

Jefferson County (WP)
Shapiro Brothers, Inc
MO-R60A146

HWP/Enforcement
Shapiro Brothers, Inc. Festus
MOR000021907

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

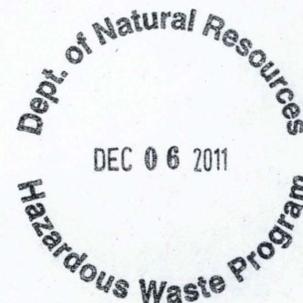
Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

www.dnr.mo.gov

November 23, 2011

CERTIFIED MAIL #7009 3410 0001 4306 7186
RETURN RECEIPT REQUESTED

Shapiro Brothers, Inc.
c/o Greg Shapiro
P.O. Box 759
Festus, MO 63028



Dear Mr. Shapiro:

NOTICE OF VIOLATION #2937 SL

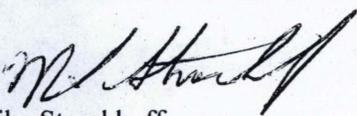
A routine compliance inspection of Shapiro Brothers, Inc., located in Jefferson County, Missouri was conducted on September 14, 2011. The inspection was conducted by James J. Hessel II with the Missouri Department of Natural Resources' St. Louis Regional Office. The compliance inspection was conducted in conjunction with an investigation of a report of an environmental concern at the site. The report is referenced as Environmental Concern ACE#SLR 20110913 15025412. Enclosed is a copy of the inspection report. Based upon the findings of the inspection, Shapiro Brothers, Inc. is being issued Notice of Violation (NOV) #2937 SL.

The report outlines the findings of the investigation and lists recommendations to ensure compliance. Due to the seriousness of the violations, please provide a written response **within 15 days of receipt of this NOV** to this office, explaining how the violations will be addressed.

If you have any questions, please contact James J. Hessel II or me at (314) 416-2960 in the St. Louis Regional Office, 7545 South Lindbergh Blvd., Suite 210, St. Louis, MO 63125.

Sincerely,

ST. LOUIS REGIONAL OFFICE


Mike Struckhoff
Regional Director

MS/JJH/jh

Enclosures: Report of Compliance Inspection; NOV #2937 SL;
Photos; Sample Results; Application for Transfer of Operating Permit

c: Jefferson County Health Department
 Mr. Dennis Hansen, Hazardous Waste Program
The Honorable Mike Cage, Mayor, City of Festus
Mr. Kevin Mohammadi, WPB
Mr. Larry Lehman, SWMP
Ms. Nicole Eby, APCP
Mr. Joseph King, Vice President, MW Recycling, LLC



REPORT OF COMPLIANCE INSPECTION

SHAPIRO BROTHERS, INC

JEFFERSON COUNTY

MO-R60A146

November 23, 2011

INTRODUCTION

Pursuant to Section 644.026.1 RSMo of the Missouri Clean Water Law, a routine compliance inspection of Shapiro Brothers, Inc. in Jefferson County, Missouri was conducted by James J. Hessel II of the Missouri Department of Natural Resources' St. Louis Regional Office on September 14, 2011. Ms. Vickie Heberlie of DNR – Jefferson County Satellite Office, Mr. Darren Bernat of DNR – Jefferson County Satellite Office, Mr. Evan Bryant of DNR – Hazardous Waste Program and Mr. Sean Counihan of DNR – Environmental Services Program/Environmental Emergency Response also participated in the inspection. Mr. Greg Shapiro of Shapiro Brothers, Mr. Dave Shapiro of Shapiro Brothers, Mr. Dave Rowe of NPN Environmental and Mr. Brian Gregory of NPN Environmental represented the facility during the inspection.

This inspection was conducted to determine the facility's compliance with Missouri State Operating Permit MO-R60A146, the Missouri Clean Water Commission Regulations, and the Missouri Clean Water Law. This report presents the findings and observations made during the compliance inspection.

FACILITY DESCRIPTION/HISTORY

Missouri State Operating Permit MO-R60A146 was last issued on June 16, 2008, and expires on May 29, 2013. This permit sets forth effluent limitations, monitoring requirements, and permit conditions, both standard and specific, that the permittee is to follow.

Shapiro Brothers, Inc. has been at a 15 acre site located at the corner of Ninth & Delmar in Festus, MO for approximately 65 years. This facility is primarily a scrap metal recycling operation recycling items such as rail cars, automobiles, sheet metal, siding, empty appliance shells, among other items.

