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REPORT ON CAMU PILOT SPRAY EVAPORATION SYSTEM

Introduction

United States Steel Corporation (USS) operates a Corrective Action Management Unit (CAMU) at its Gary Works facility in Gary, Indiana. It was constructed as a facility to passively dewater the non-native sediment slurry received during the Grand Calumet River dredging project. CAMU waters which include supernatant, leak detection and leachate had been treated in a dedicated water treatment plant (WTP) operating under National Pollution Discharge Elimination System (NPDES) Permit #IN0061007 prior to their discharge to the Grand Calumet River. The Indiana Department of Environmental Management (IDEM) administers the NPDES program in Indiana. The permit was renewed effective December 1, 2006 with a three-year compliance schedule to achieve new ammonia limits and a five-year compliance schedule to achieve new mercury limits. The permit expires on November 30, 2011. The ammonia compliance deadline was November 30, 2009. The mercury compliance coincides with the permit's expiration date of November 30, 2011.

Evaluated Ammonia Compliance Systems

USS evaluated five systems to achieve compliance with ammonia. These systems included (1) rerouting the Water Treatment Plant (WTP) effluent to the C-Lot Lagoons, (2) zeolite adsorption, (3) break-point chlorination, (4) air stripping and (5) evaporation. Compliance reports, describing the systems evaluated and the direction the compliance effort was taking and the progress made toward compliance were submitted to IDEM after 9 months, 18 months and 27 months. In the 18 month report, the focus was on breakpoint chlorination and air stripping. The spray system was first mentioned as the most viable option in the 27 month compliance progress report.

Rerouting to the C-Lot lagoons provided no treatment for ammonia and required the CAMU permit to become an integral part of the Gary Works permit which was, at the time, in the renewal process. This option received no further consideration.

Zeolite adsorption was rejected based on the daily volume of waste generated requiring management and disposal. While the process can remove as much as 99% of the targeted constituent, (ammonia) the process requires regeneration of the zeolite material with a brine solution. At the CAMU, this would result in 1,300 to 2,400 pounds of zeolite waste produced daily, and potentially introduce new constituents to the discharge from the WTP in the additional water required for resin regeneration..

Break-point chlorination was given the most consideration and was reported to Indiana Department of Environmental Management (IDEM) as a probable compliance method. However, the resulting increase of chlorides required by the process in the effluent posed toxicity concerns and possible limits for total residual chlorine (TRC). Installation of the break-point chlorination equipment, storage and use of additional chemicals and the changes in effluent would also have required a modification to the existing permit.

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Air Stripping was not considered further because it would require additional permitting as an air point source emission and was not a cost effective alternative. While in the long-term air stripping may have a cost advantage when compared to break-point chlorination, those savings would never be realized because the CAMU would be dewatered before that point was reached.

Evaporation System

USS determined that the most cost effective and environmentally sound solution to achieve compliance was an evaporation spray system that would also eliminate all discharges to the Grand Calumet River. To accomplish this, USS would pump a certain volume of water from the leachate collection systems (LCS) of the CAMU and spray the water through a system of sprinklers on the floor of CAMU Unit 2. The subsequent evaporation and transpiration of water via plant growth, would maintain and fulfill all operating requirements of the CAMU's water management systems. In consideration of possible air emissions, USS calculated their potential using a spray rate of 400 GPM with 100% immediate evaporation. It was determined that any potential emissions met the Indiana criteria of an insignificant amount as defined in 326 IAC 2-7-1(21) of Article 2 IDEM Air Permit Review Rules. USS performed these calculations for the hazardous air pollutants (HAPs) in the Leachate above their respective reporting limits. Analysis of ammonia was run separately as there are no air standards governing this. Based on the results of these analyses, USS chose a spray evaporation system to manage the remaining water in the CAMU. It should be noted that since the pilot spray system started operating, the parameter concentrations upon which the air emissions were calculated have undergone significant decreases. Tables 1A and 2A show the calculated emissions for the detected HAPS in the leachate with no GAC treatment.

Table 1A

HAPS Pollutant	µg/L	lb/L	Lbs/day	Tons/year
Benzene	1300	2.86E-06	3.892	0.7103
Ethylbenzene	9.7	2.13E-08	0.029	0.0053
Toluene	24	5.28E-08	0.072	0.0131
Total Xylenes	29	6.38E-08	0.087	0.0158
Dibenzofuran	61	1.34E-07	0.183	0.0333
Naphthalene	610	1.34E-06	1.826	0.3333
Phenol	160	3.52E-07	0.479	0.0874
TOTAL			6.567	1.1986

Table 1A results are calculated using a flow rate of 250 GPM to the sprinklers, operating for 24 hours for 365 days per year, with no GAC treatment.

Table 1B

HAPS Pollutant	µg/L	lb/L	Lbs/day	Tons/year
Benzene	1300	2.86E-06	6.227	1.1364
Ethylbenzene	9.7	2.13E-08	0.046	0.0085
Toluene	24	5.28E-08	0.115	0.0210
Total Xylenes	29	6.38E-08	0.139	0.0254
Dibenzofuran	61	1.34E-07	0.292	0.0533
Naphthalene	610	1.34E-06	2.922	0.5332
Phenol	160	3.52E-07	0.766	0.1399
TOTAL			9.741	1.9177

Table 1B results are calculated using a flow rate of 400 GPM to the sprinklers, operating for 24 hours for 365 days per year, with no GAC treatment.

The calculated potential volume of emissions from the system can be controlled by adjusting the flow rate to the sprinkler array. Table 1A results are based on a flow rate of 250 GPM; Table 1B results on 400 GPM. At 400 GPM, benzene at concentration of 1,300 μg/l, exceeds the annual limit, but does not exceed at the lower rate (250 GPM) as shown in Table 1A. Therefore, the system can be operated at an increased flow rate and remain classified as "insignificant activity". Table 1C shows the emissions based on a flow rate of 350 GPM.

Table 1C

HAPS Pollutant	µg/L	lb/L	Lbs/day	Tons/year
Benzene	1300	2.86E-06	5.449	0.9944
Ethylbenzene	9.7	2.13E-08	0.041	0.0074
Toluene	24	5.28E-08	0.101	0.0184
Total Xylenes	29	6.38E-08	0.122	0.0222
Dibenzofuran	61	1.34E-07	0.256	0.0467
Naphthalene	610	1.34E-06	2.557	0.4666
Phenol	160	3.52E-07	0.671	0.1224
TOTAL			9.194	1.6780

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Pilot Evaporation System Operation

Until starting the pilot evaporation system, all water directed to the WTP was the supernatant accumulated from the dredging process. However, the availability of surface water in the CAMU and leachate water from the LCS would soon become insufficient to allow continuous operation of the WTP with any source of CAMU water. At the dewatering rate observed in CAMU Unit 1, and the estimated volume remaining in the Unit 2, LCS discharges from the CAMU via the WTP will become intermittent at best by the end 2010. The dwindling supply of water available for treatment rendered any system to treat ammonia useless and obsolete shortly after installation. No system for ammonia treatment would have sufficient operating time to become cost-effective.

USS initiated the pilot evaporation system on October 15, 2009. Prior to its startup, USS notified IDEM and received acknowledgement and permission to proceed. Operations were suspended in the latter part of November 2009 and resumed with modifications on April 6, 2010. These modification included:

1. Increased distance between sprinkler heads to eliminate overlap of the spray. Sprinklers are now 20 feet apart with a designed spray radius of 9 feet three inches.
2. Segmentation of the sprinkler feed pipe to allow portability for easy relocation of the system as conditions in the CAMU dictate.
3. Installation of granulated activated carbon (GAC) filtration prior to the spray system to remove all volatile and Semivolatile Organic Compounds (VOC, SVOC).
4. Installation of passive air monitoring devices for ammonia emissions.
5. Routine sampling of the influent to and the effluent from the GAC units to monitor the quality of the fluids directed to the spray system. BTEX, selected SVOCs and ammonia are monitored weekly, metals are sampled monthly and the full Appendix IX suite is sampled quarterly.
6. Air monitoring for Benzene, Ethylbenzene, Toluene, Xylenes (BTEX) an Naphthalene was performed at the CAMU and nearby residential neighborhoods during spray operations.

The second system implementation was, by agreement with US EPA, a pilot operation for 90 days. Upon completion of the pilot phase this report, detailing the system performance and results of the pilot program is to be submitted to US EPA with the recommended modifications to the CAMU Operating and Maintenance (O&M) Plan to allow the system to operate as needed on a permanent basis.

On January 10, 2010 USS received comments and a request for additional information concerning the pilot system. USS addressed those issues on March 1, 2010. EPA's comments covered virtually all aspects of the operation. Those comments and USS's responses are attached as Appendix 1.

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Operational Constraints

USS operated the pilot spray system under certain constraints put in place to ensure maximum environmental protection and consistency for information acquisition. These constraints included:

1. Spray system operations occurred only while air monitoring at the CAMU was conducted. This provided accurate monitoring of any VOC emissions that might emanate from evaporating leachate.
2. The duration of system operations was limited to three days per week for no more than eight hours per day. This provided consistency of all data collected, especially air monitoring data.
3. Flow rate to the spray system was limited to 250 GPM.
4. Addition of GAC filtration to remove any VOCs and SVOCs present in the leachate.

System Resumption

USS resumed operating the pilot system on April 6, 2010 and discontinued operations at the end of the pilot period on July 1, 2010. The system did not operate for one week in May and operated only two days during one week in June to total 35 days. The flow rate to the system was 250 gallons per minute (GPM) for a calculated total daily volume of 120,000 gallons per day. The 35 days of operation the during pilot period resulted in a total of 4,200,000 gallons of leachate removed from Unit 1, treated with GAC to remove VOCs and SVOCs and sprayed inside Unit 2. During the operation USS completed twelve sampling rounds of the LCS for BTEX, certain SVOCs (2,4 Dimethylphenol, Acenaphthene, Fluorene, Naphthalene, Phenanthrene), three sampling events for metals and PCBs and one event for the Appendix IX parameters. These parameters were selected based on the reporting requirements of (NPDES) Permit No. IN0061007 which governed the CAMU discharges. These are the parameters with specific discharge limits.

BETX

BTEX samples were collected three times on the first day of operation each week as a substitute for an 8-hr composite sample. The first sample was collected upon system start up, the second approximately four hours later and the third prior to system shutdown, 8 hours after the initial start. Analytical work was expedited at 24 hours to allow for an expedited response to any potential problems. During the pilot test, BETX was sampled three times on 12 occasions (36 total samples) and SVOCs 12 times. In addition, ammonia was sampled 12 times, metals three times, PCBs three times and the Appendix IX parameters one time. Complete analytical data reports from the lab (TestAmerica) are included in Appendix 2.

BTEX concentrations in the leachate decreased somewhat after the first 3 weeks of operation, then stabilized and remained at lower concentrations. The amount of concentration decrease was not uniform and varied according to constituent. However,

any concentration decrease of these constituents was not considered in the design of the system, nor was it included in any evaluation of the system for ammonia compliance. This unanticipated concentration decrease is considered a favorable occurrence. The influent and effluent analytical results are shown in Tables 2A and 2B.

As stated above, BETX concentrations in the leachate influent to the CAG showed a decrease following the initial restart of the system. During the operation, the rate of decrease slowed as the following tables and charts show. BETX effluent from the GAC was generally not detected until the carbon became saturated with Benzene. Benzene was detected in low concentrations starting on May 24, 2010. Detections continued until the carbon could be replaced. Replacement occurred on June 18. No other BETX compound was detected in the GAC effluent during this time. Additionally, no air exceedences were recorded from any of the air monitors at the CAMU.

Benzene concentrations in the leachate showed the greatest percentage of decrease based on the results for the 8-hr average. Benzene showed an average leachate concentration decrease of 44.4%, Ethylbenzene 16.9%, Toluene 23.4% and Xylenes 16.9%.

Table 2A BTEX 8-Hr GAC Influent Sample Results (μg/l)

	4/6	**4/12**	**4/26**	**5/4**	**5/10**	**5/18**	**5/24**	**6/2**	**6/8**	**6/15**	**6/21**	**6/29**
Benzene	1177	2833	2567	1433	1167	1200	1267	1233	1200	1867	1467	1500
Ethylbenzene	11.8	19	22.3	19.3	20.7	18.3	18.7	18.7	18.7	19.3	18	18
Toluene	28	52	54	45	43	37	38	37	37	45	41	42
Xylenes	32	55	62	53	56	50	51	51	52	53	50	50

Table 2B BETX 8-Hr GAC Effluent Sample Results (μg/l)

	4/6	**4/12**	**4/26**	**5/4**	**5/10**	**5/18**	**5/24**	**6/2**	**6/8**	**6/15**	**6/21**	**6/29**
Benzene	ND	ND	ND	ND	ND	ND	**9**	**11**	**167**	**35**	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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SVOCs

The monitored SVOCs did not behave as the BTEX compounds. There was no significant decline in their concentrations and no significant trend to the concentrations over time. The following two tables (3A and 3B) show the monitoring results. SVOC concentrations appeared more random, never displaying a trend of any kind. Fluorene and Phenanthrene were detected only three and two times respectively. The other SVOCs, (2,4 Dimethylphenol, Acenaphthene and Naphthalene were detected each sampling event.

Table 3A SVOC Weekly GAC Influent Results (μg/l)

	4/6	4/12	4/26	5/4	5/10	5/18	5/24	6/2	6/8	6/15	6/21	6/29
2,4 DMP*	150	160	150	140	120	130	130	110	230	19	140	50
Acenaphthene	240	240	250	230	220	210	250	110	400	210	210	240
Fluorene	53	ND	ND	ND	ND	ND	ND	49	130	ND	ND	ND
Naphthalene	800	860	1000	1000	980	600	1600	930	1200	750	810	1000
Phenanthrene	21	ND	ND	ND	ND	ND	ND	20	ND	ND	ND	ND

Table 3B SVOC Weekly GAC Effluent Results (μg/l)

	4/6	4/12	4/26	5/4	5/10	5/18	5/24	6/2	6/8	6/15	6/21	6/29
2,4 DMP*	ND	ND	ND	ND	ND	ND	ND	ND	19	11	ND	ND
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	53	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

*2,4 Dimethylphenol

2,4 Dimethylphenol, Acenaphthene, and Naphthalene were consistently detected in the Unit 1 leachate and effectively removed by the GAC prior to the spray system although 2,4 Dimethylphenol was detected twice in the GAC effluent just prior to the carbon change out described above. Fluorene and Phenanthrene were generally not detected in the Unit 1 leachate.

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Metals

USS analyzed leachate samples for the RCRA list of eight metals each month of operation, totaling three sets of samples. In addition to the eight RCRA metals, Lithium was added to the list at the request of US EPA. Of the eight RCRA metals, only Barium was detected. Barium concentrations ranged from 0.67 milligrams per liter (mg/l) in the initial sample (April) to 0.60 mg/l in the final sample (June). The established drinking water Maximum Contaminant Level (MCL) for Barium is 2 mg/l. Lithium was detected in each sample analyzed and ranged from a high of 0.040 mg/l in April to 0.032 mg/l in June. There is no primary or secondary drinking water standard for Lithium, but there is a published RCRA screening level for the metal of 0.073 mg/l. In both cases, Barium and Lithium, the leachate water directed to the pilot spray system is significantly below their respective standards. Table 4 compiles the analytical results for the three metal sampling events.

Table 4 RCRA Metals and Lithium

	Unit	April	May	June
Arsenic	mg/l	ND	ND	ND
Barium	mg/l	**0.67**	**0.65**	**0.60**
Cadmium	mg/l	ND	ND	ND
Chromium	mg/l	ND	ND	ND
Lithium	mg/l	**0.040**	**0.034**	**0.032**
Mercury	mg/l	ND	ND	ND
Lead	mg/l	ND	ND	ND
Selenium	mg/l	ND	ND	ND
Silver	mg/l	ND	ND	ND

As expected, metals are not present in the leachate from the CAMU because the drainage medium used to construct the LCS of each CAMU unit. In place of gravel, USS used readily available slag produced as part of the iron and steel making process. It has long been observed that when in contact with water slag will raise the pH of the water over time. For most metals in water, increased pH causes them to precipitate and not remain in solution.

Polychlorinated Biphenyls (PCB)

CAMU Unit 1 is approved to receive TSCA regulated wastes at concentrations greater than 50 μg/cubic meter. In addition to the above parameters USS leachate testing included PCB Aroclors 1016, 1221, 1232, 1242, 1248, 1254 and 1260. Samples were collected monthly for a total of three sampling events. PCBs were not detected in the leachate. Table 5 compiles the three PCB sampling events.

Table 5 PCBs

	April	May	June
Aroclor 1016	ND	ND	ND
Aroclor 1221	ND	ND	ND
Aroclor 1232	ND	ND	ND
Aroclor 1243	ND	ND	ND
Aroclor 1248	ND	ND	ND
Aroclor 1254	ND	ND	ND
Aroclor 1260	ND	ND	ND

USS concluded that the absence of PCB is consistent with the dehalogenation process of the PCB molecule through reactions with Zero Valent Iron (ZVI) tied up in the slag that comprises the LCS drainage medium. Slag is produced in the iron and steel process and contains sufficient elemental iron to effectively dechlorinate these chlorinated compounds. Additionally, the quarterly Appendix IX parameters collected in April, show no chlorinated compounds of any kind are present in the leachate.

Ammonia

The spray evaporation system was recommended, and has operated as a pilot system to achieve compliance with ammonia limits in the NPDES Permit that went into effect on November 30, 2009. Although discharges to the Grand Calumet River ceased in November 2009, it became necessary to evaluate any ammonia impacts to the air that might occur from the evaporation of leachate via a spray system. Ammonia dispersion was modeled using the SCREEN3 Dispersion Model, using information gathered prior to the restart of the spray and incorporating the operating parameters of the system.

Ammonia sampling began with the restart of the system and continued weekly until the pilot period ended. Since GAC has no adsorptive capacity for ammonia, only the effluent from the GAC was sampled during three weeks of operation. However, it was suggested that both the influent and the effluent be sampled to observe any possible changes or effects that the carbon might have on the leachate. Sampling of both streams began in May and continued through the end of the pilot period. GAC has no effect on ammonia.

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Since the restart of the pilot system however, ammonia concentrations in the leachate have steadily decreased. The final sample of the pilot period, was collected on June 28 and while the influent shows the greatest drop in ammonia concentration, the effluent concentration from the GAC is more than double that of the influent, and attributed to a residual concentration in the lag carbon unit. These concentrations are shown in Table 6. Ammonia is not adsorbed by GAC as the results clearly show.

Table 6 Ammonia Leachate Sample Results

Sample Date	Unit	Influent	Effluent
4/8/2010	mg/l	Not Tested	24
4/12/2010	mg/l	Not Tested	23
4/26/2010	mg/l	Not Tested	20
5/4/2010	mg/l	20	20
5/10/2010	mg/l	19	19
5/18/2010	mg/l	18	17
5/25/2010	mg/l	15	15
6/2/2010	mg/l	17	16
6/8/2010	mg/l	14	15
6/15/2010	mg/l	15	13
6/21/2010	mg/l	14	14
6/28/2010	mg/l	5.8	12

Air Monitoring

As part of the original design of the spray system in 2009, USS modeled potential impacts to the atmosphere from VOCs, SVOCs and ammonia releasing from the leachate as evaporation occurred. These calculations assumed the "worst case" for air emissions using a rate of 400 GPM where 100% of the spray evaporated during the course of the operations. The modeling determined the emissions from the sprinklers qualified as an "insignificant activity" as that term is defined at 326 IAC 2-7-1(21) of Article 2 of IDEM Air Permit Review rules and therefore was exempt from permitting in accordance with 326 IAC 2-1.1-3(e)(1). In making this determination, USS used the highest historical concentrations observed from either CAMU Unit. These original calculations are included in Appendix 3.

USS routinely performs BTEX and Naphthalene air monitoring at three locations at the CAMU and two locations in the nearby community of Gary. Station 1 is located on the western berm of CAMU Unit 1. Data from this station are reported as a single set. Air

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stations 2 and 3 are south berm of the CAMU. Station 2 is located south of CAMU Unit 1 and Air Station 3 is located south of CAMU Unit 2. Data from these two stations are averaged and reported as a set. The two air monitors in the community are south and inline with the CAMU. The northern most is at 2nd Avenue along Ellsworth Street. The southern monitor is on Ellsworth Street between 3rd and 4th Avenues.

Monitoring for BTEX and Naphthalene has been in progress three days per week at the CAMU since the second phase of dredging concluded. Importantly, the pilot system operated only on those days the air monitoring was active. The spray system never operated with out air monitoring. During the 2009/2010 pilot system operation, only one exceedence occurred at the CAMU air monitoring stations. This single naphthalene exceedence occurred during the reporting period ending on October 24, 2009 and was recorded at the monitoring station on the western berm, farthest from the spray system. The records also show that the wind was mostly from the south at the time. It is most likely that the source of this exceedence was drying dredged sediments in Unit 1 becoming exposed to the atmosphere after removal of dredge water from the Unit. Similar exceedences occurred at the CAMU during the two weeks prior to the initial start up of the pilot system on October 15, 2009. No exceedences occurred at the CAMU in 2010 that coincided with the operation of the Pilot system. Complete results for the air monitoring during the pilot system operation are included in Appendix 3.

Ammonia Air Monitoring

Air modeling for ammonia used the SCREEN3 Dispersion Model. Input parameters to the model were based on the initial high concentration of 24 mg/l in the leachate water. Other parameters were the actual 250 GPM flow rate to the sprinklers, 24-hr operation and 365 days of operation per year. This allowed for a very conservative model result as the actual hours of operation were 8 per day for only 3 days per week. Based on the results using the conservative input parameters, the model indicated no human health impacts outside the CAMU. In fact, inside the CAMU only 25 % of the reference concentration (RfC) for chronic exposure was observed. The Screen3 Dispersion Model results are shown in Figure 1.

In order to validate the model results, ammonia monitoring was initiated at three locations on the CAMU berm on June 1, 2010, using passive monitoring devices manufactured by Ogawa Ltd., of Yokohama, Japan. A complete description of these devices and data on their deployment and use in other areas is in Appendix 4.

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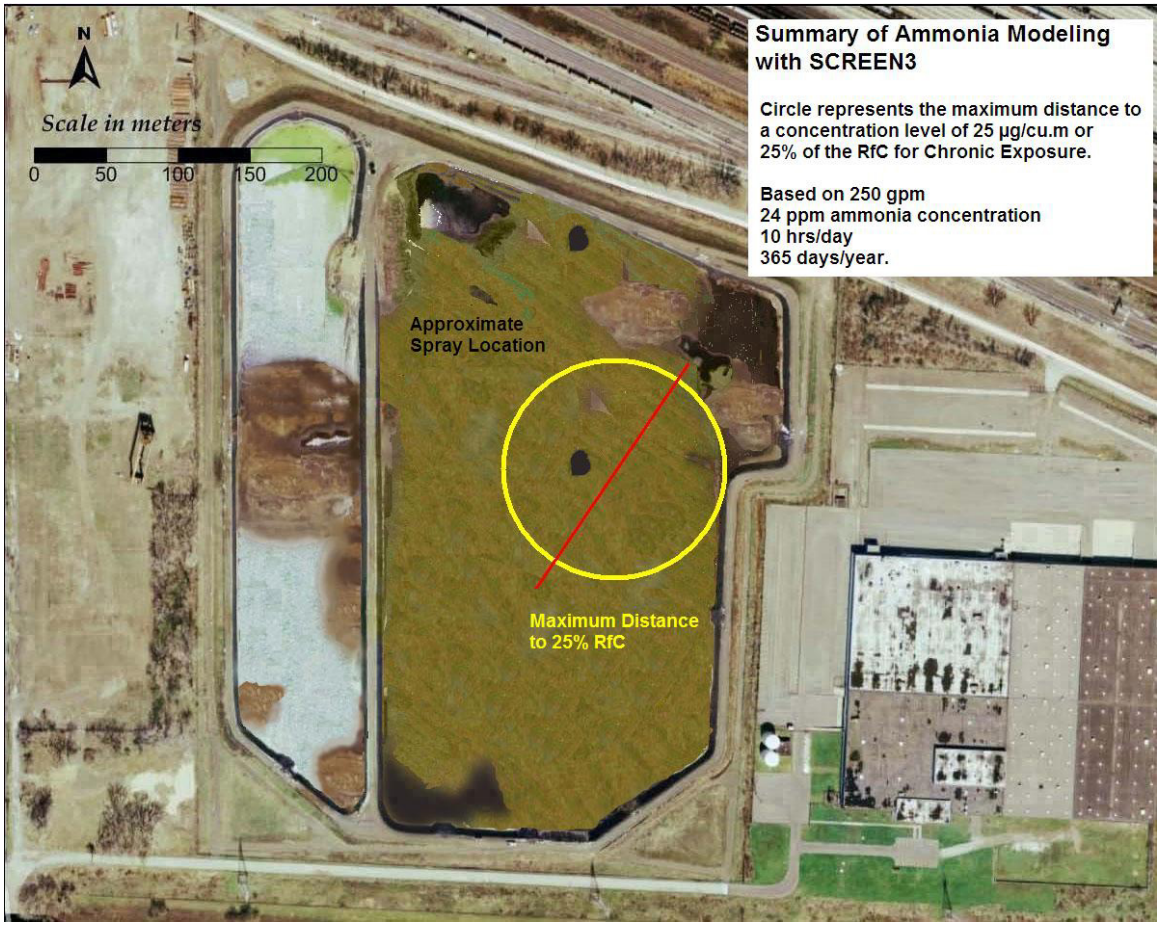
Figure 1 SCREEN3 Dispersion Model Results



The Ogawa passive monitoring devices are deployed in pairs at the locations shown in figure 2. Monitors are placed at these locations prior to the start up of the system each week (Figure 3). After the three day spray period is concluded, one of each monitor pair is removed for analysis. The other monitor of each pair is left deployed for the remainder of the week, and replaced prior to start up the following week. One monitors the actual spray operation, the other monitors the spray and the days the system is inactive. Ammonia monitoring is continuing following the suspension of the pilot system operation. One of each pair will be replaced weekly, the remaining unit replaced monthly. Upon restart of the Spray evaporation system, the original monitoring practice shall resume.

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Figure 2 Passive Ammonia Monitoring Device Locations

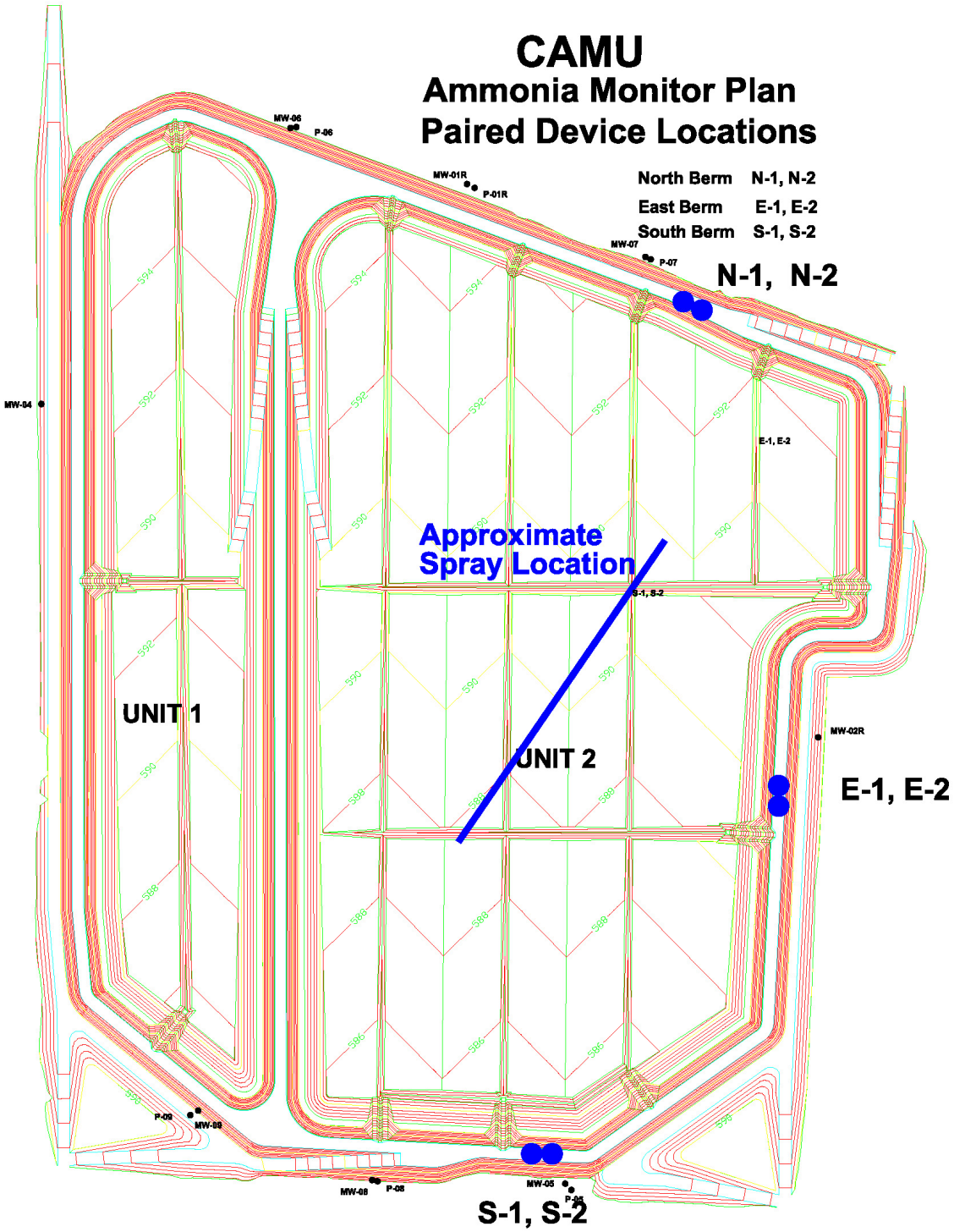

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Figure 3 Ammonia Monitors N-1, N-2



Figure 4 Ammonia Device



Table 7 contains the results of the ammonia sampling at the CAMU in micrograms per cubic meter (μg/cu.m). For the monitor designation, N-1 refers to the position; N=North, and the sequence of collection; 1=first device for analysis (3-day sampler), 2=second device for analysis (7-day sampler).

Table 7 Ammonia Passive Air Monitoring (μg/cu. m.)

	N-1	E-1	S-1	N-2	E-2	S-2
June 1-7	3.76	4.65	4.86	2.96	4.73	2.14
June 7-10	4.27	7.20	4.97	2.60	3.13	3.19
June 16-21	10.01	10.51	NA	4.35	3.46	3.88

These results are then averaged and screened against the reference concentration (RfC) for chronic exposure (100 μg/cu.m) and against the ASTDR Maximum Risk Level (MRL) value for acute exposure (4,800 μg/cu.m). Ammonia exposures on the CAMU berms are negligible and pose no health risks to workers at the CAMU or to the community. All air borne ammonia data collected thus far are included in Appendix 5.

PM_{10} Monitoring

Monitoring for particulates began on June 7, 2010 with two monitoring systems on the southern berm of the CAMU (Figure 5). The purpose of this monitoring is largely unrelated to the spray system as particulates are not expected in any significant amount from a wet system. Background particulate data are being collected for future evaluation in the event other solid remediation materials are disposed in the CAMU. The notification level for PM_{10} is 50 μg/cu.m. At this time, neither of the two units have recorded levels above that limit. All PM_{10} data collected thus far are included in Appendix 6.

