ether	10.0	ND	ug/L	Q50405-03VOA	8260B
VOAS	Ethylbenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Ethylmethacrylate	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Hexachlorobutadiene	1.00	ND	ug/L	Q50405-03VOA	8260B
VOAS	Hexachloroethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Iodomethane	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Isopropylbenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	m,p-Xylenes	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Methacrylonitrile	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Methyl Acrylate	5.00	ND	ug/L	Q50405-03VOA	8260B
VOAS	Methylene chloride	10.0	ND	ug/L	Q50405-03VOA	8260B
VOAS	Methylmethacrylate	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Methyl-t-butyl ether	2.51	ND	ug/L	Q50405-03VOA	8260B
VOAS	Naphthalene	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	n-Butylbenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Nitrobenzene	5.00	ND	ug/L	Q50405-03VOA	8260B
VOAS	n-Propylbenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	o-Xylene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Pentachloroethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	p-Isopropyltoluene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Propionitrile	10.0	ND	ug/L	Q50405-03VOA	8260B
VOAS	sec-Butylbenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Styrene	0.50	ND	ug/L	Q50405-03VOA	8260B

**Sample: 050404001-02**      Facility ID: \_\_\_\_\_      Site: \_\_\_\_\_      Cooks Composites  
**Customer #: 0500675**      County: Clay      Collector: Doug Thompson      Affiliation: ESP      Collect Date: 4/12/05  
 Matrix: Nonpolar Water      Sample Comment: CCP outfall #1.      Collect Time: \_\_\_\_\_

Test	Parameter	Result	Qualifier	Units	QC BatchID	Method
VOAS	tert-Butylbenzene	1.00	ND	ug/L	Q50405-03VOA	8260B
VOAS	Tetrachloroethene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Tetrahydrofuran	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Toluene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Total Xylenes	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	trans-1,2-Dichloroethene	1.35	ND	ug/L	Q50405-03VOA	8260B
VOAS	trans-1,3-Dichloropropene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	trans-1,4-Dichloro-2-butene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Trichloroethene	0.97	05	ug/L	Q50405-03VOA	8260B
VOAS	Trichlorofluoromethane	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAS	Vinyl Chloride	1.14	ND	ug/L	Q50405-03VOA	8260B
Zinc	Zinc	19.5		ug/L		SW 846 6020 (ICP-MS)

**Sample: 050404001-03**      Facility ID: \_\_\_\_\_      Site: \_\_\_\_\_      Cooks Composites  
**Customer #: 0500675**      County: Clay      Collector: Doug Thompson      Affiliation: ESP      Collect Date: 4/12/05  
 Matrix: Nonpolar Water      Sample Comment: CCP production well      Collect Time: 3:30 PM

Test	Parameter	Result	Qualifier	Units	QC BatchID	Method
Aluminum	Aluminum	2.13	05	ug/L		SW 846 6020 (ICP-MS)
Ammonia as N	Ammonia as N	0.74		mg/L	Q50408-03	EPA 350.1
Antimony	Antimony	0.25	ND	ug/L		SW 846 6020 (ICP-MS)
Arsenic	Arsenic	1.00	ND	ug/L		SW 846 6020 (ICP-MS)
Barium	Barium	446		ug/L		SW 846 6020 (ICP-MS)
Beryllium	Beryllium	0.25	ND	ug/L		SW 846 6020 (ICP-MS)
Boron	Boron	151		ug/L		SW 846 6020 (ICP-MS)
Cadmium	Cadmium	0.25	ND	ug/L		SW 846 6020 (ICP-MS)
Calcium	Calcium	133		mg/L		SW 846 60108 (ICP)
Chemical Oxygen Demand	Chemical Oxygen Demand	11.0		mg/L	Q50429-03	SM 5220-D
Chromium	Chromium	1.29		ug/L		SW 846 6020 (ICP-MS)
Cobalt	Cobalt	1.00	ND	ug/L		SW 846 6020 (ICP-MS)
Copper	Copper	4.45		ug/L		SW 846 6020 (ICP-MS)
pH	pH	7.00		pH Units		EPA 150.1
Field Specific Conductivity	Specific Conductivity	1090		umhos/cm		SM 2510



**Sample:** 050404001-03 **Facility ID:** \_\_\_\_\_ **Site:** Cooks Composites  
**Customer #:** 0500676 **County:** Clay **Collector:** Doug Thompson **Affiliation:** ESP  
**Matrix:** Nonpotable Water **Sample Comment:** CCP production well.

**Collect Date:** 4/1/2005  
**Collect Time:** 3:30 PM

Test	Parameter	Result	Qualifier	Units	QC BatchID	Method
Field Temperature	Temperature	16.7		degrees C		EPA 170.1
Iron-Total In Water	Iron	11200		ug/L		SW 846 6010B (ICP)
Lead-Total In Water	Lead	1.89		ug/L		SW 846 6020 (ICP-MS)
Lithium-Total In Water	Lithium	31.1		ug/L		SW 846 6010B (ICP)
Magnesium-Total In Water	Magnesium	31.1		mg/L		SW 846 6010B (ICP)
Manganese-Total In Water	Manganese	370		ug/L		SW 846 6020 (ICP-MS)
Mercury-Total In Water	Mercury	0.29	ND	ug/L		SW 846 6020 (ICP-MS)
Molybdenum-Total In Water	Molybdenum	2.00	ND	ug/L		SW 846 6020 (ICP-MS)
Nickel-Total In Water	Nickel	1.83		ug/L		SW 846 6020 (ICP-MS)
Non-Filterable Residue	Non-Filterable Residue	20.0		mg/L	Q50413-02nr	SM 2540-D
Oil And Grease	Oil and Grease	11.3		mg/L		1684
Potassium-Total In Water	Potassium	7.25		mg/L		SW 846 6010B (ICP)
Selenium-Total In Water	Selenium	1.00	ND	ug/L		SW 846 6020 (ICP-MS)
Silver-Total In Water	Silver	0.25	ND	ug/L		SW 846 6020 (ICP-MS)
Sodium-Total In Water	Sodium	43.0		mg/L		SW 846 6010B (ICP)
Strontium-Total In Water	Strontium	872		ug/L		SW 846 6020 (ICP-MS)
Thallium-Total In Water	Thallium	0.25	ND	ug/L		SW 846 6020 (ICP-MS)
Tin-Total In Water	Tin	2.00	ND	ug/L		SW 846 6020 (ICP-MS)
Titanium-Total In Water	Titanium	5.00	ND	ug/L		SW 846 6020 (ICP-MS)
Vanadium-Total In Water	Vanadium	2.00	ND	ug/L		SW 846 6020 (ICP-MS)
VOAs	1,1,1,2-Tetrachloroethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,1,1-Trichloroethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,1,2,2-Tetrachloroethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,1,2-Trichloroethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,1-Dichloroethane	0.52	65	ug/L	Q50405-03VOA	8260B
VOAs	1,1-Dichloroethene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,1-Dichloropropane	1.00	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,1-Dichloropropene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,2,3-Trichlorobenzene	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,2,3-Trichloropropene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,2,4-Trichlorobenzene	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,2,4-Trimethylbenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,2-Dibromo-3-chloropropane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,2-Dibromoethane (EDB)	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,2-Dichlorobenzene	0.50	ND	ug/L	Q50405-03VOA	8260B



14:52  
 14:52  
 JUN-04-2007

**Sample:** 050404001-03      **Facility ID:**      **Site:**      **Cooks Composites**  
**Customer #:** 0500678      **County:** Clay      **Collector:** Doug Thompson      **Affiliation:** ESP  
**Matrix:** Nonpliable Water      **Sample Comment:** CCP production well.

**Collect Date:** 4/12/05  
**Collect Time:** 3:30 PM

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
VOAs	1,2-Dichloroethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,2-Dichloropropane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,3,5-Trimethylbenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,3-Dichlorobenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,3-Dichloropropane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,4-Dichlorobenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1-Chlorobutane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	2,2-Dichloropropane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	2-Butanone (MEK)	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	2-Chlorobutene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	2-Hexanone	1.00	ND	ug/L	Q50405-03VOA	8260B
VOAs	2-Nitropropane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	4-Chlorotoluene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	4-Methyl-2-pentanone (MIBK)	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	acetone	10.0	ND	ug/L	Q50405-03VOA	8260B
VOAs	Arylonitrile	1.00	ND	ug/L	Q50405-03VOA	8260B
VOAs	Allyl Chloride	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Benzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Bromobenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Bromochloromethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Bromochloromethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Bromoforn	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Bromomethane	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Carbon disulfide	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Carbon Tetrachloride	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Chlorobenzene	10.0	ND	ug/L	Q50405-03VOA	8260B
VOAs	Chlorobenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Chloroethane	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Chloroform	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Chloromethane	10.0	ND	ug/L	Q50405-03VOA	8260B
VOAs	cis-1,2-dichloroethene	78.0	ND	ug/L	Q50405-03VOA	8260B
VOAs	cis-1,3-Dichloropropene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Dibromochloromethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Dibromomethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Dichlorodifluoromethane	0.50	ND	ug/L	Q50405-03VOA	8260B



Sample: 050404001-03      Facility ID:      Site:      Cooks Composites  
 Customer #: 0500676      County: Clay      Collector: Doug Thompson      Affiliation: ESP  
 Matrix: Nonpolar Water      Sample Comment: CCP production well.

Collect Date: 4/1/2005  
 Collect Time: 3:30 PM

Test	Parameter	Result	Qualifier	Units	QC BatchID	Method
VOAs	1,2-Dichloroethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,2-Dichloropropane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,3,5-Trifluorobenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,3-Dichlorobenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,3-Dichloropropane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1,4-Dichlorobenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	1-Chlorobutane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	2,2-Dichloropropane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	2-Butanone (MEK)	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	2-Chlorotoluene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	2-Hexanone	1.00	ND	ug/L	Q50405-03VOA	8260B
VOAs	2-Nitropropane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	4-Chlorotoluene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	4-Methyl-2-pentanone(MIBK)	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	acetone	10.0	ND	ug/L	Q50405-03VOA	8260B
VOAs	Acrylonitrile	1.00	ND	ug/L	Q50405-03VOA	8260B
VOAs	Allyl Chloride	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Benzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Bromobenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Bromochloromethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Bromodichloromethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Bromoforn	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Bromomethane	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Carbon disulfide	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Carbon Tetrachloride	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Chloroacetonitrile	0.0	ND	ug/L	Q50405-03VOA	8260B
VOAs	Chlorobenzene	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Chloroethane	2.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Chloroform	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Chloromethane	10.0	ND	ug/L	Q50405-03VOA	8260B
VOAs	cis-1,2-dichloroethene	78.0	ND	ug/L	Q50405-03VOA	8260B
VOAs	cis-1,3-Dichloropropane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Dibromochloromethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Dibromomethane	0.50	ND	ug/L	Q50405-03VOA	8260B
VOAs	Dichlorodifluoromethane	0.50	ND	ug/L	Q50405-03VOA	8260B





**STL**

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Arvada, CO 80002

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[www.stl-inc.com](http://www.stl-inc.com)

**ANALYTICAL REPORT**

**Project: NPDES Permit Renewal - NKC**

STL Denver Lot #: D7C020240

Jon Schuckman

Cook Composites and Polymers, Inc.  
820 E. 14<sup>th</sup> Street  
North Kansas City, MO 64116

A handwritten signature in black ink, appearing to read "P. McEntee", with a long horizontal line extending to the right.