Shapiro Brothers, Inc. was recently sold and has become a division of PSC Metals, Inc.

The legal description of the Shapiro Brothers, Inc. is listed on the permit as the NE ¼, NE ¼, Section 6, Township 40 North, Range 6 East in Jefferson County, MO. The receiving stream for this facility is a tributary to Platin Creek.

An Environmental Concern ACE #SLR 20110708 10563936 was investigated by the Department of Natural Resources' St. Louis Regional Office Staff on July 13, 2011. The receiving stream next to the facility was found to have an oily sheen. Very little petroleum residue could be noted at the time of investigation; however, the facility constructed a sock filter basket to contain any possible oil being washed via storm water runoff through the facility storm sewers.

DISCUSSION OF INSPECTION AND OBSERVATIONS

Prior to the inspection, the files for Shapiro Brothers, Inc. were reviewed, including the Permit Conditions of Missouri State Operating Permit MO-R60A146, to familiarize the inspector with the requirements specific to this facility.

The inspection was conducted during normal business hours. Prior notification was not provided to the facility. Upon arrival at the facility, the inspector met with Greg Shapiro, Owner; Dave Shapiro, Owner; Dave Rowe, Environmental Consultant and Brian Gregory, Environmental Consultant; and the purpose and scope of the inspection were outlined. Greg Shapiro granted permission to access the site and all personnel mentioned above accompanied the inspector throughout the tour of the facility:

1. Review of the files revealed that Shapiro Brothers, Inc. has not been submitting the Annual Operating Report as required by Missouri State Operating Permit MO-R60A146.

The Annual Operating Report must be submitted by October 28th of each year and shall detail any unusual occurrences such as spills, tank failures or overflows, ruptured piping, fish kills, fire fighting activities, or other upsets which resulted in any loss of product. Product includes, but is not limited to, fuels, oils, other fluids, and paints. The report shall also detail any remedial work undertaken to recover product or clean up the site. The report must also indicate if nothing unusual has occurred.

2. Shapiro Brothers, Inc. has not yet transferred Missouri State Operating Permit MO-R60A146 to PSC Metals, Inc.

The permit may be transferred to the new owner by submitting an "Application for Transfer of Operating Permit" signed by the seller and buyer of the facility, along with the appropriate modification fee.

3. The facility installed a tire wheel wash at its N. 9th Street entrance for vehicles exiting the site (Photos 1 through 6).

The washed off material is housed in a 2,500 gallon container underneath the wheel wash. A flocculent is added to settle out any suspended particles to the bottom of the container. The settled out material is then transferred via conveyor belt to an uncovered metal container located on the side of the wheel wash. Water drains from the uncovered metal container onto the facilities property, flows through a culvert to the east end of the property then flows as sheet flow to the southeast corner of the property where it discharges into the unnamed tributary located next to the facility.

4. The facility requires vehicles leaving the property at its Vine Street entrance to wash off the tires with a hose before leaving the property (Photo 7).
5. Used oil is stored in containers and not exposed to storm water; however, the containers were not equipped with secondary containment (Photos 8 and 9).

Spill prevention control and/or management shall be provided sufficient to prevent any spills of pollutants from entering waters of the state. Any containment system used to implement this shall be constructed of materials compatible with the substance contained and shall also prevent the contamination of groundwater.

6. The facility sweeps Delmar Ave., Vine St. and N. 9th St. with a street sweeper. The facility has also recently rented a vacuum street sweeper. The material vacuumed up from the streets is sent to Timber Ridge Landfill. Sweeping occurs every one to two days depending on need.
7. Sample #1106420 taken at the storm water outfall on the southeast end of the property near 9th Street and the railroad crossing violated the Water Quality Standards general criteria for Cadmium and Lead. Please see the Water Quality Monitoring section of this report for the results.

WATER QUALITY MONITORING

The appropriate sampling materials were taken on the inspection, including a copy of the Missouri Department of Natural Resources' Standard Operating Procedures for Sampling. Instruments for field monitoring were taken on the inspection that are capable of testing pH, temperature, conductivity, and dissolved oxygen.

Water quality field monitoring was taken onsite and samples were submitted to the Environmental Services Program Laboratory in Jefferson City, MO for analysis. Mr. Sean Counihan of DNR – Environmental Services Program/Environmental Emergency Response conducted the water quality field monitoring and sampling from the:

- 1) Metal container holding settled material from the wheel wash station (Sample #1106418);
- 2) Storm water outfall on the southeast end of property near 9th and railroad crossing (Sample #1106420) and;
- 3) Vine Street storm water outfall at north end of property (Sample #1106426). This sample was meant to be a comparator since the storm water came directly from Vine St. and never ran onto the property before being collected.

