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GROUNDWATER MONITORING AND NAPL SEPARATION/HOT WATER GENERATION/GROUNDWATER TREATMENT SYSTEM STATUS REPORT OCTOBER 2011 – DECEMBER 2011 (QUARTERLY MONITORING EVENT)

JENNISON WRIGHT SUPERFUND SITE
900 WEST 22ND STREET
GRANITE CITY, ILLINOIS

PREPARED FOR:

Ms. Erin Rednour
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

LPC No. 1190400008-Madison
Jennison Wright/Granite City
Superfund/Technical

PREPARED BY:

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS 62521
(Bodine Project #119386-12)

June 2012

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BODINE ENVIRONMENTAL SERVICES, INC.

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Waste Management
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Site Redmediation
Environmental Audits

Tank Removal/Cleaning
Air Monitoring
Spill Response
RCRA Closures

June 28, 2012

Ms. Erin Rednour, Project Manager
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

Re: Quarterly GWOU Status Report
October 2011 through December 2011
Bodine Project Number 119386

1190400008 – Madison
Jennison Wright /Granite City
Superfund/Technical

Dear Ms. Rednour:

Bodine Environmental Services, Inc. (Bodine) is pleased to provide two (2) copies of the Quarterly Groundwater Operable Unit (GWOU) Status Report for the above referenced site. This report summarizes the data and results of the GWOU operation, maintenance, sampling and analytical results for the period between October 1, 2011 and December 31, 2011.

If you have any questions, please contact the undersigned at (217)519-3955.

Respectfully submitted,

BODINE ENVIRONMENTAL SERVICES, INC.

Troy M. McFate
Senior Project Manager

Bob Bryson
Vice President of Operations

Enclosures: Quarterly GWOU Status Report – 2 Copies

Cf: Tom Campbell, Ecology & Environment Engineering, Inc., 33 West Monroe Street, Suite 550, Chicago IL 60603
Sheila A. Sullivan, M.P.H., U.S. EPA Region V, Mailcode HSRM-6J, 77 W. Jackson Blvd., Chicago, Illinois 60604-3590

(All cfs with copy of enclosure)

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1.0 INTRODUCTION

On behalf of Illinois Environmental Protection Agency (Illinois EPA), Bodine Environmental Services, Inc. (Bodine) is submitting this Groundwater Monitoring and Non-Aqueous-Phase Liquid (NAPL) Extraction/Groundwater Treatment System (hereafter referred to as Groundwater Operable Unit[GWOU]) Status Report to the Illinois EPA to document and discuss activities completed at the former Jennison Wright NPL site (hereafter the "site") during the system operation period from October 1, 2011 through December 31, 2011. This is the fourth quarter monitoring event for 2011 and represents a period of three months.

In 2009, the GWOU was installed to extract NAPL and treat impacted groundwater from the former 22nd Street Lagoon area. The USEPA determined the GWOU to be substantially completed in accordance with the remedial design plans and specifications in September 2009. The GWOU was started and due to issues with scaling of the heat exchanger the system was redesigned by Ecology and Environment Engineering, Inc. (EEEI) in December of 2009. EEEI added a feed tank and changed the piping so the groundwater from the extraction wells would be treated prior to entering the heat exchanger. The GWOU continued to experience iron and calcium carbonate scaling issues so the temperature to the injection wells was lowered to 140 degrees Fahrenheit and antiscalent chemicals were utilized to improve operating time. The GWOU was determined to be Operational and Functional by the USEPA and Illinois EPA in September of 2010.

During the operation period from October 1, 2011 to December 31, 2011, the GWOU operated 51 days. In November, Bodine observed water shooting out of the feed tank below the heat exchanger. The heat exchanger tubing was removed and a hole was observed in one of the tubes. One loop of the tube was crimped and both ends of the tube were brazed together. The system was restarted but the heat exchanger continued to have heat transfer issues. The steam was unable to transfer to the water and the steam pressure would build up and shut down the boiler system for safety reasons. Bodine and Behrmann Company developed a plan to change the boiler to operate on hot water and change to a plate heat exchanger. The GWOU was shut down in December while the new heat exchanger was built and the boiler was converted to operate on hot water. Bodine did change out the carbon and organoclay during this shut down period.

System operational samples were collected monthly and analyzed for 40CFR136A Method 625 semi-volatile organic compounds (SVOCs), Clean Water Method 1664 Oil and Grease (O&G), Standard Methods 2540D Total Suspended Solids (TSS), Standard Method 5210B Biochemical Oxygen Demand (BOD), and pH. In addition, samples were collected of the effluent and analyzed for parameters required by the City of Granite City Wastewater Treatment Plant (GCRWWTP) Discharge Permit. The analytical results of the GCRWWTP effluent samples indicated the effluent was within the parameters of the Discharge Permit.

Groundwater samples were collected from select groundwater monitoring and extraction wells from November 16, 2011 to November 17, 2011 and analyzed for SW-846 Method 8270 SVOCs. Pentachlorophenol was analyzed utilizing SW-846 Method 8151A. Based on the analytical results, groundwater concentrations in the treatment zone seem to be decreasing in the up gradient monitoring wells in the treatment zone. However, the groundwater concentrations seem to be increasing in the down gradient monitoring wells in the treatment zone. It also appears that the contamination is migrating downgradient. The SVOC concentrations in MW-17S and MW-18S are increasing since the past sampling events. The PCP concentration in MW-8S, which is located in the former PCP treatment area, increased from the last sampling event.

2.0 GWOU SYSTEM STATUS

2.1 GWOU System Operation. The GWOU was implemented to mobilize the NAPL plume observed within the area of the 22nd Street Lagoon so that it could be collected and disposed of off-site. The layout consists of six subsurface hot water injection points and two groundwater/NAPL extraction wells. The six injection wells were placed along the approximate NAPL plume boundary and the two extraction wells were centered within the injection well locations based on capture calculations performed by EEEI. The wells are oriented to reduce travel time between injection and extraction points in order to limit heat loss in the subsurface aquifer. The extraction wells pump contaminated groundwater and NAPL from 65 feet below ground surface (bgs) to an on-site treatment building. The main components of the hot water generation system are stored in a separate room, immediately adjacent to the groundwater treatment building. Treated groundwater is discharged via underground piping to the combined sewer system collection piping located in the alley west of the site. The sewer system ultimately discharges to the Chain of Rocks Barge Canal after being processed through the GCRWWTP. All influent groundwater has NAPL removed; a portion of this water is directed to the hot water generation system which is pumped to the six subsurface injection wells. A Site Plan Map depicting the location of the wells and site layout is presented as Figure 1.

Bodine monitored the GWOU on a weekly basis. Monitoring activities on the GWOU were completed to evaluate if the system was operating efficiently, conduct any maintenance, record required operating parameters, and collect operational samples and effluent discharge samples. Copies of the Weekly Operational Logs are attached in Appendix A. The operational samples are collected on a monthly basis. The effluent samples for the GCRWWTP are collected bi-annually and submitted to the GCRWWTP.

The GWOU operated for 51 days during this period. The system was shut down in December due to steam/heat transfer issues with the tube exchanger. System maintenance activities this quarter consisted of the following:

- Cleaning of the heat exchanger and feed tank with a descaling acid;
- Repaired solenoid valve on recirculation pump M-3;
- Amsco installed new five (5) horsepower recirculation pump (M-3);
- Amsco replaced leaking fitting on the discharge side of the heat exchanger;
- Repaired holes in the perimeter fence;
- Pyramid Electrical replaced overload for recirculation pump M-3;
- Bodine water tested heat exchanger bundle and discovered a hole on the bundle tubing;
- Behr Mechanical crimped and brazed the damaged heat exchanger bundle;
- Cleaned the injection field flow meter;
- Bodine cleaned the poly tank used for cleaning the injection wells and put waste generated in 55-gallon drums;
- Bodine and Behrmann Company developed plan to switch to hot water boiler system and plate heat exchanger;

- Bodine removed tube exchanger and associated tanks, etc. to make room for new plate exchanger and new inline boiler pump;
- Bodine vacuumed organoclay from tank and transported 4,500 gallons to Waste Management's Cottonwood Hills Landfill in Marissa, Illinois for solidification and disposal;
- Siemens Water Technologies vacuumed spent carbon into tanker and transported to Darlington Pennsylvania for reactivation;
- Siemens Water Technologies pumped carbon slurry (3,000 pounds) into organoclay tank for under drain;
- Siemens Water Technologies pumped carbon slurry (10,000 pounds) into carbon treatment tank;
- Bodine used vacuum truck to install 8,200 pounds of organoclay into the clay treatment tank;
- Bodine transported nine (9) drums of spent bag filters to Waste Management's Milam Landfill in East Saint Louis, Illinois for disposal; and
- Bodine transported five (5) drums of OWS and injection well cleaning liquids to Milam Landfill for solidification and disposal.

Copies of the manifests for disposal of the spent organoclay are attached in Appendix B. A copy of the manifest for reactivation of the spent carbon is attached in Appendix C. A copy of the waste tracking form for the drums of bag filters and absorbents is attached in Appendix D. A copy of the manifest for the OWS cleaning sludge and liquids is attached in Appendix E.

2.2 **GWOU System Performance.** Samples are collected monthly from four (4) locations throughout the GWOU. The locations are as follows: GWOUA (Influent prior to NAPL Separator) GWOUB (Influent after NAPL Separator), GWOUC (Influent after bag filters), and GWOUE (Effluent). The GWOUA sample is analyzed for SVOCs and O&G, the GWOUB sample is analyzed for O&G, TSS, and pH, the GWOUC sample is analyzed for O&G and TSS, and the GWOUE sample is analyzed for SVOCs, BOD, TSS, and pH. The laboratory analytical results from these sampling locations are reviewed to evaluate the efficiency of the GWOU. Specifically, during the fourth quarter of 2011, samples were collected on October 3 and November 22, 2011. Based on review of the analytical results, the GWOU is efficiently removing the SVOC constituents. However, the O&G analytical results indicate the NAPL separator is not efficiently removing the NAPL. The bag filters before the organoclay and the organoclay are removing a significant amount of NAPL. The bag filters are required to be changed twice a week due to binding from NAPL and other miscellaneous solids.

The GCRWWTP requires the effluent to be sampled biannually. A sample of the effluent was collected November 3, 2011 and sent to Test America – Chicago for analysis. After review of the analytical results, the effluent contained small concentrations of several metals, but all the concentrations were well below the Wastewater Discharge Limitations listed in Part II of the GCRWWTP Industrial Pretreatment Program Remediation Discharge Permit Number IWDP-360. In addition, there were several SVOC

concentrations above the laboratory reporting limit, but the discharge permit does not contain discharge limitations for SVOCs. Effluent data for the GCRWWTP are presented in Table 1. The associated laboratory analytical reports are presented in Appendix F. The GWOU is currently performing within the GCRWWTP discharge permit requirements. The GCRWWTP also requests the total volume of wastewater discharged monthly for billing purposes. For the fourth quarter of 2011, the GWOU discharged 668,980 gallons of treated water to the GCRWWTP.

2.3 **Contaminant Mass Removal.** Influent groundwater samples were collected prior to treatment activities (activated carbon) at the sampling port of influent (GWOUA) from extraction wells (EW-1 and EW-2) to determine the SVOC loading to the treatment system. The influent samples were collected on October 3 and November 22, 2011. These samples are used to determine the mass of SVOCs removed from the groundwater by the system and to estimate the treatment system efficiency. The associated laboratory analytical reports are presented in Appendix G.

Total mass removal was calculated using the average total SVOC concentrations (15,507 µg/l [Table 2]) detected in the influent (GWOUA) samples minus the average total SVOC concentrations (1,140 µg/l [Table 3]) in the effluent (GWOUE) and the total average flow rate (50,400 gallons per day) of the system. The average flow rate was determined by utilizing 35 gpm as the average flow rate. Therefore, the total SVOC mass removed from the site during the fourth quarter of 2011 is approximately 307 lbs.

In addition, the total SVOC loading of the system and the SVOC concentration present in the effluent sample were used to determine the SVOC removal efficiency of the system. Based on the average total SVOC concentration (15,507 µg/l) in the influent samples and the average effluent SVOC concentration of 1,140 µg/l, the system is currently removing approximately 92% of the SVOCs entering the system. Therefore, the activated carbon treatment performance is acceptable. The mass removal data is presented on Table 4. A time versus mass removal graph is included in Appendix H.

3.0 GROUNDWATER MONITORING ACTIVITIES

The monitoring plan for the Remedial Action consists of sampling select monitoring wells at the site. The monitoring wells to be sampled were determined by Ecology and Environment in the Remedial Design for this site and are listed in the Operation & Maintenance Plan. There are ten (10) monitoring wells selected for quarterly monitoring and an additional twelve (12) monitoring wells selected for annual monitoring. In addition to groundwater sampling, groundwater levels were measured in monitoring wells across the site to monitor the capture zones from operating extraction wells and identify potential plume migration. The following is a discussion of the groundwater monitoring results for the fourth quarter monitoring period of 2011.

3.1 **Hydrogeology and System Influence.** Groundwater levels were measured in the monitoring well and extraction well network on November 5, 2011. The water level measurements (Table 5) were entered into Surfer 8 and a data grid was established utilizing the Kriging Method. A contour map was then developed for the monitoring well water elevations.

Based on review of the water table contour maps (Figures 2-4), shallow groundwater flow at the site is predominantly to the south, southwest and west with a western component of groundwater flow in the southern half of the site. The intermediate and deep groundwater flow shows primarily a southerly component. These groundwater flow directions are consistent with previous observations documented by EEEI.

3.2 **Groundwater Quality.** Groundwater quality results from the November 2011 sampling event were evaluated relative to historical monitoring results to determine potential contaminant trends present at the site and in the vicinity of individual extraction wells. Bodine utilized the analytical results from the August 2011 sampling event to evaluate the data. A summary of the groundwater analytical results for August 2011 and November 2011 are listed in Tables 6 and 7. Based on laboratory analytical results, contaminant concentrations appear to be decreasing in groundwater in the up gradient monitoring wells located in the treatment zone. However, contaminant concentrations appear to be increasing in groundwater in the down gradient monitoring wells located in the treatment zone In addition, the analytical results of monitoring well MW-17S down gradient of the treatment system indicate an increase of the contaminant concentrations, so it appears the contamination plume for the 22nd Street Lagoon is migrating downgradient.

The 2,4-Dimethylphenol concentration in MW-5S decreased to 2,900 µg/l from 8,800 µg/l, the 2-Methylphenol concentration decreased to 170 µg/l from 430 µg/l, the Naphthalene concentration decreased to 18,000 µg/l from 21,000 µg/l, and the Pentachlorophenol (PCP) concentration decreased to 750 µg/l from 860 µg/l in the previous August 2011 sampling event. The concentrations of the above referenced Chemicals of Potential Concern (COPC) are above the Cleanup Objectives (CUOs) listed in the ROD and the Illinois EPA TACO Class I groundwater objectives. The Benzo(a)anthracene concentration (3.7 µg/l) and Benzo(b)fluoranthene concentration (3.5

µg/l) are above the Illinois EPA TACO Class I groundwater objectives. The Fluorene concentration decreased to 290 µg/l from 360 µg/l and the Acenaphthene concentration decreased to 530 µg/l from 670 µg/l in the previous sampling event. These concentrations are above the Illinois EPA Class I groundwater objectives. The benzo(a)pyrene concentration (2.9 µg/l) and Chrysene concentration (3.6 µg/l) are also above the Illinois EPA Class I groundwater objectives. The 3&4 Methylphenol concentration decreased to 110 µg/l from 240 µg/l in the previous sampling event. There are no proposed CUOs or Illinois EPA Tier 1 groundwater objectives established for 3&4 Methylphenol. In addition, there are several other SVOCs with concentrations detected above the laboratory reporting limit in MW-5S, but below the proposed CUOs in the ROD and the Illinois EPA TACO Class I groundwater objectives. A summary of the groundwater analytical results are listed in Table 7. Monitoring well MW-5S is located in the former 22nd lagoon area and in the groundwater treatment zone. The sample was collected from the middle of the screen which is approximately 22 feet below ground surface (bgs).

Bodine attempted to sample MW-5D, but free product was observed flowing through the sample tubing and into the purge water container. Since free product was observed, sampling of MW-5D was not completed.

The PCP concentration in MW-20 decreased to 1.4 µg/l from 1.8 µg/l in the previous sampling event, but this concentration is above the proposed CUO in the ROD and the Illinois EPA TACO Class I groundwater objective. The benzo(a)anthracene concentration decreased from 0.32 µg/l to below the reporting limit. In addition, there are several SVOC concentrations above the laboratory reporting limits in MW-20, but the concentrations are below the proposed CUOs in the ROD and the Illinois EPA TACO Class I groundwater objectives. Monitoring well MW-20 is located in the groundwater treatment zone and is northwest of EW-1. The sample from MW-20 was collected from approximately 65 feet bgs.

Bodine attempted to sample MW-21, but free product was observed floating on the top of the water. The interphase probed detected several feet of LNAPL on the surface of the water. The sampling by EEEI in 2009 indicated several SVOC concentrations above the CUOs in MW-21. Monitoring well MW-21 is located in the groundwater treatment zone and is southwest of the extraction well (EW-2).

The Benzo(a)anthracrene concentration in MW-22 decreased to 2.3 µg/l from 7.7 µg/l, the Benzo(b)fluoranthene concentration decreased to 1.7 µg/l from 4.1 µg/l, and the Benzo(k)fluoranthene concentration decreased to 0.69 µg/l from 2.2 µg/l from the previous sampling event. These concentrations are above the proposed CUOs in the ROD and the Illinois EPA TACO Class I groundwater objectives. The Chrysene concentration decreased to 1.0 µg/l from 7.2 µg/l, but this concentration is above the Illinois EPA TACO Class I groundwater objective. The Benzo(a)pyrene concentration decreased to 1.4 µg/l from 3.2 µg/l, the Ideno(1,2,3-c,d)pyrene concentration decreased to 0.64 µg/l from 1.3 µg/l, and the naphthalene concentration increased to 280 µg/l from

120 µg/l from the previous sampling event and these concentrations are above the IEPA TACO Class I groundwater objectives. The PCP concentration decreased to 0.63 µg/l from 19 µg/l previous sampling event. In addition, there are several SVOC concentrations above the laboratory reporting limits in MW-22, but the concentrations are below the proposed CUOs in the ROD and the Illinois EPA TACO Class I groundwater objectives. Monitoring well MW-22 is located in the groundwater treatment zone and is northeast of the extraction well (EW-1). The sample from MW-22 was collected from approximately 65 feet bgs.

The 2,4-Dimethylphenol concentration in MW-23 increased to 1,200 µg/l from below the laboratory reporting limit, the 2-Methylphenol concentration increased to 1,700 µg/l from 44 µg/l, the Benzo(a)anthracrene concentration increased to 4.5 µg/l from 1.9 µg/l, the Benzo(b)fluoranthene concentration increased to 2.6 µg/l from 1.5 µg/l, the Benzo(k)fluoranthene concentration increased to 0.94 µg/l from below the laboratory reporting limit, the Naphthalene concentration increased to 15,000 µg/l from 7,000 µg/l, and the PCP concentration increased to 210 µg/l from 7.5 µg/l in the previous sampling event. These concentrations are above the proposed CUOs in the ROD and the Illinois EPA TACO Class I groundwater objectives. The Chrysene concentration increased to 3.9 µg/l from 1.4 µg/l, the Acenaphthene concentration increased to 440 µg/l from 260 µg/l, the Benzo(a)pyrene concentration increased to 2.2 µg/l from 1.0 µg/l, and the Phenol concentration increased to 190 µg/l from 4.9 µg/l in the previous sampling event. These concentrations are above the Illinois EPA TACO Class I groundwater objectives. In addition, there are several SVOC concentrations above the laboratory reporting limits in MW-23, but the concentrations are below the proposed CUOs and the Illinois EPA TACO Class I groundwater objectives. The most notable increase is the 3&4-Methylphenol concentration of 5,100 µg/l; however, there are no established groundwater objectives for 3&4-Methylphenol. Monitoring well MW-23 is located in the groundwater treatment zone and is southeast of the extraction well (EW-2). The sample from MW-23 was collected from approximately 65 feet bgs.

Samples were also collected from the extraction wells on November 17, 2011. In EW-1, the Benzo(a)anthracrene concentration decreased to 14 µg/l from 410 µg/l, the Benzo(b)fluoranthene concentration decreased to 8.3 µg/l from 260 µg/l, the Benzo(k)fluoranthene concentration decreased to 3.9 µg/l from 160 µg/l, the Chrysene concentration decreased to 13 µg/l from 360 µg/l, the Naphthalene concentration decreased to 1,900 µg/l from 11,000 µg/l, and the PCP concentration decreased to 13 µg/l from 41 µg/l from the previous sampling period. These concentrations were all above the proposed CUOs listed in the ROD and the Illinois EPA TACO Class I Groundwater Objectives. The Benzo(a)pyrene concentration decreased to 6.8 µg/l from 230 µg/l and the Ideno(1,2,3-c,d)pyrene concentration decreased to 2.6 µg/l from 83 µg/l. These concentrations are above the Illinois EPA TACO Class I Groundwater Objectives. In addition, there were several SVOC concentrations above the laboratory reporting limit in EW-1 but below the proposed CUOs in the ROD and the Illinois EPA TACO Class I Groundwater Objectives. The pump is set at 65 feet bgs in EW-1, so the samples were collected at approximately 65 feet bgs.

The analytical results indicate that the groundwater from EW-2 contains higher concentrations of SVOCs than EW-1. In EW-2, the 2,4-Dimethylphenol concentration increased to 220 µg/l from below the laboratory reporting limit, the Benzo(a)anthracrene concentration increased to 2,400 µg/l from 1,600 µg/l, the Benzo(b)fluoranthene concentration increased to 1,400 from 640 µg/l, the Benzo(k)fluoranthene concentration increased to 570 µg/l from 390 µg/l, the Chrysene concentration increased to 2,100 µg/l from 1,400 µg/l, the Naphthalene concentration increased to 33,000 µg/l from 25,000 µg/l, and the PCP concentration decreased to 31 µg/l from 75 µg/l from the previous sampling event. These concentrations were all above the proposed CUOs listed in the ROD and the Illinois EPA TACO Class I groundwater objectives. The Acenaphthene concentration increased to 7,100 µg/l from 4,400 µg/l, the Anthracene concentration increased to 2,800 µg/l from 1,600 µg/l, the Benzo(a)pyrene concentration increased to 1,100 µg/l from 590 µg/l, the Fluoranthene concentration increased to 9,500 µg/l from 5,000 µg/l, the Fluorene concentration increased to 6,300 µg/l from 3,900 µg/l, the Ideno(1,2,3-c,d)pyrene concentration increased to 450 µg/l from 200 µg/l, the Dibenz(a,h)anthracene concentration increased to 150 µg/l from 80 µg/l, and the Pyrene concentration increased to 7,300 µg/l from 4,700 µg/l in the previous sampling period. These concentrations are all above the Illinois EPA TACO Class I groundwater objectives. In addition, there were several SVOC concentrations above the laboratory reporting limit in EW-2, but they were below the proposed CUOs listed in the ROD and Illinois EPA TACO Class I groundwater objectives. The pump is set at 65 feet bgs in EW-2, so the samples were collected at approximately 65 feet bgs.

As part of the quarterly monitoring plan, Bodine sampled monitoring wells MW-17S and MW-18S to determine if the COPC are migrating down gradient of the treatment zone. Monitoring well MW-17S is located south of the treatment zone and is between the treatment zone and MW-18S. The Naphthalene concentration in MW-17S increased to 23,000 µg/l from 20,000 µg/l, the 2-4-Dimethylphenol concentration increased to 230 µg/l from 160 µg/l in the duplicate sample for MW-17S, and the PCP concentration decreased to 3,800 µg/l from 4,400 µg/l from the previous sampling event. These concentrations are well above the proposed CUOs in the ROD and the Illinois EPA TACO Class I groundwater objectives. The 2-Chlorophenol concentration (89 µg/l) and 2,4-Dichlorophenol concentration (210 µg/l) are above the Illinois EPA Class I groundwater objectives. In addition, there were several SVOC concentrations above the laboratory reporting limit in MW-17S, but they were below the proposed CUOs listed in the ROD and Illinois EPA TACO Class I groundwater objectives. The sample from MW-17S was collected from the middle of the screen approximately 23.5 feet bgs.

Monitoring well MW-18S is located southwest of the treatment zone and southwest of MW-17S. The PCP concentration (1.4 µg/l) is the same concentration as the previous sampling event and this concentration is above the proposed CUO in the ROD and the Illinois EPA TACO Class I groundwater objective. The Naphthalene concentration did increase to 39 µg/l from 3.4 µg/l in the previous sampling event. In addition, there were several SVOC concentrations above the laboratory reporting limit in MW-18S, but they were below the proposed CUOs listed in the ROD and Illinois EPA TACO Class I

groundwater objectives. The sample from MW-18S was collected from the middle of the screen approximately 23.5 feet bgs. Based on the groundwater analytical results from MW-17S and MW-18S, it does appear that some of the COPC are migrating down gradient of the treatment zone.

As part of the quarterly monitoring plan, two (2) monitoring wells in the former PCP treatment area were sampled during this sampling event to monitor the contamination in this area. These wells were resampled on November 22, 2011, because two (2) of the three (3) bottles were broken during shipping to the laboratory in the first sampling event. The PCP concentration in MW-8S increased to 720,000 µg/l from 83,000 µg/l in the previous sampling event. This concentration is well above the proposed CUO in the ROD and Illinois EPA TACO Class I groundwater objective. The Naphthalene concentration decreased to 120 µg/l from 170 µg/l in the previous sampling event, which is below the Illinois EPA TACO Class I groundwater objective. In addition, there were several SVOC concentrations in MW-8S above the laboratory reporting limit but below the proposed CUOs in the ROD and the Illinois EPA TACO Class I groundwater objectives. The PCP concentration in MW-8M increased to 12 µg/l from 1.2 µg/l in the previous sampling event. This concentration is above the proposed CUO in the ROD and the Illinois EPA TACO Class I groundwater objective. In addition, there were several SVOC concentrations in MW-8M above the laboratory reporting limit but below the proposed CUOs in the ROD and Illinois EPA TACO Class I groundwater objectives. The sample for MW-8S was collected in the middle of the screen at 20 feet bags, and the sample for MW-8M was collected in the middle of the screen at 47.5 feet bgs.

The following monitoring and extraction wells have groundwater concentrations above the proposed CUOs listed in the ROD, the Illinois EPA TACO Class I groundwater objectives or both:

- MW-5S
- MW-8S
- MW-8M
- MW-17S
- MW-18S
- MW-20
- MW-22
- MW-23
- EW-1
- EW-2

Groundwater analytical data is summarized in Tables 6, 7, 8, and 9. Time versus concentration graphs were created for extraction wells EW-1 and EW-2 and are included in Appendix H. Groundwater analytical reports including chain-of-custody documentation for the November 2011 sampling event are included in Appendix I. Copies of the groundwater sampling forms are included in Appendix J. A photograph log is included in Appendix K.

4.0 CONCLUSIONS AND RECOMENDATIONS

Based on the data generated during the operating period from October 1, 2011 through December 31, 2011 the following conclusions are presented.

- The GWOU operated within acceptable levels as determined by effluent sampling results. Approximately 307 lbs of SVOC contaminant mass was removed from the groundwater during the fourth quarter of 2011.

- The water treatment chemicals continue to improve operating time before the GWOU has to be shut down to chemically remove iron and calcium carbonate scale from the heat exchanger tubes.

- The NAPL separator is not efficiently removing the NAPL entering the treatment system. The system operational samples indicate more O&G after the NAPL separator than what is entering the NAPL separator. In addition, the influent tank and bag filters are covered with NAPL.

- Shallow groundwater flow is predominantly to the south with a western component in the southern half of the site. The intermediate and deep groundwater flow shows primarily a southerly component.

- The SVOC concentrations appear to be decreasing in the up gradient monitoring wells located in the treatment zone. However, the SVOC concentrations appear to be increasing in the down gradient monitoring wells in the treatment zone.

- The analytical results for the down gradient well (MW-17S) from the treatment zone indicate elevated Naphthalene and PCP concentrations, so it appears the contaminant plume may be migrating down gradient from the treatment zone.

- Bodine recommends decreasing the hot water injection rate from 40 gpm to 30 gpm to increase the cone of depression in the treatment zone and prevent migration of contaminants.

- The PCP concentration in MW-8S increased from (83,000 μg/l) to (720,000 μg/l) from the previous sampling event.

- The PCP concentration in MW-8M increased from (1.2 μg/l) to (12 μg/l) from the previous sampling event.

- The duplicate samples collected were analyzed and the relative prevent difference (RPD) between the duplicate samples were within the acceptable RPD limits.

5.0 LIMITATIONS OF INVESTIGATION

This report was prepared under constraints of cost, time and scope, and reflects a limited assessment and evaluation based on data collected at discrete locations on or near the site. Conditions may vary across the site. The assessment was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by professional consultants practicing in this or similar localities. No other warranty or guarantee, expressed or implied, is made as to the conclusions and professional advice included in this report.

The findings of this report are valid as of the present date of the assessment. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control.

The interpretations and conclusions contained in this report are based upon the result of independent laboratory tests and analysis intended to detect the presence and/or concentrations of certain chemical constituents in samples taken from the subject property. Bodine has no control over such testing and analysis and therefore, disclaims any responsibility for any errors and omissions arising there from.

TABLES

Table 1
IEPA - Jennison Wright Summary of Compounds Detected in GCRWWTP Effluent Sample
November 2011

		Daily Discharge Limitation	
Date			11/3/2011
Sample ID Number	Reporting Limit		GCRWWTP-GWOUE-11032011
Units	mg/L	mg/L	mg/L
Metals			
Arsenic	0.0050	0.5	ND
Barium	0.0050	11	0.35
Cadmium	0.0010	1.2	0.00034 J
Chromium	0.0050	9	ND
Copper	0.0050	3	ND
Lead	0.0025	0.5	ND
Manganese	0.0050	7	0.33
Mercury	0.0002	0.001	0.0001
Nickel	0.0050	2.6	ND
Selenium	0.0050	3	ND
Silver	0.0025	0.4	ND
Zinc	0.0100	5	0.0036 JB
FOG	4.8	200	ND
Iron	0.1000	---	3.9
Cyanide	0.0100	1.25	0.0028 JB
Total Phenols	0.0050	2.5	0.27
BOD	2.0	---	3.3
TSS	5.0	---	ND
Semi-Volatiles			
	ug/L	ug/L	ug/L
2,4-Dimethylphenol	24	---	44 J
2-Methylphenol	24	---	27 J
3 & 4 Methylphenol	24	---	40 J
Acenaphthene	24	---	210
Acenaphthylene	24	---	4.1 J
Anthracene	24	---	4.6 J
Benzo(a)anthracene	24	---	ND
Benzo(a)pyrene	24	---	ND
Benzo(b)fluoranthene	24	---	ND
Benzo(ghi)perylene	24	---	ND
Benzo(k)fluoranthene	24	---	ND
bis(2-Ethylhexyl) phthalate	47	---	ND
Chrysene	24	---	ND
Dibenzofuran	24	---	45 J
Fluoranthene	24	---	13 J
Fluorene	24	---	85
Indeno(1,2,3-c,d)pyrene	24	---	ND
Naphthalene	24	---	430
Pentachlorophenol	94	---	ND
Phenanthrene	24	---	80
Phenol	47	---	ND
Pyrene	24	---	11 J

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
either precision or accuracy possibly due to matrix effects.
ND - Analyte NOT DETECTED at or above the reporting limit.
N/A - Not Applicable
Value exceeds GCRWWTP Discharge Limitation

Table 2
IEPA - Jennison Wright Summary of VOCs and SVOCs Detected in System Influent
4th Quarter 2011

	ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives				
Date				10/3/2011		11/22/2011
Sample ID Number			QC Flag	GWOUA (10032011)	QC Flag	GWOUA (11222011)
Units	µg/l	µg/l		µg/l		µg/l
Volatiles						
Benzene	10	5		NS		NS
Toluene		1000		NS		NS
Ethylbenzene		700		NS		NS
Semi-Volatiles						
2,4-Dimethylphenol	200	140		62		**160**
2-Methylphenol	500	350	J	22		79
3&4 Methylphenol			J	29		85
Acenaphthene	---	420		**490**		**1900**
Acenaphthylene	---	210	J	16		52
Anthracene	---	2100		92		510
Benzo(a)anthracene	0.13	0.13		**53**		**450**
Benzo(a)pyrene	---	0.2	J	**30**		**260**
Benzo(b)fluoranthene	0.18	0.18	J	**31**		**350**
Benzo(ghi)perylene	---	210	J	16		94
Benzo(k)fluoranthene	0.4	0.17	J	**23**		**160**
Chrysene	4	1.5	J	**45**		**360**
Dibenzofuran	---	7		320		1400
Fluoranthene	---	280		270		**2200**
Fluorene	---	280		**360**		**1800**
Indeno(1,2,3-c,d)pyrene	---	0.43	J	**15**		**98**
Dibenz(a,h)anthracene	---	0.0003	J	**7.1**	J	**35**
Naphthalene	400	140		**4800**		**7700**
Pentachlorophenol	1	1		ND		ND
Phenanthrene	---	210		880		4800
Phenol	---	100		ND		ND
Pyrene	---	210		190		**1500**
		Total VOCs &SVOCs		**7521.1**		**23493**
		Quarterly VOC & SVOC Average		**15507**		

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
ND - Analyte NOT DETECTED at or above the reporting limit.
N/A - Not Applicable
NS - Not Sampled
Value exceeds TACO Class I Groundwater Remediation Objective or ROD Cleanup Objective
Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds 3/14/11

Table 3
IEPA - Jennison Wright Summary of Semi-Volatile Organic Compounds Detected in System Effluent
4th Quarter 2011

	GCRWWTP Daily Discharge Limitations				
Date		10/3/2011		11/22/2011	
Sample ID Number		QC Flag	GWOUE (10032011)	QC Flag	GWOUE (11222011)
Units	µg/l		µg/l		µg/l
Semi-Volatiles					
2,4-Dimethylphenol	---		73		110
2-Methylphenol	---		73		89
3 & 4 Methylphenol	---		110		110
Acenaphthene	---		200		220
Acenaphthylene	---	J	4.6	J	5.3
Anthracene	---	J	4.1	J	5
Benzo(a)anthracene	---		ND		ND
Benzo(a)pyrene	---		ND		ND
Benzo(b)fluoranthene	---		ND		ND
Benzo(ghi)perylene	---		ND		ND
Benzo(k)fluoranthene	---		ND		ND
bis(2-Ethylhexyl) phthalate	---		ND		ND
Chrysene	---		ND		ND
Dibenzofuran	---	J	40	J	30
Fluoranthene	---	J	13	J	16
Fluorene	---		69		66
Indeno(1,2,3-c,d)pyrene	---		ND		ND
Naphthalene	---		300		590
Pentachlorophenol	---		ND		ND
Phenanthrene	---		50		55
Phenol	---	J	13	J	13
Pyrene	---	J	9.3	J	11
	Total SVOCs		**959**		**1320.3**
	Quarterly Average		**1140**		

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
ND - Analyte NOT DETECTED at or above the reporting limit.
N/A - Not Applicable
Value exceeds GCRWWTP Daily Discharge Limitation

Table 4
Mass Removal
NAPL Seperation/Hot Water Generation/Groundwater Treatment System
Jennison Wright NPL Site
Granite City, Illinois
Project Number 119386-12

	Date	Total VOC/SVOC	Flow		Total VOC/SVOC Mass Removed per Day				Length of Quarter	Total Mass per Quarter	Cumulative Mass Removed
Sample ID	Units	µg/l	GPD	Liters per Day	µg	mg	kg	lbs	Days Operating	lbs	lbs
GWOUE	10/1-12/31/10	9019	50400	190784.7547	1720687703	1720688	1.720688	3.785513	84	317.9830875	317.9830875
	01/01/-03/31/11	10339.00	50400	190784.7547	1972523579	1972524	1.972524	4.339552	83	360.1828055	678.165893
	04/01/-06/30/11	7601.00	50400	190784.7547	1450154921	1450155	1.450155	3.190341	79	252.0369252	930.2028182
	10/01/-12/31/11	14367.00	50400	190784.7547	2741004571	2741005	2.741005	6.03021	51	307.5407129	1237.743531

Notes

GPD = gallons per day
µg = micrograms
mg = milligrams
kg = kilograms
lbs = pounds

Table 5
Groundwater Elevation Summary
Jennison Wright NPL Site
Granite City, Illinois
Bodine Project Number 119386-12

Well ID	Date	Well Depth	Top of Casing Elevation	Screen Interval	Depth of Water	Groundwater Elevation
		(Feet bgs)	(MSL)	(Feet bgs/MSL)	(Feet bgs)	(MSL)
MW-1S	11/15/2011	26.00	424.53	16-26	18.80	405.73
MW-1D	11/15/2011	117.00	423.84	107-117	18.08	405.76
MW-2S	11/15/2011	23.00	419.06	13-23	13.13	405.93
MW-3S	11/15/2011	25.40	422.01	15.4-25.4	18.20	403.81
MW-3D	11/15/2011	115.00	422.35	105-115	17.32	405.03
MW-4S	11/15/2011	28.00	423.97	18-28	19.10	404.87
MW-5S	11/15/2011	27.00	424.51	17-27	19.09	405.42
MW-5D	11/15/2011	110.50	423.04	100.5-110.5	17.67	405.37
MW-6M	11/15/2011	64.60	422.79	54.6-64.6	17.79	405.00
MW-6D	11/15/2011	113.50	422.58	103.5-113.5	17.82	404.76
MW-8SR	11/15/2011	25.00	423.91	15-25	19.22	404.69
MW-8MR	11/15/2011	52.50	423.05	42.5-52.5	18.27	404.78
MW-8D	11/15/2011	117.00	424.57	107-117	19.92	404.65
MW-10SR	11/15/2011	28.50	423.70	18.5-28.5	19.29	404.41
MW-11S	11/15/2011	27.00	425.23	17-27	20.96	404.27
MW-11M	11/15/2011	55.50	424.86	45.5-55.5	20.50	404.36
MW-12S	11/15/2011	26.00	419.72	11-26	13.85	405.87
MW-13S	11/15/2011	28.00	424.84	13-28	19.24	405.60
MW-14S	11/15/2011	29.50	424.58	14.5-29.5	19.22	405.36
MW-15S	11/15/2011	29.50	423.54	14.5-29.5	18.23	405.31
MW-16S	11/15/2011	31.50	423.70	16.5-31.5	18.48	405.22
MW-17S	11/15/2011	31.00	422.87	16-31	17.79	405.08
MW-18S	11/15/2011	31.00	423.54	16-31	18.62	404.92
MW-19S	11/15/2011	32.00	424.46	17-32	20.02	404.44
MW-20	11/15/2011	119.50	425.20	9.5-119.5	19.71	405.49
MW-21	11/15/2011	119.50	424.28	9.5-119.5	NR	- - -
MW-22	11/15/2011	119.50	424.83	9.5-119.5	19.34	405.49
MW-23	11/15/2011	119.50	424.77	9.5-119.5	19.32	405.45

Notes:

- Top of Casing elevation performed by Juneau & Associates - June 2011

NR = Not Recorded
CNL = Could not locate
MSL = Mean Sea Level
Feet bgs = Feet below ground surface

MW-21 had free product.

Table 6
IEPA - Jennison Wright Summary of SVOCs Detected in Groundwater Monitoring Wells
August 2011

		ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives						
Date				8/9/2011	8/11/2011	8/11/2011	8/10/2011	8/10/2011	8/10/2011
Sample ID Number	Method			MW-2S	MW-5S	MW-5D	MW-8SR	MW-8MR	MW-8D
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Semi-Volatiles									
2,4-Dimethylphenol	8270C	200	140	ND	**8800**	ND	ND	ND	ND
2-Methylphenol	8270C	500	350	ND	**430**	ND	ND	ND	ND
3 & 4 Methylphenol	8270C	---	---	ND	240	ND	ND	ND	ND
2-4-Dichlorophenol	8270C	---	0.021	ND	ND	ND	ND	ND	ND
Acenaphthene	8270C	---	420	ND	**670**	140	10 J	88	ND
Acenaphthylene	8270C	---	210	ND	76 J	7.8	ND	0.93	ND
Anthracene	8270C	---	2100	ND	ND	7.5	ND	ND	ND
Benzo(a)anthracene	8270C	0.13	0.13	ND	ND	**2.4**	ND	ND	ND
Benzo(a)pyrene	8270C	---	0.2	ND	ND	**0.97**	ND	ND	ND
Benzo(b)fluoranthene	8270C	0.18	0.18	ND	ND	**1.4**	ND	ND	ND
Benzo(ghi)perylene	8270C	---	210	ND	ND	0.42 J	ND	ND	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	ND	ND	**0.66**	ND	ND	ND
Bis(2-ethylhexyl) phthalate	8270C	---	6	ND	ND	ND	ND	ND	ND
Carbazole	8270C	---	---	ND	1100	25	ND	10	ND
Chrysene	8270C	4	1.5	ND	ND	ND	ND	ND	ND
Dibenzofuran	8270C	---	[illegible]	ND	400	[illegible]	[illegible]	0.29 J	ND
Diethyl Phthalate	8270C	---	5.6	0.59 J	ND	1.2 J	ND	0.32 J	ND
Fluoranthene	8270C	---	280	0.21 J	50 J	30	ND	ND	ND
Fluorene	8270C	---	280	ND	**360**	96	12 J	25	ND
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	ND	ND	0.33	ND	ND	ND
Benzo(g,h,i)perylene	8270C	---	210	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	8270C	---	3	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	8270C	---	600	ND	ND	ND	ND	ND	ND
Naphthalene	8270C	400	140	ND	**21000**	28	**170**	16	2.9
2-Methylnaphthalene	8270C	---	280	ND	1800	2	260	0.39 J	ND
4-Chloro-3-methylphenol	8270C	---	---	ND	ND	ND	ND	ND	ND
Pentachlorophenol	8151A	1	1	**1.8**	**860**	**1.1**	**83000**	**1.2**	0.49
Phenanthrene	8270C	---	210	ND	**380**	100	11 J	ND	ND
Phenol	8270C	---	100	ND	ND	ND	ND	ND	ND
Pyrene	8270C	---	210	0.16 J	ND	16	ND	ND	ND

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
ND - Analyte NOT DETECTED at or above the reporting limit.
N/A - Not Applicable
Value exceeds TACO Class I Groundwater Remediation Objective or ROD Cleanup Objective
Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit Remediation Objectives for Non-TACO Compounds

Table 6
IEPA - Jennison Wright Summary of SVOCs Detected in Groundwater Monitoring Wells
August 2011

		ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives						
Date				8/9/2011	8/9/2011	8/9/2011	8/9/2011	8/9/2011	8/9/2011
Sample ID Number	Method			MW-10SR	MW-11M	MW-11S	MW-12S	MW-13S	MW-14S
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Semi-Volatiles									
2,4-Dimethylphenol	8270C	200	140	ND	ND	ND	ND	ND	ND
2-Methylphenol	8270C	500	350	ND	ND	ND	ND	ND	ND
3 & 4 Methylphenol	8270C	---	---	ND	ND	ND	ND	ND	ND
2-4-Dichlorophenol	8270C	---	0.021	ND	ND	ND	ND	ND	ND
Acenaphthene	8270C	---	420	ND	ND	ND	ND	ND	ND
Acenaphthylene	8270C	---	210	ND	ND	ND	ND	ND	ND
Anthracene	8270C	---	2100	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	8270C	0.13	0.13	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	8270C	---	0.2	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	8270C	0.18	0.18	ND	ND	ND	ND	ND	ND
Benzo(ghi)perylene	8270C	---	210	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	8270C	---	6	ND	ND	ND	ND	ND	ND
Carbazole	8270C	---	---	ND	ND	ND	ND	ND	ND
Chrysene	8270C	4	1.5	ND	ND	ND	ND	ND	ND
Dibenzofuran	8270C	---	7	ND	ND	ND	ND	ND	ND
Diethyl Phthalate	8270C	---	5.6	ND	0.63 J	0.55 J	0.42 J	0.37 J	0.45 J
Fluoranthene	8270C	---	280	ND	ND	ND	ND	ND	ND
Fluorene	8270C	---	280	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	8270C	---	210	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	8270C	---	3	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	8270C	---	600	ND	ND	ND	ND	ND	ND
Naphthalene	8270C	400	140	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	8270C	---	280	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	8270C	---	---	ND	ND	ND	ND	ND	ND
Pentachlorophenol	8151A	1	1	ND	ND	ND	ND	ND	ND
Phenanthrene	8270C	---	210	ND	ND	ND	ND	ND	ND
Phenol	8270C	---	100	ND	ND	ND	ND	ND	ND
Pyrene	8270C	---	210	ND	ND	ND	ND	ND	ND

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
ND - Analyte NOT DETECTED at or above the reporting limit.
N/A - Not Applicable
Value exceeds TACO Class I Groundwater Remediation Objective or ROD Cleanup Objective
Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit Remediation Objectives for Non-TACO Compounds, 9/14/11

Table 6
IEPA - Jennison Wright Summary of SVOCs Detected in Groundwater Monitoring Wells
August 2011

		ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives						
Date				8/9/2011	8/10/2011	8/9/2011	8/10/2011	8/10/2011	8/16/2011
Sample ID Number	Method			MW-15S	MW-16S	MW-17S	MW-18S	MW-19S	MW-20-35
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Semi-Volatiles									
2,4-Dimethylphenol	8270C	200	140	ND	1.8 J	**160**	ND	ND	ND
2-Methylphenol	8270C	500	350	ND	ND	ND	ND	ND	ND
3 & 4 Methylphenol	8270C	---	---	ND	ND	35	ND	ND	ND
2-4-Dichlorophenol	8270C	---	0.021	ND	ND	ND	ND	ND	ND
Acenaphthene	8270C	---	420	ND	32	230	ND	ND	17
Acenaphthylene	8270C	---	210	ND	1.4	6.4	ND	ND	1.1
Anthracene	8270C	---	2100	ND	ND	ND	ND	ND	1.7
Benzo(a)anthracene	8270C	0.13	0.13	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	8270C	---	0.2	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	8270C	0.18	0.18	ND	ND	ND	ND	ND	ND
Benzo(ghi)perylene	8270C	---	210	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	8270C	---	6	ND	ND	ND	ND	ND	ND
Carbazole	8270C	---	---	ND	270	260	ND	ND	41
Chrysene	8270C	4	1.5	ND	ND	ND	ND	ND	ND
Dibenzofuran	8270C	---	74	ND	9.8	76	ND	ND	1.2 J
Diethyl Phthalate	8270C	---	5.6	0.64 J	ND	ND	ND	ND	ND
Fluoranthene	8270C	---	280	ND	ND	ND	ND	ND	6.3
Fluorene	8270C	---	280	ND	9.3	43	ND	ND	4.6
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	8270C	---	210	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	8270C	---	3	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	8270C	---	600	ND	ND	ND	ND	ND	ND
Naphthalene	8270C	400	140	ND	**260**	**20000**	3.4	ND	16
2-Methylnaphthalene	8270C	---	280	ND	1.6	550	ND	ND	0.81
4-Chloro-3-methylphenol	8270C	---	---	ND	ND	ND	ND	ND	ND
Pentachlorophenol	8151A	1	1	0.18 J	0.42 J	**4400**	**1.4**	0.25 J	**190**
Phenanthrene	8270C	---	210	ND	0.43 J	19	ND	ND	3.9
Phenol	8270C	---	100	ND	ND	22 J	ND	ND	ND
Pyrene	8270C	---	210	ND	ND	ND	ND	ND	3.6

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
ND - Analyte NOT DETECTED at or above the reporting limit.
N/A - Not Applicable
Value exceeds TACO Class I Groundwater Remediation Objective or ROD Cleanup Objective
Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit Remediation Objectives for Non-TACO Compounds, 3/14/11.