Patrick J. McEntee  
Project Manager

March 19, 2007

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## *Standard Deliverables*

### Report Contents

### Total Number of Pages

#### **Standard Deliverables**

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- Table of Contents
- Case Narrative
- Executive Summary – Detection Highlights
- Methods Summary
- Method/Analyst Summary
- Lot Sample Summary
- Analytical Results
- QC Data Association Summary
- Chain-of-Custody

## Case Narrative

The results included in this report have been reviewed for compliance with STL's Quality Assurance/Quality Control (QA/QC) plan. The test results shown in this report meet all requirements of NELAC and any exceptions are noted below.

This report may include data with reporting limits (RLs) less than STL's standard reporting limit. These data and reporting limits are being used specifically to meet the needs of this project. Note that, data are not customarily reported to these levels without qualifiers, because they are inherently less reliable and potentially less defensible than the latest industry standards require.

Dilution factors and footnotes have been provided to assist in the interpretation of the results. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interferences or analytes present at concentrations above the linear calibration curve, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the analytical methods summary page in accordance with the methods indicated. A summary of quality control parameters is provided below.

This report shall not be reproduced except in full, without the written approval of the laboratory.

### Quality Control Summary for Lot D7C020240

#### Sample Receiving

STL Denver received two aqueous samples and a trip blank on March 2, 2007.

The cooler temperature at receipt was acceptable at 0.2°C.

All sample containers were received intact.

The 1,4-Dioxane analysis was performed at Aerotech Environmental Laboratories, Inc., 4645 E. Cotton Center Blvd., Building 3, Suite 189, Phoenix, AZ, 85040, (866) 772-5227. The 1,4 Dioxane report is presented in it's entirety and inserted after the metals results.

#### Holding Times

All samples were analyzed within prescribed holding times.

#### Method SW846 8260B, GC/MS Volatile Organic Analysis

Laboratory generated MS/MSD analysis data have been provided. The MS/MSD exhibited spike compound RPD outside the QC limits. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

#### Method MCAWW 200.7, Total Metals Analysis

No anomalies were observed.

# EXECUTIVE SUMMARY - Detection Highlights

D7C020240

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
OUTFALL-001 02/28/07 19:50 001				
Arsenic	14 B	15	ug/L	MCAWW 200.7
Barium	460	10	ug/L	MCAWW 200.7
Lead	220	9.0	ug/L	MCAWW 200.7
Manganese	780	10	ug/L	MCAWW 200.7
cis-1,2-Dichloroethene	9.3	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	0.20 J	1.0	ug/L	SW846 8260B
Ethylbenzene	0.50 J	1.0	ug/L	SW846 8260B
Methyl methacrylate	7.9	4.0	ug/L	SW846 8260B
Methyl tert-butyl ether	0.98 J	5.0	ug/L	SW846 8260B
Styrene	5.6	1.0	ug/L	SW846 8260B
Xylenes (total)	0.71 J	2.0	ug/L	SW846 8260B
OUTFALL-001NSW 03/01/07 10:00 003				
Barium	47	10	ug/L	MCAWW 200.7
Lead	8.1 B	9.0	ug/L	MCAWW 200.7
Manganese	42	10	ug/L	MCAWW 200.7
Ethylbenzene	8.9	1.0	ug/L	SW846 8260B
Xylenes (total)	32	2.0	ug/L	SW846 8260B

## METHODS SUMMARY

D7C020240

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Inductively Coupled Plasma (ICP) Metals	MCAWW 200.7	MCAWW 200.7
Volatile Organics by GC/MS	SW846 8260B	SW846 5030B/826

### References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",  
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical  
Methods", Third Edition, November 1986 and its updates.

## METHOD / ANALYST SUMMARY

D7C020240

<u>ANALYTICAL METHOD</u>	<u>ANALYST</u>	<u>ANALYST ID</u>
MCAWW 200.7	Lynn-Anne Trudell	6645
SW846 8260B	Greg Meier	006004

### References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",  
EPA-600/4-79-020, March 1983 and subsequent revisions.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical  
Methods", Third Edition, November 1986 and its updates.

# SAMPLE SUMMARY

D7C020240

VO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
JQEFH	001	OUTFALL-001	02/28/07	19:50
JQEFM	002	TRIP BLANK	02/28/07	
JQEFQ	003	OUTFALL-001NSW	03/01/07	10:00

## NOTE(S) :

The analytical results of the samples listed above are presented on the following pages.

All calculations are performed before rounding to avoid round-off errors in calculated results.

Results noted as "ND" were not detected at or above the stated limit.

This report must not be reproduced, except in full, without the written approval of the laboratory.

Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, lagers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Cook Composites & Polymers

Client Sample ID: OUTFALL-001

GC/MS Volatiles

Lot-Sample #...: D7C020240-001 Work Order #...: JOEFH1AG Matrix.....: WATER  
 Date Sampled...: 02/28/07 19:50 Date Received...: 03/02/07  
 Prep Date.....: 03/14/07 Analysis Date...: 03/14/07  
 Prep Batch #...: 7074342 Analysis Time...: 13:49  
 Dilution Factor: 1

Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
1,1-Dichloroethane	ND	1.0	ug/L	0.16
cis-1,2-Dichloroethene	9.3	1.0	ug/L	0.15
trans-1,2-Dichloroethene	0.20 J	1.0	ug/L	0.15
Ethylbenzene	0.50 J	1.0	ug/L	0.16
Methyl methacrylate	7.9	4.0	ug/L	1.1
4-Methyl-2-pentanone	ND	5.0	ug/L	0.49
Methyl tert-butyl ether	0.98 J	5.0	ug/L	0.25
Styrene	5.6	1.0	ug/L	0.17
Trichloroethene	ND	1.0	ug/L	0.16
Vinyl chloride	ND	1.0	ug/L	0.17
Hydrocarbons (total)	0.71 J	2.0	ug/L	0.19

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	94	(77 - 119)
1,2-Dichloroethane-d4	96	(70 - 127)
4-Bromofluorobenzene	103	(78 - 118)
Toluene-d8	98	(83 - 125)

NOTE(S) :

ND: The analyte was analyzed for, but not detected.

J Estimated result. Result is less than RL.

Cook Composites & Polymers

Client Sample ID: TRIP BLANK

GC/MS Volatiles

Lot-Sample #....: D7C020240-002    Work Order #....: JOEFM1AA    Matrix.....: WATER  
 Date Sampled...: 02/28/07    Date Received...: 03/02/07  
 Prep Date.....: 03/14/07    Analysis Date...: 03/14/07  
 Prep Batch #...: 7074342    Analysis Time...: 14:08  
 Dilution Factor: 1  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
1,1-Dichloroethane	ND	1.0	ug/L	0.16
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.15
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.15
Ethylbenzene	ND	1.0	ug/L	0.16
Methyl methacrylate	ND	4.0	ug/L	1.1
4-Methyl-2-pentanone	ND	5.0	ug/L	0.49
Methyl tert-butyl ether	ND	5.0	ug/L	0.25
Styrene	ND	1.0	ug/L	0.17
Trichloroethene	ND	1.0	ug/L	0.16
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	ND	2.0	ug/L	0.19

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Dibromofluoromethane	98	(77 - 119)
1,2-Dichloroethane-d4	100	(70 - 127)
4-Bromofluorobenzene	107	(78 - 118)
Toluene-d8	106	(83 - 125)

NOTE(S):

ND: The analyte was analyzed for, but not detected.

Cook Composites & Polymers

Client Sample ID: OUTFALL-001NSW

GC/MS Volatiles

Lot-Sample #...: D7C020240-003 Work Order #...: JQEFQ1AG Matrix.....: WATER  
 Date Sampled...: 03/01/07 10:00 Date Received...: 03/02/07  
 Prep Date.....: 03/14/07 Analysis Date...: 03/14/07  
 Prep Batch #...: 7074342 Analysis Time...: 14:27  
 Dilution Factor: 1  
 Method.....: SW846 8260B

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	MDL
1,1-Dichloroethane	ND	1.0	ug/L	0.16
cis-1,2-Dichloroethene	ND	1.0	ug/L	0.15
trans-1,2-Dichloroethene	ND	1.0	ug/L	0.15
Ethylbenzene	8.9	1.0	ug/L	0.16
Methyl methacrylate	ND	4.0	ug/L	1.1
4-Methyl-2-pentanone	ND	5.0	ug/L	0.49
Methyl tert-butyl ether	ND	5.0	ug/L	0.25
Styrene	ND	1.0	ug/L	0.17
Trichloroethene	ND	1.0	ug/L	0.16
Vinyl chloride	ND	1.0	ug/L	0.17
Xylenes (total)	32	2.0	ug/L	0.19

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Dibromofluoromethane	98	(77 - 119)
1,2-Dichloroethane-d4	98	(70 - 127)
4-Bromofluorobenzene	112	(78 - 118)
Toluene-d8	102	(83 - 125)

NOTE(S) :

ND: The analyte was analyzed for, but not detected.

Cook Composites & Polymers

Client Sample ID: OUTFALL-001

TOTAL Metals

Lot-Sample #...: D7C020240-001

Matrix.....: WATER

Date Sampled...: 02/28/07 19:50 Date Received...: 03/02/07

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Prep Batch #...	7065576					
Arsenic	14 B	15	ug/L	MCAWW 200.7	03/09-03/12/07	JQBFH1AC
		Dilution Factor: 1		Analysis Time...: 12:32	MDL.....: 4.4	
Barium	460	10	ug/L	MCAWW 200.7	03/09-03/12/07	JQBFH1AD
		Dilution Factor: 1		Analysis Time...: 12:32	MDL.....: 1.0	
Lead	220	9.0	ug/L	MCAWW 200.7	03/09-03/12/07	JQBFH1AE
		Dilution Factor: 1		Analysis Time...: 12:32	MDL.....: 2.6	
Manganese	780	10	ug/L	MCAWW 200.7	03/09-03/12/07	JQBFH1AF
		Dilution Factor: 1		Analysis Time...: 12:32	MDL.....: 1.8	

NOTE(S):

Estimated result. Result is less than RL.