Wash Station Water		
Parameter	Result	Units
pH	8.26	s.u.
Temperature	19.5	°C
Dissolved Oxygen	4.42	mg/L
Conductivity	794	Microsiemens

Outfall near SE corner of 9th & railroad crossing		
Parameter	Result	Units
pH	7.99	s.u.
Temperature	19.4	°C
Dissolved Oxygen	5.10	mg/L
Conductivity	1023	Microsiemens

Vine Street storm water outfall		
Parameter	Result	Units
pH	7.78	s.u.
Temperature	19.6	°C
Dissolved Oxygen	4.97	mg/L
Conductivity	200	Microsiemens

The Environmental Services Program Results of Sample Analyses are listed below.

Wash Station Water		
Results of Sample Analyses		
Parameters	Sample Result	Units
Arsenic	10.8	µg/L
Barium	775	µg/L
Cadmium	23.9	µg/L
Chromium	26.9	µg/L
Lead	2610	µg/L
Selenium	2.08	µg/L
Silver	0.51	µg/L
Oil & Grease	<2	mg/L

Outfall near SE corner of 9th & railroad crossing			
Results of Sample Analyses			
Parameters	Sample Result	Units	Water Quality Standards Limit
Arsenic	8.65	µg/L	20
Barium	323	µg/L	N/A
Cadmium	30.9	µg/L	11.6 *
Chromium	22.2	µg/L	N/A
Lead	2110	µg/L	172*
Selenium	2.14	µg/L	5
Silver	0.56	µg/L	15.6*
Oil & Grease	<2	mg/L	N/A

* These metals are hardness dependant. Since hardness was not taken during the inspection, the water quality standard limit used assumes that the hardness was the maximum allowed which is defined as 250+.

Vine Street storm water outfall		
Results of Sample Analyses		
Parameters	Sample Result	Units
Arsenic	0.96	µg/L
Barium	46.3	µg/L
Cadmium	0.54	µg/L
Chromium	1.94	µg/L
Lead	28.0	µg/L
Selenium	<0.5	µg/L
Silver	<0.5	µg/L
Oil & Grease	<2	mg/L

COMPLIANCE DETERMINATION

The facility was found to be in non-compliance with the Missouri Clean Water Law, the Clean Water Commission Regulations, and Missouri State Operating Permit MO-R60A146, based upon the observations made at the time of the inspection.

UNSATISFACTORY FEATURES

1. Shapiro Brothers, Inc. failed to submit a complete Annual Operating Report as required in Missouri State Operating Permit (MSOP) MO-R60A146 in violation of Missouri Clean Water Law Section 644.076.1 and Missouri Clean Water Regulation 10 CSR 20-7.015(9)(A)1.

REQUIRED ACTION: As referenced in Discussion of Inspection and Observations #1, Annual Operating Reports have never been submitted. The facility shall submit Annual Operating Reports that were due 10/28/2009, 10/28/2010 and 10/28/2011 to the St. Louis Regional Office **within 15 days of receipt of this letter**. Also, please ensure that all future reports are submitted on time.

2. Shapiro Brothers, Inc. must ensure that Missouri State Operating Permit MO-R60A146 be transferred to the current owner.

REQUIRED ACTION: As referenced in Discussion of Inspection and Observations #2, the facility shall submit an "Application for Transfer of Operating Permit" signed by the seller and buyer of the facility, along with the appropriate modification fee to the St. Louis Regional Office within **15 days of receipt of this letter**. I have enclosed an "Application for Transfer of Operating Permit" for your convenience.

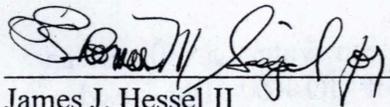
3. Shapiro Brothers, Inc. discharged water contaminants into waters of the state, which reduced the quality of such waters below the Water Quality Standards in violation of Missouri Clean Water Law Sections 644.051.1(1), 644.051.1(2) and 644.076.1 and Missouri Clean Water Commission Regulation 10 CSR 20-7.031.

REQUIRED ACTION: As referenced in Discussion of Inspection and Observations #7, the facility violated the Water Quality Standards general criteria for Cadmium and Lead. The facility shall submit a written statement to the St. Louis Regional Office **within 15 days of receipt of this letter**, explaining what actions will be taken to correct the unsatisfactory feature and prevent a reoccurrence in the future. This must include the development of a Storm Water Pollution Prevention Plan (SWPPP) to ensure all storm water leaving the site is free from pollutants.