Table 6
IEPA - Jennison Wright Summary of SVOCs Detected in Groundwater Monitoring Wells
August 2011

		ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives						
Date				8/11/2011	8/16/2011	8/11/2011	8/11/2011	8/16/2011	8/11/2011
Sample ID Number	Method			MW-20	MW-22-35	MW-22	MW-22 DUP	MW-23-35	MW-23
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Semi-Volatiles									
2,4-Dimethylphenol	8270C	200	140	ND	**2500**	2.9 J	3.8 J	**990**	ND
2-Methylphenol	8270C	500	350	ND	160	ND	ND	290	44
3 & 4 Methylphenol	8270C	---	---	ND	210	ND	ND	470	83
2-4-Dichlorophenol	8270C	---	0.021	ND	82 J	ND	ND	51 J	ND
Acenaphthene	8270C	---	420	3.4	**440**	230	170	**500**	260
Acenaphthylene	8270C	---	210	0.22 J	38 J	13	9.5	ND	6.4
Anthracene	8270C	---	2100	0.99	25 J	15	12	44 J	10
Benzo(a)anthracene	8270C	0.13	0.13	0.11 J	ND	**7.7**	**3.9**	**18**	**1.9**
Benzo(a)pyrene	8270C	---	0.2	0.12 J	ND	**3.2**	**1.6**	ND	**1**
Benzo(b)fluoranthene	8270C	0.18	0.18	ND	ND	**4.1**	**2.2**	ND	**1.5**
Benzo(ghi)perylene	8270C	---	210	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	ND	ND	**2.2**	**1**	ND	ND
Bis(2-ethylhexyl) phthalate	8270C	---	6	ND	ND	1.3 J	ND	ND	ND
Carbazole	8270C	---	---	14	810	54	53	1100	460
Chrysene	8270C	4	1.5	0.14 J	**42 J**	**7.2**	**3.6**	**19 J**	1.4 J
Dibenzofuran	8270C	---	7	0.28 J	260	150	110	310	160
Diethyl Phthalate	8270C	---	5.6	0.43 J	ND	0.75 J	0.60 J	ND	ND
Fluoranthene	8270C	---	280	1.7	ND	66	48	120	28
Fluorene	8270C	---	280	1.3	230	150	120	**300**	150
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	ND	ND	**1.3**	**0.6**	ND	ND
Benzo(g,h,i)perylene	8270C	---	210	ND	ND	1.5	0.75 J	ND	ND
Dibenz(a,h)anthracene	8270C	---	3	ND	ND	0.44	0.18 J	ND	ND
1,2-Dichlorobenzene	8270C	---	600	ND	ND	ND	ND	ND	ND
Naphthalene	8270C	400	140	3.5	**12000**	120	97	**17000**	**7000**
2-Methylnaphthalene	8270C	---	280	ND	340	7.9	4.7	430	150
4-Chloro-3-methylphenol	8270C	---	---	ND	ND	ND	ND	ND	ND
Pentachlorophenol	8151A	1	1	**1.8**	**420**	**19**	**14**	0.12 J	**7.5**
Phenanthrene	8270C	---	210	0.95	250	190	150	330	170
Phenol	8270C	---	100	ND	ND	ND	ND	ND	4.9 J
Pyrene	8270C	---	210	0.97	25 J	42	26	79	16

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
ND - Analyte NOT DETECTED at or above the reporting limit.
N/A - Not Applicable
Value exceeds TACO Class I Groundwater Remediation Objective or ROD Cleanup Objective
Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit Remediation Objectives for Non-TACO Compounds, 3/14/11

Table 7
IEPA - Jennison Wright Summary of SVOCs Detected in Groundwater Monitoring Wells
November 2011

		ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives					
Date				11/17/2011	11/16/2011	11/16/2011	11/16/2011	11/16/2011
Sample ID Number	Method			MW-5S	MW-8S	MW-8M	MW-17S	MW-17S DUP
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Semi-Volatiles								
2,4-Dimethylphenol	8270C	200	140	**2900**	ND	ND	110	**230**
2-Methylphenol	8270C	500	350	170	2 J	ND	17 J	23
3 & 4 Methylphenol	8270C	---	---	110	5.1 J	ND	34	34
2-Chlorophenol	8270C	---	35	ND	ND	ND	**89**	**84**
2,4-Dichlorophenol	8270C	---	210	ND	ND	ND	**210**	**440**
2,4,5-Trichlorophenol	8270C	---	700	ND	ND	ND	45 J	47 J
2,4,6-Trichlorophenol	8270C	---	10	ND	5.2 J	ND	ND	ND
Acenaphthene	8270C	---	420	**530**	19	92	360	370
Acenaphthylene	8270C	---	210	67	ND	0.62 J	ND	ND
Anthracene	8270C	---	2100	ND	4.3 J	ND	ND	ND
Benzoic Acid	8270C	---	28000		ND	ND	ND	430
Benzo(a)anthracene	8270C	0.13	0.13	**3.7 J**	ND	ND	ND	ND
Benzo(a)pyrene	8270C	---	0.2	**2.9 J**	ND	ND	ND	ND
Benzo(b)fluoranthene	8270C	0.18	0.18	**3.5 J**	ND	ND	ND	ND
Benzo(ghi)perylene	8270C	---	210	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	8270C	---	6	ND	ND	ND	ND	ND
Carbazole	8270C	---	---	980	18 J	8.3	620	620
Chrysene	8270C	4	1.5	**3.6 J**	ND	ND	ND	ND
Dibenzofuran	8270C	---	7	310	17	ND	160	160
Fluoranthene	8270C	---	280	49	ND	ND	ND	ND
Fluorene	8270C	---	280	**290**	24	20	90	85
Diethyl Phthalate	8270C	---	5.6	ND	ND	ND	ND	ND
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	8270C	---	210	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	8270C	---	3	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	8270C	---	600	ND	ND	ND	ND	ND
Naphthalene	8270C	400	140	**18000 B**	120 B	7.7 B	**23000 B**	**25000 B**
2-Methylnaphthalene	8270C	---	280	580	170	ND	760	860
4-Chloro-3-methylphenol	8270C	---	---	ND	ND	ND	ND	ND
Pentachlorophenol	8151A	1	1	**750**	**720000**	**12**	**3800**	**3500**
Phenanthrene	8270C	---	210	250	28	0.46 J	15	15
Phenol	8270C	---	100	15 J	ND	ND	21 J	ND
Pyrene	8270C	---	210	29	ND	ND	ND	20 J

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
ND - Analyte NOT DETECTED at or above the reporting limit.
N/A - Not Applicable
Value exceeds TACO Class I Groundwater Remediation Objective or ROD Cleanup Objective
Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit Remediation Objectives for Non-TACO Compounds. 14/11

Table 7
IEPA - Jennison Wright Summary of SVOCs Detected in Groundwater Monitoring Wells
November 2011

		ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives				
Date				11/16/2011	11/17/2011	11/17/2011	11/16/2011
Sample ID Number	Method			MW-18S	MW-20	MW-22	MW-23
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Semi-Volatiles							
2,4-Dimethylphenol	8270C	200	140	ND	ND	ND	**1200**
2-Methylphenol	8270C	500	350	ND	ND	2.3 J	**1700**
3 & 4 Methylphenol	8270C	---	---	ND	ND	ND	5100
2-Chlorophenol	8270C	---	35	ND	ND	ND	ND
2,4-Dichlorophenol	8270C	---	210	ND	ND	ND	ND
2,4,5-Trichlorophenol	8270C	---	700	ND	ND	ND	ND
2,4,6-Trichlorophenol	8270C	---	10	ND	ND	ND	ND
Acenaphthene	8270C	---	420	1.4	12	230	**440**
Acenaphthylene	8270C	---	210	ND	1	17	17
Anthracene	8270C	---	2100	0.41 J	0.94	13	21
Benzoic Acid	8270C	---	28000	ND	ND	ND	ND
Benzo(a)anthracene	8270C	0.13	0.13	ND	ND	**2.3**	**4.5**
Benzo(a)pyrene	8270C	---	0.2	ND	ND	**1.4**	**2.2**
Benzo(b)fluoranthene	8270C	0.18	0.18	ND	ND	**1.7**	**2.6**
Benzo(ghi)perylene	8270C	---	210	ND	ND	ND	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	ND	ND	**0.69 J**	**0.94 J**
Bis(2-ethylhexyl) phthalate	8270C	---	6	ND	ND	ND	ND
Carbazole	8270C	---	---	ND	14	110	650
Chrysene	8270C	4	1.5	ND	ND	**1.9 J**	**3.9 J**
Dibenzofuran	8270C	---	70	0.79 J	0.34 J	140	270
Fluoranthene	8270C	---	280	0.83 J	3.8	39	50
Fluorene	8270C	---	280	0.92 J	1.4	140	230
Diethyl Phthalate	8270C	---	5.6	ND	1 J	ND	ND
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	ND	ND	**0.64 J**	ND
Benzo(g,h,i)perylene	8270C	---	210	ND	ND	ND	ND
Dibenz(a,h)anthracene	8270C	---	3	ND	ND	ND	ND
1,2-Dichlorobenzene	8270C	---	600	ND	ND	ND	ND
Naphthalene	8270C	400	140	39 B	8.4 B	**280 B**	**15000 B**
2-Methylnaphthalene	8270C	---	280	1.8	0.31 J	5.1	590
4-Chloro-3-methylphenol	8270C	---	---	ND	ND	ND	ND
Pentachlorophenol	8151A	1	1	**1.4**	**1.4**	0.63	**210**
Phenanthrene	8270C	---	210	1.9	0.66 J	120	270
Phenol	8270C	---	100	0.35 J	ND	ND	**190**
Pyrene	8270C	---	210	0.64 J	2.1	22	29

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
ND - Analyte NOT DETECTED at or above the reporting limit.
N/A - Not Applicable
Value exceeds TACO Class I Groundwater Remediation Objective or ROD Cleanup Objective
Denotes compounds where the values have been obtained from IEPA's Toxicity Assessment Unit, Remediation Objectives for Non-TACO Compounds, 3/14/2011

Table 8
IEPA - Jennison Wright Summary of SVOCs Detected in EW-1
4th Quarter 2011

		ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives			
Date				10/14/2010	9/1/2011	11/17/2011
Sample ID Number	Method			EW-1	EW-1	EW-1
Units		µg/L	µg/L	µg/L	µg/L	µg/L
Semi-Volatiles						
2,4-Dimethylphenol	8270C	200	140	9.1 J	ND	81
2-Methylphenol	8270C	500	350	5.4	ND	19
3 & 4 Methylphenol	8270C	---	---	15	21	36
Acenaphthene	8270C	---	420	150	**2000**	330
Acenaphthylene	8270C	---	210	7.5	60	18
Anthracene	8270C	---	2100	8.1	440	47
Benzo(a)anthracene	8270C	0.13	0.13	**1.5**	**410**	**14**
Benzo(a)pyrene	8270C	---	0.2	**0.55**	**230**	**6.8**
Benzo(b)fluoranthene	8270C	0.18	0.18	**0.6**	**260**	**8.3**
Benzo(ghi)perylene	8270C	---	210	ND	ND	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	**0.44**	**160**	**3.9**
Bis(2-ethylhexyl) phthalate	8270C	---	6	ND	**25**	ND
Carbazole	8270C	---	---	51	610	150
Chrysene	8270C	4	1.5	1.1	**360**	**13**
Dibenzofuran	8270C	---	70	100	ND	210
Fluoranthene	8270C	---	280	18	**2200**	120
Fluorene	8270C	---	280	100	**1700**	230
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	0.22	**83**	**2.6**
Benzo(g,h,i)perylene	8270C	---	210	0.22 J	90	ND
Dibenz(a,h)anthracene	8270C	---	3	ND	**27**	ND
1,2-Dichlorobenzene	8270C	---	600	ND	ND	ND
Naphthalene	8270C	400	140	**530**	**11000**	**1900 B**
2-Methylnaphthalene	8270C	---	280	21	1400	64
4-Chloro-3-methylphenol	8270C	---	---	ND	ND	ND
Pentachlorophenol	8151A	1	1	**3.4**	**41**	**13**
Phenanthrene	8270C	---	2100	130	4100	370
Phenol	8270C	---	100	4.8	ND	7.5
Pyrene	8270C	---	210	11	**1700**	76
			Total SVOCs	1,159	26,917	1,820

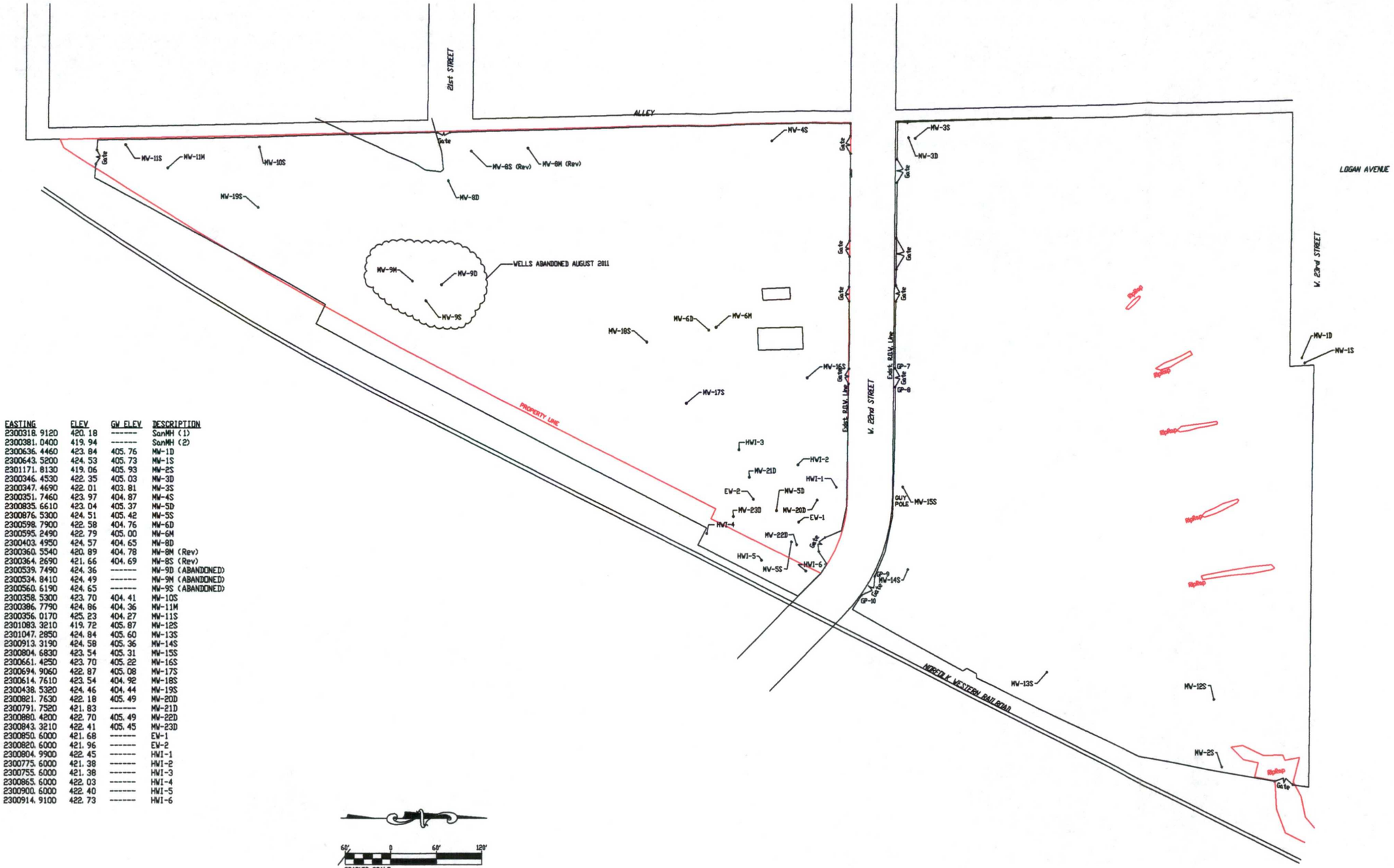
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
ND - Analyte NOT DETECTED at or above the reporting limit.
N/A - Not Applicable
Value exceeds TACO Class I Groundwater Remediation Objective or ROD Cleanup Objective
Denotes compounds where levels have been obtained from IEPA's Toxicity Assessment Unit Remediation Objectives for Non-TACO Compounds

Table 9
IEPA - Jennison Wright Summary of SVOCs Detected in EW-2
4th Quarter 2011

		ROD Proposed Cleanup Objectives	IEPA TACO Class I Groundwater Cleanup Objectives			
Date				10/15/2010	9/1/2011	11/17/2011
Sample ID Number	Method			EW-2	EW-2	EW-2
Units		µg/L	µg/L	µg/L	µg/L	µg/L
Semi-Volatiles						
2,4-Dimethylphenol	8270C	200	140	**480**	ND	**220**
2-Methylphenol	8270C	500	350	**420**	ND	180
3 & 4 Methylphenol	8270C			1000	ND	130
Acenaphthene	8270C	---	420	**530**	**4400**	**7100**
Acenaphthylene	8270C	---	210	17	120	170
Anthracene	8270C	---	2100	96	**1600**	**2800**
Benzoic Acid	8270C	---	28000			450
Benzo(a)anthracene	8270C	0.13	0.13	**72**	**1600**	**2400**
Benzo(a)pyrene	8270C	---	0.2	**31**	**590**	**1100**
Benzo(b)fluoranthene	8270C	0.18	0.18	**36**	**640**	**1400**
Benzo(ghi)perylene	8270C	---	210	ND	ND	ND
Benzo(k)fluoranthene	8270C	0.4	0.17	**20**	**390**	**570**
Bis(2-ethylhexyl) phthalate	8270C		6	ND	ND	ND
Carbazole	8270C			320	1600	1400
Chrysene	8270C	4	1.5	**55**	**1400**	**2100**
Dibenzofuran	8270C	---	210	350	ND	2500
Fluoranthene	8270C	---	280	**300**	**5000**	**9500**
Fluorene	8270C	---	280	**390**	**3900**	**6300**
Indeno(1,2,3-c,d)pyrene	8270C	---	0.43	**10**	**200**	**450**
Benzo(g,h,i)perylene	8270C		210	10	290	430
Dibenz(a,h)anthracene	8270C		3	**4**	**80**	**150**
1,2-Dichlorobenzene	8270C		600	ND	ND	ND
Naphthalene	8270C	400	140	**5500**	**25000**	**33000 B**
2-Methylnaphthalene	8270C		280	350	3100	550
4-Chloro-3-methylphenol	8270C			ND	ND	ND
Pentachlorophenol	8151A	1	1	**170**	**75**	**31**
Phenanthrene	8270C	---	210	720	13000	21000
Phenol	8270C	---	100	**100**	ND	ND
Pyrene	8270C	---	210	**220**	**4700**	**7300**
			Total SVOCs	11,221	67,625	74,681

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
ND - Analyte NOT DETECTED at or above the reporting limit.
N/A - Not Applicable
Value exceeds TACO Class I Groundwater Remediation Objective or ROD Cleanup Objective
Denotes compounds where the values have been obtained from IEPA's Toxic Assessment Unit Remediation Objectives for Non-TACO Compounds, 9/17/11

FIGURES



NORTHING	EASTING	ELEV	GW ELEV	DESCRIPTION
774383.7539	2300318.9120	420.18	------	SanMH (1)
743845.5700	2300381.0400	419.94	------	SanMH (2)
744412.4363	2300636.4460	423.84	405.76	MW-1D
744416.4053	2300643.5200	424.53	405.73	MW-1S
744306.1795	2301171.8130	419.06	405.93	MW-2S
743892.5907	2300346.4530	422.35	405.03	MW-3D
743901.0383	2300347.4690	422.01	403.81	MW-3S
743711.9657	2300351.7460	423.97	404.87	MW-4S
743718.2157	2300835.6610	423.04	405.37	MW-5D
743737.5956	2300876.5300	424.51	405.42	MW-5S
743627.8992	2300598.7900	422.58	404.76	MW-6D
743637.4674	2300595.2490	422.79	405.00	MW-6M
743282.8685	2300403.4950	424.57	404.65	MW-8D
743388.5336	2300360.5540	420.89	404.78	MW-8M (Rev)
743313.3911	2300364.2690	421.66	404.69	MW-8S (Rev)
743274.0245	2300539.7490	424.36	------	MW-9D (ABANDONED)
743235.8218	2300534.8410	424.49	------	MW-9M (ABANDONED)
743253.5051	2300560.6190	424.65	------	MW-9S (ABANDONED)
743033.1724	2300358.5300	423.70	404.41	MW-10S
742911.7757	2300386.7790	424.86	404.36	MW-11M
742856.3616	2300356.0170	425.23	404.27	MW-11S
744295.8401	2301083.3210	419.72	405.87	MW-12S
744074.3720	2301047.2850	424.84	405.60	MW-13S
743891.3005	2300913.3190	424.58	405.36	MW-14S
743884.5337	2300804.6830	423.54	405.31	MW-15S
743758.1875	2300661.4250	423.70	405.22	MW-16S
743598.0714	2300694.9060	422.87	405.08	MW-17S
743545.7756	2300614.7610	423.54	404.92	MW-18S
743031.6142	2300438.5320	424.46	404.44	MW-19S
743771.3062	2300821.7630	422.18	405.49	MW-20D
743681.7644	2300791.7520	421.83	------	MW-21D
743744.4962	2300880.4200	422.70	405.49	MW-22D
743660.6288	2300843.3210	422.41	405.45	MW-23D
743747.1600	2300850.6000	421.68	------	EV-1
743687.1600	2300820.6000	421.96	------	EV-2
743796.5500	2300804.9900	422.45	------	HVI-1
743746.1600	2300775.6000	421.38	------	HVI-2
743668.1600	2300755.6000	421.38	------	HVI-3
743625.1600	2300865.6000	422.03	------	HVI-4
743698.1600	2300900.6000	422.40	------	HVI-5
743756.5800	2300914.9100	422.73	------	HVI-6

BASE CAD DRAWINGS AND ELEVATIONS WERE CREATED BY JUNEAU ASSOCIATES, INC. P.C.

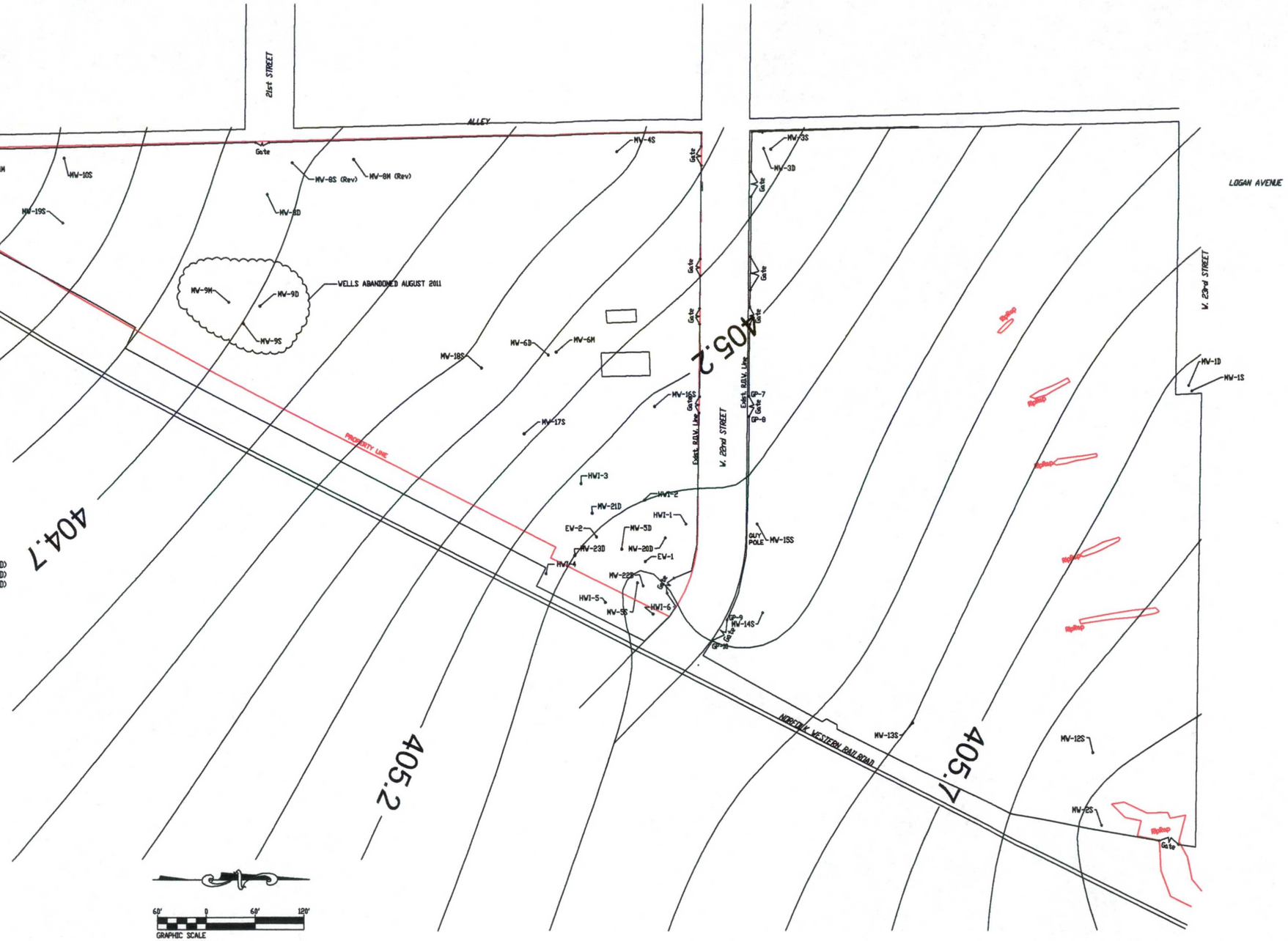
ELEVATIONS AND COORDINATES SHOWN ON MONITORING WELLS ARE TAKEN ON THE NORTH SIDE OF THE INNER CASING

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS 62521

SITE MAP 11-15-11
JENNISON WRIGHT NPL SITE
GRANITE CITY, ILLINOIS

REVISION #	DATE	DESCRIPTION

DRAWN BY / CHECKED	SCALE	FIGURE
JEM	1"=60'	1
BODINE PROJECT # 119386-12	DATE	



NORTHING	EASTING	ELEV	GW ELEV	DESCRIPTION
774383.7539	2300318.9120	420.18	------	SanMH (1)
743845.5700	2300381.0400	419.94	------	SanMH (2)
744412.4363	2300636.4460	423.84	405.76	MW-1D
744416.4053	2300643.5200	424.53	405.73	MW-1S
744306.1795	2301171.8130	419.06	405.93	MW-2S
743892.5907	2300346.4530	422.35	405.03	MW-3D
743901.0383	2300347.4690	422.01	403.81	MW-3S
743711.9657	2300351.7460	423.97	404.87	MW-4S
743718.2157	2300835.6610	423.04	405.37	MW-5D
743737.5956	2300876.5300	424.51	405.42	MW-5S
743627.8992	2300598.7900	422.58	404.76	MW-6D
743637.4674	2300595.2490	422.79	405.00	MW-6M
743282.8685	2300403.4950	424.57	404.65	MW-8D
743388.5336	2300360.5540	420.89	404.78	MW-8M (Rev)
743313.3911	2300364.2690	421.66	404.69	MW-8S (Rev)
743274.0245	2300539.7490	424.36	------	MW-9D (ABANDONED)
743235.8218	2300534.8410	424.49	------	MW-9M (ABANDONED)
743253.5051	2300560.6190	424.65	------	MW-9S (ABANDONED)
743033.1724	2300358.5300	423.70	404.41	MW-10S
742911.7757	2300386.7790	424.86	404.36	MW-11M
742856.3616	2300356.0170	425.23	404.27	MW-11S
744295.8401	2301083.3210	419.72	405.87	MW-12S
744074.3720	2301047.2850	424.84	405.60	MW-13S
743891.3005	2300913.3190	424.58	405.36	MW-14S
743884.5337	2300804.6830	423.54	405.31	MW-15S
743758.1875	2300661.4250	423.70	405.22	MW-16S
743598.0714	2300694.9060	422.87	405.08	MW-17S
743545.7756	2300614.7610	423.54	404.92	MW-18S
743031.6142	2300438.5320	424.46	404.44	MW-19S
743771.3062	2300821.7630	422.18	405.49	MW-20D
743681.7644	2300791.7520	421.83	------	MW-21D
743744.4962	2300880.4200	422.70	405.49	MW-22D
743660.6288	2300843.3210	422.41	405.45	MW-23D
743747.1600	2300850.6000	421.68	------	EV-1
743687.1600	2300820.6000	421.96	------	EV-2
743796.5500	2300804.9900	422.45	------	HWI-1
743746.1600	2300775.6000	421.38	------	HWI-2
743668.1600	2300755.6000	421.38	------	HWI-3
743625.1600	2300865.6000	422.03	------	HWI-4
743698.1600	2300900.6000	422.40	------	HWI-5
743756.5800	2300914.9100	422.73	------	HWI-6

BASE CAD DRAWINGS AND ELEVATIONS WERE CREATED BY JUNEAU ASSOCIATES, INC. P.C.

ELEVATIONS AND COORDINATES SHOWN ON MONITORING WELLS ARE TAKEN ON THE NORTH SIDE OF THE INNER CASING

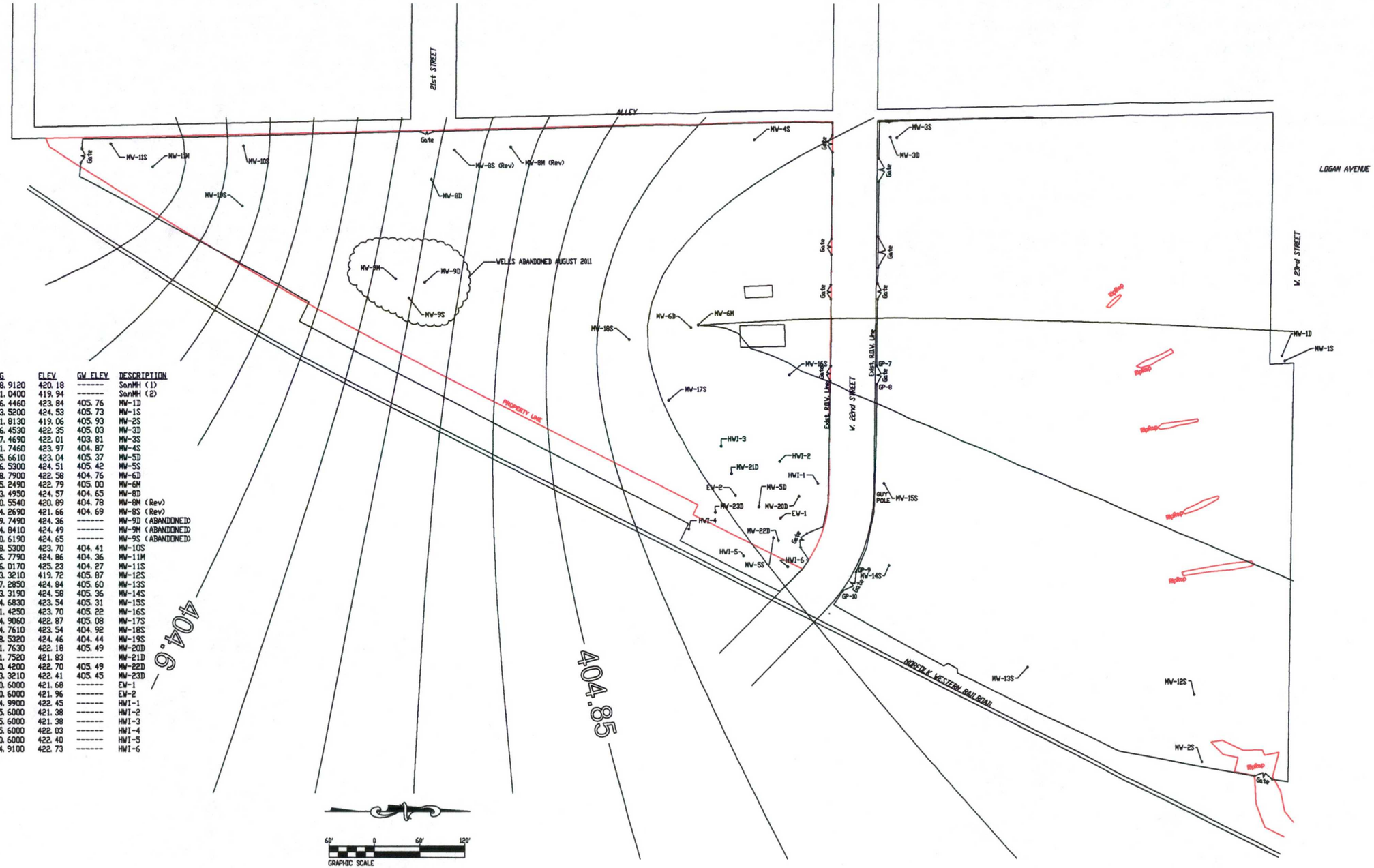
BODINE ENVIRONMENTAL SERVICES, INC.
5360 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS 62521

GROUNDWATER CONTOUR MAP SHALLOW WELLS- 11-15-2011
JENNISON WRIGHT NPL SITE
GRANITE CITY, ILLINOIS

REVISION #	DATE	DESCRIPTION
	2/28/12	8-8-11 GROUND WATER CONTOURS
	6/21/12	11-15-11 GROUND WATER CONTOURS

DRAWN BY / CHECKED	SCALE
JEM	1"=60'
BODINE PROJECT # 119386-12	DATE 2-6-12

FIGURE 2



NORTHING	EASTING	ELEV	GW ELEV	DESCRIPTION
774383.7539	2300318.9120	420.18	------	SanMH (1)
743845.5700	2300381.0400	419.94	------	SanMH (2)
744412.4363	2300636.4460	423.84	405.76	MW-1D
744416.4053	2300643.5200	424.53	405.73	MW-1S
744306.1795	2301171.8130	419.06	405.93	MW-2S
743892.5907	2300346.4530	422.35	405.03	MW-3D
743901.0383	2300347.4690	422.01	403.81	MW-3S
743711.9657	2300351.7460	423.97	404.87	MW-4S
743718.2157	2300835.6610	423.04	405.37	MW-5D
743737.5956	2300876.5300	424.51	405.42	MW-5S
743627.8992	2300598.7900	422.58	404.76	MW-6D
743637.4674	2300595.2490	422.79	405.00	MW-6M
743282.8685	2300403.4950	424.57	404.65	MW-8D
743388.5336	2300360.5540	420.89	404.78	MW-8M (Rev)
743313.3911	2300364.2690	421.66	404.69	MW-8S (Rev)
743274.0245	2300539.7490	424.36	------	MW-9D (ABANDONED)
743235.8218	2300534.8410	424.49	------	MW-9M (ABANDONED)
743253.5051	2300560.6190	424.65	------	MW-9S (ABANDONED)
743033.1724	2300358.5300	423.70	404.41	MW-10S
742911.7757	2300386.7790	424.86	404.36	MW-11M
742856.3616	2300356.0170	425.23	404.27	MW-11S
744295.8401	2301083.3210	419.72	405.87	MW-12S
744074.3720	2301047.2850	424.84	405.60	MW-13S
743891.3005	2300913.3190	424.58	405.36	MW-14S
743884.5337	2300804.6830	423.54	405.31	MW-15S
743758.1875	2300661.4250	423.70	405.22	MW-16S
743598.0714	2300694.9060	422.87	405.08	MW-17S
743545.7756	2300614.7610	423.54	404.92	MW-18S
743031.6142	2300438.5320	424.46	404.44	MW-19S
743771.3062	2300821.7630	422.18	405.49	MW-20D
743681.7644	2300791.7520	421.83	------	MW-21D
743744.4962	2300880.4200	422.70	405.49	MW-22D
743660.6288	2300843.3210	422.41	405.45	MW-23D
743747.1600	2300850.6000	421.68	------	EV-1
743687.1600	2300820.6000	421.96	------	EV-2
743796.5500	2300804.9900	422.45	------	HVI-1
743746.1600	2300775.6000	421.38	------	HVI-2
743668.1600	2300755.6000	421.38	------	HVI-3
743625.1600	2300865.6000	422.03	------	HVI-4
743698.1600	2300900.6000	422.40	------	HVI-5
743756.5800	2300914.9100	422.73	------	HVI-6

BASE CAD DRAWINGS AND ELEVATIONS WERE CREATED BY JUNEAU ASSOCIATES, INC. P.C.

ELEVATIONS AND COORDINATES SHOWN ON MONITORING WELLS ARE TAKEN ON THE NORTH SIDE OF THE INNER CASING

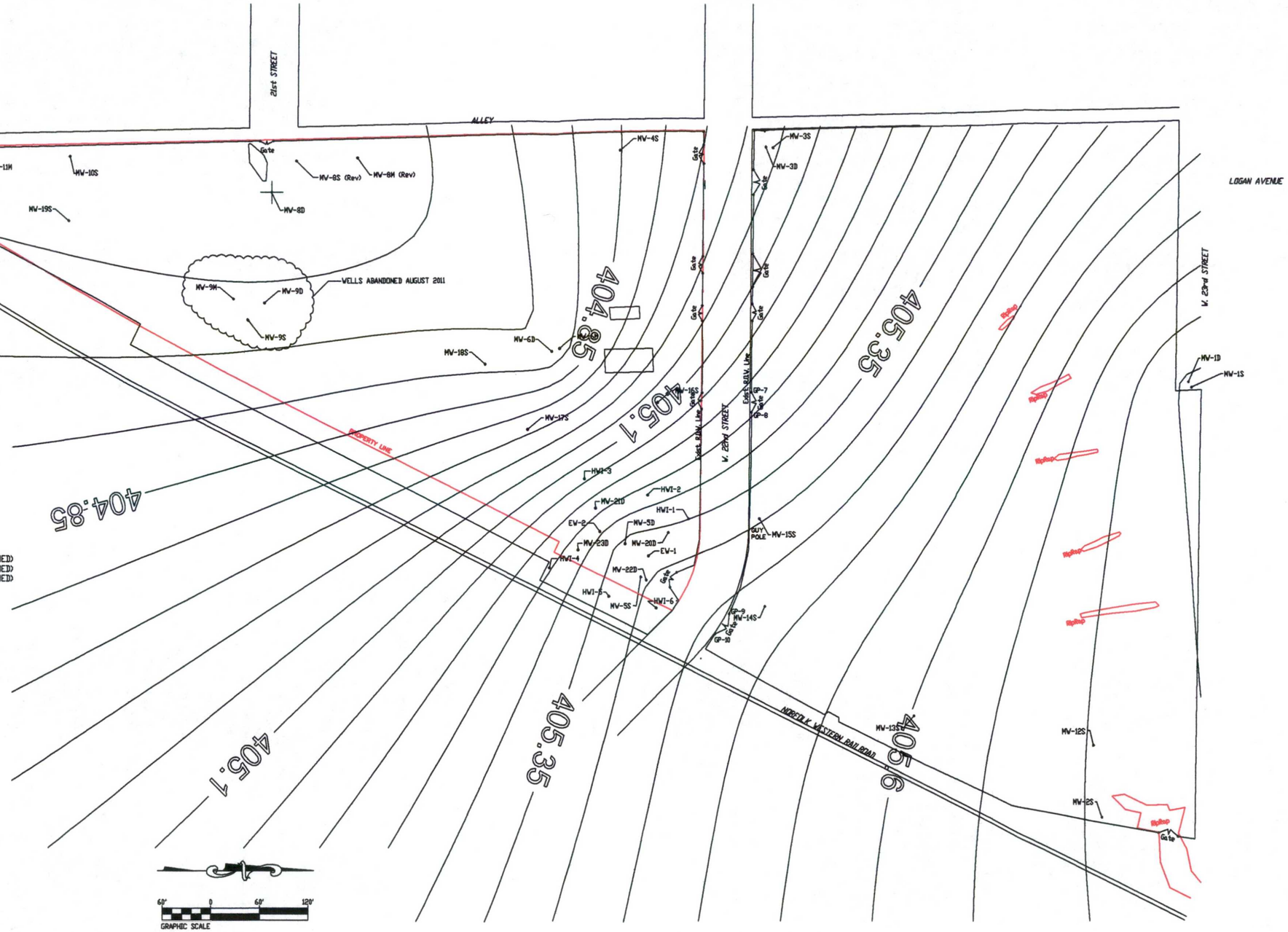
BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS 62521

GROUNDWATER CONTOUR MAP MEDIUM WELLS– 11–15–2011
JENNISON WRIGHT NPL SITE
GRANITE CITY, ILLINOIS

REVISION #	DATE	DESCRIPTION
	2/28/12	8–8–11 GROUND WATER CONTOURS
	6/21/12	11–15–11 GROUND WATER CONTOURS

DRAWN BY / CHECKED	SCALE
JEM	1"=60'
BODINE PROJECT # 119386–12	DATE 2–6–12

FIGURE 3



NORTHING	EASTING	ELEV	GW ELEV	DESCRIPTION
774383.7539	2300318.9120	420.18	------	SanMH (1)
743845.5700	2300381.0400	419.94	------	SanMH (2)
744412.4363	2300636.4460	423.84	405.76	MW-1D
744416.4053	2300643.5200	424.53	405.73	MW-1S
744306.1795	2301171.8130	419.06	405.93	MW-2S
743892.5907	2300346.4530	422.35	405.03	MW-3D
743901.0383	2300347.4690	422.01	403.81	MW-3S
743711.9657	2300351.7460	423.97	404.87	MW-4S
743718.2157	2300835.6610	423.04	405.37	MW-5D
743737.5956	2300876.5300	424.51	405.42	MW-5S
743627.8992	2300598.7900	422.58	404.76	MW-6D
743637.4674	2300595.2490	422.79	405.00	MW-6M
743282.8685	2300403.4950	424.57	404.65	MW-8D
743388.5336	2300360.5540	420.89	404.78	MW-8M (Rev)
743313.3911	2300364.2690	421.66	404.69	MW-8S (Rev)
743274.0245	2300539.7490	424.36	------	MW-9D (ABANDONED)
743235.8218	2300534.8410	424.49	------	MW-9M (ABANDONED)
743253.5051	2300560.6190	424.65	------	MW-9S (ABANDONED)
743033.1724	2300358.5300	423.70	404.41	MW-10S
742911.7757	2300386.7790	424.86	404.36	MW-11M
742856.3616	2300356.0170	425.23	404.27	MW-11S
744295.8401	2301083.3210	419.72	405.87	MW-12S
744074.3720	2301047.2850	424.84	405.60	MW-13S
743891.3005	2300913.3190	424.58	405.36	MW-14S
743884.5337	2300804.6830	423.54	405.31	MW-15S
743758.1875	2300661.4250	423.70	405.22	MW-16S
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743771.3062	2300821.7630	422.18	405.49	MW-20D
743681.7644	2300791.7520	421.83	------	MW-21D
743744.4962	2300880.4200	422.70	405.49	MW-22D
743660.6288	2300843.3210	422.41	405.45	MW-23D
743747.1600	2300850.6000	421.68	------	EV-1
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743746.1600	2300775.6000	421.38	------	HVI-2
743668.1600	2300755.6000	421.38	------	HVI-3
743625.1600	2300865.6000	422.03	------	HVI-4
743698.1600	2300900.6000	422.40	------	HVI-5
743756.5800	2300914.9100	422.73	------	HVI-6

60' 0 60' 120'
GRAPHIC SCALE

BASE CAD DRAWINGS AND ELEVATIONS WERE CREATED BY JUNEAU ASSOCIATES, INC. P.C.