Cook Composites & Polymers

Client Sample ID: OUTFALL-001NSW

TOTAL Metals

Lot-Sample #...: D7C020240-003

Matrix.....: WATER

Date Sampled...: 03/01/07 10:00 Date Received...: 03/02/07

PARAMETER	RESULT	REPORTING		METHOD	PREPARATION-	WORK
		LIMIT	UNITS		ANALYSIS DATE	ORDER #
Prep Batch #...: 7065576						
Arsenic	ND	15	ug/L	MCAWW 200.7	03/09-03/12/07	JQEFQ1AC
		Dilution Factor: 1		Analysis Time...: 12:37	MDL.....: 4.4	
Barium	47	10	ug/L	MCAWW 200.7	03/09-03/12/07	JQEFQ1AD
		Dilution Factor: 1		Analysis Time...: 12:37	MDL.....: 1.0	
Lead	8.1 B	9.0	ug/L	MCAWW 200.7	03/09-03/12/07	JQEFQ1AE
		Dilution Factor: 1		Analysis Time...: 12:37	MDL.....: 2.6	
Manganese	42	10	ug/L	MCAWW 200.7	03/09-03/12/07	JQEFQ1AF
		Dilution Factor: 1		Analysis Time...: 12:37	MDL.....: 1.8	

**NOTE(S) :**

\* Estimated result. Result is less than RL.



# Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

**Aerotech Environmental Laboratories**

Date: 15-Mar-07

CLIENT: STL-Denver  
Project: Cook Composites and Polymers Co.  
Lab Order: 07030088

## CASE NARRATIVE

Analyses included in this report were performed by Aerotech Environmental Laboratories (AEL), 4645 E. Cotton Center Boulevard, Building 3, Suite 189, Phoenix, AZ.

AEL (Lab ID 154268) is accredited by the American Industrial Hygiene Association (AIHA) in the industrial hygiene program for the analytical techniques noted on the scope of accreditation. AEL is also licensed through the State of Arizona (License No. AZ0610).

Samples were analyzed using methods outlined in references such as:

- ASTM - American Society for Testing and Materials Int'l, Annual Book of ASTM Standards.
- OSHA - Occupational Safety and Health Administration, U. S. Department of Labor, OSHA Analytical Methods Manual.
- NIOSH - National Institute for Occupational Safety and Health, U. S. Department of Health and Human Services, NIOSH Manual of Analytical Methods, Fourth Edition, 1994, and Updates. NIOSH Method 7300 analyses are performed using a modified digestion procedure to eliminate the use of perchloric acid.
- EPA - U. S. Environmental Protection Agency, Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition, 1999.
- EPA - U. S. Environmental Protection Agency, Analytical Methods, Emission Measurement Center (EMC).

### Analytical Comments:

All method blanks and laboratory control spikes met method and/or laboratory quality control objectives for the analyses included in this report.

Samples have been corrected for blank values.

### Data Qualifiers:

Listed below are the data qualifiers used in your analytical report to explain any analytical or quality control issues. You will find them noted in your report under the column header "QUAL". Any quality control deficiencies that cannot be adequately described by these qualifiers will be addressed in the analytical comments section of this case narrative.

- Q8 Insufficient sample received to meet method QC requirements. Batch QC requirements satisfies ADEQ policies 0154 and 0155.



# Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

**Aerotech Environmental L**

**Analytical Report**

Date: 15-Mar-07

<b>CLIENT:</b>	STL-Denver	<b>Client Sample ID:</b>	Outfall-001
<b>Lab Order:</b>	07030088	<b>Tag Number:</b>	
<b>Project:</b>	Cook Composites and Polymers Co.	<b>Collection Date:</b>	2/28/2007 7:50:00 PM
<b>Lab ID:</b>	07030088-01A	<b>Matrix:</b>	AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>1,4-DIOXANE</b>						Analyst: CL
1,4-Dioxane	2.1	1.0		µg/L	1	3/13/2007 6:26:00 PM
Surr: 1,4-Dioxane-D8	52.0	36.6-88.3		%REC	1	3/13/2007 6:26:00 PM
Surr: Nitrobenzene-d5	80.4	48.3-96.5		%REC	1	3/13/2007 6:26:00 PM

**Footnotes:** All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.

(1) The holding time for pH analysis is immediate. For the most accurate result, the pH should be taken in the field within 15 minutes of sampling.

Page 1 of 2



# Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

**Aerotech Environmental L**

**Analytical Report**

Date: 15-Mar-07

<b>CLIENT:</b>	STL-Denver	<b>Client Sample ID:</b>	Outfall-001NSW
<b>Lab Order:</b>	07030088	<b>Tag Number:</b>	
<b>Project:</b>	Cook Composites and Polymers Co.	<b>Collection Date:</b>	3/1/2007 10:00:00 AM
<b>Lab ID:</b>	07030088-02A	<b>Matrix:</b>	AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>1,4-DIOXANE</b>						<b>Analyst: CL</b>
1,4-Dioxane	420	1.0		µg/L	1	3/9/2007 3:45:00 PM
Sum: 1,4-Dioxane-D8	49.4	38.6-88.3		%REC	1	3/9/2007 2:00:00 PM
Sum: Nitrobenzene-d5	67.0	48.3-96.5		%REC	1	3/9/2007 2:00:00 PM

Footnotes: All analysis performed at AEL Phoenix laboratory unless indicated by footnotes.

(1) The holding time for pH analysis is immediate. For the most accurate result, the pH should be taken in the field within 15 minutes of sampling.

Page 2 of 2



# Aerotech Environmental Laboratories

a division of Aerotech Laboratories, Inc.

Aerotech Environmental Laboratories

CLIENT: STL-Denver  
Work Order: 07030088

Project: Cook Composites and Polymers Co.

Date: 15-Mar-07

## ANALYTICAL QC SUMMARY REPORT

TestCode: DIOXANE

Sample ID:	MB-28676	SampType:	MBLK	TestCode:	DIOXANE	Units:	µg/L	Prep Date:	3/7/2007	RunNo:	84885
Client ID:		Batch ID:	28676	TestNo:	SW8270C			Analysis Date:	3/9/2007	SeqNo:	1005730
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,4-Dioxane	<1.0	1.0									
Surr: 1,4-Dioxane-D8	11.82	1.0	20	0	59.1	38.5	87.4				
Surr: Nitrobenzene-d5	18.44	1.0	20	0	92.2	45.1	98.6				

Sample ID:	LCS-28676	SampType:	LCS	TestCode:	DIOXANE	Units:	µg/L	Prep Date:	3/7/2007	RunNo:	84885
Client ID:		Batch ID:	28676	TestNo:	SW8270C			Analysis Date:	3/9/2007	SeqNo:	1005731
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,4-Dioxane	22.85	1.0	20	0	114	80	120				Q8
Surr: 1,4-Dioxane-D8	12.83	1.0	20	0	64.2	38.5	87.4				
Surr: Nitrobenzene-d5	13.70	1.0	20	0	68.5	45.1	98.6				

Sample ID:	LCSD-28676	SampType:	LCSD	TestCode:	DIOXANE	Units:	µg/L	Prep Date:	3/7/2007	RunNo:	84885
Client ID:		Batch ID:	28676	TestNo:	SW8270C			Analysis Date:	3/9/2007	SeqNo:	1005732
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,4-Dioxane	20.87	1.0	20	0	104	80	120	22.85	9.06	25	Q8
Surr: 1,4-Dioxane-D8	9.360	1.0	20	0	46.8	38.5	87.4	12.83	0	0	
Surr: Nitrobenzene-d5	13.48	1.0	20	0	67.4	45.1	98.6	13.70	0	0	

Qualifiers: E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits  
 J Analyte detected below quantitation limits  
 S Spike Recovery outside accepted recovery limits

Aerotech Environmental Laboratories Sample Receipt Checklist

Project Checked By: \_\_\_\_\_

Laboratory Number: 07030088	Checklist completed by: Karen McCormick
Client Name: STC Denver	Signature/Date: 3-3-07
Matrix: AQ	Carrier Name: Foley
Date/Time Rec'd: 3-3-07 9:30	By: KM

Temperature of Samples? 5.1 °C Circle one: Blue Ice  Wet Ice  Not Present

Client or PM made aware temp. out of range?	Yes	No	Not Present	Soil Containers:
Shipping container/cooler in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brass Sleeve _____
Custody seals intact on shipping container/cooler?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Glass Jar _____
Custody seals intact on sample containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Methand _____
Chain of Custody present and relinquished/received properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Plastic Bag _____
Chain of Custody agrees with sample labels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Encore Samplers _____
Samples in proper containers/bottles?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sterile Plastic _____
Sample containers intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
All samples received within holding time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	**See Comments about Chlorine and pH
Is there sufficient sample volume to perform the tests?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
40mL vials for volatiles & SOC's received with zero headspace?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Total number of bottles received: 4 IH sample media: \_\_\_\_\_  
 If applicable, how many sample bottles were shipped from AEL-Tucson? N/A

Number of containers received by preservative and by sample number. (If more than 15 samples are rec'd, please continue on separate sheet(s)).

Preservative	Simple***	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A-General		2	2													
B-HNO3																
C-H2SO4																
D-HCl																
E-Na2S2O3																
F-NaOH																
G-Sulfide																
H-Na Sulfite																
I-MCAA																
J-Methanol																
K-HAA																
L-Other																

Water-pH acceptable upon receipt? Yes  No  N/A

Preservative & pH	pH of samples upon receipt	If pH requires adjustment, list sample number, and reagent I.D. number
Metals <2		
Nutrients <2		
Total Phenols <2		
1664 <2		
Cyanide >12		
Sulfide >9		

\*Any No response must be detailed in the comments section below. Contact the PM immediately to determine how to proceed. Refer to SOP 11-001. Continue on back if additional space is needed.

\*\*The holding time for pH and Total Residual Chlorine analysis is immediate. For the most accurate result, the pH and Total Residual Chlorine should be taken in the field within 15 minutes of sampling.

\*\*\*The Simple box is only to be used when there is one bottle per preservative in equal sample sets.

Comments: \_\_\_\_\_  
 Corrective Action: \_\_\_\_\_



**Chain of Custody Record**

STL Denver  
4955 Yarrow Street  
Arvada, CO 80002

Severn Trent Laboratories, Inc.