RECOMMENDATIONS

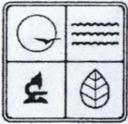
1. The facility should consider providing secondary containment around all containers that store fuel or other chemicals to ensure releases to the environment do not occur.

SUBMITTED BY:



James J. Hessel II
Environmental Specialist III
St. Louis Regional Office

JJH/jh



MISSOURI DEPARTMENT OF NATURAL RESOURCES
NOTICE OF VIOLATION

P.O. BOX 176
JEFFERSON CITY MO 65102

REGION/PROGRAM			
<input type="checkbox"/> KC	<input type="checkbox"/> NE	<input type="checkbox"/> SE	<input checked="" type="checkbox"/> SL
<input type="checkbox"/> SW	<input type="checkbox"/> DW	<input type="checkbox"/> HWP	
<input type="checkbox"/> LRP	<input type="checkbox"/> SWMP	<input type="checkbox"/> WPC	

VIOLATION NUMBER
NO. 2937 SL

DATE AND TIME ISSUED	<input type="checkbox"/> AM	<input type="checkbox"/> PM
November 23, 2011		

SOURCE (NAME, ADDRESS, PERMIT NUMBER, LOCATION)
 Shapiro Brothers, Inc.
 9th & Delmar, Festus, MO 63028
 Permit #MO-R60A146
 Location: Festus, Missouri

MAILING ADDRESS	CITY	STATE	ZIP CODE
P.O. Box 759	Festus	MO	63028

NAME OF OWNER OR MANAGER	TITLE OF OWNER OR MANAGER	COUNTY
Greg Shapiro	Owner	Jefferson

LAW, REGULATION OR PERMIT VIOLATED

1. MO Clean Water Law 644.051.1(1)
2. MO Clean Water Law 644.051.1(2)
3. MO Clean Water Law 644.076.1
4. MO Clean Water Commission Regulation 10 CSR 20-7.015(9)(A)1
5. MO Clean Water Commission Regulation 10 CSR 20-7.031(3)(D)
6. MO Clean Water Commission Regulation 10 CSR 20-7.031(3)(E)

NATURE OF VIOLATION	DATE(S):	TIME(S):
<ol style="list-style-type: none"> 1. Failed to submit annual operating reports as required by the permit. 2. Caused pollution of waters of the state, or placed or caused or permitted to be placed water contaminants in a location where it is reasonably certain to cause pollution of waters of the state. 3. Discharging pollutants to waters of the State of Missouri in sufficient amounts to result in toxicity to human, animal, or aquatic life and to cause a human health hazard from incidental contact with the water. 		

SIGNATURE (PERSON RECEIVING NOTICE)	SIGNATURE (PERSON ISSUING NOTICE)
Sent by Certified Mail	Jim Hessel
TITLE OR POSITION	TITLE OR POSITION
	Environmental Specialist/SLRO

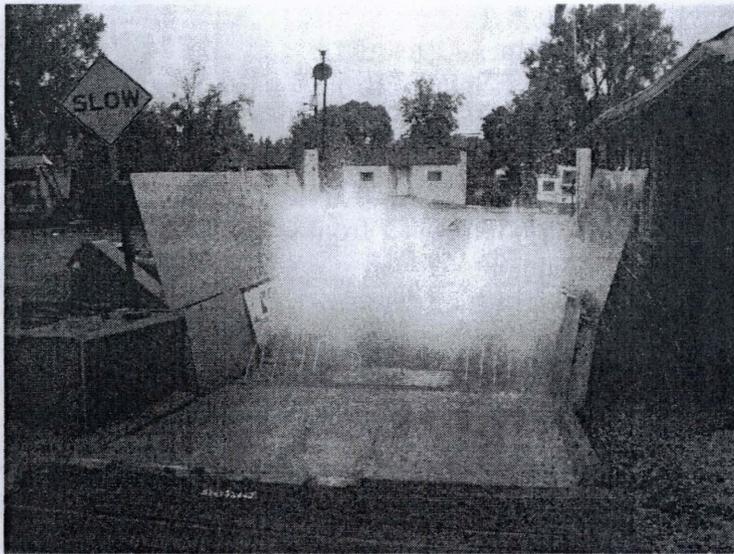


Photo #: 1
By: James J. Hessel II
Facility: Shapiro Brothers, Inc
Permit: MO-R60A146
Location: N. 9th Street entrance