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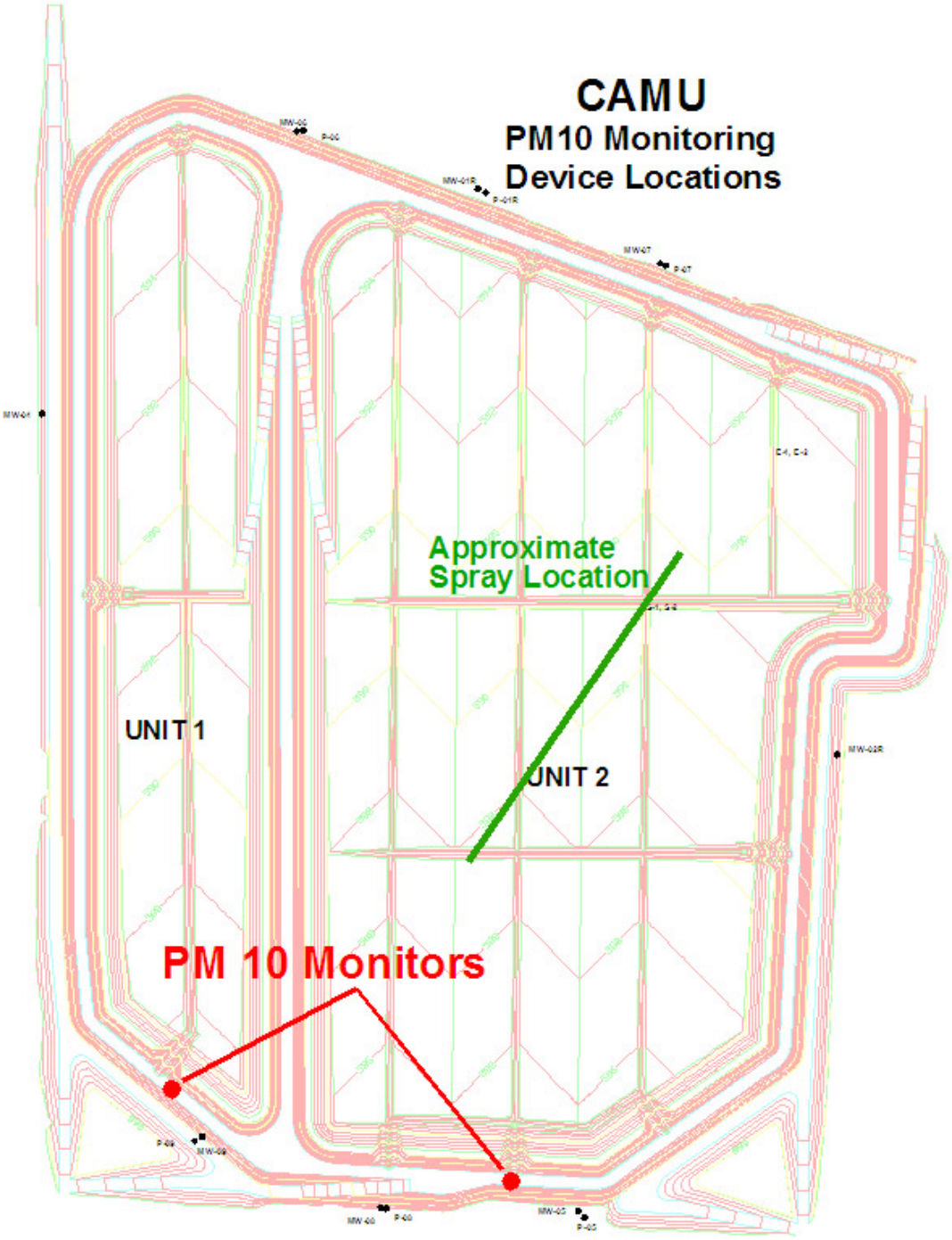
Figure 5 PM_{10} Monitoring Locations



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$PM_{2.5}$

$PM_{2.5}$ is not an issue at the CAMU. Although ammonia is present in the leachate and is a precursor for $PM_{2.5}$, the physical and chemical conditions at in the CAMU preclude ammoniated particulates from forming. Ammoniated $PM_{2.5}$ occurs as ammonium nitrate (NH_4NO_3), ammonium sulfate ($(NH_4)_2SO_4$), and ammonium bisulfate ($(NH_4)HSO_4$). In order for any of these to form there must first be a source of various oxides of nitrogen (NOx) and oxides of sulfur (SOx). The primary sources of these are in smokestacks. A further reaction must then occur through which sulfuric acid (H_2SO_4) and nitric acid (HNO_3) form. This happens in the stack in the presence water (H_2O)vapor. NOx acts as a catalyst to convert SO_2 to SO_3 which then combines with water forming sulfuric acid. Two NO_2 molecules react with two water molecules to form nitric acid. These acids then react with ammonia (NH_3) to form ammonium nitrate, ammonium sulfate and ammonium bisulfate. None of these conditions exist in the CAMU. Acids cannot form because the leachate is non-acidic. Also, There are no NOx or SOx sources in the CAMU.

Evaporative Efficiency and Water Loss

Evaporative water losses during sprinkler operation are dependent on a number of factors including air temperature, relative humidity and air pressure. These are the primary atmospheric parameters controlling water evaporation. Increased surface of the water area in the form of smaller droplets and adherence to foliage (canopy loss) greatly enhances the rate of evaporation.

The sprinkler heads deployed at the CAMU ensure relatively small droplet sizes. Water exits the sprinkler head vertically and strikes a cone shaped diverter that spreads the sprinkler discharge to a circular pattern with an approximate radius of nine feet. The spray projects up to seven vertically, (Figure 6).

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Figure 6 Spray head in the CAMU.



Atmospheric conditions were not ideal for evaporation during most of the pilot period, but based on the total volume of water pumped during the pilot period, (4, 200,000 gallons) and the extent of ponding in the CAMU, it is estimated that 15% of the pumped water or 630,000 gallons evaporated. Some ponding of water occurred in lower places of the CAMU floor (Figure 7). Vegetation in CAMU Unit 1 has been stimulated by this system. Water loss through transpiration may account for an additional 3% or 126,000 gallons. Loss through transpiration will increase as these plants continue to grow.

Plant growth as rapid as observed was unexpected although the high organic content of the dredged sediments contained in the CAMU is presumably conducive to plant growth. Vegetation control will be addressed as needed. Total water loss via evaporation and plant transpiration during the pilot is estimated at 756,000 gallons. This will increase over time as the plants continue to grow and the ponded water areas decrease.

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Figure 7 Ponded Water with Vegetation



Conclusions and Recommendations

The pilot period allowed USS to collect data concerning the effects to the environment of the spray system during the 90-day pilot period. The rate of water sprayed averaged 250 GPM. The system operated for a total of 35 days for 8 hours each of those days with the following conditions. (1) The system only operated on days that the air monitoring system was active. (2) GAC treatment was added to eliminate VOCs and SVOCs from the leachate prior to entering the sprinkler system. (3) Operations were curtailed during periods of high wind where drift of the spray might leave the CAMU interior.

The introduction of GAC treatment prior to the sprinkler array eliminated VOC and SVOC impacts to the air, human health and the general environment. The GAC system is monitored three times daily. With the exception of a short time where breakthrough (depletion of the GAC's ability to absorb all the organic constituents) was noted, none of the monitored parameters were detected. Prior to the replacement of the carbon during the breakthrough period, detections were minimal in the leachate. Air monitoring noted no exceedences during this period.

Monitoring for ammonia in air was added in June using passive monitoring devices at three locations on the CAMU berms. This recent ammonia monitoring demonstrated that air borne emissions are well below any screening criteria for health risks. Additionally, ammonia concentrations in the leachate have shown a consistent decline further

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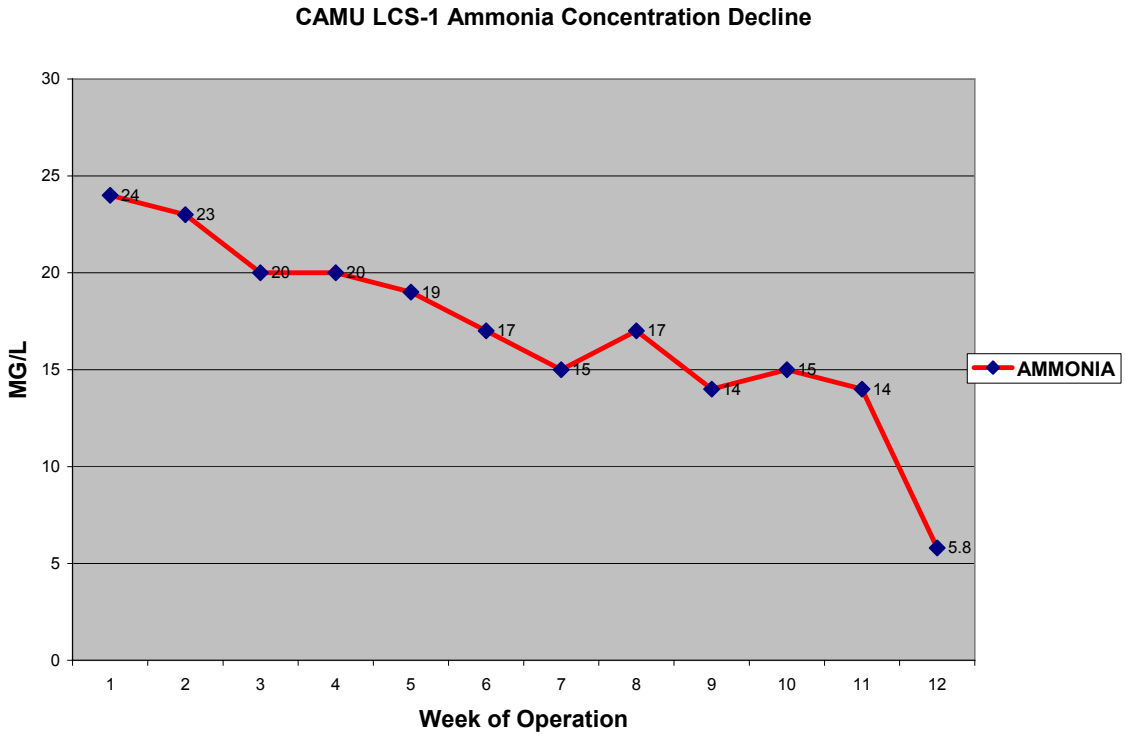
suggesting the absence of any health or environmental concerns for future operations (Figure 8).

Figure 8 CAMU Unit 1 Leachate Ammonia Concentration



Ammonia as a precursor to $PM_{2.5}$ also is not a concern. The physical and chemical conditions inside the CAMU preclude ammonia from contributing to $PM_{2.5}$ air issues. Although is a $PM_{2.5}$ precursor, the other parameters necessary for $PM_{2.5}$ generation are nonexistent in the CAMU.

PCBs have not been detected in any of the sampling due to their apparent destruction in the LCS by reductive dechlorination contributable to the presence of sufficient ZVI. Metals are also not a concern because the chemistry (high pH) of the leachate causes their precipitation in the LCS.

USS has maintained that an air permit for the spray evaporation system in the CAMU is not necessary nor is any modification to the plant permit required. This assertion is based on USS's determination that any potential emissions meet Indiana's insignificant amount criteria as defined in 326 IAC 2-7-1(21) of Article 2 IDEM Air Permit Review Rules. All USS's HAPs calculations are included in Appendix 3.

USS recommends that the pilot system becomes the permanent system for managing leachate in the CAMU. USS proposes no changes to the operating parameters at this time, although in the future USS may submit a request to increase the flow rate to a maximum of as much as 400 GPM, or a rate that does not exceed Indiana's criteria for "insignificant activity" pertaining to emissions as defined in the Air Permit Rules cited

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above. The system will operate for a period of 8 months of the calendar year when evaporation losses can be maximized. USS requests approval to resume operations of the spray evaporation system. The CAMU operation and maintenance (O&M) plan will be modified to reflect this leachate treatment method.

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United States Steel Corporation
1350 Penn Avenue
Suite 200
Pittsburgh, PA 15222-4211
412 433 5914
Fax: 412 433 5920
email: dpboyeajr@uss.com

Douglas P. Boyea, P.G.
Manager, Corrective Action
Environmental Remediation

VIA UPS and email

March 1, 2010

Ms Tamara Ohl
US Environmental Protection Agency
77 West Jackson Blvd. (DE-9J)
Chicago, IL 60604-3590

RE: Gary Works CAMU—Leachate Collection Water Management
Response to EPA Comments January 21, 2010
IND 005 444 062

Dear Ms Ohl,

United States Steel Corporation (USS) has received your January 21, 2010 letter and comments concerning management of Leachate Collection and Leak Detection Water in the Gary Works Corrective Management Unit (CAMU) via the pilot spray evaporation system. USS suspended the use of the system in November 2009 for the winter, but plans to resume its operation early in April, 2010. Accompanying this letter are USS's responses to those comments.

Enclosed please find two complete printed copies of the responses including four attachments, and five CDs each containing a complete copy of these documents. If you have any questions concerning USS's responses of require additional information, please contact Doug Boyea at 412.433.5914 or via email dpboyeajr@uss.com.

Sincerely,

Douglas P. Boyea

Douglas P. Boyea

cc	R. L. Menozzi	USS HQ
	F. T.Harnack	USS HQ wo/attachment
	K. T. Stetter	USS HQ
	M. Jeffrey	USS HQ
	R. F. Casselberry	USS HQ
	M. R. Rupnow	USS Gary
	J. L. Rey	USS Gary
	D. C. Behrens	USS Gary
	J. M. Alexander	USS Gary
	S. West	IDEM
	H. Kuss	IDEM

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:
LU-9J

January 21, 2010

Via Facsimile and
Certified Mail (7001 0320 0006 0192 7972)

Mr. Richard Menozzi, Director
Environmental Legacy/Remediation
U. S. Steel
Penn Liberty Plaza 1
1350 Penn Avenue, Suite 200
Pittsburgh, Pennsylvania 15222-4211

Re: CAMU Leachate Collection and Leak Detection Waters Management
U.S. Steel - Gary Works
Gary, Indiana
IND 005 444 062

Dear Mr. Menozzi:

By letter dated February 26, 2009, U.S. Steel (USS) provided the Indiana Department of Environmental Management (IDEM) with a report describing how USS would achieve compliance with the daily and monthly concentration and mass limits for ammonia in the effluent from the Corrective Action Management Unit (CAMU). Currently the CAMU has a dedicated waste water treatment plant that is permitted under the authority of the National Pollutant Discharge Elimination System (NPDES). After evaluating break-point chlorination and air stripping to achieve limits for ammonia, USS proposed to comply with new limits by ceasing to send all effluent to the waste water treatment plant by December 1, 2009. Rather than treating the effluent, USS proposed to manage the effluent through a system that would spray waters collected from the leachate collection and leak detection systems on vegetation within the CAMU and/or its berms. USS evaluated potential emissions from this system based on chemical constituents in the effluent and determined that a spray system operating at up to 400 gallons per minute would qualify as an insignificant activity as defined by 326 IAC 2-7-1(21) of Article 2 of the IDEM Air Permit rules.

USS conducted a pilot of the spraying from October 15, 2009, to November 20, 2009. The pilot system operated at a rate of 295 gallons per minute, for 7.5 hours per day, for three days of each week. USS operated the pilot system on the same days that air monitoring was conducted. The pilot system is currently shut down for the winter.

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The Environmental Protection Agency has reviewed the proposal and determined that the CAMU's Operations and Maintenance Plan must be revised and provided for EPA review. EPA will review the revisions and, in accordance with Section X of the Consent Order, will disapprove, modify, or approve the modifications. Attached are specific items that should be addressed in the proposed revision. Please provide two paper copies and five electronic copies of the response to these comments within 45 days of receipt of this letter.

Please do not hesitate to call me at (312) 886-0991, if you have any questions.

Sincerely,

Tamara Ohl

Tamara Ohl
Project Manager

Enclosure

Cc: Hala Kuss, IDEM
Steve West, IDEM

U.S. Steel – Gary Works
Gary, Indiana
CAMU Spray System

USS has proposed a Spray System at the CAMU to manage effluent from the Leachate Collection and Leak Detection Systems. Please provide a response addressing the following comments. The CAMU's Operations and Maintenance Plan (Plan) will need to be revised to provide a detailed and complete description of the proposed system, its operation, maintenance and monitoring, for EPA review.

1. Please describe the objective of the system. In this description, provide information on the proposed technology, as well as alternate technologies evaluated. For each technology evaluated, discuss:
   a. the effectiveness in meeting the objective;
   b. the long-term reliability;
   c. implications of system operation and failure or shut down in the event of uncontrollable changes (heavy rain, wind, etc.);
   d. the ease of implementation and operation of the system;
   e. the short and long-term beneficial and adverse effects on the environment. Discuss how each technology minimizes environmental and public impacts. Include in this evaluation environmental monitoring that would be associated with each technology and an estimate of chemicals released to the environment in the short term as well as over the operating life of the system;
   f. compliance with relevant Federal, State, and local environmental and public health laws and standards as they apply to each technology, and
   g. the cost estimate for each technology including direct and indirect capital costs and operation, maintenance, inspection and monitoring costs.

2. Please provide a detailed description of the proposed system including:
   a. an equipment description, drawings and specifications of the system proposed for Unit 1 and 2 of the CAMU;
   b. the cover crop and any amendments to the remediation waste necessary to support growth. Demonstrate that the cover crop will tolerate the characteristics of the effluent.

3. Revise the Plan to provide detailed operations, maintenance and monitoring of the proposed system. Include the following:
   a. inspection, operation, maintenance, and replacement schedules;
   b. daily operating, inspection, and maintenance logs;
   c. a description of the pumping rate necessary to ensure that the response rate is not exceeded;
   d. a description of the maintenance of the cover crop to enhance new growth and removal of any woody vegetation that could compromise the CAMU's liner system;
   e. specify weather limitations to spray system operations, such as temperature and wind speed. Identify wind speeds during which spraying will not occur, and how the current monitoring program will be modified to detect wind speeds at which the system will be shut down;

f. an evaluation of the current air monitoring program with respect to the chemicals detected in the effluent an parameters currently monitored, and the frequency and duration of monitoring;

g. an effluent monitoring program to evaluate metals loading and the sodium adsorption ratio with regard to cover crop maintenance;

h. a description of how this system will function with any subsequent remediation waste disposal; and

i. a schedule for reporting monitoring results. At a minimum, reporting should occur quarterly, with notification to EPA upon receipt of results exceeding operational limits.

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U. S. Steel - Gary Works
Gary, Indiana
CAMU Spray System—Response to EPA Comments

USS has proposed a Spray System at the CAMU to manage effluent from the Leachate Collection and Leak Detection Systems. Please provide a response addressing the following comments. The CAMU's Operations and Maintenance Plan (Plan) will need to be revised to provide a detailed and complete description of the proposed system, its operation, maintenance and monitoring, for EPA review.

USS General Comment Response: *For clarification, the spray system does not manage effluent but rather manages leachate from the integral Leachate Collection System. Since the startup of the pilot spray system USS ceased all effluent discharge from the CAMU. Additionally, no Leak Detection System (LDS) water is directed to the spray system. Only water from the Leachate Collection System (LCS) is directed to the spray system for evaporation. The CAMU Operation and Maintenance (O&M) Plan will be modified accordingly when the pilot test is completed in Spring 2010.*

1. Please describe the objective of the system. In this description, provide information on the proposed technology, as well as alternate technologies evaluated. For each technology evaluated, discuss:

USS Response: *National Pollution Discharge Elimination System (NPDES) Permit No. IN0061077 governing discharges from the CAMU was renewed effective December 1, 2006. Significant changes from the original permit included the elimination of internal outfalls 130 and 230, the addition of a number of parameters for monitoring, and compliance schedules for ammonia and mercury of 3-years and 5-years respectively. The ammonia compliance date was November 30, 2009. Mercury compliance is required on November 30, 2011 coinciding with the current permit's expiration date.*

USS evaluated five systems to achieve compliance with ammonia. These included rerouting the Water Treatment Plant (WTP) effluent to the C-Lot Lagoons, zeolite adsorption, break-point chlorination, air stripping and evaporation.

Rerouting to the C-Lot lagoons provided no real treatment for ammonia and required the CAMU permit to become part of the Gary Works permit which was at the time in the renewal process. This option received no further consideration.

Zeolite adsorption was rejected based on the daily volume of waste generated requiring management and disposal. While the process can remove as much as 99% of the targeted constituent, (Ammonia) the process requires the zeolites to be regenerated with a brine solution. At the CAMU, this will result in 1,300 to 2,400 pounds of zeolite waste produced daily.

Break-point chlorination was given considerable consideration. However, the resulting increase of chlorides required by the process in the effluent posed toxicity concerns and possible limits for total residual chlorine (TRC). Installation of the break-point chlorination equipment, storage and use of additional chemicals and the changes in effluent would also have required a modification to the existing permit.

Air Stripping was not further considered because it would require additional permitting as an air point source emission and was not a cost effective alternative. Although in the long-term air stripping may have a cost advantage when compared to break-point chlorination, those savings would never be realized because the CAMU would be dewatered before that point was reached.

In addition, the availability of water in the CAMU to allow any system sufficient operation time to become cost-effective was another determining factor in decisions to best achieve compliance with the terms of the NPDES permit. At the dewatering rate observed in CAMU Unit 1, surface discharges (supernatant) from the CAMU would no longer be possible by the second quarter of 2010. Long-term operation of the CAMU will not require or provide continuous flow to the WTP, rendering any system to treat ammonia ineffective and obsolete upon installation. All dewatering of the CAMU is now via the LCS eventually resulting in batch operations where water is drawn from either unit as required.

USS determined that the most cost effective and environmentally sound solution to achieve the compliance requirements was to eliminate all discharges to the Grand Calumet River. To accomplish this, USS would pump a certain volume of water from the leachate collection systems (LCS) of the CAMU and spray the water through a system of sprinklers on the floor of CAMU Unit 2. The subsequent evaporation and transpiration of water via plant growth would maintain and fulfill all operating requirements of the CAMU's water management systems. USS calculated air emissions using a spray rate of 400 GPM with 100% immediate evaporation and determined that the potential emissions met the Indiana criteria of an insignificant amount as defined in 326 IAC 2-7-1(21) of Article 2 IDEM Air Permit Review Rules. USS performed these calculations for all the VOCs and SVOCs in the Leachate above their respective reporting limits. Analysis of ammonia was run separately as there are no air standards governing this. Based on the results of these analyses, USS chose a spray evaporation system to manage the remaining water in the CAMU. Calculation results are included in Attachment 1.

a. the effectiveness in meeting the objective;

USS Response: *The objective of the system is to achieve compliance with the ammonia discharge limits effective on 30 Nov 2009 to the Grand Calumet River via the NPDES permitted outfall 001. An evaporative spray system eliminates all (liquid) discharges from the CAMU to the Grand Calumet River via 001. Therefore, the objective of ammonia compliance is met.*

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b. the long-term reliability;

USS Response: *The pilot system trial demonstrated the efficacy of the system. The leachate is simply water with low levels of certain VOCs and SVOCs. PCPs and other chlorinated compounds are not present in the leachate of either unit. The primary operating concern is a build up of Calcium-based scale in the sprinkler heads derived from the slag that forms the leachate collection field. Since this scale is easily and quickly removed using an acid solution, a complete duplicate set of sprinkler heads is available for exchange to allow cleaning of fouled heads without significant interruption of the operation. The entire system operates from a single submersible pump located in the LCS sump. All system components require little maintenance and have little opportunity for failure. Evaporation is controlled by various atmospheric conditions. On some days the system will experience more evaporation, on other days, less.*

c. implications of system operation and failure or shut down in the event of uncontrollable changes (heavy rain, wind, etc.);

USS Response: *The system is not operated during high wind events where there is an opportunity for any of the sprayed water to leave the CAMU. This is a visual determination and is at the discretion of the operator. Heavy rain events minimize the evaporative capabilities of the environment, thus operation during such conditions would not be productive and would not occur. Both conditions are temporary, and operation would resume when favorable atmospheric conditions return.*

d. the ease of implementation and operation of the system;

USS Response: *The entire system operates on a single pump, that is started and stopped with a switch at an electrical panel located on the south berm of the CAMU. Once started, the pump directs water to the sprinklers and continues until switched off.*

e. the short and long-term beneficial and adverse effects on the environment. Discuss how each technology minimizes environmental and public impacts. Include in this evaluation environmental monitoring that would be associated with each technology and an estimate of chemicals released to the environment in the short term as well as over the operating life of the system;

USS Response: *For a discussion concerning alternate technologies please see the response to the first comment. Calculations concerning air emissions show that at a spray rate of 400 GPM with 100% evaporation operating 24 hours daily the VOC and SVOC emissions are insignificant according to IDEM air criteria. When the operation of the system resumes in the spring, the spray rate will be 250 GPM and operate for no more than 12 hours per day. Air emissions, if insignificant at 400 GPM will be even less significant at 250 GPM (Attachment 1).*

Since there are no reliable analytical methods for measuring airborne concentrations for ammonia, USS opted to use a conservative screening level air model (SCREEN3) to determine if ammonia

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emissions originating from the spray system can reach both on-site and off-site human receptors. Specific conditions related to the spray system incorporated into the model include location of the spray system within the CAMU, the rate of spray and the concentration of ammonia present in the leachate. Site-specific meteorological information is not required for the SCREEN3 model; rather, it simulates a wide range of weather patterns to determine worst-case impacts.

The current layout for the spray system is 16 spray heads spaced in a line 18 feet, 6 inches apart. The system is located near the center of CAMU Unit 2 and is oriented diagonally northeast to southwest. Spray from each head is released in a circular pattern with an 18 ½ foot radius. For modeling purposes, it was assumed that the pumping rate of the leachate sprayed through the system was 400 gallons per minute (gpm) using an emission rate of 31.68 kilograms per 24 hour period. The maximum reported ammonia concentration as measured by TestAmerica on August 21, 2008, of 29 parts per million (ppm) was used to estimate this rate.

The model output provided in Table 1 of shows predicted concentrations by distance, based on a 400 gpm pumping rate for two averaging periods: 1 hour and annual. The model output is presented in both ppm and ug/m3 units.

The predicted ammonia concentrations can be compared to the reference concentration (RfC) for ammonia of 100 ug/m3 for chronic exposure (annual average) and to the Minimal Risk Levels (MRL) of 4,800 ug/m3 for acute exposures (maximum one-hour average). Attachment 2 shows where the spray field is generally located, and also shows the distance beyond which annual average concentrations fall below 100 ug/m3. This conservative analysis demonstrates that no adverse impacts beyond the CAMU area will occur as a result of the spray operation.

There are no short or long-term adverse effects on the environment. However, the benefits to the environment are significant, most notably the immediate elimination of all discharges to the Grand Calumet River. No chemicals are consumed or introduced as would be the case for a break point chlorination system or for an air-stripping system, nor are any wastes generated as from a zeolite adsorption system. Additionally, power consumption is reduced to the use of a single pump instead of the operation of an entire water treatment facility, and further reduced when considering the extra power required to operate any of the alternate systems. All environmental impacts to the Grand Calumet River and ultimately, Lake Michigan are permanently eliminated.

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TABLE 1 OVERALL MODEL RESULTS SUMMARY

Distance from Center of Spray Nozzle Line (m)	Predicted Ammonia Concentration Based on Averaging Time	
	Max Hourly	Long Term
	Micrograms Per Cubic Meter	
28	46912.0	3753
100	2948.8	236
179	1250.0	100
200	787.7	63
300	375.7	30
400	225.4	18
500	153.5	12
600	112.9	9
700	87.5	7
800	70.5	6
900	58.4	5
1000	49.5	4
	PPM	
28	67.35	5.39
100	4.23	0.34
179	1.79	0.14
200	1.13	0.09
300	0.54	0.04
400	0.32	0.03
500	0.22	0.02
600	0.16	0.01
700	0.13	0.01
800	0.10	0.01
900	0.08	0.01
1000	0.07	0.01

Predicted Concentrations are based on 400 gpm spray rate
Long term averages are based on 24 hrs//day operation, 365 days/year

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f. compliance with relevant Federal, State, and local environmental and public health laws and standards as they apply to each technology, and

USS Response: Calculations concerning air emissions from the spray system showed any emissions to be insignificant as defined in 326 IAC 2-7-1(21) of Article 2 IDEM Air Permit Review Rules. There are no impacts to the environment, nor are there any applicable standards as nothing from the spray system leaves the CAMU. USS will continue to monitor for certain VOCs and SVOCs at the CAMU and at nearby residential areas in accordance with the current air monitoring plan. USS's evaluation of the compliance issues for the other technologies is discussed above in previous responses.

g. the cost estimate for each technology including direct and indirect capital costs and operation, maintenance, inspection and monitoring costs.

USS Response: *As previously noted, four other methods to achieve ammonia compliance were considered by USS, including Breakpoint Chlorination, Air-stripping, rerouting to the C-Lot Lagoons and zeolite adsorption. Air-stripping was estimated at $1,700,000 with annual operation and maintenance of $90,000) and would require modifications to the WTP building in the form of vents, likely requiring an air permit for the WTP facility. While Breakpoint Chlorination had a lower initial cost ($490,000), the annual operation is estimated at $190,000. Chemical storage is also a consideration. Breakpoint Chlorination would also require a modification to the NPDES permit, renewed Whole Effluent Toxicity (WET) testing, and possibly additional treatment to remove residual chemicals from the effluent. Rerouting to the C-Lot Lagoons was rejected for the reason stated in response to comment #1. Zeolite Adsorption was rejected for the daily volume of waste generated, as also discussed in our response to comment #1.*

2. Please provide a detailed description of the proposed system including:
   a. an equipment description, drawings and specifications of the system proposed for Unit 1 and 2 of the CAMU;

USS Response: *The system in the CAMU simply consists of a pump, minor piping and spray nozzles. No engineering drawings or detailed system design plans were necessary to construct the system. The system is designed to transfer 250 gpm of water from CAMU Unit 1 leachate collection sump 2 to a series of sixteen spray nozzles on the floor of CAMU 2 via a 5 HP 3-phase 460-volt submersible pump. The pump connects to a 4" HDPE pipe which in turn connects to a 3" header system consisting of 16 spray nozzles. Where the 4" pipe exits Unit 1, it passes through a length of 6" HDPE pipe to where it enters Unit 2. This ensures containment against any possible leaks, and in the event of a leak, all water will return to the CAMU. A flow meter on the transfer piping measures the amount of water pumped to the nozzles. The system is portable for ease of relocation within Unit 2 to accommodate vegetation control, placement of remediation waste or any unforeseen events. There is no spray system in Unit 1. All sprayed water is confined to Unit 2. The spray*

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nozzles are plastic and were selected for their limited spray height of 7 feet (the nozzles are placed approximately 15 feet below the top of the berms) and for their potential to enhance evaporation. The radius of the spray from each sprinkler is 18.5 feet. Currently there are 16 sprinklers spaced at 18.5. Manufacturer specifications for the pump and spray nozzles, and a drawing of the system are in Attachment 3.

b. the cover crop and any amendments to the remediation waste necessary to support growth. Demonstrate that the cover crop will tolerate the characteristics of the effluent.