ELEVATIONS AND COORDINATES SHOWN ON MONITORING WELLS ARE TAKEN ON THE NORTH SIDE OF THE INNER CASING

BODINE ENVIRONMENTAL SERVICES, INC.
5350 EAST FIREHOUSE ROAD
DECATUR, ILLINOIS 62521

GROUNDWATER CONTOUR MAP DEEP WELLS– 11–15–2011
JENNISON WRIGHT NPL SITE
GRANITE CITY, ILLINOIS

REVISION #	DATE	DESCRIPTION
	2/28/12	8–8–11 GROUND WATER CONTOURS
	6/21/12	11–15–11 GROUND WATER CONTOURS

DRAWN BY / CHECKED	SCALE
JEM	1"=60'
BODINE PROJECT # 119386–12	DATE 2–6–12

FIGURE 4

APPENDIX A

Weekly Operations Logs

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

Date: 10-5-11

On arrival was GWOU operating? (Yes) / No

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	50.6	gpm
A2) Post Influent Bag Filter Assembly Flow Rate	32.8 / 47.1	gpm
A3) Post Clay/Carbon Tank(s) Flow Rate	29.3 / 40.9	gpm
A4) Effluent Flow Rate to Well Field	92 / 40.7	gpm

Number of HWI Wells Operating 6

Recirculation Pump Running M-3 / (M-4)

Effluent Pump Running (M-5) / M-6

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1)
Operating Status: hand / off / (auto)
Temperature: 61 °F
Flow: 25.3 gpm

B2) EW02 (M-2)
Operating Status: hand / off / (auto)
Temperature: 70 °F
Flow: 25.3 gpm

B3) HWI-1
Operating Status: (On) / Off
Packer Pressure: 24 psi
Flow: 6.7 gpm

B4) HWI-2
Operating Status: (On) / Off
Packer Pressure: 25 psi
Flow: 6.7 gpm

B5) HWI-3
Operating Status: (On) / Off
Packer Pressure: 24 psi
Flow: 6.7 gpm

B6) HWI-4
Operating Status: (On) / Off
Packer Pressure: 21 psi
Flow: 6.7 gpm

B7) HWI-5
Operating Status: (On) / Off
Packer Pressure: 18 filled 24 psi
Flow: 6.7 gpm

B8) HWI-6
Operating Status: (On) / Off
Packer Pressure: 18 filled 24 psi
Flow: 6.7 gpm

Comments/Notes

C. GROUNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	hand / off / auto	on or off
	Recirc. Pump (M-4)	Operating Status	hand / off / auto	on or off
		Pressure	48 psi	
	Effluent Pump (M-5)	Operating Status	hand / off / auto	on or off
	Effluent Pump (M-6)	Operating Status	hand / off / auto	on or off
		Pressure	49 psi	
	Heat Exchanger Pump	Operating Status	Yes / No	
		Influent	40 psi	
		Effluent	57 psi	
		Differential	17 psi	
2) Boiler/Heat Exchanger		Boiler Set Point	140 °F	
		Pressure	5 psi	
		Boiler Blowdown	Yes / No	
3) Thermometers		From Feed Tank	69.9 °F	
		IN Heat Exchanger	131.7 °F	
		OUT Heat Exchanger	161.0 °F	
		To Well Field	180 °F	
4) Pressure		Before Clay	24 psi	Before Carbon 22 psi
		After Clay	24 psi	After Carbon 22 psi
		Differential	0 psi	Differential 0 psi
5) Effluent Totalizer		Meter Reading	5274930 gallons	
		Flow to Sanitary Sewer	9 gpm	

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected
Influent	Oil and grease (O&G)	GWOUA	Yes / No
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / No
Separator	Oil and grease (O&G)	GWOUB	Yes / No
Separator	Total suspended solids (TSS)	GWOUB	Yes / No
Separator	Temperature / pH	GWOUB	Yes / No
Post Clay	Oil and grease (O&G)	GWOUC	Yes / No
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / No
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / No
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / No
Effluent	Total suspended solids (TSS)	GWOUE	Yes / No
Effluent	Temperature / pH	GWOUE	Yes / No
Effluent	GCRWWTP Permit Parameters	GWOUE	Yes / No

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	Yes / No
	Empty sump	Yes / No
2) Vapor Phase Blower	Operating Correctly?	Yes / No
3) Building Exhaust Fan	Operating Correctly?	Yes / No
4) Building Louver	Clear of debris	Yes / No
5) Piping and valves	Inspect	Yes / No
6) Building Interior Lights	Operational?	Yes / No
7) Building Exterior Lights	Operational?	Yes / No
8) Building Temperature		80 °F
9) Outdoor Temperature		70 °F
10) DNAPL Solenoid	Status	hand / off / auto
11) Potable Water Solenoid	Status	hand / off / auto

F. WASTEWATER TREATMENT CHEMICALS

Chemical	Amount	Pump Stroke/Speed
1) AN 400	52 gallons	
2) Toicide PS-50A	17.5 gallons	
3) AN 310H	41. gallons	
4) AN 750 C	55 gallons	

G. GENERAL COMMENTS:

Date: 10-5-11

Operator: D Hall

Signature: Donald S Hall

Groundwater Elevations and Temperature
Jennison Wright NPL Site
Granite City, Illinois
Bodine Project Number 119386-11

Well ID	Date	Temperature (F) @ 35'	Temperature (F) @ 65'	Depth to Water (Feet bgs)
MW5S	10-5-11	103.7	N/A	18.98
MW5D		104.6	76.5	17.6
MW20D		104.9	79.4	19.6
MW21D		109.4	82.4	22.99
MW22D		104.0	79.9	19.22
MW23D		101.0	84.6	19.23

Notes:
Feet bgs = Feet below ground surface.
MW21D - LNAPL present from 18.41 to 22.99

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Date: 10/11/2011

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

On arrival was GWOU operating? Yes / No

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	51.4 / 51	gpm	**Number of HWI Wells Operating**	6
A2) Post Influent Bag Filter Assembly Flow Rate	39 / 44.8	gpm	**Recirculation Pump Running**	M-3 / M-4
A3) Post Clay/Carbon Tank(s) Flow Rate	33.9 / 39.5	gpm	**Effluent Pump Running**	M-5 / M-6
A4) Effluent Flow Rate to Well Field	43.8 / 43	gpm		

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1)	Operating Status	hand / off / auto	**B2) EW02 (M-2)**	Operating Status	hand / off / auto
Flow _____ gpm	Temperature	_____ °F	Flow _____ gpm	Temperature	_____ °F
B3) HWI-1	Operating Status	On / Off	**B4) HWI-2**	Operating Status	On / Off
Flow _____ gpm	Packer Pressure	_____ psi	Flow _____ gpm	Packer Pressure	_____ psi
B5) HWI-3	Operating Status	On / Off	**B6) HWI-4**	Operating Status	On / Off
Flow _____ gpm	Packer Pressure	_____ psi	Flow _____ gpm	Packer Pressure	_____ psi
B7) HWI-5	Operating Status	On / Off	**B8) HWI-6**	Operating Status	On / Off
Flow _____ gpm	Packer Pressure	_____ psi	Flow _____ gpm	Packer Pressure	_____ psi

Comments/Notes _____

C. GROUNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	hand / off / auto	on or off
	Recirc. Pump (M-4)	Operating Status	hand / off / auto	on or off
		Pressure	_____ psi	
	Effluent Pump (M-5)	Operating Status	hand / off / auto	on or off
	Effluent Pump (M-6)	Operating Status	hand / off / auto	on or off
		Pressure	49 psi	
	Heat Exchanger Pump	Operating Status	Yes / No	
		Influent	40 psi	
		Effluent	40 psi	
		Differential	20 psi	
2) Boiler/Heat Exchanger		Boiler Set Point	140 °F	
		Pressure	1 psi	
		Boiler Blowdown	Yes / No	
3) Thermometers		From Feed Tank	71.2 °F	
		IN Heat Exchanger	143 °F	
		OUT Heat Exchanger	108.8 °F	
		To Well Field	155.4 °F	

4) Pressure

Before Clay	32 psi	Before Carbon	28 psi
After Clay	29 psi	After Carbon	28 psi
Differential	3 psi	Differential	— psi

5) Effluent Totalizer

Meter Reading	5349470 gallons
Flow to Sanitary Sewer	10 gpm

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected
Influent	Oil and grease (O&G)	GWOUA	Yes / No
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / No
Separator	Oil and grease (O&G)	GWOUB	Yes / No
Separator	Total suspended solids (TSS)	GWOUB	Yes / No
Separator	Temperature / pH	GWOUB	Yes / No
Post Clay	Oil and grease (O&G)	GWOUC	Yes / No
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / No
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / No
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / No
Effluent	Total suspended solids (TSS)	GWOUE	Yes / No
Effluent	Temperature / pH	GWOUE	Yes / No
Effluent	GCRWWTP Permit Parameters	GWOUE	Yes / No

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	Yes / No
	Empty sump	Yes / No
2) Vapor Phase Blower	Operating Correctly?	Yes / No
3) Building Exhaust Fan	Operating Correctly?	Yes / No
4) Building Louver	Clear of debris	Yes / No
5) Piping and valves	Inspect	Yes / No
6) Building Interior Lights	Operational?	Yes / No
7) Building Exterior Lights	Operational?	Yes / No
8) Building Temperature		90 °F
9) Outdoor Temperature		80 °F
10) DNAPL Solenoid	Status	hand / off / auto
11) Potable Water Solenoid	Status	hand / off / auto

F. WASTEWATER TREATMENT CHEMICALS

Chemical	Amount		Pump Stroke/Speed
1) AN 400	40.5	gallons	40/45
2) Tolcide PS-50A	15.5	gallons	70/20
3) AN 310H	30	gallons	40/35
4) AN 750 C	50	gallons	

G. GENERAL COMMENTS:

Date: 10/11/2011

Operator: Jason Mayer

Signature: [signature]

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Date: 10/17/2011

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

On arrival was GWOU operating? Yes / No

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	52.5 / 51	gpm	**Number of HWI Wells Operating**	5
A2) Post Influent Bag Filter Assembly Flow Rate	42 / 43	gpm	**Recirculation Pump Running**	~~M-3~~ / M-4
A3) Post Clay/Carbon Tank(s) Flow Rate	34 / 40.2	gpm	**Effluent Pump Running**	M-5 / M-6
A4) Effluent Flow Rate to Well Field	37.9 / 42	gpm		

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1)	Operating Status	hand / off / auto	**B2) EW02 (M-2)**	Operating Status	hand / off / auto
Flow _____ gpm	Temperature	_____ °F	Flow _____ gpm	Temperature	_____ °F
B3) HWI-1	Operating Status	On / Off	**B4) HWI-2**	Operating Status	On / Off
Flow _____ gpm	Packer Pressure	_____ psi	Flow _____ gpm	Packer Pressure	_____ psi
B5) HWI-3	Operating Status	On / Off	**B6) HWI-4**	Operating Status	On / Off
Flow _____ gpm	Packer Pressure	_____ psi	Flow _____ gpm	Packer Pressure	_____ psi
B7) HWI-5	Operating Status	On / Off	**B8) HWI-6**	Operating Status	On / Off
Flow _____ gpm	Packer Pressure	_____ psi	Flow _____ gpm	Packer Pressure	_____ psi

Comments/Notes _____

C. GROUNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	~~hand / off / auto~~	on or off
	Recirc. Pump (M-4)	Operating Status	hand / off / (auto)	on or off
		Pressure	50 psi	
	Effluent Pump (M-5)	Operating Status	hand / off / (auto)	on or off
	Effluent Pump (M-6)	Operating Status	hand / off / (auto)	on or off
		Pressure	50 psi	
	Heat Exchanger Pump	Operating Status	(Yes) / No	
		Influent	42 psi	
		Effluent	62 psi	
		Differential	20 psi	
2) Boiler/Heat Exchanger		Boiler Set Point	149 °F	
		Pressure	1 psi	
		Boiler Blowdown	(Yes) / No	
3) Thermometers		From Feed Tank	70.7 °F	
		IN Heat Exchanger	132.2 °F	
		OUT Heat Exchanger	149 °F	
		To Well Field	143.2 °F	

4) Pressure

Before Clay	32 psi	Before Carbon	28 psi
After Clay	30 psi	After Carbon	28 psi
Differential	2 psi	Differential	— psi

5) Effluent Totalizer

Meter Reading	5434080 gallons
Flow to Sanitary Sewer	10 gpm

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected
Influent	Oil and grease (O&G)	GWOUA	Yes / No
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / No
Separator	Oil and grease (O&G)	GWOUB	Yes / No
Separator	Total suspended solids (TSS)	GWOUB	Yes / No
Separator	Temperature / pH	GWOUB	Yes / No
Post Clay	Oil and grease (O&G)	GWOUC	Yes / No
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / No
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / No
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / No
Effluent	Total suspended solids (TSS)	GWOUE	Yes / No
Effluent	Temperature / pH	GWOUE	Yes / No
Effluent	GCRWWTP Permit Parameters	GWOUE	Yes / No

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	(Yes) / No
	Empty sump	Yes / (No)
2) Vapor Phase Blower	Operating Correctly?	(Yes) / No
3) Building Exhaust Fan	Operating Correctly?	(Yes) / No
4) Building Louver	Clear of debris	(Yes) / No
5) Piping and valves	Inspect	(Yes) / No
6) Building Interior Lights	Operational?	(Yes) / No
7) Building Exterior Lights	Operational?	(Yes) / No
8) Building Temperature		82 °F
9) Outdoor Temperature		50 °F
10) DNAPL Solenoid	Status	hand / (off) / auto
11) Potable Water Solenoid	Status	hand / off / (auto)

F. WASTEWATER TREATMENT CHEMICALS

Chemical	Amount		Pump Stroke/Speed
1) AN 400	31.5	gallons	40/45
2) Tolcide PS-50A	13.5	gallons	70/20
3) AN 310H	19	gallons	40/35
4) AN 750 C	50	gallons	

G. GENERAL COMMENTS:

Date: 10/17/2011

Operator: Jason Mayer

Signature: [signature]

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

Date: 10/19/11

On arrival was GWOU operating? (Yes) / No

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	51.7	gpm
A2) Post Influent Bag Filter Assembly Flow Rate	41.2	gpm
A3) Post Clay/Carbon Tank(s) Flow Rate	43.2	gpm
A4) Effluent Flow Rate to Well Field	39.2	gpm

Number of HWI Wells Operating 6
Recirculation Pump Running M-3 / (M-4)
Effluent Pump Running M-5 / (M-6)

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1)
Operating Status: hand / off / (auto)
Temperature: 64 °F
Flow: 25.5 gpm

B2) EW02 (M-2)
Operating Status: hand / off / (auto)
Temperature: 70 °F
Flow: 25.5 gpm

B3) HWI-1
Operating Status: (On) / Off
Packer Pressure: 21 psi
Flow: 6.7 gpm

B4) HWI-2
Operating Status: (On) / Off
Packer Pressure: 22 psi
Flow: 6.7 gpm

B5) HWI-3
Operating Status: (On) / Off
Packer Pressure: 21 psi
Flow: 6.7 gpm

B6) HWI-4
Operating Status: (On) / Off
Packer Pressure: 21 psi
Flow: 6.7 gpm

B7) HWI-5
Operating Status: (On) / Off
Packer Pressure: 20 psi
Flow: 6.7 gpm

B8) HWI-6
Operating Status: (On) / Off
Packer Pressure: 20 psi
Flow: 6.7 gpm

Comments/Notes

C. GROUNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	hand / (off) / auto	on or (off)
	Recirc. Pump (M-4)	Operating Status	hand / off / (auto)	(on) or off
		Pressure	50 psi	
	Effluent Pump (M-5)	Operating Status	hand / off / (auto)	on or (off)
	Effluent Pump (M-6)	Operating Status	hand / off / (auto)	(on) or off
		Pressure	46 psi	
	Heat Exchanger Pump	Operating Status	(Yes) / No	
		Influent	42 psi	
		Effluent	62 psi	
		Differential	20 psi	
2) Boiler/Heat Exchanger		Boiler Set Point	140 °F	
		Pressure	3 psi	
		Boiler Blowdown	Yes / (No)	
3) Thermometers		From Feed Tank	70.1 °F	
		IN Heat Exchanger	129.5 °F	
		OUT Heat Exchanger	145.5 °F	
		To Well Field	139.6 °F	

4) Pressure				
Before Clay	38 psi	Before Carbon	33 psi	
After Clay	34 psi	After Carbon	32 psi	
Differential	4 psi	Differential	1 psi	

5) Effluent Totalizer		
Meter Reading	5459430 gallons	
Flow to Sanitary Sewer	10 gpm	

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected
Influent	Oil and grease (O&G)	GWOUA	Yes / ~~No~~
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / ~~No~~
Separator	Oil and grease (O&G)	GWOUB	Yes / ~~No~~
Separator	Total suspended solids (TSS)	GWOUB	Yes / ~~No~~
Separator	Temperature / pH	GWOUB	Yes / ~~No~~
Post Clay	Oil and grease (O&G)	GWOUC	Yes / ~~No~~
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / ~~No~~
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / ~~No~~
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / ~~No~~
Effluent	Total suspended solids (TSS)	GWOUE	Yes / ~~No~~
Effluent	Temperature / pH	GWOUE	Yes / ~~No~~
Effluent	GCRWWTP Permit Parameters	GWOUE	Yes / ~~No~~

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	(Yes) / No
	Empty sump	Yes / (No)
2) Vapor Phase Blower	Operating Correctly?	(Yes) / No
3) Building Exhaust Fan	Operating Correctly?	(Yes) / No
4) Building Louver	Clear of debris	(Yes) / No
5) Piping and valves	Inspect	(Yes) / No
6) Building Interior Lights	Operational?	(Yes) / No
7) Building Exterior Lights	Operational?	(Yes) / No
8) Building Temperature		76 °F
9) Outdoor Temperature		50 °F
10) DNAPL Solenoid	Status	hand / off / auto
11) Potable Water Solenoid	Status	hand / off / (auto)

F. WASTEWATER TREATMENT CHEMICALS

Chemical	Amount		Pump Stroke/Speed
1) AN 400	50	gallons	40/50
2) Tolcide PS-50A	13	gallons	70/20
3) AN 310H	55	gallons	40/35
4) AN 750 C	55	gallons	

G. GENERAL COMMENTS:

SEPERATOR PH - 7.54 TEMP. - 74.0°

EFFLUENT PH - 7.44 TEMP. - 72.4°

1 FULL BOX OF BAG FILTERS

23 EXTRA GALLONS OF 310

26 EXTRA GALLONS OF 400

Date: 10/19/11

Operator: BRETT BAKER

Signature: Brett G. B

Groundwater Elevations and Temperature
Jennison Wright NPL Site
Granite City, Illinois
Bodine Project Number 119386-11

Well ID	Date	Temperature (F) @ 35'	Temperature (F) @ 65'	Depth to Water (Feet bgs)
MW5S	10/19/11	104.8	N/A	17.84
MW5D	10/19/11	104.6	78.3	17.02
MW20D	10/19/11	105.7	76.4	19.34
MW21D	10/19/11	105.1	80.7	22.78
MW22D	10/19/11	103.2	80.1	19.04
MW23D	10/19/11	99.8	81.9	19.20
	[redacted]			

Notes:
Feet bgs = Feet below ground surface.
MW21D - LNAPL present from 18.31 to 22.78

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

Date: 10/21/11

On arrival was GWOU operating? Yes / No

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	53.1 / 52	gpm	**Number of HWI Wells Operating**	5
A2) Post Influent Bag Filter Assembly Flow Rate	39.3 / 44	gpm	**Recirculation Pump Running**	M-3 / M-4
A3) Post Clay/Carbon Tank(s) Flow Rate	34.4 / 41.2	gpm	**Effluent Pump Running**	M-5 / M-6
A4) Effluent Flow Rate to Well Field	37.2 / 35.2	gpm		

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1)	Operating Status	hand / off / auto	**B2) EW02 (M-2)**	Operating Status	hand / off / auto
Flow	Temperature	°F	Flow	Temperature	°F
gpm			gpm		
B3) HWI-1	Operating Status	On / Off	**B4) HWI-2**	Operating Status	On / Off
Flow	Packer Pressure	psi	Flow	Packer Pressure	psi
gpm			gpm		
B5) HWI-3	Operating Status	On / Off	**B6) HWI-4**	Operating Status	On / Off
Flow	Packer Pressure	psi	Flow	Packer Pressure	psi
gpm			gpm		
B7) HWI-5	Operating Status	On / Off	**B8) HWI-6**	Operating Status	On / Off
Flow	Packer Pressure	psi	Flow	Packer Pressure	psi
gpm			gpm		

Comments/Notes

C. GROUNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	hand / off / auto	on or off
	Recirc. Pump (M-4)	Operating Status	hand / off / auto	on or off
		Pressure	50 psi	
	Effluent Pump (M-5)	Operating Status	hand / off / auto	on or off
	Effluent Pump (M-6)	Operating Status	hand / off / auto	on or off
		Pressure	48 psi	
	Heat Exchanger Pump	Operating Status	Yes / No	
		Influent	43 psi	
		Effluent	62 psi	
		Differential	19 psi	
2) Boiler/Heat Exchanger		Boiler Set Point	139 °F	
		Pressure	5 psi	
		Boiler Blowdown	Yes / No	
3) Thermometers		From Feed Tank	71 °F	
		IN Heat Exchanger	124.5 °F	
		OUT Heat Exchanger	138.5 °F	
		To Well Field	135.5 °F	
4) Pressure		Before Clay	34 psi	Before Carbon 28 psi
		After Clay	30 psi	After Carbon 28 psi
		Differential	4 psi	Differential — psi
5) Effluent Totalizer		Meter Reading	5490440 gallons	
		Flow to Sanitary Sewer	10 gpm	

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected
Influent	Oil and grease (O&G)	GWOUA	Yes / No
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / No
Separator	Oil and grease (O&G)	GWOUB	Yes / No
Separator	Total suspended solids (TSS)	GWOUB	Yes / No
Separator	Temperature / pH	GWOUB	Yes / No
Post Clay	Oil and grease (O&G)	GWOUC	Yes / No
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / No
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / No
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / No
Effluent	Total suspended solids (TSS)	GWOUE	Yes / No
Effluent	Temperature / pH	GWOUE	Yes / No
Effluent	GCRWWTP Permit Parameters	GWOUE	Yes / No

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	Yes / No
	Empty sump	Yes / No
2) Vapor Phase Blower	Operating Correctly?	Yes / No
3) Building Exhaust Fan	Operating Correctly?	Yes / No
4) Building Louver	Clear of debris	Yes / No
5) Piping and valves	Inspect	Yes / No
6) Building Interior Lights	Operational?	Yes / No
7) Building Exterior Lights	Operational?	Yes / No
8) Building Temperature		82 °F
9) Outdoor Temperature		41 °F
10) DNAPL Solenoid	Status	hand / off / auto
11) Potable Water Solenoid	Status	hand / off / auto

F. WASTEWATER TREATMENT CHEMICALS

Chemical	Amount		Pump Stroke/Speed
1) AN 400	43.5	gallons	40/45
2) Tolcide PS-50A	11.5	gallons	70/20
3) AN 310H	49	gallons	40/35
4) AN 750 C	50	gallons	

G. GENERAL COMMENTS:

Date: 10/21/11

Operator: Jason Mayer

Signature: [signature]

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

Date: 10/27/2011

On arrival was GWOU operating? Yes / No

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	49.0 gpm	**Number of HWI Wells Operating**	6
A2) Post Influent Bag Filter Assembly Flow Rate	37.0 gpm	**Recirculation Pump Running**	M-3 / M-4
A3) Post Clay/Carbon Tank(s) Flow Rate	32.0 gpm	**Effluent Pump Running**	M-5 / M-6
A4) Effluent Flow Rate to Well Field	43.0 gpm		

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1)	Operating Status	hand / off / auto	**B2) EW02 (M-2)**	Operating Status	hand / off / auto
Flow 24.5 gpm	Temperature	64 °F	Flow 24.5 gpm	Temperature	70 °F
B3) HWI-1	Operating Status	On / Off	**B4) HWI-2**	Operating Status	On / Off
Flow 7.2 gpm	Packer Pressure	21 psi	Flow 7.2 gpm	Packer Pressure	23 psi
B5) HWI-3	Operating Status	On / Off	**B6) HWI-4**	Operating Status	On / Off
Flow 7.2 gpm	Packer Pressure	21 psi	Flow 7.2 gpm	Packer Pressure	20 psi
B7) HWI-5	Operating Status	On / Off	**B8) HWI-6**	Operating Status	On / Off
Flow 7.2 gpm	Packer Pressure	18 - 20 psi	Flow 7.2 gpm	Packer Pressure	15 - 20 psi

Comments/Notes
- BEGAN READINGS @ 8:50 AM. ○ - REINFLATED TO 20 PSI
- ADDED (2) gallons of H_2O to Biocide.
- DNAPL SOLENOID @ 2 MINUTES FOR APPX. 15 SECONDS. CONSTANT DRIP IN DNAPL TANK.

C. GROUNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	hand / off / auto	on or off
	Recirc. Pump (M-4)	Operating Status	hand / off / auto	on or off
		Pressure	50 psi	
	Effluent Pump (M-5)	Operating Status	hand / off / auto	on or off
	Effluent Pump (M-6)	Operating Status	hand / off / auto	on or off
		Pressure	40 psi	
	Heat Exchanger Pump	Operating Status	Yes / No	
		Influent	42 psi	
		Effluent	60 psi	
		Differential	18 psi	
2) Boiler/Heat Exchanger		Boiler Set Point	140 °F	
		Pressure	0.5 psi	
		Boiler Blowdown	Yes / No	
3) Thermometers		From Feed Tank	69.6 °F	
		IN Heat Exchanger	140.1 °F	
		OUT Heat Exchanger	151.7 °F	
		To Well Field	148.2 °F	
4) Pressure		Before Clay	28 psi	Before Carbon 25 psi
		After Clay	27 psi	After Carbon 25 psi
		Differential	1 psi	Differential 0 psi
5) Effluent Totalizer		Meter Reading	5,539,440 gallons	
		Flow to Sanitary Sewer	106PM gpm	

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected
Influent	Oil and grease (O&G)	GWOUA	Yes / No
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / No
Separator	Oil and grease (O&G)	GWOUB	Yes / No
Separator	Total suspended solids (TSS)	GWOUB	Yes / No
Separator	Temperature / pH	GWOUB	Yes / No
Post Clay	Oil and grease (O&G)	GWOUC	Yes / No
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / No
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / No
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / No
Effluent	Total suspended solids (TSS)	GWOUE	Yes / No
Effluent	Temperature / pH	GWOUE	Yes / No
Effluent	GCRWWTP Permit Parameters	GWOUE	Yes / No

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	Yes / No
	Empty sump	Yes / No
2) Vapor Phase Blower	Operating Correctly?	Yes / No
3) Building Exhaust Fan	Operating Correctly?	Yes / No
4) Building Louver	Clear of debris	Yes / No
5) Piping and valves	Inspect	Yes / No
6) Building Interior Lights	Operational?	Yes / No
7) Building Exterior Lights	Operational?	Yes / No
8) Building Temperature		74° °F
9) Outdoor Temperature		51° °F
10) DNAPL Solenoid	Status	hand / off / auto
11) Potable Water Solenoid	Status	hand / off / auto

F. WASTEWATER TREATMENT CHEMICALS

Chemical	Amount		Pump Stroke/Speed
1) AN 400	53.5	gallons	40/45
2) Tolcide PS-50A	11.5	gallons	70/20
3) AN 310H	55.0	gallons	40/35
4) AN 750 C	45.0	gallons	

G. GENERAL COMMENTS:

- 400 - 10 gallon Reserve.
- 310H - 10 gallons Reserve.
- Reinflate Packers # 5 & #6 to 20 PSI.
- Change Influent bags on 10/28/11.

Date: 10/27/11

Operator: Rick Every

Signature: [signature]

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Date: 10/29/2011

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

On arrival was GWOU operating? Yes / No

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	50.5	gpm
A2) Post Influent Bag Filter Assembly Flow Rate	42.8	gpm
A3) Post Clay/Carbon Tank(s) Flow Rate	41	gpm
A4) Effluent Flow Rate to Well Field	42.5	gpm

Number of HWI Wells Operating	6
Recirculation Pump Running	M-3 / M-4
Effluent Pump Running	M-5 / M-6

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1)	Operating Status	hand / off / auto	B2) EW02 (M-2)	Operating Status	hand / off / auto
Flow	Temperature	°F	Flow	Temperature	°F
gpm			gpm		
B3) HWI-1	Operating Status	On / Off	B4) HWI-2	Operating Status	On / Off
Flow	Packer Pressure	psi	Flow	Packer Pressure	psi
gpm			gpm		
B5) HWI-3	Operating Status	On / Off	B6) HWI-4	Operating Status	On / Off
Flow	Packer Pressure	psi	Flow	Packer Pressure	psi
gpm			gpm		
B7) HWI-5	Operating Status	On / Off	B8) HWI-6	Operating Status	On / Off
Flow	Packer Pressure	psi	Flow	Packer Pressure	psi
gpm			gpm		

Comments/Notes

C. GROUNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	hand / off / (auto)	on or off
	Recirc. Pump (M-4)	Operating Status	hand / off / (auto)	on or off
		Pressure	50 psi	
	Effluent Pump (M-5)	Operating Status	hand / off / (auto)	on or off
	Effluent Pump (M-6)	Operating Status	hand / off / (auto)	on or off
		Pressure	45 psi	
	Heat Exchanger Pump	Operating Status	(Yes) / No	
		Influent	42 psi	
		Effluent	42 psi	
		Differential	20 psi	
2) Boiler/Heat Exchanger		Boiler Set Point	137 °F	
		Pressure	1 psi	
		Boiler Blowdown	Yes / (No)	
3) Thermometers		From Feed Tank	44.7 °F	
		IN Heat Exchanger	129 °F	
		OUT Heat Exchanger	149.1 °F	
		To Well Field	140.1 °F	

4) Pressure	Before Clay	41 psi	Before Carbon	38 psi
	After Clay	39 psi	After Carbon	38 psi
	Differential	2 psi	Differential	— psi

5) Effluent Totalizer	Meter Reading	5559280 gallons
	Flow to Sanitary Sewer	12 gpm

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected
Influent	Oil and grease (O&G)	GWOUA	Yes / No
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / No
Separator	Oil and grease (O&G)	GWOUB	Yes / No
Separator	Total suspended solids (TSS)	GWOUB	Yes / No
Separator	Temperature / pH	GWOUB	Yes / No
Post Clay	Oil and grease (O&G)	GWOUC	Yes / No
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / No
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / No
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / No
Effluent	Total suspended solids (TSS)	GWOUE	Yes / No
Effluent	Temperature / pH	GWOUE	Yes / No
Effluent	GCRWWTP Permit Parameters	GWOUE	Yes / No

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	(Yes) / No
	Empty sump	Yes / (No)
2) Vapor Phase Blower	Operating Correctly?	(Yes) / No
3) Building Exhaust Fan	Operating Correctly?	(Yes) / No
4) Building Louver	Clear of debris	(Yes) / No
5) Piping and valves	Inspect	(Yes) / No
6) Building Interior Lights	Operational?	(Yes) / No
7) Building Exterior Lights	Operational?	(Yes) / No
8) Building Temperature		74 °F
9) Outdoor Temperature		42 °F
10) DNAPL Solenoid	Status	hand / (off) / auto
11) Potable Water Solenoid	Status	hand / off / (auto)

F. WASTEWATER TREATMENT CHEMICALS

Chemical	Amount	Pump Stroke/Speed
1) AN 400	49 gallons	40/45
2) Tolcide PS-50A	11 gallons	70/20
3) AN 310H	50 gallons	40/35
4) AN 750 C	50 gallons	

G. GENERAL COMMENTS:

Date: 10/25/2011

Operator: Jason Mayer

Signature: [signature]

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

Date: 11-3-11

On arrival was GWOU operating? Yes / No

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	50.6 gpm	**Number of HWI Wells Operating**	6
A2) Post Influent Bag Filter Assembly Flow Rate	60.9 gpm	**Recirculation Pump Running**	M-3 / M-4
A3) Post Clay/Carbon Tank(s) Flow Rate	61.8 gpm	**Effluent Pump Running**	M-5 / M-6
A4) Effluent Flow Rate to Well Field	38.2 gpm		

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1)	Operating Status	hand / off / auto	**B2) EW02 (M-2)**	Operating Status	hand / off / auto
Flow	Temperature	65 °F	Flow	Temperature	70 °F
~~[illegible]~~ 25.3 gpm			25.3 gpm		
B3) HWI-1	Operating Status	On / Off	**B4) HWI-2**	Operating Status	On / Off
Flow	Packer Pressure	20 psi	Flow	Packer Pressure	21 psi
6.7 gpm			6.7 gpm		
B5) HWI-3	Operating Status	On / Off	**B6) HWI-4**	Operating Status	On / Off
Flow	Packer Pressure	20 psi	Flow	Packer Pressure	19 psi
6.7 gpm			6.7 gpm		
B7) HWI-5	Operating Status	On / Off	**B8) HWI-6**	Operating Status	On / Off
Flow	Packer Pressure	19 psi	Flow	Packer Pressure	18 psi
6.7 gpm			6.7 gpm		

Comments/Notes
- Changed bag filters
- Raised Boiler Temp to 150°F / Steam pressure climbed to 6.5 after 1 hr. / Dropped to 140°F Back to 1.0 PSI
- GCRWWTP Effluent Sampler Collected
- Waste characterization Sample for OWS SLUDGE & BAG FILTERS

C. GROUNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	hand / off / auto	on or off
	Recirc. Pump (M-4)	Operating Status	hand / off / auto	on or off
		Pressure	51 psi	
	Effluent Pump (M-5)	Operating Status	hand / off / auto	on or off
	Effluent Pump (M-6)	Operating Status	hand / off / auto	on or off
		Pressure	46 psi	
	Heat Exchanger Pump	Operating Status	Yes / No	
		Influent	45 psi	
		Effluent	65 psi	
		Differential	20 psi	
2) Boiler/Heat Exchanger		Boiler Set Point	140 °F	
		Pressure	1.5 psi	@ 2.0 PSI ON Departure 11-4-11
		Boiler Blowdown	Yes / No	
3) Thermometers		From Feed Tank	70.1 °F	
		IN Heat Exchanger	131.1 °F	
		OUT Heat Exchanger	145.5 °F	
		To Well Field	145 °F	
4) Pressure		Before Clay	32 psi	Before Carbon 27 psi
		After Clay	28 psi	After Carbon 26 psi
		Differential	4 psi	Differential 1 psi
5) Effluent Totalizer		Meter Reading	5,627,950 gallons	
		Flow to Sanitary Sewer	10.0 gpm	

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected
Influent	Oil and grease (O&G)	GWOUA	Yes / No
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / No
Separator	Oil and grease (O&G)	GWOUB	Yes / No
Separator	Total suspended solids (TSS)	GWOUB	Yes / No
Separator	Temperature / pH	GWOUB	Yes / No
Post Clay	Oil and grease (O&G)	GWOUC	Yes / No
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / No
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / No
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / No
Effluent	Total suspended solids (TSS)	GWOUE	Yes / No
Effluent	Temperature / pH	GWOUE	Yes / No
Effluent	GCRWWTP Permit Parameters	GWOUE	Yes / No

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	Yes / No
	Empty sump	Yes / No
2) Vapor Phase Blower	Operating Correctly?	Yes / No
3) Building Exhaust Fan	Operating Correctly?	Yes / No
4) Building Louver	Clear of debris	Yes / No
5) Piping and valves	Inspect	Yes / No
6) Building Interior Lights	Operational?	Yes / No
7) Building Exterior Lights	Operational?	Yes / No
8) Building Temperature		68 °F
9) Outdoor Temperature		50 °F
10) DNAPL Solenoid	Status	hand / off / auto
11) Potable Water Solenoid	Status	hand / off / auto

WASTEWATER TREATMENT CHEMICALS

Chemical	Amount	Pump Stroke/Speed
1) AN 400	Full gallons	40/46
2) Tolcide PS-50A	Full gallons	~~48/35~~ 70/20
3) AN 310H	52 gallons	40/35
4) AN 750 C	45 gallons	

G. GENERAL COMMENTS:

OWS temp 69.6

OWS ph 7.24

E-temp 69.5

E-ph 7.09

ON SITE

20 gallons - Biocide

55 gallons - 310H

~~55~~ 90 gallons - 400

Date: 11-3-11

Operator: D Hall

Signature: Donald Hall

Groundwater Elevations and Temperature
Jennison Wright NPL Site
Granite City, Illinois
Bodine Project Number 119386-11

Well ID	Date	Temperature (F) @ 35'	Temperature (F) @ 65'	Depth to Water (Feet bgs)
MW5S	11-4-11	31' 104.4	N/A	19.12
MW5D		101.5	79.2	17.76
MW20D		104.1	83.7	19.76
MW21D		103.7	91.6	23.52
MW22D		105.2	80.5	19.39
MW23D		102.1	90.9	19.35

Notes:
Feet bgs = Feet below ground surface.
MW21D - LNAPL present from 18.55 to 23.52

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Date: 11/8/2011

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

On arrival was GWOU operating? Yes / No

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	48.8 / 48.5	gpm
A2) Post Influent Bag Filter Assembly Flow Rate	38.2 / 44.2	gpm
A3) Post Clay/Carbon Tank(s) Flow Rate	34.5 / 38.5	gpm
A4) Effluent Flow Rate to Well Field	34.5 / 36	gpm

Number of HWI Wells Operating: 6
Recirculation Pump Running: M-3 / M-4
Effluent Pump Running: M-5 / M-6

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1) Operating Status: hand / off / auto
Flow _____ gpm Temperature _____ °F

B2) EW02 (M-2) Operating Status: hand / off / auto
Flow _____ gpm Temperature _____ °F

B3) HWI-1 Operating Status: On / Off
Flow _____ gpm Packer Pressure _____ psi

B4) HWI-2 Operating Status: On / Off
Flow _____ gpm Packer Pressure _____ psi

B5) HWI-3 Operating Status: On / Off
Flow _____ gpm Packer Pressure _____ psi

B6) HWI-4 Operating Status: On / Off
Flow _____ gpm Packer Pressure _____ psi

B7) HWI-5 Operating Status: On / Off
Flow _____ gpm Packer Pressure _____ psi

B8) HWI-6 Operating Status: On / Off
Flow _____ gpm Packer Pressure _____ psi

Comments/Notes _____

UNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	hand / off / auto	on or off
	Recirc. Pump (M-4)	Operating Status	hand / off / auto	on or off
		Pressure	60 psi	
	Effluent Pump (M-5)	Operating Status	hand / off / auto	on or off
	Effluent Pump (M-6)	Operating Status	hand / off / auto	on or off
		Pressure	47 psi	
	Heat Exchanger Pump	Operating Status	Yes / No	
		Influent	45 psi	
		Effluent	68 psi	
		Differential	23 psi	
2) Boiler/Heat Exchanger		Boiler Set Point	142 °F	
		Pressure	12 psi	
		Boiler Blowdown	Yes / No	
3) Thermometers		From Feed Tank	70.8 °F	
		IN Heat Exchanger	127.4 °F	
		OUT Heat Exchanger	141.6 °F	
		To Well Field	134 °F	

4) Pressure	Before Clay	35 psi	Before Carbon	29 psi
	After Clay	30 psi	After Carbon	29 psi
	Differential	5 psi	Differential	— psi

5) Effluent Totalizer	Meter Reading	5643620 gallons
	Flow to Sanitary Sewer	10 gpm

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected
Influent	Oil and grease (O&G)	GWOUA	Yes / No
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / No
Separator	Oil and grease (O&G)	GWOUB	Yes / No
Separator	Total suspended solids (TSS)	GWOUB	Yes / No
Separator	Temperature / pH	GWOUB	Yes / No
Post Clay	Oil and grease (O&G)	GWOUC	Yes / No
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / No
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / No
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / No
	Total suspended solids (TSS)	GWOUE	Yes / No
	/ pH	GWOUE	Yes / No
	meters	GWOUE	Yes / No

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	Yes / No
	Empty sump	Yes / No
2) Vapor Phase Blower	Operating Correctly?	Yes / No
3) Building Exhaust Fan	Operating Correctly?	Yes / No
4) Building Louver	Clear of debris	Yes / No
5) Piping and valves	Inspect	Yes / No
6) Building Interior Lights	Operational?	Yes / No see below
7) Building Exterior Lights	Operational?	Yes / No
8) Building Temperature		81 °F
9) Outdoor Temperature		42 °F
10) DNAPL Solenoid	Status	hand / off / auto
11) Potable Water Solenoid	Status	hand / off / auto

F. WASTEWATER TREATMENT CHEMICALS

Chemical	Amount		Pump Stroke/Speed
1) AN 400	43	gallons	40/50
2) Tolcide PS-50A	52.5	gallons	70/20
3) AN 310H	40	gallons	40/35
4) AN 750 C	44	gallons	

G. GENERAL COMMENTS:

Exterior light to the LEFT of the bay door is out.

Date: 11/8/2011

Operator: Jason Mayer

Signature: J Mayer

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

Date: 11-18-11

On arrival was GWOU operating? (Yes) / No

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	50	gpm	Number of HWI Wells Operating	6
A2) Post Influent Bag Filter Assembly Flow Rate	39.31	gpm	Recirculation Pump Running	M-3 / (M-4)
A3) Post Clay/Carbon Tank(s) Flow Rate	40.1	gpm	Effluent Pump Running	M-5 / (M-6)
A4) Effluent Flow Rate to Well Field	43.5	gpm		

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1)	Operating Status	hand / off / (auto)	B2) EW02 (M-2)	Operating Status	hand / off / (auto)
Flow 25 gpm	Temperature	65 °F	Flow 25 gpm	Temperature	70 °F
B3) HWI-1	Operating Status	(On) / Off	B4) HWI-2	Operating Status	(On) / Off
Flow 6.7 gpm	Packer Pressure	20 psi	Flow 6.7 gpm	Packer Pressure	21 psi
B5) HWI-3	Operating Status	(On) / Off	B6) HWI-4	Operating Status	(On) / Off
Flow 6.7 gpm	Packer Pressure	18 psi	Flow 6.7 gpm	Packer Pressure	18 psi
B7) HWI-5	Operating Status	(On) / Off	B8) HWI-6	Operating Status	(On) / Off
Flow 6.7 gpm	Packer Pressure	15 psi	Flow 6.7 gpm	Packer Pressure	17 psi

Comments/Notes

C. GROUNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	hand / off / (auto)	on or off
	Recirc. Pump (M-4)	Operating Status	hand / off / (auto)	(on) or off
		Pressure	50 psi	
	Effluent Pump (M-5)	Operating Status	hand / off / (auto)	on or (off)
	Effluent Pump (M-6)	Operating Status	hand / off / (auto)	(on) or off
		Pressure	48 psi	
	Heat Exchanger Pump	Operating Status	(Yes) / No	
		Influent	44 psi	
		Effluent	56 psi	
		Differential	12 psi	
2) Boiler/Heat Exchanger		Boiler Set Point	140 °F	
		Pressure	0.5 psi	
		Boiler Blowdown	(Yes) / No	
3) Thermometers		From Feed Tank	68.9 °F	
		IN Heat Exchanger	125.0 °F	
		OUT Heat Exchanger	135.6 °F	
		To Well Field	133.1 °F	

4) Pressure

Before Clay	40 psi	Before Carbon	37 psi
After Clay	39 psi	After Carbon	37 psi
Differential	1 psi	Differential	0 psi

5) Effluent Totalizer

Meter Reading	5737000	gallons
Flow to Sanitary Sewer	10	gpm

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected	pH/Temp.
Influent	Oil and grease (O&G)	GWOUA	Yes / ~~No~~	
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / ~~No~~	
Separator	Oil and grease (O&G)	GWOUB	Yes / ~~No~~	
Separator	Total suspended solids (TSS)	GWOUB	Yes / ~~No~~	
Separator	Temperature / pH	GWOUB	Yes / ~~No~~	
Post Clay	Oil and grease (O&G)	GWOUC	Yes / ~~No~~	
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / ~~No~~	
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / ~~No~~	
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / ~~No~~	
Effluent	Total suspended solids (TSS)	GWOUE	Yes / ~~No~~	
Effluent	Temperature / pH	GWOUE	Yes / ~~No~~	
Effluent	GCRWWTP Permit Parameters	GWOUE	Yes / ~~No~~	

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	(Yes) / No
	Empty sump	(Yes) / No
2) Vapor Phase Blower	Operating Correctly?	(Yes) / No
3) Building Exhaust Fan	Operating Correctly?	(Yes) / No
4) Building Louver	Clear of debris	(Yes) / No
5) Piping and valves	Inspect	(Yes) / No
6) Building Interior Lights	Operational?	(Yes) / No
7) Building Exterior Lights	Operational?	(Yes) / No
8) Building Temperature		66 °F
9) Outdoor Temperature		43 °F
10) DNAPL Solenoid	Status	hand / (off) / auto
11) Potable Water Solenoid	Status	hand / off / (auto)

F. WASTEWATER TREATMENT CHEMICALS

Chemical	Amount		Pump Stroke/Speed
1) AN 400	40	gallons	40/45
2) Tolcide PS-50A	49.5	gallons	70/20
3) AN 310H	55	gallons	40/35
4) AN 750 C	35	gallons	

G. GENERAL COMMENTS:

40 EXTRA GALLONS OF 310

52 EXTRA GALLONS OF 400

10 EXTRA GALLONS OF TOLCIDE

Date: 11-15-11

Operator: BRETT BAKER

Signature: [signature]

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

Date: 11/28/2011

On arrival was GWOU operating? (Yes) / No

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	52.3 / 53.5 gpm	Number of HWI Wells Operating	6
A2) Post Influent Bag Filter Assembly Flow Rate	42 / 48 gpm	Recirculation Pump Running	(M-3) / M-4
A3) Post Clay/Carbon Tank(s) Flow Rate	37.1 / 39.2 gpm	Effluent Pump Running	M-5 / ~~M-6~~
A4) Effluent Flow Rate to Well Field	40.4 / 41.2 gpm		

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1)	Operating Status	hand / off / auto	B2) EW02 (M-2)	Operating Status	hand / off / auto
Flow _____ gpm	Temperature	_____ °F	Flow _____ gpm	Temperature	_____ °F
B3) HWI-1	Operating Status	On / Off	B4) HWI-2	Operating Status	On / Off
Flow _____ gpm	Packer Pressure	_____ psi	Flow _____ gpm	Packer Pressure	_____ psi
B5) HWI-3	Operating Status	On / Off	B6) HWI-4	Operating Status	On / Off
Flow _____ gpm	Packer Pressure	_____ psi	Flow _____ gpm	Packer Pressure	_____ psi
B7) HWI-5	Operating Status	On / Off	B8) HWI-6	Operating Status	On / Off
Flow _____ gpm	Packer Pressure	_____ psi	Flow _____ gpm	Packer Pressure	_____ psi

Comments/Notes _____

C. GROUNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	hand / off / auto	on or off
	Recirc. Pump (M-4)	Operating Status	hand / off / auto	on or off
		Pressure	60 psi	
	Effluent Pump (M-5)	Operating Status	hand / off / auto	on or off
	Effluent Pump (M-6)	Operating Status	hand / off / auto	on or off
		Pressure	47 psi	
	Heat Exchanger Pump	Operating Status	Yes / No	
		Influent	42 psi	
		Effluent	60 psi	
		Differential	22 psi	
2) Boiler/Heat Exchanger		Boiler Set Point	145 °F	
		Pressure	5 psi	
		Boiler Blowdown	Yes / No	
3) Thermometers		From Feed Tank	109.2 °F	
		IN Heat Exchanger	130.1 °F	
		OUT Heat Exchanger	143.6 °F	
		To Well Field	137.6 °F	
4) Pressure		Before Clay	37 psi	Before Carbon 32 psi
		After Clay	35 psi	After Carbon 32 psi
		Differential	2 psi	Differential 0 psi
5) Effluent Totalizer		Meter Reading	5780090 gallons	
		Flow to Sanitary Sewer	10 gpm	

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected	pH/Temp.
Influent	Oil and grease (O&G)	GWOUA	Yes / No	
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / No	
Separator	Oil and grease (O&G)	GWOUB	Yes / No	
Separator	Total suspended solids (TSS)	GWOUB	Yes / No	
Separator	Temperature / pH	GWOUB	Yes / No	
Post Clay	Oil and grease (O&G)	GWOUC	Yes / No	
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / No	
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / No	
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / No	
Effluent	Total suspended solids (TSS)	GWOUE	Yes / No	
Effluent	Temperature / pH	GWOUE	Yes / No	
Effluent	GCRWWTP Permit Parameters	GWOUE	Yes / No	

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	Yes / No
	Empty sump	Yes / No
2) Vapor Phase Blower	Operating Correctly?	Yes / No
3) Building Exhaust Fan	Operating Correctly?	Yes / No
4) Building Louver	Clear of debris	Yes / No
5) Piping and valves	Inspect	Yes / No
6) Building Interior Lights	Operational?	Yes / No
7) Building Exterior Lights	Operational?	Yes / No
8) Building Temperature		72 °F
9) Outdoor Temperature		38 °F
10) DNAPL Solenoid	Status	hand / off / auto
11) Potable Water Solenoid	Status	hand / off / auto

L side of bay door

F. WASTEWATER TREATMENT CHEMICALS

Chemical	Amount		Pump Stroke/Speed
1) AN 400	30.5	gallons	40/45
2) Tolcide PS-50A	43	gallons	70/20
3) AN 310H	42	gallons	40/35
4) AN 750 C	41	gallons	

G. GENERAL COMMENTS:

Date: 11/28/2011

Operator: Jason Mayer

Signature: [signature]

TABLE 2
OPERATIONS LOG

Site Name: Jennison-Wright Superfund Site
Job Number: Bodine 119386-11
Site Location: 900 West 22nd Street, Granite City, IL

Route originals to: Troy McFate, BESI
CC: Tom Campbell, EEEI
Treatment Plant File

Date: 11-30-11 (WEDNESDAY)

On arrival was GWOU operating? Yes / (No)

A. GWOU FLOW (FLOW METERS)

A1) Combined Extraction Flow Rate	52.2 gpm	Number of HWI Wells Operating	6
A2) Post Influent Bag Filter Assembly Flow Rate	45.5 gpm	Recirculation Pump Running	(M-3) / M-4
A3) Post Clay/Carbon Tank(s) Flow Rate	38.0 gpm	Effluent Pump Running	M-5 / (M-6)
A4) Effluent Flow Rate to Well Field	41.4 gpm		

B. GROUNDWATER EXTRACTION/DISCHARGE SYSTEM

B1) EW01 (M-1)	Operating Status	hand / off (auto)	B2) EW02 (M-2)	Operating Status	hand / off / (auto)
Flow 26.1 gpm	Temperature	64 °F	Flow 26.1 gpm	Temperature	69 °F
B3) HWI-1	Operating Status	(On) / Off	B4) HWI-2	Operating Status	(On) / Off
Flow 6.9 gpm	Packer Pressure	19 psi	Flow 6.9 gpm	Packer Pressure	21 psi
B5) HWI-3	Operating Status	(On) / Off	B6) HWI-4	Operating Status	(On) / Off
Flow 6.9 gpm	Packer Pressure	17 psi	Flow 6.9 gpm	Packer Pressure	17 psi
B7) HWI-5	Operating Status	(On) / Off	B8) HWI-6	Operating Status	(On) / Off
Flow 6.9 gpm	Packer Pressure	17 psi	Flow 6.9 gpm	Packer Pressure	16 psi

Comments/Notes – SYSTEM NOT OPERATING UPON ARRIVAL @ APPX. 10:15AM.
– PLACED BOILER IN MANUAL "MODULATION" MODE. DIALED TEMP TO 140°F ±5°; HOWEVER, STEAM PRESSURE REACHED 13.5 PSI AND CYCLING BEGAN. DIALED BOILER TEMP. TO APPX 120°F ±2°. SYSTEM APPEARS TO BE RUNNING FINE. HOWEVER TEMP IS LOW. STEAM PSI @ [redacted] ON DEPARTURE.