07-03-0088

STL-4124 (0901)

Client: **STL Denver** Project Manager: **Pat McEntee** Date: **3/2/07** Chain of Custody Number: **344589**  
 Address: **4955 Yarrow Street** Telephone Number (Area Code)/Fax Number: **(303) 736-0107** Lab Number: \_\_\_\_\_ of \_\_\_\_\_  
 City: **Arvada** State: **CO** Zip Code: **80002** Site Contact: \_\_\_\_\_ Lab Contact: \_\_\_\_\_ Page: **1** of **1**

Project Name and Location (State): **COOK Composites and Polymers Co.** Carrier/Voybill Number: \_\_\_\_\_  
 Contract/Purchase Order/Quote No.: \_\_\_\_\_

Special Instructions/Conditions of Receipt

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix			Containers & Preservatives						Analysis (Attach list if more space is needed)	Special Instructions/Conditions of Receipt	
			Air	Aqueous	Sol.	Sol.	Unpres.	H2SO4	HNO3	HCl	NaOH			ZnAc
Outfall-001	2/28/07	1950	X	X										D7C020240-001
Outfall-001NSW	3/1/07	1000	X	X										D7C020240-003
Temp 5.1C														

Possible Hazard Identification:  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required:  
 24 Hours  48 Hours  7 Days  14 Days  21 Days  Other: **STD**

1. Relinquished By: **Kevin Binnick** Date: **3/2/07** Time: **1100**  
 2. Relinquished By: **FedEx** Date: **3/3/07** Time: **9:30**  
 3. Relinquished By: **Baron McCornick** Date: **3/3/07** Time: **9:30**

Comments: \_\_\_\_\_  
 DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

# QC DATA ASSOCIATION SUMMARY

D7C020240

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	MCAWW 200.7		7065576	7065357
	WATER	SW846 8260B		7074342	7074234
002	WATER	SW846 8260B		7074342	7074234
003	WATER	MCAWW 200.7		7065576	7065357
	WATER	SW846 8260B		7074342	7074234

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: D7C020240  
 MB Lot-Sample #: D7C150000-342  
 Analysis Date...: 03/14/07  
 Dilution Factor: 1

Work Order #...: JQ5A01AA  
 Prep Date.....: 03/14/07  
 Prep Batch #...: 7074342

Matrix.....: WATER  
 Analysis Time...: 08:36

PARAMETER	RESULT	REPORTING		METHOD
		LIMIT	UNITS	
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B
Methyl methacrylate	ND	4.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	5.0	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
Dibromofluoromethane	93	(77 - 119)
1,2-Dichloroethane-d4	96	(70 - 127)
4-Bromofluorobenzene	99	(78 - 118)
Toluene-d8	105	(83 - 125)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

ND: The analyte was analyzed for, but not detected.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D7C020240      Work Order #...: JQ5A01AC      Matrix.....: WATER  
 LCS Lot-Sample#: D7C150000-342  
 Prep Date.....: 03/14/07      Analysis Date...: 03/14/07  
 Prep Batch #...: 7074342      Analysis Time...: 09:34  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
1,1-Dichloroethane	89	(77 - 117)	SW846 8260B
cis-1,2-Dichloroethene	81	(75 - 115)	SW846 8260B
trans-1,2-Dichloroethene	89	(80 - 120)	SW846 8260B
Ethylbenzene	96	(78 - 118)	SW846 8260B
4-Methyl-2-pentanone	90	(65 - 118)	SW846 8260B
Methyl tert-butyl ether	62	(58 - 116)	SW846 8260B
Styrene	92	(77 - 117)	SW846 8260B
Trichloroethene	88	(70 - 122)	SW846 8260B
Vinyl chloride	109	(49 - 136)	SW846 8260B
Xylenes (total)	98	(77 - 117)	SW846 8260B

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
Dibromofluoromethane	98	(77 - 119)
1,2-Dichloroethane-d4	98	(70 - 127)
4-Bromofluorobenzene	113	(78 - 118)
Toluene-d8	111	(83 - 125)

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: D7C020240      Work Order #...: JQ5A01AC      Matrix.....: WATER  
 LCS Lot-Sample#: D7C150000-342  
 Prep Date.....: 03/14/07      Analysis Date...: 03/14/07  
 Prep Batch #...: 7074342      Analysis Time...: 09:34  
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>METHOD</u>
1,1-Dichloroethane	5.00	4.46	ug/L	89	SW846 8260B
cis-1,2-Dichloroethene	5.00	4.07	ug/L	81	SW846 8260B
trans-1,2-Dichloroethene	5.00	4.46	ug/L	89	SW846 8260B
Ethylbenzene	5.00	4.81	ug/L	96	SW846 8260B
4-Methyl-2-pentanone	10.0	8.99	ug/L	90	SW846 8260B
Methyl tert-butyl ether	10.0	6.18	ug/L	62	SW846 8260B
Styrene	5.00	4.58	ug/L	92	SW846 8260B
Trichloroethene	5.00	4.40	ug/L	88	SW846 8260B
Vinyl chloride	5.00	5.47	ug/L	109	SW846 8260B
Xylenes (total)	15.0	14.6	ug/L	98	SW846 8260B

<u>RROGATE</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>
Dibromofluoromethane	98	(77 - 119)
1,2-Dichloroethane-d4	98	(70 - 127)
4-Bromofluorobenzene	113	(78 - 118)
Toluene-d8	111	(83 - 125)

**NOTE(S) :**

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: D7C020240      Work Order #...: JQ4JM1AC-MS      Matrix.....: WATER  
 MS Lot-Sample #: D7A020125-060      JQ4JM1AD-MSD  
 Date Sampled...: 03/02/07 07:00      Date Received...: 03/02/07  
 Prep Date.....: 03/14/07      Analysis Date...: 03/14/07  
 Prep Batch #...: 7074342      Analysis Time...: 18:44  
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
1,1-Dichloroethane	95	(77 - 117)			SW846 8260B
	92	(77 - 117)	3.0	(0-21)	SW846 8260B
cis-1,2-Dichloroethene	90	(75 - 115)			SW846 8260B
	80	(75 - 115)	2.1	(0-20)	SW846 8260B
trans-1,2-Dichloroethene	98	(80 - 120)			SW846 8260B
	93	(80 - 120)	5.3	(0-24)	SW846 8260B
Ethylbenzene	89	(78 - 118)			SW846 8260B
	93	(78 - 118)	5.0	(0-26)	SW846 8260B
4-Methyl-2-pentanone	77	(65 - 118)			SW846 8260B
	102 p	(65 - 118)	28	(0-22)	SW846 8260B
Methyl tert-butyl ether	61	(58 - 116)			SW846 8260B
	64	(58 - 116)	4.4	(0-21)	SW846 8260B
Styrene	91	(77 - 117)			SW846 8260B
	91	(77 - 117)	0.02	(0-20)	SW846 8260B
Trichloroethene	87	(78 - 122)			SW846 8260B
	88	(78 - 122)	0.61	(0-20)	SW846 8260B
Vinyl chloride	88	(49 - 136)			SW846 8260B
	94	(49 - 136)	6.8	(0-24)	SW846 8260B
Xylenes (total)	94	(77 - 117)			SW846 8260B
	97	(77 - 117)	3.6	(0-20)	SW846 8260B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Dibromofluoromethane	95	(77 - 119)
	94	(77 - 119)
1,2-Dichloroethane-d4	103	(70 - 127)
	97	(70 - 127)
1-Bromofluorobenzene	100	(78 - 118)
	104	(78 - 118)
Toluene-d8	100	(83 - 125)
	100	(83 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

bold print denotes control parameters

Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE DATA REPORT

GC/MS Volatiles

Ident Lot #...: D7C020240      Work Order #...: JQ4JM1AC-MS      Matrix.....: WATER  
 Lot-Sample #: D7A020125-060      JQ4JM1AD-MSD  
 Date Sampled...: 03/02/07 07:00      Date Received...: 03/02/07  
 Prep Date.....: 03/14/07      Analysis Date...: 03/14/07  
 Prep Batch #...: 7074342      Analysis Time...: 18:44  
 Dilution Factor: 1

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
1-Dichloroethane	ND	5.00	4.73	ug/L	95		SW846 8260B
	ND	5.00	4.59	ug/L	92	3.0	SW846 8260B
trans-1,2-Dichloroethene	ND	5.00	4.51	ug/L	90		SW846 8260B
	ND	5.00	4.42	ug/L	88	2.1	SW846 8260B
trans-1,2-Dichloroethene	ND	5.00	4.88	ug/L	98		SW846 8260B
	ND	5.00	4.63	ug/L	93	5.3	SW846 8260B
Styrene	ND	5.00	4.43	ug/L	89		SW846 8260B
	ND	5.00	4.66	ug/L	93	5.0	SW846 8260B
Methyl-2-pentanone	ND	10.0	7.68	ug/L	77		SW846 8260B
	ND	10.0	10.2	ug/L	102 p	28	SW846 8260B
Methyl tert-butyl ether	ND	10.0	6.10	ug/L	61		SW846 8260B
	ND	10.0	6.37	ug/L	64	4.4	SW846 8260B
Toluene	ND	5.00	4.54	ug/L	91		SW846 8260B
	ND	5.00	4.54	ug/L	91	0.02	SW846 8260B
1,1-Dichloroethene	0.18	5.00	4.54	ug/L	87		SW846 8260B
	0.18	5.00	4.57	ug/L	88	0.61	SW846 8260B
Vinyl chloride	ND	5.00	4.40	ug/L	88		SW846 8260B
	ND	5.00	4.71	ug/L	94	6.8	SW846 8260B
Arenes (total)	ND	15.0	14.0	ug/L	94		SW846 8260B
	ND	15.0	14.5	ug/L	97	3.6	SW846 8260B

PROBATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
1-Bromofluoromethane	95	(77 - 119)
	94	(77 - 119)
1,2-Dichloroethane-d4	103	(70 - 127)
	97	(70 - 127)
1-Bromofluorobenzene	100	(78 - 118)
	104	(78 - 118)
1-Toluene-d8	100	(83 - 125)
	100	(83 - 125)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

nd print denotes control parameters

Relative percent difference (RPD) is outside stated control limits.