USS Response: *There is no designated "cover crop" other than the naturally growing vegetation currently present in the CAMU. The system has not operated for a sufficient time to observe the effects on plant growth. Although some water loss will occur through transpiration, that loss will be small compared to the expected loss from evaporation. No part of this plan included supporting or enhancing growth of any "cover crop". Due to the invasive nature of the vegetation and the concern for aggressive rooting, the vegetation in the CAMU is periodically cut and destroyed as required in the CAMU O&M Plan.. If the system inhibits plant growth, the costs for vegetation control will be reduced. Vegetation control and removal has been accomplished in the past using bulldozers, tractors with cutting attachments and wood chippers, all of which consume energy and produce emissions via their exhaust systems. Herbicides are not permitted for use in the CAMU.*

3. Revise the Plan to provide detailed operations, maintenance and monitoring of the proposed system. Include the following:

USS Response: *The CAMU Operation and Maintenance Plan (O&M Plan) will be revised according upon implementation of the permanent system to account for operation, maintenance, monitoring, reporting and inspection of the system.*

a. inspection, operation, maintenance, and replacement schedules;

USS Response: *Currently there is no schedule established for any of the above. The system in place is a pilot system. USS plans to resume operation of the system in Spring 2010 and continue to collect data pertinent to the system's operation and maintenance. As stated above, the system is operated by a single switch. Maintenance will be performed as needed. This includes repairs and part replacement. There are no scheduling criteria or regulatory deadlines governing the operation of the CAMU except for the monitoring of the leak detection system, ground water and leachate collection. Any inspections will be limited to observing leaks and sprinkler head performance.*

b. daily operating, inspection, and maintenance logs;

USS Response: *Daily operating, inspection and maintenance logs were not established for the pilot system. USS will complete a daily (M-F) operating, inspection and maintenance log, during the operation of the spray system.*

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c. a description of the pumping rate necessary to ensure that the response rate is not exceeded;

USS Response: *The Response Rate (RR) is an operational parameter specific to the Leak Detection System, not to the Leachate Collection System and is effective only when the CAMU is operating as a Passive Dewatering Facility (PDF). It has no bearing on the operation of the pilot spray system. The RR is the threshold rate of water influx into the leak detection system through the overlying primary HDPE liner and through the underlying secondary HDPE liner and Geocomposite Layer (GCL). The RR is calculated as the rate expected at which water will pass through the primary (60-mil HDPE) liner with one foot of head on the primary liner(20 Gallons Per Acre Per Day (GPAPD)), plus a contribution from ground water through the secondary liner and GCL (10 GPAPD) to total 30 GPAPD (Attachment 4). This is a substantially conservative rate, as the CAMU design places its floor above the top of the water table in all but the south western corner. For CAMU Unit 2 the total RR is 809 gallons per day, and for CAMU Unit 1 it is 362 gallons per day When the head on the primary liner exceeds 1 foot, these volumes must be removed from the respective CAMU units. USS routinely pumps up to 50 gallons per minute from each unit seven hours each day for five days each week. The RR requirements are achieved in less than 8 minutes in Unit 1 and less than 20 minutes in Unit 2. This is done whether the spray system is operating or not and is independent of the LCS.*

The Action Leakage Rate (ALR) is a considerably higher rate and is expressed in gallons per acre per day (GPAPD). For the CAMU, the ALR is 8075 GPAPD. When calculated in accordance with EPA guidelines, the ALR requires the head on the primary liner to exceed 30 feet, which is greater than the height of the berms.

c. a description of the maintenance of the cover crop to enhance new growth and removal of any woody vegetation that could compromise the CAMU's liner system;

USS Response: *As previously stated in the response to comment 2 b, there is no "cover crop" nor is it necessary to maintain one to ensure the effectiveness of the spray system. Vegetation is routinely controlled in order to preserve the integrity of the CAMU using bulldozers, shredders and chippers. This was last done in November 2006 when all vegetation was removed. Sediment thickness in the CAMU is such that it is doubtful that the liner system could be compromised by vegetative growth, except at the toe of the berms. Periodic removal of the vegetation ensures that the liner will not be compromised.*

e. specify weather limitations to spray system operations, such as temperature and wind speed. Identify wind speeds during which spraying will not occur, and how the current monitoring program will be modified to detect wind speeds at which the system will be shut down;

USS Response: *The spray system will not operate during the winter months (November 15*

through March 31). Identification of wind speeds at which the system will not operate is at the discretion of the operator and based on visual observations of the amount of drift of the sprayed water. At no time will the spray be allowed to leave the CAMU

f. an evaluation of the current air monitoring program with respect to the chemicals detected in the effluent an parameters currently monitored, and the frequency and duration of monitoring;

USS Response: *Operation of the pilot system in 2009 occurred only on the days air monitoring at the CAMU was conducted. This procedure will continue when the system resumes operating in spring 2010 until sufficient data are collected to determine the nature of emissions (if any) and the necessity of continuing, decreasing or increasing the frequency of air monitoring. Technically this is leachate, not effluent as all discharges from the CAMU have ceased. There was no observable difference in the air monitoring results for the days the system operated when compared to monitoring results on those days that it did not. Monitoring will continue when the pilot system resumes operating in spring 2010.*

g. an effluent monitoring program to evaluate metals loading and the sodium adsorption ratio with regard to cover crop maintenance;

USS Response: *The objective of this system is to evaporate water removed from the LCS. It is not to maintain a "cover crop." The source for the spray is the LCS, which is routinely sampled and analyzed. There is no effluent to monitor. All unevaporated water remains in the CAMU. Evaluation of metal loading and sodium adsorption rates regarding "cover crop" maintenance is irrelevant to this system as there is no "cover crop". Previous analytical work shows metals are generally not detected in the leachate. This is likely the result of sequestration of metals by chemical reduction from elemental iron in the slag used for the drainage layer in the LCS.*

h. a description of how this system will function with any subsequent remediation waste disposal; and

USS Response: *The system is fully portable and can be moved manually to allow subsequent placement of additional remediation waste in the CAMU. The system is designed so that its operation can be suspended if necessary until additional wastes are properly managed.*

i. a schedule for reporting monitoring results. At a minimum, reporting should occur quarterly, with notification to EPA upon receipt of results exceeding operational limits.

USS Response: *Monitoring results for air will be reported on the same schedule and under the same requirements and parameters that are currently in place at the CAMU. These monitoring requirements are currently followed as part of the CAMU O&M Plan (Appendix I). USS has no plan to modify this part of the O&M Plan.*

US EPA ARCHIVE DOCUMENT

United States Steel Corporation
Responses to U. S. Environmental Protection Agency Comments
Leachate Evaporation in the Corrective Action Management Unit at Gary Works
Gary, Indiana.

ATTACHMENT 1

VOC, SVOC and Ammonia emissions.

US EPA ARCHIVE DOCUMENT

Attachment 1: Air Impact Calculations

Original Emission Calculations based on 10/14/08 Analytical Data from Leachate Unit 2.
Potential Emissions based on 400gpm pumped, 100% evaporation, 24 hrs/d, 365 d/y

Flow to the sprinklers	400	gpm	Conversion Factors			
	576000	gpd	1	gallon	=	3.78 Liters
	2177280	L / day	1	ug	=	2.2E-09 lbs

Assuming all 400 gpm that is pumped is evaportated.
Pollutant:

Benzene	17	ug/L	3.74E-08	lb/L	0.081	lbs/day	0.0149	tons/year
Ethylbenzene	5.1	ug/L	1.12E-08	lb/L	0.024	lbs/day	0.0045	tons/year
Styrene	3.5	ug/L	7.70E-09	lb/L	0.017	lbs/day	0.0031	tons/year
Toluene	9.3	ug/L	2.05E-08	lb/L	0.045	lbs/day	0.0081	tons/year
Xylenes	32	ug/L	7.04E-08	lb/L	0.153	lbs/day	0.0280	tons/year
Dibenzofuran	190	ug/L	4.18E-07	lb/L	0.910	lbs/day	0.1661	tons/year
Naphthalene	1700	ug/L	3.74E-06	lb/L	8.143	lbs/day	1.4861	tons/year
Phenol	25	ug/L	5.50E-08	lb/L	0.120	lbs/day	0.0219	tons/year
				totals	9.493	lbs/day	1.7325	tons/year

All other Haps were below detection level of test procedure.

Original Emission Calculations based on 10/14/08 Analytical Data from Leachate Unit 2.
Potential Emission based on "as built" design.
250 GPM SYSTEM
System operates max 12 hours per day.
System operates 9 months per year.

Flow to the sprinklers	250	gpm	Conversion Factors			
Max -12 hrs/day	180000	gpd	1	gallon	=	3.78 Liters
toal flow per day	680400	L / day	1	ug	=	2.2E-09 lbs
Days of operation	240					

Assuming all 250 gpm that is pumped is evaportated.
Pollutant:

Benzene	17	ug/L	3.74E-08	lb/L	0.025	lbs/day	0.0031	tons/year
Ethylbenzene	5.1	ug/L	1.12E-08	lb/L	0.008	lbs/day	0.0009	tons/year
Styrene	3.5	ug/L	7.70E-09	lb/L	0.005	lbs/day	0.0006	tons/year
Toluene	9.3	ug/L	2.05E-08	lb/L	0.014	lbs/day	0.0017	tons/year
Xylenes	32	ug/L	7.04E-08	lb/L	0.048	lbs/day	0.0057	tons/year
Dibenzofuran	190	ug/L	4.18E-07	lb/L	0.284	lbs/day	0.0341	tons/year
Naphthalene	1700	ug/L	3.74E-06	lb/L	2.545	lbs/day	0.3054	tons/year
Phenol	25	ug/L	5.50E-08	lb/L	0.037	lbs/day	0.0045	tons/year
				totals	2.967	lbs/day	0.3560	tons/year

US EPA ARCHIVE DOCUMENT

Attachment 1: Air Impact Calculations

Original Emission Calculations based on 10/14/08 Analytical Data from Leachate Unit 2.

Potential Emission if flow is increased to 400gpm by adding sprinklers.

400 GPM SYSTEM

System operates max 12 hours per day.

System operates 9 months per year.

Flow to the sprinklers	400	gpm	Conversion Factors				
Max -12 hrs/day	288000	gpd	1	gallon	=	3.78	Liters
toal flow per day	1088640	L / day	1	ug	=	2.2E-09	lbs
Days of operation	240						

Assuming all 400 gpm that is pumped is evaportated.

Pollutant:

Benzene	17	ug/L	3.74E-08	lb/L	0.041	lbs/day	0.0049	tons/year
Ethylbenzene	5.1	ug/L	1.12E-08	lb/L	0.012	lbs/day	0.0015	tons/year
Styrene	3.5	ug/L	7.70E-09	lb/L	0.008	lbs/day	0.0010	tons/year
Toluene	9.3	ug/L	2.05E-08	lb/L	0.022	lbs/day	0.0027	tons/year
Xylenes	32	ug/L	7.04E-08	lb/L	0.077	lbs/day	0.0092	tons/year
Dibenzofuran	190	ug/L	4.18E-07	lb/L	0.455	lbs/day	0.0546	tons/year
Naphthalene	1700	ug/L	3.74E-06	lb/L	4.072	lbs/day	0.4886	tons/year
Phenol	25	ug/L	5.50E-08	lb/L	0.060	lbs/day	0.0072	tons/year
				totals	4.747	lbs/day	0.5696	tons/year

US EPA ARCHIVE DOCUMENT

Attachment 1: Air Impact Calculations

Emission Calculations based on 11/14/08 Analytical Data from Leak Detect Unit 1.

Flow to the sprinklers	400	gpm	Conversion Factors				
	576000	gpd		1	gallon	=	3.78 Liters
	2177280	L / day		1	ug	=	2.2E-09 lbs

Pollutant:								
Benzene	1100	ug/L	2.42E-06	lb/L	5.269	lbs/day	0.9616	tons/year
Ethylbenzene	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
Styrene	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
Toluene	19	ug/L	4.18E-08	lb/L	0.091	lbs/day	0.0166	tons/year
Xylenes	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
Dibenzofuran	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
Naphthalene	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
Phenol	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
				totals	5.360	lbs/day	0.9782	tons/year

All other Haps were below detection level of test procedure.

US EPA ARCHIVE DOCUMENT

Attachment 1: Air Impact Calculations

Emission Calculations based on 9/3/09 sample #1 Analytical Data from Leachate Unit 1.

Flow to the sprinklers	400	gpm	Conversion Factors				
	576000	gpd		1	gallon	=	3.78 Liters
	2177280	L / day		1	ug	=	2.2E-09 lbs

Pollutant:								
Benzene	1900	ug/L	4.18E-06	lb/L	9.101	lbs/day	1.6609	tons/year
Ethylbenzene	20	ug/L	4.40E-08	lb/L	0.096	lbs/day	0.0175	tons/year
Styrene	1	ug/L	2.20E-09	lb/L	0.005	lbs/day	0.0009	tons/year
Toluene	45	ug/L	9.90E-08	lb/L	0.216	lbs/day	0.0393	tons/year
Xylenes	51	ug/L	1.12E-07	lb/L	0.244	lbs/day	0.0446	tons/year
Dibenzofuran	37	ug/L	8.14E-08	lb/L	0.177	lbs/day	0.0323	tons/year
Naphthalene	670	ug/L	1.47E-06	lb/L	3.209	lbs/day	0.5857	tons/year
Phenol	220	ug/L	4.84E-07	lb/L	1.054	lbs/day	0.1923	tons/year
				totals	14.102	lbs/day	2.5736	tons/year

All other Haps were below detection level of test procedure.

US EPA ARCHIVE DOCUMENT

Attachment 1: Air Impact Calculations

Emission Calculations based on 9/3/09 sample #2 Analytical Data from Leachate Unit 1.

Flow to the sprinklers	400	gpm	Conversion Factors				
	576000	gpd		1	gallon	=	3.78 Liters
	2177280	L / day		1	ug	=	2.2E-09 lbs

Pollutant:								
Benzene	1800	ug/L	3.96E-06	lb/L	8.622	lbs/day	1.5735	tons/year
Ethylbenzene	16	ug/L	3.52E-08	lb/L	0.077	lbs/day	0.0140	tons/year
Styrene	1	ug/L	2.20E-09	lb/L	0.005	lbs/day	0.0009	tons/year
Toluene	40	ug/L	8.80E-08	lb/L	0.192	lbs/day	0.0350	tons/year
Xylenes	47	ug/L	1.03E-07	lb/L	0.225	lbs/day	0.0411	tons/year
Dibenzofuran	51	ug/L	1.12E-07	lb/L	0.244	lbs/day	0.0446	tons/year
Naphthalene	580	ug/L	1.28E-06	lb/L	2.778	lbs/day	0.5070	tons/year
Phenol	340	ug/L	7.48E-07	lb/L	1.629	lbs/day	0.2972	tons/year
				totals	13.771	lbs/day	2.5133	tons/year

All other Haps were below detection level of test procedure.

US EPA ARCHIVE DOCUMENT

Attachment 1: Air Impact Calculations

Emission Calculations based on 10/14/08 Analytical Data from Leachate Unit 2.

Flow to the sprinklers	200	gpm	Conversion Factors				
	288000	gpd	1	gallon	=	3.78	Liters
	1088640	L / day	1	mg	=	2.20E-06	lbs

Pollutant:								
ammonia	20	mg/L	4.40E-05	lb/L	47.900	lbs/day	8.7418	tons/year
				totals	47.900	lbs/day	8.7418	tons/year

All other Haps were below detection level of test procedure.

US EPA ARCHIVE DOCUMENT

United States Steel Corporation
Responses to U. S. Environmental Protection Agency Comments
Leachate Evaporation in the Corrective Action Management Unit at Gary Works
Gary, Indiana.

ATTACHMENT 2

SCREEN3 Model Results for Ammonia Dispersion

US EPA ARCHIVE DOCUMENT

ATTACHMENT 2 *LOCATION OF SPRAY SYSTEM AND DISTANCE TO RfC*



US EPA ARCHIVE DOCUMENT

United States Steel Corporation
Responses to U. S. Environmental Protection Agency Comments
Leachate Evaporation in the Corrective Action Management Unit at Gary Works
Gary, Indiana.

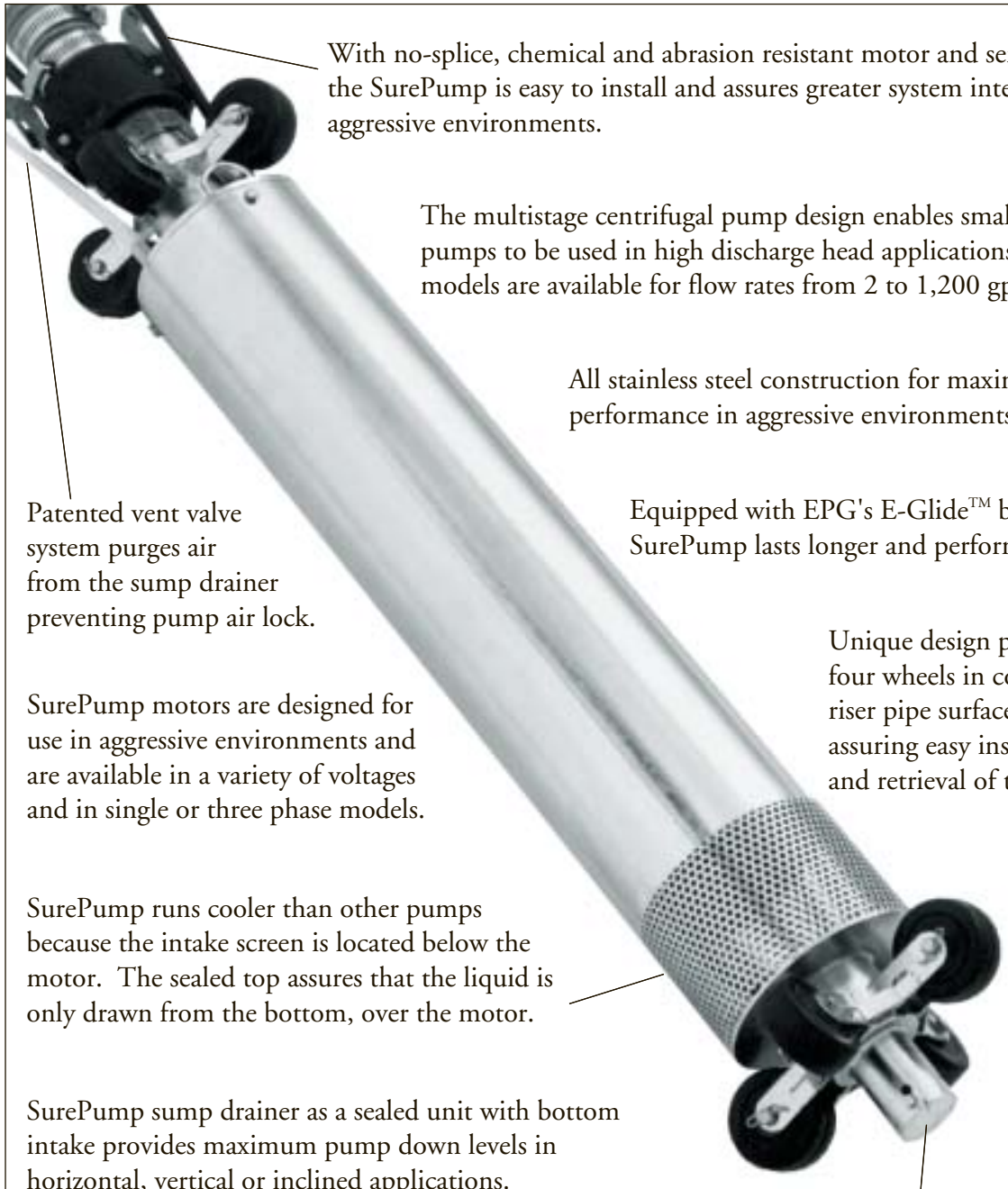
ATTACHMENT 3

Pump and sprinkler head specifications.

US EPA ARCHIVE DOCUMENT

Horizontal Wheeled Sump Drainer

More details at www.epgco.com



With no-splice, chemical and abrasion resistant motor and sensor leads, the SurePump is easy to install and assures greater system integrity in aggressive environments.

The multistage centrifugal pump design enables smaller diameter pumps to be used in high discharge head applications. SurePump models are available for flow rates from 2 to 1,200 gpm.

All stainless steel construction for maximum performance in aggressive environments.

Patented vent valve system purges air from the sump drainer preventing pump air lock.

Equipped with EPG's E-Glide™ bearings, the SurePump lasts longer and performs better.

Unique design places at least four wheels in contact with riser pipe surface at all times assuring easy installation and retrieval of the pump.

SurePump motors are designed for use in aggressive environments and are available in a variety of voltages and in single or three phase models.

SurePump runs cooler than other pumps because the intake screen is located below the motor. The sealed top assures that the liquid is only drawn from the bottom, over the motor.

SurePump sump drainer as a sealed unit with bottom intake provides maximum pump down levels in horizontal, vertical or inclined applications.

The patented submersible level sensor is mounted along the central axis of the sump drainer, is removable from the bottom and assures accurate, repeatable level control.

US EPA ARCHIVE DOCUMENT

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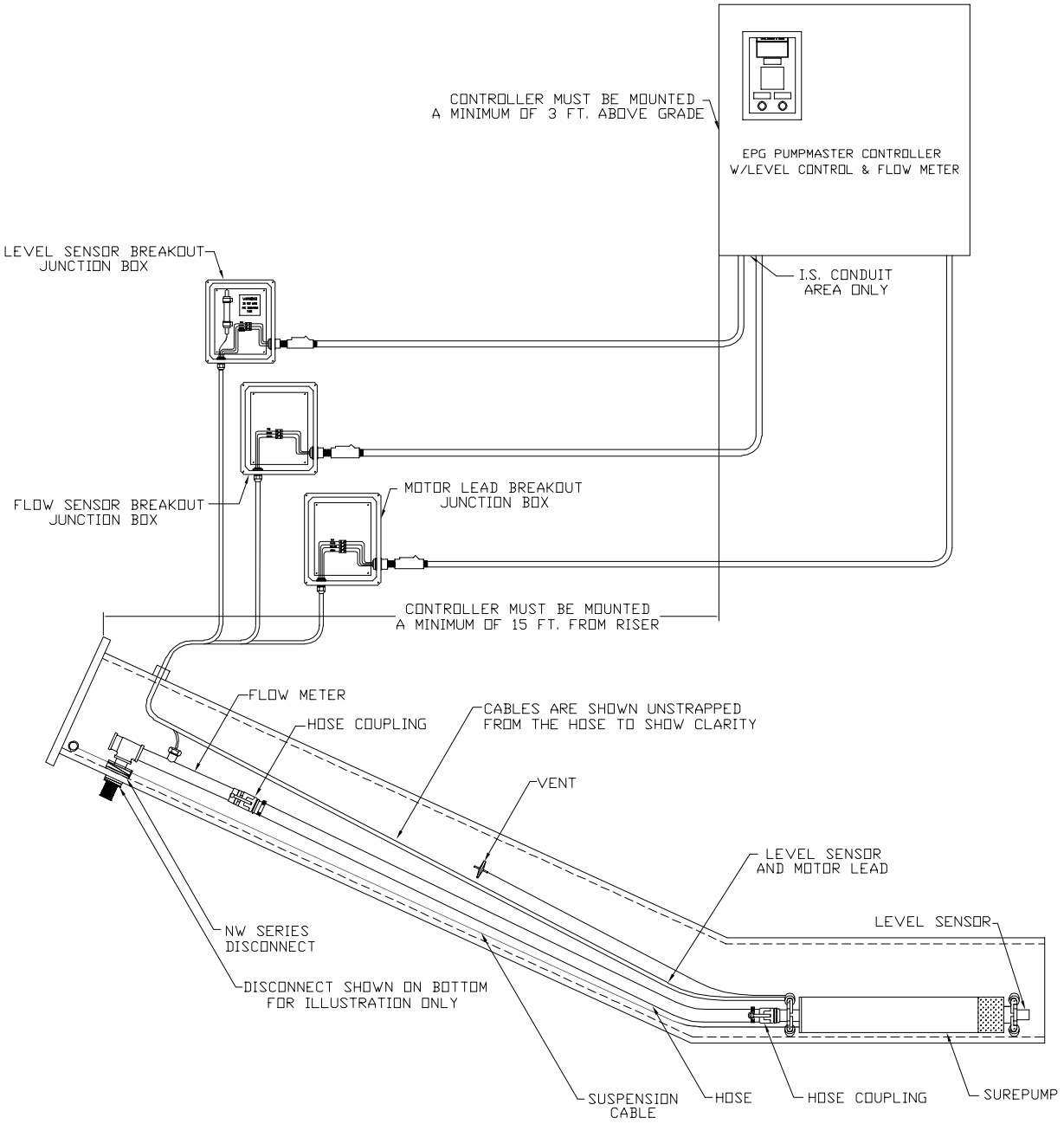
EPG DESIGN GUIDE

SIDE SLOPE RISER



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REFERENCE

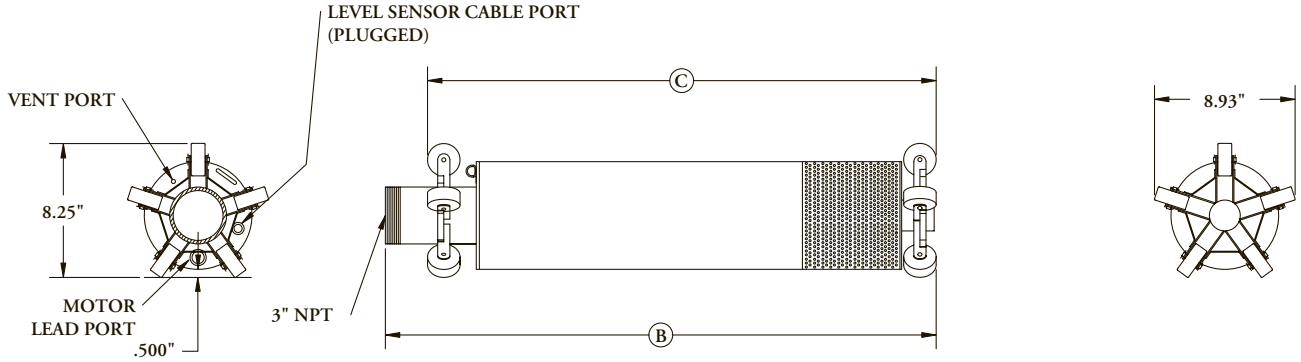
TOLERANCES (EXCEPT AS NOTED)	REVISIONS NO.	DATE	BY
DECIMAL ±	1	12-30-02	ALD
FRACTIONAL ±	2		
ANGULAR ±	3		
	4		
	5		

EPG COMPANIES

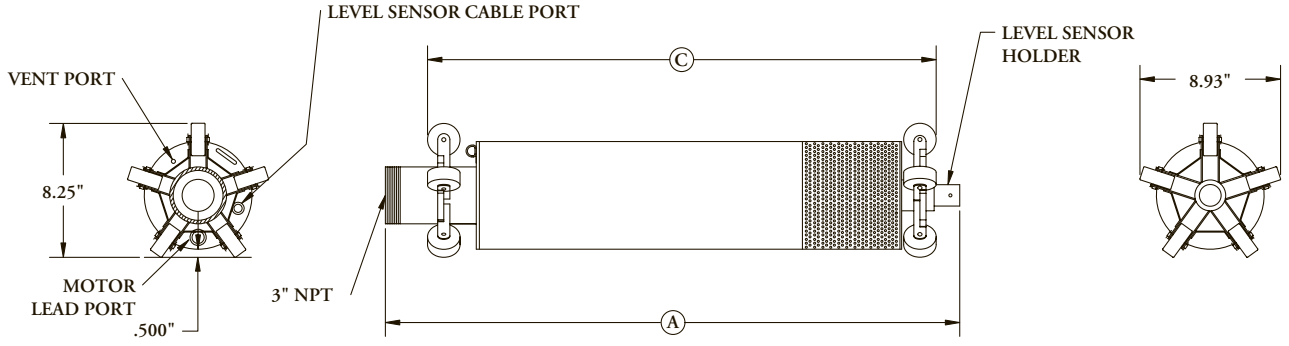
SIDE SLOPE RISER
TYPICAL INSTALLATION

DESIGN	C.A.S.	SCALE	NONE	MATERIAL
DRAWN	C.A.S.	DATE	07/23/02	DRAWING NO. 05644-0000
CHK'D		APP'D		

SERIES 46 SIZE 6 WHEELED SUMP DRAINER



WSD



WSDPT

MODEL	HP	PHASE	A	B	C	*APPROX. SHIPPING WEIGHT	
						WSD	WSDPT
46-1R	3.00	1	56.69	55.57	53.97	146.40	151.40
46-1R	3.00	3	53.69	52.57	50.97	143.01	148.01
46-1	5.00	1	62.67	61.55	59.95	170.17	175.17
46-1	5.00	3	56.67	55.55	53.95	148.38	153.38
46-2AB	5.00	1	67.21	66.09	64.49	178.81	183.81
46-2AB	5.00	3	61.21	60.09	58.49	157.02	162.02
46-2	7.50	3	61.41	60.29	58.69	208.25	213.25
46-3	10.00	3	67.15	66.03	64.43	226.24	231.24

NOTE: ALL DIMENSIONS ARE IN INCHES.

*SHIPPING WEIGHT INCLUDES
WSD: CRATE, 50' OF 12-4 MOTOR LEAD, 50' OF 3/16" SS CABLE.
WSDPT: CRATE, 50' OF 12-4 MOTOR LEAD, 50' OF 3/16" SS CABLE,
LEVEL SENSOR AND CABLE.