C. GROUNDWATER TREATMENT SYSTEM

1) Pumps	Recirc. Pump (M-3)	Operating Status	hand / off / auto	on or off
	Recirc. Pump (M-4)	Operating Status	hand / off / auto	on or off
		Pressure	60 psi	
	Effluent Pump (M-5)	Operating Status	hand / off / auto	on or off
	Effluent Pump (M-6)	Operating Status	hand / off / auto	on or off
		Pressure	45 psi	
	Heat Exchanger Pump	Operating Status	Yes / No	
		Influent	44 psi	
		Effluent	61 psi	
		Differential	17 psi	
			MANUAL MODE	
2) Boiler/Heat Exchanger		Boiler Set Point	120±2 °F	
		Pressure	1 psi	
		Boiler Blowdown	Yes / No	
3) Thermometers		From Feed Tank	68.0 °F	
		IN Heat Exchanger	110.6 °F	
		OUT Heat Exchanger	120.0 °F	
		To Well Field	121.0 °F	

4) Pressure

Before Clay	39 psi	Before Carbon	32 psi
After Clay	35 psi	After Carbon	32 psi
Differential	4 psi	Differential	Ø psi

5) Effluent Totalizer

Meter Reading	10.06PM gallons
Flow to Sanitary Sewer	5,805,780 gpm

E. SAMPLE COLLECTION DATA

Example Sample Designation: <Location><Date_mmddyy> GWOUA093009

Location	Analyte	Identification	Sample Collected	pH/Temp.
Influent	Oil and grease (O&G)	GWOUA	Yes / No	
Influent	Semi-volatile organics (SVOCs)	GWOUA	Yes / No	
Separator	Oil and grease (O&G)	GWOUB	Yes / No	
Separator	Total suspended solids (TSS)	GWOUB	Yes / No	7.61/66.7
Separator	Temperature / pH	GWOUB	Yes / No	
Post Clay	Oil and grease (O&G)	GWOUC	Yes / No	
Post Clay	Total suspended solids (TSS)	GWOUC	Yes / No	
Effluent	Semi-volatile organics (SVOCs)	GWOUE	Yes / No	
Effluent	Biochemical O2 demand (BOD)	GWOUE	Yes / No	
Effluent	Total suspended solids (TSS)	GWOUE	Yes / No	7.52/67.4
Effluent	Temperature / pH	GWOUE	Yes / No	
Effluent	GCRWWTP Permit Parameters	GWOUE	Yes / No	

D. BUILDING SYSTEMS

1) Building Sump Level Switch	Clear of Debris	Yes / No
	Empty sump	Yes / No 1/8
2) Vapor Phase Blower	Operating Correctly?	Yes / No
3) Building Exhaust Fan	Operating Correctly?	Yes / No
4) Building Louver	Clear of debris	Yes / No
5) Piping and valves	Inspect	Yes / No
6) Building Interior Lights	Operational?	Yes / No
7) Building Exterior Lights	Operational?	Yes / No NW Exterior
8) Building Temperature		71 °F
9) Outdoor Temperature		46 °F
10) DNAPL Solenoid	Status	hand / off / auto
11) Potable Water Solenoid	Status	hand / off / auto

F. WASTEWATER TREATMENT CHEMICALS

Chemical	Amount	Pump Stroke/Speed
1) AN 400	30.5 gallons	40/45
2) Toloide PS-50A	42.0 gallons	70/20
3) AN 310H	40.0 gallons	40/35
4) AN 750 C	25.0 gallons	

G. GENERAL COMMENTS:

55 GAL. AN 400 - RESERVE

40 GAL A 310H - RESERVE

55 GAL AN 751C - RESERVE

Depl @ 2:00 P.M.

Date:	11/30/11
Operator:	Rick Every
Signature:	Richard A. Every

Groundwater Elevations and Temperature
Jennison Wright NPL Site
Granite City, Illinois
Bodine Project Number 119386-11

Well ID	Date	Temperature (F) @ 35'	Temperature (F) @ 65'	Depth to Water (Feet bgs)
MW5S	11/30/11	106.9 @30'	N/A	19.24
MW5D	11/30/11	102.6	81.0	17.89
MW20D	11/30/11	105.1	79.2	19.91
MW21D	11/30/11	103.1	86.4	21.40
MW22D	11/30/11	104.6	79.0	19.51
MW23D	11/30/11	107.7	86.1	19.56

Notes:
Feet bgs = Feet below ground surface.
MW21D - LNAPL present from 18.89 to 21.40

APPENDIX B

Copies of Non-Hazardous Manifests for Spent Organoclay Disposal

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 009409639 JJK

5. Generator's Name and Mailing Address
Generator's Site Address (if different than mailing address)
Generator's Phone:

6. Transporter 1 Company Name: BODINE ENVIRONMENTAL SERVICES, INC.
U.S. EPA ID Number: ILD 006282179

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
U.S. EPA ID Number
Facility's Phone:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt/Vol.	13. Waste Codes
	1. Non-hazardous by DOT regulations from generator [illegible] system	XX1	TT	1500	G	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Class A
Profile 105472IL

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: IEPA TIMMY WEST (RECEIVED FROM FOIL)
Signature
Month 12 Day 14 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Mike Castelli
Signature
Month 12 Day 14 Year 11
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: HUCONDI
Signature
Month 12 Day 14 Year 11

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERA

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WASTE MANAGEMENT

7403WM-N

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number
2. Page 1 of 1
3. Emergency Response Phone
4. Manifest Tracking Number 009409640 JJK

5. Generator's Name and Mailing Address
900 W 22nd Street
Granite City IL 62040 Attn Bob Hudson
217 657 1161
Generator's Phone:

Generator's Site Address (if different than mailing address)
900 W 22nd Street, Granite City IL 62040

6. Transporter 1 Company Name: Lonil (Multimaterial Services) — U.S. EPA ID Number: ILD006282479

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Chemical Waste Hub
10400 Hillstown Rd Marion IL 62959
Facility's Phone: 618 [illegible]

U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non hazardous waste [illegible]	1X1	TT	X1500	G	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Class A
Profile 10[illegible]

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Roy M. [illegible] — Signature: [illegible] — Month 12 Day 15 Year 11

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Mike Carroll — Signature: [illegible] — Month 12 Day 15 Year 11
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Hilzendy — Signature: [illegible] — Month 12 Day 15 Year 11

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

WASTE MANAGEMENT

403WM-N

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 005409643 JJK

5. Generator's Name and Mailing Address
[illegible] W. 22nd Street
Oakbrook City IL [illegible] Attn: Ann Redroup
[illegible]
Generator's Phone:

Generator's Site Address (if different than mailing address):
[illegible] W. 22nd Street, [illegible] City IL [illegible]

6. Transporter 1 Company Name
U.S. EPA ID Number: [illegible] 6 28 2 7 7 7

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Calumet Hill [illegible]
[illegible] Hillsman Rd Morris IL [illegible]
Facility's Phone: [illegible] 266-2800 [illegible]
U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non hazardous by DOT regulations for [illegible]	XX 1		[illegible] 150		
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Class A
Permit [illegible]

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: FIRE SAFETY / EPA JFW [illegible] Signature: [illegible] Month 12 Day 13 Year 11

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: [illegible] Signature: [illegible] Month [illegible] Day [illegible] Year 11
Transporter 2 Printed/Typed Name: Signature: Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☒ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [illegible] Signature: [illegible] Month [illegible] Day [illegible] Year [illegible]

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Driver's Signature

WASTE MANAGEMENT

4233703

Cottonwood Hills
10400 Hillstown Rd
Marissa, IL, 62257
PH: (618) 295-2809

Original
Ticket# 320675

Customer Name BODINE ENVIRONMENTAL BODINE E
Ticket Date 12/13/2011
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 8409643
Destination
PO
Profile 100426IL (ORSANDCLAY FROM ARCUNDWATER RENEDIATION SYSTEM)
Generator 180--ILLINOIS EPA ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

Carrier BODINE SERVICES
Vehicle# 400
Container
Driver
Check#
Billing # 0000300
Gen EPA ID
Grid

Volume

	Time	Scale	Operator	Inbound		
In	12/13/2011 12:00:05	SCALE1	alazenby		Gross	46100 lb
Out	12/13/2011 14:06:12	SCALE1	alazenby		Tare	35920 lb
					Net	10180 lb
					Tons	5.09

Comments

***** Mon-Fri 5:00AM - 3:30PM *****

Product		LDM	Qty	UOM	Rate	Tax	Amount	Origin
1	Liquid Unspec.-Gal	100	1500.00	Gal				IL
2	FUEL-Fuel Surcharg	100		%				IL
3	EVF-L-Standard Env	100	1	Load				IL

Total Tax
Total Ticket

403WM-N

571

THIS MEMORANDUM is an acknowledgment that a Bill of Lading has been issued and is not the Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Shipper's No. _____

Carrier's Name: _____ Carrier's No. _____

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of lading,

at Hydrosil (Date) 12-19-11 FROM 1180 St. Charles Street, Elgin, IL 60120

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own railroad, water line, highway route or routes, or within the territory of its highway operations, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in the Uniform Freight Classification in effect on the date hereof, if this is a rail or rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

(Mail or street address for purposes of notification only.)

Consigned TO Bodine Environmental, Attn: Troy McFate, 900 W. 22nd Street,

On Collect on Delivery Shipments, the letters "COD" must appear before consignee's name or as otherwise provided in item 430, Sec. 1.

Destination Granite City, IL 62040 Street _____ City _____

County _____ State _____ Zip _____

Route _____ Delivery Address★ _____

(★To be filled in only when shipper desires and governing tariffs provide for delivery thereat.)

Delivering Carrier _____ Car or Vehicle Initials and No. _____

Collect on Delivery $ _____ And Remit to _____

Street _____ City _____ State _____

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor.)

C. O. D. Charges to be Paid by ☐ Shipper ☐ Consignee

If charges are to be prepaid, write or stamp here, "To be Prepaid."

To Be Prepaid

No. Packages	H.M.	Kind of Package, Description of Articles, Special Marks, and Exceptions	*Weight (Subject to Correction)	Class or Rate	Check Column
five skids		HS-270, orgnaoclay	10,250	50	

Received $ _____ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per _____
(The signature here acknowledges only the amount prepaid.)

Charges Advanced:

$ _____

†"The fibre containers used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Rule 41 of the Uniform Freight Classification and Rule 5 of the National Motor Freight Classification."

†Shipper's imprint in lieu of stamp; not a part of bill of lading approved by the Interstate Commerce Commission.

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shipper's weight.
NOTE —Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____

_____ Shipper, Per _____ Agent

Permanent post-office address of shipper,

Per SLC 12/19/11

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 1190400009
2. Page 1 of
3. Emergency Response Phone:
4. Manifest Tracking Number: 009409643 JJK

5. Generator's Name and Mailing Address: Illinois EPA
900 W. 22nd Street
Granite City IL 62040 Attn: Eric Redhour
217-557-1195
Generator's Phone:

Generator's Site Address (if different than mailing address): 900 W. 22nd Street, Granite City IL 62040

6. Transporter 1 Company Name: U.S. EPA ID Number: ILD006282479

7. Transporter 2 Company Name: U.S. EPA ID Number:

8. Designated Facility Name and Site Address: U.S. EPA ID Number:
Cottonwood Hills RD
104000 Hillstown Rd Marissa IL 62257
Facility's Phone: 619-295-2800 1630755017

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non hazardous by DOT Organoclay from groundwater remediation system	XX 1		XX1500		
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Class A
Profile: 1984261L

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: IEPA-JENNISON WRIGHT (AGENT FOR) RICK EVEY
Signature: [signature]
Month 12 Day 13 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Mike Castelli
Signature: [signature]
Month 12 Day 13 Year 11
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: A Lazenby
Signature: A Lazenby
Month 12 Day 13 Year 11

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

WASTE MANAGEMENT

4233703

[illegible]

[illegible]

Name: [illegible]
[illegible]
Route: [illegible]
[illegible]
Manifest: [illegible]
[illegible]
PO
Profile: [illegible]
[illegible]

	Time	Scale	Operator	Amount		
In	[illegible]	SCALE1	[illegible]		Gross	[illegible]
Out	[illegible]	SCALE1	[illegible]		Tax	[illegible]
					Net	[illegible]
					Tons	[illegible]

Comments:

***** [illegible] 5:00AM - 3:30PM *****

Product	LOV	Qty	UOM	[illegible]	[illegible]	Amount	Origin
1 [illegible]	[illegible]	[illegible]	[illegible]				[illegible]
2 FUEL Fuel Surcharg	[illegible]		X				[illegible]
[illegible]	[illegible]		Load				[illegible]

Total Tax
Total Amount

403WM-N

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number 11990000009
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number 009409639 JJK

GENERATOR

5. Generator's Name and Mailing Address Illinois EPA
900 W. 22nd Street
Granite City IL 62040 Attn: Eric Redmond
217 557 1165
Generator's Phone:

Generator's Site Address (if different than mailing address)
900 W. 22nd Street, Granite City IL 62040

6. Transporter 1 Company Name
BODINE ENVIRONMENTAL SERVICES INC.
U.S. EPA ID Number
ILD 006282479

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Lemonwood Hills RDF
10409 Hillstown Rd Marissa IL 62257
Facility's Phone: 618 295-2000 1820755017
U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non hazardous by DOT Organoclay from groundwater remediation system	XX1	TT	XX1500	G	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Class A
Profile 108128IL

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: IEPA JENNIFER WRIGHT (BY EVEY AGENT FOR) Signature: [signature] Month 12 Day 14 Year 11

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Mike Cosella Signature: [signature] Month 12 Day 14 Year 11
Transporter 2 Printed/Typed Name Signature Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Hilzenby Signature: [signature] Month 12 Day 14 Year 11

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Driver's Signature

WASTE MANAGEMENT

4233782

Cottonwood Hills
10400 Hillstown Rd
Marissa, IL, 62257
Ph: (618) 235-2809

Original
Ticket# 328798

Customer Name BODINE ENVIRONMENTAL BODINE E
Ticket Date 12/14/2011
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 9409839
Destination
PO
Profile 100426IL (ORGANOCLAY FROM GROUNDWATER REMEDIATION SYSTEM)
Generator 183-ILLINOIS EPA,ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

Carrier BODINE SERVICES
Vehicle# 400
Container
Driver
Check#
Billing # 0000300
Gen EPA ID
Grid

Volume

	Time	Scale	Operator	Inbound		
In	12/14/2011 11:00:44	SCALE1	alazenby		Gross	40960 lb
Out	12/14/2011 11:03:44		alazenby		Tare	25920 lb
					Net	14040 lb
					Tons	7.02

Comments

***** Mon-Fri 5:00AM - 3:30PM *****

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Liquid Unspec.-Gal	100	1500.00	Gal				IL
2	FUEL-Fuel Surcharg	100		%				IL
3	EVF-L-Standard Env	100	1	Load				IL

Total Tax
Total Ticket

403WM-N

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 1190000009
2. Page 1 of: 1
3. Emergency Response Phone:
4. Manifest Tracking Number: 009409640 JJK

5. Generator's Name and Mailing Address: Illinois EPA
900 W. 22nd Street
Granite City IL 62040 Attn: Erin Redman
217-557-1183
Generator's Phone:

Generator's Site Address (if different than mailing address): 900 W. 22nd Street, Granite City IL 62040

6. Transporter 1 Company Name: BOONE ENVIRONMENTAL SERVICES
U.S. EPA ID Number: ILD006282479

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Cottonwood Hills RDF
10400 Hillstown Rd., Marissa IL 62257
Facility's Phone: 618 295-2800 1930755017
U.S. EPA ID Number:

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non hazardous by DOT Organoclay from groundwater remediation system	XX1	TT	X1500	G	
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Class A
Profile: 1084281L

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: TROY M. MCGATE (AGENT FOR IEPA)
Signature: [signature]
Month 12 Day 15 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter signature (for exports only):
Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Mike Castell
Signature: [signature]
Month 12 Day 15 Year 11
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a
Printed/Typed Name: Hirzenby
Signature: [signature]
Month 12 Day 15 Year 11

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Driver's Signature

WASTE MANAGEMENT

3539778

Cottonwood Hills
10400 Hillstown Rd
Marissa, IL, 62257
Ph: (618) 295-2809

Original
Ticket# 328895

Customer Name BODINE ENVIRONMENTAL BODINE E
Ticket Date 12/15/2011
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 940[illegible]40
Destination
PO
Profile 100426IL (ORGANOCLAY FROM GROUNDWATER REMEDIATION SYSTEM)
Generator 180-ILLINOIS EPA, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

Carrier BODINE SERVICES
Vehicle# 400
Container
Driver
Check#
Billing # 0000300
Gen EPA ID
Grid

Volume

	Time	Scale	Operator	Inbound		
In	12/15/2011 09:34:32	SCALE1	ALAZENBY		Gross	49680 lb
Out	12/15/2011 09:34:32		ALAZENBY		Tare	35920 lb
					Net	13760 lb
					Tons	6.88

Comments

***** Mon-Fri 5:00AM - 3:30PM *****

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Liquid Dispen.-Gal	100	1500.00	Gal				IL
2	FUEL-Fuel Surcharg	100		%				IL
3	EVF-L-Standard Env	100	1	Load				IL

Total Tax
Total Ticket

403WMEN

APPENDIX C

Copy of Non-Hazardous Manifest for Spent Carbon Reactivation

Original - Not Negotiable

STRAIGHT BILL OF LADING

Weavertown

(Name of Carrier)

Shipper's No. 50232956

117

Work Order#:

RECEIVE, subject to the classifications and tariffs in effect on the date of the issue of the Bill of Lading.

at 670 Pennsylvania Avenue Rochester, Pa. 15074 12/20/2011 From Siemens Industry, Inc.

the property described below, in apparent good order, except as noted (contents and conditions of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract), agrees to carry to its usual place of delivery at said destination, if on its own route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all* or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Ladings set forth (1) in Offical, Southern, Western and Illinois Freight Classification in effect on the date thereof, if this is a rail or rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.***

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned to ILLINOIS EPA

Destination GRANITE CITY, IL 62040

Delivery Address 900W 22ND STREET JENNISON WRIGHT

To be filled in only when shipper desires and governing tariffs provide for delivery thereof.

Route

Attn:

Class 70 NMFC 405600-00 Car or Vehicle Initials No. 3PV

#Packages	Description	Weight	Lot Number
1	Bulk Load		
		13,000	ACRSD

Weight of Carbon 13,000 lbs

NMFC 405600-00

Subject to Section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Cosignor)

If the charges are to be prepaid, type or stamp here:"Prepaid"

Prepaid

Received$

to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per

(The signature here acknowledges only the ammount prepaid.)

Charges Advanced:

** Shipper's imprint in lieu of stamp: not a part of Bill of Lading approved by the Interstate Commerce Commission.

NOT HAZARDOUS MATERIAL
UNDER US D.O.T. REGULATIONS

Customer P.O.#

Freight to be paid by:
Siemens Industry, Inc.
670 Pennsylvania Avenue

Rochester, Pa. 15074

If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is the carrier's or shipper's weight.
NOTE - Where the rate is dependent on the value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding

per

The fibre boxes used for this shipment conform to the specifications set forth in the box maker's certicate thereon, and all other requirements of the Consolidated Freight Classification.

Siemens Industry, Inc. SII Employee Carrier

Permanent post office address of shipper 670 Pennsylvania Ave., Rochester, PA 15074

SWT

SIEMENS WATER TECHNOLOGIES CORP.

Bill of Lading

CONSIGNEE (TO): SIEMENS WATER TECHNOLOGIES CORP.	SHIPPER (FROM):
❑ 2523 Mutahar Street Parker, AZ 85344	1
❑ 11711 Reading Road Red Buff, CA 96080	2
❑ 118 Park Road Darlington, PA 16115	

Job#: 3

No. Shipping Units	TYPE*	DESCRIPTION	WEIGHT
4	5	Spent Carbon - Non Hazardous Waste	6
		Not DOT Regulated Material	
		Circle one: AQUA VAPOR	
		Profile #7	

CUSTOMER INFORMATION:

DATE 8	PRINT NAME: 9	SIGNATURE: 10

TRANSPORTER:

NAME OF CARRIER #1:	DATE: 11	SIGNATURE: 12
NAME OF CARRIER #2: 13	DATE: 14	SIGNATURE: 15
RECEIVED BY (FULL NAME): 16	DATE: 17	SIGNATURE: 18

1.) Name of Generator
2.) Generator site address
3.) Given job number
4.) Number of units being picked up
5.) Type of unit being picked up
6.) Total weight
7.) Profile number, MANDATORY
8.) Date service and/or pick up performed
9.) Name of person signing for Generator
10.) Signature of person in box 9
11.) Same as box 8
12.) Signature of driver for Transporter #1
13.) Name of carrier transporting to Plant
14.) Date the load was picked up to go to the Plant
15.) Driver's signature for Transporter #2
16.) Full name of Receiving person
17.) Date received to Plant
18.) Signature of Receiving person

WHITE: THE PLANT YELLOW: TRANSPORTER #2 PINK: FILE

APPENDIX D

Copy of Non-Hazardous Waste Tracking Form for Bag Filter Disposal

WASTE MANAGEMENT

6720474

Donald B Hoen

Total Fees
Total Ticket

Driver's Signature

Milam RDF

Original

601 Madison
East St Louis, IL, 62201
Ph: (618) 271-6788

Ticket# 975293

Customer Name	BODINE ENVIRONMENTAL BODINE E	Carrier	BODINE
Ticket Date	06/07/2012	Vehicle#	303
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000820
State Waste Code		Gen EPA ID	
Manifest	262596	Grid	
Destination			
PO			
Profile	10818FIL (NAPL/OIL CONTAMINATED FILTER BAGS AND ABSORBENTS)		
Generator	180-ILLINOIS EPA GRANITE CITY ILLINOIS EPA-GRANITE CITY		

Volume

	Time	Scale	Operator	Inbound		
In	06/07/2012 08:22:46	SCALE2	KATHY		Gross	9300 lb
Out	06/07/2012 08:22:46		KATHY		Tare	8400 lb
					Net	900 lb
					Tons	0.45

Comments

	Product	LB%	Qty	UOM	Rate	Fee	Amount	Origin
1	Declassified SPW-E	100	4	Each				IL
2	FUEL-Fuel Surcharg	100		%				
3	EVF-L-Standard Env	100	1	Load				

TX1002288(1-3)
Made by Workjoy/Une

INDUSTRIAL WASTE TRACKING RECEIPT

WM
WASTE MANAGEMENT

262596

Disposal Site: Milne RDF

Profile Number: 1081BGL

Generator: Illinois EPA Site Contact: Troy McPate 217-519-3933

Location: 900 W 22nd Street, Granite City, IL 62040

Waste Description: NAPL/Oil Contaminated Filter Bags and Absorbents 2 [X] Yards [ ] Tons

Generator's Signature or Designee: [illegible] 4 DRUMS

Transporter: [illegible] ENVIRONMENTAL SOLUTIONS INC

Driver's Signature: Load 1 ____ Load 2 ____ Load 3 ____ Load 4 ____ Load 5 ____ Load 6 ____ Load 7 ____ Date: 06/07/12

WHITE-Transporter / YELLOW-Landfill / PINK-Stays on site / GOLD-Generator

INDUSTRIAL WASTE TRACKING RECEIPT

WM
WASTE MANAGEMENT

Disposal Site: Milan RDF

233751

Profile Number: 103186IL

Generator: Illinois EPA Site Contact: Troy McFate 217-519-3955

Location: 900 W 22nd Street, Granite City, IL 62040

Waste Description: NAPL/Oil Contaminated Filter Bags and Absorbents

4 [X] Yards [ ] Tons

9 Drums

Generator's Signature or Designee: IEPA - JENNISON WRIGHT [signature] (AGENT FOR IEPA)

Transporter: BODINE ENVIRONMENTAL SERVICES

Driver's Signature: Paul V. Maxwell

Date: 12/22/11

WHITE-Transporter / YELLOW-Landfill / PINK-Stays on site / GOLD-Generator

WASTE MANAGEMENT

6366739

Milam RDF

Original

601 Madison
East St Louis, IL, 62201
Ph: (618) 271-6788

Ticket# 934472

Customer Name BODINE ENVIRONMENTAL BODINE E
Ticket Date 12/22/2011
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 233751
Destination
PO
Profile 108186IL (NAPL/OIL CONTAMINATED FILTER BAGS AND ABSORBENTS)
Generator 180-ILLINOIS EPA GRANITE CITY ILLINOIS EPA-GRANITE CITY

Carrier BODINE
Vehicle# 303
Container
Driver
Check#
Billing # 0000820
Gen EPA ID
Grid

Volume

	Time	Scale	Operator	Inbound		
In	12/22/2011 14:15:42	SCALE1	RWOODS		Gross	11340 lb
Out	12/22/2011 14:36:33	SCALE1	RWOODS		Tare	8400 lb
					Net	2940 lb
					Tons	1.47

Comments

Paul V. Maxwell

Product		LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Declassified SPW-E	100	9	Each				IL
2	FUEL-Fuel Surcharg	100		%				IL
3	EVF-L-Standard Env	100	1	Load				IL

Total Fees
Total Ticket

403WM-N

APPENDIX E

Copy of Non-Hazardous Manifest for OWS Cleaning Sludge and Liquids

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number [illegible]
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number 008851148 JJK

5. Generator's Name and Mailing Address [illegible]
900 W 22nd Street
Grants City IL 62040 Attn: Eric Hannon
217 786 1985
Generator's Phone:

Generator's Site Address (if different than mailing address)
900 W 22nd Street Grants City IL 62040

6. Transporter 1 Company Name
BODINE ENVIRONMENTAL SERVICES, INC
U.S. EPA ID Number
ILD006285474

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Veolia
801 Madison E St Louis IL 62201
Facility's Phone: 618 271 4789 IRD056017
U.S. EPA ID Number

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. NON-REGULATED BY DOT NAPLDOR CNTS and DRUM tank wash	XXI	DM	5		
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
Class A
Profile 100162H

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Alan for Eric Hannon Signature: [signature] Month 12 Day 22 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Paul V. Maxwell Signature: Paul V. Maxwell Month 12 Day 22 Year 11
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [illegible] Signature: [illegible] Month 12 Day 22 Year 11

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

WASTE MANAGEMENT

6366731

Milam RDF

Original

601 Madison
East St Louis, IL, 62201
Ph: (618) 271-6708

Ticket# 934456

Customer Name BODINE ENVIRONMENTAL BODINE E Carrier BODINE
Ticket Date 12/22/2011 Vehicle# 303 Volume
Payment Type Credit Account Container
Manual Ticket# Driver
Hauling Ticket# Check#
Route Billing # 0000820
State Waste Code Gen EPA ID
Manifest 008851148 Grid
Destination
PO
Profile 100182IL (NAPL/OIL OWS AND INFLUENT TANK SLUDGE)
Generator 180-ILLINOIS EPA GRANITE CITY ILLINOIS EPA-GRANITE CITY

	Time	Scale	Operator	Inbound		
In	12/22/2011 13:45:05	SCALE1	RWOODS		Gross	13100 lb
Out	12/22/2011 14:14:00	SCALE1	RWOODS		Tare	11460 lb
					Net	1640 lb
					Tons	0.82

Comments

	Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1	Liquid Unspec.-Eac	100	5	Each				IL
2	FUEL-Fuel Surcharg	100		%				IL
3	EVF-L-Standard Env	100	1	Load				IL

Paul V. Mitchell

Total Fees
Total Ticket

403WM-N

APPENDIX F

GCRWWTP Discharge Permit Analytical Results

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-41732-1
Client Project/Site: WWTP

For:
Bodine Environmental Services
5350 East Firehouse Road
Decatur, Illinois 62521-9601

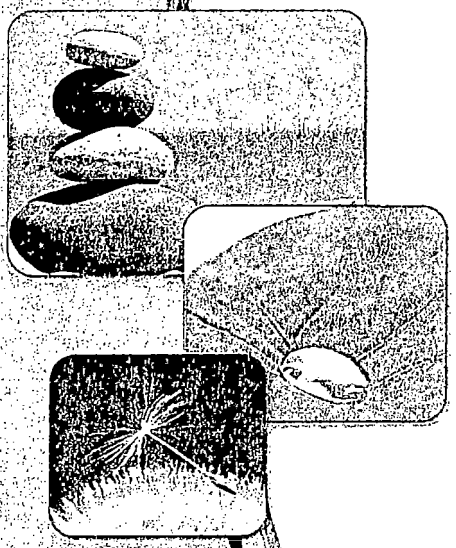
Attn: Troy McFate

Cindy Pritchard

Authorized for release by:
11/21/2011 8:24:32 AM
Cindy Pritchard
Project Mgmt. Assistant
cindy.pritchard@testamericainc.com

Designee for

Richard Wright
Project Manager II
richard.wright@testamericainc.com



LINKS

Review your project results through
TotalAccess

Have a Question?
Ask The Expert

Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory

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Job ID: 500-41732-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-41732-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method(s) 625: The following sample was diluted due to the abundance of target and non-target analytes: GCRWWTP-GWOUE-11032011 (500-41732-1). Elevated reporting limits (RLs) are provided.

Method(s) 625: Dibenzofuran is not a method 625 compound. There are no recovery limits in the method. The recovery for this analyte was 87%, which would fal within the laboratory's statisical limits. No further action was required.GCRWWTP-GWOUE-11032011 (500-41732-1)

No other analytical or quality issues were noted.

Metals
Method(s) 245.1: The continuing calibration verification (CCV) at lines 18 and 44 in AD batch 132470 recovered above the upper control limit for Hg. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

General Chemistry
Method(s) SM 5210B: The BOD unseeded control blank (method blank) associated with batch 131521 depleted more than the method-specified limit, 0.2mgO2/L. The effect on the sample result(s) is unknown; however, the laboratory control sample (LCS) recovery was in control.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Bodine Environmental Services
Project/Site: WWTP

TestAmerica Job ID: 500-41732-1

Client Sample ID: GCRWWTP-GWOUE-11032011 — Lab Sample ID: 500-41732-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylphenol	27	J	50	3.1	ug/L	10		625	Total/NA
2,4-Dimethylphenol	44	J	50	33	ug/L	10		625	Total/NA
Naphthalene	430		50	3.0	ug/L	10		625	Total/NA
Acenaphthylene	4.1	J	50	3.2	ug/L	10		625	Total/NA
Acenaphthene	210		50	3.6	ug/L	10		625	Total/NA
Fluorene	85		50	3.8	ug/L	10		625	Total/NA
Phenanthrene	80		50	3.5	ug/L	10		625	Total/NA
Anthracene	4.6	J	50	3.2	ug/L	10		625	Total/NA
Dibenzofuran	45	J	50	3.5	ug/L	10		625	Total/NA
Fluoranthene	13	J	50	3.2	ug/L	10		625	Total/NA
Pyrene	11	J	50	4.8	ug/L	10		625	Total/NA
3 & 4 Methylphenol	40	J	50	4.4	ug/L	10		625	Total/NA
Barium	0.35		0.0050	0.00060	mg/L	1		200.7 Rev 4.4	Total Recovera
Cadmium	0.00034	J	0.0010	0.00027	mg/L	1		200.7 Rev 4.4	Total Recovera
Iron	3.9		0.10	0.025	mg/L	1		200.7 Rev 4.4	Total Recovera
Zinc	0.0036	J B	0.010	0.0017	mg/L	1		200.7 Rev 4.4	Total Recovera
Manganese	0.33		0.0050	0.00069	mg/L	1		200.7 Rev 4.4	Total Recovera
Mercury	0.00010	J ^	0.00020	0.000070	mg/L	1		245.1	Total/NA
Phenolics, Total Recoverable	0.27		0.0050	0.0038	mg/L	1		420.2	Total/NA
Cyanide, Total	0.0028	J B	0.010	0.0011	mg/L	1		SM 4500 CN E	Total/NA
Biochemical Oxygen Demand	3.3	b	2.0	2.0	mg/L	1		SM 5210B	Total/NA

Method Summary

Client: Bodine Environmental Services
Project/Site: WWTP

TestAmerica Job ID: 500-41732-1

Method	Method Description	Protocol	Laboratory
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL CHI
200.7 Rev 4.4	Metals (ICP)	EPA	TAL CHI
245.1	Mercury (CVAA)	EPA	TAL CHI
1664A	HEM and SGT-HEM	1664A	TAL CHI
420.2	Phenolics, Total Recoverable	MCAWW	TAL CHI
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CHI
SM 4500 CN E	Cyanide, Total	SM	TAL CHI
SM 5210B	BOD, 5-Day	SM	TAL CHI

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Bodine Environmental Services
Project/Site: WWTP

TestAmerica Job ID: 500-41732-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-41732-1	GCRWWTP-GWOUE-11032011	Water	11/03/11 11:15	11/04/11 10:30

Client Sample Results

Client: Bodine Environmental Services
Project/Site: WWTP

TestAmerica Job ID: 500-41732-1

Client Sample ID: GCRWWTP-GWOUE-11032011
Date Collected: 11/03/11 11:15
Date Received: 11/04/11 10:30

Lab Sample ID: 500-41732-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	<100		100	14	ug/L		11/10/11 09:00	11/18/11 04:29	10
Phenol	<100		100	3.6	ug/L		11/10/11 09:00	11/18/11 04:29	10
Bis(2-chloroethyl)ether	<50		50	3.5	ug/L		11/10/11 09:00	11/18/11 04:29	10
2,2'-oxybis[1-chloropropane]	<50		50	3.0	ug/L		11/10/11 09:00	11/18/11 04:29	10
N-Nitrosodi-n-propylamine	<50		50	1.4	ug/L		11/10/11 09:00	11/18/11 04:29	10
Hexachloroethane	<50		50	9.7	ug/L		11/10/11 09:00	11/18/11 04:29	10
2-Chlorophenol	<50		50	8.0	ug/L		11/10/11 09:00	11/18/11 04:29	10
2-Methylphenol	**27**	**J**	50	3.1	ug/L		11/10/11 09:00	11/18/11 04:29	10
Nitrobenzene	<50		50	4.5	ug/L		11/10/11 09:00	11/18/11 04:29	10
Bis(2-chloroethoxy)methane	<50		50	3.0	ug/L		11/10/11 09:00	11/18/11 04:29	10
1,2,4-Trichlorobenzene	<50		50	3.0	ug/L		11/10/11 09:00	11/18/11 04:29	10
Isophorone	<50		50	2.9	ug/L		11/10/11 09:00	11/18/11 04:29	10
2,4-Dimethylphenol	**44**	**J**	50	33	ug/L		11/10/11 09:00	11/18/11 04:29	10
Hexachlorobutadiene	<50		50	11	ug/L		11/10/11 09:00	11/18/11 04:29	10
Naphthalene	**430**		50	3.0	ug/L		11/10/11 09:00	11/18/11 04:29	10
2,4-Dichlorophenol	<50		50	23	ug/L		11/10/11 09:00	11/18/11 04:29	10
2,4,6-Trichlorophenol	<50		50	11	ug/L		11/10/11 09:00	11/18/11 04:29	10
Hexachlorocyclopentadiene	<100		100	34	ug/L		11/10/11 09:00	11/18/11 04:29	10
2-Chloronaphthalene	<50		50	3.4	ug/L		11/10/11 09:00	11/18/11 04:29	10
4-Chloro-3-methylphenol	<50		50	22	ug/L		11/10/11 09:00	11/18/11 04:29	10
2,6-Dinitrotoluene	<50		50	1.2	ug/L		11/10/11 09:00	11/18/11 04:29	10
2-Nitrophenol	<50		50	21	ug/L		11/10/11 09:00	11/18/11 04:29	10
Dimethyl phthalate	<50		50	3.8	ug/L		11/10/11 09:00	11/18/11 04:29	10
2,4-Dinitrophenol	<200		200	74	ug/L		11/10/11 09:00	11/18/11 04:29	10
Acenaphthylene	**4.1**	**J**	50	3.2	ug/L		11/10/11 09:00	11/18/11 04:29	10
2,4-Dinitrotoluene	<50		50	3.0	ug/L		11/10/11 09:00	11/18/11 04:29	10
Acenaphthene	**210**		50	3.6	ug/L		11/10/11 09:00	11/18/11 04:29	10
4-Nitrophenol	<200		200	23	ug/L		11/10/11 09:00	11/18/11 04:29	10
Fluorene	**85**		50	3.8	ug/L		11/10/11 09:00	11/18/11 04:29	10
1,2-Diphenylhydrazine	<50		50	7.0	ug/L		11/10/11 09:00	11/18/11 04:29	10
4-Bromophenyl phenyl ether	<50		50	9.1	ug/L		11/10/11 09:00	11/18/11 04:29	10
Hexachlorobenzene	<50		50	1.4	ug/L		11/10/11 09:00	11/18/11 04:29	10
Diethyl phthalate	<50		50	4.4	ug/L		11/10/11 09:00	11/18/11 04:29	10
4-Chlorophenyl phenyl ether	<50		50	8.1	ug/L		11/10/11 09:00	11/18/11 04:29	10
Pentachlorophenol	<200		200	56	ug/L		11/10/11 09:00	11/18/11 04:29	10
N-Nitrosodiphenylamine	<50		50	3.4	ug/L		11/10/11 09:00	11/18/11 04:29	10
4,6-Dinitro-2-methylphenol	<200		200	49	ug/L		11/10/11 09:00	11/18/11 04:29	10
Phenanthrene	**80**		50	3.5	ug/L		11/10/11 09:00	11/18/11 04:29	10
Anthracene	**4.6**	**J**	50	3.2	ug/L		11/10/11 09:00	11/18/11 04:29	10
Dibenzofuran	**45**	**J**	50	3.5	ug/L		11/10/11 09:00	11/18/11 04:29	10
Di-n-butyl phthalate	<50		50	8.0	ug/L		11/10/11 09:00	11/18/11 04:29	10
Benzidine	<500		500	200	ug/L		11/10/11 09:00	11/18/11 04:29	10
Fluoranthene	**13**	**J**	50	3.2	ug/L		11/10/11 09:00	11/18/11 04:29	10
Pyrene	**11**	**J**	50	4.8	ug/L		11/10/11 09:00	11/18/11 04:29	10
Butyl benzyl phthalate	<50		50	2.7	ug/L		11/10/11 09:00	11/18/11 04:29	10
Benzo[a]anthracene	<50		50	0.44	ug/L		11/10/11 09:00	11/18/11 04:29	10
Chrysene	<50		50	1.4	ug/L		11/10/11 09:00	11/18/11 04:29	10
3,3'-Dichlorobenzidine	<50		50	9.4	ug/L		11/10/11 09:00	11/18/11 04:29	10
Bis(2-ethylhexyl) phthalate	<100		100	24	ug/L		11/10/11 09:00	11/18/11 04:29	10
Di-n-octyl phthalate	<100		100	25	ug/L		11/10/11 09:00	11/18/11 04:29	10

Client Sample Results

Client: Bodine Environmental Services
Project/Site: WWTP

TestAmerica Job ID: 500-41732-1

Client Sample ID: GCRWWTP-GWOUE-11032011
Date Collected: 11/03/11 11:15
Date Received: 11/04/11 10:30

Lab Sample ID: 500-41732-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	<50		50	0.58	ug/L		11/10/11 09:00	11/18/11 04:29	10
Benzo[k]fluoranthene	<50		50	0.74	ug/L		11/10/11 09:00	11/18/11 04:29	10
Benzo[a]pyrene	<50		50	0.56	ug/L		11/10/11 09:00	11/18/11 04:29	10
Indeno[1,2,3-cd]pyrene	<50		50	0.84	ug/L		11/10/11 09:00	11/18/11 04:29	10
Dibenz(a,h)anthracene	<50		50	0.64	ug/L		11/10/11 09:00	11/18/11 04:29	10
Benzo[g,h,i]perylene	<50		50	4.2	ug/L		11/10/11 09:00	11/18/11 04:29	10
3 & 4 Methylphenol	**40**	**J**	50	4.4	ug/L		11/10/11 09:00	11/18/11 04:29	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*20*		*10 - 110*	*11/10/11 09:00*	*11/18/11 04:29*	*10*
Phenol-d5	*15*		*10 - 110*	*11/10/11 09:00*	*11/18/11 04:29*	*10*
Nitrobenzene-d5	*50*		*28 - 110*	*11/10/11 09:00*	*11/18/11 04:29*	*10*
2-Fluorobiphenyl	*52*		*31 - 110*	*11/10/11 09:00*	*11/18/11 04:29*	*10*
2,4,6-Tribromophenol	*63*		*34 - 116*	*11/10/11 09:00*	*11/18/11 04:29*	*10*
Terphenyl-d14	*103*		*20 - 133*	*11/10/11 09:00*	*11/18/11 04:29*	*10*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0050		0.0050	0.0020	mg/L		11/11/11 14:10	11/12/11 11:33	1
Barium	**0.35**		0.0050	0.00060	mg/L		11/11/11 14:10	11/12/11 11:33	1
Cadmium	**0.00034**	**J**	0.0010	0.00027	mg/L		11/11/11 14:10	11/12/11 11:33	1
Chromium	<0.0050		0.0050	0.00078	mg/L		11/11/11 14:10	11/12/11 11:33	1
Copper	<0.0050		0.0050	0.00075	mg/L		11/11/11 14:10	11/12/11 11:33	1
Lead	<0.0025		0.0025	0.00075	mg/L		11/11/11 14:10	11/12/11 11:33	1
Nickel	<0.0050		0.0050	0.00092	mg/L		11/11/11 14:10	11/12/11 11:33	1
Selenium	<0.0050		0.0050	0.0013	mg/L		11/11/11 14:10	11/12/11 11:33	1
Silver	<0.0025		0.0025	0.00065	mg/L		11/11/11 14:10	11/12/11 11:33	1
Iron	**3.9**		0.10	0.025	mg/L		11/11/11 14:10	11/12/11 11:33	1
Zinc	**0.0036**	**J B**	0.010	0.0017	mg/L		11/11/11 14:10	11/12/11 11:33	1
Manganese	**0.33**		0.0050	0.00069	mg/L		11/11/11 14:10	11/12/11 11:33	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00010	J ^	0.00020	0.000070	mg/L		11/11/11 15:40	11/12/11 11:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.0		5.0	1.8	mg/L		11/09/11 05:19	11/09/11 08:54	1
Phenolics, Total Recoverable	**0.27**		0.0050	0.0038	mg/L		11/13/11 08:30	11/17/11 08:01	1
Total Suspended Solids	<5.0		5.0	1.6	mg/L			11/09/11 22:22	1
Cyanide, Total	**0.0028**	**J B**	0.010	0.0011	mg/L		11/08/11 14:50	11/08/11 19:22	1
Biochemical Oxygen Demand	**3.3**	**b**	2.0	2.0	mg/L			11/04/11 12:39	1

Definitions/Glossary

Client: Bodine Environmental Services
Project/Site: WWTP

TestAmerica Job ID: 500-41732-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
b	Result Detected in the USB
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Bodine Environmental Services
Project/Site: WWTP

TestAmerica Job ID: 500-41732-1

GC/MS Semi VOA

Prep Batch: 132150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	625	
LCS 500-132150/2-A	Lab Control Sample	Total/NA	Water	625	
MB 500-132150/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 133089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	625	132150
LCS 500-132150/2-A	Lab Control Sample	Total/NA	Water	625	132150
MB 500-132150/1-A	Method Blank	Total/NA	Water	625	132150

Metals

Prep Batch: 132395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	245.1	
500-41732-1 DU	GCRWWTP-GWOUE-11032011	Total/NA	Water	245.1	
500-41732-1 MS	GCRWWTP-GWOUE-11032011	Total/NA	Water	245.1	
LCS 500-132395/8-A	Lab Control Sample	Total/NA	Water	245.1	
MB 500-132395/7-A	Method Blank	Total/NA	Water	245.1	

Prep Batch: 132407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total Recoverable	Water	200.7	
500-41732-1 DU	GCRWWTP-GWOUE-11032011	Total Recoverable	Water	200.7	
500-41732-1 MS	GCRWWTP-GWOUE-11032011	Total Recoverable	Water	200.7	
LCS 500-132407/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
MB 500-132407/1-A	Method Blank	Total Recoverable	Water	200.7	

Analysis Batch: 132468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total Recoverable	Water	200.7 Rev 4.4	132407
500-41732-1 DU	GCRWWTP-GWOUE-11032011	Total Recoverable	Water	200.7 Rev 4.4	132407
500-41732-1 MS	GCRWWTP-GWOUE-11032011	Total Recoverable	Water	200.7 Rev 4.4	132407
LCS 500-132407/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	132407
MB 500-132407/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	132407

Analysis Batch: 132470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	245.1	132395
500-41732-1 DU	GCRWWTP-GWOUE-11032011	Total/NA	Water	245.1	132395
500-41732-1 MS	GCRWWTP-GWOUE-11032011	Total/NA	Water	245.1	132395
MB 500-132395/7-A	Method Blank	Total/NA	Water	245.1	132395

Analysis Batch: 132579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-132395/8-A	Lab Control Sample	Total/NA	Water	245.1	132395

General Chemistry

Analysis Batch: 131521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	SM 5210B	

General Chemistry (Continued)

Analysis Batch: 131521 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-131521/2	Lab Control Sample	Total/NA	Water	SM 5210B	
USB 500-131521/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Prep Batch: 131903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	Distill/CN	
HLCS 500-131903/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 500-131903/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LLCS 500-131903/4-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MB 500-131903/1-A	Method Blank	Total/NA	Water	Distill/CN	

Prep Batch: 131929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	1664A	
LCS 500-131929/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 500-131929/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 500-131929/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 131933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	1664A	131929
LCS 500-131929/2-A	Lab Control Sample	Total/NA	Water	1664A	131929
LCSD 500-131929/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	131929
MB 500-131929/1-A	Method Blank	Total/NA	Water	1664A	131929

Analysis Batch: 132045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	SM 4500 CN E	131903
HLCS 500-131903/3-A	Lab Control Sample	Total/NA	Water	SM 4500 CN E	131903
LCS 500-131903/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN E	131903
LLCS 500-131903/4-A	Lab Control Sample	Total/NA	Water	SM 4500 CN E	131903
MB 500-131903/1-A	Method Blank	Total/NA	Water	SM 4500 CN E	131903

Analysis Batch: 132116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	SM 2540D	
LCS 500-132116/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 500-132116/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 132521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	Distill/Phenol	
LCS 500-132521/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
MB 500-132521/1-A	Method Blank	Total/NA	Water	Distill/Phenol	

Analysis Batch: 133011

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-41732-1	GCRWWTP-GWOUE-11032011	Total/NA	Water	420.2	132521
LCS 500-132521/2-A	Lab Control Sample	Total/NA	Water	420.2	132521
MB 500-132521/1-A	Method Blank	Total/NA	Water	420.2	132521

Surrogate Summary

Client: Bodine Environmental Services
Project/Site: WWTP

TestAmerica Job ID: 500-41732-1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPH
Lab Sample ID	Client Sample ID	(10-110)	(10-110)	(28-110)	(31-110)	(34-116)	(20-133)
500-41732-1	GCRWWTP-GWOUE-11032011	20	15	50	52	63	103
LCS 500-132150/2-A	Lab Control Sample	52	38	86	76	92	92
MB 500-132150/1-A	Method Blank	50	32	75	63	65	108