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: D7C020240

Matrix.....: WATER

PARAMETER	RESULT	REPORTING			METHOD	PREPARATION-	WORK
		LIMIT	UNITS			ANALYSIS DATE	ORDER #
IB Lot-Sample #: D7C060000-576 Prep Batch #...: 7065576							
arsenic	ND	15	ug/L	MCAWW 200.7	03/09-03/12/07	JQJ9D1AA	
		Dilution Factor: 1					
		Analysis Time..: 11:00					
barium	ND	10	ug/L	MCAWW 200.7	03/09-03/12/07	JQJ9D1AW	
		Dilution Factor: 1					
		Analysis Time..: 11:00					
lead	ND	9.0	ug/L	MCAWW 200.7	03/09-03/12/07	JQJ9D1AE	
		Dilution Factor: 1					
		Analysis Time..: 11:00					
manganese	ND	10	ug/L	MCAWW 200.7	03/09-03/12/07	JQJ9D1AX	
		Dilution Factor: 1					
		Analysis Time..: 11:00					

RE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D7C020240

Matrix.....: WATER

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#: D7C060000-576 Prep Batch #...: 7065576					
Arsenic	100	(88 - 110)	MCAWW 200.7	03/09-03/12/07	JQJ9D1A1
		Dilution Factor: 1		Analysis Time...: 11:05	
Barium	103	(90 - 112)	MCAWW 200.7	03/09-03/12/07	JQJ9D1A4
		Dilution Factor: 1		Analysis Time...: 11:05	
Lead	103	(89 - 110)	MCAWW 200.7	03/09-03/12/07	JQJ9D1A2
		Dilution Factor: 1		Analysis Time...: 11:05	
Manganese	103	(90 - 110)	MCAWW 200.7	03/09-03/12/07	JQJ9D1A5
		Dilution Factor: 1		Analysis Time...: 11:05	

**NOTE(S):**

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL, SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D7C020240

Matrix.....: WATER

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECVRY	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
ES Lot-Sample#: D7C060000-576 Prep Batch #...: 7065576							
Arsenic	1000	1000	ug/L	100	MCAWW 200.7	03/09-03/12/07	JQJ9D1A1
			Dilution Factor: 1		Analysis Time...: 11:05		
Barium	2000	2060	ug/L	103	MCAWW 200.7	03/09-03/12/07	JQJ9D1A4
			Dilution Factor: 1		Analysis Time...: 11:05		
Cadmium	500	517	ug/L	103	MCAWW 200.7	03/09-03/12/07	JQJ9D1A3
			Dilution Factor: 1		Analysis Time...: 11:05		
Manganese	500	516	ug/L	103	MCAWW 200.7	03/09-03/12/07	JQJ9D1A5
			Dilution Factor: 1		Analysis Time...: 11:05		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: D7C020240

Matrix.....: WATER

Date Sampled...: 02/27/07 07:30 Date Received...: 03/02/07

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
S Lot-Sample #: D7C020189-001 Prep Batch #...: 7065576							
arsenic	93	(88 - 110)			MCAWW 200.7	03/09-03/12/07	JQDTC1AX
	99	(88 - 110)	5.4	(0-20)	MCAWW 200.7	03/09-03/12/07	JQDTC1A0
			Dilution Factor: 1				
			Analysis Time...: 12:22				
barium	96	(90 - 112)			MCAWW 200.7	03/09-03/12/07	JQDTC1CK
	103	(90 - 112)	7.1	(0-20)	MCAWW 200.7	03/09-03/12/07	JQDTC1CL
			Dilution Factor: 1				
			Analysis Time...: 12:22				
lead	97	(89 - 110)			MCAWW 200.7	03/09-03/12/07	JQDTC1A5
	103	(89 - 110)	5.8	(0-20)	MCAWW 200.7	03/09-03/12/07	JQDTC1A6
			Dilution Factor: 1				
			Analysis Time...: 12:22				
manganese	97	(90 - 110)			MCAWW 200.7	03/09-03/12/07	JQDTC1CN
	104	(90 - 110)	7.3	(0-20)	MCAWW 200.7	03/09-03/12/07	JQDTC1CP
			Dilution Factor: 1				
			Analysis Time...: 12:22				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TOTAL Metals

Client Lot #...: D7C020240

Matrix.....: WATER

Date Sampled...: 02/27/07 07:30 Date Received...: 03/02/07

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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S Lot-Sample #: D7C020189-001 Prep Batch #...: 7065576

Arsenic

ND	1000		937	ug/L	93		MCAWW 200.7	03/09-03/12/07	JQDTC1AX
ND	1000		990	ug/L	99	5.4	MCAWW 200.7	03/09-03/12/07	JQDTC1A0

Dilution Factor: 1  
Analysis Time...: 12:22

Barium

23	2000		1940	ug/L	96		MCAWW 200.7	03/09-03/12/07	JQDTC1CK
23	2000		2080	ug/L	103	7.1	MCAWW 200.7	03/09-03/12/07	JQDTC1CL

Dilution Factor: 1  
Analysis Time...: 12:22

Lead

17	500		501	ug/L	97		MCAWW 200.7	03/09-03/12/07	JQDTC1A5
17	500		531	ug/L	103	5.8	MCAWW 200.7	03/09-03/12/07	JQDTC1A6

Dilution Factor: 1  
Analysis Time...: 12:22

Manganese

38	500		521	ug/L	97		MCAWW 200.7	03/09-03/12/07	JQDTC1CN
38	500		561	ug/L	104	7.3	MCAWW 200.7	03/09-03/12/07	JQDTC1CP

Dilution Factor: 1  
Analysis Time...: 12:22

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

STL Denver

### Sample Receiving Checklist

Lot #: D7C020240 Date/Time Received: 3/2/07 0830

Company Name & Sampling Site: ~~...~~ ...

PM to Complete This Section: Yes No  
Residual chlorine check required:   Quarantined:

Quote #: ~~6443~~ 741357

Special Instructions: subject to 1,4 Dioxane to Heurtech - same lot

Time Zone: EDT/EST • CDT/CST • MDT/MST • PDT/PST • OTHER

#### Unpacking Checks:

Cooler #(s): 1  
emperatures (°C): 7.2

N/A Yes No

Initials

PS

- 1. Cooler seals intact? (N/A if hand delivered) If no, document on CUR.
- 2. Chain of custody present? If no, document on CUR.
- 3. Bottles broken and/or are leaking? If yes, document on CUR.
- 4. Multiphasic samples obvious? If yes, document on CUR.
- 5. Proper container & preservatives used? (ref. Attachment D of SOP# DEN-QA-0003) If no, document on CUR.
- 6. pH of all samples checked and meet requirements? If no, document on CUR.
- 7. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DEN-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 8. Did chain of custody agree with labels ID and samples received? If no, document on CUR.
- 9. Were VOA samples without headspace? If no, document on CUR.
- 10. Were VOA vials preserved? Preservative  HCl  4±2°C  Sodium Thiosulfate  Ascorbic Acid
- 11. Did samples require preservation with sodium thiosulfate?
- 12. If yes to #11, did the samples contain residual chlorine? If yes, document on CUR.
- 13. Sediment present in dissolved/filtered bottles? If yes, document on CUR.
- 14. Is sufficient volume provided for client requested IMS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 15. Receipt date(s) > 48 hours past the collection date(s)? If yes, notify PA/PM.
- 16. Are analyses with short holding times requested?
- 17. Was a quick Turn Around (TAT) requested?

STL Denver  
Sample Receiving Checklist

Lot # D7C020240

Login Checks:

Initials

N/A Yes No

CB

- 18. Sufficient volume provided for all analysis requested? (ref. Attachment D of SOP# DEN-QA-0003) If no, document on CUR, and contact PM before proceeding.
- 19. Is sufficient volume provided for client requested MS, MSD or matrix duplicates? If no, document on CUR, and contact PM before proceeding.
- 20. Did the chain of custody includes "received by" and "relinquished" by signatures, dates, and times?
- 21. Were special log in instructions read and followed?
- 22. Were AFCEE metals logged for refrigerated storage?
- 23. Were tests logged checked against the COC? Which samples were confirmed? 1
- 24. Was a Rush form completed for quick TAT?
- 25. Was a Short Hold form completed for any short holds?
- 26. Is "Strict ICOC" required?
- 27. Were special archiving instructions indicated in the General Comments? If so, what were they?

Labeling and Storage Checks:

Initials  
PS

- 28. Was the subcontract COC signed and sent with samples to bottle prep?
- 29. Were sample labels double-checked by a second person?
- 30. Were sample bottles and COC double checked for dissolved/filtered metals by a second person?
- 31. Did the sample ID, Date, and Time from label match what was logged?
- 32. Were stickers for special archiving instructions affixed to each box and to the ICOC? See #27
- 33. Were AFCEE metals stored refrigerated?
- 34. Were "Strict ICOC" copies given to satellite storage areas?

Document any problems or discrepancies and the actions taken to resolve them on a Condition Upon Receipt Anomaly Report (CUR).





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

September 19, 2012

Mr. Greg Gorman  
Burns & McDonnell Waste Consultants  
9400 Ward Parkway  
Kansas City, MO 64114

RE: Project: CCP NPDES  
Pace Project No.: 60128221

Dear Mr. Gorman:

Enclosed are the analytical results for sample(s) received by the laboratory on September 01, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Andy Brownfield for  
Angie Brown  
Angie.Brown@pacelabs.com  
Project Manager

Enclosures

cc: Daniel Earhart, Burns & McDonnell



## REPORT OF LABORATORY ANALYSIS

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### CERTIFICATIONS

Project: CCP NPDES  
Pace Project No.: 60128221

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#### Kansas Certification IDs

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

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

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### SAMPLE SUMMARY

Project: CCP NPDES  
Pace Project No.: 60128221

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60128221001	OUTFALL 001	Water	08/31/12 16:58	09/01/12 09:37
60128221002	OUTFALL 002	Water	08/31/12 17:32	09/01/12 09:37

### REPORT OF LABORATORY ANALYSIS



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### SAMPLE ANALYTE COUNT

Project: CCP NPDES  
Pace Project No.: 60128221

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60128221001	OUTFALL 001	EPA 200.7	TJG	2
		EPA 200.8	TJG	2
		EPA 1664A	DJR	1
		SM 2540D	NDL	1
		EPA 350.1	SEL	1
		EPA 410.4	NDL	1
60128221002	OUTFALL 002	EPA 200.7	TJG	2
		EPA 200.8	TJG	2
		EPA 1664A	DJR	1
		SM 2540D	NDL	1
		EPA 350.1	SEL	1
		EPA 410.4	NDL	1

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: CCP NPDES  
Pace Project No.: 60128221

Sample: <b>OUTFALL 001</b>		Lab ID: <b>60128221001</b>	Collected: 08/31/12 16:58	Received: 09/01/12 09:37	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Barium	10.8	ug/L	10.0	1	09/05/12 17:10	09/08/12 12:18	7440-39-3	
Iron	ND	ug/L	50.0	1	09/05/12 17:10	09/08/12 12:18	7439-89-6	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Copper	2.6	ug/L	1.0	1	09/06/12 10:30	09/08/12 15:35	7440-50-8	
Lead	2.1	ug/L	1.0	1	09/06/12 10:30	09/08/12 15:35	7439-92-1	
<b>HEM, Oil and Grease</b>	Analytical Method: EPA 1664A							
Oil and Grease	ND	mg/L	5.0	1		09/05/12 14:46		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	19.0	mg/L	5.0	1		09/06/12 09:08		
<b>350.1 Ammonia</b>	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		09/13/12 12:55	7664-41-7	
<b>410.4 COD</b>	Analytical Method: EPA 410.4							
Chemical Oxygen Demand	10.2	mg/L	10.0	1		09/07/12 14:30		