US EPA ARCHIVE DOCUMENT

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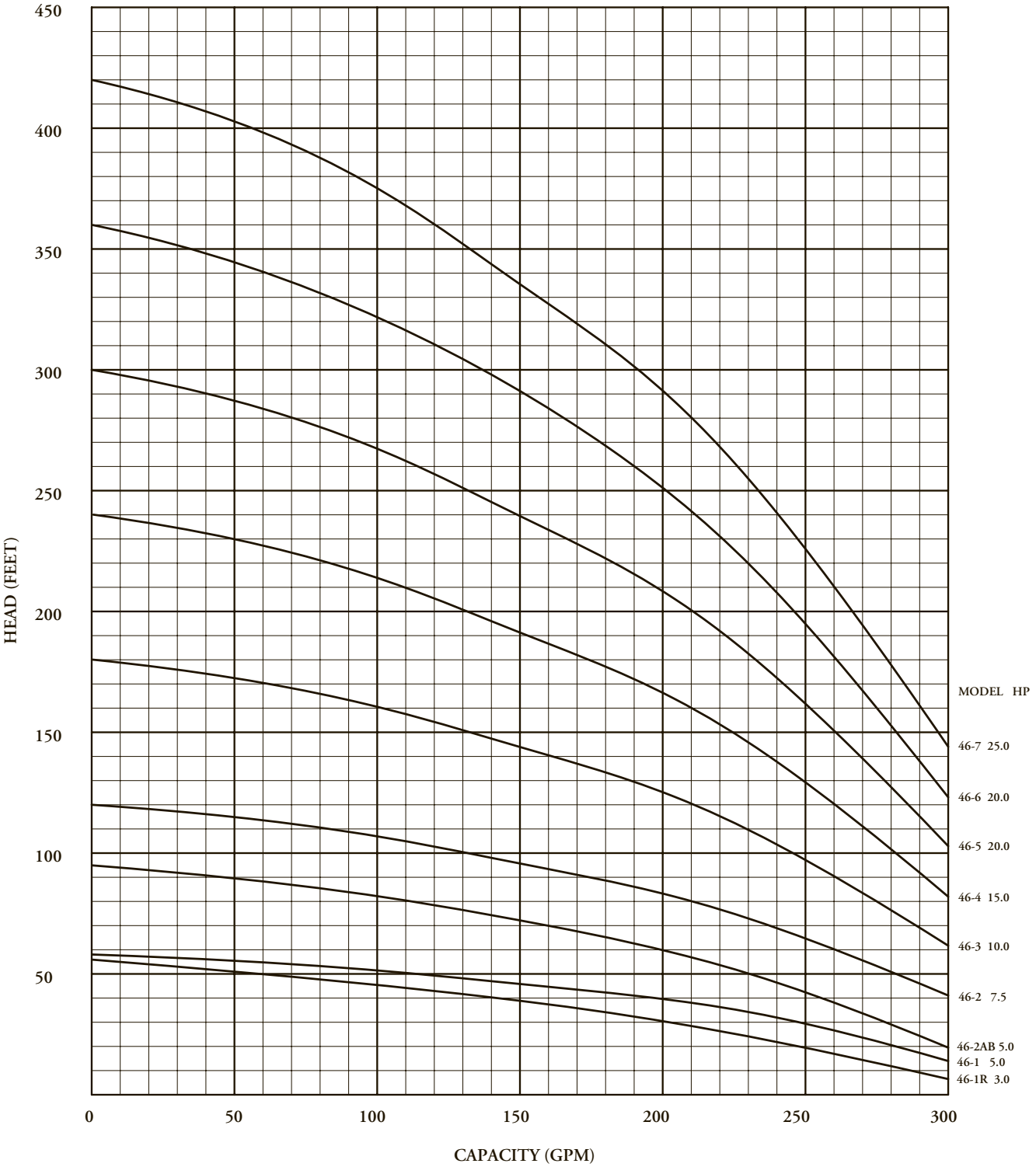
SERIES 46 SurePump™

Flow Range 75-300 GPM

60 Hz



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US EPA ARCHIVE DOCUMENT

Super Spray®

Proven - for More than 30 Years

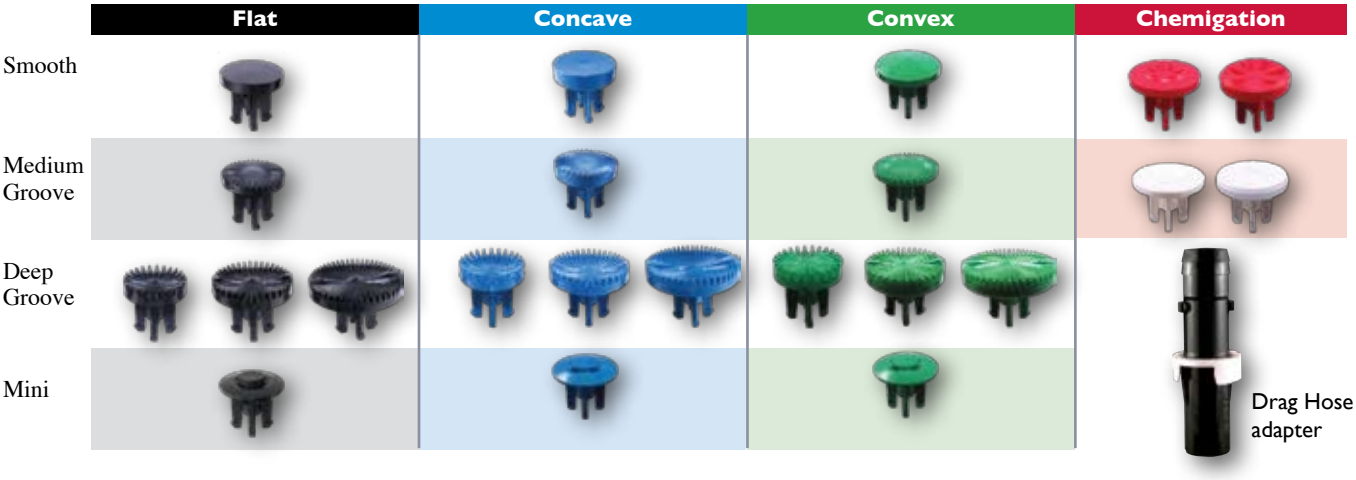
Provides the most versatility of any spray nozzle on the market. The Senninger Super Spray has a wide variety of interchangeable deflector pad options to meet specific crop, climatic and soil requirements. The design is extremely durable, with no moving parts.



Features

- Durable engineering-grade thermoplastic construction, no moving parts
- Extremely versatile, easily changeable snap-in deflector pads and hose barb adapter
- Flows: 0.24 - 14.4 gpm [55 - 3271 L/hr]
- Pressure Range: 6 - 15 psi [0.41 - 1.03 bar]
- Can be mounted upright or inverted
- Inlet sizes 3/4" or 1/2" M NPT
- Color-coded nozzles for easy size identification, 5-year warranty on nozzle orifice
- Two-year warranty on materials, workmanship and performance

Deflector pads are identified by shape (flat, concave, or convex) and type of surface (smooth, medium-grooved, or deep-grooved). The shape and surface help control spray pattern and droplet size. Chemigation pads are available in high profile (corn) and low profile (cotton) to reach the underside of the foliage. These snap-in pads can be easily changed during the season to fit varying field and growing conditions. The drag hose adapter option allows easy conversion for direct furrow water application.



SuperSpray

Sprinkler base pressure [psi]	Concave 36 Groove 6	10	15	Flat 36 Groove 6	10	15	[bar]	Concave 36 Groove 0.41	0.69	1.03	Flat 36 Groove 0.41	0.69	1.03
#4 Nozzle - Light Blue [1/16"]							#4 Nozzle - Light Blue [1.59mm]						
Flow [gpm]	0.24	0.35	0.37	0.24	0.35	0.37	Flow [L/hr]	55	79	84	55	79	84
Diam. at 3.0' ht. [ft.]	11.5	15	18	10	13	15	Diam. at 0.91m ht. [m]	3.51	4.57	5.49	3.05	3.96	4.57
Diam. at 6.0' ht. [ft.]	14	19	22.5	13	16	19	Diam. at 1.83m ht. [m]	4.27	5.79	6.86	3.96	4.88	5.79
Diam. at 9.0' ht. [ft.]	15.5	21.5	25.5	15	18	21	Diam. at 2.75m ht. [m]	4.72	6.55	7.77	4.57	5.49	6.4
#8 Nozzle - Lavender [1/8"]							#8 Nozzle - Lavender [3.18mm]						
Flow [gpm]	1.12	1.45	1.73	1.12	1.45	1.73	Flow [L/hr]	254	329	393	254	329	393
Diam. at 3.0' ht. [ft.]	20	24	29	16	20	23.5	Diam. at 0.91m ht. [m]	6.1	7.32	8.84	4.88	6.1	7.16
Diam. at 6.0' ht. [ft.]	24	29	35	21	26	29.5	Diam. at 1.83m ht. [m]	7.32	8.84	10.67	6.4	7.92	8.99
Diam. at 9.0' ht. [ft.]	27	32.5	38	24	29	33	Diam. at 2.75m ht. [m]	8.23	9.91	11.58	7.32	8.84	10.06
#12 Nozzle - Red [3/16"]							#12 Nozzle - Red [4.76mm]						
Flow [gpm]	2.45	3.16	3.81	2.45	3.16	3.81	Flow [L/hr]	556	718	865	556	718	865
Diam. at 3.0' ht. [ft.]	23.5	28.5	34	18	22.5	27.5	Diam. at 0.91m ht. [m]	7.16	8.69	10.36	5.49	6.86	8.38
Diam. at 6.0' ht. [ft.]	28.5	34	39.5	23	29	34	Diam. at 1.83m ht. [m]	8.69	10.36	12.04	7.01	8.84	10.36
Diam. at 9.0' ht. [ft.]	31.5	37.5	43	26	33	38	Diam. at 2.75m ht. [m]	9.6	11.43	13.11	7.92	10.06	11.58
#16 Nozzle - Orange [1/4"]							#16 Nozzle - Orange [6.35mm]						
Flow [gpm]	4.48	5.79	6.91	4.48	5.79	6.91	Flow [L/hr]	1018	1315	1569	1018	1315	1569
Diam. at 3.0' ht. [ft.]	25.5	32	37	19	24.5	29.5	Diam. at 0.91m ht. [m]	7.77	9.75	11.28	5.79	7.47	8.99
Diam. at 6.0' ht. [ft.]	30.5	37.5	42	24.5	31	36.5	Diam. at 1.83m ht. [m]	9.3	11.43	12.8	7.47	9.45	11.13
Diam. at 9.0' ht. [ft.]	34	41	45	28	35	41	Diam. at 2.75m ht. [m]	10.36	12.5	13.72	8.53	10.67	12.5
#20 Nozzle - Dark Turquoise [5/16"]							#20 Nozzle - Dark Turquoise [7.94mm]						
Flow [gpm]	6.78	8.75	10.44	6.78	8.75	10.44	Flow [L/hr]	1540	1987	2371	1540	1987	2371
Diam. at 3.0' ht. [ft.]	26.3	33.5	38.5	19.8	25	31	Diam. at 0.91m ht. [m]	8	10.21	11.73	6.02	7.62	9.45
Diam. at 6.0' ht. [ft.]	31.5	38.8	43.5	25	32	31	Diam. at 1.83m ht. [m]	9.6	11.81	13.26	7.62	9.75	9.45
Diam. at 9.0' ht. [ft.]	35	42	46	29	36	42.5	Diam. at 2.75m ht. [m]	10.67	12.8	14.02	8.84	10.97	12.95
#24 Nozzle - Dark Blue [3/8"]							#24 Nozzle - Dark Blue [9.53mm]						
Flow [gpm]	9.34	12.06	14.4	9.34	12.06	14.4	Flow [L/hr]	2121	2739	3271	2121	2739	3271
Diam. at 3.0' ht. [ft.]	27	35	40	20.5	26	32	Diam. at 0.91m ht. [m]	8.23	10.67	12.19	6.25	7.92	9.75
Diam. at 6.0' ht. [ft.]	32.5	40	45	26	33	39	Diam. at 1.83m ht. [m]	9.91	12.19	13.72	7.92	10.06	11.89
Diam. at 9.0' ht. [ft.]	36	43	47	30	37	44	Diam. at 2.75m ht. [m]	10.97	13.11	14.33	9.14	11.28	13.41

Sprinkler performance may vary with actual field conditions. Other nozzle sizes and deflector pads available. Consult factory for specific performance data.

US EPA ARCHIVE DOCUMENT

United States Steel Corporation
Responses to U. S. Environmental Protection Agency Comments
Leachate Evaporation in the Corrective Action Management Unit at Gary Works
Gary, Indiana.

ATTACHMENT 4

Response Rate and Action Leakage Rate Information
Construction Level Design Report May 2003

US EPA ARCHIVE DOCUMENT

1.0 INTRODUCTION

1.1 General

U.S. Steel plans to construct and operate a Corrective Action Management Unit (CAMU) on U.S. Steel property contiguous to its Gary Works facility in Gary, Indiana. The proposed facility is regulated under the Resource Conservation and Recovery Act (RCRA) and the Toxic Substances Control Act (TSCA). The CAMU is an integral part of U.S. Steel's obligations for the Grand Calumet River Sediment Remediation Program. The Program includes the hydraulic dredging of contaminated, non-native sediments from approximately five miles of the Grand Calumet River adjacent to the Gary Works facility. The sediments will be conveyed via pipeline to the CAMU for **storage**, passive dewatering, and permanent disposal.

As part of the permit application for CAMU and as required by the U.S. Environmental Protection Agency (USEPA) 40 CFR Part 264, the operator or owner of a CAMU must have an approved Response Action Plan (RAP) before receipt of waste. The RAP is a site-specific plan that addresses leakage through the top liner into the secondary leachate collection system (SLCS) to assure that the liquids do not migrate out of the unit. The SLCS is also referred to as the leak detection system (LDS). The RAP establishes corrective action measures that are to be carried out when the leakage rate exceeds one of two trigger levels. The lower trigger leakage rate is the Response Rate (RR), which, in the case of a landfill operating with less than one foot of head on the primary LCS, consists mainly of sources other than leachate. However, for a **storage or** passive dewatering system operating with significantly more than one foot of head on the leachate collection system, leakage will occur from the primary LCS which will typically exceed the RR.

The higher trigger leakage rate is the Action Leakage Rate (ALR). The action leakage rate is the maximum design flow rate that the SLCS can remove without the fluid head on the bottom liner exceeding 1 foot. This is the critical leakage rate that must not be exceeded because doing so would cause head on the secondary LDS to build, thereby increasing the potential for leakage from the CAMU to the environment. The ALR is a site-specific value based upon the capacity of the components of the

site's SLCS. If the ALR is exceeded, the most intensive corrective action measures of the RAP are initiated. The Response Rate and the Action Leakage Rate are discussed in Section 3.0.

This RAP is a part of the CAMU's overall leachate management program. It develops site-specific performance characteristics for the primary leachate collection system (PLCS) and SLCS, and describes the proposed response actions to protect the environment from flow rate changes that potentially indicate unanticipated flows into the SLCS. This RAP includes (1) a description of the landfill unit; (2) a description of the sources of liquid that may be present in the SLCS; (3) the criteria that govern implementation of appropriate response; and (4) a proposed outline of the reporting procedures to state and federal agencies.

This RAP has been revised to reflect response actions appropriate for the CAMU while operating as a **storage unit and then as a** passive dewatering system. As such, the primary LCS is subjected to significant additional hydrostatic head (up to 30 feet) compared to the post-dewatering phase, where the CAMU will operate as a landfill with less than one foot of head on the primary LCS.

1.2 Project Description

The design basis for the CAMU is for containment of the non-native sediments to be dredged from Transects 1 through 36 of the Grand Calumet River. The CAMU consists of two Units: Unit 1 is for the TSCA and RCRA-regulated non-native dredge spoils from Transects 1 through 11 and Horizon 1 of Transect 17; and Unit 2 will hold the remaining dredge spoils (i.e. non-TSCA and non-hazardous) from Transects 12 through 36. Unit 1 is approximately 12.06 acres and Unit 2 is approximately 28.87 acres.

Both Units 1 and 2 have a primary leachate collection system (PLCS) and a secondary leachate collection system (SLCS) as illustrated in the design drawings. These systems are designed and managed to control and remove liquids in a manner consistent with USEPA's liquid management strategy. The components include primary and secondary leachate collection pipes, risers, sumps, cleanouts, forcemains and manholes. Unit 1 has two sumps and Unit 2 has three sumps. Sumps are located at low points in the units to collect the liquids that enter the leachate collection systems. **After the dredging and dewatering**

phases are complete and the CAMU is operated as a landfill, liquids will be removed from each PLCS at regular intervals by pumps placed inside sideslope risers. This will provide effective leachate management and will minimize the hydrostatic head on the lining systems. **At that time,** the performance of the primary liner and PLCS will be judged by regular documentation of the liquid volume encountered in and removed from the SLCS.

Both Units have been designed to meet or exceed EPA guidelines for landfills. The liner design components from top to bottom are as follows:

- Leachate collection system with granular drainage blanket, geotextile cushion, and piping on the base and geocomposite drainage layer on the sidewalls.
- Primary 60 mil HDPE geomembrane (smooth on base and textured on sideslopes)
- Secondary leachate collection system with geocomposite drainage layer and piping
- Secondary liner comprised of 60-mil HDPE geomembrane (smooth on base and textured on sideslopes) and underlying geosynthetic clay liner (GCL)

The base grades for both Units have been adjusted so that the bottom of the liner system will be above the high elevation of the groundwater table. To gain the dredge volume lost by keeping the liner system above the groundwater table, a 20-ft vertically high 1H:1V sideslope was designed along the perimeter sideslope of CAMU.

2.0 POTENTIAL SOURCES OF LIQUIDS IN THE SECONDARY LEACHATE COLLECTION SYSTEM

2.1 General

The purpose of this section is to: (1) establish the basis for the Response Rate (RR) and Action Leakage Rate (ALR) calculations described in Section 3.0 and (2) identify potential sources of liquids that could impact the quantity of liquid collected in the secondary leachate collection system (SLCS) sumps of each cell. Liquids entering an SLCS have been considered from three potential sources. These sources are: (1) construction liquids (including precipitation); (2) permeation and leakage of liquids through the primary liner; and (3) groundwater and other liquid sources located outside the secondary geomembrane permeating and leaking through the secondary composite liner system.

2.2 Construction Liquids

The term "construction liquids" is used in this RAP to identify liquids that have entered the CAMU during the SLCS construction period. Construction liquids include rainfall and snow melt (precipitation) and water used to adjust the moisture content of the material placed as part of the SLCS construction. Construction liquids will drain from the SLCS drainage layer under the force of gravity. Because the hydraulic conductivity of the drainage layer is 1×10^{-2} cm/sec, construction liquids will normally drain out of the SLCS within a few months following the completion of the primary leachate collection system (PLCS) construction. As such, the amount of liquid trapped in the system during construction has not been included in the calculation of the Response Rate. This is considered a conservative approach.

2.3 Permeation and Leakage through the Primary Liner System

Even when good construction practices and construction quality control and assurance procedures are followed, defects equivalent to numerous ¼-inch holes per acres in the geomembrane may be reasonably expected. Liquid migration through the primary base liner is expected to be relatively independent of single rainfall events, but it is expected to vary with seasonal rainfall. If liner defects are present, slight temporary increases in flow rates may develop after major storms since temporary ponding of surface

water may result in higher flow into the PLCS and through defects in the sideslope liner into the SLCS. Depending on the amount of dredge disposed in the CAMU, increased flow could lag the rainfall event by several days or weeks.

Flows in the SLCS generally increase in the winter and spring due to more precipitation during these seasons. Higher flows in the PLCS cause higher heads in the primary liner system with a corresponding increase in flow to the SLCS due to permeation and leakage through the primary HDPE geomembrane. In addition, increased flows above the PLCS increase the probability of liquids coming in contact with a defect in the primary HDPE geomembrane, particularly on side slopes.

Fluid migration through the side slope liner will be relatively small due to the presence of a dredge deposit on the side slope in combination with the side slope geocomposite and the primary and secondary geomembranes. However, in connection with rainfall or snow melt events, significant liquid quantities could enter the SLCS if defects are present in the primary HDPE geomembrane on the perimeter side slope.

A HDPE geomembrane typically has permeability on the order of 2×10^{-11} cm/sec. Pinholes in the liner are typically limited to one ¼-in hole per acre. Coupled together, permeation and leakage through the primary liner is typically on the order of 1 gallon/acre-day for a landfill with a primary LCS operated to maintain one foot or less of leachate head. However, for the Response Rate (RR) calculation, a value of 20 gpad was selected in compliance with pertinent EPA guidelines. This accommodates uncertainties in numerical calculations (both assumptions and theory), potential leakage associated with unique design features (sumps), and potential liquid sources not accounted for in other quantified components of the RR. This 20 gpad value does not account for additional anticipated leakage that would result from significantly higher head on the primary LCS, since the landfills for which the guidance is provided are required to maintain one foot or less of head. Therefore, a **storage unit and/or** dewatering system with up to 30 feet of hydraulic head on the primary LCS is expected to operate with a leakage level in the secondary LDS that is between the RR and the ALR, since the higher hydraulic head will result in more leakage to the secondary LDS. As long as the ALR is not exceeded, there is no additional risk for leakage from the secondary LDS since it is maintained with one foot or less hydraulic head when experiencing

flows between the RR and the ALR.

2.4 Liquids from Outside the Secondary HDPE Geomembrane

The two potential outside sources of liquid considered are liquids resulting from consolidation of the GCL and groundwater. Liquids from these sources enter the SLCS via permeation through the intact secondary HDPE geomembrane or leakage through local defects in the secondary HDPE geomembrane. However, these two potential sources of liquids in the SLCS are limited by the fact the base grades of the liner system have been adjusted to be above the highest seasonal groundwater table. The GCL has less of a chance to be saturated with groundwater, and as a result, there is less of a chance that permeation or leakage upward through the secondary geomembrane will occur.

Groundwater is usually considered to be the most predominant outside liquid source that may contribute to the liquid in the SLCS sumps. The groundwater table will vary seasonally during the CAMU operation and closure. Despite the fact that the base grades of the CAMU are above the groundwater table, it is still likely that groundwater will intrude into the SLCS sumps due to seasonal fluctuation. A conservative value of 10 gallons per acre per day is chosen.

3.0 RESPONSE ACTION TRIGGER LEVELS

3.1 Action Leakage Rate (ALR)

The EPA defines the Action Leakage Rate (ALR) as the maximum design flow rate that the secondary leachate collection system (SLCS) can remove without the fluid head on the bottom liner exceeding one foot. The ALR is the higher value of the two trigger levels. Therefore, the response actions are much more severe if the leakage rate through a sump exceeds the ALR. The ALR is a function of the flow capacity of the various components of the SLCS. These flow components include:

- Flow to the 18" Secondary Leachate Collection Riser through the Drainage Layer
- Flow through the Pipe Perforations of the SLCS Riser Pipe
- Flow through the SLCS at Entrance to Sump; which includes
  - Flow through the Geocomposite
  - Flow through the Secondary Leachate Collection Pipe
  - Flow through the Pipe Perforations of the Secondary Leachate Collection Pipe
  - Flow to the Collection Pipe through the Drainage Layer

The flow capacities of these components of the SLCS are calculated in Attachment A. It was determined that the flow through the drainage **pipe** and the geocomposite governs the choice of the ALR, as it had the minimum flow capacity. The combined flow through the drainage stone and the geocomposite at the sump entrance is **97,704** gallons per day. A factor of safety of **1.5** has been included in the calculations. This will allow for uncertainties in the design (e.g. slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the SLCS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the SLCS, and proposed response actions (e.g. the ALR must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressure, etc.).

The ALR is determined by converting the minimum flow rate to a per unit acre basis. Dividing the flow rate (**97,704** gallons per day) by the maximum drainage area to a sump will give the most conservative

(i.e. lowest) estimate for the ALR. Unit 2 East 1 has the maximum drainage area at 12.10 acres. Therefore, the selected unit-specific action leakage rate for the CAMU is 8,075 gallons/acre-day. The results are tabulated in Table 1.

The action leakage rate of 8,075 gallons/acre-day is termed "unit-specific" because it is based on a unit area (i.e. one acre). The selected "unit-specific" ALR is converted to a selected "sump-specific" ALR by multiplying it by the drainage area to each sump. These calculations are also included in Table 1.

LDS sumps should be monitored **daily during the dredging and dewatering phases, and** at least once a week **after the CAMU is operated as a landfill**. If liquids are present, they should be pumped out and the data recorded. The flow rate between two pumping events should be converted to an average daily flow rate for each sump. The flow rate is then compared to the "unit-specific" ALR or the "sump-specific" ALR, depending on the units involved. If the flow rate for a sump exceeds the ALR, the appropriate response actions are carried out.

3.2 Response Rate (RR)

The Response Rate (RR) is the lower of the two trigger levels. It sets the lowest leakage rate at which response action besides monitoring is required. Liquids that are included in the RR consist mainly of sources other than leachate. The long-term sources of liquids in the RR calculation include (1) liquids resulting from permeation and leakage through the primary liner and (2) liquids from groundwater permeating through the secondary HDPE geomembrane and leaking through small defects in the secondary HDPE geomembrane.

In the case of liquids through the primary liner, it was determined in Section 2.3 that it would be minimal due to the low permeability and small amount of defects in the liner during operation of the CAMU as a landfill, but during operation of the CAMU as a **storage unit and/or** dewatering system the leakage through the primary system will increase with increasing hydraulic head. A conservative value of 20 gpad was selected according to EPA guidelines for landfill operations (i.e., < one foot of head in the primary LCS) to account for uncertainties in calculations, potential leakage associated with unique design

features and potential liquid sources not accounted for in other components of the RR.

In the case of liquids through the secondary liner from consolidation of the GCL and groundwater, it was also determined to be minimal due to the fact that the base grades have been designed to be above the highest seasonal groundwater. In Section 2.4, a conservative value of 10 gpad was chosen to account for seasonal fluctuations in the GW table.

Adding the two potential sources of liquids, the selected "unit-specific" Response Rate (RR) is 30 gallons/acre-day. As with the ALR calculation, the selected "unit-specific" RR is converted to a selected "sump-specific" RR by multiplying it by the drainage area to each sump. These calculations are included in Table 2.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-51131-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
4/8/2010 2:20 PM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
04/08/2010

cc: Doug P Boyea

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

US EPA ARCHIVE DOCUMENT

Comments
No additional comments.

Receipt
1 of 3 vials has bubble >6mm for GAC INF (C) and GAC EFF (A).

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

GC/MS VOA
Method(s) 624: The following sample was diluted due to the abundance of target analytes: GAC INF (A) (510-51131-1), GAC INF (B) (510-51131-2), GAC INF (C) (510-51131-3). Elevated reporting limits (RLs) are provided. Batch 61762 method 624.

Method(s) 624: The continuing calibration verification (CCV) for Ethylbenzene and Xylenes recovered above the upper control limit. The samples associated with this CCV were either non-detects for the affected analyte or rejected in the batch where exceeding the reporting limit; therefore, the data has been reported. Batch 61760 method 624.

Method(s) 624: The following sample was received with headspace in the sample vial: GAC INF (C) (510-51131-3). Batch 61762 method 624.

Method(s) 624: The following samples submitted for volatiles analysis were received with insufficient preservation (pH >2): GAC INF (A) (510-51131-1), GAC INF (C) (510-51131-3). Batch 61813.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: Due to the high concentration of target analytes the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 61758 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 625: The continuing calibration verification (CCV) for Terpheny-d14 in analytical batch 61768 recovered above the upper control limit. The surrogate recoveries in the samples associated with this CCV were all within control limits.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-51131-1

Method	Analyst	Analyst ID
40CFR136A 624	Hall, Jennifer L	JLH
40CFR136A 624	Hobart, Wes E	WEH
40CFR136A 625	Squires, William D	WDS

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-51131-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-51131-1	GAC INF (A)	Water	04/06/2010 0835	04/06/2010 1925
510-51131-2	GAC INF (B)	Water	04/06/2010 1243	04/06/2010 1925
510-51131-3	GAC INF (C)	Water	04/06/2010 1537	04/06/2010 1925
510-51131-4	GAC INF	Water	04/06/2010 1545	04/06/2010 1925
510-51131-5	GAC EFF (A)	Water	04/06/2010 0838	04/06/2010 1925
510-51131-6	GAC EFF (B)	Water	04/06/2010 1245	04/06/2010 1925
510-51131-7	GAC EFF (C)	Water	04/06/2010 1540	04/06/2010 1925
510-51131-8	GAC EFF	Water	04/06/2010 1550	04/06/2010 1925
510-51131-9	Trip Blank	Water	04/06/2010 0800	04/06/2010 1925

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51131-1
Lab Sample Id: 510-51131-1
Client Matrix: Water
Date Sampled: 04/06/2010 0835
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - RADL	930	ug/L	100	624		04/07/2010 2137	20
Ethylbenzene	9.5	ug/L	5.0	624		04/08/2010 1215	1.0
Toluene	20	ug/L	5.0	624		04/07/2010 1159	1.0
Xylenes, Total	27	ug/L	10	624		04/08/2010 1215	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	102	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr)	106	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RADL	114	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	103	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RADL	102	%		624	77 - 132		
4-Bromofluorobenzene (Surr)	100	%		624	77 - 132		
Toluene-d8 (Surr)	90	%		624	89 - 108		
Toluene-d8 (Surr) - RADL	103	%		624	89 - 108		
Toluene-d8 (Surr)	100	%		624	89 - 108		

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Gary, IN 46402

Job Number: 510-51131-1
Lab Sample Id: 510-51131-2
Client Matrix: Water
Date Sampled: 04/06/2010 1243
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - RADL	1300	ug/L	100	624		04/07/2010 2209	20
Ethylbenzene	13	ug/L	5.0	624		04/08/2010 1247	1.0
Toluene	30	ug/L	5.0	624		04/08/2010 1247	1.0
Xylenes, Total	34	ug/L	10	624		04/08/2010 1247	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - RADL	113	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr)	107	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - RADL	103	%		624	77 - 132		
4-Bromofluorobenzene (Surr)	101	%		624	77 - 132		
Toluene-d8 (Surr)	101	%		624	89 - 108		
Toluene-d8 (Surr) - RADL	103	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-51131-1
Lab Sample Id: 510-51131-3
Client Matrix: Water
Date Sampled: 04/06/2010 1537
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - RADL	1300	ug/L	100	624		04/07/2010 2241	20
Ethylbenzene	13	ug/L	5.0	624		04/08/2010 1318	1.0
Toluene	34	ug/L	5.0	624		04/08/2010 1318	1.0
Xylenes, Total	36	ug/L	10	624		04/08/2010 1318	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - RADL	113	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr)	106	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	102	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RADL	102	%		624	77 - 132		
Toluene-d8 (Surr)	100	%		624	89 - 108		
Toluene-d8 (Surr) - RADL	103	%		624	89 - 108		

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Gary, IN 46402

Job Number: 510-51131-1
Lab Sample Id: 510-51131-4
Client Matrix: Water
Date Sampled: 04/06/2010 1545
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	150	ug/L	100	625	04/07/2010 0754	04/07/2010 1510	10
Acenaphthene	240	ug/L	100	625	04/07/2010 0754	04/07/2010 1510	10
Fluorene	53	ug/L	10	625	04/07/2010 0754	04/07/2010 1137	1.0
Naphthalene	800	ug/L	100	625	04/07/2010 0754	04/07/2010 1510	10
Phenanthrene	21	ug/L	10	625	04/07/2010 0754	04/07/2010 1137	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	76	%		625	10 - 168		
2-Fluorobiphenyl	73	%		625	10 - 129		
2-Fluorophenol	39	%		625	10 - 87		
Nitrobenzene-d5	98	%		625	10 - 135		
Phenol-d5	31	%		625	10 - 69		
Terphenyl-d14	86	%		625	10 - 142		

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Job Number: 510-51131-1
Lab Sample Id: 510-51131-5
Client Matrix: Water
Date Sampled: 04/06/2010 0838
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/07/2010 1159	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/07/2010 1159	1.0
Toluene	<5.0	ug/L	5.0	624		04/07/2010 1159	1.0
Xylenes, Total	<10	ug/L	10	624		04/07/2010 1159	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	113	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	100	%		624	77 - 132		
Toluene-d8 (Surr)	104	%		624	89 - 108		

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Job Number: 510-51131-1
Lab Sample Id: 510-51131-6
Client Matrix: Water
Date Sampled: 04/06/2010 1245
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/07/2010 1231	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/07/2010 1231	1.0
Toluene	<5.0	ug/L	5.0	624		04/07/2010 1231	1.0
Xylenes, Total	<10	ug/L	10	624		04/07/2010 1231	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	111	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	100	%		624	77 - 132		
Toluene-d8 (Surr)	104	%		624	89 - 108		

Jeff L Rey
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Job Number: 510-51131-1
Lab Sample Id: 510-51131-7
Client Matrix: Water
Date Sampled: 04/06/2010 1540
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/07/2010 1302	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/07/2010 1302	1.0
Toluene	<5.0	ug/L	5.0	624		04/07/2010 1302	1.0
Xylenes, Total	<10	ug/L	10	624		04/07/2010 1302	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	113	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	100	%		624	77 - 132		
Toluene-d8 (Surr)	103	%		624	89 - 108		