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d5
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPH = Terphenyl-d14

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-132150/1-A
Matrix: Water
Analysis Batch: 133089

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 132150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	<10		10	1.4	ug/L		11/10/11 09:00	11/17/11 15:36	1
Phenol	<10		10	0.36	ug/L		11/10/11 09:00	11/17/11 15:36	1
Bis(2-chloroethyl)ether	<5.0		5.0	0.35	ug/L		11/10/11 09:00	11/17/11 15:36	1
2,2'-oxybis[1-chloropropane]	<5.0		5.0	0.30	ug/L		11/10/11 09:00	11/17/11 15:36	1
N-Nitrosodi-n-propylamine	<5.0		5.0	0.14	ug/L		11/10/11 09:00	11/17/11 15:36	1
Hexachloroethane	<5.0		5.0	0.97	ug/L		11/10/11 09:00	11/17/11 15:36	1
2-Chlorophenol	<5.0		5.0	0.80	ug/L		11/10/11 09:00	11/17/11 15:36	1
2-Methylphenol	<5.0		5.0	0.31	ug/L		11/10/11 09:00	11/17/11 15:36	1
Nitrobenzene	<5.0		5.0	0.45	ug/L		11/10/11 09:00	11/17/11 15:36	1
Bis(2-chloroethoxy)methane	<5.0		5.0	0.30	ug/L		11/10/11 09:00	11/17/11 15:36	1
1,2,4-Trichlorobenzene	<5.0		5.0	0.30	ug/L		11/10/11 09:00	11/17/11 15:36	1
Isophorone	<5.0		5.0	0.29	ug/L		11/10/11 09:00	11/17/11 15:36	1
2,4-Dimethylphenol	<5.0		5.0	3.3	ug/L		11/10/11 09:00	11/17/11 15:36	1
Hexachlorobutadiene	<5.0		5.0	1.1	ug/L		11/10/11 09:00	11/17/11 15:36	1
Naphthalene	<5.0		5.0	0.30	ug/L		11/10/11 09:00	11/17/11 15:36	1
2,4-Dichlorophenol	<5.0		5.0	2.3	ug/L		11/10/11 09:00	11/17/11 15:36	1
2,4,6-Trichlorophenol	<5.0		5.0	1.1	ug/L		11/10/11 09:00	11/17/11 15:36	1
Hexachlorocyclopentadiene	<10		10	3.4	ug/L		11/10/11 09:00	11/17/11 15:36	1
2-Chloronaphthalene	<5.0		5.0	0.34	ug/L		11/10/11 09:00	11/17/11 15:36	1
4-Chloro-3-methylphenol	<5.0		5.0	2.2	ug/L		11/10/11 09:00	11/17/11 15:36	1
2,6-Dinitrotoluene	<5.0		5.0	0.12	ug/L		11/10/11 09:00	11/17/11 15:36	1
2-Nitrophenol	<5.0		5.0	2.1	ug/L		11/10/11 09:00	11/17/11 15:36	1
Dimethyl phthalate	<5.0		5.0	0.38	ug/L		11/10/11 09:00	11/17/11 15:36	1
2,4-Dinitrophenol	<20		20	7.4	ug/L		11/10/11 09:00	11/17/11 15:36	1
Acenaphthylene	<5.0		5.0	0.32	ug/L		11/10/11 09:00	11/17/11 15:36	1
2,4-Dinitrotoluene	<5.0		5.0	0.30	ug/L		11/10/11 09:00	11/17/11 15:36	1
Acenaphthene	<5.0		5.0	0.36	ug/L		11/10/11 09:00	11/17/11 15:36	1
4-Nitrophenol	<20		20	2.3	ug/L		11/10/11 09:00	11/17/11 15:36	1
Fluorene	<5.0		5.0	0.38	ug/L		11/10/11 09:00	11/17/11 15:36	1
1,2-Diphenylhydrazine	<5.0		5.0	0.70	ug/L		11/10/11 09:00	11/17/11 15:36	1
4-Bromophenyl phenyl ether	<5.0		5.0	0.91	ug/L		11/10/11 09:00	11/17/11 15:36	1
Hexachlorobenzene	<5.0		5.0	0.14	ug/L		11/10/11 09:00	11/17/11 15:36	1
Diethyl phthalate	<5.0		5.0	0.44	ug/L		11/10/11 09:00	11/17/11 15:36	1
4-Chlorophenyl phenyl ether	<5.0		5.0	0.81	ug/L		11/10/11 09:00	11/17/11 15:36	1
Pentachlorophenol	<20		20	5.6	ug/L		11/10/11 09:00	11/17/11 15:36	1
N-Nitrosodiphenylamine	<5.0		5.0	0.34	ug/L		11/10/11 09:00	11/17/11 15:36	1
4,6-Dinitro-2-methylphenol	<20		20	4.9	ug/L		11/10/11 09:00	11/17/11 15:36	1
Phenanthrene	<5.0		5.0	0.35	ug/L		11/10/11 09:00	11/17/11 15:36	1
Anthracene	<5.0		5.0	0.32	ug/L		11/10/11 09:00	11/17/11 15:36	1
Dibenzofuran	<5.0		5.0	0.35	ug/L		11/10/11 09:00	11/17/11 15:36	1
Di-n-butyl phthalate	<5.0		5.0	0.80	ug/L		11/10/11 09:00	11/17/11 15:36	1
Benzidine	<50		50	20	ug/L		11/10/11 09:00	11/17/11 15:36	1
Fluoranthene	<5.0		5.0	0.32	ug/L		11/10/11 09:00	11/17/11 15:36	1
Pyrene	<5.0		5.0	0.48	ug/L		11/10/11 09:00	11/17/11 15:36	1
Butyl benzyl phthalate	<5.0		5.0	0.27	ug/L		11/10/11 09:00	11/17/11 15:36	1
Benzo[a]anthracene	<5.0		5.0	0.044	ug/L		11/10/11 09:00	11/17/11 15:36	1
Chrysene	<5.0		5.0	0.14	ug/L		11/10/11 09:00	11/17/11 15:36	1
3,3'-Dichlorobenzidine	<5.0		5.0	0.94	ug/L		11/10/11 09:00	11/17/11 15:36	1
Bis(2-ethylhexyl) phthalate	<10		10	2.4	ug/L		11/10/11 09:00	11/17/11 15:36	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-132150/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133089 — **Prep Batch: 132150**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	<10		10	2.5	ug/L		11/10/11 09:00	11/17/11 15:36	1
Benzo[b]fluoranthene	<5.0		5.0	0.058	ug/L		11/10/11 09:00	11/17/11 15:36	1
Benzo[k]fluoranthene	<5.0		5.0	0.074	ug/L		11/10/11 09:00	11/17/11 15:36	1
Benzo[a]pyrene	<5.0		5.0	0.056	ug/L		11/10/11 09:00	11/17/11 15:36	1
Indeno[1,2,3-cd]pyrene	<5.0		5.0	0.084	ug/L		11/10/11 09:00	11/17/11 15:36	1
Dibenz(a,h)anthracene	<5.0		5.0	0.064	ug/L		11/10/11 09:00	11/17/11 15:36	1
Benzo[g,h,i]perylene	<5.0		5.0	0.42	ug/L		11/10/11 09:00	11/17/11 15:36	1
3 & 4 Methylphenol	<5.0		5.0	0.44	ug/L		11/10/11 09:00	11/17/11 15:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*50*		*10 - 110*	*11/10/11 09:00*	*11/17/11 15:36*	*1*
Phenol-d5	*32*		*10 - 110*	*11/10/11 09:00*	*11/17/11 15:36*	*1*
Nitrobenzene-d5	*75*		*28 - 110*	*11/10/11 09:00*	*11/17/11 15:36*	*1*
2-Fluorobiphenyl	*63*		*31 - 110*	*11/10/11 09:00*	*11/17/11 15:36*	*1*
2,4,6-Tribromophenol	*65*		*34 - 116*	*11/10/11 09:00*	*11/17/11 15:36*	*1*
Terphenyl-d14	*108*		*20 - 133*	*11/10/11 09:00*	*11/17/11 15:36*	*1*

Lab Sample ID: LCS 500-132150/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133089 — **Prep Batch: 132150**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Nitrosodimethylamine	50.0	30.8		ug/L		62	10 - 200
Phenol	50.0	19.3		ug/L		39	5 - 112
Bis(2-chloroethyl)ether	50.0	45.3		ug/L		91	12 - 158
2,2'-oxybis[1-chloropropane]	50.0	41.7		ug/L		83	36 - 166
N-Nitrosodi-n-propylamine	50.0	49.8		ug/L		100	10 - 230
Hexachloroethane	50.0	29.8		ug/L		60	40 - 113
2-Chlorophenol	50.0	39.6		ug/L		79	23 - 134
2-Methylphenol	50.0	38.4		ug/L		77	30 - 146
Nitrobenzene	50.0	42.9		ug/L		86	35 - 180
Bis(2-chloroethoxy)methane	50.0	45.1		ug/L		90	33 - 184
1,2,4-Trichlorobenzene	50.0	34.4		ug/L		69	44 - 142
Isophorone	50.0	45.8		ug/L		92	21 - 196
2,4-Dimethylphenol	50.0	44.0		ug/L		88	32 - 119
Hexachlorobutadiene	50.0	30.4		ug/L		61	24 - 116
Naphthalene	50.0	39.4		ug/L		79	21 - 133
2,4-Dichlorophenol	50.0	44.6		ug/L		89	39 - 135
2,4,6-Trichlorophenol	50.0	42.7		ug/L		85	37 - 144
Hexachlorocyclopentadiene	50.0	29.1		ug/L		58	10 - 200
2-Chloronaphthalene	50.0	39.5		ug/L		79	60 - 118
4-Chloro-3-methylphenol	50.0	47.6		ug/L		95	22 - 147
2,6-Dinitrotoluene	50.0	49.5		ug/L		99	50 - 158
2-Nitrophenol	50.0	43.5		ug/L		87	29 - 182
Dimethyl phthalate	50.0	47.1		ug/L		94	10 - 112
2,4-Dinitrophenol	50.0	45.8		ug/L		92	10 - 191
Acenaphthylene	50.0	43.6		ug/L		87	33 - 145
2,4-Dinitrotoluene	50.0	49.1		ug/L		98	39 - 139
Acenaphthene	50.0	44.1		ug/L		88	47 - 145

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-132150/2-A
Matrix: Water
Analysis Batch: 133089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 132150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitrophenol	50.0	23.6		ug/L		47	10 - 132
Fluorene	50.0	45.5		ug/L		91	59 - 121
4-Bromophenyl phenyl ether	50.0	43.8		ug/L		88	53 - 127
Hexachlorobenzene	50.0	45.2		ug/L		90	10 - 152
Diethyl phthalate	50.0	49.4		ug/L		99	10 - 114
4-Chlorophenyl phenyl ether	50.0	44.9		ug/L		90	25 - 158
Pentachlorophenol	50.0	56.0		ug/L		112	14 - 176
N-Nitrosodiphenylamine	50.0	47.6		ug/L		95	10 - 200
4,6-Dinitro-2-methylphenol	50.0	50.6		ug/L		101	10 - 181
Phenanthrene	50.0	43.0		ug/L		86	54 - 120
Anthracene	50.0	47.4		ug/L		95	27 - 133
Dibenzofuran	50.0	43.5		ug/L		87	
Di-n-butyl phthalate	50.0	49.6		ug/L		99	1 - 118
Benzidine	50.0	<50		ug/L		16	10 - 200
Fluoranthene	50.0	49.5		ug/L		99	26 - 137
Pyrene	50.0	47.3		ug/L		95	52 - 115
Butyl benzyl phthalate	50.0	49.3		ug/L		99	10 - 152
Benzo[a]anthracene	50.0	45.4		ug/L		91	33 - 143
Chrysene	50.0	47.7		ug/L		95	17 - 168
3,3'-Dichlorobenzidine	50.0	35.3		ug/L		71	10 - 262
Bis(2-ethylhexyl) phthalate	50.0	50.4		ug/L		101	8 - 158
Di-n-octyl phthalate	50.0	46.7		ug/L		93	4 - 146
Benzo[b]fluoranthene	50.0	41.0		ug/L		82	24 - 159
Benzo[k]fluoranthene	50.0	45.7		ug/L		91	11 - 162
Benzo[a]pyrene	50.0	43.0		ug/L		86	17 - 163
Indeno[1,2,3-cd]pyrene	50.0	42.4		ug/L		85	10 - 171
Dibenz(a,h)anthracene	50.0	41.8		ug/L		84	10 - 227
Benzo[g,h,i]perylene	50.0	43.0		ug/L		86	10 - 219
3 & 4 Methylphenol	50.0	40.9		ug/L		82	11 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*52*		*10 - 110*
Phenol-d5	*38*		*10 - 110*
Nitrobenzene-d5	*86*		*28 - 110*
2-Fluorobiphenyl	*76*		*31 - 110*
2,4,6-Tribromophenol	*92*		*34 - 116*
Terphenyl-d14	*92*		*20 - 133*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 500-132407/1-A
Matrix: Water
Analysis Batch: 132468

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 132407

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0050		0.0050	0.0020	mg/L		11/11/11 14:10	11/12/11 10:39	1
Barium	<0.0050		0.0050	0.00060	mg/L		11/11/11 14:10	11/12/11 10:39	1
Cadmium	<0.0010		0.0010	0.00027	mg/L		11/11/11 14:10	11/12/11 10:39	1
Chromium	<0.0050		0.0050	0.00078	mg/L		11/11/11 14:10	11/12/11 10:39	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 500-132407/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 132468 — **Prep Batch: 132407**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	<0.0050		0.0050	0.00075	mg/L		11/11/11 14:10	11/12/11 10:39	1
Lead	<0.0025		0.0025	0.00075	mg/L		11/11/11 14:10	11/12/11 10:39	1
Nickel	<0.0050		0.0050	0.00092	mg/L		11/11/11 14:10	11/12/11 10:39	1
Selenium	<0.0050		0.0050	0.0013	mg/L		11/11/11 14:10	11/12/11 10:39	1
Silver	<0.0025		0.0025	0.00065	mg/L		11/11/11 14:10	11/12/11 10:39	1
Iron	<0.10		0.10	0.025	mg/L		11/11/11 14:10	11/12/11 10:39	1
Zinc	0.00452	J	0.010	0.0017	mg/L		11/11/11 14:10	11/12/11 10:39	1
Manganese	<0.0050		0.0050	0.00069	mg/L		11/11/11 14:10	11/12/11 10:39	1

Lab Sample ID: LCS 500-132407/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 132468 — **Prep Batch: 132407**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0500	0.0491		mg/L		98	85 - 115
Barium	1.00	0.937		mg/L		94	85 - 115
Cadmium	0.0250	0.0235		mg/L		94	85 - 115
Chromium	0.100	0.0918		mg/L		92	85 - 115
Copper	0.125	0.119		mg/L		95	85 - 115
Lead	0.0500	0.0478		mg/L		96	85 - 115
Nickel	0.250	0.238		mg/L		95	85 - 115
Selenium	0.0500	0.0469		mg/L		94	85 - 115
Silver	0.0250	0.0237		mg/L		95	85 - 115
Iron	0.500	0.501		mg/L		100	85 - 115
Zinc	0.250	0.234		mg/L		93	85 - 115
Manganese	0.250	0.232		mg/L		93	85 - 115

Lab Sample ID: 500-41732-1 MS — **Client Sample ID: GCRWWTP-GWOUE-11032011**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 132468 — **Prep Batch: 132407**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<0.0050		0.0500	0.0509		mg/L		102	70 - 130
Barium	0.35		1.00	1.30		mg/L		94	70 - 130
Cadmium	0.00034	J	0.0250	0.0237		mg/L		94	70 - 130
Chromium	<0.0050		0.100	0.0898		mg/L		90	70 - 130
Copper	<0.0050		0.125	0.122		mg/L		98	70 - 130
Lead	<0.0025		0.0500	0.0470		mg/L		94	70 - 130
Nickel	<0.0050		0.250	0.242		mg/L		97	70 - 130
Selenium	<0.0050		0.0500	0.0413		mg/L		83	70 - 130
Silver	<0.0025		0.0250	0.0240		mg/L		96	70 - 130
Iron	3.9		0.500	4.44	4	mg/L		106	70 - 130
Zinc	0.0036	J B	0.250	0.238		mg/L		94	70 - 130
Manganese	0.33		0.250	0.552		mg/L		90	70 - 130

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 500-41732-1 DU — **Client Sample ID: GCRWWTP-GWOUE-11032011**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 132468 — **Prep Batch: 132407**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	<0.0050		<0.0050		mg/L		NC	20
Barium	0.35		0.363		mg/L		3	20
Cadmium	0.00034	J	0.000406	J	mg/L		16	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Copper	<0.0050		<0.0050		mg/L		NC	20
Lead	<0.0025		<0.0025		mg/L		NC	20
Nickel	<0.0050		<0.0050		mg/L		NC	20
Selenium	<0.0050		<0.0050		mg/L		NC	20
Silver	<0.0025		<0.0025		mg/L		NC	20
Iron	3.9		4.02		mg/L		3	20
Zinc	0.0036	J B	0.00529	J	mg/L		39	20
Manganese	0.33		0.338		mg/L		3	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 500-132395/7-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 132470 — **Prep Batch: 132395**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000070	mg/L		11/11/11 15:40	11/12/11 10:41	1

Lab Sample ID: LCS 500-132395/8-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 132579 — **Prep Batch: 132395**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00199		mg/L		100	85 - 115

Lab Sample ID: 500-41732-1 MS — **Client Sample ID: GCRWWTP-GWOUE-11032011**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 132470 — **Prep Batch: 132395**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00010	J ^	0.00100	0.00122		mg/L		112	70 - 130

Lab Sample ID: 500-41732-1 DU — **Client Sample ID: GCRWWTP-GWOUE-11032011**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 132470 — **Prep Batch: 132395**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.00010	J ^	<0.00020		mg/L		NC	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 500-131929/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 131933 — **Prep Batch: 131929**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.0		5.0	1.8	mg/L		11/09/11 04:20	11/09/11 08:00	1

Lab Sample ID: LCS 500-131929/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 131933 — **Prep Batch: 131929**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	40.0	35.6		mg/L		89	78 - 114

Lab Sample ID: LCSD 500-131929/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 131933 — **Prep Batch: 131929**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	40.0	36.7		mg/L		92	78 - 114	3	18

Method: 420.2 - Phenolics, Total Recoverable

Lab Sample ID: MB 500-132521/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133011 — **Prep Batch: 132521**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics, Total Recoverable	<0.0050		0.0050	0.0038	mg/L		11/13/11 08:30	11/17/11 07:58	1

Lab Sample ID: LCS 500-132521/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133011 — **Prep Batch: 132521**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenolics, Total Recoverable	0.100	0.0993		mg/L		99	90 - 110

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 500-132116/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 132116

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0	1.6	mg/L			11/09/11 22:00	1

Lab Sample ID: LCS 500-132116/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 132116

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	200	195		mg/L		97	80 - 120

QC Sample Results

Client: Bodine Environmental Services
Project/Site: WWTP

TestAmerica Job ID: 500-41732-1

Method: SM 4500 CN E - Cyanide, Total

Lab Sample ID: MB 500-131903/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 132045 — **Prep Batch: 131903**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.00310	J	0.010	0.0011	mg/L		11/08/11 14:50	11/08/11 19:18	1

Lab Sample ID: HLCS 500-131903/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 132045 — **Prep Batch: 131903**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.371		mg/L		93	90 - 110

Lab Sample ID: LCS 500-131903/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 132045 — **Prep Batch: 131903**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.0960		mg/L		96	80 - 120

Lab Sample ID: LLCS 500-131903/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 132045 — **Prep Batch: 131903**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0400	0.0394		mg/L		99	75 - 125

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 500-131521/1 USB — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 131521

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			11/04/11 12:35	1

Lab Sample ID: LCS 500-131521/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 131521

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	198		mg/L		100	85 - 115

Certification Summary

Client: Bodine Environmental Services
Project/Site: WWTP

TestAmerica Job ID: 500-41732-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Chicago	ACLASS	DoD ELAP		ADE-1429
TestAmerica Chicago	ACLASS	ISO/IEC 17025		AT-1428
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	Georgia EPD	4	N/A
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-03
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	Kentucky UST	4	66
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina	North Carolina DENR	4	291
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	USDA		P330-09-00027
TestAmerica Chicago	Virginia	NELAC Secondary AB	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact: Troy McFate
Company: Bodine Env. Services, Inc.
Address:
Address:
Phone:
Fax:
E-Mail: tmcfate@bodineservices.com

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-41732
Chain of Custody Number:
Page ____ of ____
Temperature °C of Cooler: 3.2

Client: Bodine Environmental
Client Project #: 119386-12
Project Name: IEPA - Jennison Wright
Project Location/State: Granite City, IL
Lab Project #:
Sampler: R. Evey
Lab PM: Dick Wright

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Cyanide	BOD & TSS	Oil & Grease	Metals	Phenols	SVOCs				Comments
Preservative							4	8	2	3	2	8				
1		GCRWWTP-GWOUE-11032011	11/3/11	1115	1	W	X									Sample Point E To GCRWWTP (Effluent)
					1	W		X								
					1	W			X							
					1	W				X						
					1	W					X					
					2	W						X				

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days X 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	Bodine	11/3/11	3:30 P.M.	[signature]	TA	11/4/11	1030
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped: FX
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments
Chain of Custody / Lab Seal
303101

Lab Comments:

TAL-4124-500 (1208)
11/21/2011

13

Login Sample Receipt Checklist

Client: Bodine Environmental Services

Job Number: 500-41732-1

Login Number: 41732
List Number: 1
Creator: Lunt, Jeff T

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	3.2
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	

APPENDIX G

System Operational Sample Results

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-40126-1
Client Project/Site: Jennison Wright

For:
Bodine Environmental Services
5350 East Firehouse Road
Decatur, Illinois 62521-9601

Attn: Troy McFate

Authorized for release by:
10/12/2011 01:30:01 PM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

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TotalAccess

Have a Question?
Ask The Expert

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www.testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Job ID: 500-40126-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-40126-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method(s) 625: The following samples were diluted due to the abundance of target and non-target analytes: GWOUA (10032011) (500-40126-1), GWOUE (10032011) (500-40126-4). Elevated reporting limits (RLs) are provided.

Method(s) 625: Due to the level of dilution required for the following secondary dilution, surrogate recoveries are not reported: GWOUA (10032011) (500-40126-1).

Method(s) 625: The laboratory control sample (LCS) for batch 127663 exceeded control limits and the RPD value for the non-controlled analyte Benzidine. No corrective action was required. GWOUA (10032011) (500-40126-1), GWOUE (10032011) (500-40126-4)

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Client Sample ID: GWOUA (10032011) — Lab Sample ID: 500-40126-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylphenol	22	J	52	3.2	ug/L	10		625	Total/NA
2,4-Dimethylphenol	62		52	34	ug/L	10		625	Total/NA
Acenaphthylene	16	J	52	3.3	ug/L	10		625	Total/NA
Acenaphthene	490		52	3.7	ug/L	10		625	Total/NA
Fluorene	360		52	3.9	ug/L	10		625	Total/NA
Phenanthrene	630		52	3.6	ug/L	10		625	Total/NA
Anthracene	92		52	3.3	ug/L	10		625	Total/NA
Dibenzofuran	340		52	3.6	ug/L	10		625	Total/NA
Fluoranthene	270		52	3.3	ug/L	10		625	Total/NA
Pyrene	190		52	4.9	ug/L	10		625	Total/NA
Benzo[a]anthracene	53		52	0.45	ug/L	10		625	Total/NA
Chrysene	45	J	52	1.4	ug/L	10		625	Total/NA
Benzo[b]fluoranthene	31	J	52	0.60	ug/L	10		625	Total/NA
Benzo[k]fluoranthene	23	J	52	0.76	ug/L	10		625	Total/NA
Benzo[a]pyrene	30	J	52	0.58	ug/L	10		625	Total/NA
Indeno[1,2,3-cd]pyrene	15	J	52	0.87	ug/L	10		625	Total/NA
Dibenz(a,h)anthracene	7.1	J	52	0.66	ug/L	10		625	Total/NA
Benzo[g,h,i]perylene	16	J	52	4.3	ug/L	10		625	Total/NA
3 & 4 Methylphenol	29	J	52	4.5	ug/L	10		625	Total/NA
Naphthalene - DL	4800		520	31	ug/L	100		625	Total/NA
HEM (Oil & Grease)	4.4	J	5.1	1.8	mg/L	1		1664A	Total/NA

Client Sample ID: GWOUB (10032011) — Lab Sample ID: 500-40126-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	43		5.1	1.8	mg/L	1		1664A	Total/NA
Total Suspended Solids	11		5.0	1.6	mg/L	1		SM 2540D	Total/NA

Client Sample ID: GWOUC (10032011) — Lab Sample ID: 500-40126-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	33		5.1	1.8	mg/L	1		1664A	Total/NA
Total Suspended Solids	150		10	3.2	mg/L	1		SM 2540D	Total/NA

Client Sample ID: GWOUE (10032011) — Lab Sample ID: 500-40126-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenol	13	J	93	3.4	ug/L	10		625	Total/NA
2-Methylphenol	73		47	2.9	ug/L	10		625	Total/NA
2,4-Dimethylphenol	73		47	31	ug/L	10		625	Total/NA
Naphthalene	300		47	2.8	ug/L	10		625	Total/NA
Acenaphthylene	4.6	J	47	3.0	ug/L	10		625	Total/NA
Acenaphthene	200		47	3.4	ug/L	10		625	Total/NA
Fluorene	69		47	3.6	ug/L	10		625	Total/NA
Phenanthrene	50		47	3.3	ug/L	10		625	Total/NA
Anthracene	4.1	J	47	3.0	ug/L	10		625	Total/NA
Dibenzofuran	40	J	47	3.3	ug/L	10		625	Total/NA
Fluoranthene	13	J	47	3.0	ug/L	10		625	Total/NA
Pyrene	9.3	J	47	4.5	ug/L	10		625	Total/NA
3 & 4 Methylphenol	110		47	4.1	ug/L	10		625	Total/NA
Total Suspended Solids	3.5	J	5.0	1.6	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	4.9		2.0	2.0	mg/L	1		SM 5210B	Total/NA

Method Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Method	Method Description	Protocol	Laboratory
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL CHI
1664A	HEM and SGT-HEM	1664A	TAL CHI
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CHI
SM 5210B	BOD, 5-Day	SM	TAL CHI

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-40126-1	GWOUA (10032011)	Water	10/03/11 11:40	10/04/11 10:30
500-40126-2	GWOUB (10032011)	Water	10/03/11 11:45	10/04/11 10:30
500-40126-3	GWOUC (10032011)	Water	10/03/11 12:15	10/04/11 10:30
500-40126-4	GWOUE (10032011)	Water	10/03/11 12:25	10/04/11 10:30

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Client Sample ID: GWOUA (10032011)

Date Collected: 10/03/11 11:40
Date Received: 10/04/11 10:30

Lab Sample ID: 500-40126-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	<100		100	14	ug/L		10/05/11 10:00	10/12/11 10:56	10
Phenol	<100		100	3.7	ug/L		10/05/11 10:00	10/12/11 10:56	10
Bis(2-chloroethyl)ether	<52		52	3.6	ug/L		10/05/11 10:00	10/12/11 10:56	10
2,2'-oxybis[1-chloropropane]	<52		52	3.1	ug/L		10/05/11 10:00	10/12/11 10:56	10
N-Nitrosodi-n-propylamine	<52		52	1.4	ug/L		10/05/11 10:00	10/12/11 10:56	10
Hexachloroethane	<52		52	10	ug/L		10/05/11 10:00	10/12/11 10:56	10
2-Chlorophenol	<52		52	8.2	ug/L		10/05/11 10:00	10/12/11 10:56	10
2-Methylphenol	**22**	J	52	3.2	ug/L		10/05/11 10:00	10/12/11 10:56	10
Nitrobenzene	<52		52	4.6	ug/L		10/05/11 10:00	10/12/11 10:56	10
Bis(2-chloroethoxy)methane	<52		52	3.1	ug/L		10/05/11 10:00	10/12/11 10:56	10
1,2,4-Trichlorobenzene	<52		52	3.1	ug/L		10/05/11 10:00	10/12/11 10:56	10
Isophorone	<52		52	3.0	ug/L		10/05/11 10:00	10/12/11 10:56	10
2,4-Dimethylphenol	**62**		52	34	ug/L		10/05/11 10:00	10/12/11 10:56	10
Hexachlorobutadiene	<52		52	11	ug/L		10/05/11 10:00	10/12/11 10:56	10
2,4-Dichlorophenol	<52		52	24	ug/L		10/05/11 10:00	10/12/11 10:56	10
2,4,6-Trichlorophenol	<52		52	11	ug/L		10/05/11 10:00	10/12/11 10:56	10
Hexachlorocyclopentadiene	<100		100	35	ug/L		10/05/11 10:00	10/12/11 10:56	10
2-Chloronaphthalene	<52		52	3.5	ug/L		10/05/11 10:00	10/12/11 10:56	10
4-Chloro-3-methylphenol	<52		52	23	ug/L		10/05/11 10:00	10/12/11 10:56	10
2,6-Dinitrotoluene	<52		52	1.2	ug/L		10/05/11 10:00	10/12/11 10:56	10
2-Nitrophenol	<52		52	22	ug/L		10/05/11 10:00	10/12/11 10:56	10
Dimethyl phthalate	<52		52	3.9	ug/L		10/05/11 10:00	10/12/11 10:56	10
2,4-Dinitrophenol	<210		210	77	ug/L		10/05/11 10:00	10/12/11 10:56	10
Acenaphthylene	**16**	J	52	3.3	ug/L		10/05/11 10:00	10/12/11 10:56	10
2,4-Dinitrotoluene	<52		52	3.1	ug/L		10/05/11 10:00	10/12/11 10:56	10
Acenaphthene	**490**		52	3.7	ug/L		10/05/11 10:00	10/12/11 10:56	10
4-Nitrophenol	<210		210	24	ug/L		10/05/11 10:00	10/12/11 10:56	10
Fluorene	**360**		52	3.9	ug/L		10/05/11 10:00	10/12/11 10:56	10
1,2-Diphenylhydrazine	<52		52	7.2	ug/L		10/05/11 10:00	10/12/11 10:56	10
4-Bromophenyl phenyl ether	<52		52	9.4	ug/L		10/05/11 10:00	10/12/11 10:56	10
Hexachlorobenzene	<52		52	1.4	ug/L		10/05/11 10:00	10/12/11 10:56	10
Diethyl phthalate	<52		52	4.5	ug/L		10/05/11 10:00	10/12/11 10:56	10
4-Chlorophenyl phenyl ether	<52		52	8.4	ug/L		10/05/11 10:00	10/12/11 10:56	10
Pentachlorophenol	<210		210	58	ug/L		10/05/11 10:00	10/12/11 10:56	10
N-Nitrosodiphenylamine	<52		52	3.5	ug/L		10/05/11 10:00	10/12/11 10:56	10
4,6-Dinitro-2-methylphenol	<210		210	51	ug/L		10/05/11 10:00	10/12/11 10:56	10
Phenanthrene	**630**		52	3.6	ug/L		10/05/11 10:00	10/12/11 10:56	10
Anthracene	**92**		52	3.3	ug/L		10/05/11 10:00	10/12/11 10:56	10
Dibenzofuran	**340**		52	3.6	ug/L		10/05/11 10:00	10/12/11 10:56	10
Di-n-butyl phthalate	<52		52	8.2	ug/L		10/05/11 10:00	10/12/11 10:56	10
Benzidine	<520	*	520	210	ug/L		10/05/11 10:00	10/12/11 10:56	10
Fluoranthene	**270**		52	3.3	ug/L		10/05/11 10:00	10/12/11 10:56	10
Pyrene	**190**		52	4.9	ug/L		10/05/11 10:00	10/12/11 10:56	10
Butyl benzyl phthalate	<52		52	2.8	ug/L		10/05/11 10:00	10/12/11 10:56	10
Benzo[a]anthracene	**53**		52	0.45	ug/L		10/05/11 10:00	10/12/11 10:56	10
Chrysene	**45**	J	52	1.4	ug/L		10/05/11 10:00	10/12/11 10:56	10
3,3'-Dichlorobenzidine	<52		52	9.7	ug/L		10/05/11 10:00	10/12/11 10:56	10
Bis(2-ethylhexyl) phthalate	<100		100	25	ug/L		10/05/11 10:00	10/12/11 10:56	10
Di-n-octyl phthalate	<100		100	25	ug/L		10/05/11 10:00	10/12/11 10:56	10
Benzo[b]fluoranthene	**31**	J	52	0.60	ug/L		10/05/11 10:00	10/12/11 10:56	10

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Client Sample ID: GWOUA (10032011)

Lab Sample ID: 500-40126-1

Date Collected: 10/03/11 11:40
Date Received: 10/04/11 10:30

Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	23	J	52	0.76	ug/L		10/05/11 10:00	10/12/11 10:56	10
Benzo[a]pyrene	30	J	52	0.58	ug/L		10/05/11 10:00	10/12/11 10:56	10
Indeno[1,2,3-cd]pyrene	15	J	52	0.87	ug/L		10/05/11 10:00	10/12/11 10:56	10
Dibenz(a,h)anthracene	7.1	J	52	0.66	ug/L		10/05/11 10:00	10/12/11 10:56	10
Benzo[g,h,i]perylene	16	J	52	4.3	ug/L		10/05/11 10:00	10/12/11 10:56	10
3 & 4 Methylphenol	29	J	52	4.5	ug/L		10/05/11 10:00	10/12/11 10:56	10

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*52*		*10 - 110*	*10/05/11 10:00*	*10/12/11 10:56*	*10*
Phenol-d5	*30*		*10 - 110*	*10/05/11 10:00*	*10/12/11 10:56*	*10*
Nitrobenzene-d5	*96*		*28 - 110*	*10/05/11 10:00*	*10/12/11 10:56*	*10*
2-Fluorobiphenyl	*95*		*31 - 110*	*10/05/11 10:00*	*10/12/11 10:56*	*10*
2,4,6-Tribromophenol	*98*		*34 - 116*	*10/05/11 10:00*	*10/12/11 10:56*	*10*
Terphenyl-d14	*92*		*20 - 133*	*10/05/11 10:00*	*10/12/11 10:56*	*10*

Method: 625 - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	4800		520	31	ug/L		10/05/11 10:00	10/12/11 11:19	100

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*0*	*D*	*10 - 110*	*10/05/11 10:00*	*10/12/11 11:19*	*100*
Phenol-d5	*0*	*D*	*10 - 110*	*10/05/11 10:00*	*10/12/11 11:19*	*100*
Nitrobenzene-d5	*0*	*D*	*28 - 110*	*10/05/11 10:00*	*10/12/11 11:19*	*100*
2-Fluorobiphenyl	*0*	*D*	*31 - 110*	*10/05/11 10:00*	*10/12/11 11:19*	*100*
2,4,6-Tribromophenol	*0*	*D*	*34 - 116*	*10/05/11 10:00*	*10/12/11 11:19*	*100*
Terphenyl-d14	*0*	*D*	*20 - 133*	*10/05/11 10:00*	*10/12/11 11:19*	*100*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	4.4	J	5.1	1.8	mg/L		10/10/11 06:30	10/10/11 09:44	1

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Client Sample ID: GWOUB (10032011)

Lab Sample ID: 500-40126-2

Date Collected: 10/03/11 11:45
Date Received: 10/04/11 10:30

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	43		5.1	1.8	mg/L		10/10/11 06:36	10/10/11 09:52	1
Total Suspended Solids	11		5.0	1.6	mg/L			10/07/11 00:15	1

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Client Sample ID: GWOUC (10032011)
Date Collected: 10/03/11 12:15
Date Received: 10/04/11 10:30

Lab Sample ID: 500-40126-3
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	33		5.1	1.8	mg/L		10/10/11 06:41	10/10/11 10:01	1
Total Suspended Solids	150		10	3.2	mg/L			10/07/11 00:18	1

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Client Sample ID: GWOUE (10032011)

Date Collected: 10/03/11 12:25
Date Received: 10/04/11 10:30

Lab Sample ID: 500-40126-4
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	<93		93	13	ug/L		10/05/11 10:00	10/12/11 11:41	10
Phenol	**13**	J	93	3.4	ug/L		10/05/11 10:00	10/12/11 11:41	10
Bis(2-chloroethyl)ether	<47		47	3.3	ug/L		10/05/11 10:00	10/12/11 11:41	10
2,2'-oxybis[1-chloropropane]	<47		47	2.8	ug/L		10/05/11 10:00	10/12/11 11:41	10
N-Nitrosodi-n-propylamine	<47		47	1.3	ug/L		10/05/11 10:00	10/12/11 11:41	10
Hexachloroethane	<47		47	9.1	ug/L		10/05/11 10:00	10/12/11 11:41	10
2-Chlorophenol	<47		47	7.5	ug/L		10/05/11 10:00	10/12/11 11:41	10
2-Methylphenol	**73**		47	2.9	ug/L		10/05/11 10:00	10/12/11 11:41	10
Nitrobenzene	<47		47	4.2	ug/L		10/05/11 10:00	10/12/11 11:41	10
Bis(2-chloroethoxy)methane	<47		47	2.8	ug/L		10/05/11 10:00	10/12/11 11:41	10
1,2,4-Trichlorobenzene	<47		47	2.8	ug/L		10/05/11 10:00	10/12/11 11:41	10
Isophorone	<47		47	2.7	ug/L		10/05/11 10:00	10/12/11 11:41	10
2,4-Dimethylphenol	**73**		47	31	ug/L		10/05/11 10:00	10/12/11 11:41	10
Hexachlorobutadiene	<47		47	10	ug/L		10/05/11 10:00	10/12/11 11:41	10
Naphthalene	**300**		47	2.8	ug/L		10/05/11 10:00	10/12/11 11:41	10
2,4-Dichlorophenol	<47		47	21	ug/L		10/05/11 10:00	10/12/11 11:41	10
2,4,6-Trichlorophenol	<47		47	10	ug/L		10/05/11 10:00	10/12/11 11:41	10
Hexachlorocyclopentadiene	<93		93	32	ug/L		10/05/11 10:00	10/12/11 11:41	10
2-Chloronaphthalene	<47		47	3.2	ug/L		10/05/11 10:00	10/12/11 11:41	10
4-Chloro-3-methylphenol	<47		47	21	ug/L		10/05/11 10:00	10/12/11 11:41	10
2,6-Dinitrotoluene	<47		47	1.1	ug/L		10/05/11 10:00	10/12/11 11:41	10
2-Nitrophenol	<47		47	20	ug/L		10/05/11 10:00	10/12/11 11:41	10
Dimethyl phthalate	<47		47	3.6	ug/L		10/05/11 10:00	10/12/11 11:41	10
2,4-Dinitrophenol	<190		190	69	ug/L		10/05/11 10:00	10/12/11 11:41	10
Acenaphthylene	**4.6**	J	47	3.0	ug/L		10/05/11 10:00	10/12/11 11:41	10
2,4-Dinitrotoluene	<47		47	2.8	ug/L		10/05/11 10:00	10/12/11 11:41	10
Acenaphthene	**200**		47	3.4	ug/L		10/05/11 10:00	10/12/11 11:41	10
4-Nitrophenol	<190		190	22	ug/L		10/05/11 10:00	10/12/11 11:41	10
Fluorene	**69**		47	3.6	ug/L		10/05/11 10:00	10/12/11 11:41	10
1,2-Diphenylhydrazine	<47		47	6.5	ug/L		10/05/11 10:00	10/12/11 11:41	10
4-Bromophenyl phenyl ether	<47		47	8.5	ug/L		10/05/11 10:00	10/12/11 11:41	10
Hexachlorobenzene	<47		47	1.3	ug/L		10/05/11 10:00	10/12/11 11:41	10
Diethyl phthalate	<47		47	4.1	ug/L		10/05/11 10:00	10/12/11 11:41	10
4-Chlorophenyl phenyl ether	<47		47	7.6	ug/L		10/05/11 10:00	10/12/11 11:41	10
Pentachlorophenol	<190		190	52	ug/L		10/05/11 10:00	10/12/11 11:41	10
N-Nitrosodiphenylamine	<47		47	3.2	ug/L		10/05/11 10:00	10/12/11 11:41	10
4,6-Dinitro-2-methylphenol	<190		190	46	ug/L		10/05/11 10:00	10/12/11 11:41	10
Phenanthrene	**50**		47	3.3	ug/L		10/05/11 10:00	10/12/11 11:41	10
Anthracene	**4.1**	J	47	3.0	ug/L		10/05/11 10:00	10/12/11 11:41	10
Dibenzofuran	**40**	J	47	3.3	ug/L		10/05/11 10:00	10/12/11 11:41	10
Di-n-butyl phthalate	<47		47	7.5	ug/L		10/05/11 10:00	10/12/11 11:41	10
Benzidine	<470	*	470	190	ug/L		10/05/11 10:00	10/12/11 11:41	10
Fluoranthene	**13**	J	47	3.0	ug/L		10/05/11 10:00	10/12/11 11:41	10
Pyrene	**9.3**	J	47	4.5	ug/L		10/05/11 10:00	10/12/11 11:41	10
Butyl benzyl phthalate	<47		47	2.5	ug/L		10/05/11 10:00	10/12/11 11:41	10
Benzo[a]anthracene	<47		47	0.41	ug/L		10/05/11 10:00	10/12/11 11:41	10
Chrysene	<47		47	1.3	ug/L		10/05/11 10:00	10/12/11 11:41	10
3,3'-Dichlorobenzidine	<47		47	8.8	ug/L		10/05/11 10:00	10/12/11 11:41	10
Bis(2-ethylhexyl) phthalate	<93		93	23	ug/L		10/05/11 10:00	10/12/11 11:41	10
Di-n-octyl phthalate	<93		93	23	ug/L		10/05/11 10:00	10/12/11 11:41	10

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Client Sample ID: GWOUE (10032011)

Lab Sample ID: 500-40126-4

Date Collected: 10/03/11 12:25
Date Received: 10/04/11 10:30

Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	<47		47	0.54	ug/L		10/05/11 10:00	10/12/11 11:41	10
Benzo[k]fluoranthene	<47		47	0.69	ug/L		10/05/11 10:00	10/12/11 11:41	10
Benzo[a]pyrene	<47		47	0.52	ug/L		10/05/11 10:00	10/12/11 11:41	10
Indeno[1,2,3-cd]pyrene	<47		47	0.79	ug/L		10/05/11 10:00	10/12/11 11:41	10
Dibenz(a,h)anthracene	<47		47	0.60	ug/L		10/05/11 10:00	10/12/11 11:41	10
Benzo[g,h,i]perylene	<47		47	3.9	ug/L		10/05/11 10:00	10/12/11 11:41	10
3 & 4 Methylphenol	**110**		47	4.1	ug/L		10/05/11 10:00	10/12/11 11:41	10

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*33*		*10 - 110*	*10/05/11 10:00*	*10/12/11 11:41*	*10*
Phenol-d5	*22*		*10 - 110*	*10/05/11 10:00*	*10/12/11 11:41*	*10*
Nitrobenzene-d5	*71*		*28 - 110*	*10/05/11 10:00*	*10/12/11 11:41*	*10*
2-Fluorobiphenyl	*80*		*31 - 110*	*10/05/11 10:00*	*10/12/11 11:41*	*10*
2,4,6-Tribromophenol	*93*		*34 - 116*	*10/05/11 10:00*	*10/12/11 11:41*	*10*
Terphenyl-d14	*73*		*20 - 133*	*10/05/11 10:00*	*10/12/11 11:41*	*10*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	3.5	J	5.0	1.6	mg/L			10/07/11 00:22	1
Biochemical Oxygen Demand	4.9		2.0	2.0	mg/L			10/05/11 10:40	1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
*	RPD of the LCS and LCSD exceeds the control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

GC/MS Semi VOA

Prep Batch: 127663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-40126-1	GWOUA (10032011)	Total/NA	Water	625	
500-40126-1 - DL	GWOUA (10032011)	Total/NA	Water	625	
500-40126-4	GWOUE (10032011)	Total/NA	Water	625	
LCS 500-127663/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 500-127663/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 500-127663/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 128442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-40126-1	GWOUA (10032011)	Total/NA	Water	625	127663
500-40126-1 - DL	GWOUA (10032011)	Total/NA	Water	625	127663
500-40126-4	GWOUE (10032011)	Total/NA	Water	625	127663
LCS 500-127663/2-A	Lab Control Sample	Total/NA	Water	625	127663
LCSD 500-127663/3-A	Lab Control Sample Dup	Total/NA	Water	625	127663
MB 500-127663/1-A	Method Blank	Total/NA	Water	625	127663

General Chemistry

Analysis Batch: 127973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-40126-2	GWOUB (10032011)	Total/NA	Water	SM 2540D	
500-40126-3	GWOUC (10032011)	Total/NA	Water	SM 2540D	
500-40126-4	GWOUE (10032011)	Total/NA	Water	SM 2540D	
LCS 500-127973/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 500-127973/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 128143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-40126-1	GWOUA (10032011)	Total/NA	Water	1664A	
500-40126-2	GWOUB (10032011)	Total/NA	Water	1664A	
500-40126-3	GWOUC (10032011)	Total/NA	Water	1664A	
LCS 500-128143/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 500-128143/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 500-128143/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 128146

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-40126-1	GWOUA (10032011)	Total/NA	Water	1664A	128143
500-40126-2	GWOUB (10032011)	Total/NA	Water	1664A	128143
500-40126-3	GWOUC (10032011)	Total/NA	Water	1664A	128143
LCS 500-128143/2-A	Lab Control Sample	Total/NA	Water	1664A	128143
LCSD 500-128143/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	128143
MB 500-128143/1-A	Method Blank	Total/NA	Water	1664A	128143

Analysis Batch: 128174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-40126-4	GWOUE (10032011)	Total/NA	Water	SM 5210B	
LCS 500-128174/2	Lab Control Sample	Total/NA	Water	SM 5210B	
USB 500-128174/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Surrogate Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPH
Lab Sample ID	Client Sample ID	(10-110)	(10-110)	(28-110)	(31-110)	(34-116)	(20-133)
500-40126-1	GWOUA (10032011)	52	30	96	95	98	92
500-40126-1 - DL	GWOUA (10032011)	0 D	0 D	0 D	0 D	0 D	0 D
500-40126-4	GWOUE (10032011)	33	22	71	80	93	73
LCS 500-127663/2-A	Lab Control Sample	46	33	77	82	100	102
LCSD 500-127663/3-A	Lab Control Sample Dup	52	36	82	80	99	102
MB 500-127663/1-A	Method Blank	39	24	69	64	66	103

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d5
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPH = Terphenyl-d14

QC Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-127663/1-A
Matrix: Water
Analysis Batch: 128442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 127663