Description: Tire wheel wash

Date/Time Taken: September 14, 2011
Program: WPC Unit

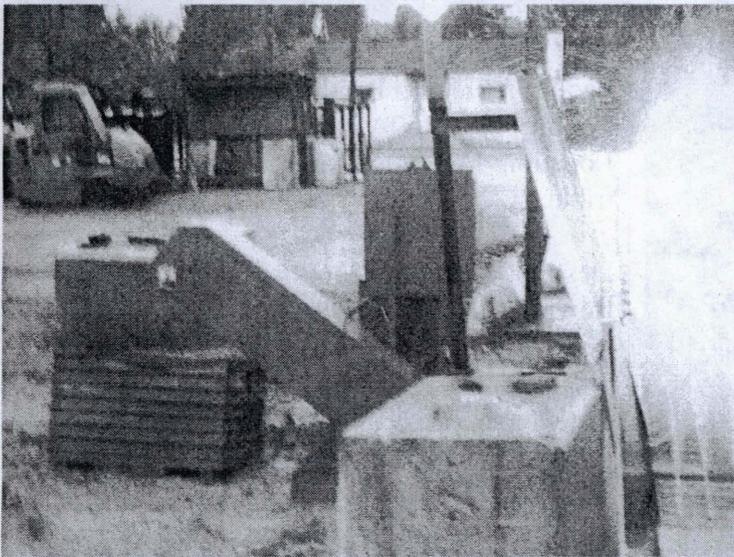


Photo #: 2
By: James J. Hessel II
Facility: Shapiro Brothers, Inc
Permit: MO-R60A146
Location: N. 9th Street entrance

Description: Conveyor belt removing settled out material from container under the tire wheel wash

Date/Time Taken: September 14, 2011
Program: WPC Unit



Photo #: 3
By: James J. Hessel II
Facility: Shapiro Brothers, Inc
Permit: MO-R60A146
Location: N. 9th Street entrance

Description: Settled out material from tire wheel wash in open container

Date/Time Taken: September 14, 2011
Program: WPC Unit



Photo #: 4
By: James J. Hessel II
Facility: Shapiro Brothers, Inc
Permit: MO-R60A146
Location: N. 9th Street entrance

Description: water from uncovered container
flowing into culvert

Date/Time Taken: September 14, 2011
Program: WPC Unit



Photo #: 5
By: James J. Hessel II
Facility: Shapiro Brothers, Inc
Permit: MO-R60A146
Location: East side of property near unnamed
tributary

Description: water from uncovered container
flowing out of culver onto east end of property

Date/Time Taken: September 14, 2011
Program: WPC Unit



Photo #: 6
By: James J. Hessel II
Facility: Shapiro Brothers, Inc
Permit: MO-R60A146
Location: East side of property at unnamed
tributary

Description: Outfall where water from property and
N. 9th Street flows into the unnamed tributary

Date/Time Taken: September 14, 2011
Program: WPC Unit

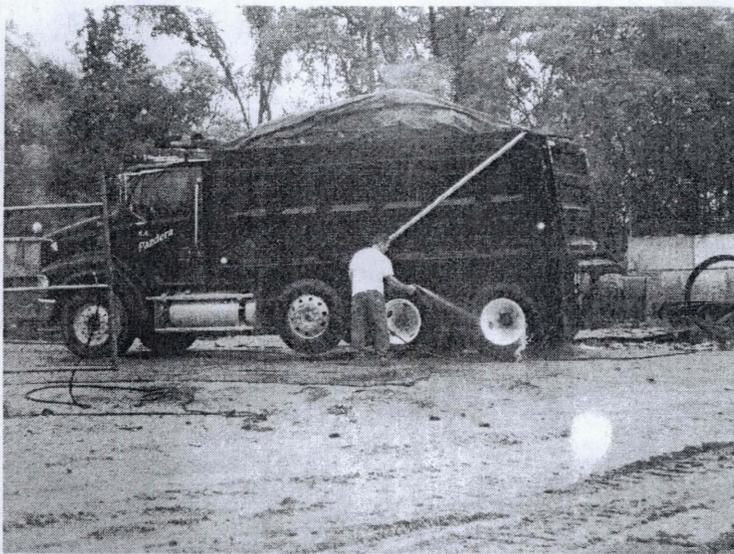


Photo #: 7
By: James J. Hessel II
Facility: Shapiro Brothers, Inc
Permit: MO-R60A146
Location: Vine Street entrance