Jeff L Rey
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Job Number: 510-51131-1
Lab Sample Id: 510-51131-8
Client Matrix: Water
Date Sampled: 04/06/2010 1550
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	<10	ug/L	10	625	04/07/2010 0754	04/07/2010 1232	1.0
Acenaphthene	<10	ug/L	10	625	04/07/2010 0754	04/07/2010 1232	1.0
Fluorene	<10	ug/L	10	625	04/07/2010 0754	04/07/2010 1232	1.0
Naphthalene	<10	ug/L	10	625	04/07/2010 0754	04/07/2010 1232	1.0
Phenanthrene	<10	ug/L	10	625	04/07/2010 0754	04/07/2010 1232	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	71	%		625	10 - 168		
2-Fluorobiphenyl	71	%		625	10 - 129		
2-Fluorophenol	41	%		625	10 - 87		
Nitrobenzene-d5	69	%		625	10 - 135		
Phenol-d5	31	%		625	10 - 69		
Terphenyl-d14	84	%		625	10 - 142		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51131-1
Lab Sample Id: 510-51131-9
Client Matrix: Water
Date Sampled: 04/06/2010 0800
Date Received: 04/06/2010 1925

Client Sample ID: Trip Blank

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/07/2010 1127	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/07/2010 1127	1.0
Toluene	<5.0	ug/L	5.0	624		04/07/2010 1127	1.0
Xylenes, Total	<10	ug/L	10	624		04/07/2010 1127	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	113	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	100	%		624	77 - 132		
Toluene-d8 (Surr)	104	%		624	89 - 108		

Client: United States Steel Corporation Job Number: 510-51131-1

Method Blank - Batch: 510-61760

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-61760/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1125
Date Prepared: N/A

Analysis Batch: 510-61760
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7405.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	81 - 126
4-Bromofluorobenzene (Surr)	108	77 - 132
Toluene-d8 (Surr)	97	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-61760

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-61760/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 0941
Date Prepared: N/A

Analysis Batch: 510-61760
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7402.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-61760/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1014
Date Prepared: N/A

Analysis Batch: 510-61760
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7403.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	94	95	37 - 151	1	30		
Ethylbenzene	108	114	37 - 162	5	30		
Toluene	99	100	47 - 150	1	30		
Xylenes, Total	113	118		5			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	91	81 - 126
4-Bromofluorobenzene (Surr)	103	105	77 - 132
Toluene-d8 (Surr)	98	100	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51131-1

Method Blank - Batch: 510-61762

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-61762/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1055
Date Prepared: N/A

Analysis Batch: 510-61762
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9264.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112	81 - 126
4-Bromofluorobenzene (Surr)	99	77 - 132
Toluene-d8 (Surr)	103	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-61762

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-61762/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 0951
Date Prepared: N/A

Analysis Batch: 510-61762
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9262.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-61762/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1023
Date Prepared: N/A

Analysis Batch: 510-61762
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9263.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	95	97	37 - 151	2	30		
Ethylbenzene	95	97	37 - 162	1	30		
Toluene	94	96	47 - 150	2	30		
Xylenes, Total	95	97		2			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110	110	81 - 126
4-Bromofluorobenzene (Surr)	99	99	77 - 132
Toluene-d8 (Surr)	104	103	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51131-1

Method Blank - Batch: 510-61813

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-61813/10
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/08/2010 0720
Date Prepared: N/A

Analysis Batch: 510-61813
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9301.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	115	81 - 126
4-Bromofluorobenzene (Surr)	103	77 - 132
Toluene-d8 (Surr)	104	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-61813

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-61813/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/08/2010 0429
Date Prepared: N/A

Analysis Batch: 510-61813
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9296.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-61813/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/08/2010 0501
Date Prepared: N/A

Analysis Batch: 510-61813
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9297.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	99	99	37 - 151	0	30		
Ethylbenzene	98	99	37 - 162	1	30		
Toluene	97	98	47 - 150	1	30		
Xylenes, Total	99	100		1			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	112	113	81 - 126
4-Bromofluorobenzene (Surr)	101	102	77 - 132
Toluene-d8 (Surr)	104	103	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51131-1

Method Blank - Batch: 510-61758

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-61758/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1100
Date Prepared: 04/07/2010 0754

Analysis Batch: 510-61768
Prep Batch: 510-61758
Units: ug/L

Instrument ID: SMSA
Lab File ID: D2983.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	68	10 - 168
2-Fluorobiphenyl	69	10 - 129
2-Fluorophenol	44	10 - 87
Nitrobenzene-d5	70	10 - 135
Phenol-d5	34	10 - 69
Terphenyl-d14	90	10 - 142

Lab Control Sample - Batch: 510-61758

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-61758/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1118
Date Prepared: 04/07/2010 0754

Analysis Batch: 510-61768
Prep Batch: 510-61758
Units: ug/L

Instrument ID: SMSA
Lab File ID: D2984.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dimethylphenol	50.0	36.3	73	32 - 119	
Acenaphthene	50.0	38.4	77	47 - 145	
Fluorene	50.0	38.7	77	59 - 121	
Naphthalene	50.0	32.8	66	21 - 133	
Phenanthrene	50.0	39.3	79	54 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	78	10 - 168
2-Fluorobiphenyl	77	10 - 129
2-Fluorophenol	44	10 - 87
Nitrobenzene-d5	71	10 - 135
Phenol-d5	35	10 - 69
Terphenyl-d14	95	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51131-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-61758

Method: 625
Preparation: CWA_Prep

MS Lab Sample ID:	510-51131-4	Analysis Batch:	510-61768	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-61758	Lab File ID:	D2986.D
Dilution:	1.0			Initial Weight/Volume:	470 mL
Date Analyzed:	04/07/2010 1155			Final Weight/Volume:	1 mL
Date Prepared:	04/07/2010 0754			Injection Volume:	1 uL

MSD Lab Sample ID:	510-51131-4	Analysis Batch:	510-61768	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-61758	Lab File ID:	D2987.D
Dilution:	1.0			Initial Weight/Volume:	470 mL
Date Analyzed:	04/07/2010 1214			Final Weight/Volume:	1 mL
Date Prepared:	04/07/2010 0754			Injection Volume:	1 uL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4-Dimethylphenol	105	53	32 - 119	21	30		
Acenaphthene	75	99	47 - 145	11	30		
Fluorene	60	73	59 - 121	11	30		
Naphthalene	76	91	21 - 133	3	30		
Phenanthrene	73	74	54 - 120	1	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2,4,6-Tribromophenol	81	81	10 - 168
2-Fluorobiphenyl	81	79	10 - 129
2-Fluorophenol	49	44	10 - 87
Nitrobenzene-d5	105	80	10 - 135
Phenol-d5	39	34	10 - 69
Terphenyl-d14	104	91	10 - 142

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

106302

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Valparaiso
2400 Cumberland Drive
Valparaiso, IN 46383
Phone: 219-464-2389
Fax: 219-462-2953

Report To:
Contact: Doug Boyen
Company: USS
Address:
Phone:
Fax:
E-Mail:

Bill To:
Contact: SAME
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only ____ of ____

Package Sealed	Samples Sealed
Yes (No)	Yes (No)
Received on Ice	**Samples Intact**
(Yes) No	(Yes) No

Temperature °C of Cooler: US Steel Cooler 2.8°C

Within Hold Time	Preserv. Indicated
(Yes) No	(Yes) No NA
pH Check OK	**Res Cl_2 Check OK**
Yes No (NA)	Yes No (NA)

Sample Labels and COC Agree: (Yes) No COC not present

Sampler Name: B. Frye
Signature: [signature]
Project Name: CAMU weekly
Project Number:
Project Location:
Lab PM:
Date Required
Hard Copy: ___/___/___
Fax: ___/___/___

Refrg #
/ Cont.
Volume
Preserv

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	BTEX	8270C BF	NAP	2-4 Dimethylphenol	Acenaphthene	Fluorenene	phenanthrene				Additional Analyses / Remarks
51131-1		GAC INF (A)	4-6-10	0835	W	G	X										
-2		GAC INF (B)		1243		G	X										
-3		GAC INF (C)		1537		G	X										1 of 3 vials have bubble >6 mm DR 4/7/10
-4		GAC INF		1545		C		X	X	X	X	X	X				
-5		GAC EFF (A)		0838		G	X										1 of 3 vials have bubble >6 mm DR 4/7/10
-6		GAC EFF (B)		1245		G	X										
-7		GAC EFF (C)		1540		G	X										
-8		GAC EFF		1550		C		X	X	X	X	X	X				
-9		Trip Blank	4-6-10	0800	W	G	X										

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	Test America	4-6-10	1925	[signature]	Test Amer.	4/6/10	1925

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other _____

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

COMMENTS: Rush 24-hour

Date Received ___/___/___
Courier: Hand Delivered ☐
Bill of Lading

TAL-8209 (11/07)

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-51131-1

Login Number: 51131
Creator: Richter, Debbie D
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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.	False	1 of 3 vials has bubble >6mm for INF (C) and EFF (A)
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-51247-1

Job Description: CAMU Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Approved for release.
Amanda E Grzybowski
Project Manager I
4/12/2010 3:32 PM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
04/12/2010

cc: Doug P Boyea

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

TestAmerica Laboratories, Inc.
TestAmerica Valparaiso 2400 Cumberland Drive, Valparaiso, IN 46383
Tel (219) 464-2389 Fax (219) 462-2953 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation

Job Number: 510-51247-1

Method	Analyst	Analyst ID
MCAWW 350.1	Ivers, Catherine L	CLI

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: United States Steel Corporation

Job Number: 510-51247-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-51247-1	GAC EFF	Water	04/08/2010 1349	04/09/2010 1000

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51247-1
Lab Sample Id: 510-51247-1
Client Matrix: Water
Date Sampled: 04/08/2010 1349
Date Received: 04/09/2010 1000

Client Sample ID: GAC EFF

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GENERAL CHEMISTRY							
Ammonia, undistilled	24	mg/L	1.0	350.1		04/09/2010 1127	50

Client: United States Steel Corporation

Job Number: 510-51247-1

Method Blank - Batch: 510-61898

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-61898/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/09/2010 1125
Date Prepared: N/A

Analysis Batch: 510-61898
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-61898

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-61898/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/09/2010 1123
Date Prepared: N/A

Analysis Batch: 510-61898
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.421	105	75 - 125	

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

106307

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Valparaiso
2400 Cumberland Drive
Valparaiso, IN 46383
Phone: 219-464-2389
Fax: 219-462-2953

Report To:
Contact: D. Boyea
Company: USS
Address:
Phone:
Fax:
E-Mail:

Bill To:
Contact: SAME
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only ___ of ___

Package Sealed: Yes (No)	Samples Sealed: Yes (No)
Received on Ice: (Yes) No	Samples Intact: (Yes) No
Temperature °C of Cooler: 2.9 °C SS Steel Cooler	
Within Hold Time: (Yes) No	Preserv. Indicated: (Yes) No NA
pH Check OK: (Yes) No NA	Res Cl_2 Check OK: Yes No (NA)
Sample Labels and COC Agree: (Yes) No	COC not present

Sampler Name: B. Frye
Signature:
Project Name: CAMU Weekly
Project Number:
Project Location:
Lab PM:
Date Required
Hard Copy: ___/___/___
Fax: ___/___/___

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Ammonia	Refrg #	# / Cont.	Volume	Preserv	Additional Analyses / Remarks
51247-1		GAC EFF	4-8-10	1349	W	G	X					

RELINQUISHED BY: [signature] COMPANY: TestAmerica DATE: 4-9-10 TIME: 1050
RECEIVED BY: [signature] COMPANY: TestAmerica DATE: 4/9/10 TIME: 1050
RELINQUISHED BY ____ COMPANY ____ DATE ____ TIME ____
RECEIVED BY ____ COMPANY ____ DATE ____ TIME ____

Matrix Key
WW = Wastewater; W = Water; S = Soil; SL = Sludge; MS = Miscellaneous; OL = Oil; A = Air; SE = Sediment; SO = Solid; DS = Drum Solid; DL = Drum Liquid; L = Leachate; WI = Wipe; O = ____

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other ____

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

COMMENTS: Rush

Date Received ___/___/___
Courier:
Hand Delivered ☐
Bill of Lading

TAL-8209 (11/07)

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-51247-1

Login Number: 51247

List Source: TestAmerica Valparaiso

Creator: Looney, Christina M

List Number: 1

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-51315-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Approved for release.
Amanda E Grzybowski
Project Manager I
4/14/2010 9:50 AM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
04/14/2010

cc: Doug P Boyea

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US EPA ARCHIVE DOCUMENT

Comments
No additional comments.

Receipt
1 of 3 vials has bubble >6mm for GAC EFFLUENT (B).

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

GC/MS VOA
Method(s) 624: The following samples were diluted due to the abundance of target analytes: GAC INFLUENT (A) (510-51315-1), GAC INFLUENT (B) (510-51315-2), GAC INFLUENT (C) (510-51315-3). Elevated reporting limits (RLs) are provided. Batch 62009.

Method(s) 624: Toluene-d8 surrogate recovery for the following sample was outside control limits: GAC INFLUENT (A) (510-51315-1). Evidence of matrix interference is present; therefore, further re-analysis was not performed. Batch 62009 method 624.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: Due to the high concentration of target analytes, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 62003 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

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.

US EPA ARCHIVE DOCUMENT

METHOD SUMMARY

Client: United States Steel Corporation Job Number: 510-51315-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL VAL	40CFR136A 624	
Semivolatile Organic Compounds (GC/MS)	TAL VAL	40CFR136A 625	
Liquid-Liquid Extraction (Separatory Funnel)	TAL VAL		40CFR136A CWA_Prep
Nitrogen, Ammonia	TAL VAL	MCAWW 350.1	

Lab References:

TAL VAL = TestAmerica Valparaiso

Method References:

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

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

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-51315-1

Method	Analyst	Analyst ID
40CFR136A 624	Hall, Jennifer L	JLH
40CFR136A 625	Squires, William D	WDS
MCAWW 350.1	Church, Jason B	JBC

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-51315-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-51315-1	GAC INFLUENT (A)	Water	04/12/2010 0857	04/12/2010 1905
510-51315-2	GAC INFLUENT (B)	Water	04/12/2010 1208	04/12/2010 1905
510-51315-3	GAC INFLUENT (C)	Water	04/12/2010 1443	04/12/2010 1905
510-51315-4	GAC INFLUENT	Water	04/12/2010 1450	04/12/2010 1905
510-51315-5	GAC EFFLUENT (A)	Water	04/12/2010 0854	04/12/2010 1905
510-51315-6	GAC EFFLUENT (B)	Water	04/12/2010 1206	04/12/2010 1905
510-51315-7	GAC EFFLUENT (C)	Water	04/12/2010 1440	04/12/2010 1905
510-51315-8	GAC EFFLUENT	Water	04/12/2010 1445	04/12/2010 1905
510-51315-9	TRIP BLANK	Water	04/12/2010 0810	04/12/2010 1905

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51315-1
Lab Sample Id: 510-51315-1
Client Matrix: Water
Date Sampled: 04/12/2010 0857
Date Received: 04/12/2010 1905

Client Sample ID: GAC INFLUENT (A)

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
Benzene - DL	2900		ug/L	100	624		04/13/2010 1847	20
Ethylbenzene - RA	19		ug/L	5.0	624		04/13/2010 2027	1.0
Toluene - RA	51		ug/L	5.0	624		04/13/2010 2027	1.0
Xylenes, Total - RA	54		ug/L	10	624		04/13/2010 2027	1.0
Surrogate						Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - RA	96		%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - DL	101		%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	105		%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	103		%		624	77 - 132		
Toluene-d8 (Surr) - DL	92		%		624	89 - 108		
Toluene-d8 (Surr) - RA	88	X	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-51315-1
Lab Sample Id: 510-51315-2
Client Matrix: Water
Date Sampled: 04/12/2010 1208
Date Received: 04/12/2010 1905

Client Sample ID: GAC INFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	2800	ug/L	100	624		04/13/2010 1920	20
Ethylbenzene - RA	19	ug/L	5.0	624		04/13/2010 2100	1.0
Toluene - RA	54	ug/L	5.0	624		04/13/2010 2100	1.0
Xylenes, Total - RA	56	ug/L	10	624		04/13/2010 2100	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - RA	96	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - DL	100	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	102	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	102	%		624	77 - 132		
Toluene-d8 (Surr) - DL	92	%		624	89 - 108		
Toluene-d8 (Surr) - RA	89	%		624	89 - 108		

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1 North Broadway
Gary, IN 46402

Job Number: 510-51315-1
Lab Sample Id: 510-51315-3
Client Matrix: Water
Date Sampled: 04/12/2010 1443
Date Received: 04/12/2010 1905

Client Sample ID: GAC INFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	2800	ug/L	100	624		04/13/2010 1954	20
Ethylbenzene - RA	19	ug/L	5.0	624		04/13/2010 2133	1.0
Toluene - RA	51	ug/L	5.0	624		04/13/2010 2133	1.0
Xylenes, Total - RA	54	ug/L	10	624		04/13/2010 2133	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	97	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	103	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	104	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	97	%		624	77 - 132		
Toluene-d8 (Surr) - RA	91	%		624	89 - 108		
Toluene-d8 (Surr) - DL	91	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-51315-1
Lab Sample Id: 510-51315-4
Client Matrix: Water
Date Sampled: 04/12/2010 1450
Date Received: 04/12/2010 1905

Client Sample ID: GAC INFLUENT

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
2,4-Dimethylphenol - DL	160		ug/L	100	625	04/13/2010 0802	04/13/2010 1512	10
Acenaphthene - DL	240		ug/L	100	625	04/13/2010 0802	04/13/2010 1512	10
Fluorene - DL	<100		ug/L	100	625	04/13/2010 0802	04/13/2010 1512	10
Naphthalene - DL	860		ug/L	100	625	04/13/2010 0802	04/13/2010 1512	10
Phenanthrene - DL	<100		ug/L	100	625	04/13/2010 0802	04/13/2010 1512	10
Surrogate						Acceptance Limits		
2,4,6-Tribromophenol - DL	0	D	%		625	10 - 168		
2-Fluorobiphenyl - DL	0	D	%		625	10 - 129		
2-Fluorophenol - DL	0	D	%		625	10 - 87		
Nitrobenzene-d5 - DL	0	D	%		625	10 - 135		
Phenol-d5 - DL	0	D	%		625	10 - 69		
Terphenyl-d14 - DL	0	D	%		625	10 - 142		

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1 North Broadway
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Job Number: 510-51315-1
Lab Sample Id: 510-51315-5
Client Matrix: Water
Date Sampled: 04/12/2010 0854
Date Received: 04/12/2010 1905

Client Sample ID: GAC EFFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/13/2010 1814	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/13/2010 1814	1.0
Toluene	<5.0	ug/L	5.0	624		04/13/2010 1814	1.0
Xylenes, Total	<10	ug/L	10	624		04/13/2010 1814	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	107	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	105	%		624	77 - 132		
Toluene-d8 (Surr)	99	%		624	89 - 108		

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Job Number: 510-51315-1
Lab Sample Id: 510-51315-6
Client Matrix: Water
Date Sampled: 04/12/2010 1206
Date Received: 04/12/2010 1905

Client Sample ID: GAC EFFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/13/2010 1741	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/13/2010 1741	1.0
Toluene	<5.0	ug/L	5.0	624		04/13/2010 1741	1.0
Xylenes, Total	<10	ug/L	10	624		04/13/2010 1741	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	106	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	104	%		624	77 - 132		
Toluene-d8 (Surr)	98	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
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Job Number: 510-51315-1
Lab Sample Id: 510-51315-7
Client Matrix: Water
Date Sampled: 04/12/2010 1440
Date Received: 04/12/2010 1905

Client Sample ID: GAC EFFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/13/2010 1708	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/13/2010 1708	1.0
Toluene	<5.0	ug/L	5.0	624		04/13/2010 1708	1.0
Xylenes, Total	<10	ug/L	10	624		04/13/2010 1708	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	106	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	102	%		624	77 - 132		
Toluene-d8 (Surr)	98	%		624	89 - 108		

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Job Number: 510-51315-1
Lab Sample Id: 510-51315-8
Client Matrix: Water
Date Sampled: 04/12/2010 1445
Date Received: 04/12/2010 1905

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	<10	ug/L	10	625	04/13/2010 0802	04/13/2010 1607	1.0
Acenaphthene	<10	ug/L	10	625	04/13/2010 0802	04/13/2010 1607	1.0
Fluorene	<10	ug/L	10	625	04/13/2010 0802	04/13/2010 1607	1.0
Naphthalene	<10	ug/L	10	625	04/13/2010 0802	04/13/2010 1607	1.0
Phenanthrene	<10	ug/L	10	625	04/13/2010 0802	04/13/2010 1607	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	64	%		625	10 - 168		
2-Fluorobiphenyl	74	%		625	10 - 129		
2-Fluorophenol	31	%		625	10 - 87		
Nitrobenzene-d5	77	%		625	10 - 135		
Phenol-d5	29	%		625	10 - 69		
Terphenyl-d14	71	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	23	mg/L	1.0	350.1		04/13/2010 1317	50

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-51315-1
Lab Sample Id: 510-51315-9
Client Matrix: Water
Date Sampled: 04/12/2010 0810
Date Received: 04/12/2010 1905

Client Sample ID: TRIP BLANK

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/13/2010 1634	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/13/2010 1634	1.0
Toluene	<5.0	ug/L	5.0	624		04/13/2010 1634	1.0
Xylenes, Total	<10	ug/L	10	624		04/13/2010 1634	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	105	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	101	%		624	77 - 132		
Toluene-d8 (Surr)	98	%		624	89 - 108		

DATA REPORTING QUALIFIERS

Client: United States Steel Corporation Job Number: 510-51315-1

Lab Section	Qualifier	Description
GC/MS VOA		
	X	Surrogate is outside control limits
GC/MS Semi VOA		
	F	MS or MSD 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.
	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.

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51315-1

Method Blank - Batch: 510-62009

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-62009/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 1227
Date Prepared: N/A

Analysis Batch: 510-62009
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7636.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	109	81 - 126
4-Bromofluorobenzene (Surr)	99	77 - 132
Toluene-d8 (Surr)	97	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-62009

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-62009/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 1042
Date Prepared: N/A

Analysis Batch: 510-62009
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7633.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-62009/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 1115
Date Prepared: N/A

Analysis Batch: 510-62009
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7634.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	104	103	37 - 151	1	30		
Ethylbenzene	114	112	37 - 162	2	30		
Toluene	107	105	47 - 150	2	30		
Xylenes, Total	116	113		2			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	98	81 - 126
4-Bromofluorobenzene (Surr)	99	99	77 - 132
Toluene-d8 (Surr)	100	99	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51315-1

Method Blank - Batch: 510-62003

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-62003/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 1435
Date Prepared: 04/13/2010 0802

Analysis Batch: 510-62035
Prep Batch: 510-62003
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3103.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	81	10 - 168
2-Fluorobiphenyl	79	10 - 129
2-Fluorophenol	49	10 - 87
Nitrobenzene-d5	78	10 - 135
Phenol-d5	36	10 - 69
Terphenyl-d14	72	10 - 142

Lab Control Sample - Batch: 510-62003

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-62003/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 1453
Date Prepared: 04/13/2010 0802

Analysis Batch: 510-62035
Prep Batch: 510-62003
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3104.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dimethylphenol	50.0	34.8	70	32 - 119	
Acenaphthene	50.0	37.9	76	47 - 145	
Fluorene	50.0	40.1	80	59 - 121	
Naphthalene	50.0	32.9	66	21 - 133	
Phenanthrene	50.0	38.8	78	54 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	83	10 - 168
2-Fluorobiphenyl	75	10 - 129
2-Fluorophenol	46	10 - 87
Nitrobenzene-d5	74	10 - 135
Phenol-d5	35	10 - 69
Terphenyl-d14	79	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51315-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-62003

Method: 625
Preparation: CWA_Prep

MS Lab Sample ID:	510-51315-4DL	Analysis Batch: 510-62035	Instrument ID: SMSA
Client Matrix:	Water	Prep Batch: 510-62003	Lab File ID: D3106.D
Dilution:	10	Run Type: DL	Initial Weight/Volume: 460 mL
Date Analyzed:	04/13/2010 1530		Final Weight/Volume: 1 mL
Date Prepared:	04/13/2010 0802		Injection Volume: 1 uL

MSD Lab Sample ID:	510-51315-4DL	Analysis Batch: 510-62035	Instrument ID: SMSA
Client Matrix:	Water	Prep Batch: 510-62003	Lab File ID: D3107.D
Dilution:	10	Run Type: DL	Initial Weight/Volume: 460 mL
Date Analyzed:	04/13/2010 1549		Final Weight/Volume: 1 mL
Date Prepared:	04/13/2010 0802		Injection Volume: 1 uL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4-Dimethylphenol	79	91	32 - 119	5	30		
Acenaphthene	83	98	47 - 145	5	30		
Fluorene	96	103	59 - 121	4	30		
Naphthalene	243	248	21 - 133	0	30	4	4
Phenanthrene	120	127	54 - 120	6	30		F

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
2,4,6-Tribromophenol	0	D	0	D	10 - 168
2-Fluorobiphenyl	0	D	0	D	10 - 129
2-Fluorophenol	0	D	0	D	10 - 87
Nitrobenzene-d5	0	D	0	D	10 - 135
Phenol-d5	0	D	0	D	10 - 69
Terphenyl-d14	0	D	0	D	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-51315-1

Method Blank - Batch: 510-62063

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-62063/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 1259
Date Prepared: N/A

Analysis Batch: 510-62063
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-62063

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-62063/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 1258
Date Prepared: N/A

Analysis Batch: 510-62063
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.413	103	75 - 125	

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact		Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY	US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO	Doug Boyea				
ADDRESS	1 North Broadway MS 70				
	Gary, IN 46402				
PHONE					
Project Name:	CAMU				
Site:					
P O #					
W O #					

Analysis Turnaround Time

- ☐ Standard
- ☒ Rush Charges Authorized for 24 HOURS
- ☐ 2 weeks
- ☐ 1 week
- ☐ 2 days
- ☐ 1 day

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX	NAP, 2-4 DIMETHYL PHENOL, ACENAPTHENE, FLUORININE, PHENANTHRENE	AMMONIA	Special Instructions/Note:
51315-1 GAC INFLUENT (A)	4-12-10	0857	GRAB	AQ	3		X			
-2 GAC INFLUENT (B)		1208	GRAB	AQ	3		X			
-3 GAC INFLUENT (C)		1443	GRAB	AQ	3		X			
-4 GAC INFLUENT		1450	COMP	AQ	2			X		
-5 GAC EFFLUENT (A)		0854	GRAB	AQ	3		X			
-6 GAC EFFLUENT (B)		1206	GRAB	AQ	3		X			1 of 3 vials has bubble 7 6mm DRC 4/13/10
-7 GAC EFFLUENT (C)		1440	GRAB	AQ	3		X			
-8 GAC EFFLUENT		1445	COMP	AQ	3			X	X	
-9 TRIP BLANK	4-12-10	0810	GRAB	AQ	1		X			
							2	1	3	

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Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements:

Relinquished by:	Company: / TEST AMERICA	Date/Time: 4-12-10 @1905	Received by:	Company: TestAmerica
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments: US Steel Cooler 3.8°C

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-51315-1

Login Number: 51315
Creator: Richter, Debbie D
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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.	False	1 of 3 vials has bubble >6mm for GAC Effluent (B)
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-51762-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Approved for release.
Melonie M Sutton
Customer Service Manager
4/28/2010 10:14 AM

Designee for
Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
04/28/2010

cc: Doug P Boyea

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

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Comments
No additional comments.

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

GC/MS VOA
Method(s) 624: Toluene-d8 surrogate recovery for the following samples was outside control limits: GAC INFLUENT (B) (510-51762-2), GAC INFLUENT (C) (510-51762-3). These samples were analyzed for benzene only, which is not associated with this surrogate. Data has been reported. Batch 62636.

Method(s) 624: The following samples were diluted due to the abundance of target analytes: GAC INFLUENT (A) (510-51762-1), GAC INFLUENT (B) (510-51762-2), GAC INFLUENT (C) (510-51762-3). Elevated reporting limits (RLs) are provided. Batch 62636.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: Matrix spikes for preparation batch 62611 could not be accurately calculated due to sample matrix interferences and target compounds which required sample dilution. The associated laboratory control sample (LCS) met acceptance criteria.

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.