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	<10		10	1.4	ug/L		10/05/11 10:00	10/12/11 09:51	1
Phenol	<10		10	0.36	ug/L		10/05/11 10:00	10/12/11 09:51	1
Bis(2-chloroethyl)ether	<5.0		5.0	0.35	ug/L		10/05/11 10:00	10/12/11 09:51	1
2,2'-oxybis[1-chloropropane]	<5.0		5.0	0.30	ug/L		10/05/11 10:00	10/12/11 09:51	1
N-Nitrosodi-n-propylamine	<5.0		5.0	0.14	ug/L		10/05/11 10:00	10/12/11 09:51	1
Hexachloroethane	<5.0		5.0	0.97	ug/L		10/05/11 10:00	10/12/11 09:51	1
2-Chlorophenol	<5.0		5.0	0.80	ug/L		10/05/11 10:00	10/12/11 09:51	1
2-Methylphenol	<5.0		5.0	0.31	ug/L		10/05/11 10:00	10/12/11 09:51	1
Nitrobenzene	<5.0		5.0	0.45	ug/L		10/05/11 10:00	10/12/11 09:51	1
Bis(2-chloroethoxy)methane	<5.0		5.0	0.30	ug/L		10/05/11 10:00	10/12/11 09:51	1
1,2,4-Trichlorobenzene	<5.0		5.0	0.30	ug/L		10/05/11 10:00	10/12/11 09:51	1
Isophorone	<5.0		5.0	0.29	ug/L		10/05/11 10:00	10/12/11 09:51	1
2,4-Dimethylphenol	<5.0		5.0	3.3	ug/L		10/05/11 10:00	10/12/11 09:51	1
Hexachlorobutadiene	<5.0		5.0	1.1	ug/L		10/05/11 10:00	10/12/11 09:51	1
Naphthalene	<5.0		5.0	0.30	ug/L		10/05/11 10:00	10/12/11 09:51	1
2,4-Dichlorophenol	<5.0		5.0	2.3	ug/L		10/05/11 10:00	10/12/11 09:51	1
2,4,6-Trichlorophenol	<5.0		5.0	1.1	ug/L		10/05/11 10:00	10/12/11 09:51	1
Hexachlorocyclopentadiene	<10		10	3.4	ug/L		10/05/11 10:00	10/12/11 09:51	1
2-Chloronaphthalene	<5.0		5.0	0.34	ug/L		10/05/11 10:00	10/12/11 09:51	1
4-Chloro-3-methylphenol	<5.0		5.0	2.2	ug/L		10/05/11 10:00	10/12/11 09:51	1
2,6-Dinitrotoluene	<5.0		5.0	0.12	ug/L		10/05/11 10:00	10/12/11 09:51	1
2-Nitrophenol	<5.0		5.0	2.1	ug/L		10/05/11 10:00	10/12/11 09:51	1
Dimethyl phthalate	<5.0		5.0	0.38	ug/L		10/05/11 10:00	10/12/11 09:51	1
2,4-Dinitrophenol	<20		20	7.4	ug/L		10/05/11 10:00	10/12/11 09:51	1
Acenaphthylene	<5.0		5.0	0.32	ug/L		10/05/11 10:00	10/12/11 09:51	1
2,4-Dinitrotoluene	<5.0		5.0	0.30	ug/L		10/05/11 10:00	10/12/11 09:51	1
Acenaphthene	<5.0		5.0	0.36	ug/L		10/05/11 10:00	10/12/11 09:51	1
4-Nitrophenol	<20		20	2.3	ug/L		10/05/11 10:00	10/12/11 09:51	1
Fluorene	<5.0		5.0	0.38	ug/L		10/05/11 10:00	10/12/11 09:51	1
1,2-Diphenylhydrazine	<5.0		5.0	0.70	ug/L		10/05/11 10:00	10/12/11 09:51	1
4-Bromophenyl phenyl ether	<5.0		5.0	0.91	ug/L		10/05/11 10:00	10/12/11 09:51	1
Hexachlorobenzene	<5.0		5.0	0.14	ug/L		10/05/11 10:00	10/12/11 09:51	1
Diethyl phthalate	<5.0		5.0	0.44	ug/L		10/05/11 10:00	10/12/11 09:51	1
4-Chlorophenyl phenyl ether	<5.0		5.0	0.81	ug/L		10/05/11 10:00	10/12/11 09:51	1
Pentachlorophenol	<20		20	5.6	ug/L		10/05/11 10:00	10/12/11 09:51	1
N-Nitrosodiphenylamine	<5.0		5.0	0.34	ug/L		10/05/11 10:00	10/12/11 09:51	1
4,6-Dinitro-2-methylphenol	<20		20	4.9	ug/L		10/05/11 10:00	10/12/11 09:51	1
Phenanthrene	<5.0		5.0	0.35	ug/L		10/05/11 10:00	10/12/11 09:51	1
Anthracene	<5.0		5.0	0.32	ug/L		10/05/11 10:00	10/12/11 09:51	1
Dibenzofuran	<5.0		5.0	0.35	ug/L		10/05/11 10:00	10/12/11 09:51	1
Di-n-butyl phthalate	<5.0		5.0	0.80	ug/L		10/05/11 10:00	10/12/11 09:51	1
Benzidine	<50		50	20	ug/L		10/05/11 10:00	10/12/11 09:51	1
Fluoranthene	<5.0		5.0	0.32	ug/L		10/05/11 10:00	10/12/11 09:51	1
Pyrene	<5.0		5.0	0.48	ug/L		10/05/11 10:00	10/12/11 09:51	1
Butyl benzyl phthalate	<5.0		5.0	0.27	ug/L		10/05/11 10:00	10/12/11 09:51	1
Benzo[a]anthracene	<5.0		5.0	0.044	ug/L		10/05/11 10:00	10/12/11 09:51	1
Chrysene	<5.0		5.0	0.14	ug/L		10/05/11 10:00	10/12/11 09:51	1
3,3'-Dichlorobenzidine	<5.0		5.0	0.94	ug/L		10/05/11 10:00	10/12/11 09:51	1
Bis(2-ethylhexyl) phthalate	<10		10	2.4	ug/L		10/05/11 10:00	10/12/11 09:51	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-127663/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128442 — **Prep Batch: 127663**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	<10		10	2.5	ug/L		10/05/11 10:00	10/12/11 09:51	1
Benzo[b]fluoranthene	<5.0		5.0	0.058	ug/L		10/05/11 10:00	10/12/11 09:51	1
Benzo[k]fluoranthene	<5.0		5.0	0.074	ug/L		10/05/11 10:00	10/12/11 09:51	1
Benzo[a]pyrene	<5.0		5.0	0.056	ug/L		10/05/11 10:00	10/12/11 09:51	1
Indeno[1,2,3-cd]pyrene	<5.0		5.0	0.084	ug/L		10/05/11 10:00	10/12/11 09:51	1
Dibenz(a,h)anthracene	<5.0		5.0	0.064	ug/L		10/05/11 10:00	10/12/11 09:51	1
Benzo[g,h,i]perylene	<5.0		5.0	0.42	ug/L		10/05/11 10:00	10/12/11 09:51	1
3 & 4 Methylphenol	<5.0		5.0	0.44	ug/L		10/05/11 10:00	10/12/11 09:51	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*39*		*10 - 110*	*10/05/11 10:00*	*10/12/11 09:51*	*1*
Phenol-d5	*24*		*10 - 110*	*10/05/11 10:00*	*10/12/11 09:51*	*1*
Nitrobenzene-d5	*69*		*28 - 110*	*10/05/11 10:00*	*10/12/11 09:51*	*1*
2-Fluorobiphenyl	*64*		*31 - 110*	*10/05/11 10:00*	*10/12/11 09:51*	*1*
2,4,6-Tribromophenol	*66*		*34 - 116*	*10/05/11 10:00*	*10/12/11 09:51*	*1*
Terphenyl-d14	*103*		*20 - 133*	*10/05/11 10:00*	*10/12/11 09:51*	*1*

Lab Sample ID: LCS 500-127663/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128442 — **Prep Batch: 127663**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
N-Nitrosodimethylamine	50.0	23.7		ug/L		47	10 - 200
Phenol	50.0	19.1		ug/L		38	5 - 112
Bis(2-chloroethyl)ether	50.0	39.5		ug/L		79	12 - 158
2,2'-oxybis[1-chloropropane]	50.0	37.0		ug/L		74	36 - 166
N-Nitrosodi-n-propylamine	50.0	39.8		ug/L		80	10 - 230
Hexachloroethane	50.0	31.0		ug/L		62	40 - 113
2-Chlorophenol	50.0	37.1		ug/L		74	23 - 134
2-Methylphenol	50.0	36.3		ug/L		73	30 - 146
Nitrobenzene	50.0	38.4		ug/L		77	35 - 180
Bis(2-chloroethoxy)methane	50.0	41.6		ug/L		83	33 - 184
1,2,4-Trichlorobenzene	50.0	35.1		ug/L		70	44 - 142
Isophorone	50.0	37.9		ug/L		76	21 - 196
2,4-Dimethylphenol	50.0	39.2		ug/L		78	32 - 119
Hexachlorobutadiene	50.0	33.2		ug/L		66	24 - 116
Naphthalene	50.0	37.3		ug/L		75	21 - 133
2,4-Dichlorophenol	50.0	43.0		ug/L		86	39 - 135
2,4,6-Trichlorophenol	50.0	43.1		ug/L		86	37 - 144
Hexachlorocyclopentadiene	50.0	24.2		ug/L		48	10 - 200
2-Chloronaphthalene	50.0	38.8		ug/L		78	60 - 118
4-Chloro-3-methylphenol	50.0	46.6		ug/L		93	22 - 147
2,6-Dinitrotoluene	50.0	46.6		ug/L		93	50 - 158
2-Nitrophenol	50.0	40.1		ug/L		80	29 - 182
Dimethyl phthalate	50.0	45.0		ug/L		90	10 - 112
2,4-Dinitrophenol	50.0	34.8		ug/L		70	10 - 191
Acenaphthylene	50.0	40.2		ug/L		80	33 - 145
2,4-Dinitrotoluene	50.0	44.5		ug/L		89	39 - 139
Acenaphthene	50.0	41.1		ug/L		82	47 - 145

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-127663/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128442 — **Prep Batch: 127663**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
4-Nitrophenol	50.0	25.3		ug/L		51	10 - 132
Fluorene	50.0	41.5		ug/L		83	59 - 121
4-Bromophenyl phenyl ether	50.0	46.1		ug/L		92	53 - 127
Hexachlorobenzene	50.0	46.5		ug/L		93	10 - 152
Diethyl phthalate	50.0	45.2		ug/L		90	10 - 114
4-Chlorophenyl phenyl ether	50.0	42.5		ug/L		85	25 - 158
Pentachlorophenol	50.0	53.0		ug/L		106	14 - 176
N-Nitrosodiphenylamine	50.0	45.6		ug/L		91	10 - 200
4,6-Dinitro-2-methylphenol	50.0	42.3		ug/L		85	10 - 181
Phenanthrene	50.0	45.2		ug/L		90	54 - 120
Anthracene	50.0	44.4		ug/L		89	27 - 133
Dibenzofuran	50.0	40.6		ug/L		81	
Di-n-butyl phthalate	50.0	47.9		ug/L		96	1 - 118
Benzidine	50.0	<50	*	ug/L		5	10 - 200
Fluoranthene	50.0	48.9		ug/L		98	26 - 137
Pyrene	50.0	46.5		ug/L		93	52 - 115
Butyl benzyl phthalate	50.0	48.9		ug/L		98	10 - 152
Benzo[a]anthracene	50.0	44.9		ug/L		90	33 - 143
Chrysene	50.0	45.0		ug/L		90	17 - 168
3,3'-Dichlorobenzidine	50.0	43.8		ug/L		88	10 - 262
Bis(2-ethylhexyl) phthalate	50.0	46.3		ug/L		93	8 - 158
Di-n-octyl phthalate	50.0	45.2		ug/L		90	4 - 146
Benzo[b]fluoranthene	50.0	44.2		ug/L		88	24 - 159
Benzo[k]fluoranthene	50.0	40.2		ug/L		80	11 - 162
Benzo[a]pyrene	50.0	43.0		ug/L		86	17 - 163
Indeno[1,2,3-cd]pyrene	50.0	47.1		ug/L		94	10 - 171
Dibenz(a,h)anthracene	50.0	47.9		ug/L		96	10 - 227
Benzo[g,h,i]perylene	50.0	52.0		ug/L		104	10 - 219
3 & 4 Methylphenol	50.0	34.7		ug/L		69	11 - 150

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*46*		*10 - 110*
Phenol-d5	*33*		*10 - 110*
Nitrobenzene-d5	*77*		*28 - 110*
2-Fluorobiphenyl	*82*		*31 - 110*
2,4,6-Tribromophenol	*100*		*34 - 116*
Terphenyl-d14	*102*		*20 - 133*

Lab Sample ID: LCSD 500-127663/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128442 — **Prep Batch: 127663**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
N-Nitrosodimethylamine	50.0	27.9		ug/L		56	10 - 200	16	20
Phenol	50.0	23.2		ug/L		46	5 - 112	19	20
Bis(2-chloroethyl)ether	50.0	44.5		ug/L		89	12 - 158	12	20
2,2'-oxybis[1-chloropropane]	50.0	42.5		ug/L		85	36 - 166	14	20
N-Nitrosodi-n-propylamine	50.0	45.3		ug/L		91	10 - 230	13	20
Hexachloroethane	50.0	34.4		ug/L		69	40 - 113	10	20

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-127663/3-A
Matrix: Water
Analysis Batch: 128442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 127663

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
2-Chlorophenol	50.0	41.4		ug/L		83	23 - 134	11	20
2-Methylphenol	50.0	40.6		ug/L		81	30 - 146	11	20
Nitrobenzene	50.0	40.8		ug/L		82	35 - 180	6	20
Bis(2-chloroethoxy)methane	50.0	42.9		ug/L		86	33 - 184	3	20
1,2,4-Trichlorobenzene	50.0	36.6		ug/L		73	44 - 142	4	20
Isophorone	50.0	39.3		ug/L		79	21 - 196	4	20
2,4-Dimethylphenol	50.0	42.5		ug/L		85	32 - 119	8	20
Hexachlorobutadiene	50.0	34.5		ug/L		69	24 - 116	4	20
Naphthalene	50.0	39.2		ug/L		78	21 - 133	5	20
2,4-Dichlorophenol	50.0	44.1		ug/L		88	39 - 135	3	20
2,4,6-Trichlorophenol	50.0	42.7		ug/L		85	37 - 144	1	20
Hexachlorocyclopentadiene	50.0	22.8		ug/L		46	10 - 200	6	20
2-Chloronaphthalene	50.0	38.4		ug/L		77	60 - 118	1	20
4-Chloro-3-methylphenol	50.0	47.5		ug/L		95	22 - 147	2	20
2,6-Dinitrotoluene	50.0	46.9		ug/L		94	50 - 158	1	20
2-Nitrophenol	50.0	41.8		ug/L		84	29 - 182	4	20
Dimethyl phthalate	50.0	45.4		ug/L		91	10 - 112	1	20
2,4-Dinitrophenol	50.0	36.4		ug/L		73	10 - 191	4	20
Acenaphthylene	50.0	40.4		ug/L		81	33 - 145	0	20
2,4-Dinitrotoluene	50.0	46.3		ug/L		93	39 - 139	4	20
Acenaphthene	50.0	41.5		ug/L		83	47 - 145	1	20
4-Nitrophenol	50.0	26.4		ug/L		53	10 - 132	4	20
Fluorene	50.0	42.5		ug/L		85	59 - 121	2	20
4-Bromophenyl phenyl ether	50.0	44.8		ug/L		90	53 - 127	3	20
Hexachlorobenzene	50.0	45.8		ug/L		92	10 - 152	2	20
Diethyl phthalate	50.0	46.7		ug/L		93	10 - 114	3	20
4-Chlorophenyl phenyl ether	50.0	43.0		ug/L		86	25 - 158	1	20
Pentachlorophenol	50.0	54.6		ug/L		109	14 - 176	3	20
N-Nitrosodiphenylamine	50.0	45.6		ug/L		91	10 - 200	0	20
4,6-Dinitro-2-methylphenol	50.0	43.8		ug/L		88	10 - 181	3	20
Phenanthrene	50.0	45.7		ug/L		91	54 - 120	1	20
Anthracene	50.0	45.5		ug/L		91	27 - 133	2	20
Dibenzofuran	50.0	40.6		ug/L		81		0	
Di-n-butyl phthalate	50.0	48.7		ug/L		97	1 - 118	2	20
Benzidine	50.0	<50	*	ug/L		17	10 - 200	112	20
Fluoranthene	50.0	49.9		ug/L		100	26 - 137	2	20
Pyrene	50.0	47.5		ug/L		95	52 - 115	2	20
Butyl benzyl phthalate	50.0	48.2		ug/L		96	10 - 152	1	20
Benzo[a]anthracene	50.0	45.2		ug/L		90	33 - 143	1	20
Chrysene	50.0	45.7		ug/L		91	17 - 168	2	20
3,3'-Dichlorobenzidine	50.0	46.2		ug/L		92	10 - 262	5	20
Bis(2-ethylhexyl) phthalate	50.0	48.6		ug/L		97	8 - 158	5	20
Di-n-octyl phthalate	50.0	50.4		ug/L		101	4 - 146	11	20
Benzo[b]fluoranthene	50.0	45.4		ug/L		91	24 - 159	3	20
Benzo[k]fluoranthene	50.0	44.1		ug/L		88	11 - 162	9	20
Benzo[a]pyrene	50.0	45.7		ug/L		91	17 - 163	6	20
Indeno[1,2,3-cd]pyrene	50.0	49.6		ug/L		99	10 - 171	5	20
Dibenz(a,h)anthracene	50.0	49.7		ug/L		99	10 - 227	4	20
Benzo[g,h,i]perylene	50.0	52.0		ug/L		104	10 - 219	0	20
3 & 4 Methylphenol	50.0	39.6		ug/L		79	11 - 150	13	20

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-127663/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128442 — **Prep Batch: 127663**

Surrogate	*LCSD % Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorophenol	*52*		*10 - 110*
Phenol-d5	*36*		*10 - 110*
Nitrobenzene-d5	*82*		*28 - 110*
2-Fluorobiphenyl	*80*		*31 - 110*
2,4,6-Tribromophenol	*99*		*34 - 116*
Terphenyl-d14	*102*		*20 - 133*

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 500-128143/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128146 — **Prep Batch: 128143**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.0		5.0	1.8	mg/L		10/10/11 05:55	10/10/11 08:55	1

Lab Sample ID: LCS 500-128143/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128146 — **Prep Batch: 128143**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
HEM (Oil & Grease)	40.0	39.4		mg/L		99	78 - 114

Lab Sample ID: LCSD 500-128143/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 128146 — **Prep Batch: 128143**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
HEM (Oil & Grease)	40.0	39.8		mg/L		100	78 - 114	1	18

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 500-127973/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 127973

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	*<5.0*		*5.0*	*1.6*	*mg/L*			*10/07/11 00:09*	*1*

Lab Sample ID: LCS 500-127973/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 127973

Analyte	*Spike Added*	*LCS Result*	*LCS Qualifier*	*Unit*	*D*	*% Rec*	*% Rec. Limits*
Total Suspended Solids	200	202		mg/L		101	80 - 120

QC Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 500-128174/1 USB
Matrix: Water
Analysis Batch: 128174

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			10/05/11 10:25	1

Lab Sample ID: LCS 500-128174/2
Matrix: Water
Analysis Batch: 128174

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Biochemical Oxygen Demand	198	201		mg/L		101	85 - 115

Certification Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-40126-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Chicago	ACLASS	DoD ELAP		ADE-1429
TestAmerica Chicago	ACLASS	ISO/IEC 17025		AT-1428
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	Georgia EPD	4	N/A
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	Kentucky UST	4	66
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina	North Carolina DENR	4	291
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	USDA		P330-09-00027
TestAmerica Chicago	Virginia	NELAC Secondary AB	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-40126
Chain of Custody Number:
Page ____ of ____
Temperature °C of Cooler: (3.4) (3.7)

Client: BODINE
Client Project #: 119386-12
Project Name: IEPA SENNIGON WRIGHT
Project Location/State: GRANITE CITY, IL
Lab Project #:
Sampler: RICK EVEY
Lab PM: DICK WRIGHT

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	TSS (Preservative 8)	OIL & GREASE (Preservative 2)	SVOCS (Preservative 8)							Comments
1		GWOUA (10032011)	10/03/11	1140	3	WW		X	X							INFLUENT H_2O
2		GWOUB (10032011)	10/03/11	1145	2	WW	X	X								POST OIL/H_2O SEP.

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days X 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	Bodine	10/03/11		[signature]	TA	10/4/11	1030
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier:
Shipped: FX
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
Wi – Wipe
DW – Drinking Water
O – Other

Client Comments
Chain of Custody Seal: 166505

Lab Comments:

10/4/2011 (1pg)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-40126
Chain of Custody Number:
Page ____ of ____
Temperature °C of Cooler:

Client: Bodine
Client Project #: 119386-12
Project Name: FEGA JENNISON WRIGHT
Project Location/State: GLADDE CITY, FL
Lab Project #:
Sampler: RICKEVEY
Lab PM: DICK WRIGHT

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	TSS	OIL & GREASE	TSS & BOD5	SVOCS						Comments
Preservative							8	2	8	8						
3		GWOUC (10032011)	10/03/11	1215	2	WW	X	X								POST FWFL. BAG FILTERS
4		GWOUE (10032011)	10/03/11	1225	3	WW			X	X						EFFLUENT

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days X 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	Bodine	10/03/11		[signature]	TA	10/4/11	1030
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped: FX
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments
Chain of Custody Seal: 166504

Lab Comments:

Login Sample Receipt Checklist

Client: Bodine Environmental Services

Job Number: 500-40126-1

Login Number: 40126
List Number: 1
Creator: Lunt, Jeff T

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	3.4,3.7
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-42554-1
Client Project/Site: Jennison Wright

For:
Bodine Environmental Services
5350 East Firehouse Road
Decatur, Illinois 62521-9601

Attn: Troy McFate

Authorized for release by:
12/9/2011 3:04:29 PM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-42554-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-42554-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method(s) 625: Surrogate recovery for the following sample was outside control limits: GWOUA(11222011) (500-42554-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 625: The following sample was diluted due to the abundance of target and non-target analytes: GWOUA(11222011) (500-42554-1). Elevated reporting limits (RLs) are provided.

Method(s) 625: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 133882 exceeded control limits for the following analyte: N-nitrosodimethylamine. GWOUA(11222011) (500-42554-1)

Method(s) 625: Due to the level of dilution required for the following secondary dilution, surrogate recoveries are not reported: GWOUA(11222011) (500-42554-1).

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42554-1

Client Sample ID: GWOUA(11222011) — Lab Sample ID: 500-42554-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylphenol	79		50	3.1	ug/L	10		625	Total/NA
2,4-Dimethylphenol	160		50	33	ug/L	10		625	Total/NA
Acenaphthylene	52		50	3.2	ug/L	10		625	Total/NA
Anthracene	510		50	3.2	ug/L	10		625	Total/NA
Benzo[a]anthracene	450		50	0.44	ug/L	10		625	Total/NA
Chrysene	360		50	1.4	ug/L	10		625	Total/NA
Benzo[b]fluoranthene	350		50	0.58	ug/L	10		625	Total/NA
Benzo[k]fluoranthene	160		50	0.74	ug/L	10		625	Total/NA
Benzo[a]pyrene	260		50	0.56	ug/L	10		625	Total/NA
Indeno[1,2,3-cd]pyrene	98		50	0.84	ug/L	10		625	Total/NA
Dibenz(a,h)anthracene	35	J	50	0.64	ug/L	10		625	Total/NA
Benzo[g,h,i]perylene	94		50	4.2	ug/L	10		625	Total/NA
3 & 4 Methylphenol	85		50	4.4	ug/L	10		625	Total/NA
Naphthalene - DL	7700		500	30	ug/L	100		625	Total/NA
Acenaphthene - DL	1900		500	36	ug/L	100		625	Total/NA
Fluorene - DL	1800		500	38	ug/L	100		625	Total/NA
Phenanthrene - DL	4300		500	35	ug/L	100		625	Total/NA
Dibenzofuran - DL	1400		500	35	ug/L	100		625	Total/NA
Fluoranthene - DL	2200		500	32	ug/L	100		625	Total/NA
Pyrene - DL	1500		500	48	ug/L	100		625	Total/NA

Client Sample ID: GWOUB(11222011) — Lab Sample ID: 500-42554-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	36		5.1	1.8	mg/L	1		1664A	Total/NA
Total Suspended Solids	30		5.0	1.6	mg/L	1		SM 2540D	Total/NA

Method Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42554-1

Method	Method Description	Protocol	Laboratory
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL CHI
1664A	HEM and SGT-HEM	1664A	TAL CHI
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CHI

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42554-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-42554-1	GWOUA(11222011)	Water	11/22/11 15:00	11/23/11 10:30
500-42554-2	GWOUB(11222011)	Water	11/22/11 14:50	11/23/11 10:30

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42554-1

Client Sample ID: GWOUA(11222011)

Date Collected: 11/22/11 15:00
Date Received: 11/23/11 10:30

Lab Sample ID: 500-42554-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	<100		100	14	ug/L		11/28/11 09:30	12/09/11 01:43	10
Phenol	<100		100	3.6	ug/L		11/28/11 09:30	12/09/11 01:43	10
Bis(2-chloroethyl)ether	<50		50	3.5	ug/L		11/28/11 09:30	12/09/11 01:43	10
2,2'-oxybis[1-chloropropane]	<50		50	3.0	ug/L		11/28/11 09:30	12/09/11 01:43	10
N-Nitrosodi-n-propylamine	<50		50	1.4	ug/L		11/28/11 09:30	12/09/11 01:43	10
Hexachloroethane	<50		50	9.7	ug/L		11/28/11 09:30	12/09/11 01:43	10
2-Chlorophenol	<50		50	8.0	ug/L		11/28/11 09:30	12/09/11 01:43	10
2-Methylphenol	**79**		50	3.1	ug/L		11/28/11 09:30	12/09/11 01:43	10
Nitrobenzene	<50		50	4.5	ug/L		11/28/11 09:30	12/09/11 01:43	10
Bis(2-chloroethoxy)methane	<50		50	3.0	ug/L		11/28/11 09:30	12/09/11 01:43	10
1,2,4-Trichlorobenzene	<50		50	3.0	ug/L		11/28/11 09:30	12/09/11 01:43	10
Isophorone	<50		50	2.9	ug/L		11/28/11 09:30	12/09/11 01:43	10
2,4-Dimethylphenol	**160**		50	33	ug/L		11/28/11 09:30	12/09/11 01:43	10
Hexachlorobutadiene	<50		50	11	ug/L		11/28/11 09:30	12/09/11 01:43	10
2,4-Dichlorophenol	<50		50	23	ug/L		11/28/11 09:30	12/09/11 01:43	10
2,4,6-Trichlorophenol	<50		50	11	ug/L		11/28/11 09:30	12/09/11 01:43	10
Hexachlorocyclopentadiene	<100		100	34	ug/L		11/28/11 09:30	12/09/11 01:43	10
2-Chloronaphthalene	<50		50	3.4	ug/L		11/28/11 09:30	12/09/11 01:43	10
4-Chloro-3-methylphenol	<50		50	22	ug/L		11/28/11 09:30	12/09/11 01:43	10
2,6-Dinitrotoluene	<50		50	1.2	ug/L		11/28/11 09:30	12/09/11 01:43	10
2-Nitrophenol	<50		50	21	ug/L		11/28/11 09:30	12/09/11 01:43	10
Dimethyl phthalate	<50		50	3.8	ug/L		11/28/11 09:30	12/09/11 01:43	10
2,4-Dinitrophenol	<200		200	74	ug/L		11/28/11 09:30	12/09/11 01:43	10
Acenaphthylene	**52**		50	3.2	ug/L		11/28/11 09:30	12/09/11 01:43	10
2,4-Dinitrotoluene	<50		50	3.0	ug/L		11/28/11 09:30	12/09/11 01:43	10
4-Nitrophenol	<200		200	23	ug/L		11/28/11 09:30	12/09/11 01:43	10
1,2-Diphenylhydrazine	<50		50	7.0	ug/L		11/28/11 09:30	12/09/11 01:43	10
4-Bromophenyl phenyl ether	<50		50	9.1	ug/L		11/28/11 09:30	12/09/11 01:43	10
Hexachlorobenzene	<50		50	1.4	ug/L		11/28/11 09:30	12/09/11 01:43	10
Diethyl phthalate	<50		50	4.4	ug/L		11/28/11 09:30	12/09/11 01:43	10
4-Chlorophenyl phenyl ether	<50		50	8.1	ug/L		11/28/11 09:30	12/09/11 01:43	10
Pentachlorophenol	<200		200	56	ug/L		11/28/11 09:30	12/09/11 01:43	10
N-Nitrosodiphenylamine	<50		50	3.4	ug/L		11/28/11 09:30	12/09/11 01:43	10
4,6-Dinitro-2-methylphenol	<200		200	49	ug/L		11/28/11 09:30	12/09/11 01:43	10
Anthracene	**510**		50	3.2	ug/L		11/28/11 09:30	12/09/11 01:43	10
Di-n-butyl phthalate	<50		50	8.0	ug/L		11/28/11 09:30	12/09/11 01:43	10
Benzidine	<500		500	200	ug/L		11/28/11 09:30	12/09/11 01:43	10
Butyl benzyl phthalate	<50		50	2.7	ug/L		11/28/11 09:30	12/09/11 01:43	10
Benzo[a]anthracene	**450**		50	0.44	ug/L		11/28/11 09:30	12/09/11 01:43	10
Chrysene	**360**		50	1.4	ug/L		11/28/11 09:30	12/09/11 01:43	10
3,3'-Dichlorobenzidine	<50		50	9.4	ug/L		11/28/11 09:30	12/09/11 01:43	10
Bis(2-ethylhexyl) phthalate	<100		100	24	ug/L		11/28/11 09:30	12/09/11 01:43	10
Di-n-octyl phthalate	<100		100	25	ug/L		11/28/11 09:30	12/09/11 01:43	10
Benzo[b]fluoranthene	**350**		50	0.58	ug/L		11/28/11 09:30	12/09/11 01:43	10
Benzo[k]fluoranthene	**160**		50	0.74	ug/L		11/28/11 09:30	12/09/11 01:43	10
Benzo[a]pyrene	**260**		50	0.56	ug/L		11/28/11 09:30	12/09/11 01:43	10
Indeno[1,2,3-cd]pyrene	**98**		50	0.84	ug/L		11/28/11 09:30	12/09/11 01:43	10
Dibenz(a,h)anthracene	**35**	J	50	0.64	ug/L		11/28/11 09:30	12/09/11 01:43	10
Benzo[g,h,i]perylene	**94**		50	4.2	ug/L		11/28/11 09:30	12/09/11 01:43	10
3 & 4 Methylphenol	**85**		50	4.4	ug/L		11/28/11 09:30	12/09/11 01:43	10

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42554-1

Client Sample ID: GWOUA(11222011)
Date Collected: 11/22/11 15:00
Date Received: 11/23/11 10:30

Lab Sample ID: 500-42554-1
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	43		10 - 110	11/28/11 09:30	12/09/11 01:43	10
Phenol-d5	31		10 - 110	11/28/11 09:30	12/09/11 01:43	10
Nitrobenzene-d5	126	X	28 - 110	11/28/11 09:30	12/09/11 01:43	10
2-Fluorobiphenyl	108		31 - 110	11/28/11 09:30	12/09/11 01:43	10
2,4,6-Tribromophenol	127	X	34 - 116	11/28/11 09:30	12/09/11 01:43	10
Terphenyl-d14	106		20 - 133	11/28/11 09:30	12/09/11 01:43	10

Method: 625 - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	7700		500	30	ug/L		11/28/11 09:30	12/09/11 08:39	100
Acenaphthene	1900		500	36	ug/L		11/28/11 09:30	12/09/11 08:39	100
Fluorene	1800		500	38	ug/L		11/28/11 09:30	12/09/11 08:39	100
Phenanthrene	4300		500	35	ug/L		11/28/11 09:30	12/09/11 08:39	100
Dibenzofuran	1400		500	35	ug/L		11/28/11 09:30	12/09/11 08:39	100
Fluoranthene	2200		500	32	ug/L		11/28/11 09:30	12/09/11 08:39	100
Pyrene	1500		500	48	ug/L		11/28/11 09:30	12/09/11 08:39	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	0	D	10 - 110	11/28/11 09:30	12/09/11 08:39	100
Phenol-d5	0	D	10 - 110	11/28/11 09:30	12/09/11 08:39	100
Nitrobenzene-d5	0	D	28 - 110	11/28/11 09:30	12/09/11 08:39	100
2-Fluorobiphenyl	0	D	31 - 110	11/28/11 09:30	12/09/11 08:39	100
2,4,6-Tribromophenol	0	D	34 - 116	11/28/11 09:30	12/09/11 08:39	100
Terphenyl-d14	0	D	20 - 133	11/28/11 09:30	12/09/11 08:39	100

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42554-1

Client Sample ID: GWOUB(11222011)

Lab Sample ID: 500-42554-2

Date Collected: 11/22/11 14:50
Date Received: 11/23/11 10:30

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	36		5.1	1.8	mg/L		11/30/11 05:13	11/30/11 09:43	1
Total Suspended Solids	30		5.0	1.6	mg/L			11/27/11 23:44	1

Definitions/Glossary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42554-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	RPD of the LCS and LCSD exceeds the control limits
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42554-1

GC/MS Semi VOA

Prep Batch: 133882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42554-1	GWOUA(11222011)	Total/NA	Water	625	
500-42554-1 - DL	GWOUA(11222011)	Total/NA	Water	625	
LCS 500-133882/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 500-133882/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 500-133882/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 135037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42554-1	GWOUA(11222011)	Total/NA	Water	625	133882
500-42554-1 - DL	GWOUA(11222011)	Total/NA	Water	625	133882
LCS 500-133882/2-A	Lab Control Sample	Total/NA	Water	625	133882
LCSD 500-133882/3-A	Lab Control Sample Dup	Total/NA	Water	625	133882
MB 500-133882/1-A	Method Blank	Total/NA	Water	625	133882

General Chemistry

Analysis Batch: 133850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42554-2	GWOUB(11222011)	Total/NA	Water	SM 2540D	
LCS 500-133850/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 500-133850/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 134046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42554-2	GWOUB(11222011)	Total/NA	Water	1664A	
LCS 500-134046/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 500-134046/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 134048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42554-2	GWOUB(11222011)	Total/NA	Water	1664A	134046
LCS 500-134046/2-A	Lab Control Sample	Total/NA	Water	1664A	134046
MB 500-134046/1-A	Method Blank	Total/NA	Water	1664A	134046

Surrogate Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42554-1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPH
Lab Sample ID	Client Sample ID	(10-110)	(10-110)	(28-110)	(31-110)	(34-116)	(20-133)
500-42554-1	GWOUA(11222011)	43	31	126 X	108	127 X	106
500-42554-1 - DL	GWOUA(11222011)	0 D	0 D	0 D	0 D	0 D	0 D
LCS 500-133882/2-A	Lab Control Sample	49	31	77	85	109	96
LCSD 500-133882/3-A	Lab Control Sample Dup	35	29	84	86	116	105
MB 500-133882/1-A	Method Blank	56	33	80	83	103	92

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d5
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPH = Terphenyl-d14

QC Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42554-1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-133882/1-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 133882

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	<10		10	1.4	ug/L		11/28/11 09:30	12/08/11 13:42	1
Phenol	<10		10	0.36	ug/L		11/28/11 09:30	12/08/11 13:42	1
Bis(2-chloroethyl)ether	<5.0		5.0	0.35	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,2'-oxybis[1-chloropropane]	<5.0		5.0	0.30	ug/L		11/28/11 09:30	12/08/11 13:42	1
N-Nitrosodi-n-propylamine	<5.0		5.0	0.14	ug/L		11/28/11 09:30	12/08/11 13:42	1
Hexachloroethane	<5.0		5.0	0.97	ug/L		11/28/11 09:30	12/08/11 13:42	1
2-Chlorophenol	<5.0		5.0	0.80	ug/L		11/28/11 09:30	12/08/11 13:42	1
2-Methylphenol	<5.0		5.0	0.31	ug/L		11/28/11 09:30	12/08/11 13:42	1
Nitrobenzene	<5.0		5.0	0.45	ug/L		11/28/11 09:30	12/08/11 13:42	1
Bis(2-chloroethoxy)methane	<5.0		5.0	0.30	ug/L		11/28/11 09:30	12/08/11 13:42	1
1,2,4-Trichlorobenzene	<5.0		5.0	0.30	ug/L		11/28/11 09:30	12/08/11 13:42	1
Isophorone	<5.0		5.0	0.29	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,4-Dimethylphenol	<5.0		5.0	3.3	ug/L		11/28/11 09:30	12/08/11 13:42	1
Hexachlorobutadiene	<5.0		5.0	1.1	ug/L		11/28/11 09:30	12/08/11 13:42	1
Naphthalene	<5.0		5.0	0.30	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,4-Dichlorophenol	<5.0		5.0	2.3	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,4,6-Trichlorophenol	<5.0		5.0	1.1	ug/L		11/28/11 09:30	12/08/11 13:42	1
Hexachlorocyclopentadiene	<10		10	3.4	ug/L		11/28/11 09:30	12/08/11 13:42	1
2-Chloronaphthalene	<5.0		5.0	0.34	ug/L		11/28/11 09:30	12/08/11 13:42	1
4-Chloro-3-methylphenol	<5.0		5.0	2.2	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,6-Dinitrotoluene	<5.0		5.0	0.12	ug/L		11/28/11 09:30	12/08/11 13:42	1
2-Nitrophenol	<5.0		5.0	2.1	ug/L		11/28/11 09:30	12/08/11 13:42	1
Dimethyl phthalate	<5.0		5.0	0.38	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,4-Dinitrophenol	<20		20	7.4	ug/L		11/28/11 09:30	12/08/11 13:42	1
Acenaphthylene	<5.0		5.0	0.32	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,4-Dinitrotoluene	<5.0		5.0	0.30	ug/L		11/28/11 09:30	12/08/11 13:42	1
Acenaphthene	<5.0		5.0	0.36	ug/L		11/28/11 09:30	12/08/11 13:42	1
4-Nitrophenol	<20		20	2.3	ug/L		11/28/11 09:30	12/08/11 13:42	1
Fluorene	<5.0		5.0	0.38	ug/L		11/28/11 09:30	12/08/11 13:42	1
1,2-Diphenylhydrazine	<5.0		5.0	0.70	ug/L		11/28/11 09:30	12/08/11 13:42	1
4-Bromophenyl phenyl ether	<5.0		5.0	0.91	ug/L		11/28/11 09:30	12/08/11 13:42	1
Hexachlorobenzene	<5.0		5.0	0.14	ug/L		11/28/11 09:30	12/08/11 13:42	1
Diethyl phthalate	<5.0		5.0	0.44	ug/L		11/28/11 09:30	12/08/11 13:42	1
4-Chlorophenyl phenyl ether	<5.0		5.0	0.81	ug/L		11/28/11 09:30	12/08/11 13:42	1
Pentachlorophenol	<20		20	5.6	ug/L		11/28/11 09:30	12/08/11 13:42	1
N-Nitrosodiphenylamine	<5.0		5.0	0.34	ug/L		11/28/11 09:30	12/08/11 13:42	1
4,6-Dinitro-2-methylphenol	<20		20	4.9	ug/L		11/28/11 09:30	12/08/11 13:42	1
Phenanthrene	<5.0		5.0	0.35	ug/L		11/28/11 09:30	12/08/11 13:42	1
Anthracene	<5.0		5.0	0.32	ug/L		11/28/11 09:30	12/08/11 13:42	1
Dibenzofuran	<5.0		5.0	0.35	ug/L		11/28/11 09:30	12/08/11 13:42	1
Di-n-butyl phthalate	<5.0		5.0	0.80	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzidine	<50		50	20	ug/L		11/28/11 09:30	12/08/11 13:42	1
Fluoranthene	<5.0		5.0	0.32	ug/L		11/28/11 09:30	12/08/11 13:42	1
Pyrene	<5.0		5.0	0.48	ug/L		11/28/11 09:30	12/08/11 13:42	1
Butyl benzyl phthalate	<5.0		5.0	0.27	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzo[a]anthracene	<5.0		5.0	0.044	ug/L		11/28/11 09:30	12/08/11 13:42	1
Chrysene	<5.0		5.0	0.14	ug/L		11/28/11 09:30	12/08/11 13:42	1
3,3'-Dichlorobenzidine	<5.0		5.0	0.94	ug/L		11/28/11 09:30	12/08/11 13:42	1
Bis(2-ethylhexyl) phthalate	<10		10	2.4	ug/L		11/28/11 09:30	12/08/11 13:42	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-133882/1-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 133882

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	<10		10	2.5	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzo[b]fluoranthene	<5.0		5.0	0.058	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzo[k]fluoranthene	<5.0		5.0	0.074	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzo[a]pyrene	<5.0		5.0	0.056	ug/L		11/28/11 09:30	12/08/11 13:42	1
Indeno[1,2,3-cd]pyrene	<5.0		5.0	0.084	ug/L		11/28/11 09:30	12/08/11 13:42	1
Dibenz(a,h)anthracene	<5.0		5.0	0.064	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzo[g,h,i]perylene	<5.0		5.0	0.42	ug/L		11/28/11 09:30	12/08/11 13:42	1
3 & 4 Methylphenol	<5.0		5.0	0.44	ug/L		11/28/11 09:30	12/08/11 13:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*56*		*10 - 110*	*11/28/11 09:30*	*12/08/11 13:42*	*1*
Phenol-d5	*33*		*10 - 110*	*11/28/11 09:30*	*12/08/11 13:42*	*1*
Nitrobenzene-d5	*80*		*28 - 110*	*11/28/11 09:30*	*12/08/11 13:42*	*1*
2-Fluorobiphenyl	*83*		*31 - 110*	*11/28/11 09:30*	*12/08/11 13:42*	*1*
2,4,6-Tribromophenol	*103*		*34 - 116*	*11/28/11 09:30*	*12/08/11 13:42*	*1*
Terphenyl-d14	*92*		*20 - 133*	*11/28/11 09:30*	*12/08/11 13:42*	*1*

Lab Sample ID: LCS 500-133882/2-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133882

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Nitrosodimethylamine	50.0	32.0		ug/L		64	10 - 200
Phenol	50.0	17.2		ug/L		34	5 - 112
Bis(2-chloroethyl)ether	50.0	36.5		ug/L		73	12 - 158
2,2'-oxybis[1-chloropropane]	50.0	37.1		ug/L		74	36 - 166
N-Nitrosodi-n-propylamine	50.0	41.3		ug/L		83	10 - 230
Hexachloroethane	50.0	25.4		ug/L		51	40 - 113
2-Chlorophenol	50.0	36.6		ug/L		73	23 - 134
2-Methylphenol	50.0	34.0		ug/L		68	30 - 146
Nitrobenzene	50.0	36.7		ug/L		73	35 - 180
Bis(2-chloroethoxy)methane	50.0	40.6		ug/L		81	33 - 184
1,2,4-Trichlorobenzene	50.0	31.6		ug/L		63	44 - 142
Isophorone	50.0	36.8		ug/L		74	21 - 196
2,4-Dimethylphenol	50.0	41.7		ug/L		83	32 - 119
Hexachlorobutadiene	50.0	28.0		ug/L		56	24 - 116
Naphthalene	50.0	35.2		ug/L		70	21 - 133
2,4-Dichlorophenol	50.0	42.6		ug/L		85	39 - 135
2,4,6-Trichlorophenol	50.0	46.4		ug/L		93	37 - 144
Hexachlorocyclopentadiene	50.0	33.5		ug/L		67	10 - 200
2-Chloronaphthalene	50.0	39.0		ug/L		78	60 - 118
4-Chloro-3-methylphenol	50.0	42.8		ug/L		86	22 - 147
2,6-Dinitrotoluene	50.0	47.3		ug/L		95	50 - 158
2-Nitrophenol	50.0	41.8		ug/L		84	29 - 182
Dimethyl phthalate	50.0	46.6		ug/L		93	10 - 112
2,4-Dinitrophenol	50.0	50.5		ug/L		101	10 - 191
Acenaphthylene	50.0	43.2		ug/L		86	33 - 145
2,4-Dinitrotoluene	50.0	46.5		ug/L		93	39 - 139
Acenaphthene	50.0	44.0		ug/L		88	47 - 145

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-133882/2-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133882

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitrophenol	50.0	17.2	J	ug/L		34	10 - 132
Fluorene	50.0	44.5		ug/L		89	59 - 121
4-Bromophenyl phenyl ether	50.0	50.8		ug/L		102	53 - 127
Hexachlorobenzene	50.0	47.0		ug/L		94	10 - 152
Diethyl phthalate	50.0	48.0		ug/L		96	10 - 114
4-Chlorophenyl phenyl ether	50.0	41.3		ug/L		83	25 - 158
Pentachlorophenol	50.0	57.2		ug/L		114	14 - 176
N-Nitrosodiphenylamine	50.0	48.9		ug/L		98	10 - 200
4,6-Dinitro-2-methylphenol	50.0	51.9		ug/L		104	10 - 181
Phenanthrene	50.0	46.0		ug/L		92	54 - 120
Anthracene	50.0	46.6		ug/L		93	27 - 133
Dibenzofuran	50.0	42.8		ug/L		86	
Di-n-butyl phthalate	50.0	48.3		ug/L		97	1 - 118
Benzidine	50.0	<50		ug/L		25	10 - 200
Fluoranthene	50.0	50.6		ug/L		101	26 - 137
Pyrene	50.0	46.0		ug/L		92	52 - 115
Butyl benzyl phthalate	50.0	48.8		ug/L		98	10 - 152
Benzo[a]anthracene	50.0	47.5		ug/L		95	33 - 143
Chrysene	50.0	44.5		ug/L		89	17 - 168
3,3'-Dichlorobenzidine	50.0	47.5		ug/L		95	10 - 262
Bis(2-ethylhexyl) phthalate	50.0	45.7		ug/L		91	8 - 158
Di-n-octyl phthalate	50.0	49.1		ug/L		98	4 - 146
Benzo[b]fluoranthene	50.0	59.9		ug/L		120	24 - 159
Benzo[k]fluoranthene	50.0	45.6		ug/L		91	11 - 162
Benzo[a]pyrene	50.0	50.4		ug/L		101	17 - 163
Indeno[1,2,3-cd]pyrene	50.0	54.8		ug/L		110	10 - 171
Dibenz(a,h)anthracene	50.0	52.8		ug/L		106	10 - 227
Benzo[g,h,i]perylene	50.0	55.0		ug/L		110	10 - 219
3 & 4 Methylphenol	50.0	38.9		ug/L		78	11 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*49*		*10 - 110*
Phenol-d5	*31*		*10 - 110*
Nitrobenzene-d5	*77*		*28 - 110*
2-Fluorobiphenyl	*85*		*31 - 110*
2,4,6-Tribromophenol	*109*		*34 - 116*
Terphenyl-d14	*96*		*20 - 133*

Lab Sample ID: LCSD 500-133882/3-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 133882

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodimethylamine	50.0	19.0	*	ug/L		38	10 - 200	51	20
Phenol	50.0	17.3		ug/L		35	5 - 112	1	20
Bis(2-chloroethyl)ether	50.0	38.1		ug/L		76	12 - 158	4	20
2,2'-oxybis[1-chloropropane]	50.0	40.1		ug/L		80	36 - 166	8	20
N-Nitrosodi-n-propylamine	50.0	40.6		ug/L		81	10 - 230	2	20
Hexachloroethane	50.0	26.6		ug/L		53	40 - 113	5	20

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-133882/3-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 133882

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chlorophenol	50.0	36.0		ug/L		72	23 - 134	2	20
2-Methylphenol	50.0	34.0		ug/L		68	30 - 146	0	20
Nitrobenzene	50.0	39.2		ug/L		78	35 - 180	7	20
Bis(2-chloroethoxy)methane	50.0	42.8		ug/L		86	33 - 184	5	20
1,2,4-Trichlorobenzene	50.0	31.5		ug/L		63	44 - 142	0	20
Isophorone	50.0	39.0		ug/L		78	21 - 196	6	20
2,4-Dimethylphenol	50.0	41.2		ug/L		82	32 - 119	1	20
Hexachlorobutadiene	50.0	27.9		ug/L		56	24 - 116	0	20
Naphthalene	50.0	35.3		ug/L		71	21 - 133	0	20
2,4-Dichlorophenol	50.0	41.9		ug/L		84	39 - 135	2	20
2,4,6-Trichlorophenol	50.0	47.6		ug/L		95	37 - 144	3	20
Hexachlorocyclopentadiene	50.0	34.8		ug/L		70	10 - 200	4	20
2-Chloronaphthalene	50.0	38.4		ug/L		77	60 - 118	2	20
4-Chloro-3-methylphenol	50.0	42.8		ug/L		86	22 - 147	0	20
2,6-Dinitrotoluene	50.0	49.7		ug/L		99	50 - 158	5	20
2-Nitrophenol	50.0	41.7		ug/L		83	29 - 182	0	20
Dimethyl phthalate	50.0	47.3		ug/L		95	10 - 112	1	20
2,4-Dinitrophenol	50.0	53.3		ug/L		107	10 - 191	5	20
Acenaphthylene	50.0	42.3		ug/L		85	33 - 145	2	20
2,4-Dinitrotoluene	50.0	44.7		ug/L		89	39 - 139	4	20
Acenaphthene	50.0	43.6		ug/L		87	47 - 145	1	20
4-Nitrophenol	50.0	18.9	J	ug/L		38	10 - 132	9	20
Fluorene	50.0	42.6		ug/L		85	59 - 121	4	20
4-Bromophenyl phenyl ether	50.0	52.7		ug/L		105	53 - 127	4	20
Hexachlorobenzene	50.0	51.5		ug/L		103	10 - 152	9	20
Diethyl phthalate	50.0	47.4		ug/L		95	10 - 114	1	20
4-Chlorophenyl phenyl ether	50.0	40.1		ug/L		80	25 - 158	3	20
Pentachlorophenol	50.0	65.1		ug/L		130	14 - 176	13	20
N-Nitrosodiphenylamine	50.0	52.3		ug/L		105	10 - 200	7	20
4,6-Dinitro-2-methylphenol	50.0	56.5		ug/L		113	10 - 181	8	20
Phenanthrene	50.0	48.1		ug/L		96	54 - 120	4	20
Anthracene	50.0	48.3		ug/L		97	27 - 133	4	20
Dibenzofuran	50.0	41.0		ug/L		82		4	
Di-n-butyl phthalate	50.0	50.8		ug/L		102	1 - 118	5	20
Benzidine	50.0	<50		ug/L		29	10 - 200	15	20
Fluoranthene	50.0	52.9		ug/L		106	26 - 137	4	20
Pyrene	50.0	47.1		ug/L		94	52 - 115	2	20
Butyl benzyl phthalate	50.0	48.9		ug/L		98	10 - 152	0	20
Benzo[a]anthracene	50.0	48.3		ug/L		97	33 - 143	2	20
Chrysene	50.0	45.5		ug/L		91	17 - 168	2	20
3,3'-Dichlorobenzidine	50.0	49.8		ug/L		100	10 - 262	5	20
Bis(2-ethylhexyl) phthalate	50.0	45.1		ug/L		90	8 - 158	1	20
Di-n-octyl phthalate	50.0	49.2		ug/L		98	4 - 146	0	20
Benzo[b]fluoranthene	50.0	56.1		ug/L		112	24 - 159	7	20
Benzo[k]fluoranthene	50.0	50.6		ug/L		101	11 - 162	10	20
Benzo[a]pyrene	50.0	52.3		ug/L		105	17 - 163	4	20
Indeno[1,2,3-cd]pyrene	50.0	58.8		ug/L		118	10 - 171	7	20
Dibenz(a,h)anthracene	50.0	55.9		ug/L		112	10 - 227	6	20
Benzo[g,h,i]perylene	50.0	58.4		ug/L		117	10 - 219	6	20
3 & 4 Methylphenol	50.0	38.6		ug/L		77	11 - 150	1	20

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-133882/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 135037 — **Prep Batch: 133882**

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorophenol	*35*		*10 - 110*
Phenol-d5	*29*		*10 - 110*
Nitrobenzene-d5	*84*		*28 - 110*
2-Fluorobiphenyl	*86*		*31 - 110*
2,4,6-Tribromophenol	*116*		*34 - 116*
Terphenyl-d14	*105*		*20 - 133*

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 500-134046/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 134048 — **Prep Batch: 134046**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.0		5.0	1.8	mg/L		11/30/11 04:15	11/30/11 09:10	1

Lab Sample ID: LCS 500-134046/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 134048 — **Prep Batch: 134046**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	40.0	37.2		mg/L		93	78 - 114

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 500-133850/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133850

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0	1.6	mg/L			11/27/11 23:16	1

Lab Sample ID: LCS 500-133850/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 133850

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	200	200		mg/L		100	80 - 120

Certification Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42554-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Chicago	ACLASS	DoD ELAP		ADE-1429
TestAmerica Chicago	ACLASS	ISO/IEC 17025		AT-1428
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	Georgia EPD	4	N/A
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	Kentucky UST	4	66
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina	North Carolina DENR	4	291
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	USDA		P330-09-00027
TestAmerica Chicago	Virginia	NELAC Secondary AB	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's *current list of certified methods and analytes.*

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-42554
Chain of Custody Number:
Page ____ of ____
Temperature °C of Cooler: 2.6

Client: BODINE
Client Project #: 119386-12
Project Name: FEDA JENNISON WRIGHT
Project Location/State: GRANITE CITY, IL
Lab Project #:
Sampler: RICK FLEY
Lab PM: DICK WRIGHT

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	TSS	OIL&GREASE	5VOCS	Comments
1		GWOUA(11222011)	11/22/11	1500	3	WW			X	INFLUENT H2O
2		GWOUB(11222011)	11/22/11	1450	2	WW	X	X		POST OIL/H2OSEP

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days X 10 Days ___ 15 Days ___ Other
Requested Due Date ____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	Bodine	11/22/11	1520	[illegible]	TA	11/23/11	1630

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW - Wastewater
W - Water
S - Soil
SL - Sludge
MS - Miscellaneous
OL - Oil
A - Air
SE - Sediment
SO - Soil
L - Leachate
WI - Wipe
DW - Drinking Water
O - Other

Client Comments
CUSTODY SEAL 319543

Lab Comments:

12/9/2011 (1209)

Login Sample Receipt Checklist

Client: Bodine Environmental Services

Job Number: 500-42554-1

Login Number: 42554
List Number: 1
Creator: James, Jeff A

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-42555-1
Client Project/Site: Jennison Wright

For:
Bodine Environmental Services
5350 East Firehouse Road
Decatur, Illinois 62521-9601

Attn: Troy McFate

Authorized for release by:
12/9/2011 3:05:37 PM

Richard Wright
Project Manager II
richard.wright@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-42555-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-42555-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS Semi VOA
Method(s) 625: Surrogate recovery for the following sample was outside control limits: GWOUE(11222011) (500-42555-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 625: The following sample was diluted due to the abundance of target and non-target analytes: GWOUE(11222011) (500-42555-2). Elevated reporting limits (RLs) are provided.