Description: Picture showing vehicles washing off tires prior to exiting property

Date/Time Taken: September 14, 2011
Program: WPC Unit



Photo #: 8
By: James J. Hessel II
Facility: Shapiro Brothers, Inc
Permit: MO-R60A146
Location: Building located next to Vine Street

Description: Picture showing used oil container

Date/Time Taken: September 14, 2011
Program: WPC Unit

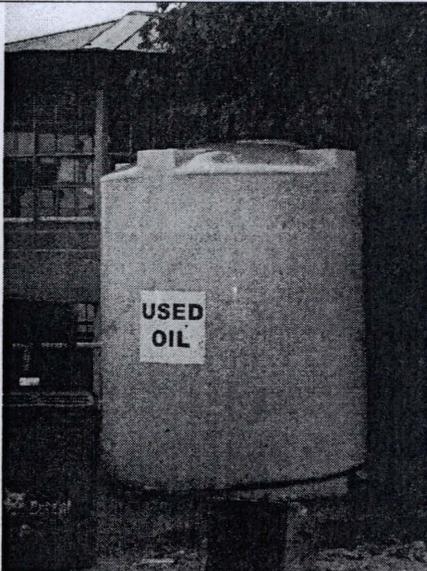


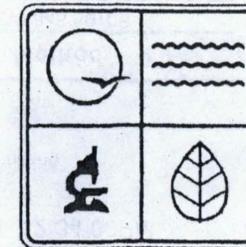
Photo #: 9
By: James J. Hessel II
Facility: Shapiro Brothers, Inc
Permit: MO-R60A146
Location: North part of the property

Description: Picture showing used oil container

Date/Time Taken: September 14, 2011
Program: WPC Unit



Missouri Department of Natural Resources
Environmental Services Program



Order ID 110915002

Program, Contact: HWP Dennis Hanson

Report Date: 10/03/2011

LDPR/JobCode: FERCA / NJ12SHAP



Sample: AB59474



Customer #: 1106418

Facility ID:
County: Jefferson

Site: Shapiro Brothers
Sample Reference ID:

Collector: SEAN COUNIHAN

Affiliation: ESP

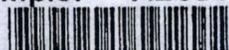
Collect Date: 9/14/2011 12:05:00PM

Entry Point:

Sample Comment: Grab sample #1106418, collected from Wash Station.

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6020 Metals-Total Recoverable	Arsenic	10.8		µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Barium	775	09	µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Cadmium	23.9	06	µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Chromium	26.9		µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Lead	2610	09	µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Selenium	2.08	05	µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Silver	0.51	06, 05	µg/L	12,636	SW 846 6020
Field Dissolved Oxygen	Field Dissolved Oxygen	4.42		mg/L		SM 4500-O-G
Field pH	Field pH	8.26		pH Units		EPA 150.1
Field Specific Conductivity	Field Specific Conductivity	794 µS/cm				SM 2510
Field Temperature	Field Temperature	19.5 C				EPA 170.1
Oil And Grease	Oil And Grease	<2	ND	mg/L	12,653	1664

Sample: AB59475



Customer #: 1106419

Facility ID:
County: Jefferson

Site: Shapiro Brothers
Sample Reference ID:

Collector: SEAN COUNIHAN

Affiliation: ESP

Collect Date: 9/14/2011 12:10:00PM

Entry Point:

Sample Comment: Grab sample #1106419, collected from sediment pile that is removed from Wash Station. Has not been previously classified by facility - is a new system and new waste.

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6010B Metals-Total Recoverable	Arsenic	11000	06	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Barium	504000		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Cadmium	18600		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Chromium	63900		µg/kg	12,631	SW 846 6010B

Sample: AB59475**Customer #: 1106419****Facility ID:****County:** Jefferson**Collector:** SEAN COUNIHAN**Entry Point:****Sample Comment:**

Grab sample #1106419, collected from sediment pile that is removed from Wash Station. Has not been previously classified by facility - is a new system and new waste.

Site: Shapiro Brothers**Sample Reference ID:****Affiliation:** ESP**Collect Date:** 9/14/2011 12:10:00PM

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6010B Metals-Total Recoverable	Lead	2220000		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Selenium	<1000	ND	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Silver	7110	09	µg/kg	12,631	SW 846 6010B
Percent Moisture	Percent Moisture	20.2		%	12,557	Infrared Drying

Sample: AB59476**Customer #: 1106420****Facility ID:****County:** Jefferson**Collector:** SEAN COUNIHAN**Entry Point:****Sample Comment:**

Grab sample #1106420 collected from Storm Water outfall on southeast end of property near 9th and railroad crossing.