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METHOD / ANALYST SUMMARY

Client: United States Steel Corporation

Job Number: 510-51762-1

Method	Analyst	Analyst ID
40CFR136A 624	Hall, Jennifer L	JLH
40CFR136A 625	Squires, William D	WDS
MCAWW 350.1	Church, Jason B	JBC

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SAMPLE SUMMARY

Client: United States Steel Corporation

Job Number: 510-51762-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-51762-1	GAC INFLUENT (A)	Water	04/26/2010 0940	04/26/2010 1900
510-51762-2	GAC INFLUENT (B)	Water	04/26/2010 1210	04/26/2010 1900
510-51762-3	GAC INFLUENT (C)	Water	04/26/2010 1507	04/26/2010 1900
510-51762-4	GAC INFLUENT	Water	04/26/2010 1508	04/26/2010 1900
510-51762-5	GAC EFFLUENT (A)	Water	04/26/2010 0942	04/26/2010 1900
510-51762-6	GAC EFFLUENT (B)	Water	04/26/2010 1212	04/26/2010 1900
510-51762-7	GAC EFFLUENT (C)	Water	04/26/2010 1509	04/26/2010 1900
510-51762-8	GAC EFFLUENT	Water	04/26/2010 1510	04/26/2010 1900
510-51762-9	TRIP BLANK	Water	04/26/2010 0940	04/26/2010 1900

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51762-1
Lab Sample Id: 510-51762-1
Client Matrix: Water
Date Sampled: 04/26/2010 0940
Date Received: 04/26/2010 1900

Client Sample ID: GAC INFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	2600	ug/L	100	624		04/28/2010 0027	20
Ethylbenzene	22	ug/L	5.0	624		04/28/2010 0206	1.0
Toluene	54	ug/L	5.0	624		04/28/2010 0206	1.0
Xylenes, Total	60	ug/L	10	624		04/28/2010 0206	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	102	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - DL	98	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	100	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	105	%		624	77 - 132		
Toluene-d8 (Surr)	95	%		624	89 - 108		
Toluene-d8 (Surr) - DL	90	%		624	89 - 108		

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1 North Broadway
Gary, IN 46402

Job Number: 510-51762-1
Lab Sample Id: 510-51762-2
Client Matrix: Water
Date Sampled: 04/26/2010 1210
Date Received: 04/26/2010 1900

Client Sample ID: GAC INFLUENT (B)

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
Benzene - DL	2400		ug/L	100	624		04/28/2010 0100	20
Ethylbenzene	23		ug/L	5.0	624		04/28/2010 0239	1.0
Toluene	60		ug/L	5.0	624		04/28/2010 0239	1.0
Xylenes, Total	64		ug/L	10	624		04/28/2010 0239	1.0
Surrogate						Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	105		%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - DL	96		%		624	81 - 126		
4-Bromofluorobenzene (Surr)	103		%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	113		%		624	77 - 132		
Toluene-d8 (Surr) - DL	88	X	%		624	89 - 108		
Toluene-d8 (Surr)	101		%		624	89 - 108		

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1 North Broadway
Gary, IN 46402

Job Number: 510-51762-1
Lab Sample Id: 510-51762-3
Client Matrix: Water
Date Sampled: 04/26/2010 1507
Date Received: 04/26/2010 1900

Client Sample ID: GAC INFLUENT (C)

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
Benzene - DL	2700		ug/L	100	624		04/28/2010 0133	20
Ethylbenzene	22		ug/L	5.0	624		04/28/2010 0312	1.0
Toluene	49		ug/L	5.0	624		04/28/2010 0312	1.0
Xylenes, Total	61		ug/L	10	624		04/28/2010 0312	1.0
Surrogate						Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	102		%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr)	95		%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	102		%		624	77 - 132		
4-Bromofluorobenzene (Surr)	102		%		624	77 - 132		
Toluene-d8 (Surr)	89		%		624	89 - 108		
Toluene-d8 (Surr) - DL	87	X	%		624	89 - 108		

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Gary, IN 46402

Job Number: 510-51762-1
Lab Sample Id: 510-51762-4
Client Matrix: Water
Date Sampled: 04/26/2010 1508
Date Received: 04/26/2010 1900

Client Sample ID: GAC INFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol - DL	150	ug/L	110	625	04/27/2010 0715	04/27/2010 1308	10
Acenaphthene - DL	250	ug/L	110	625	04/27/2010 0715	04/27/2010 1308	10
Fluorene - DL	<110	ug/L	110	625	04/27/2010 0715	04/27/2010 1308	10
Naphthalene - DL	1000	ug/L	110	625	04/27/2010 0715	04/27/2010 1308	10
Phenanthrene - DL	<110	ug/L	110	625	04/27/2010 0715	04/27/2010 1308	10
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol - DL	115	%		625	10 - 168		
2-Fluorobiphenyl - DL	100	%		625	10 - 129		
2-Fluorophenol - DL	44	%		625	10 - 87		
Nitrobenzene-d5 - DL	90	%		625	10 - 135		
Phenol-d5 - DL	37	%		625	10 - 69		
Terphenyl-d14 - DL	99	%		625	10 - 142		

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Gary, IN 46402

Job Number: 510-51762-1
Lab Sample Id: 510-51762-5
Client Matrix: Water
Date Sampled: 04/26/2010 0942
Date Received: 04/26/2010 1900

Client Sample ID: GAC EFFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/27/2010 2247	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/27/2010 2247	1.0
Toluene	<5.0	ug/L	5.0	624		04/27/2010 2247	1.0
Xylenes, Total	<10	ug/L	10	624		04/27/2010 2247	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	101	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	99	%		624	77 - 132		
Toluene-d8 (Surr)	95	%		624	89 - 108		

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1 North Broadway
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Job Number: 510-51762-1
Lab Sample Id: 510-51762-6
Client Matrix: Water
Date Sampled: 04/26/2010 1212
Date Received: 04/26/2010 1900

Client Sample ID: GAC EFFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/27/2010 2320	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/27/2010 2320	1.0
Toluene	<5.0	ug/L	5.0	624		04/27/2010 2320	1.0
Xylenes, Total	<10	ug/L	10	624		04/27/2010 2320	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	103	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	104	%		624	77 - 132		
Toluene-d8 (Surr)	102	%		624	89 - 108		

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1 North Broadway
Gary, IN 46402

Job Number: 510-51762-1
Lab Sample Id: 510-51762-7
Client Matrix: Water
Date Sampled: 04/26/2010 1509
Date Received: 04/26/2010 1900

Client Sample ID: GAC EFFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/27/2010 2353	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/27/2010 2353	1.0
Toluene	<5.0	ug/L	5.0	624		04/27/2010 2353	1.0
Xylenes, Total	<10	ug/L	10	624		04/27/2010 2353	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	108	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	100	%		624	77 - 132		
Toluene-d8 (Surr)	107	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-51762-1
Lab Sample Id: 510-51762-8
Client Matrix: Water
Date Sampled: 04/26/2010 1510
Date Received: 04/26/2010 1900

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	<10	ug/L	10	625	04/27/2010 0715	04/27/2010 1402	1.0
Acenaphthene	<10	ug/L	10	625	04/27/2010 0715	04/27/2010 1402	1.0
Fluorene	<10	ug/L	10	625	04/27/2010 0715	04/27/2010 1402	1.0
Naphthalene	<10	ug/L	10	625	04/27/2010 0715	04/27/2010 1402	1.0
Phenanthrene	<10	ug/L	10	625	04/27/2010 0715	04/27/2010 1402	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	91	%		625	10 - 168		
2-Fluorobiphenyl	82	%		625	10 - 129		
2-Fluorophenol	47	%		625	10 - 87		
Nitrobenzene-d5	75	%		625	10 - 135		
Phenol-d5	39	%		625	10 - 69		
Terphenyl-d14	76	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	20	mg/L	1.0	350.1		04/27/2010 1357	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51762-1
Lab Sample Id: 510-51762-9
Client Matrix: Water
Date Sampled: 04/26/2010 0940
Date Received: 04/26/2010 1900

Client Sample ID: TRIP BLANK

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		04/27/2010 2214	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/27/2010 2214	1.0
Toluene	<5.0	ug/L	5.0	624		04/27/2010 2214	1.0
Xylenes, Total	<10	ug/L	10	624		04/27/2010 2214	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	108	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	103	%		624	77 - 132		
Toluene-d8 (Surr)	96	%		624	89 - 108		

DATA REPORTING QUALIFIERS

Client: United States Steel Corporation Job Number: 510-51762-1

Lab Section	Qualifier	Description
GC/MS VOA		
	X	Surrogate is outside control limits
GC/MS Semi VOA		
	F	MS or MSD 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.

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51762-1

Method Blank - Batch: 510-62636

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-62636/19
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/27/2010 2141
Date Prepared: N/A

Analysis Batch: 510-62636
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A8018.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108	81 - 126
4-Bromofluorobenzene (Surr)	89	77 - 132
Toluene-d8 (Surr)	95	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-62636

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-62636/16
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/27/2010 2002
Date Prepared: N/A

Analysis Batch: 510-62636
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A8015.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-62636/17
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/27/2010 2035
Date Prepared: N/A

Analysis Batch: 510-62636
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A8016.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	108	109	37 - 151	1	30		
Ethylbenzene	118	117	37 - 162	1	30		
Toluene	106	107	47 - 150	1	30		
Xylenes, Total	118	118		0			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	100	81 - 126
4-Bromofluorobenzene (Surr)	110	96	77 - 132
Toluene-d8 (Surr)	97	99	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51762-1

Method Blank - Batch: 510-62611

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-62611/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/27/2010 1233
Date Prepared: 04/27/2010 0715

Analysis Batch: 510-62629
Prep Batch: 510-62611
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3303.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	89	10 - 168
2-Fluorobiphenyl	74	10 - 129
2-Fluorophenol	53	10 - 87
Nitrobenzene-d5	81	10 - 135
Phenol-d5	41	10 - 69
Terphenyl-d14	82	10 - 142

Lab Control Sample - Batch: 510-62611

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-62611/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/27/2010 1251
Date Prepared: 04/27/2010 0715

Analysis Batch: 510-62629
Prep Batch: 510-62611
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3304.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dimethylphenol	50.0	35.1	70	32 - 119	
Acenaphthene	50.0	39.5	79	47 - 145	
Fluorene	50.0	41.8	84	59 - 121	
Naphthalene	50.0	34.1	68	21 - 133	
Phenanthrene	50.0	42.0	84	54 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	92	10 - 168
2-Fluorobiphenyl	76	10 - 129
2-Fluorophenol	48	10 - 87
Nitrobenzene-d5	77	10 - 135
Phenol-d5	37	10 - 69
Terphenyl-d14	90	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51762-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-62611

Method: 625
Preparation: CWA_Prep

MS Lab Sample ID:	510-51762-4DL	Analysis Batch:	510-62629	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-62611	Lab File ID:	D3306.D
Dilution:	10	Run Type:	DL	Initial Weight/Volume:	460 mL
Date Analyzed:	04/27/2010 1326			Final Weight/Volume:	1 mL
Date Prepared:	04/27/2010 0715			Injection Volume:	1 uL

MSD Lab Sample ID:	510-51762-4DL	Analysis Batch:	510-62629	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-62611	Lab File ID:	D3307.D
Dilution:	10	Run Type:	DL	Initial Weight/Volume:	460 mL
Date Analyzed:	04/27/2010 1344			Final Weight/Volume:	1 mL
Date Prepared:	04/27/2010 0715			Injection Volume:	1 uL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4-Dimethylphenol	110	125	32 - 119	6	30		F
Acenaphthene	123	146	47 - 145	6	30		F
Fluorene	114	127	59 - 121	7	30		F
Naphthalene	262	315	21 - 133	4	30	4	4
Phenanthrene	146	155	54 - 120	6	30	F	F

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2,4,6-Tribromophenol	121	131	10 - 168
2-Fluorobiphenyl	101	111	10 - 129
2-Fluorophenol	52	52	10 - 87
Nitrobenzene-d5	88	98	10 - 135
Phenol-d5	43	43	10 - 69
Terphenyl-d14	103	109	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51762-1

Method Blank - Batch: 510-62651

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-62651/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/27/2010 1301
Date Prepared: N/A

Analysis Batch: 510-62651
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-62651

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-62651/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/27/2010 1259
Date Prepared: N/A

Analysis Batch: 510-62651
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.406	102	75 - 125	

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Chain of Custody Record

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Client Contact	Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY: US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO: Doug Boyea	Analysis Turnaround Time			
ADDRESS: 1 North Broadway MS 70	☐ Standard			
Gary, IN 46402	☒ Rush Charges Authorized for 24 HOURS			
PHONE	☐ 2 weeks			
Project Name: CAMU	☐ 1 week			
Site:	☐ 2 days			
P O #	☐ 1 day			
W O #				

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX	NAP, 2-4 DIMETHYL PHENOL, ACENAPTHENE, FLUORININE, PHENANTHRENE	AMMONIA	Special Instructions/Note:
51762-1 GAC INFLUENT (A)	4-26-10	0940	GRAB	AQ	3		X			
-2 GAC INFLUENT (B)		1210	GRAB	AQ	3		X			
-3 GAC INFLUENT (C)		1507	GRAB	AQ	3		X			
-4 GAC INFLUENT		1508	COMP	AQ	2			X		
-5 GAC EFFLUENT (A)		0942	GRAB	AQ	3		X			
-6 GAC EFFLUENT (B)		1212	GRAB	AQ	3		X			
-7 GAC EFFLUENT (C)		1509	GRAB	AQ	3		X			
-8 GAC EFFLUENT		1510	COMP	AQ	3			X	X	Added 1mL H2SO4 to Ammonia Bottle DR 4/27/10
-9 TRIP BLANK	4-26-10	0940	GRAB	AQ	1		X			
							2	1	3	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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

Special Instructions/QC Requirements:

	Company:	Date/Time:	Received by:	Company:
Relinquished by:	/ TEST AMERICA	4/26/10 @ 1900		Test America
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments: US Steel Cooler 3.1°C

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04/28/2010

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-51762-1

Login Number: 51762

List Source: TestAmerica Valparaiso

Creator: Richter, Debbie D

List Number: 1

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-52057-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
5/6/2010 12:59 PM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
05/06/2010
Revision: 1

cc: Doug P Boyea

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

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Comments
No additional comments.

Receipt
Dilution factor was missing from a 625 result, revised report to correct.

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

GC/MS VOA
Method(s) 624: The following sample was diluted due to the abundance of target analytes: GAC INFLUENT (A) (510-52057-1), GAC INFLUENT (B) (510-52057-2), GAC INFLUENT (C) (510-52057-3). Elevated reporting limits (RLs) are provided. Batch 62973 method 624.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: Due to the high concentration of target compounds the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 62976 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 625: The following sample was diluted due to the abundance of target analytes: GAC INFLUENT (510-52057-4). Elevated reporting limits (RLs) are provided.

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.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-52057-1

Method	Analyst	Analyst ID
40CFR136A 624	Hobart, Wes E	WEH
40CFR136A 625	Squires, William D	WDS
MCAWW 350.1	Ivers, Catherine L	CLI

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-52057-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-52057-1	GAC INFLUENT (A)	Water	05/04/2010 0900	05/04/2010 1725
510-52057-2	GAC INFLUENT (B)	Water	05/04/2010 1154	05/04/2010 1725
510-52057-3	GAC INFLUENT (C)	Water	05/04/2010 1510	05/04/2010 1725
510-52057-4	GAC INFLUENT	Water	05/04/2010 1511	05/04/2010 1725
510-52057-5	GAC EFFLUENT (A)	Water	05/04/2010 0856	05/04/2010 1725
510-52057-6	GAC EFFLUENT (B)	Water	05/04/2010 1148	05/04/2010 1725
510-52057-7	GAC EFFLUENT (C)	Water	05/04/2010 1507	05/04/2010 1725
510-52057-8	GAC EFFLUENT	Water	05/04/2010 1508	05/04/2010 1725
510-52057-9	TRIP BLANK	Water	05/04/2010 0840	05/04/2010 1725

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52057-1
Lab Sample Id: 510-52057-1
Client Matrix: Water
Date Sampled: 05/04/2010 0900
Date Received: 05/04/2010 1725

Client Sample ID: GAC INFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1400	ug/L	100	624		05/05/2010 0855	20
Ethylbenzene - RA	20	ug/L	5.0	624		05/05/2010 1031	1.0
Toluene - RA	45	ug/L	5.0	624		05/05/2010 1031	1.0
Xylenes, Total - RA	54	ug/L	10	624		05/05/2010 1031	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	108	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	96	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	101	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	99	%		624	77 - 132		
Toluene-d8 (Surr) - DL	103	%		624	89 - 108		
Toluene-d8 (Surr) - RA	99	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52057-1
Lab Sample Id: 510-52057-2
Client Matrix: Water
Date Sampled: 05/04/2010 1154
Date Received: 05/04/2010 1725

Client Sample ID: GAC INFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1500	ug/L	100	624		05/05/2010 0927	20
Ethylbenzene - RA	19	ug/L	5.0	624		05/05/2010 1103	1.0
Toluene - RA	45	ug/L	5.0	624		05/05/2010 1103	1.0
Xylenes, Total - RA	53	ug/L	10	624		05/05/2010 1103	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	107	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	99	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	102	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	101	%		624	77 - 132		
Toluene-d8 (Surr) - RA	100	%		624	89 - 108		
Toluene-d8 (Surr) - DL	103	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52057-1
Lab Sample Id: 510-52057-3
Client Matrix: Water
Date Sampled: 05/04/2010 1510
Date Received: 05/04/2010 1725

Client Sample ID: GAC INFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1400	ug/L	100	624		05/05/2010 0959	20
Ethylbenzene - RA	19	ug/L	5.0	624		05/05/2010 1135	1.0
Toluene - RA	45	ug/L	5.0	624		05/05/2010 1135	1.0
Xylenes, Total - RA	53	ug/L	10	624		05/05/2010 1135	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	106	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	101	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	102	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	101	%		624	77 - 132		
Toluene-d8 (Surr) - RA	101	%		624	89 - 108		
Toluene-d8 (Surr) - DL	102	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52057-1
Lab Sample Id: 510-52057-4
Client Matrix: Water
Date Sampled: 05/04/2010 1511
Date Received: 05/04/2010 1725

Client Sample ID: GAC INFLUENT

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
2,4-Dimethylphenol - DL	140		ug/L	100	625	05/05/2010 0750	05/05/2010 1205	10
Acenaphthene - DL	230		ug/L	100	625	05/05/2010 0750	05/05/2010 1205	10
Fluorene - DL	<100		ug/L	100	625	05/05/2010 0750	05/05/2010 1205	10
Naphthalene - DL	1000		ug/L	100	625	05/05/2010 0750	05/05/2010 1205	10
Phenanthrene - DL	<100		ug/L	100	625	05/05/2010 0750	05/05/2010 1205	10
Surrogate						Acceptance Limits		
2,4,6-Tribromophenol - DL	0	D	%		625	10 - 168		
2-Fluorobiphenyl - DL	0	D	%		625	10 - 129		
2-Fluorophenol - DL	0	D	%		625	10 - 87		
Nitrobenzene-d5 - DL	0	D	%		625	10 - 135		
Phenol-d5 - DL	0	D	%		625	10 - 69		
Terphenyl-d14 - DL	0	D	%		625	10 - 142		
GENERAL CHEMISTRY								
Ammonia, undistilled	20		mg/L	2.0	350.1		05/05/2010 1101	100

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52057-1
Lab Sample Id: 510-52057-5
Client Matrix: Water
Date Sampled: 05/04/2010 0856
Date Received: 05/04/2010 1725

Client Sample ID: GAC EFFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/05/2010 0719	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/05/2010 0719	1.0
Toluene	<5.0	ug/L	5.0	624		05/05/2010 0719	1.0
Xylenes, Total	<10	ug/L	10	624		05/05/2010 0719	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	108	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	103	%		624	77 - 132		
Toluene-d8 (Surr)	103	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52057-1
Lab Sample Id: 510-52057-6
Client Matrix: Water
Date Sampled: 05/04/2010 1148
Date Received: 05/04/2010 1725

Client Sample ID: GAC EFFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/05/2010 0751	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/05/2010 0751	1.0
Toluene	<5.0	ug/L	5.0	624		05/05/2010 0751	1.0
Xylenes, Total	<10	ug/L	10	624		05/05/2010 0751	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	108	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	102	%		624	77 - 132		
Toluene-d8 (Surr)	103	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52057-1
Lab Sample Id: 510-52057-7
Client Matrix: Water
Date Sampled: 05/04/2010 1507
Date Received: 05/04/2010 1725

Client Sample ID: GAC EFFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/05/2010 0823	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/05/2010 0823	1.0
Toluene	<5.0	ug/L	5.0	624		05/05/2010 0823	1.0
Xylenes, Total	<10	ug/L	10	624		05/05/2010 0823	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	108	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	101	%		624	77 - 132		
Toluene-d8 (Surr)	103	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52057-1
Lab Sample Id: 510-52057-8
Client Matrix: Water
Date Sampled: 05/04/2010 1508
Date Received: 05/04/2010 1725

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	<10	ug/L	10	625	05/05/2010 0750	05/05/2010 1147	1.0
Acenaphthene	<10	ug/L	10	625	05/05/2010 0750	05/05/2010 1147	1.0
Fluorene	<10	ug/L	10	625	05/05/2010 0750	05/05/2010 1147	1.0
Naphthalene	<10	ug/L	10	625	05/05/2010 0750	05/05/2010 1147	1.0
Phenanthrene	<10	ug/L	10	625	05/05/2010 0750	05/05/2010 1147	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	74	%		625	10 - 168		
2-Fluorobiphenyl	76	%		625	10 - 129		
2-Fluorophenol	49	%		625	10 - 87		
Nitrobenzene-d5	76	%		625	10 - 135		
Phenol-d5	34	%		625	10 - 69		
Terphenyl-d14	63	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	20	mg/L	2.0	350.1		05/05/2010 1100	100

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52057-1
Lab Sample Id: 510-52057-9
Client Matrix: Water
Date Sampled: 05/04/2010 0840
Date Received: 05/04/2010 1725

Client Sample ID: TRIP BLANK

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/05/2010 0647	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/05/2010 0647	1.0
Toluene	<5.0	ug/L	5.0	624		05/05/2010 0647	1.0
Xylenes, Total	<10	ug/L	10	624		05/05/2010 0647	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	107	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	102	%		624	77 - 132		
Toluene-d8 (Surr)	102	%		624	89 - 108		

DATA REPORTING QUALIFIERS

Client: United States Steel Corporation Job Number: 510-52057-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	F	MS or MSD 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.
	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.

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-52057-1

Method Blank - Batch: 510-62973

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-62973/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/05/2010 0615
Date Prepared: N/A

Analysis Batch: 510-62973
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9874.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	81 - 126
4-Bromofluorobenzene (Surr)	102	77 - 132
Toluene-d8 (Surr)	103	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-62973

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-62973/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/05/2010 0511
Date Prepared: N/A

Analysis Batch: 510-62973
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9872.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-62973/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/05/2010 0543
Date Prepared: N/A

Analysis Batch: 510-62973
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9873.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	104	107	37 - 151	2	30		
Ethylbenzene	97	100	37 - 162	3	30		
Toluene	101	103	47 - 150	3	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105	105	81 - 126
4-Bromofluorobenzene (Surr)	101	101	77 - 132
Toluene-d8 (Surr)	104	105	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-52057-1

Method Blank - Batch: 510-62976

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-62976/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/05/2010 1111
Date Prepared: 05/05/2010 0750

Analysis Batch: 510-62982
Prep Batch: 510-62976
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3363.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	74	10 - 168
2-Fluorobiphenyl	69	10 - 129
2-Fluorophenol	52	10 - 87
Nitrobenzene-d5	67	10 - 135
Phenol-d5	35	10 - 69
Terphenyl-d14	68	10 - 142

Lab Control Sample - Batch: 510-62976

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-62976/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/05/2010 1129
Date Prepared: 05/05/2010 0750

Analysis Batch: 510-62982
Prep Batch: 510-62976
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3364.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dimethylphenol	50.0	33.2	66	32 - 119	
Acenaphthene	50.0	38.5	77	47 - 145	
Fluorene	50.0	35.5	71	59 - 121	
Naphthalene	50.0	34.1	68	21 - 133	
Phenanthrene	50.0	41.2	82	54 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	74	10 - 168
2-Fluorobiphenyl	80	10 - 129
2-Fluorophenol	47	10 - 87
Nitrobenzene-d5	70	10 - 135
Phenol-d5	36	10 - 69
Terphenyl-d14	71	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-52057-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-62976

Method: 625
Preparation: CWA_Prep

MS Lab Sample ID:	510-52057-4DL	Analysis Batch:	510-62982	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-62976	Lab File ID:	D3367.D
Dilution:	10	Run Type:	DL	Initial Weight/Volume:	450 mL
Date Analyzed:	05/05/2010 1222			Final Weight/Volume:	1 mL
Date Prepared:	05/05/2010 0750			Injection Volume:	1 uL

MSD Lab Sample ID:	510-52057-4DL	Analysis Batch:	510-62982	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-62976	Lab File ID:	D3368.D
Dilution:	10	Run Type:	DL	Initial Weight/Volume:	450 mL
Date Analyzed:	05/05/2010 1240			Final Weight/Volume:	1 mL
Date Prepared:	05/05/2010 0750			Injection Volume:	1 uL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4-Dimethylphenol	61	74	32 - 119	7	30		
Acenaphthene	69	104	47 - 145	12	30		
Fluorene	81	89	59 - 121	6	30		
Naphthalene	272	205	21 - 133	6	30	4	4
Phenanthrene	118	126	54 - 120	6	30		F

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
2,4,6-Tribromophenol	0	D	0	D	10 - 168
2-Fluorobiphenyl	0	D	0	D	10 - 129
2-Fluorophenol	0	D	0	D	10 - 87
Nitrobenzene-d5	0	D	0	D	10 - 135
Phenol-d5	0	D	0	D	10 - 69
Terphenyl-d14	0	D	0	D	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-52057-1

Method Blank - Batch: 510-63011

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-63011/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/05/2010 1058
Date Prepared: N/A

Analysis Batch: 510-63011
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-63011

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-63011/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/05/2010 1056
Date Prepared: N/A

Analysis Batch: 510-63011
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.412	103	75 - 125	

US EPA ARCHIVE DOCUMENT

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

Client Contact		Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY	US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO	Doug Boyea	Analysis Turnaround Time			
ADDRESS	1 North Broadway MS 70	☐ Standard			
	Gary, IN 46402	☒ Rush Charges Authorized for 24 HOURS			
PHONE		☐ 2 weeks			
Project Name:	CAMU	☐ 1 week			
Site:		☐ 2 days			
P O #		☐ 1 day			
W O #					

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX	NAP, 2-4 DIMETHYL PHENOL, ACENAPTHENE, FLUORININE, PHENANTHRENE	AMMONIA	Special Instructions/Note:
52057-1 GAC INFLUENT (A)	5-4-10	0900	GRAB	AQ	3		X			
-2 GAC INFLUENT (B)		1154	GRAB	AQ	3		X			
-3 GAC INFLUENT (C)		1510	GRAB	AQ	3		X			
-4 GAC INFLUENT		1511	COMP	AQ	3			X	X	
-5 GAC EFFLUENT (A)		0856	GRAB	AQ	3		X			
-6 GAC EFFLUENT (B)		1148	GRAB	AQ	3		X			
-7 GAC EFFLUENT (C)		1507	GRAB	AQ	3		X			
-8 GAC EFFLUENT		1508	COMP	AQ	3			X	X	Added 1mL H2SO4 to Ammonia bottle bc 5/5/10
-9 TRIP BLANK	5-4-10	0840	GRAB	AQ	1		X			
							2	1	3	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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

Special Instructions/QC Requirements:

Relinquished by:	Company: B Foye / TEST AMERICA	Date/Time: 5-4-10 @ 1725	Received by:	Company: Test America
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments: US Steel Cooler 1.4°C

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-52057-1

Login Number: 52057
Creator: Richter, Debbie D
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-52259-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
5/12/2010 8:42 AM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
05/12/2010

cc: Doug P Boyea

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

TestAmerica Laboratories, Inc.
TestAmerica Valparaiso 2400 Cumberland Drive, Valparaiso, IN 46383
Tel (219) 464-2389 Fax (219) 462-2953 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

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Comments
No additional comments.

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

GC/MS VOA
Method(s) 624: The following sample was diluted due to the abundance of target analytes: GAC INFLUENT (A) (510-52259-1), GAC INFLUENT (B) (510-52259-2), GAC INFLUENT (C) (510-52259-3). Elevated reporting limits (RLs) are provided. Batch 63209 method 624.

Method(s) 624: The continuing calibration verification (CCV) for Ethylbenzene recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data has been reported. Batch 63209 method 624.

No other analytical or quality issues were noted.

GC/MS Semi VOA
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-52259-1

Method	Analyst	Analyst ID
40CFR136A 624	Hobart, Wes E	WEH
40CFR136A 625	Squires, William D	WDS
MCAWW 350.1	Church, Jason B	JBC

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SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-52259-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-52259-1	GAC INFLUENT (A)	Water	05/10/2010 0935	05/10/2010 1625
510-52259-2	GAC INFLUENT (B)	Water	05/10/2010 1155	05/10/2010 1625
510-52259-3	GAC INFLUENT (C)	Water	05/10/2010 1540	05/10/2010 1625
510-52259-4	GAC INFLUENT	Water	05/10/2010 1540	05/10/2010 1625
510-52259-5	GAC EFFLUENT (A)	Water	05/10/2010 0938	05/10/2010 1625
510-52259-6	GAC EFFLUENT (B)	Water	05/10/2010 1157	05/10/2010 1625
510-52259-7	GAC EFFLUENT (C)	Water	05/10/2010 1542	05/10/2010 1625
510-52259-8	GAC EFFLUENT	Water	05/10/2010 1542	05/10/2010 1625
510-52259-9	TRIP BLANK	Water	05/10/2010 0925	05/10/2010 1625

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52259-1
Lab Sample Id: 510-52259-1
Client Matrix: Water
Date Sampled: 05/10/2010 0935
Date Received: 05/10/2010 1625

Client Sample ID: GAC INFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1100	ug/L	100	624		05/11/2010 0036	20
Ethylbenzene	20	ug/L	5.0	624		05/11/2010 0843	1.0
Toluene	42	ug/L	5.0	624		05/11/2010 0843	1.0
Xylenes, Total	55	ug/L	10	624		05/11/2010 0843	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	89	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - DL	105	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	113	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	103	%		624	77 - 132		
Toluene-d8 (Surr)	95	%		624	89 - 108		
Toluene-d8 (Surr) - DL	95	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-52259-1
Lab Sample Id: 510-52259-2
Client Matrix: Water
Date Sampled: 05/10/2010 1155
Date Received: 05/10/2010 1625

Client Sample ID: GAC INFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1200	ug/L	100	624		05/11/2010 0108	20
Ethylbenzene	21	ug/L	5.0	624		05/11/2010 0916	1.0
Toluene	43	ug/L	5.0	624		05/11/2010 0916	1.0
Xylenes, Total	56	ug/L	10	624		05/11/2010 0916	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	88	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - DL	106	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	112	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	106	%		624	77 - 132		
Toluene-d8 (Surr)	94	%		624	89 - 108		
Toluene-d8 (Surr) - DL	95	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52259-1
Lab Sample Id: 510-52259-3
Client Matrix: Water
Date Sampled: 05/10/2010 1540
Date Received: 05/10/2010 1625

Client Sample ID: GAC INFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1200	ug/L	100	624		05/11/2010 0140	20
Ethylbenzene	21	ug/L	5.0	624		05/11/2010 0949	1.0
Toluene	43	ug/L	5.0	624		05/11/2010 0949	1.0
Xylenes, Total	57	ug/L	10	624		05/11/2010 0949	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	88	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - DL	105	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	113	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	104	%		624	77 - 132		
Toluene-d8 (Surr)	94	%		624	89 - 108		
Toluene-d8 (Surr) - DL	95	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-52259-1
Lab Sample Id: 510-52259-4
Client Matrix: Water
Date Sampled: 05/10/2010 1540
Date Received: 05/10/2010 1625

Client Sample ID: GAC INFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol - DL	120	ug/L	100	625	05/11/2010 0842	05/11/2010 1407	10
Acenaphthene - DL	220	ug/L	100	625	05/11/2010 0842	05/11/2010 1407	10
Fluorene - DL	<100	ug/L	100	625	05/11/2010 0842	05/11/2010 1407	10
Naphthalene - DL	980	ug/L	100	625	05/11/2010 0842	05/11/2010 1407	10
Phenanthrene - DL	<100	ug/L	100	625	05/11/2010 0842	05/11/2010 1407	10
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol - DL	101	%		625	10 - 168		
2-Fluorobiphenyl - DL	92	%		625	10 - 129		
2-Fluorophenol - DL	48	%		625	10 - 87		
Nitrobenzene-d5 - DL	86	%		625	10 - 135		
Phenol-d5 - DL	35	%		625	10 - 69		
Terphenyl-d14 - DL	92	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	19	mg/L	1.0	350.1		05/11/2010 1212	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52259-1
Lab Sample Id: 510-52259-5
Client Matrix: Water
Date Sampled: 05/10/2010 0938
Date Received: 05/10/2010 1625

Client Sample ID: GAC EFFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/10/2010 2302	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/10/2010 2302	1.0
Toluene	<5.0	ug/L	5.0	624		05/10/2010 2302	1.0
Xylenes, Total	<10	ug/L	10	624		05/10/2010 2302	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	105	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	106	%		624	77 - 132		
Toluene-d8 (Surr)	95	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52259-1
Lab Sample Id: 510-52259-6
Client Matrix: Water
Date Sampled: 05/10/2010 1157
Date Received: 05/10/2010 1625

Client Sample ID: GAC EFFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/10/2010 2333	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/10/2010 2333	1.0
Toluene	<5.0	ug/L	5.0	624		05/10/2010 2333	1.0
Xylenes, Total	<10	ug/L	10	624		05/10/2010 2333	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	107	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	105	%		624	77 - 132		
Toluene-d8 (Surr)	95	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52259-1
Lab Sample Id: 510-52259-7
Client Matrix: Water
Date Sampled: 05/10/2010 1542
Date Received: 05/10/2010 1625

Client Sample ID: GAC EFFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/11/2010 0005	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/11/2010 0005	1.0
Toluene	<5.0	ug/L	5.0	624		05/11/2010 0005	1.0
Xylenes, Total	<10	ug/L	10	624		05/11/2010 0005	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	106	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	105	%		624	77 - 132		
Toluene-d8 (Surr)	95	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52259-1
Lab Sample Id: 510-52259-8
Client Matrix: Water
Date Sampled: 05/10/2010 1542
Date Received: 05/10/2010 1625