Method(s) 625: The %RPD of the laboratory control sample (LCS) and laboratory control standard duplicate (LCSD) for preparation batch 133882 exceeded control limits for the following analyte: N-nitrosodimethylamine. GWOUE(11222011) (500-42555-2)

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42555-1

Client Sample ID: GWOUC(11222011) — Lab Sample ID: 500-42555-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
HEM (Oil & Grease)	34		5.1	1.8	mg/L	1		1664A	Total/NA
Total Suspended Solids	30		5.0	1.6	mg/L	1		SM 2540D	Total/NA

Client Sample ID: GWOUE(11222011) — Lab Sample ID: 500-42555-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenol	13	J	93	3.4	ug/L	10		625	Total/NA
2-Methylphenol	89		47	2.9	ug/L	10		625	Total/NA
2,4-Dimethylphenol	110		47	31	ug/L	10		625	Total/NA
Naphthalene	590		47	2.8	ug/L	10		625	Total/NA
Acenaphthylene	5.3	J	47	3.0	ug/L	10		625	Total/NA
Acenaphthene	220		47	3.4	ug/L	10		625	Total/NA
Fluorene	66		47	3.6	ug/L	10		625	Total/NA
Phenanthrene	55		47	3.3	ug/L	10		625	Total/NA
Anthracene	5.0	J	47	3.0	ug/L	10		625	Total/NA
Dibenzofuran	30	J	47	3.3	ug/L	10		625	Total/NA
Fluoranthene	16	J	47	3.0	ug/L	10		625	Total/NA
Pyrene	11	J	47	4.5	ug/L	10		625	Total/NA
3 & 4 Methylphenol	110		47	4.1	ug/L	10		625	Total/NA
Total Suspended Solids	3.0	J	5.0	1.6	mg/L	1		SM 2540D	Total/NA
Biochemical Oxygen Demand	6.4		2.0	2.0	mg/L	1		SM 5210B	Total/NA

Method Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42555-1

Method	Method Description	Protocol	Laboratory
625	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL CHI
1664A	HEM and SGT-HEM	1664A	TAL CHI
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CHI
SM 5210B	BOD, 5-Day	SM	TAL CHI

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42555-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-42555-1	GWOUC(11222011)	Water	11/22/11 15:10	11/23/11 10:30
500-42555-2	GWOUE(11222011)	Water	11/22/11 15:15	11/23/11 10:30

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42555-1

Client Sample ID: GWOUC(11222011)
Date Collected: 11/22/11 15:10
Date Received: 11/23/11 10:30

Lab Sample ID: 500-42555-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	34		5.1	1.8	mg/L		11/30/11 05:25	11/30/11 09:50	1
Total Suspended Solids	30		5.0	1.6	mg/L			11/27/11 23:46	1

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42555-1

Client Sample ID: GWOUE(11222011)

Lab Sample ID: 500-42555-2

Date Collected: 11/22/11 15:15
Date Received: 11/23/11 10:30

Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	<93		93	13	ug/L		11/28/11 09:30	12/09/11 02:04	10
Phenol	**13**	J	93	3.4	ug/L		11/28/11 09:30	12/09/11 02:04	10
Bis(2-chloroethyl)ether	<47		47	3.3	ug/L		11/28/11 09:30	12/09/11 02:04	10
2,2'-oxybis[1-chloropropane]	<47		47	2.8	ug/L		11/28/11 09:30	12/09/11 02:04	10
N-Nitrosodi-n-propylamine	<47		47	1.3	ug/L		11/28/11 09:30	12/09/11 02:04	10
Hexachloroethane	<47		47	9.1	ug/L		11/28/11 09:30	12/09/11 02:04	10
2-Chlorophenol	<47		47	7.5	ug/L		11/28/11 09:30	12/09/11 02:04	10
2-Methylphenol	**89**		47	2.9	ug/L		11/28/11 09:30	12/09/11 02:04	10
Nitrobenzene	<47		47	4.2	ug/L		11/28/11 09:30	12/09/11 02:04	10
Bis(2-chloroethoxy)methane	<47		47	2.8	ug/L		11/28/11 09:30	12/09/11 02:04	10
1,2,4-Trichlorobenzene	<47		47	2.8	ug/L		11/28/11 09:30	12/09/11 02:04	10
Isophorone	<47		47	2.7	ug/L		11/28/11 09:30	12/09/11 02:04	10
2,4-Dimethylphenol	**110**		47	31	ug/L		11/28/11 09:30	12/09/11 02:04	10
Hexachlorobutadiene	<47		47	10	ug/L		11/28/11 09:30	12/09/11 02:04	10
Naphthalene	**590**		47	2.8	ug/L		11/28/11 09:30	12/09/11 02:04	10
2,4-Dichlorophenol	<47		47	21	ug/L		11/28/11 09:30	12/09/11 02:04	10
2,4,6-Trichlorophenol	<47		47	10	ug/L		11/28/11 09:30	12/09/11 02:04	10
Hexachlorocyclopentadiene	<93		93	32	ug/L		11/28/11 09:30	12/09/11 02:04	10
2-Chloronaphthalene	<47		47	3.2	ug/L		11/28/11 09:30	12/09/11 02:04	10
4-Chloro-3-methylphenol	<47		47	21	ug/L		11/28/11 09:30	12/09/11 02:04	10
2,6-Dinitrotoluene	<47		47	1.1	ug/L		11/28/11 09:30	12/09/11 02:04	10
2-Nitrophenol	<47		47	20	ug/L		11/28/11 09:30	12/09/11 02:04	10
Dimethyl phthalate	<47		47	3.6	ug/L		11/28/11 09:30	12/09/11 02:04	10
2,4-Dinitrophenol	<190		190	69	ug/L		11/28/11 09:30	12/09/11 02:04	10
Acenaphthylene	**5.3**	J	47	3.0	ug/L		11/28/11 09:30	12/09/11 02:04	10
2,4-Dinitrotoluene	<47		47	2.8	ug/L		11/28/11 09:30	12/09/11 02:04	10
Acenaphthene	**220**		47	3.4	ug/L		11/28/11 09:30	12/09/11 02:04	10
4-Nitrophenol	<190		190	22	ug/L		11/28/11 09:30	12/09/11 02:04	10
Fluorene	**66**		47	3.6	ug/L		11/28/11 09:30	12/09/11 02:04	10
1,2-Diphenylhydrazine	<47		47	6.5	ug/L		11/28/11 09:30	12/09/11 02:04	10
4-Bromophenyl phenyl ether	<47		47	8.5	ug/L		11/28/11 09:30	12/09/11 02:04	10
Hexachlorobenzene	<47		47	1.3	ug/L		11/28/11 09:30	12/09/11 02:04	10
Diethyl phthalate	<47		47	4.1	ug/L		11/28/11 09:30	12/09/11 02:04	10
4-Chlorophenyl phenyl ether	<47		47	7.6	ug/L		11/28/11 09:30	12/09/11 02:04	10
Pentachlorophenol	<190		190	52	ug/L		11/28/11 09:30	12/09/11 02:04	10
N-Nitrosodiphenylamine	<47		47	3.2	ug/L		11/28/11 09:30	12/09/11 02:04	10
4,6-Dinitro-2-methylphenol	<190		190	46	ug/L		11/28/11 09:30	12/09/11 02:04	10
Phenanthrene	**55**		47	3.3	ug/L		11/28/11 09:30	12/09/11 02:04	10
Anthracene	**5.0**	J	47	3.0	ug/L		11/28/11 09:30	12/09/11 02:04	10
Dibenzofuran	**30**	J	47	3.3	ug/L		11/28/11 09:30	12/09/11 02:04	10
Di-n-butyl phthalate	<47		47	7.5	ug/L		11/28/11 09:30	12/09/11 02:04	10
Benzidine	<470		470	190	ug/L		11/28/11 09:30	12/09/11 02:04	10
Fluoranthene	**16**	J	47	3.0	ug/L		11/28/11 09:30	12/09/11 02:04	10
Pyrene	**11**	J	47	4.5	ug/L		11/28/11 09:30	12/09/11 02:04	10
Butyl benzyl phthalate	<47		47	2.5	ug/L		11/28/11 09:30	12/09/11 02:04	10
Benzo[a]anthracene	<47		47	0.41	ug/L		11/28/11 09:30	12/09/11 02:04	10
Chrysene	<47		47	1.3	ug/L		11/28/11 09:30	12/09/11 02:04	10
3,3'-Dichlorobenzidine	<47		47	8.8	ug/L		11/28/11 09:30	12/09/11 02:04	10
Bis(2-ethylhexyl) phthalate	<93		93	23	ug/L		11/28/11 09:30	12/09/11 02:04	10
Di-n-octyl phthalate	<93		93	23	ug/L		11/28/11 09:30	12/09/11 02:04	10

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42555-1

Client Sample ID: GWOUE(11222011)

Lab Sample ID: 500-42555-2

Date Collected: 11/22/11 15:15
Date Received: 11/23/11 10:30

Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	<47		47	0.54	ug/L		11/28/11 09:30	12/09/11 02:04	10
Benzo[k]fluoranthene	<47		47	0.69	ug/L		11/28/11 09:30	12/09/11 02:04	10
Benzo[a]pyrene	<47		47	0.52	ug/L		11/28/11 09:30	12/09/11 02:04	10
Indeno[1,2,3-cd]pyrene	<47		47	0.79	ug/L		11/28/11 09:30	12/09/11 02:04	10
Dibenz(a,h)anthracene	<47		47	0.60	ug/L		11/28/11 09:30	12/09/11 02:04	10
Benzo[g,h,i]perylene	<47		47	3.9	ug/L		11/28/11 09:30	12/09/11 02:04	10
3 & 4 Methylphenol	110		47	4.1	ug/L		11/28/11 09:30	12/09/11 02:04	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*42*		*10 - 110*	*11/28/11 09:30*	*12/09/11 02:04*	*10*
Phenol-d5	*29*		*10 - 110*	*11/28/11 09:30*	*12/09/11 02:04*	*10*
Nitrobenzene-d5	*86*		*28 - 110*	*11/28/11 09:30*	*12/09/11 02:04*	*10*
2-Fluorobiphenyl	*99*		*31 - 110*	*11/28/11 09:30*	*12/09/11 02:04*	*10*
2,4,6-Tribromophenol	*125*	*X*	*34 - 116*	*11/28/11 09:30*	*12/09/11 02:04*	*10*
Terphenyl-d14	*82*		*20 - 133*	*11/28/11 09:30*	*12/09/11 02:04*	*10*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	3.0	J	5.0	1.6	mg/L			11/27/11 23:48	1
Biochemical Oxygen Demand	6.4		2.0	2.0	mg/L			11/23/11 17:36	1

Definitions/Glossary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42555-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	RPD of the LCS and LCSD exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42555-1

GC/MS Semi VOA

Prep Batch: 133882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42555-2	GWOUE(11222011)	Total/NA	Water	625	
LCS 500-133882/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 500-133882/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 500-133882/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 135037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42555-2	GWOUE(11222011)	Total/NA	Water	625	133882
LCS 500-133882/2-A	Lab Control Sample	Total/NA	Water	625	133882
LCSD 500-133882/3-A	Lab Control Sample Dup	Total/NA	Water	625	133882
MB 500-133882/1-A	Method Blank	Total/NA	Water	625	133882

General Chemistry

Analysis Batch: 133818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42555-2	GWOUE(11222011)	Total/NA	Water	SM 5210B	
LCS 500-133818/2	Lab Control Sample	Total/NA	Water	SM 5210B	
USB 500-133818/1 USB	Method Blank	Total/NA	Water	SM 5210B	

Analysis Batch: 133850

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42555-1	GWOUC(11222011)	Total/NA	Water	SM 2540D	
500-42555-2	GWOUE(11222011)	Total/NA	Water	SM 2540D	
LCS 500-133850/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 500-133850/1	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 134046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42555-1	GWOUC(11222011)	Total/NA	Water	1664A	
LCS 500-134046/2-A	Lab Control Sample	Total/NA	Water	1664A	
MB 500-134046/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 134048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42555-1	GWOUC(11222011)	Total/NA	Water	1664A	134046
LCS 500-134046/2-A	Lab Control Sample	Total/NA	Water	1664A	134046
MB 500-134046/1-A	Method Blank	Total/NA	Water	1664A	134046

Surrogate Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42555-1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		2FP	PHL	NBZ	FBP	TBP	TPH
Lab Sample ID	Client Sample ID	(10-110)	(10-110)	(28-110)	(31-110)	(34-116)	(20-133)
500-42555-2	GWOUE(11222011)	42	29	86	99	125 X	82
LCS 500-133882/2-A	Lab Control Sample	49	31	77	85	109	96
LCSD 500-133882/3-A	Lab Control Sample Dup	35	29	84	86	116	105
MB 500-133882/1-A	Method Blank	56	33	80	83	103	92

Surrogate Legend

2FP = 2-Fluorophenol
PHL = Phenol-d5
NBZ = Nitrobenzene-d5
FBP = 2-Fluorobiphenyl
TBP = 2,4,6-Tribromophenol
TPH = Terphenyl-d14

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-133882/1-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 133882

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	<10		10	1.4	ug/L		11/28/11 09:30	12/08/11 13:42	1
Phenol	<10		10	0.36	ug/L		11/28/11 09:30	12/08/11 13:42	1
Bis(2-chloroethyl)ether	<5.0		5.0	0.35	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,2'-oxybis[1-chloropropane]	<5.0		5.0	0.30	ug/L		11/28/11 09:30	12/08/11 13:42	1
N-Nitrosodi-n-propylamine	<5.0		5.0	0.14	ug/L		11/28/11 09:30	12/08/11 13:42	1
Hexachloroethane	<5.0		5.0	0.97	ug/L		11/28/11 09:30	12/08/11 13:42	1
2-Chlorophenol	<5.0		5.0	0.80	ug/L		11/28/11 09:30	12/08/11 13:42	1
2-Methylphenol	<5.0		5.0	0.31	ug/L		11/28/11 09:30	12/08/11 13:42	1
Nitrobenzene	<5.0		5.0	0.45	ug/L		11/28/11 09:30	12/08/11 13:42	1
Bis(2-chloroethoxy)methane	<5.0		5.0	0.30	ug/L		11/28/11 09:30	12/08/11 13:42	1
1,2,4-Trichlorobenzene	<5.0		5.0	0.30	ug/L		11/28/11 09:30	12/08/11 13:42	1
Isophorone	<5.0		5.0	0.29	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,4-Dimethylphenol	<5.0		5.0	3.3	ug/L		11/28/11 09:30	12/08/11 13:42	1
Hexachlorobutadiene	<5.0		5.0	1.1	ug/L		11/28/11 09:30	12/08/11 13:42	1
Naphthalene	<5.0		5.0	0.30	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,4-Dichlorophenol	<5.0		5.0	2.3	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,4,6-Trichlorophenol	<5.0		5.0	1.1	ug/L		11/28/11 09:30	12/08/11 13:42	1
Hexachlorocyclopentadiene	<10		10	3.4	ug/L		11/28/11 09:30	12/08/11 13:42	1
2-Chloronaphthalene	<5.0		5.0	0.34	ug/L		11/28/11 09:30	12/08/11 13:42	1
4-Chloro-3-methylphenol	<5.0		5.0	2.2	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,6-Dinitrotoluene	<5.0		5.0	0.12	ug/L		11/28/11 09:30	12/08/11 13:42	1
2-Nitrophenol	<5.0		5.0	2.1	ug/L		11/28/11 09:30	12/08/11 13:42	1
Dimethyl phthalate	<5.0		5.0	0.38	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,4-Dinitrophenol	<20		20	7.4	ug/L		11/28/11 09:30	12/08/11 13:42	1
Acenaphthylene	<5.0		5.0	0.32	ug/L		11/28/11 09:30	12/08/11 13:42	1
2,4-Dinitrotoluene	<5.0		5.0	0.30	ug/L		11/28/11 09:30	12/08/11 13:42	1
Acenaphthene	<5.0		5.0	0.36	ug/L		11/28/11 09:30	12/08/11 13:42	1
4-Nitrophenol	<20		20	2.3	ug/L		11/28/11 09:30	12/08/11 13:42	1
Fluorene	<5.0		5.0	0.38	ug/L		11/28/11 09:30	12/08/11 13:42	1
1,2-Diphenylhydrazine	<5.0		5.0	0.70	ug/L		11/28/11 09:30	12/08/11 13:42	1
4-Bromophenyl phenyl ether	<5.0		5.0	0.91	ug/L		11/28/11 09:30	12/08/11 13:42	1
Hexachlorobenzene	<5.0		5.0	0.14	ug/L		11/28/11 09:30	12/08/11 13:42	1
Diethyl phthalate	<5.0		5.0	0.44	ug/L		11/28/11 09:30	12/08/11 13:42	1
4-Chlorophenyl phenyl ether	<5.0		5.0	0.81	ug/L		11/28/11 09:30	12/08/11 13:42	1
Pentachlorophenol	<20		20	5.6	ug/L		11/28/11 09:30	12/08/11 13:42	1
N-Nitrosodiphenylamine	<5.0		5.0	0.34	ug/L		11/28/11 09:30	12/08/11 13:42	1
4,6-Dinitro-2-methylphenol	<20		20	4.9	ug/L		11/28/11 09:30	12/08/11 13:42	1
Phenanthrene	<5.0		5.0	0.35	ug/L		11/28/11 09:30	12/08/11 13:42	1
Anthracene	<5.0		5.0	0.32	ug/L		11/28/11 09:30	12/08/11 13:42	1
Dibenzofuran	<5.0		5.0	0.35	ug/L		11/28/11 09:30	12/08/11 13:42	1
Di-n-butyl phthalate	<5.0		5.0	0.80	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzidine	<50		50	20	ug/L		11/28/11 09:30	12/08/11 13:42	1
Fluoranthene	<5.0		5.0	0.32	ug/L		11/28/11 09:30	12/08/11 13:42	1
Pyrene	<5.0		5.0	0.48	ug/L		11/28/11 09:30	12/08/11 13:42	1
Butyl benzyl phthalate	<5.0		5.0	0.27	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzo[a]anthracene	<5.0		5.0	0.044	ug/L		11/28/11 09:30	12/08/11 13:42	1
Chrysene	<5.0		5.0	0.14	ug/L		11/28/11 09:30	12/08/11 13:42	1
3,3'-Dichlorobenzidine	<5.0		5.0	0.94	ug/L		11/28/11 09:30	12/08/11 13:42	1
Bis(2-ethylhexyl) phthalate	<10		10	2.4	ug/L		11/28/11 09:30	12/08/11 13:42	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-133882/1-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 133882

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	<10		10	2.5	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzo[b]fluoranthene	<5.0		5.0	0.058	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzo[k]fluoranthene	<5.0		5.0	0.074	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzo[a]pyrene	<5.0		5.0	0.056	ug/L		11/28/11 09:30	12/08/11 13:42	1
Indeno[1,2,3-cd]pyrene	<5.0		5.0	0.084	ug/L		11/28/11 09:30	12/08/11 13:42	1
Dibenz(a,h)anthracene	<5.0		5.0	0.064	ug/L		11/28/11 09:30	12/08/11 13:42	1
Benzo[g,h,i]perylene	<5.0		5.0	0.42	ug/L		11/28/11 09:30	12/08/11 13:42	1
3 & 4 Methylphenol	<5.0		5.0	0.44	ug/L		11/28/11 09:30	12/08/11 13:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorophenol	*56*		*10 - 110*	*11/28/11 09:30*	*12/08/11 13:42*	*1*
Phenol-d5	*33*		*10 - 110*	*11/28/11 09:30*	*12/08/11 13:42*	*1*
Nitrobenzene-d5	*80*		*28 - 110*	*11/28/11 09:30*	*12/08/11 13:42*	*1*
2-Fluorobiphenyl	*83*		*31 - 110*	*11/28/11 09:30*	*12/08/11 13:42*	*1*
2,4,6-Tribromophenol	*103*		*34 - 116*	*11/28/11 09:30*	*12/08/11 13:42*	*1*
Terphenyl-d14	*92*		*20 - 133*	*11/28/11 09:30*	*12/08/11 13:42*	*1*

Lab Sample ID: LCS 500-133882/2-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133882

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
N-Nitrosodimethylamine	50.0	32.0		ug/L		64	10 - 200
Phenol	50.0	17.2		ug/L		34	5 - 112
Bis(2-chloroethyl)ether	50.0	36.5		ug/L		73	12 - 158
2,2'-oxybis[1-chloropropane]	50.0	37.1		ug/L		74	36 - 166
N-Nitrosodi-n-propylamine	50.0	41.3		ug/L		83	10 - 230
Hexachloroethane	50.0	25.4		ug/L		51	40 - 113
2-Chlorophenol	50.0	36.6		ug/L		73	23 - 134
2-Methylphenol	50.0	34.0		ug/L		68	30 - 146
Nitrobenzene	50.0	36.7		ug/L		73	35 - 180
Bis(2-chloroethoxy)methane	50.0	40.6		ug/L		81	33 - 184
1,2,4-Trichlorobenzene	50.0	31.6		ug/L		63	44 - 142
Isophorone	50.0	36.8		ug/L		74	21 - 196
2,4-Dimethylphenol	50.0	41.7		ug/L		83	32 - 119
Hexachlorobutadiene	50.0	28.0		ug/L		56	24 - 116
Naphthalene	50.0	35.2		ug/L		70	21 - 133
2,4-Dichlorophenol	50.0	42.6		ug/L		85	39 - 135
2,4,6-Trichlorophenol	50.0	46.4		ug/L		93	37 - 144
Hexachlorocyclopentadiene	50.0	33.5		ug/L		67	10 - 200
2-Chloronaphthalene	50.0	39.0		ug/L		78	60 - 118
4-Chloro-3-methylphenol	50.0	42.8		ug/L		86	22 - 147
2,6-Dinitrotoluene	50.0	47.3		ug/L		95	50 - 158
2-Nitrophenol	50.0	41.8		ug/L		84	29 - 182
Dimethyl phthalate	50.0	46.6		ug/L		93	10 - 112
2,4-Dinitrophenol	50.0	50.5		ug/L		101	10 - 191
Acenaphthylene	50.0	43.2		ug/L		86	33 - 145
2,4-Dinitrotoluene	50.0	46.5		ug/L		93	39 - 139
Acenaphthene	50.0	44.0		ug/L		88	47 - 145

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-133882/2-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133882

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Nitrophenol	50.0	17.2	J	ug/L		34	10 - 132
Fluorene	50.0	44.5		ug/L		89	59 - 121
4-Bromophenyl phenyl ether	50.0	50.8		ug/L		102	53 - 127
Hexachlorobenzene	50.0	47.0		ug/L		94	10 - 152
Diethyl phthalate	50.0	48.0		ug/L		96	10 - 114
4-Chlorophenyl phenyl ether	50.0	41.3		ug/L		83	25 - 158
Pentachlorophenol	50.0	57.2		ug/L		114	14 - 176
N-Nitrosodiphenylamine	50.0	48.9		ug/L		98	10 - 200
4,6-Dinitro-2-methylphenol	50.0	51.9		ug/L		104	10 - 181
Phenanthrene	50.0	46.0		ug/L		92	54 - 120
Anthracene	50.0	46.6		ug/L		93	27 - 133
Dibenzofuran	50.0	42.8		ug/L		86	
Di-n-butyl phthalate	50.0	48.3		ug/L		97	1 - 118
Benzidine	50.0	<50		ug/L		25	10 - 200
Fluoranthene	50.0	50.6		ug/L		101	26 - 137
Pyrene	50.0	46.0		ug/L		92	52 - 115
Butyl benzyl phthalate	50.0	48.8		ug/L		98	10 - 152
Benzo[a]anthracene	50.0	47.5		ug/L		95	33 - 143
Chrysene	50.0	44.5		ug/L		89	17 - 168
3,3'-Dichlorobenzidine	50.0	47.5		ug/L		95	10 - 262
Bis(2-ethylhexyl) phthalate	50.0	45.7		ug/L		91	8 - 158
Di-n-octyl phthalate	50.0	49.1		ug/L		98	4 - 146
Benzo[b]fluoranthene	50.0	59.9		ug/L		120	24 - 159
Benzo[k]fluoranthene	50.0	45.6		ug/L		91	11 - 162
Benzo[a]pyrene	50.0	50.4		ug/L		101	17 - 163
Indeno[1,2,3-cd]pyrene	50.0	54.8		ug/L		110	10 - 171
Dibenz(a,h)anthracene	50.0	52.8		ug/L		106	10 - 227
Benzo[g,h,i]perylene	50.0	55.0		ug/L		110	10 - 219
3 & 4 Methylphenol	50.0	38.9		ug/L		78	11 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*49*		*10 - 110*
Phenol-d5	*31*		*10 - 110*
Nitrobenzene-d5	*77*		*28 - 110*
2-Fluorobiphenyl	*85*		*31 - 110*
2,4,6-Tribromophenol	*109*		*34 - 116*
Terphenyl-d14	*96*		*20 - 133*

Lab Sample ID: LCSD 500-133882/3-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 133882

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodimethylamine	50.0	19.0	*	ug/L		38	10 - 200	51	20
Phenol	50.0	17.3		ug/L		35	5 - 112	1	20
Bis(2-chloroethyl)ether	50.0	38.1		ug/L		76	12 - 158	4	20
2,2'-oxybis[1-chloropropane]	50.0	40.1		ug/L		80	36 - 166	8	20
N-Nitrosodi-n-propylamine	50.0	40.6		ug/L		81	10 - 230	2	20
Hexachloroethane	50.0	26.6		ug/L		53	40 - 113	5	20

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-133882/3-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 133882

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chlorophenol	50.0	36.0		ug/L		72	23 - 134	2	20
2-Methylphenol	50.0	34.0		ug/L		68	30 - 146	0	20
Nitrobenzene	50.0	39.2		ug/L		78	35 - 180	7	20
Bis(2-chloroethoxy)methane	50.0	42.8		ug/L		86	33 - 184	5	20
1,2,4-Trichlorobenzene	50.0	31.5		ug/L		63	44 - 142	0	20
Isophorone	50.0	39.0		ug/L		78	21 - 196	6	20
2,4-Dimethylphenol	50.0	41.2		ug/L		82	32 - 119	1	20
Hexachlorobutadiene	50.0	27.9		ug/L		56	24 - 116	0	20
Naphthalene	50.0	35.3		ug/L		71	21 - 133	0	20
2,4-Dichlorophenol	50.0	41.9		ug/L		84	39 - 135	2	20
2,4,6-Trichlorophenol	50.0	47.6		ug/L		95	37 - 144	3	20
Hexachlorocyclopentadiene	50.0	34.8		ug/L		70	10 - 200	4	20
2-Chloronaphthalene	50.0	38.4		ug/L		77	60 - 118	2	20
4-Chloro-3-methylphenol	50.0	42.8		ug/L		86	22 - 147	0	20
2,6-Dinitrotoluene	50.0	49.7		ug/L		99	50 - 158	5	20
2-Nitrophenol	50.0	41.7		ug/L		83	29 - 182	0	20
Dimethyl phthalate	50.0	47.3		ug/L		95	10 - 112	1	20
2,4-Dinitrophenol	50.0	53.3		ug/L		107	10 - 191	5	20
Acenaphthylene	50.0	42.3		ug/L		85	33 - 145	2	20
2,4-Dinitrotoluene	50.0	44.7		ug/L		89	39 - 139	4	20
Acenaphthene	50.0	43.6		ug/L		87	47 - 145	1	20
4-Nitrophenol	50.0	18.9	J	ug/L		38	10 - 132	9	20
Fluorene	50.0	42.6		ug/L		85	59 - 121	4	20
4-Bromophenyl phenyl ether	50.0	52.7		ug/L		105	53 - 127	4	20
Hexachlorobenzene	50.0	51.5		ug/L		103	10 - 152	9	20
Diethyl phthalate	50.0	47.4		ug/L		95	10 - 114	1	20
4-Chlorophenyl phenyl ether	50.0	40.1		ug/L		80	25 - 158	3	20
Pentachlorophenol	50.0	65.1		ug/L		130	14 - 176	13	20
N-Nitrosodiphenylamine	50.0	52.3		ug/L		105	10 - 200	7	20
4,6-Dinitro-2-methylphenol	50.0	56.5		ug/L		113	10 - 181	8	20
Phenanthrene	50.0	48.1		ug/L		96	54 - 120	4	20
Anthracene	50.0	48.3		ug/L		97	27 - 133	4	20
Dibenzofuran	50.0	41.0		ug/L		82		4	
Di-n-butyl phthalate	50.0	50.8		ug/L		102	1 - 118	5	20
Benzidine	50.0	<50		ug/L		29	10 - 200	15	20
Fluoranthene	50.0	52.9		ug/L		106	26 - 137	4	20
Pyrene	50.0	47.1		ug/L		94	52 - 115	2	20
Butyl benzyl phthalate	50.0	48.9		ug/L		98	10 - 152	0	20
Benzo[a]anthracene	50.0	48.3		ug/L		97	33 - 143	2	20
Chrysene	50.0	45.5		ug/L		91	17 - 168	2	20
3,3'-Dichlorobenzidine	50.0	49.8		ug/L		100	10 - 262	5	20
Bis(2-ethylhexyl) phthalate	50.0	45.1		ug/L		90	8 - 158	1	20
Di-n-octyl phthalate	50.0	49.2		ug/L		98	4 - 146	0	20
Benzo[b]fluoranthene	50.0	56.1		ug/L		112	24 - 159	7	20
Benzo[k]fluoranthene	50.0	50.6		ug/L		101	11 - 162	10	20
Benzo[a]pyrene	50.0	52.3		ug/L		105	17 - 163	4	20
Indeno[1,2,3-cd]pyrene	50.0	58.8		ug/L		118	10 - 171	7	20
Dibenz(a,h)anthracene	50.0	55.9		ug/L		112	10 - 227	6	20
Benzo[g,h,i]perylene	50.0	58.4		ug/L		117	10 - 219	6	20
3 & 4 Methylphenol	50.0	38.6		ug/L		77	11 - 150	1	20

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-133882/3-A
Matrix: Water
Analysis Batch: 135037

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 133882

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorophenol	*35*		*10 - 110*
Phenol-d5	*29*		*10 - 110*
Nitrobenzene-d5	*84*		*28 - 110*
2-Fluorobiphenyl	*86*		*31 - 110*
2,4,6-Tribromophenol	*116*		*34 - 116*
Terphenyl-d14	*105*		*20 - 133*

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 500-134046/1-A
Matrix: Water
Analysis Batch: 134048

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 134046

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<5.0		5.0	1.8	mg/L		11/30/11 04:15	11/30/11 09:10	1

Lab Sample ID: LCS 500-134046/2-A
Matrix: Water
Analysis Batch: 134048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 134046

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	40.0	37.2		mg/L		93	78 - 114

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 500-133850/1
Matrix: Water
Analysis Batch: 133850

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.0		5.0	1.6	mg/L			11/27/11 23:16	1

Lab Sample ID: LCS 500-133850/2
Matrix: Water
Analysis Batch: 133850

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	200	200		mg/L		100	80 - 120

Method: SM 5210B - BOD, 5-Day

Lab Sample ID: USB 500-133818/1 USB
Matrix: Water
Analysis Batch: 133818

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			11/23/11 16:15	1

QC Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42555-1

Method: SM 5210B - BOD, 5-Day (Continued)

Lab Sample ID: LCS 500-133818/2
Matrix: Water
Analysis Batch: 133818

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	181		mg/L		91	85 - 115

Certification Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42555-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Chicago	ACLASS	DoD ELAP		ADE-1429
TestAmerica Chicago	ACLASS	ISO/IEC 17025		AT-1428
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	Georgia EPD	4	N/A
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	Kentucky UST	4	66
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina	North Carolina DENR	4	291
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	USDA		P330-09-00027
TestAmerica Chicago	Virginia	NELAC Secondary AB	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60466
Phone: 708.534.5200 Fax: 708.534.5211

EFFECTIVE 7/1/09 OUR NEW ZIP CODE IS 60484

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-42555
Chain of Custody Number:
Page ___ of ___
Temperature °C of Cooler: 2.8

Client: Bodine.
Client Project #: 119356-12
Project Name: IEPA JENNISON WRIGHT
Project Location/State: GRANITE CITY, IL
Lab Project #:
Sampler: Rick Evey
Lab PM: Dick Wright

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. Cool to 4°
7. None
8. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	TSS	OIL & GREASE	TSS & BOD5	SVOCS						Comments
							8	2	8	8						
1		GWOUC(11222011)	11/22/11	1510	2	WW	X	X								POST INF. BAG FILTERS
2		GWOUE(11222011)	11/22/11	1515	3	WW			X	X						EFFLUENT

Turnaround Time Required (Business Days)
1 Day ___ 2 Days ___ 5 Days ___ 10 days ___ 15 Days ___ Other

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	Bodine	11/22/11	1530	[signature]	TestAmerica	11/23/11	1030

Lab Courier:
Shipped: FEDEX
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL Sludge
MS – Miscellaneous
OL Oil
A – Air
SE – Sediment
SO Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments: Custody Seal 319544

Lab Comments:

12/9/2011
TAL 4124 500 (1006)

13

Login Sample Receipt Checklist

Client: Bodine Environmental Services

Job Number: 500-42555-1

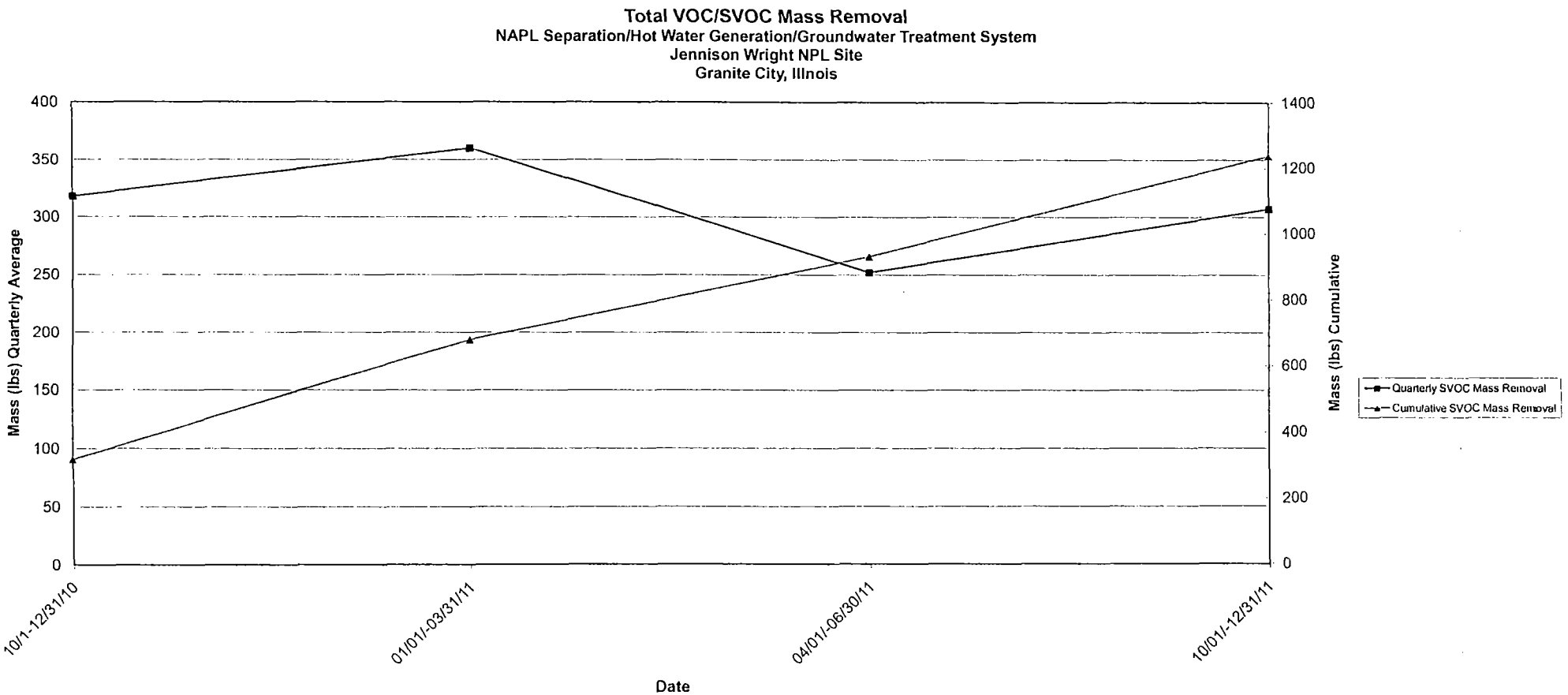
Login Number: 42555
List Number: 1
Creator: Kelsey, Shawn M

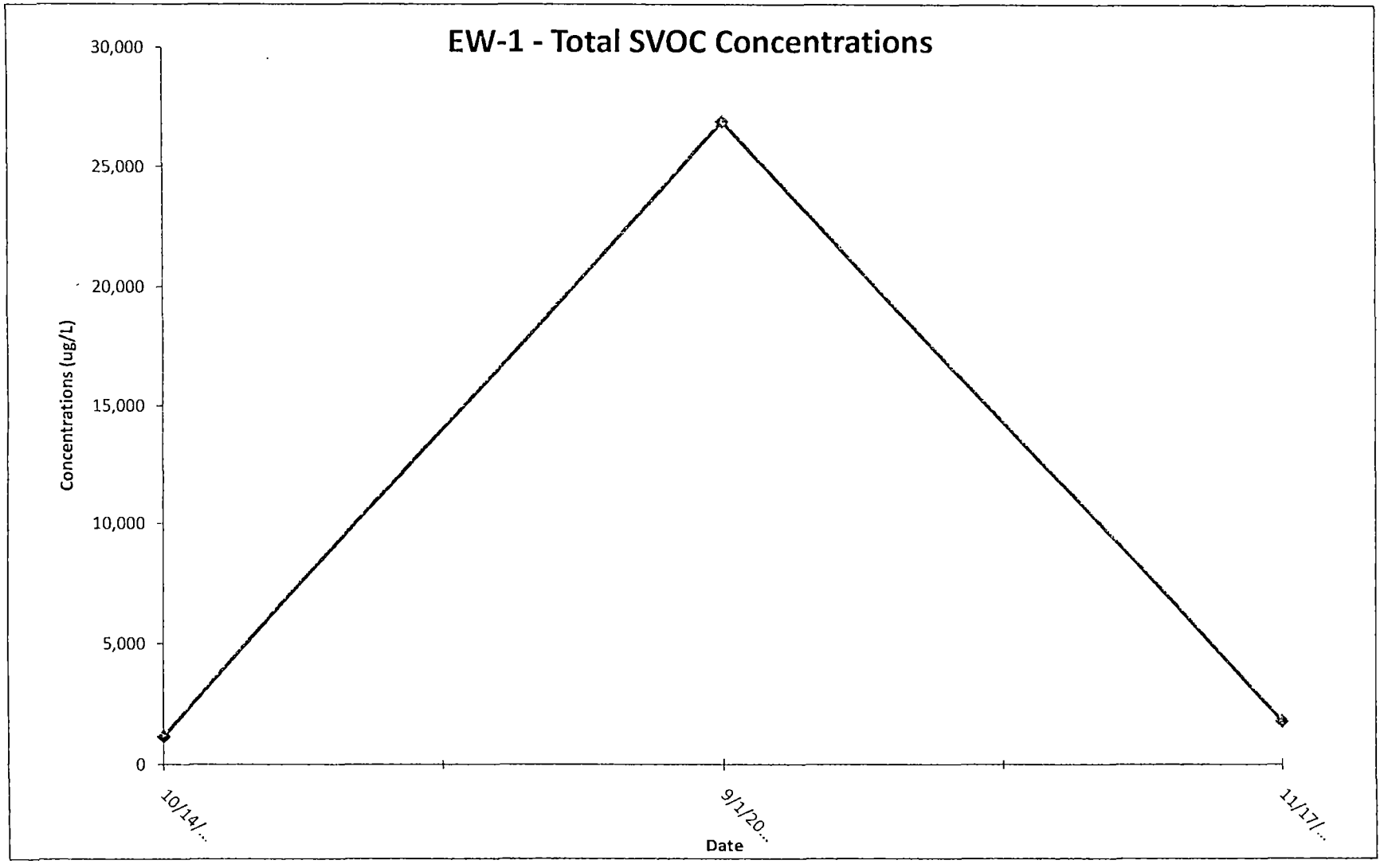
List Source: TestAmerica Chicago

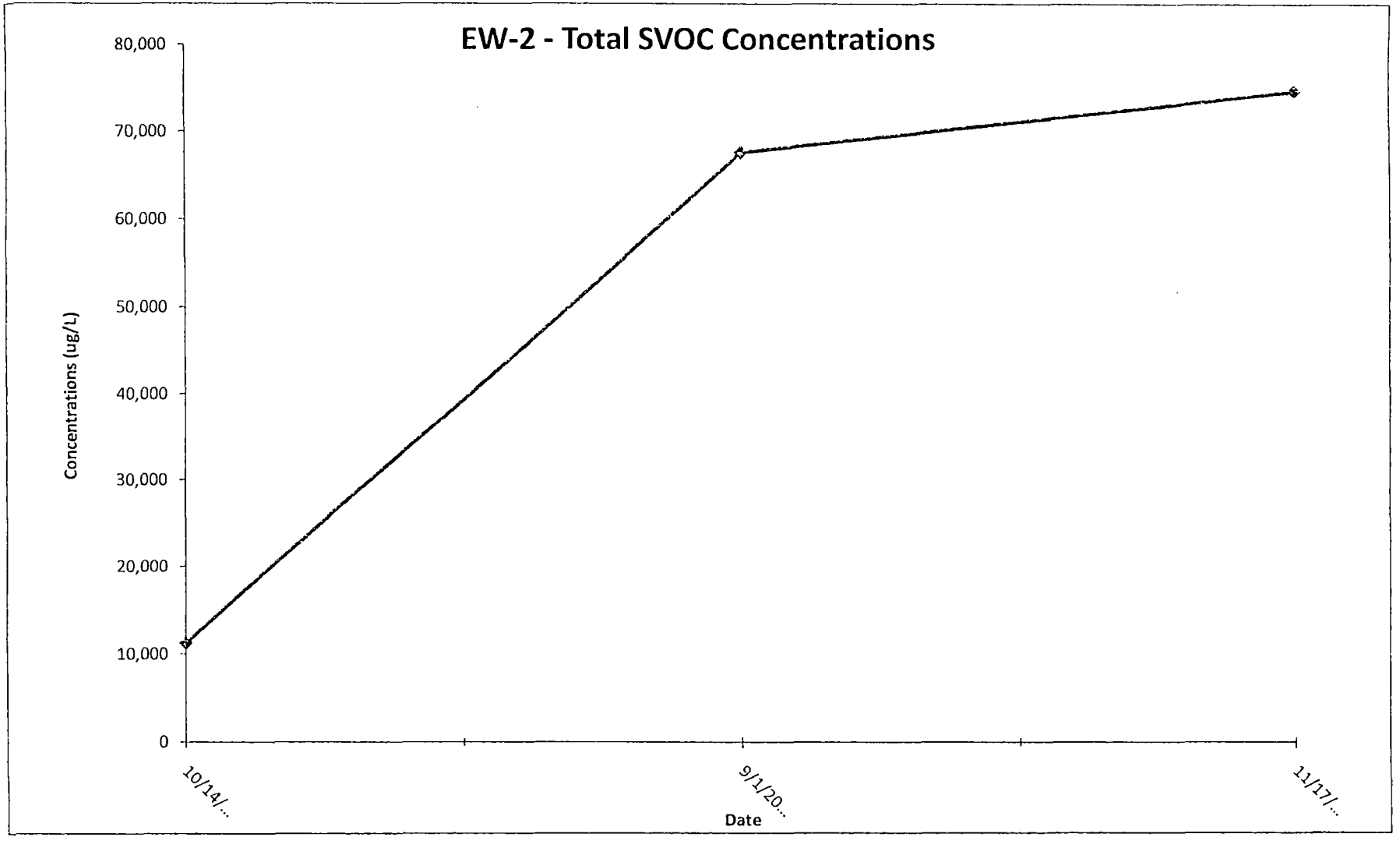
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