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**ANALYTICAL RESULTS**

Project: CCP NPDES  
 Pace Project No.: 60128221

Sample: OUTFALL 002	Lab ID: 60128221002	Collected: 08/31/12 17:32	Received: 09/01/12 09:37	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Barium	ND ug/L		10.0	1	09/05/12 17:10	09/08/12 12:21	7440-39-3	
Iron	77.9 ug/L		50.0	1	09/05/12 17:10	09/08/12 12:21	7439-89-6	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Copper	2.6 ug/L		1.0	1	09/06/12 10:30	09/08/12 15:47	7440-50-8	
Lead	1.0 ug/L		1.0	1	09/06/12 10:30	09/08/12 15:47	7439-92-1	
<b>HEM, Oil and Grease</b>	Analytical Method: EPA 1664A							
Oil and Grease	ND mg/L		5.0	1		09/05/12 14:46		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	14.0 mg/L		5.0	1		09/06/12 09:09		
<b>350.1 Ammonia</b>	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND mg/L		0.10	1		09/13/12 12:57	7664-41-7	
<b>10.4 COD</b>	Analytical Method: EPA 410.4							
Chemical Oxygen Demand	16.6 mg/L		10.0	1		09/07/12 14:30		



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**QUALITY CONTROL DATA**

Project: CCP NPDES  
 Pace Project No.: 60128221

QC Batch: MPRP/19388 Analysis Method: EPA 200.7  
 QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total  
 Associated Lab Samples: 60128221001, 60128221002

METHOD BLANK: 1055316 Matrix: Water  
 Associated Lab Samples: 60128221001, 60128221002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	ug/L	ND	10.0	09/08/12 11:51	
Iron	ug/L	ND	50.0	09/08/12 11:51	

LABORATORY CONTROL SAMPLE: 1055317

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	901	90	85-115	
Iron	ug/L	10000	8680	87	85-115	

ATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1055318 1055319

Parameter	Units	60128238001		MSD		MS		MSD		% Rec Limits	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Barium	ug/L	106	1000	1000	1000	1020	89	91	70-130	2	8	
Iron	ug/L	ND	10000	10000	8620	8800	86	88	70-130	2	10	



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**QUALITY CONTROL DATA**

Project: CCP NPDES  
 Pace Project No.: 60128221

QC Batch: MPRP/19394 Analysis Method: EPA 200.8  
 QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET  
 Associated Lab Samples: 60128221001, 60128221002

METHOD BLANK: 1055656 Matrix: Water  
 Associated Lab Samples: 60128221001, 60128221002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	ND	1.0	09/08/12 15:27	
Lead	ug/L	ND	1.0	09/08/12 15:27	

LABORATORY CONTROL SAMPLE: 1055657

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	40	37.8	95	85-115	
Lead	ug/L	40	38.8	97	85-115	

ATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1055658 1055659

Parameter	Units	60128221001 Result	MS Spike Conc.	MSD Spike Conc.	1055658		1055659		% Rec Limits	Max RPD	Qual
					MS Result	MSD Result	MS % Rec	MSD % Rec			
Copper	ug/L	2.6	40	40	40.9	40.3	96	94	70-130	2	20
Lead	ug/L	2.1	40	40	41.7	41.8	99	99	70-130	0	20

### QUALITY CONTROL DATA

Project: CCP NPDES  
Pace Project No.: 60128221

QC Batch: WET/36942      Analysis Method: EPA 1664A  
QC Batch Method: EPA 1664A      Analysis Description: 1664 HEM, Oil and Grease  
Associated Lab Samples: 60128221001, 60128221002

METHOD BLANK: 1055202      Matrix: Water  
Associated Lab Samples: 60128221001, 60128221002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	09/05/12 14:44	

LABORATORY CONTROL SAMPLE: 1055203

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	40	39.0	98	78-114	

MATRIX SPIKE SAMPLE: 1055204

Parameter	Units	60128288001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	ND	42.1	47.1	108	78-114	

SAMPLE DUPLICATE: 1055205

Parameter	Units	60128288002 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	ND	2.1J		18	



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**QUALITY CONTROL DATA**

Project: CCP NPDES  
 Pace Project No.: 60128221

QC Batch: WET/36949 Analysis Method: SM 2540D  
 QC Batch Method: SM 2540D Analysis Description: 2540D Total Suspended Solids  
 Associated Lab Samples: 60128221001, 60128221002

METHOD BLANK: 1055578 Matrix: Water  
 Associated Lab Samples: 60128221001, 60128221002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	09/06/12 09:06	

SAMPLE DUPLICATE: 1055579

Parameter	Units	60128184001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	19.0	25.0	27	25	R1



**QUALITY CONTROL DATA**

Project: CCP NPDES  
 Pace Project No.: 60128221

QC Batch: WETA/21612 Analysis Method: EPA 350.1  
 QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia  
 Associated Lab Samples: 60128221001, 60128221002

METHOD BLANK: 1059249 Matrix: Water  
 Associated Lab Samples: 60128221001, 60128221002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	09/13/12 12:49	

LABORATORY CONTROL SAMPLE: 1059250

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	2	2.0	101	90-110	

MATRIX SPIKE SAMPLE: 1059251

Parameter	Units	60128171001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	ND	2	2.5	125	90-110 M1	

MATRIX SPIKE SAMPLE: 1059253

Parameter	Units	60128115002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.71	2	2.4	83	90-110 M1	

SAMPLE DUPLICATE: 1059252

Parameter	Units	60128221001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	ND	ND		18	



**QUALITY CONTROL DATA**

Project: CCP NPDES  
 Pace Project No.: 60128221

QC Batch: WETA/21531 Analysis Method: EPA 410.4  
 QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD  
 Associated Lab Samples: 60128221001, 60128221002

METHOD BLANK: 1055604 Matrix: Water  
 Associated Lab Samples: 60128221001, 60128221002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	10.0	09/07/12 14:17	

LABORATORY CONTROL SAMPLE: 1055605

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	50	50.6	101	90-110	

MATRIX SPIKE SAMPLE: 1055606

Parameter	Units	60128330001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	10.6	50	61.9	103	90-110	

MATRIX SPIKE SAMPLE: 1055608

Parameter	Units	60128077001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	32.5	100	137	104	90-110	

SAMPLE DUPLICATE: 1055607

Parameter	Units	60128330003 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	59.8	59.7	0	25	



## QUALIFIERS

Project: CCP NPDES  
Pace Project No.: 60128221

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### DEFINITIONS

- DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.
- ND - Not Detected at or above adjusted reporting limit.
- J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
- MDL - Adjusted Method Detection Limit.
- PRL - Pace Reporting Limit.
- RL - Reporting Limit.
- S - Surrogate
- 1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.
- Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
- LCS(D) - Laboratory Control Sample (Duplicate)
- MS(D) - Matrix Spike (Duplicate)
- DUP - Sample Duplicate
- RPD - Relative Percent Difference
- NC - Not Calculable.
- SG - Silica Gel - Clean-Up
- U - Indicates the compound was analyzed for, but not detected.
- N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
- Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
- TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- R1 RPD value was outside control limits.



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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CCP NPDES  
Pace Project No.: 60128221

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60128221001	OUTFALL 001	EPA 200.7	MPRP/19388	EPA 200.7	ICP/16023
60128221002	OUTFALL 002	EPA 200.7	MPRP/19388	EPA 200.7	ICP/16023
60128221001	OUTFALL 001	EPA 200.8	MPRP/19394	EPA 200.8	ICPM/1620
60128221002	OUTFALL 002	EPA 200.8	MPRP/19394	EPA 200.8	ICPM/1620
60128221001	OUTFALL 001	EPA 1664A	WET/36942		
60128221002	OUTFALL 002	EPA 1664A	WET/36942		
60128221001	OUTFALL 001	SM 2540D	WET/36949		
60128221002	OUTFALL 002	SM 2540D	WET/36949		
60128221001	OUTFALL 001	EPA 350.1	WETA/21612		
60128221002	OUTFALL 002	EPA 350.1	WETA/21612		
60128221001	OUTFALL 001	EPA 410.4	WETA/21531		
60128221002	OUTFALL 002	EPA 410.4	WETA/21531		

FRIDAY AUGUST 31 2012

TASK: QUARTERLY NPDES SAMPLING - STORMWATER DISCHARGE

WEATHER: OVERCAST, RDN, 70s, NE 10 MPH

PERSONNEL: DAVED BARKER

1630 ARRIVE ONSITE; CALIBRATE PH METER

4.0/4.0 7.9/7.0 10.0/10.0

1649 BEGIN OUTFALL #001 SAMPLING

1658 COLLECT OUTFALL #001 FOR COD,  
AMMONIA, OIL & GREASE, TSS, BARIUM  
(DISSOLVED), IRON (DISSOLVED), COPPER  
(DISSOLVED), LEAD (DISSOLVED)

PH: 8.9 TEMP: 22.5 °C

0.5' FLOW OVER WEIR

1732 COLLECT OUTFALL #002 FOR COD,

AMMONIA, OIL & GREASE, TSS, BARIUM  
(DISSOLVED), IRON (DISSOLVED), COPPER  
(DISSOLVED), LEAD (DISSOLVED)

PH: 8.5 TEMP: 22.3 °C

~0.5' DEPTH OF WATER, ~3' L x ~1.5' W,

~1' SEC FOR BAILER TO TRAVEL 2.5';

CONFIRM MEASUREMENT DURING FUTURE ACTIVITIES

1758 DEPART SITE; WILL DROP OFF SAMPLES AT LAB

TOMORROW

*D. Barker*

08/31/12



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May 18, 2012

Mr. Greg Gorman  
Burns & McDonnell Waste Consultants  
9400 Ward Parkway  
Kansas City, MO 64114

RE: Project: CCP NPDES  
Pace Project No.: 60120894

Dear Mr. Gorman:

Enclosed are the analytical results for sample(s) received by the laboratory on May 08, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Angie Brown

Angie.Brown@pacelabs.com  
Project Manager

Enclosures

cc: Daniel Earhart, Burns & McDonnell



**REPORT OF LABORATORY ANALYSIS**

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## CERTIFICATIONS

Project: CCP NPDES  
Pace Project No.: 60120894

### Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219  
A2LA Certification #: 2456.01  
Arkansas Certification #: 05-008-0  
Illinois Certification #: 001191  
Iowa Certification #: 118  
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055  
Nevada Certification #: KS000212008A  
Oklahoma Certification #: 9205/9935  
Texas Certification #: T104704407-08-TX  
Utah Certification #: 9135995665

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: CCP NPDES  
Pace Project No.: 60120894

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60120894001	OUTFALL -001	Water	05/08/12 10:00	05/08/12 11:30

### REPORT OF LABORATORY ANALYSIS

Page 3 of 13

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**SAMPLE ANALYTE COUNT**

Project: CCP NPDES  
Pace Project No.: 60120894

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60120894001	OUTFALL -001	EPA 200.7	JGP	2
		EPA 200.8	SMW	2
		EPA 1664A	KLB	1
		SM 2540D	DJR	1
		EPA 350.1	AJM	1
		EPA 410.4	SRM1	1