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	<10	ug/L	10	625	05/11/2010 0842	05/11/2010 1423	1.0
Acenaphthene	<10	ug/L	10	625	05/11/2010 0842	05/11/2010 1423	1.0
Fluorene	<10	ug/L	10	625	05/11/2010 0842	05/11/2010 1423	1.0
Naphthalene	<10	ug/L	10	625	05/11/2010 0842	05/11/2010 1423	1.0
Phenanthrene	<10	ug/L	10	625	05/11/2010 0842	05/11/2010 1423	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	75	%		625	10 - 168		
2-Fluorobiphenyl	66	%		625	10 - 129		
2-Fluorophenol	40	%		625	10 - 87		
Nitrobenzene-d5	70	%		625	10 - 135		
Phenol-d5	26	%		625	10 - 69		
Terphenyl-d14	69	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	19	mg/L	1.0	350.1		05/11/2010 1214	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52259-1
Lab Sample Id: 510-52259-9
Client Matrix: Water
Date Sampled: 05/10/2010 0925
Date Received: 05/10/2010 1625

Client Sample ID: TRIP BLANK

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/10/2010 2230	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/10/2010 2230	1.0
Toluene	<5.0	ug/L	5.0	624		05/10/2010 2230	1.0
Xylenes, Total	<10	ug/L	10	624		05/10/2010 2230	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	105	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	105	%		624	77 - 132		
Toluene-d8 (Surr)	95	%		624	89 - 108		

Client: United States Steel Corporation

Job Number: 510-52259-1

Method Blank - Batch: 510-63206

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-63206/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2010 1617
Date Prepared: N/A

Analysis Batch: 510-63206
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A8312.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90	81 - 126
4-Bromofluorobenzene (Surr)	109	77 - 132
Toluene-d8 (Surr)	97	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-63206

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-63206/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2010 1437
Date Prepared: N/A

Analysis Batch: 510-63206
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A8309.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-63206/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2010 1510
Date Prepared: N/A

Analysis Batch: 510-63206
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A8310.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	98	91	37 - 151	7	30		
Ethylbenzene	113	109	37 - 162	4	30		
Toluene	98	90	47 - 150	8	30		
Xylenes, Total	111	107		4			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88	88	81 - 126
4-Bromofluorobenzene (Surr)	118	113	77 - 132
Toluene-d8 (Surr)	98	96	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-52259-1

Method Blank - Batch: 510-63209

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-63209/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2010 1327
Date Prepared: N/A

Analysis Batch: 510-63209
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9999.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106	81 - 126
4-Bromofluorobenzene (Surr)	103	77 - 132
Toluene-d8 (Surr)	96	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-63209

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-63209/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2010 1223
Date Prepared: N/A

Analysis Batch: 510-63209
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9997.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-63209/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2010 1255
Date Prepared: N/A

Analysis Batch: 510-63209
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E9998.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	114	108	37 - 151	5	30		
Ethylbenzene	103	97	37 - 162	6	30		
Toluene	111	106	47 - 150	5	30		
Xylenes, Total	103	97		6			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	104	81 - 126
4-Bromofluorobenzene (Surr)	103	102	77 - 132
Toluene-d8 (Surr)	108	108	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-52259-1

Method Blank - Batch: 510-63251

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-63251/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1334
Date Prepared: 05/11/2010 0842

Analysis Batch: 510-63257
Prep Batch: 510-63251
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3443.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	73	10 - 168
2-Fluorobiphenyl	64	10 - 129
2-Fluorophenol	43	10 - 87
Nitrobenzene-d5	70	10 - 135
Phenol-d5	30	10 - 69
Terphenyl-d14	67	10 - 142

Lab Control Sample - Batch: 510-63251

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-63251/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1350
Date Prepared: 05/11/2010 0842

Analysis Batch: 510-63257
Prep Batch: 510-63251
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3444.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dimethylphenol	50.0	28.1	56	32 - 119	
Acenaphthene	50.0	32.7	65	47 - 145	
Fluorene	50.0	35.0	70	59 - 121	
Naphthalene	50.0	30.0	60	21 - 133	
Phenanthrene	50.0	37.8	76	54 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	70	10 - 168
2-Fluorobiphenyl	67	10 - 129
2-Fluorophenol	44	10 - 87
Nitrobenzene-d5	68	10 - 135
Phenol-d5	32	10 - 69
Terphenyl-d14	79	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-52259-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-63251

Method: 625
Preparation: CWA_Prep

MS Lab Sample ID:	510-52259-8	Analysis Batch:	510-63257	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-63251	Lab File ID:	D3447.D
Dilution:	1.0			Initial Weight/Volume:	460 mL
Date Analyzed:	05/11/2010 1440			Final Weight/Volume:	1 mL
Date Prepared:	05/11/2010 0842			Injection Volume:	1 uL

MSD Lab Sample ID:	510-52259-8	Analysis Batch:	510-63257	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-63251	Lab File ID:	D3448.D
Dilution:	1.0			Initial Weight/Volume:	460 mL
Date Analyzed:	05/11/2010 1457			Final Weight/Volume:	1 mL
Date Prepared:	05/11/2010 0842			Injection Volume:	1 uL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4-Dimethylphenol	67	68	32 - 119	1	30		
Acenaphthene	72	71	47 - 145	1	30		
Fluorene	74	74	59 - 121	1	30		
Naphthalene	67	66	21 - 133	1	30		
Phenanthrene	79	77	54 - 120	3	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2,4,6-Tribromophenol	76	73	10 - 168
2-Fluorobiphenyl	71	69	10 - 129
2-Fluorophenol	43	44	10 - 87
Nitrobenzene-d5	74	74	10 - 135
Phenol-d5	33	33	10 - 69
Terphenyl-d14	85	75	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-52259-1

Method Blank - Batch: 510-63280

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-63280/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1211
Date Prepared: N/A

Analysis Batch: 510-63280
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 5-11-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-63280

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-63280/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1209
Date Prepared: N/A

Analysis Batch: 510-63280
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 5-11-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.413	103	75 - 125	

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact		Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY	US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO	Doug Boyea	Analysis Turnaround Time			
ADDRESS	1 North Broadway MS 70	☐ Standard			
	Gary, IN 46402	☒ Rush Charges Authorized for 24 HOURS			
PHONE		☐ 2 weeks			
Project Name:	CAMU	☐ 1 week			
Site:		☐ 2 days			
P O #		☐ 1 day			
W O #					

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX	NAP, 2-4 DIMETHYL PHENOL, ACENAPTHENE, FLUORININE, PHENANTHRENE	AMMONIA	Special Instructions/Note:
~~52259~~ ~~55259~~-1 GAC INFLUENT (A)	5-10-10	0935	GRAB	AQ	3		X			
-2 GAC INFLUENT (B)		1155	GRAB	AQ	3		X			
-3 GAC INFLUENT (C)		1540	GRAB	AQ	3		X			
-4 GAC INFLUENT		1540	COMP	AQ	3			X	X	Added 1mL H2SO4 to Ammonia Bottle DC 5/10/10
-5 GAC EFFLUENT (A)		0938	GRAB	AQ	3		X			
-6 GAC EFFLUENT (B)		1157	GRAB	AQ	3		X			
-7 GAC EFFLUENT (C)		1542	GRAB	AQ	3		X			
-8 GAC EFFLUENT		1542	COMP	AQ	3			X	X	Added 1mL H2SO4 to Ammonia Bottle DC 5/10/10
-9 TRIP BLANK	5-10-10	0925	GRAB	AQ	1		X			
							2	1	3	

Page 19 of 20

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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

Special Instructions/QC Requirements: J. Skalka

	Company:	Date/Time:	Received by:	Company:
Relinquished by: John Skalka	[redacted] / TEST AMERICA	5-10-10 @ 1625	Received by: Deb Richter	Company: Test Americ
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments: US Steel Cooler S.L.C

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-52259-1

Login Number: 52259
List Source: TestAmerica Valparaiso
Creator: Richter, Debbie D
List Number: 1

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-52543-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Approved for release.
Melonie M Sutton
Customer Service Manager
5/20/2010 1:26 PM

Designee for
Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
05/20/2010

cc: Mrs. Susanne Bonola
Doug P Boyea
Ms. Susanne Tomajko-Seydel

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

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Comments
No additional comments.

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

GC/MS VOA
Method(s) 624: The following sample was diluted due to the abundance of target analytes: GAC INFLUENT (A) (510-52543-1), GAC INFLUENT (B) (510-52543-2), GAC INFLUENT (C) (510-52543-3). Elevated reporting limits (RLs) are provided. Batch 63617 method 624.

No other analytical or quality issues were noted.

GC/MS Semi VOA
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation

Job Number: 510-52543-1

Method	Analyst	Analyst ID
40CFR136A 624	Hobart, Wes E	WEH
40CFR136A 625	Squires, William D	WDS
MCAWW 350.1	Church, Jason B	JBC

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: United States Steel Corporation

Job Number: 510-52543-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-52543-1	GAC INFLUENT (A)	Water	05/18/2010 0930	05/18/2010 1800
510-52543-2	GAC INFLUENT (B)	Water	05/18/2010 1200	05/18/2010 1800
510-52543-3	GAC INFLUENT (C)	Water	05/18/2010 1513	05/18/2010 1800
510-52543-4	GAC INFLUENT	Water	05/18/2010 1515	05/18/2010 1800
510-52543-5	GAC EFFLUENT (A)	Water	05/18/2010 0930	05/18/2010 1800
510-52543-6	GAC EFFLUENT (B)	Water	05/18/2010 1200	05/18/2010 1800
510-52543-7	GAC EFFLUENT (C)	Water	05/18/2010 1508	05/18/2010 1800
510-52543-8	GAC EFFLUENT	Water	05/18/2010 1510	05/18/2010 1800
510-52543-9	TRIP BLANK	Water	05/18/2010 0930	05/18/2010 1800

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52543-1
Lab Sample Id: 510-52543-1
Client Matrix: Water
Date Sampled: 05/18/2010 0930
Date Received: 05/18/2010 1800

Client Sample ID: GAC INFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1200	ug/L	100	624		05/19/2010 1031	20
Ethylbenzene - RA	19	ug/L	5.0	624		05/19/2010 1208	1.0
Toluene - RA	38	ug/L	5.0	624		05/19/2010 1208	1.0
Xylenes, Total - RA	52	ug/L	10	624		05/19/2010 1208	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	98	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	88	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - RA	93	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	93	%		624	77 - 132		
Toluene-d8 (Surr) - DL	96	%		624	89 - 108		
Toluene-d8 (Surr) - RA	93	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52543-1
Lab Sample Id: 510-52543-2
Client Matrix: Water
Date Sampled: 05/18/2010 1200
Date Received: 05/18/2010 1800

Client Sample ID: GAC INFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1200	ug/L	100	624		05/19/2010 1104	20
Ethylbenzene - RA	18	ug/L	5.0	624		05/19/2010 1241	1.0
Toluene - RA	38	ug/L	5.0	624		05/19/2010 1241	1.0
Xylenes, Total - RA	50	ug/L	10	624		05/19/2010 1241	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	98	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	90	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	93	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	92	%		624	77 - 132		
Toluene-d8 (Surr) - DL	96	%		624	89 - 108		
Toluene-d8 (Surr) - RA	94	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52543-1
Lab Sample Id: 510-52543-3
Client Matrix: Water
Date Sampled: 05/18/2010 1513
Date Received: 05/18/2010 1800

Client Sample ID: GAC INFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1200	ug/L	100	624		05/19/2010 1136	20
Ethylbenzene - RA	18	ug/L	5.0	624		05/19/2010 1313	1.0
Toluene - RA	36	ug/L	5.0	624		05/19/2010 1313	1.0
Xylenes, Total - RA	48	ug/L	10	624		05/19/2010 1313	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	96	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	90	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - RA	93	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	94	%		624	77 - 132		
Toluene-d8 (Surr) - DL	96	%		624	89 - 108		
Toluene-d8 (Surr) - RA	94	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52543-1
Lab Sample Id: 510-52543-4
Client Matrix: Water
Date Sampled: 05/18/2010 1515
Date Received: 05/18/2010 1800

Client Sample ID: GAC INFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	130	ug/L	100	625	05/19/2010 0918	05/19/2010 1446	1.0
Acenaphthene	210	ug/L	100	625	05/19/2010 0918	05/19/2010 1446	1.0
Fluorene	<100	ug/L	100	625	05/19/2010 0918	05/19/2010 1446	1.0
Naphthalene	600	ug/L	100	625	05/19/2010 0918	05/19/2010 1446	1.0
Phenanthrene	<100	ug/L	100	625	05/19/2010 0918	05/19/2010 1446	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	117	%		625	10 - 168		
2-Fluorobiphenyl	82	%		625	10 - 129		
2-Fluorophenol	38	%		625	10 - 87		
Nitrobenzene-d5	81	%		625	10 - 135		
Phenol-d5	31	%		625	10 - 69		
Terphenyl-d14	128	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	18	mg/L	1.0	350.1		05/19/2010 1310	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52543-1
Lab Sample Id: 510-52543-5
Client Matrix: Water
Date Sampled: 05/18/2010 0930
Date Received: 05/18/2010 1800

Client Sample ID: GAC EFFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/19/2010 0854	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/19/2010 0854	1.0
Toluene	<5.0	ug/L	5.0	624		05/19/2010 0854	1.0
Xylenes, Total	<10	ug/L	10	624		05/19/2010 0854	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	93	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	94	%		624	77 - 132		
Toluene-d8 (Surr)	96	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52543-1
Lab Sample Id: 510-52543-6
Client Matrix: Water
Date Sampled: 05/18/2010 1200
Date Received: 05/18/2010 1800

Client Sample ID: GAC EFFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/19/2010 0927	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/19/2010 0927	1.0
Toluene	<5.0	ug/L	5.0	624		05/19/2010 0927	1.0
Xylenes, Total	<10	ug/L	10	624		05/19/2010 0927	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	98	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	93	%		624	77 - 132		
Toluene-d8 (Surr)	97	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52543-1
Lab Sample Id: 510-52543-7
Client Matrix: Water
Date Sampled: 05/18/2010 1508
Date Received: 05/18/2010 1800

Client Sample ID: GAC EFFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	5.3	ug/L	5.0	624		05/19/2010 0959	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/19/2010 0959	1.0
Toluene	<5.0	ug/L	5.0	624		05/19/2010 0959	1.0
Xylenes, Total	<10	ug/L	10	624		05/19/2010 0959	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	97	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	93	%		624	77 - 132		
Toluene-d8 (Surr)	96	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52543-1
Lab Sample Id: 510-52543-8
Client Matrix: Water
Date Sampled: 05/18/2010 1510
Date Received: 05/18/2010 1800

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	<10	ug/L	10	625	05/19/2010 0918	05/19/2010 1507	1.0
Acenaphthene	<10	ug/L	10	625	05/19/2010 0918	05/19/2010 1507	1.0
Fluorene	<10	ug/L	10	625	05/19/2010 0918	05/19/2010 1507	1.0
Naphthalene	<10	ug/L	10	625	05/19/2010 0918	05/19/2010 1507	1.0
Phenanthrene	<10	ug/L	10	625	05/19/2010 0918	05/19/2010 1507	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	95	%		625	10 - 168		
2-Fluorobiphenyl	76	%		625	10 - 129		
2-Fluorophenol	36	%		625	10 - 87		
Nitrobenzene-d5	74	%		625	10 - 135		
Phenol-d5	28	%		625	10 - 69		
Terphenyl-d14	131	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	17	mg/L	1.0	350.1		05/19/2010 1311	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52543-1
Lab Sample Id: 510-52543-9
Client Matrix: Water
Date Sampled: 05/18/2010 0930
Date Received: 05/18/2010 1800

Client Sample ID: TRIP BLANK

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/19/2010 0822	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/19/2010 0822	1.0
Toluene	<5.0	ug/L	5.0	624		05/19/2010 0822	1.0
Xylenes, Total	<10	ug/L	10	624		05/19/2010 0822	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	94	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	94	%		624	77 - 132		
Toluene-d8 (Surr)	96	%		624	89 - 108		

Client: United States Steel Corporation

Job Number: 510-52543-1

Method Blank - Batch: 510-63617

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-63617/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/19/2010 0750
Date Prepared: N/A

Analysis Batch: 510-63617
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0302.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	81 - 126
4-Bromofluorobenzene (Surr)	94	77 - 132
Toluene-d8 (Surr)	95	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-63617

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-63617/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/19/2010 0645
Date Prepared: N/A

Analysis Batch: 510-63617
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0300.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-63617/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/19/2010 0717
Date Prepared: N/A

Analysis Batch: 510-63617
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0301.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	89	87	37 - 151	3	30		
Ethylbenzene	97	95	37 - 162	2	30		
Toluene	88	86	47 - 150	2	30		
Xylenes, Total	98	96		2			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	92	95	81 - 126
4-Bromofluorobenzene (Surr)	93	94	77 - 132
Toluene-d8 (Surr)	97	96	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-52543-1

Method Blank - Batch: 510-63634

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-63634/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/19/2010 1344
Date Prepared: 05/19/2010 0918

Analysis Batch: 510-63636
Prep Batch: 510-63634
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3570.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	70	10 - 168
2-Fluorobiphenyl	67	10 - 129
2-Fluorophenol	33	10 - 87
Nitrobenzene-d5	68	10 - 135
Phenol-d5	26	10 - 69
Terphenyl-d14	132	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-52543-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-63634

Method: 625
Preparation: CWA_Prep

LCS Lab Sample ID:	LCS 510-63634/2-A	Analysis Batch:	510-63636	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-63634	Lab File ID:	D3571.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	05/19/2010 1404			Final Weight/Volume:	1 mL
Date Prepared:	05/19/2010 0918			Injection Volume:	1 uL

LCSD Lab Sample ID:	LCSD 510-63634/5-A	Analysis Batch:	510-63636	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-63634	Lab File ID:	D3572.D
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	05/19/2010 1425			Final Weight/Volume:	1 mL
Date Prepared:	05/19/2010 0918			Injection Volume:	1 uL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
2,4-Dimethylphenol	62	74	32 - 119	18	30		
Acenaphthene	77	82	47 - 145	7	30		
Fluorene	86	85	59 - 121	0	30		
Naphthalene	65	67	21 - 133	4	30		
Phenanthrene	84	80	54 - 120	5	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
2,4,6-Tribromophenol	75	95	10 - 168
2-Fluorobiphenyl	84	96	10 - 129
2-Fluorophenol	41	46	10 - 87
Nitrobenzene-d5	73	88	10 - 135
Phenol-d5	32	37	10 - 69
Terphenyl-d14	125	132	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-52543-1

Method Blank - Batch: 510-63674

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-63674/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/19/2010 1303
Date Prepared: N/A

Analysis Batch: 510-63674
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 5-19-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-63674

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-63674/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/19/2010 1301
Date Prepared: N/A

Analysis Batch: 510-63674
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 5-19-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.397	99	75 - 125	

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Chain of Custody Record

Client Contact		Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY	US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO	Doug Boyea	Analysis Turnaround Time			
ADDRESS	1 North Broadway MS 70	☐ Standard			
	Gary, IN 46402	☒ Rush Charges Authorized for 24 HOURS			
PHONE		☐ 2 weeks			
Project Name:	CAMU	☐ 1 week			
Site:		☐ 2 days			
P O #		☐ 1 day			
W O #					

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX	NAP, 2-4 DIMETHYL PHENOL, ACENAPTHENE, FLUORININE, PHENANTHRENE	AMMONIA	Special Instructions/Note:
52543-1 GAC INFLUENT (A)	5-18-10	0930	GRAB	AQ	3		X			
-2 GAC INFLUENT (B)		1200	GRAB	AQ	3		X			
-3 GAC INFLUENT (C)		1513	GRAB	AQ	3		X			
-4 GAC INFLUENT		1515	COMP	AQ	3			X	X	Added 1mL H2SO4 to Ammonia Bottle DR 5/19/10
-5 GAC EFFLUENT (A)		0930	GRAB	AQ	3		X			
-6 GAC EFFLUENT (B)		1200	GRAB	AQ	3		X			
-7 GAC EFFLUENT (C)		1508	GRAB	AQ	3		X			
-8 GAC EFFLUENT		1510	COMP	AQ	3			X	X	Added 1mL H2SO4 to Ammonia Bottle DR 5/19/10
-9 TRIP BLANK	5-18-10	0930	GRAB	AQ	1		X			
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____							2	1	3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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

Special Instructions/QC Requirements:

Relinquished by:	Company:	Date/Time:	Received by:	Company:
[signature]	B. Fryer / TEST AMERICA	5-18-10 @ 1800	[signature]	TestAmerica
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments: US Steel Cooler 1.6°C

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-52543-1

Login Number: 52543

List Source: TestAmerica Valparaiso

Creator: Richter, Debbie D

List Number: 1

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
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ANALYTICAL REPORT

Job Number: 510-52746-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
5/26/2010 12:40 PM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
05/26/2010

cc: Doug P Boyea

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

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Comments
No additional comments.

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

GC/MS VOA
Method(s) 624: The following samples were diluted due to the abundance of target analytes: GAC INFLUENT (A) (510-52746-1), GAC INFLUENT (B) (510-52746-2), GAC INFLUENT (C) (510-52746-3). Elevated reporting limits (RLs) are provided. Batch 63875.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: The continuing calibration verification (CCV) for analytical batch 63913 recovered above the upper control limit for Terphenyl-d14. The samples associated with this CCV were non-detect for the affected analytes; therefore, the data has been reported.

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.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-52746-1

Method	Analyst	Analyst ID
40CFR136A 624	Hobart, Wes E	WEH
40CFR136A 625	Squires, William D	WDS
MCAWW 350.1	Church, Jason B	JBC

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SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-52746-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-52746-1	GAC INFLUENT (A)	Water	05/24/2010 0945	05/24/2010 1725
510-52746-2	GAC INFLUENT (B)	Water	05/24/2010 1210	05/24/2010 1725
510-52746-3	GAC INFLUENT (C)	Water	05/24/2010 1515	05/24/2010 1725
510-52746-4	GAC INFLUENT	Water	05/24/2010 1517	05/24/2010 1725
510-52746-5	GAC EFFLUENT (A)	Water	05/24/2010 0945	05/24/2010 1725
510-52746-6	GAC EFFLUENT (B)	Water	05/24/2010 1210	05/24/2010 1725
510-52746-7	GAC EFFLUENT (C)	Water	05/24/2010 1510	05/24/2010 1725
510-52746-8	GAC EFFLUENT	Water	05/24/2010 1513	05/24/2010 1725
510-52746-9	TRIP BLANK	Water	05/24/2010 0930	05/24/2010 1725

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52746-1
Lab Sample Id: 510-52746-1
Client Matrix: Water
Date Sampled: 05/24/2010 0945
Date Received: 05/24/2010 1725

Client Sample ID: GAC INFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1300	ug/L	100	624		05/25/2010 1127	20
Ethylbenzene	19	ug/L	5.0	624		05/25/2010 1304	1.0
Toluene	39	ug/L	5.0	624		05/25/2010 1304	1.0
Xylenes, Total	52	ug/L	10	624		05/25/2010 1304	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	97	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr)	85	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	98	%		624	77 - 132		
4-Bromofluorobenzene (Surr)	97	%		624	77 - 132		
Toluene-d8 (Surr) - DL	100	%		624	89 - 108		
Toluene-d8 (Surr)	96	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-52746-1
Lab Sample Id: 510-52746-2
Client Matrix: Water
Date Sampled: 05/24/2010 1210
Date Received: 05/24/2010 1725

Client Sample ID: GAC INFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1300	ug/L	100	624		05/25/2010 1159	20
Ethylbenzene	19	ug/L	5.0	624		05/25/2010 1336	1.0
Toluene	38	ug/L	5.0	624		05/25/2010 1336	1.0
Xylenes, Total	51	ug/L	10	624		05/25/2010 1336	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	95	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr)	87	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	97	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	98	%		624	77 - 132		
Toluene-d8 (Surr) - DL	100	%		624	89 - 108		
Toluene-d8 (Surr)	96	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-52746-1
Lab Sample Id: 510-52746-3
Client Matrix: Water
Date Sampled: 05/24/2010 1515
Date Received: 05/24/2010 1725

Client Sample ID: GAC INFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1200	ug/L	100	624		05/25/2010 1232	20
Ethylbenzene	18	ug/L	5.0	624		05/25/2010 1409	1.0
Toluene	37	ug/L	5.0	624		05/25/2010 1409	1.0
Xylenes, Total	50	ug/L	10	624		05/25/2010 1409	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	97	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr)	85	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	97	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	97	%		624	77 - 132		
Toluene-d8 (Surr)	96	%		624	89 - 108		
Toluene-d8 (Surr) - DL	99	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-52746-1
Lab Sample Id: 510-52746-4
Client Matrix: Water
Date Sampled: 05/24/2010 1517
Date Received: 05/24/2010 1725

Client Sample ID: GAC INFLUENT

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
2,4-Dimethylphenol - DL	130		ug/L	100	625	05/25/2010 0853	05/25/2010 1808	10
Acenaphthene - DL	250		ug/L	100	625	05/25/2010 0853	05/25/2010 1808	10
Fluorene - DL	<100		ug/L	100	625	05/25/2010 0853	05/25/2010 1808	10
Naphthalene - RADL	1600		ug/L	210	625	05/25/2010 0853	05/26/2010 0852	20
Phenanthrene - DL	<100		ug/L	100	625	05/25/2010 0853	05/25/2010 1808	10
Surrogate						Acceptance Limits		
2,4,6-Tribromophenol - DL	0	D	%		625	10 - 168		
2,4,6-Tribromophenol - RADL	0	D	%		625	10 - 168		
2-Fluorobiphenyl - DL	0	D	%		625	10 - 129		
2-Fluorobiphenyl - RADL	0	D	%		625	10 - 129		
2-Fluorophenol - DL	0	D	%		625	10 - 87		
2-Fluorophenol - RADL	0	D	%		625	10 - 87		
Nitrobenzene-d5 - DL	0	D	%		625	10 - 135		
Nitrobenzene-d5 - RADL	0	D	%		625	10 - 135		
Phenol-d5 - DL	0	D	%		625	10 - 69		
Phenol-d5 - RADL	0	D	%		625	10 - 69		
Terphenyl-d14 - DL	0	D	%		625	10 - 142		
Terphenyl-d14 - RADL	0	D	%		625	10 - 142		
GENERAL CHEMISTRY								
Ammonia, undistilled	15		mg/L	1.0	350.1		05/25/2010 1458	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52746-1
Lab Sample Id: 510-52746-5
Client Matrix: Water
Date Sampled: 05/24/2010 0945
Date Received: 05/24/2010 1725

Client Sample ID: GAC EFFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/25/2010 0950	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/25/2010 0950	1.0
Toluene	<5.0	ug/L	5.0	624		05/25/2010 0950	1.0
Xylenes, Total	<10	ug/L	10	624		05/25/2010 0950	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	98	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	97	%		624	77 - 132		
Toluene-d8 (Surr)	99	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-52746-1
Lab Sample Id: 510-52746-6
Client Matrix: Water
Date Sampled: 05/24/2010 1210
Date Received: 05/24/2010 1725

Client Sample ID: GAC EFFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	7.4	ug/L	5.0	624		05/25/2010 1022	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/25/2010 1022	1.0
Toluene	<5.0	ug/L	5.0	624		05/25/2010 1022	1.0
Xylenes, Total	<10	ug/L	10	624		05/25/2010 1022	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	97	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	98	%		624	77 - 132		
Toluene-d8 (Surr)	100	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-52746-1
Lab Sample Id: 510-52746-7
Client Matrix: Water
Date Sampled: 05/24/2010 1510
Date Received: 05/24/2010 1725

Client Sample ID: GAC EFFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	10	ug/L	5.0	624		05/25/2010 1054	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/25/2010 1054	1.0
Toluene	<5.0	ug/L	5.0	624		05/25/2010 1054	1.0
Xylenes, Total	<10	ug/L	10	624		05/25/2010 1054	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	96	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	98	%		624	77 - 132		
Toluene-d8 (Surr)	99	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52746-1
Lab Sample Id: 510-52746-8
Client Matrix: Water
Date Sampled: 05/24/2010 1513
Date Received: 05/24/2010 1725

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	<10	ug/L	10	625	05/25/2010 1522	05/25/2010 1829	1.0
Acenaphthene	<10	ug/L	10	625	05/25/2010 1522	05/25/2010 1829	1.0
Fluorene	<10	ug/L	10	625	05/25/2010 1522	05/25/2010 1829	1.0
Naphthalene	<10	ug/L	10	625	05/25/2010 1522	05/25/2010 1829	1.0
Phenanthrene	<10	ug/L	10	625	05/25/2010 1522	05/25/2010 1829	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	40	%		625	10 - 168		
2-Fluorobiphenyl	77	%		625	10 - 129		
2-Fluorophenol	29	%		625	10 - 87		
Nitrobenzene-d5	62	%		625	10 - 135		
Phenol-d5	25	%		625	10 - 69		
Terphenyl-d14	76	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	15	mg/L	1.0	350.1		05/25/2010 1500	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52746-1
Lab Sample Id: 510-52746-9
Client Matrix: Water
Date Sampled: 05/24/2010 0930
Date Received: 05/24/2010 1725

Client Sample ID: TRIP BLANK

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		05/25/2010 0917	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		05/25/2010 0917	1.0
Toluene	<5.0	ug/L	5.0	624		05/25/2010 0917	1.0
Xylenes, Total	<10	ug/L	10	624		05/25/2010 0917	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	93	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	97	%		624	77 - 132		
Toluene-d8 (Surr)	99	%		624	89 - 108		

DATA REPORTING QUALIFIERS

Client: United States Steel Corporation Job Number: 510-52746-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	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.