Site: Shapiro Brothers**Sample Reference ID:****Affiliation:** ESP**Collect Date:** 9/14/2011 12:23:00PM

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6020 Metals-Total Recoverable	Arsenic	8.65		µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Barium	323	09	µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Cadmium	30.9		µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Chromium	22.2		µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Lead	2110	09	µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Selenium	2.14	05	µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Silver	0.56	05	µg/L	12,636	SW 846 6020
Field Dissolved Oxygen	Field Dissolved Oxygen	5.10		mg/L		SM 4500-O-G
Field pH	Field pH	7.99		pH Units		EPA 150.1
Field Specific Conductivity	Field Specific Conductivity	1023 uS/cm				SM 2510
Field Temperature	Field Temperature	19.4 C				EPA 170.1
Oil And Grease	Oil And Grease	<2	ND	mg/L	12,653	1664

Sample: AB59477**Customer #: 1106421****Facility ID:****County:** Jefferson**Collector:** SEAN COUNIHAN**Entry Point:****Sample Comment:**

Grab sample #1106421 collected from roadway north of truck wash entrance just north of non-ferrous building.

Site: Shapiro Brothers**Sample Reference ID:****Affiliation:** ESP**Collect Date:** 9/14/2011 12:34:00PM

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6010B Metals-Total Recoverable	Arsenic	8640		µg/kg	12,631	SW 846 6010B

Sample: AB59477**Customer #: 1106421****Facility ID:**
County: Jefferson**Site:** Shapiro Brothers
Sample Reference ID:**Collector:** SEAN COUNIHAN**Affiliation:** ESP**Collect Date:** 9/14/2011 12:34:00PM**Entry Point:****Sample Comment:** Grab sample #1106421 collected from roadway north of truck wash entrance just north of non-ferrous building.

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6010B Metals-Total Recoverable	Barium	420000		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Cadmium	19200		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Chromium	67300		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Lead	2180000		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Selenium	<1000	ND	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Silver	872		µg/kg	12,631	SW 846 6010B
Percent Moisture	Percent Moisture	14.9		%	12,557	Infrared Drying

Sample: AB59478**Customer #: 1106422****Facility ID:**
County: Jefferson**Site:** Shapiro Brothers
Sample Reference ID:**Collector:** SEAN COUNIHAN**Affiliation:** ESP**Collect Date:** 9/14/2011 12:50:00PM**Entry Point:****Sample Comment:** Grab sample #1106422 collected from first staging pile from entrance northwest side of pile near base.

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6010B Metals-Total Recoverable	Arsenic	18700		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Barium	697000	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Cadmium	44800		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Chromium	204000	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Lead	5860000	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Selenium	<1000	ND	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Silver	6830	09	µg/kg	12,631	SW 846 6010B
Percent Moisture	Percent Moisture	14.7		%	12,557	Infrared Drying

Sample: AB59479**Customer #: 1106423****Facility ID:**
County: Jefferson**Site:** Shapiro Brothers
Sample Reference ID:**Collector:** SEAN COUNIHAN**Affiliation:** ESP**Collect Date:** 9/14/2011 12:47:00PM**Entry Point:****Sample Comment:** Grab sample #1106423 collected from midway through main roadway between two main staging piles.

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6010B Metals-Total Recoverable	Arsenic	8480		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Barium	437000	09	µg/kg	12,631	SW 846 6010B

Sample: AB59479**Customer #: 1106423****Facility ID:****County:** Jefferson**Collector:** SEAN COUNIHAN**Entry Point:****Sample Comment:****Site:** Shapiro Brothers**Sample Reference ID:****Affiliation:** ESP**Collect Date:** 9/14/2011 12:47:00PM

Grab sample #1106423 collected from midway through main roadway between two main staging piles.

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6010B Metals-Total Recoverable	Cadmium	18500		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Chromium	49100	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Lead	2210000	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Selenium	<1000	ND	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Silver	5780		µg/kg	12,631	SW 846 6010B
Percent Moisture	Percent Moisture	26.7		%	12,557	Infrared Drying

Sample: AB59480**Customer #: 1106424****Facility ID:****County:** Jefferson**Collector:** SEAN COUNIHAN**Entry Point:****Sample Comment:****Site:** Shapiro Brothers**Sample Reference ID:****Affiliation:** ESP**Collect Date:** 9/14/2011 1:03:00PM

Grab sample #1106424 collected from north end of main roadway near Vine Street entrance.