**REPORT OF LABORATORY ANALYSIS**

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**ANALYTICAL RESULTS**

Project: CCP NPDES  
 Pace Project No.: 60120894

Sample: <b>OUTFALL -001</b>	Lab ID: <b>60120894001</b>	Collected: 05/08/12 10:00	Received: 05/08/12 11:30	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7							
Barium	88.2	ug/L	10.0	1	05/11/12 16:35	05/17/12 13:43	7440-39-3	
Iron	380	ug/L	50.0	1	05/11/12 16:35	05/17/12 13:43	7439-89-6	
<b>200.8 MET ICPMS</b>	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Copper	6.1	ug/L	1.0	1	05/14/12 16:47	05/15/12 15:57	7440-50-8	
Lead	5.4	ug/L	1.0	1	05/14/12 16:47	05/15/12 15:57	7439-92-1	
<b>HEM, Oil and Grease</b>	Analytical Method: EPA 1664A							
Oil and Grease	ND	mg/L	5.0	1		05/16/12 17:25		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D							
Total Suspended Solids	ND	mg/L	5.0	1		05/11/12 09:17		
<b>350.1 Ammonia</b>	Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	1		05/13/12 12:49	7664-41-7	
<b>410.4 COD</b>	Analytical Method: EPA 410.4							
Chemical Oxygen Demand	11.6	mg/L	10.0	1		05/18/12 12:00		

**QUALITY CONTROL DATA**

Project: CCP NPDES  
Pace Project No.: 60120894

QC Batch: MPRP/18028 Analysis Method: EPA 200.7  
QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total  
Associated Lab Samples: 60120894001

METHOD BLANK: 997038 Matrix: Water  
Associated Lab Samples: 60120894001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	ug/L	ND	10.0	05/17/12 13:32	
Iron	ug/L	ND	50.0	05/17/12 13:32	

LABORATORY CONTROL SAMPLE: 997039

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	999	100	85-115	
Iron	ug/L	10000	9880	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 997040 997041

Parameter	Units	60121103004 Result	MS Spike Conc.	MSD Spike Conc.	997040		997041		% Rec Limits	RPD	Max RPD	Qual
					MS Result	MSD Result	MS % Rec	MSD % Rec				
Barium	ug/L	28.1	1000	1000	1060	1030	104	100	70-130	3	8	
Iron	ug/L	284	10000	10000	10100	9870	98	96	70-130	3	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 997042 997043

Parameter	Units	60121191001 Result	MS Spike Conc.	MSD Spike Conc.	997042		997043		% Rec Limits	RPD	Max RPD	Qual
					MS Result	MSD Result	MS % Rec	MSD % Rec				
Barium	ug/L	ND	1000	1000	1000	1000	100	100	70-130	0	8	
Iron	ug/L	15700	10000	10000	24700	25200	90	95	70-130	2	10	

**QUALITY CONTROL DATA**

Project: CCP NPDES  
Pace Project No.: 60120894

QC Batch: MPRP/18037 Analysis Method: EPA 200.8  
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET  
Associated Lab Samples: 60120894001

METHOD BLANK: 997770 Matrix: Water  
Associated Lab Samples: 60120894001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	ND	1.0	05/15/12 15:36	
Lead	ug/L	ND	1.0	05/15/12 15:36	

LABORATORY CONTROL SAMPLE: 997771

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	40	37.1	93	85-115	
Lead	ug/L	40	35.9	90	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 997772 997773

Parameter	Units	60120948001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result				RPD	RPD	
Copper	ug/L	3.7	40	41.2	40	39.4	94	89	70-130	4	20	
Lead	ug/L	ND	40	34.3	40	34.8	85	87	70-130	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 997774 997775

Parameter	Units	60121093006 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result				RPD	RPD	
Copper	ug/L	4.7	40	41.8	40	41.4	93	92	70-130	1	20	
Lead	ug/L	263	40	304	40	298	102	87	70-130	2	20	

**QUALITY CONTROL DATA**

Project: CCP NPDES  
Pace Project No.: 60120894

QC Batch: WET/35051      Analysis Method: EPA 1664A  
QC Batch Method: EPA 1664A      Analysis Description: 1664 HEM, Oil and Grease  
Associated Lab Samples: 60120894001

METHOD BLANK: 998597      Matrix: Water  
Associated Lab Samples: 60120894001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	05/16/12 17:14	

LABORATORY CONTROL SAMPLE: 998598

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	40	37.0	92	78-114	

MATRIX SPIKE SAMPLE: 999065

Parameter	Units	60120894001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	ND	46	33.3	70	78-114	M0

SAMPLE DUPLICATE: 999064

Parameter	Units	60121052002 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	18.2	18.4	1	18	



**QUALITY CONTROL DATA**

Project: CCP NPDES  
 Pace Project No.: 60120894

QC Batch: WET/34978      Analysis Method: SM 2540D  
 QC Batch Method: SM 2540D      Analysis Description: 2540D Total Suspended Solids  
 Associated Lab Samples: 60120894001

METHOD BLANK: 996406      Matrix: Water  
 Associated Lab Samples: 60120894001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	05/11/12 09:16	

SAMPLE DUPLICATE: 996407

Parameter	Units	60120890001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	77.0	79.0	3	25	

SAMPLE DUPLICATE: 996408

Parameter	Units	60120936001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND		25	

**QUALITY CONTROL DATA**

Project: CCP NPDES  
Pace Project No.: 60120894

QC Batch: WETA/20185      Analysis Method: EPA 350.1  
QC Batch Method: EPA 350.1      Analysis Description: 350.1 Ammonia  
Associated Lab Samples: 60120894001

METHOD BLANK: 997559      Matrix: Water  
Associated Lab Samples: 60120894001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	05/13/12 12:40	

LABORATORY CONTROL SAMPLE: 997560

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	2	2.1	103	90-110	

MATRIX SPIKE SAMPLE: 997561

Parameter	Units	60120775002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	ND	2	2.0	99	90-110	

SAMPLE DUPLICATE: 997562

Parameter	Units	60120894001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	ND	.038J		18	



**QUALITY CONTROL DATA**

Project: CCP NPDES  
 Pace Project No.: 60120894

QC Batch: WETA/20221 Analysis Method: EPA 410.4  
 QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD  
 Associated Lab Samples: 60120894001

METHOD BLANK: 998823 Matrix: Water  
 Associated Lab Samples: 60120894001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	10.0	05/18/12 11:58	

LABORATORY CONTROL SAMPLE: 998824

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	50	50.2	100	90-110	

MATRIX SPIKE SAMPLE: 998825

Parameter	Units	60120693001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	635	500	1140	101	90-110	

MATRIX SPIKE SAMPLE: 998826

Parameter	Units	60120866001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	16.9	50	64.8	96	90-110	

SAMPLE DUPLICATE: 998827

Parameter	Units	60120894001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	11.6	15.9	31	25	R1

## QUALIFIERS

Project: CCP NPDES  
Pace Project No.: 60120894

### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.  
R1 RPD value was outside control limits.



**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: CCP NPDES  
Pace Project No.: 60120894

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60120894001	OUTFALL -001	EPA 200.7	MPRP/18028	EPA 200.7	ICP/15187
60120894001	OUTFALL -001	EPA 200.8	MPRP/18037	EPA 200.8	ICPM/1396
60120894001	OUTFALL -001	EPA 1664A	WET/35051		
60120894001	OUTFALL -001	SM 2540D	WET/34978		
60120894001	OUTFALL -001	EPA 350.1	WETA/20185		
60120894001	OUTFALL -001	EPA 410.4	WETA/20221		



# CHAIN-OF-CUSTODY - JY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: <b>Burns &amp; McDonnell</b>	Report To: <b>Greg Gorman</b>	Attention: <b>Greg Gorman</b>	Page: <b>1</b> of <b>1</b>		
Address: <b>9400 Ward Pkwy</b>	Copy To: <b>Daniel Earhart</b>	Company Name: <b>Greg Gorman</b>	1411792		
<b>Kansas City, MO 64114</b>	Purchase Order No.:	Address:	REGULATORY AGENCY		
Email To: <b>ggorman@burnsmcd.com</b>	Project Name: <b>CLP NPDES</b>	Pace Quote Reference: <b>MO</b>	<input checked="" type="checkbox"/> NPDES	<input type="checkbox"/> GROUND WATER	<input type="checkbox"/> DRINKING WATER
Phone: <b>816-353-9400</b>	Project Number:	Pace Project Manager:	<input type="checkbox"/> UST	<input type="checkbox"/> RCRA	<input type="checkbox"/> OTHER
Fax:		Pace Profile #:	Site Location		
Requested Due Date/TAT: <b>STD</b>			STATE: <b>MO</b>		

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	Temp in °C	Received on	Custody Sealed Cooler	Samples Intact
			COMPOSITE START	COMPOSITE END/GRAB										
1	OUTFALL - 001	Drinking Water WT	5-8-12	11:30	G	WT	6	Unpreserved H <sub>2</sub> SO <sub>4</sub> HNO <sub>3</sub> HCl NaOH Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub> Methanol Other	Analysis Test ↑		16.1	5/8	11:30	Y
2	TEMP BLANK	Waste Water WW							↑					
3		Water Product P												
4		Soil/Solid SL												
5		Oil OL												
6		Wipe WP												
7		Air AR												
8		Tissue TS												
9		Other OT												
10														
11														
12														

Residual Chlorine (Y/N) **(0.1) 20884**

Pace Project No./ Lab I.D. **001**

**21618 (60m) (885) 21884**

**TEMP BLANK**

RELINQUISHED BY / AFFILIATION: **Daniel Earhart** DATE: **5-8-12** TIME: **11:30**

ACCEPTED BY / AFFILIATION: **E Brockett** DATE: **5/8** TIME: **11:30**

ADDITIONAL COMMENTS: **Outfall**

SAMPLER NAME AND SIGNATURE: **Daniel Earhart**

PRINT Name of SAMPLER: **Daniel Earhart** DATE Signed (MM/DD/YY): **5-8-12**

SIGNATURE of SAMPLER: **Daniel Earhart**

ORIGINAL

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



**Sample Condition Upon Receipt**

Client Name: B+MCD Project # 60120894

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other \_\_\_\_\_  
 Tracking #: \_\_\_\_\_ Pace Shipping Label Used?  Yes  No  
 Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  Yes  No

Optional Proj. Due Date: <u>5/18</u> Proj. Name: _____
--

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Other \_\_\_\_\_  
 Thermometer Used: T-197 / T-194 Type of Ice:  Wet  Blue  None  Samples on ice, cooling process has begun

Cooler Temperature: 16.1  
 Temperature should be above freezing to 6°C

Date and initials of person examining contents: <u>JS</u> <u>5/18/12</u> <u>1141</u>
--

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

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

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_ Date: 5/18/12

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



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

February 16, 2012

Mr. Greg Gorman  
Burns & McDonnell Waste Consultants  
9400 Ward Parkway  
Kansas City, MO 64114

RE: Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

Dear Mr. Gorman:

Enclosed are the analytical results for sample(s) received by the laboratory on February 07, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Angie Brown

Angie.Brown@pacelabs.com  
Project Manager

Enclosures

cc: Daniel Earhart, Burns & McDonnell



### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc..