APPENDIX H

Cumulative SVOC Removal and SVOC Concentration Graphs


Total VOC/SVOC Mass Removal
NAPL Separation/Hot Water Generation/Groundwater Treatment System
Jennison Wright NPL Site
Granite City, Illnois
Mass (lbs) Quarterly Average
Mass (lbs) Cumulative
400
350
300
250
200
150
100
50
0
1400
1200
1000
800
600
400
200
0
10/1-12/31/10
01/01/-03/31/11
04/01/-06/30/11
10/01/-12/31/11
Date
Quarterly SVOC Mass Removal
Cumulative SVOC Mass Removal


EW-1 - Total SVOC Concentrations
30,000
25,000
20,000
15,000
10,000
5,000
0
Concentrations (ug/L)
10/14/...
9/1/20...
11/17/...
Date


EW-2 - Total SVOC Concentrations
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
Concentrations (ug/L)
10/14/...
9/1/20...
11/17/...
Date

APPENDIX I

November 2011 Groundwater Analytical Results

Method Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42556-1

Method	Method Description	Protocol	Laboratory
8151A	Herbicides (GC)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42556-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-42556-1	MW-8SR	Water	11/22/11 12:03	11/23/11 10:30
500-42556-2	MW-8MR	Water	11/22/11 13:30	11/23/11 10:30

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42556-1

Client Sample ID: MW-8SR

Lab Sample ID: 500-42556-1

Date Collected: 11/22/11 12:03
Date Received: 11/23/11 10:30

Matrix: Water

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	720000		230000	61000	ug/L		11/28/11 11:00	12/01/11 07:56	500000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*0*	*D*	*30 - 110*	*11/28/11 11:00*	*12/01/11 07:56*	*500000*

Client Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42556-1

Client Sample ID: MW-8MR

Lab Sample ID: 500-42556-2

Date Collected: 11/22/11 13:30
Date Received: 11/23/11 10:30

Matrix: Water

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	12		4.7	1.2	ug/L		11/28/11 11:00	12/01/11 00:49	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*29*	*X*	*30 - 110*	*11/28/11 11:00*	*12/01/11 00:49*	*10*

Definitions/Glossary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42556-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42556-1

GC Semi VOA

Prep Batch: 133906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42556-1	MW-8SR	Total/NA	Water	8151A	
500-42556-2	MW-8MR	Total/NA	Water	8151A	
LCS 500-133906/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 500-133906/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	
MB 500-133906/1-A	Method Blank	Total/NA	Water	8151A	

Analysis Batch: 134163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-42556-1	MW-8SR	Total/NA	Water	8151A	133906
500-42556-2	MW-8MR	Total/NA	Water	8151A	133906
LCS 500-133906/2-A	Lab Control Sample	Total/NA	Water	8151A	133906
LCSD 500-133906/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	133906
MB 500-133906/1-A	Method Blank	Total/NA	Water	8151A	133906

Surrogate Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42556-1

Method: 8151A - Herbicides (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DCPA2 (30-110)							
500-42556-1	MW-8SR	0 D							
500-42556-2	MW-8MR	29 X							
LCS 500-133906/2-A	Lab Control Sample	54							
LCSD 500-133906/3-A	Lab Control Sample Dup	82							
MB 500-133906/1-A	Method Blank	53							

Surrogate Legend

DCPA = DCAA

QC Sample Results

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42556-1

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 500-133906/1-A
Matrix: Water
Analysis Batch: 134163

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 133906

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	<0.50		0.50	0.13	ug/L		11/28/11 11:00	11/30/11 22:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCAA	*53*		*30 - 110*	*11/28/11 11:00*	*11/30/11 22:18*	*1*

Lab Sample ID: LCS 500-133906/2-A
Matrix: Water
Analysis Batch: 134163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 133906

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Pentachlorophenol	4.00	2.93		ug/L		73	53 - 110

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCAA	*54*		*30 - 110*

Lab Sample ID: LCSD 500-133906/3-A
Matrix: Water
Analysis Batch: 134163

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 133906

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Pentachlorophenol	4.00	3.13		ug/L		78	53 - 110	7	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCAA	*82*		*30 - 110*

Certification Summary

Client: Bodine Environmental Services
Project/Site: Jennison Wright

TestAmerica Job ID: 500-42556-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Chicago	ACLASS	DoD ELAP		ADE-1429
TestAmerica Chicago	ACLASS	ISO/IEC 17025		AT-1428
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	Georgia EPD	4	N/A
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	Kentucky UST	4	66
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina	North Carolina DENR	4	291
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	USDA		P330-09-00027
TestAmerica Chicago	Virginia	NELAC Secondary AB	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-42556
Chain of Custody Number:
Page ____ of ____
Temperature °C of Cooler: 3.7

Client: BLOOM ENVIRONMENTAL
Client Project #: 119386-12
Project Name: IEPA - JENNISON WRIGHT
Project Location/State: BRAWITH CITY, IL
Lab Project #: 50003448
Sampler: RICK EVEY
Lab PM: RICK WRIGHT

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative: 8 / Parameter: SVOCs-8270	Preservative: 8 / Parameter: PCP 8151								Comments
1		MW-8SR	11/22/11	1205	3	W	X	X								20.0' BGS
2		MW-8MR	11/22/11	1330	3	W	X	X								47.5' BGS

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	Bloom	11/22/11	15:30	[signature]	TA	11/23/11	1630
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped FEDEX
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments
Potentially high concentrations.
MW-8SR – PCP strong odor

Lab Comments:

12/14/2011 (1209)

13

Login Sample Receipt Checklist

Client: Bodine Environmental Services

Job Number: 500-42556-1

Login Number: 42556
List Number: 1
Creator: James, Jeff A

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX J

Groundwater Sampling Forms

Monitoring Well Table
Illinois EPA - 119386
Jennison Wright
Granite City, Illinois

Well ID	Well Depth (bgs	Screen Length (ft)	Well Type	Well Material	Year Installed	Top of Casing Elevation (ft)	Water Level Measurment	GW Sample Frequency	November 2011 Depth to GW	Notes
MW-1S	26	10	MW	2" SS	1988	424.53	Q		18.80	
MW-1D	117	10	MW	2" SS	1988	423.84	Q		18.08	
MW-2S	23	10	MW	2" SS	1988	419.06	Q	A	13.13	
MW-3S	25.4	10	MW	2" SS	1988	422.01	Q		18.20	
MW-3D	115	10	MW	2" SS	1988	422.35	Q		17.32	
MW-4S	28	10	MW	2" SS	1988	423.97	Q		19.10	
MW-5S	27	10	MW	2" SS	1997	424.51	Q	Q	19.09	
MW-5D	110.5	10	MW	2" SS	1997	423.04	Q	Q	17.67	
MW-6M	64.6	10	MW	2" SS	1988	422.79	Q		17.79	
MW-6D	113.5	10	MW	2" SS	1988	422.58	Q		17.82	
MW-8SR	25	10	MW	2" SS	2009	424.35	Q	Q	19.22	
MW-8MR	52.5	10	MW	2" SS	2009	423.69	Q	Q	18.27	
MW-8D	117	10	MW	2' SS	1997	424.57	Q	A	19.92	
MW-9S	24.5	10	MW	2" SS	1997	424.65	Q	A	—	
MW-9M	55	10	MW	2" SS	1997	424.49	Q	A	—	ABANDONED
MW-9D	115	10	MW	2" SS	1997	424.36	Q	A	—	
MW-10SR	28.5	10	MW	2" SS	2003	423.7	Q	A	19.29	
MW-11S	27	10	MW	2" SS	1988	425.23	Q	A	20.96	
MW-11M	55.5	10	MW	2" SS	1997	424.86	Q	A	20.50	
MW-12S	26	15	MW	2" SS	2003	419.72	Q	A	13.85	
MW-13S	28	15	MW	2" SS	2003	424.84	Q	A	19.24	
MW-14S	29.5	15	MW	2" SS	2003	424.58	Q	A	19.22	
MW-15S	29.5	15	MW	2" SS	2003	423.54	Q	A	18.23	
MW-16S	31.5	15	MW	2" SS	2003	423.7	Q	A	18.48	
MW-17S	31	15	MW	2" SS	2003	422.87	Q	Q	17.79	
MW-18S	31	15	MW	2" SS	2003	423.54	Q	Q	18.62	
MW-19S	32	15	MW	2" SS	2003	424.46	Q	A	20.02	
MW-20	119.5	110	MW	2" SS	2009	425.44	Q	Q	19.71	
MW-21	119.5	110	MW	2" SS	2009	424.68	Q	Q	23.56	
MW-22	119.5	110	MW	2" SS	2009	425.31	Q	Q	19.34	
MW-23	119.5	110	MW	2" SS	2009	425.46	Q	Q	19.32	
EW-01	119.5	100	RW	8" SS	2009	419.35	Q	Q	—	
EW-02	119.5	100	RW	8" SS	2009	419.54	Q	Q	—	

KEY:

Q= QUARTERLY
A= ANUALLY
EW= EXTRACTION WELL
SS= STAINLESS STEEL

MW= MONITORING WELL
BGS= BELOW GROUND SURFACE
GW= GROUND WATER
FT= FEET

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Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL BES Job #: 119386-12

Facility Location: Granite City, Illinois

Well ID#: MW-23D Sampling Date: 11/16/2011 Time: 1538 hr

Weather Conditions: CLOUDY Air Temp: 51°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

Purge Method: PERISTALTIC PUMP Purge Date: 11/16/11

A. Well Diameter: 2"=0.167 feet Purge Start: 1507

B. Well Depth: 119.5 feet (from TOC) Purge Stop: 1538

C. Water Level: 19.32 feet (measured) Purge Rate:

D. Height of Water: 100.18 feet (B-C) Volume Purged: 6 gt.

E. Casing Volume: 17.03 gallons (D * 0.17 gal/ft for 2" well, D * 0.66 gal/ft for 4" well) Purged by: BAKER

F. Number of Gallons to Purge: Witness: EVEY

Sampling Date: 11/16/11 Sampling Time: 1539

Sampling Method: LOW FLOW Depth of Sample: 65' bgs

pH: 7.69 Dissolved O_2: 0.23 (mg/l) Spec. Conductivity: 0.866 (umhos)

Temperature: 89.54 °F Metals Filtered ____ Yes ✓ No: Filter size: ____

Sample Appearance: CLEAR

Other notes:

Sampler: EVEY Witness: BAKER

5350 East Firehouse Road ■ Decatur, Illinois 62521-9601 ■ 800/637-2379 ■ FAX 217/864-2086

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WATER QUALITY/STABILIZATION READINGS

WELL ID# MW - 23D

TIME	PURGE VOLUME	TEMP. ° F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
1511	1qt	87.69	0.866	0.75	7.71	19.32
~~[illegible]~~ 1516	2qt.	89.07	0.873	0.51	7.74	19.32
1521	3qt	89.52	0.875	0.37	7.72	19.32
1526	4qt.	89.32	0.870	0.30	7.68	19.32
1532	5qt	89.33	0.865	0.22	7.66	19.32
1538	6qt	89.54	0.866	0.23	7.64	19.30

Additional Comments: SAMPLED AT. 1539

SAMPLED AT 65' BGS

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Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL BES Job #: 119386-12

Facility Location: Granite City, Illinois

Well ID#: MW-17S Sampling Date: 11/16/2011 Time: 1430 hr

Weather Conditions: CLOUDY Air Temp: 48°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

Purge Method: PERISTALTIC PUMP Purge Date: 11/16/11

A. Well Diameter: 2"=0.167 feet Purge Start: 1358

B. Well Depth: 31.00 feet (from TOC) Purge Stop: 1430

C. Water Level: 17.79 feet (measured) Purge Rate:

D. Height of Water: 13.21 feet (B-C) Volume Purged: 6 qt.

E. Casing Volume: 2.25 gallons (D * 0.17 gal/ft for 2" well, D * 0.66 gal/ft for 4" well) Purged by: BAKER

F. Number of Gallons to Purge: Witness: EVEY

Sampling Date: 11/16/11 Sampling Time: 1430

Sampling Method: LOW FLOW Depth of Sample: 23.5 bgs

pH: 7.23 Dissolved O_2: 0.19 (mg/l) Spec. Conductivity: 0.736 (umhos)

Temperature: 61.37 °F Metals Filtered ____ Yes ✓ No: Filter size:

Sample Appearance: CLEAR

Other notes: (DUPLICATE)

Sampler: EVEY Witness: BAKER

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WATER QUALITY/STABILIZATION READINGS

WELL ID# MW-17S

TIME	PURGE VOLUME	TEMP. ° F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
1402	1 qt.	82.43	0.738	0.53	7.18	17.79
1407	2 qt.	87.07	0.737	0.28	7.16	17.79
1413	3 qt.	80.50	0.736	0.27	7.25	17.79
1418	4 qt.	81.79	0.736	0.23	7.24	17.79
1424	5 qt.	81.76	0.738	0.20	7.25	17.79
1430	6 qt.	81.37	0.736	0.19	7.23	17.79

Additional Comments: SAMPLED AT 1430

DUPLICATE SAMPLED AT 23.5 bgs

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Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL BES Job #: 119386-12

Facility Location: Granite City, Illinois

Well ID#: MW-185 Sampling Date: 11/16/2011 Time: 1335 hr

Weather Conditions: Cloudy Air Temp: 47°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

Purge Method: PERISTALTIC PUMP Purge Date: 11/16/11

A. Well Diameter: 2"=0.167 feet Purge Start: 1300

B. Well Depth: 31.00 feet (from TOC) Purge Stop: 1335

C. Water Level: 18.62 feet (measured) Purge Rate:

D. Height of Water: 12.38 feet (B-C) Volume Purged: 7gt

E. Casing Volume: 2.10 gallons (D * 0.17 gal/ft for 2" well, D * 0.66 gal/ft for 4" well) Purged by: BAKER

F. Number of Gallons to Purge: Witness: EVEY

Sampling Date: 11/16/11 Sampling Time: 1341

Sampling Method: LOW FLOW Depth of Sample: 23.5 bgs.

pH: 6.68 Dissolved O_2: 0.41 (mg/l) Spec. Conductivity: 1.342 (umhos)

Temperature: 60.11 °F Metals Filtered ____ Yes ✓ No: Filter size: ____

Sample Appearance: CLEAR

Other notes:

Sampler: EVEY Witness: BAKER

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WATER QUALITY/STABILIZATION READINGS

WELL ID# MW-18S

TIME	PURGE VOLUME	TEMP. ° F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
1305	1 qt.	60.21	1.332	1.21	6.79	18.62
1309	2 qt.	60.20	1.342	0.86	6.77	18.62
1313	3 qt.	60.53	1.343	0.55	6.75	18.62
1317	4 qt.	60.27	1.342	0.45	6.73	18.62
1321	5 qt.	59.96	1.343	0.47	6.69	18.62
1327	6 qt.	60.10	1.342	0.40	6.67	18.62
1335	7 qt.	60.11	1.342	0.41	6.68	18.62

Additional Comments: SAMPLED AT 1341

SAMPLED AT 23.5 bgs

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Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL BES Job #: 119386-12

Facility Location: Granite City, Illinois

Well ID#: MW-8SR Sampling Date: 11/16/2011 Time: 1045 hr

Weather Conditions: cloudy Air Temp: 48°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

Purge Method: PERISTALTIC PUMP Purge Date: 11/16/11

A. Well Diameter: 2"=0.167 feet Purge Start: 1041

B. Well Depth: 25.00 feet (from TOC) Purge Stop: 1119

C. Water Level: 19.22 feet (measured) Purge Rate:

D. Height of Water: 5.78 feet (B-C) Volume Purged: 7 gal.

E. Casing Volume: 0.98 gallons (D * 0.17 gal/ft for 2" well, D * 0.66 gal/ft for 4" well) Purged by: BAKER

F. Number of Gallons to Purge: Witness: EVEY

Sampling Date: 11/16/11 Sampling Time: 1121

Sampling Method: LOW FLOW Depth of Sample: 20' bgs

pH: 6.10 Dissolved O_2: 0.57 (mg/l) Spec. Conductivity: 1,106 (umhos)

Temperature: 59.10 °F Metals Filtered ____ Yes ✓ No: Filter size:

Sample Appearance: CLEAR

Other notes:

Sampler: EVEY Witness: BAKER

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WATER QUALITY/STABILIZATION READINGS

WELL ID# MW-8SR

TIME	PURGE VOLUME	TEMP. ° F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
1045	1 qt.	58.56	1.098	2.26	5.89	19.22
1049	2 qt.	58.75	1.102	2.22	6.03	19.22
1054	3 qt.	58.82	1.106	1.46	6.09	19.22
1059	4 qt.	59.59	1.104	0.89	6.10	19.22
1104	5 qt.	59.09	1.105	0.53	6.10	19.22
1110	6 qt.	59.08	1.107	0.57	6.09	19.22
1119	7 qt.	59.10	1.106	0.57	6.10	19.22

Additional Comments: SAMPLED AT 1121

SAMPLED AT 20' [illegible] bgs.

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Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL BES Job #: 119386-12

Facility Location: Granite City, Illinois

Well ID#: MW-8MR Sampling Date: 11/16/2011 Time: 1015 hr

Weather Conditions: cloudy Air Temp: 45°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

Purge Method: PERISTALTIC PUMP Purge Date: 11/16/11

A. Well Diameter: 2"=0.167 feet Purge Start: 0941

B. Well Depth: 52.50 feet (from TOC) Purge Stop: 1015

C. Water Level: 18.27 feet (measured) Purge Rate:

D. Height of Water: 34.23 feet (B-C) Volume Purged: 7 gt.

E. Casing Volume: 5.82 gallons (D * 0.17 gal/ft for 2" well, D * 0.66 gal/ft for 4" well) Purged by: BAKER

F. Number of Gallons to Purge: Witness: EVEY

Sampling Date: 11/16/11 Sampling Time: 1032

Sampling Method: Low Flow Depth of Sample: 47.5' bgs

pH: 6.29 Dissolved O_2: 1.02 (mg/l) Spec. Conductivity: 0.783 (umhos)

Temperature: 56.03 °F Metals Filtered ____ Yes ✓ No: Filter size:

Sample Appearance: CLEAR

Other notes:

Sampler: EVEY Witness: BAKER

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WATER QUALITY/STABILIZATION READINGS

WELL ID# MW - 8MR

TIME	PURGE VOLUME	TEMP. ° F	SPEC. COND. (µmhos)	DO (mg/L)	pH	WATER LEVEL
0946	1 qt.	55.82	0.782	1.64	6.1	18.27
0950	2 qt.	56.46	0.784	1.27	6.24	18.27
0955	3 qt.	56.08	0.786	1.15	6.31	18.27
0959	4 qt.	56.49	0.783	1.09	6.24	18.27
1004	5 qt.	55.75	0.786	1.10	6.23	18.27
1009	6 qt.	55.91	0.784	1.01	6.30	18.27
1015	7 qt.	56.03	0.783	1.02	6.29	18.27

Additional Comments: SAMPLED AT 1032

SAMPLED AT 47.5' bgs

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Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL BES Job #: 119386-12

Facility Location: Granite City, Illinois

Well ID#: MW-20D Sampling Date: 11/17/2011 Time: 1314 hr

Weather Conditions: SUNNY Air Temp: 46°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

Purge Method: PERISTALTIC PMP Purge Date: 11/17/11

A. Well Diameter: 2"=0.167 feet Purge Start: 1241

B. Well Depth: 119.5 feet (from TOC) Purge Stop: 1311

C. Water Level: 19.71 feet (measured) Purge Rate:

D. Height of Water: 99.79 feet (B-C) Volume Purged: 6 gt.

E. Casing Volume: 16.96 gallons (D * 0.17 gal/ft for 2" well, D * 0.66 gal/ft for 4" well) Purged by: BAKER

F. Number of Gallons to Purge: Witness: EVET

Sampling Date: 11/17/11 Sampling Time: 1314

Sampling Method: LOW FLOW Depth of Sample: 65' bgs

pH: 7.30 Dissolved O_2: 0.35 (mg/l) Spec. Conductivity: 0.875 (umhos)

Temperature: 85.30 °F Metals Filtered ____ Yes X No: Filter size: ____

Sample Appearance: CLEAR

Other notes:

Sampler: EVET Witness: BAKER

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WATER QUALITY/STABILIZATION READINGS

WELL ID# MW- ~~20D~~ 20D

TIME	PURGE VOLUME	TEMP. ° F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
1246	1 qt	82.97	0.873	1.06	7.36	19.71
1251	2 qt	85.19	0.878	0.73	7.34	19.71
1256	3 qt	84.94	0.882	0.56	7.34	19.71
1301	4 qt	84.63	0.876	0.46	7.29	19.71
1306	5 qt	84.83	0.878	0.39	7.12	19.71
1311	6 qt	85.30	0.875	0.35	7.30	19.71

Additional Comments: Sampled @ 1314
Sampled @ 65' BGS

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Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL BES Job #: 119386-12

Facility Location: Granite City, Illinois

Well ID#: MW-55 Sampling Date: 11/17/2011 Time: 1015 hr

Weather Conditions: SUNNY Air Temp: 37°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

Purge Method: PERISTALTIC PUMP Purge Date: 11/17/11

A. Well Diameter: 2"=0.167 feet Purge Start: 0940

B. Well Depth: 27.00 feet (from TOC) Purge Stop: 1015

C. Water Level: 19.09 feet (measured) Purge Rate:

D. Height of Water: 7.91 feet (B-C) Volume Purged: 7 gal.

E. Casing Volume: 1.34 gallons (D * 0.17 gal/ft for 2" well, D * 0.66 gal/ft for 4" well) Purged by: BAKER

F. Number of Gallons to Purge: Witness: EVEY

Sampling Date: 11/17/11 Sampling Time: 1017

Sampling Method: LOW FLOW Depth of Sample: 22' bgs

pH: 7.12 Dissolved O_2: 0.14 (mg/l) Spec. Conductivity: 0.797 (umhos)

Temperature: 09.63 °F Metals Filtered ____ Yes X No: Filter size: ____

Sample Appearance: CLEAR

Other notes:

Sampler: EVEY Witness: BAKER

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WATER QUALITY/STABILIZATION READINGS

WELL ID# MW-5S

TIME	PURGE VOLUME	TEMP. ° F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
0947	1 QT	88.48	0.801	0.57	7.25	19.09
0952	2QT	88.78	0.799	0.34	7.23	19.09
0956	3QT	89.16	0.798	0.23	7.19	19.09
1001	4QT	90.02	0.798	0.25	7.17	19.09
1006	5QT	90.20	0.798	0.18	7.17	19.09
1011	6QT	89.95	0.797	0.15	7.15	19.09
1015	7 QT.	89.63	0.797	0.14	7.12	19.09

Additional Comments: Sampled @ 1017
Sampled @ 22' BGS

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Monitoring Well Sampling Form

Client: IEPA/Jennison Wright NPL BES Job #: 119386-12

Facility Location: Granite City, Illinois

Well ID#: MW-22D Sampling Date: 11/17/2011 Time: 0857hr

Weather Conditions: SUNNY Air Temp: 34°

Observations Upon Opening Well (damage, unlocked, odors, PID, casing condition, frost heave)

Purge Method: PERISTALTIC PUMP Purge Date: 11/17/11

A. Well Diameter: 2"=0.167 feet Purge Start: 0852

B. Well Depth: 119.5 feet (from TOC) Purge Stop: 0921

C. Water Level: 19.34 feet (measured) Purge Rate:

D. Height of Water: 100.16 feet (B-C) Volume Purged: 7 gt.

E. Casing Volume: 17.03 gallons (D * 0.17 gal/ft for 2" well, D * 0.66 gal/ft for 4" well) Purged by: BAKER

F. Number of Gallons to Purge: Witness: EVEY

Sampling Date: 11/17/11 Sampling Time: 0922

Sampling Method: LOW FLOW Depth of Sample: 65' bgs

pH: 7.71 Dissolved O_2: 0.28 (mg/l) Spec. Conductivity: 0.954 (umhos)

Temperature: 38.71 °F Metals Filtered ____ Yes X No: Filter size: ____

Sample Appearance: CLEAR

Other notes:

Sampler: EVEY Witness: BAKER

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WATER QUALITY/STABILIZATION READINGS

WELL ID# MW-[redacted]12D

TIME	PURGE VOLUME	TEMP. ° F	SPEC. COND. (umhos)	DO (mg/L)	pH	WATER LEVEL
0857	1QT	86.98	0.952	0.83	7.74	19.71
0900	2QT	88.04	0.955	0.70	7.75	19.71
0905	3QT	88.30	0.960	0.60	7.73	19.71
0909	4QT	88.52	0.960	0.56	7.73	19.71
0913	5QT	88.54	0.960	0.39	7.72	19.71
0917	6QT	88.91	0.961	0.31	7.69	19.71
0921	7qt.	88.71	0.954	0.28	7.71	19.71

Additional Comments: SAMPLED @ 0922

SAMPLED @ 65'BGS

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APPENDIX K

Photograph Log

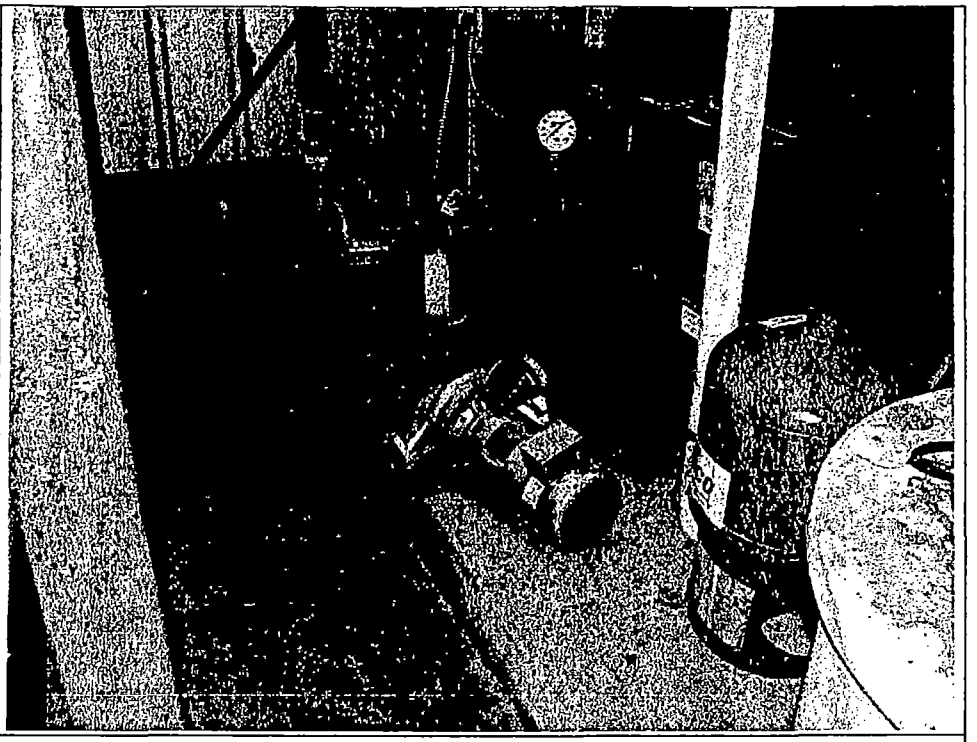
Photo #1	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
October 26, 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo of the new recirculation pump (M-3).

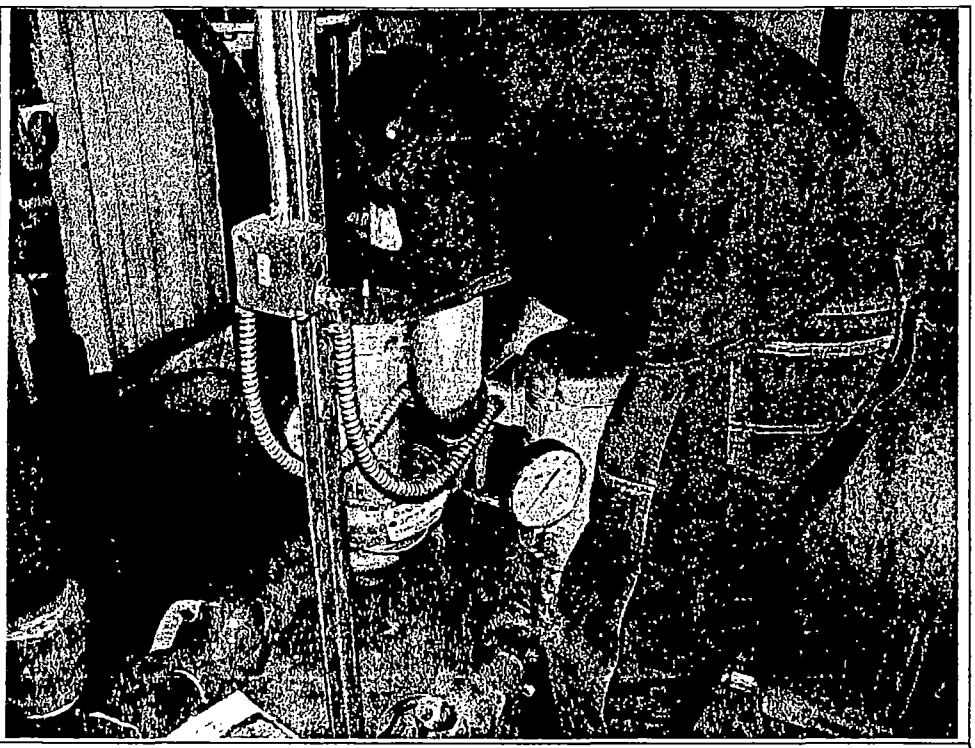
Photo #2	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
October 26, 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo of the recirculation pump (M-3) being installed by Amsco Mechanical.

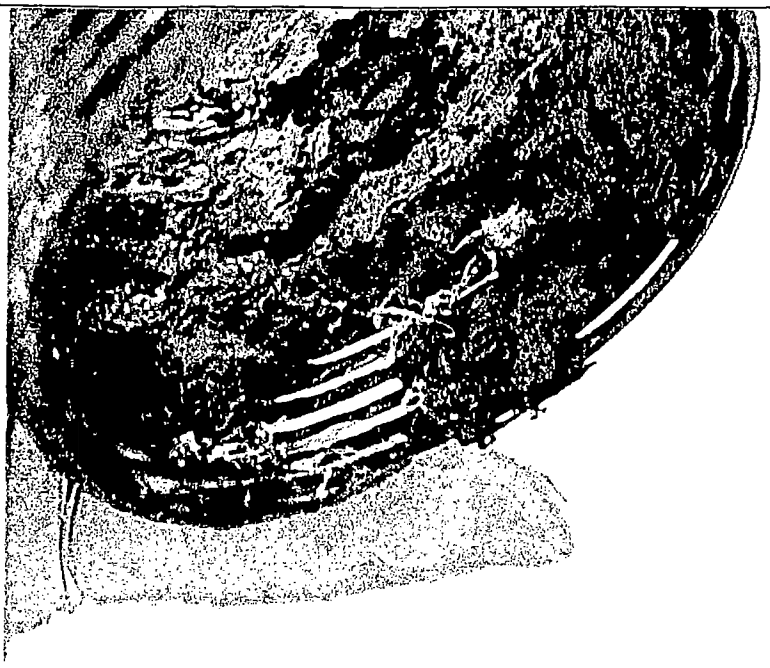
Photo #3	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
October 26, 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo of a damaged nipple on the discharge side of the heat exchanger pump.

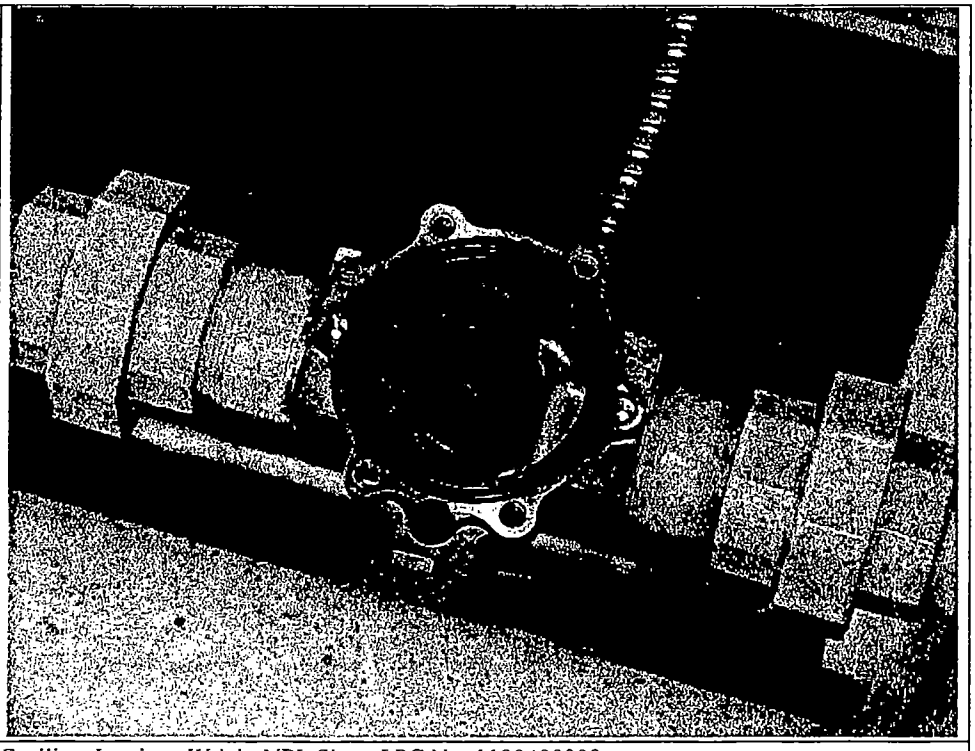
Photo #4	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
October 26, 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo indicating the DNAPL solenoid is clogged with DNAPL sludge.

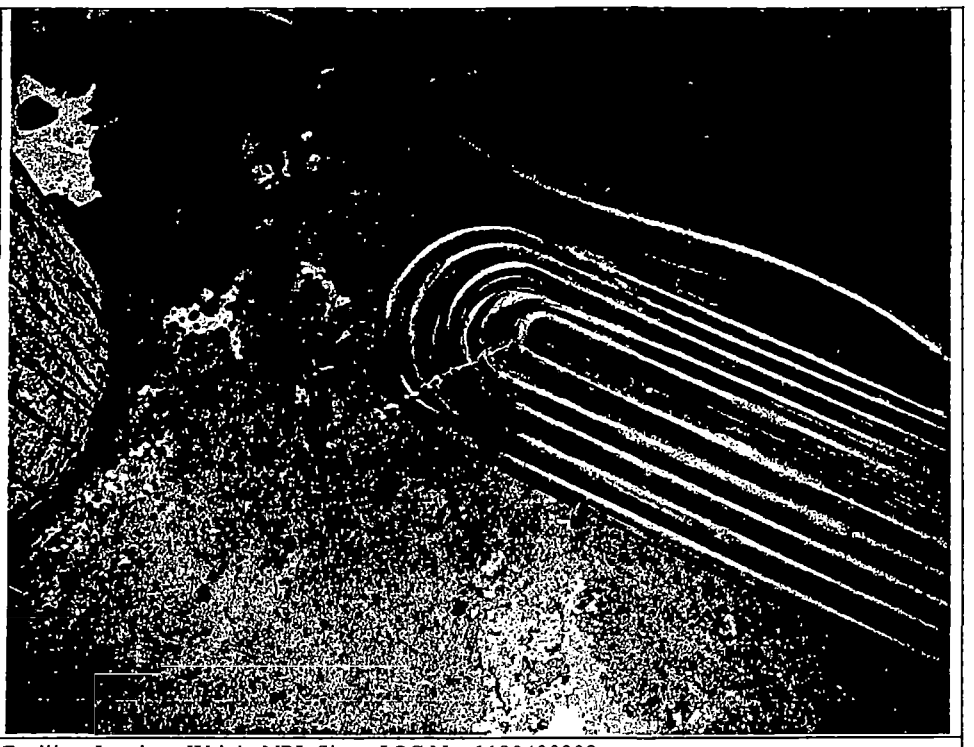
Photo #5	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
November 15, 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A view of the heat exchanger tubing undergoing a water test and displaying where the hole in the tube is located.

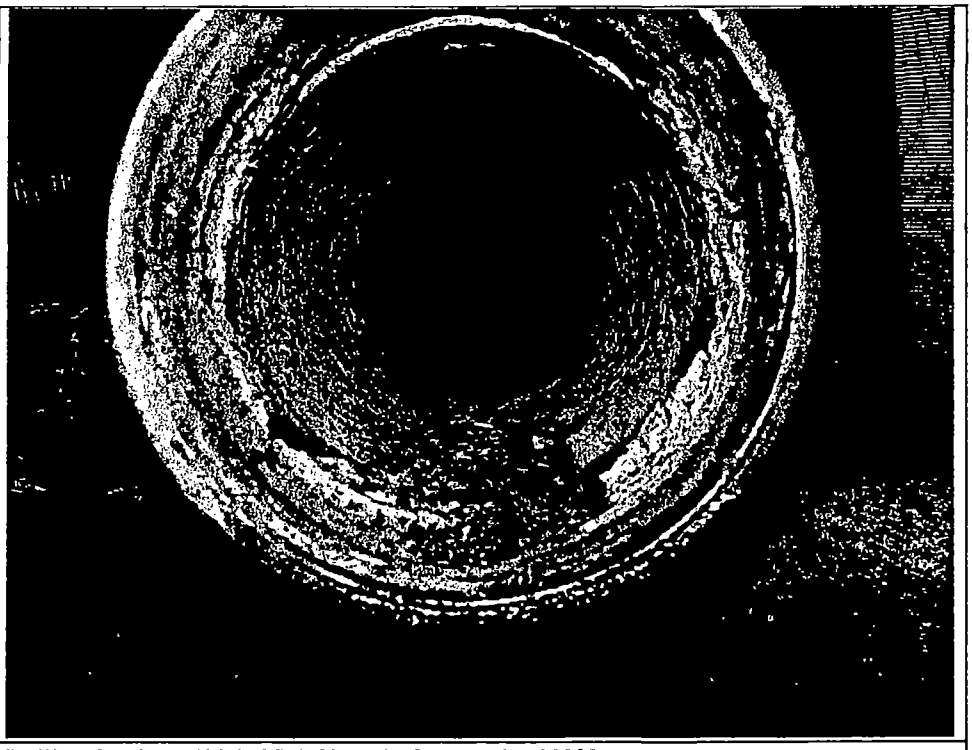
Photo #6	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
November 15, 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo indicating the scaling of the pipes after the heat exchanger.

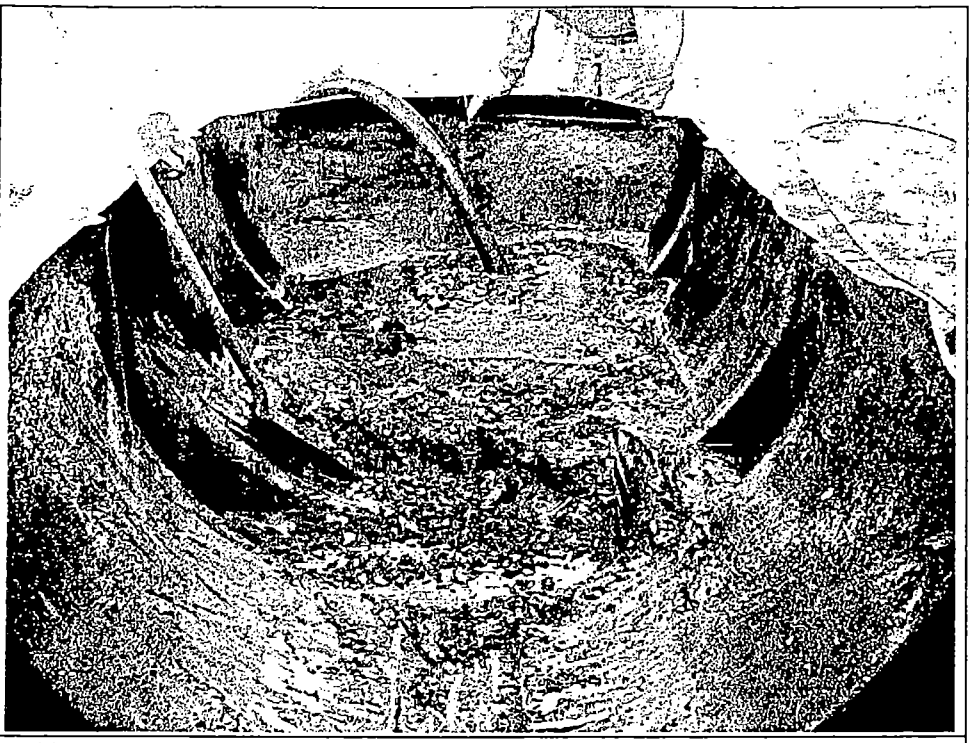
Photo #7	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
November 15, 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo of the solids in the poly tank used for cleaning the injection wells.

Photo #8	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
November 16, 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street. Granite City, Illinois
	Description: A view of the heat exchanger tubing after the damaged tubing was cut and brazed together.

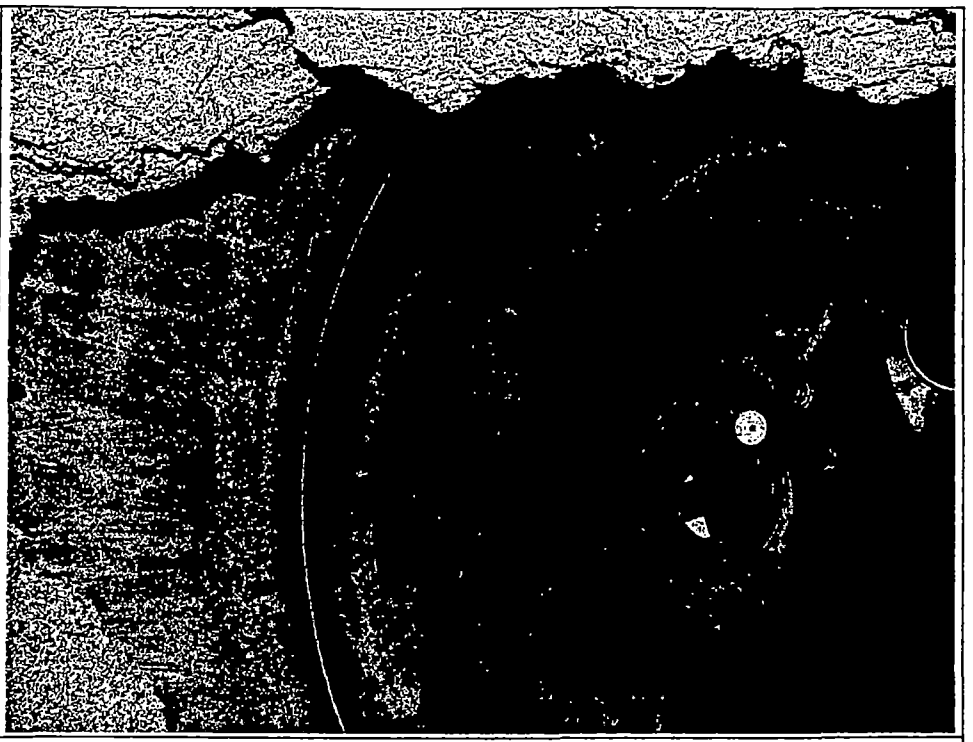
Photo #9	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
December 13, 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A view inside the organoclay tank during cleaning activities.

Photo #10	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Rick Evey	
December 14, 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: Additional view inside the organoclay tank during cleaning activities.

Photo #11	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Troy M. McFate	
August 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo of the new ball valve installed on line to recirculation pump M3.

Photo #12	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Troy M. McFate	
August 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo of the new injection port for the biocide.

Photo #13	

Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Troy M. McFate	
August 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo of the new air vent for the influent line.

Photo #14	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Troy M. McFate	
August 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo of the oil water separator weir plate after it has been leveled.

Photo #15	

Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Troy M. McFate	
September 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo of the new stainless steel media for the oil water separator.

Photo #16	
Illinois Environmental Protection Agency	
Subject: Jennison Wright NPL Site Remediation	
Taken by: Troy M. McFate	
September 2011	
Bodine Project No. 119386	Facility: Jennison Wright NPL Site – LPC No. 1190400008
	Location: 900 W. 22nd Street, Granite City, Illinois
	Description: A photo of the damaged electrical leads on the EW-1 submersible pump.