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6010B Metals-Total Recoverable	Arsenic	8360		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Barium	367000	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Cadmium	16000		µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Chromium	72400	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Lead	1590000	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Selenium	<1000	ND	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Silver	1730		µg/kg	12,631	SW 846 6010B
Percent Moisture	Percent Moisture	19.3		%	12,557	Infrared Drying

Sample: AB59481**Customer #: 1106425****Facility ID:****County:** Jefferson**Collector:** SEAN COUNIHAN**Entry Point:****Sample Comment:****Site:** Shapiro Brothers**Sample Reference ID:****Affiliation:** ESP**Collect Date:** 9/14/2011 1:09:00PM

Grab sample #1106425 collected from bottom of fluff pile.

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6010B Metals-Total Recoverable	Arsenic	30300	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Barium	2180000	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Cadmium	74500		µg/kg	12,631	SW 846 6010B

Sample: AB59481



Customer #: 1106425

Facility ID:
County: Jefferson

Site: Shapiro Brothers.
Sample Reference ID:

Collector: SEAN COUNIHAN

Affiliation: ESP

Collect Date: 9/14/2011 1:09:00PM

Entry Point:

Sample Comment: Grab sample #1106425 collected from bottom of fluff pile.

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6010B Metals-Total Recoverable	Chromium	427000	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Lead	4420000	09	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Selenium	<1000	ND	µg/kg	12,631	SW 846 6010B
6010B Metals-Total Recoverable	Silver	2520	09	µg/kg	12,631	SW 846 6010B
Percent Moisture	Percent Moisture	19.8		%	12,557	Infrared Drying

Sample: AB59482



Customer #: 1106426

Facility ID:
County: Jefferson

Site: Shapiro Brothers
Sample Reference ID:

Collector: SEAN COUNIHAN

Affiliation: ESP

Collect Date: 9/14/2011 1:17:00PM

Entry Point:

Sample Comment: Grab sample #1106426 collected from Vine Street storm water outfall north end of property.

Test	Parameter	Result	Qualifier	Units	QC Batch ID	Method
6020 Metals-Total Recoverable	Arsenic	0.96	05	µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Barium	46.3		µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Cadmium	0.54		µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Chromium	1.94		µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Lead	28.0		µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Selenium	<0.50	ND	µg/L	12,636	SW 846 6020
6020 Metals-Total Recoverable	Silver	<0.50	ND	µg/L	12,636	SW 846 6020
Field Dissolved Oxygen	Field Dissolved Oxygen	4.97		mg/L		SM 4500-O-G
Field pH	Field pH	7.78		pH Units		EPA 150.1
Field Specific Conductivity	Field Specific Conductivity	200 µS/cm				SM 2510
Field Temperature	Field Temperature	19.6 C				EPA 170.1
Oil And Grease	Oil And Grease	<2	ND	mg/L	12,653	1664

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S Environmental Protection Agency.

Chris Boldt

**Chris Boldt, Laboratory Manager
Environmental Services Program
Division of Environmental Quality**

Qualifier Descriptions

- | | |
|--|---|
| 01 Improper collection method | 02 Improper preservation |
| 03 Exceeded holding time | 04 Analyzed by Contract Laboratory |
| 05 Estimated value, detected below PQL | 06 Estimated value, QC data outside limits |
| 07 Estimated value, analyte outside calibration range | 08 Analyte present in blank at > 1/2 reported value |
| 09 Sample was diluted during analysis | 10 Laboratory error |
| 11 Estimated value, matrix interference | 12 Insufficient quantity |
| 13 Estimated value, true result is \geq reported value | 14 Estimated value, non-homogeneous sample |
| 15 No Result - Failed Quality Controls Requirements | 16 Not analyzed - related analyte not detected |
| 17 Results in dry weight | 18 Sample pH is outside the acceptable range |
| 19 Estimated value | 20 Not analyzed - Instrument failure |
| 21 No result - spectral interference | 22 pH was performed at the Laboratory |
| 23 Contract Lab specific qualifier - see sample comments | 24 No result - matrix interference |
| 25 No Result: Excessive Chlorination | 26 No Result: Excessive Dechlorination |
| ND Not detected at reported value | |