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

## CERTIFICATIONS

Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

### Kansas Certification IDs

9608 Loiret Boulevard, Lenexa, KS 66219  
A2LA Certification #: 2456.01  
Arkansas Certification #: 05-008-0  
Illinois Certification #: 001191  
Iowa Certification #: 118  
Kansas/NELAP Certification #: E-10116

Louisiana Certification #: 03055  
Nevada Certification #: KS000212008A  
Oklahoma Certification #: 9205/9935  
Texas Certification #: T104704407-08-TX  
Utah Certification #: 9135995665

## REPORT OF LABORATORY ANALYSIS

Page 2 of 13

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### SAMPLE SUMMARY

Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

<b>Lab ID</b>	<b>Sample ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
60114909001	OUTFALL 001	Water	02/07/12 10:05	02/07/12 10:55

### REPORT OF LABORATORY ANALYSIS

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**SAMPLE ANALYTE COUNT**

Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

Lab ID	Sample ID	Method	Analysts	Analytes Reported
60114909001	OUTFALL 001	EPA 200.7	JDH	2
		EPA 200.8	JGP	2
		EPA 1664A	KLB	1
		SM 2540D	LAJ	1
		EPA 350.1	JML	1
		EPA 410.4	LAJ	1

**REPORT OF LABORATORY ANALYSIS**

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## ANALYTICAL RESULTS

Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

Sample: OUTFALL 001		Lab ID: 60114909001	Collected: 02/07/12 10:05	Received: 02/07/12 10:55	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>200.7 Metals, Total</b>		Analytical Method: EPA 200.7 Preparation Method: EPA 200.7						
Barium	47.4	ug/L	10.0	1	02/09/12 09:00	02/10/12 13:20	7440-39-3	
Iron	322	ug/L	50.0	1	02/09/12 09:00	02/10/12 13:20	7439-89-6	
<b>200.8 MET ICPMS</b>		Analytical Method: EPA 200.8 Preparation Method: EPA 200.8						
Copper	6.9	ug/L	1.0	1	02/13/12 09:20	02/14/12 17:20	7440-50-8	
Lead	8.9	ug/L	1.0	1	02/13/12 09:20	02/14/12 17:20	7439-92-1	
<b>HEM, Oil and Grease</b>		Analytical Method: EPA 1664A						
Oil and Grease	ND	mg/L	5.0	1		02/14/12 08:42		
<b>2540D Total Suspended Solids</b>		Analytical Method: SM 2540D						
Total Suspended Solids	ND	mg/L	5.0	1		02/10/12 14:05		
<b>350.1 Ammonia</b>		Analytical Method: EPA 350.1						
Nitrogen, Ammonia	ND	mg/L	0.10	1		02/15/12 13:33	7664-41-7	
<b>410.4 COD</b>		Analytical Method: EPA 410.4						
Chemical Oxygen Demand	19.8	mg/L	10.0	1		02/09/12 09:22		

**QUALITY CONTROL DATA**

Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

QC Batch: MPRP/16972      Analysis Method: EPA 200.7  
QC Batch Method: EPA 200.7      Analysis Description: 200.7 Metals, Total  
Associated Lab Samples: 60114909001

METHOD BLANK: 949098      Matrix: Water  
Associated Lab Samples: 60114909001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	ug/L	ND	10.0	02/10/12 13:11	
Iron	ug/L	ND	50.0	02/10/12 13:11	

LABORATORY CONTROL SAMPLE: 949099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	1000	924	92	85-115	
Iron	ug/L	10000	10500	105	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 949100      949101

Parameter	Units	60114909001		949101		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
Barium	ug/L	47.4	1000	962	977	91	93	70-130	2	8
Iron	ug/L	322	10000	10700	10800	104	105	70-130	1	10

**QUALITY CONTROL DATA**

Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

QC Batch: MPRP/16999 Analysis Method: EPA 200.8  
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET  
Associated Lab Samples: 60114909001

METHOD BLANK: 950755 Matrix: Water  
Associated Lab Samples: 60114909001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Copper	ug/L	ND	1.0	02/14/12 17:37	
Lead	ug/L	ND	1.0	02/14/12 17:37	

LABORATORY CONTROL SAMPLE: 950756

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	40	36.8	92	85-115	
Lead	ug/L	40	39.9	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 950757 950758

Parameter	Units	60114909001		950757		950758		% Rec Limits	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec			
Copper	ug/L	40	40	6.9	42.7	48.5	89	70-130	13	20
Lead	ug/L	40	40	8.9	50.2	50.7	103	70-130	1	20

**QUALITY CONTROL DATA**

Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

QC Batch: WET/33490 Analysis Method: EPA 1664A  
QC Batch Method: EPA 1664A Analysis Description: 1664 HEM, Oil and Grease  
Associated Lab Samples: 60114909001

METHOD BLANK: 951188 Matrix: Water  
Associated Lab Samples: 60114909001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	02/14/12 08:39	

LABORATORY CONTROL SAMPLE: 951189

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	40	33.5	84	78-114	

MATRIX SPIKE SAMPLE: 951560

Parameter	Units	60114786001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	ND	41.7	40.2	94	78-114	

SAMPLE DUPLICATE: 951190

Parameter	Units	60114787002 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	5.1	4.9J		18	

**QUALITY CONTROL DATA**

Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

QC Batch: WET/33450      Analysis Method: SM 2540D  
QC Batch Method: SM 2540D      Analysis Description: 2540D Total Suspended Solids  
Associated Lab Samples: 60114909001

METHOD BLANK: 949786      Matrix: Water  
Associated Lab Samples: 60114909001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	02/10/12 14:05	

SAMPLE DUPLICATE: 949787

Parameter	Units	60114908001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	13.0		25	

SAMPLE DUPLICATE: 949788

Parameter	Units	60114977001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	7.0	ND		25	



**QUALITY CONTROL DATA**

Project: NPDES OUTFALL SAMPLING  
 Pace Project No.: 60114909

QC Batch: WETA/19217 Analysis Method: EPA 350.1  
 QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia  
 Associated Lab Samples: 60114909001

METHOD BLANK: 951665 Matrix: Water  
 Associated Lab Samples: 60114909001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	02/15/12 13:02	

LABORATORY CONTROL SAMPLE: 951666

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	2	2.1	105	90-110	

MATRIX SPIKE SAMPLE: 951667

Parameter	Units	60115157003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5.7	10	21.1	153	90-110	M0

MATRIX SPIKE SAMPLE: 951669

Parameter	Units	60114800002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	7.8	10	23.4	156	90-110	M0

SAMPLE DUPLICATE: 951668

Parameter	Units	60114610002 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	ND	ND		18	

**QUALITY CONTROL DATA**

Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

QC Batch: WETA/19158 Analysis Method: EPA 410.4  
QC Batch Method: EPA 410.4 Analysis Description: 410.4 COD  
Associated Lab Samples: 60114909001

METHOD BLANK: 948538 Matrix: Water  
Associated Lab Samples: 60114909001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	10.0	02/09/12 08:57	

LABORATORY CONTROL SAMPLE: 948539

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	50	51.8	104	90-110	

MATRIX SPIKE SAMPLE: 948540

Parameter	Units	60114679002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	856	1000	1900	105	90-110	

MATRIX SPIKE SAMPLE: 948542

Parameter	Units	60114776001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	76.3	50	125	97	90-110	

SAMPLE DUPLICATE: 948541

Parameter	Units	60114892001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	40.5	40.0	1	25	

## QUALIFIERS

Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

### ANALYTE QUALIFIERS

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

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: NPDES OUTFALL SAMPLING  
Pace Project No.: 60114909

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60114909001	OUTFALL 001	EPA 200.7	MPRP/16972	EPA 200.7	ICP/14541
60114909001	OUTFALL 001	EPA 200.8	MPRP/16999	EPA 200.8	ICPM/1220
60114909001	OUTFALL 001	EPA 1664A	WET/33490		
60114909001	OUTFALL 001	SM 2540D	WET/33450		
60114909001	OUTFALL 001	EPA 350.1	WETA/19217		
60114909001	OUTFALL 001	EPA 410.4	WETA/19158		



# CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: <b>Burns &amp; McDonnell</b>	Report To: <b>Greg Gosman</b>	Attention: <b>Greg Gosman</b>	Page: _____ of _____		
Address: <b>9400 Ward Parkway</b>	Copy To: _____	Company Name: _____	1541618		
City: <b>Kansas City, MO 64114</b>	Purchase Order No.: _____	Address: _____	REGULATORY AGENCY		
Phone: <b>816-333-9400</b>	Project Name: <b>NPDES OUTFALL SAMPLING</b>	Pace Quote Reference: _____	<input checked="" type="checkbox"/> NPDES	<input type="checkbox"/> GROUND WATER	<input type="checkbox"/> DRINKING WATER
Requested Due Date/TAT: <b>STD</b>	Project Number: _____	Pace Project Manager: _____	<input type="checkbox"/> UST	<input type="checkbox"/> RCRA	<input type="checkbox"/> OTHER
		Pace Profile #: _____	Site Location STATE: <b>MO</b>		

ITEM #	Section D Required Client Information	Matrix Codes MATRIX CODE	MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)												Pace Project No. / Lab I.D.				
				COMPOSITE START	COMPOSITE END/GRAB					Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> SO <sub>3</sub>	Methanol	Other	Analysis Test	Residual Chlorine (Y/N)							
1	OUTFALL-001 18p2u	DW WT WW P SL OL WIP AIR TS OT	WT G	DATE: 2-7-12	TIME: 1055	57.6	6	Unpreserved	1	1	2	3	4	5	6	7	8	9	10	11	12	28p3n15	2A514	60114909	601	
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	REQUISITIONED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<i>Paul J. [Signature]</i>	2-7-12	1055	<i>Phenology</i>	2-7-12	1055	Y N Y
SAMPLER NAME AND SIGNATURE							
PRINT Name of SAMPLER: <i>Dorely E. [Signature]</i>							
SIGNATURE of SAMPLER: <i>[Signature]</i>							
DATE Signed (MM/DD/YYYY): 2-7-12							
Temp in °C	Received on	Sealed Cooler	Custody	Samples Intact			



### Sample Condition Upon Receipt

Client Name: B & M Project # 6004909

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other  
Tracking #: \_\_\_\_\_ Pace Shipping Label Used?  Yes  No

Optional  
Proj. Due Date: 2/17  
Proj. Name: \_\_\_\_\_

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

Packing Material:  Bubble Wrap  Bubble Bags  Foam  None  Other epic

Thermometer Used: T-191 / T-194 Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature: 0.2  
Temperature should be above freezing to 6°C

Date and Initials of person examining contents: JV 2-7-12

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

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

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature] Date: 2/6/12

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