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-52746-1

Method Blank - Batch: 510-63875

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-63875/26
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/25/2010 0845
Date Prepared: N/A

Analysis Batch: 510-63875
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0488.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	81 - 126
4-Bromofluorobenzene (Surr)	98	77 - 132
Toluene-d8 (Surr)	99	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-63875

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-63875/24
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/25/2010 0740
Date Prepared: N/A

Analysis Batch: 510-63875
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0486.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-63875/25
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/25/2010 0812
Date Prepared: N/A

Analysis Batch: 510-63875
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0487.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	95	87	37 - 151	9	30		
Ethylbenzene	96	89	37 - 162	8	30		
Toluene	92	84	47 - 150	9	30		
Xylenes, Total	98	90		8			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100	94	81 - 126
4-Bromofluorobenzene (Surr)	97	98	77 - 132
Toluene-d8 (Surr)	100	99	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-52746-1

Method Blank - Batch: 510-63884

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-63884/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/25/2010 1727
Date Prepared: 05/25/2010 0853

Analysis Batch: 510-63913
Prep Batch: 510-63884
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3648.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	61	10 - 168
2-Fluorobiphenyl	95	10 - 129
2-Fluorophenol	52	10 - 87
Nitrobenzene-d5	81	10 - 135
Phenol-d5	39	10 - 69
Terphenyl-d14	98	10 - 142

Lab Control Sample - Batch: 510-63884

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-63884/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/25/2010 1748
Date Prepared: 05/25/2010 0853

Analysis Batch: 510-63913
Prep Batch: 510-63884
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3649.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dimethylphenol	50.0	32.1	64	32 - 119	
Acenaphthene	50.0	47.0	94	47 - 145	
Fluorene	50.0	46.1	92	59 - 121	
Naphthalene	50.0	43.9	88	21 - 133	
Phenanthrene	50.0	48.7	97	54 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	75	10 - 168
2-Fluorobiphenyl	103	10 - 129
2-Fluorophenol	56	10 - 87
Nitrobenzene-d5	88	10 - 135
Phenol-d5	41	10 - 69
Terphenyl-d14	91	10 - 142

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Client: United States Steel Corporation Job Number: 510-52746-1

Method Blank - Batch: 510-63921

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-63921/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/25/2010 1430
Date Prepared: N/A

Analysis Batch: 510-63921
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 5-25-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-63921

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-63921/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/25/2010 1429
Date Prepared: N/A

Analysis Batch: 510-63921
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 5-25-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.405	101	75 - 125	

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Temp = 2.8°C

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact		Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY	US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO	Doug Boyea				
ADDRESS	1 North Broadway MS 70				
	Gary, IN 46402				
PHONE					
Project Name:	CAMU				
Site:					
P O #					
W O #					

Analysis Turnaround Time

- ☐ Standard
- ☒ Rush Charges Authorized for 24 HOURS
- ☐ 2 weeks
- ☐ 1 week
- ☐ 2 days
- ☐ 1 day

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX	NAP, 2-4 DIMETHYL PHENOL, ACENAPTHENE, FLUORININE, PHENANTHRENE	AMMONIA	Special Instructions/Note:
52746-1 GAC INFLUENT (A)	5-24-10	0945	GRAB	AQ	3		X			
-2 GAC INFLUENT (B)		1210	GRAB	AQ	3		X			
-3 GAC INFLUENT (C)		1515	GRAB	AQ	3		X			
-4 GAC INFLUENT		1517	COMP	AQ	3			X	X	
-5 GAC EFFLUENT (A)		0945	GRAB	AQ	3		X			
-6 GAC EFFLUENT (B)		1210	GRAB	AQ	3		X			
-7 GAC EFFLUENT (C)		1510	GRAB	AQ	3		X			
-8 GAC EFFLUENT		1513	COMP	AQ	3			X	X	
-9 TRIP BLANK	5-24-10	0930	GRAB	AQ	1		X			
							2	1	3	

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Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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

Special Instructions/QC Requirements:

Relinquished by:	Company: / TEST AMERICA	Date/Time: 5-24-10 @ 1725	Received by:	Company: Test America
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments: US Steel Cooler 2.8°C

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-52746-1

Login Number: 52746
Creator: Richter, Debbie D
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-53093-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
6/4/2010 1:17 PM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
06/04/2010

cc: Mrs. Susanne Bonola
Doug P Boyea
Ms. Susanne Tomajko-Seydel

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

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Comments
No additional comments.

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

GC/MS VOA
Method(s) 624: The following sample was diluted due to the abundance of target analytes: GAC INFLUENT (A) (510-53093-1), GAC INFLUENT (B) (510-53093-2), GAC INFLUENT (C) (510-53093-3). Elevated reporting limits (RLs) are provided. Batch 64205 method 624.

Method(s) 624: The Toluene-d8 surrogate in this sample had a high recovery accompanied with a result for a target compound that exceeded the reporting limit; however, the analyte in question, Benzene, is not related to the non-conforming surrogate and the result is not affected by the high bias. The data is reported. Batch 64205 method 624.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 610MS, 625: Internal standard responses were outside of acceptance limits for the following samples GAC EFFLUENT (510-53093-8), GAC INFLUENT (510-53093-4). The samples show evidence of matrix interference.

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.

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METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-53093-1

Method	Analyst	Analyst ID
40CFR136A 624	Hobart, Wes E	WEH
40CFR136A 625	Ivers, Catherine L	CLI
MCAWW 350.1	Church, Jason B	JBC

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SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-53093-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-53093-1	GAC INFLUENT (A)	Water	06/02/2010 0945	06/02/2010 1940
510-53093-2	GAC INFLUENT (B)	Water	06/02/2010 1200	06/02/2010 1940
510-53093-3	GAC INFLUENT (C)	Water	06/02/2010 1415	06/02/2010 1940
510-53093-4	GAC INFLUENT	Water	06/02/2010 1415	06/02/2010 1940
510-53093-5	GAC EFFLUENT (A)	Water	06/02/2010 0945	06/02/2010 1940
510-53093-6	GAC EFFLUENT (B)	Water	06/02/2010 1200	06/02/2010 1940
510-53093-7	GAC EFFLUENT (C)	Water	06/02/2010 1415	06/02/2010 1940
510-53093-8	GAC EFFLUENT	Water	06/02/2010 1415	06/02/2010 1940
510-53093-9	TRIP BLANK	Water	06/02/2010 0915	06/02/2010 1940

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Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53093-1
Lab Sample Id: 510-53093-1
Client Matrix: Water
Date Sampled: 06/02/2010 0945
Date Received: 06/02/2010 1940

Client Sample ID: GAC INFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1200	ug/L	100	624		06/03/2010 0936	20
Ethylbenzene - RA	19	ug/L	5.0	624		06/03/2010 1111	1.0
Toluene - RA	36	ug/L	5.0	624		06/03/2010 1111	1.0
Xylenes, Total - RA	52	ug/L	10	624		06/03/2010 1111	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	101	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	95	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	97	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	93	%		624	77 - 132		
Toluene-d8 (Surr) - DL	95	%		624	89 - 108		
Toluene-d8 (Surr) - RA	93	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-53093-1
Lab Sample Id: 510-53093-2
Client Matrix: Water
Date Sampled: 06/02/2010 1200
Date Received: 06/02/2010 1940

Client Sample ID: GAC INFLUENT (B)

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
Benzene - DL	1300		ug/L	100	624		06/03/2010 1008	20
Ethylbenzene - RA	19		ug/L	5.0	624		06/03/2010 1142	1.0
Toluene - RA	37		ug/L	5.0	624		06/03/2010 1142	1.0
Xylenes, Total - RA	52		ug/L	10	624		06/03/2010 1142	1.0
Surrogate						Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - RA	96		%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - DL	112		%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	96		%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	95		%		624	77 - 132		
Toluene-d8 (Surr) - DL	115	X	%		624	89 - 108		
Toluene-d8 (Surr) - RA	93		%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-53093-1
Lab Sample Id: 510-53093-3
Client Matrix: Water
Date Sampled: 06/02/2010 1415
Date Received: 06/02/2010 1940

Client Sample ID: GAC INFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1200	ug/L	100	624		06/03/2010 1040	20
Ethylbenzene - RA	18	ug/L	5.0	624		06/03/2010 1252	1.0
Toluene - RA	38	ug/L	5.0	624		06/03/2010 1252	1.0
Xylenes, Total - RA	50	ug/L	10	624		06/03/2010 1252	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	101	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	98	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - RA	97	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	96	%		624	77 - 132		
Toluene-d8 (Surr) - RA	100	%		624	89 - 108		
Toluene-d8 (Surr) - DL	95	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-53093-1
Lab Sample Id: 510-53093-4
Client Matrix: Water
Date Sampled: 06/02/2010 1415
Date Received: 06/02/2010 1940

Client Sample ID: GAC INFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	110	ug/L	100	625	06/03/2010 0919	06/04/2010 1042	10
Acenaphthene	110	ug/L	10	625	06/03/2010 0919	06/03/2010 1613	1.0
Fluorene	49	ug/L	10	625	06/03/2010 0919	06/03/2010 1613	1.0
Naphthalene	930	ug/L	100	625	06/03/2010 0919	06/04/2010 1042	10
Phenanthrene	20	ug/L	10	625	06/03/2010 0919	06/03/2010 1613	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	105	%		625	10 - 168		
2-Fluorobiphenyl	76	%		625	10 - 129		
2-Fluorophenol	48	%		625	10 - 87		
Nitrobenzene-d5	102	%		625	10 - 135		
Phenol-d5	43	%		625	10 - 69		
Terphenyl-d14	104	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	17	mg/L	1.0	350.1		06/03/2010 1451	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53093-1
Lab Sample Id: 510-53093-5
Client Matrix: Water
Date Sampled: 06/02/2010 0945
Date Received: 06/02/2010 1940

Client Sample ID: GAC EFFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	7.5	ug/L	5.0	624		06/03/2010 0801	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/03/2010 0801	1.0
Toluene	<5.0	ug/L	5.0	624		06/03/2010 0801	1.0
Xylenes, Total	<10	ug/L	10	624		06/03/2010 0801	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	102	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	98	%		624	77 - 132		
Toluene-d8 (Surr)	95	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-53093-1
Lab Sample Id: 510-53093-6
Client Matrix: Water
Date Sampled: 06/02/2010 1200
Date Received: 06/02/2010 1940

Client Sample ID: GAC EFFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	11	ug/L	5.0	624		06/03/2010 0833	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/03/2010 0833	1.0
Toluene	<5.0	ug/L	5.0	624		06/03/2010 0833	1.0
Xylenes, Total	<10	ug/L	10	624		06/03/2010 0833	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	103	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	97	%		624	77 - 132		
Toluene-d8 (Surr)	95	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-53093-1
Lab Sample Id: 510-53093-7
Client Matrix: Water
Date Sampled: 06/02/2010 1415
Date Received: 06/02/2010 1940

Client Sample ID: GAC EFFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	14	ug/L	5.0	624		06/03/2010 0905	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/03/2010 0905	1.0
Toluene	<5.0	ug/L	5.0	624		06/03/2010 0905	1.0
Xylenes, Total	<10	ug/L	10	624		06/03/2010 0905	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	113	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	101	%		624	77 - 132		
Toluene-d8 (Surr)	96	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53093-1
Lab Sample Id: 510-53093-8
Client Matrix: Water
Date Sampled: 06/02/2010 1415
Date Received: 06/02/2010 1940

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	<10	ug/L	10	625	06/03/2010 0919	06/03/2010 1554	1.0
Acenaphthene	<10	ug/L	10	625	06/03/2010 0919	06/03/2010 1554	1.0
Fluorene	<10	ug/L	10	625	06/03/2010 0919	06/03/2010 1554	1.0
Naphthalene	<10	ug/L	10	625	06/03/2010 0919	06/03/2010 1554	1.0
Phenanthrene	<10	ug/L	10	625	06/03/2010 0919	06/03/2010 1554	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	80	%		625	10 - 168		
2-Fluorobiphenyl	82	%		625	10 - 129		
2-Fluorophenol	46	%		625	10 - 87		
Nitrobenzene-d5	90	%		625	10 - 135		
Phenol-d5	39	%		625	10 - 69		
Terphenyl-d14	97	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	16	mg/L	1.0	350.1		06/03/2010 1453	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53093-1
Lab Sample Id: 510-53093-9
Client Matrix: Water
Date Sampled: 06/02/2010 0915
Date Received: 06/02/2010 1940

Client Sample ID: TRIP BLANK

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		06/03/2010 0730	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/03/2010 0730	1.0
Toluene	<5.0	ug/L	5.0	624		06/03/2010 0730	1.0
Xylenes, Total	<10	ug/L	10	624		06/03/2010 0730	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	111	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	97	%		624	77 - 132		
Toluene-d8 (Surr)	97	%		624	89 - 108		

DATA REPORTING QUALIFIERS

Client: United States Steel Corporation Job Number: 510-53093-1

Lab Section	Qualifier	Description
GC/MS VOA		
	X	Surrogate is outside control limits

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53093-1

Method Blank - Batch: 510-64205

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-64205/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1629
Date Prepared: N/A

Analysis Batch: 510-64205
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0654.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	81 - 126
4-Bromofluorobenzene (Surr)	95	77 - 132
Toluene-d8 (Surr)	95	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-64205

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-64205/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1526
Date Prepared: N/A

Analysis Batch: 510-64205
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0652.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-64205/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/02/2010 1557
Date Prepared: N/A

Analysis Batch: 510-64205
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0653.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	92	96	37 - 151	4	30		
Ethylbenzene	103	107	37 - 162	4	30		
Toluene	90	93	47 - 150	3	30		
Xylenes, Total	104	108		4			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100	102	81 - 126
4-Bromofluorobenzene (Surr)	96	95	77 - 132
Toluene-d8 (Surr)	96	97	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53093-1

Method Blank - Batch: 510-64228

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-64228/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/04/2010 1101
Date Prepared: 06/03/2010 0919

Analysis Batch: 510-64303
Prep Batch: 510-64228
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3854.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	91	10 - 168
2-Fluorobiphenyl	71	10 - 129
2-Fluorophenol	53	10 - 87
Nitrobenzene-d5	75	10 - 135
Phenol-d5	39	10 - 69
Terphenyl-d14	91	10 - 142

Lab Control Sample - Batch: 510-64228

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-64228/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/04/2010 1120
Date Prepared: 06/03/2010 0919

Analysis Batch: 510-64303
Prep Batch: 510-64228
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3855.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dimethylphenol	50.0	31.9	64	32 - 119	
Acenaphthene	50.0	38.4	77	47 - 145	
Fluorene	50.0	41.9	84	59 - 121	
Naphthalene	50.0	33.1	66	21 - 133	
Phenanthrene	50.0	40.8	82	54 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	85	10 - 168
2-Fluorobiphenyl	76	10 - 129
2-Fluorophenol	53	10 - 87
Nitrobenzene-d5	77	10 - 135
Phenol-d5	42	10 - 69
Terphenyl-d14	85	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53093-1

Method Blank - Batch: 510-64276

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-64276/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/03/2010 1428
Date Prepared: N/A

Analysis Batch: 510-64276
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: 632010-Ammonia-UD.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-64276

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-64276/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/03/2010 1427
Date Prepared: N/A

Analysis Batch: 510-64276
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: 632010-Ammonia-UD.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.404	101	75 - 125	

US EPA ARCHIVE DOCUMENT

Chain of Custody Record

Temp = 3.6 C

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact		Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY	US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO	Doug Boyea				
ADDRESS	1 North Broadway MS 70				
	Gary, IN 46402				
PHONE					
Project Name:	CAMU				
Site:					
P O #					
W O #					

Analysis Turnaround Time

- [ ] Standard
- [X] Rush Charges Authorized for 24 HOURS
- [ ] 2 weeks
- [ ] 1 week
- [ ] 2 days
- [ ] 1 day

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX	NAP, 2-4 DIMETHYL PHENOL, ACENAPTHENE, FLUORININE, PHENANTHRENE	AMMONIA	Special Instructions/Note:
53093-1 GAC INFLUENT (A)	6-2-10	0945	GRAB	AQ	3		X			
-2 GAC INFLUENT (B)		1200	GRAB	AQ	3		X			
-3 GAC INFLUENT (C)		1415	GRAB	AQ	3		X			
-4 GAC INFLUENT		1415	COMP	AQ	3			X	X	
-5 GAC EFFLUENT (A)		0945	GRAB	AQ	3		X			
-6 GAC EFFLUENT (B)		1200	GRAB	AQ	3		X			
-7 GAC EFFLUENT (C)		1415	GRAB	AQ	3		X			
-8 GAC EFFLUENT		1415	COMP	AQ	3			X	X	
-9 TRIP BLANK	6-2-10	0915	GRAB	AQ	1		X			
							2	1	3	

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Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification

- [ ] *Non-Hazard*
- [ ] *Flammable*
- [ ] *Skin Irritant*
- [ ] *Poison B*
- [ ] *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

- [ ] *Return To Client*
- [ ] *Disposal By Lab*
- [ ] *Archive For _____ Months*

Special Instructions/QC Requirements:

Relinquished by:	Company: / TEST AMERICA	Date/Time: 6-2-10 @ 1940	Received by:	Company: Test America
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments: US Steel Cooler 3.6°c

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-53093-1

Login Number: 53093
Creator: Richter, Debbie D
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-53322-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
6/10/2010 11:31 AM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
06/10/2010

cc: Mrs. Susanne Bonola
Doug P Boyea
Ms. Susanne Tomajko-Seydel

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

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Comments
No additional comments.

Receipt
2 of 3 vials have bubble >6mm for GAC Effluent Grab B.

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

GC/MS VOA
Method(s) 624: The following sample was diluted due to the abundance of target analytes: GAC INFLUENT (A) (510-53322-1), GAC INFLUENT (B) (510-53322-2), GAC INFLUENT (C) (510-53322-3). Elevated reporting limits (RLs) are provided. Batch 64467 method 624.

No other analytical or quality issues were noted.

GC/MS Semi VOA
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-53322-1

Method	Analyst	Analyst ID
40CFR136A 624	Hobart, Wes E	WEH
40CFR136A 625	Squires, William D	WDS
MCAWW 350.1	Church, Jason B	JBC

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SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-53322-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-53322-1	GAC INFLUENT (A)	Water	06/08/2010 0818	06/08/2010 1810
510-53322-2	GAC INFLUENT (B)	Water	06/08/2010 1145	06/08/2010 1810
510-53322-3	GAC INFLUENT (C)	Water	06/08/2010 1430	06/08/2010 1810
510-53322-4	GAC INFLUENT	Water	06/08/2010 1432	06/08/2010 1810
510-53322-5	GAC EFFLUENT (A)	Water	06/08/2010 0815	06/08/2010 1810
510-53322-6	GAC EFFLUENT (B)	Water	06/08/2010 1145	06/08/2010 1810
510-53322-7	GAC EFFLUENT (C)	Water	06/08/2010 1426	06/08/2010 1810
510-53322-8	GAC EFFLUENT	Water	06/08/2010 1428	06/08/2010 1810
510-53322-9	TRIP BLANK	Water	06/08/2010 0805	06/08/2010 1810

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53322-1
Lab Sample Id: 510-53322-1
Client Matrix: Water
Date Sampled: 06/08/2010 0818
Date Received: 06/08/2010 1810

Client Sample ID: GAC INFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1200	ug/L	100	624		06/09/2010 0950	20
Ethylbenzene	19	ug/L	5.0	624		06/09/2010 1123	1.0
Toluene	38	ug/L	5.0	624		06/09/2010 1123	1.0
Xylenes, Total	53	ug/L	10	624		06/09/2010 1123	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	108	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr)	98	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	101	%		624	77 - 132		
4-Bromofluorobenzene (Surr)	101	%		624	77 - 132		
Toluene-d8 (Surr) - DL	98	%		624	89 - 108		
Toluene-d8 (Surr)	95	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53322-1
Lab Sample Id: 510-53322-2
Client Matrix: Water
Date Sampled: 06/08/2010 1145
Date Received: 06/08/2010 1810

Client Sample ID: GAC INFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1200	ug/L	100	624		06/09/2010 1021	20
Ethylbenzene	19	ug/L	5.0	624		06/09/2010 1155	1.0
Toluene	38	ug/L	5.0	624		06/09/2010 1155	1.0
Xylenes, Total	53	ug/L	10	624		06/09/2010 1155	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	110	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr)	100	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	101	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	102	%		624	77 - 132		
Toluene-d8 (Surr) - DL	98	%		624	89 - 108		
Toluene-d8 (Surr)	94	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53322-1
Lab Sample Id: 510-53322-3
Client Matrix: Water
Date Sampled: 06/08/2010 1430
Date Received: 06/08/2010 1810

Client Sample ID: GAC INFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1200	ug/L	100	624		06/09/2010 1052	20
Ethylbenzene	18	ug/L	5.0	624		06/09/2010 1226	1.0
Toluene	36	ug/L	5.0	624		06/09/2010 1226	1.0
Xylenes, Total	50	ug/L	10	624		06/09/2010 1226	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	109	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr)	100	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	101	%		624	77 - 132		
4-Bromofluorobenzene (Surr)	100	%		624	77 - 132		
Toluene-d8 (Surr) - DL	98	%		624	89 - 108		
Toluene-d8 (Surr)	95	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53322-1
Lab Sample Id: 510-53322-4
Client Matrix: Water
Date Sampled: 06/08/2010 1432
Date Received: 06/08/2010 1810

Client Sample ID: GAC INFLUENT

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
2,4-Dimethylphenol - DL	230		ug/L	100	625	06/09/2010 0723	06/09/2010 1652	10
Acenaphthene - DL	400		ug/L	100	625	06/09/2010 0723	06/09/2010 1652	10
Fluorene - DL	130		ug/L	100	625	06/09/2010 0723	06/09/2010 1652	10
Naphthalene - DL	1200		ug/L	100	625	06/09/2010 0723	06/09/2010 1652	10
Phenanthrene - DL	<100		ug/L	100	625	06/09/2010 0723	06/09/2010 1652	10
Surrogate						Acceptance Limits		
2,4,6-Tribromophenol - DL	0	D	%		625	10 - 168		
2-Fluorobiphenyl - DL	0	D	%		625	10 - 129		
2-Fluorophenol - DL	0	D	%		625	10 - 87		
Nitrobenzene-d5 - DL	0	D	%		625	10 - 135		
Phenol-d5 - DL	0	D	%		625	10 - 69		
Terphenyl-d14 - DL	0	D	%		625	10 - 142		
GENERAL CHEMISTRY								
Ammonia, undistilled	14		mg/L	1.0	350.1		06/09/2010 1734	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53322-1
Lab Sample Id: 510-53322-5
Client Matrix: Water
Date Sampled: 06/08/2010 0815
Date Received: 06/08/2010 1810

Client Sample ID: GAC EFFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	160	ug/L	5.0	624		06/09/2010 0815	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/09/2010 0815	1.0
Toluene	<5.0	ug/L	5.0	624		06/09/2010 0815	1.0
Xylenes, Total	<10	ug/L	10	624		06/09/2010 0815	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	108	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	99	%		624	77 - 132		
Toluene-d8 (Surr)	98	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53322-1
Lab Sample Id: 510-53322-6
Client Matrix: Water
Date Sampled: 06/08/2010 1145
Date Received: 06/08/2010 1810

Client Sample ID: GAC EFFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	170	ug/L	5.0	624		06/09/2010 0847	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/09/2010 0847	1.0
Toluene	<5.0	ug/L	5.0	624		06/09/2010 0847	1.0
Xylenes, Total	<10	ug/L	10	624		06/09/2010 0847	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	106	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	101	%		624	77 - 132		
Toluene-d8 (Surr)	98	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53322-1
Lab Sample Id: 510-53322-7
Client Matrix: Water
Date Sampled: 06/08/2010 1426
Date Received: 06/08/2010 1810

Client Sample ID: GAC EFFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	170	ug/L	5.0	624		06/09/2010 0918	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/09/2010 0918	1.0
Toluene	<5.0	ug/L	5.0	624		06/09/2010 0918	1.0
Xylenes, Total	<10	ug/L	10	624		06/09/2010 0918	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	106	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	102	%		624	77 - 132		
Toluene-d8 (Surr)	97	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53322-1
Lab Sample Id: 510-53322-8
Client Matrix: Water
Date Sampled: 06/08/2010 1428
Date Received: 06/08/2010 1810

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	19	ug/L	11	625	06/09/2010 0723	06/09/2010 1558	1.0
Acenaphthene	<11	ug/L	11	625	06/09/2010 0723	06/09/2010 1558	1.0
Fluorene	<11	ug/L	11	625	06/09/2010 0723	06/09/2010 1558	1.0
Naphthalene	<11	ug/L	11	625	06/09/2010 0723	06/09/2010 1558	1.0
Phenanthrene	<11	ug/L	11	625	06/09/2010 0723	06/09/2010 1558	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	85	%		625	10 - 168		
2-Fluorobiphenyl	60	%		625	10 - 129		
2-Fluorophenol	36	%		625	10 - 87		
Nitrobenzene-d5	75	%		625	10 - 135		
Phenol-d5	30	%		625	10 - 69		
Terphenyl-d14	98	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	15	mg/L	1.0	350.1		06/09/2010 1736	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53322-1
Lab Sample Id: 510-53322-9
Client Matrix: Water
Date Sampled: 06/08/2010 0805
Date Received: 06/08/2010 1810

Client Sample ID: TRIP BLANK

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		06/09/2010 0744	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/09/2010 0744	1.0
Toluene	<5.0	ug/L	5.0	624		06/09/2010 0744	1.0
Xylenes, Total	<10	ug/L	10	624		06/09/2010 0744	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	109	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	100	%		624	77 - 132		
Toluene-d8 (Surr)	98	%		624	89 - 108		

DATA REPORTING QUALIFIERS

Client: United States Steel Corporation Job Number: 510-53322-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	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.

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53322-1

Method Blank - Batch: 510-64467

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-64467/27
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2010 0713
Date Prepared: N/A

Analysis Batch: 510-64467
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0883.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108	81 - 126
4-Bromofluorobenzene (Surr)	102	77 - 132
Toluene-d8 (Surr)	98	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-64467

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-64467/25
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2010 0611
Date Prepared: N/A

Analysis Batch: 510-64467
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0881.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-64467/26
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2010 0642
Date Prepared: N/A

Analysis Batch: 510-64467
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E0882.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	97	96	37 - 151	2	30		
Ethylbenzene	106	106	37 - 162	0	30		
Toluene	96	95	47 - 150	2	30		
Xylenes, Total	108	107		0			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106	105	81 - 126
4-Bromofluorobenzene (Surr)	98	99	77 - 132
Toluene-d8 (Surr)	99	98	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53322-1

Method Blank - Batch: 510-64483

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-64483/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2010 1521
Date Prepared: 06/09/2010 0723

Analysis Batch: 510-64496
Prep Batch: 510-64483
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3953.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	80	10 - 168
2-Fluorobiphenyl	58	10 - 129
2-Fluorophenol	37	10 - 87
Nitrobenzene-d5	73	10 - 135
Phenol-d5	30	10 - 69
Terphenyl-d14	108	10 - 142

Lab Control Sample - Batch: 510-64483

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-64483/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2010 1539
Date Prepared: 06/09/2010 0723

Analysis Batch: 510-64496
Prep Batch: 510-64483
Units: ug/L

Instrument ID: SMSA
Lab File ID: D3954.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dimethylphenol	50.0	31.5	63	32 - 119	
Acenaphthene	50.0	28.5	57	47 - 145	
Fluorene	50.0	30.3	61	59 - 121	
Naphthalene	50.0	26.2	52	21 - 133	
Phenanthrene	50.0	29.5	59	54 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	71	10 - 168
2-Fluorobiphenyl	60	10 - 129
2-Fluorophenol	33	10 - 87
Nitrobenzene-d5	72	10 - 135
Phenol-d5	29	10 - 69
Terphenyl-d14	96	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53322-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-64483

Method: 625
Preparation: CWA_Prep

MS Lab Sample ID:	510-53322-8	Analysis Batch:	510-64496	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-64483	Lab File ID:	D3956.D
Dilution:	1.0			Initial Weight/Volume:	450 mL
Date Analyzed:	06/09/2010 1616			Final Weight/Volume:	1 mL
Date Prepared:	06/09/2010 0723			Injection Volume:	1 uL

MSD Lab Sample ID:	510-53322-8	Analysis Batch:	510-64496	Instrument ID:	SMSA
Client Matrix:	Water	Prep Batch:	510-64483	Lab File ID:	D3957.D
Dilution:	1.0			Initial Weight/Volume:	450 mL
Date Analyzed:	06/09/2010 1634			Final Weight/Volume:	1 mL
Date Prepared:	06/09/2010 0723			Injection Volume:	1 uL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4-Dimethylphenol	79	74	32 - 119	6	30		
Acenaphthene	64	63	47 - 145	1	30		
Fluorene	64	64	59 - 121	0	30		
Naphthalene	58	56	21 - 133	3	30		
Phenanthrene	61	62	54 - 120	2	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2,4,6-Tribromophenol	76	82	10 - 168
2-Fluorobiphenyl	70	68	10 - 129
2-Fluorophenol	36	33	10 - 87
Nitrobenzene-d5	86	81	10 - 135
Phenol-d5	31	29	10 - 69
Terphenyl-d14	87	99	10 - 142

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Client: United States Steel Corporation

Job Number: 510-53322-1

Method Blank - Batch: 510-64546

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-64546/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2010 1732
Date Prepared: N/A

Analysis Batch: 510-64546
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 6-9-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-64546

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-64546/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/09/2010 1730
Date Prepared: N/A

Analysis Batch: 510-64546
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 6-9-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.397	99	75 - 125	

US EPA ARCHIVE DOCUMENT

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact		Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY	US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO	Doug Boyea				
ADDRESS	1 North Broadway MS 70	Analysis Turnaround Time			
	Gary, IN 46402	☐ Standard			
PHONE		☒ Rush Charges Authorized for 24 HOURS			
Project Name:	CAMU	☐ 2 weeks			
Site:		☐ 1 week			
P O #		☐ 2 days			
W O #		☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX	NAP, 2-4 DIMETHYL PHENOL, ACENAPTHENE, FLUORININE, PHENANTHRENE	AMMONIA	Special Instructions/Note:
53322-1 GAC INFLUENT (A)	6-8-10	0818	GRAB	AQ	3		X			
-2 GAC INFLUENT (B)		1145	GRAB	AQ	3		X			
-3 GAC INFLUENT (C)		1430	GRAB	AQ	3		X			
-4 GAC INFLUENT		1432	COMP	AQ	3			X	X	
-5 GAC EFFLUENT (A)		0815	GRAB	AQ	3		X			
-6 GAC EFFLUENT (B)		1145	GRAB	AQ	3		X			
-7 GAC EFFLUENT (C)		1426	GRAB	AQ	3		X			2 of 3 vials have bubble > 6 mm DR 6/9/10
-8 GAC EFFLUENT		1428	COMP	AQ	3			X	X	
-9 TRIP BLANK	6-8-10	0805	GRAB	AQ	1		X			
							2	1	3	

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Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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

Special Instructions/QC Requirements:

Relinquished by:	Company: / TEST AMERICA	Date/Time: 6-8-10 @1810	Received by:	Company: Test America
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments: US Steel Cooler 2.9°c

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-53322-1

Login Number: 53322
Creator: Richter, Debbie D
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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.	False	2 of 3 vials have bubble >6mm for GAC Effluent Grab B
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-53603-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
6/17/2010 12:03 PM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
06/17/2010

cc: Mrs. Susanne Bonola
Doug P Boyea
Ms. Susanne Tomajko-Seydel

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

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Comments
No additional comments.

Receipt
1 of 3 vials has bubble >6mm for GAC Influent (A).

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

GC/MS VOA
Method(s) 624: The following samples were diluted due to the abundance of target analytes: GAC INFLUENT (A) (510-53603-1), GAC INFLUENT (B) (510-53603-2), GAC INFLUENT (C) (510-53603-3). Elevated reporting limits (RLs) are provided. Batch 64799.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: The following sample was diluted due to the abundance of target analytes: GAC INFLUENT (510-53603-4). Elevated reporting limits (RLs) are provided.

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.

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METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-53603-1

Method	Analyst	Analyst ID
40CFR136A 624	Hall, Jennifer L	JLH
40CFR136A 625	Squires, William D	WDS
MCAWW 350.1	Hall, Jennifer L	JLH

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-53603-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-53603-1	GAC INFLUENT (A)	Water	06/15/2010 0945	06/15/2010 1800
510-53603-2	GAC INFLUENT (B)	Water	06/15/2010 1150	06/15/2010 1800
510-53603-3	GAC INFLUENT (C)	Water	06/15/2010 1516	06/15/2010 1800
510-53603-4	GAC INFLUENT	Water	06/15/2010 1518	06/15/2010 1800
510-53603-5	GAC EFFLUENT (A)	Water	06/15/2010 0947	06/15/2010 1800
510-53603-6	GAC EFFLUENT (B)	Water	06/15/2010 1153	06/15/2010 1800
510-53603-7	GAC EFFLUENT (C)	Water	06/15/2010 1512	06/15/2010 1800
510-53603-8	GAC EFFLUENT	Water	06/15/2010 1514	06/15/2010 1800
510-53603-9	TRIP BLANK	Water	06/15/2010 0930	06/15/2010 1800

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53603-1
Lab Sample Id: 510-53603-1
Client Matrix: Water
Date Sampled: 06/15/2010 0945
Date Received: 06/15/2010 1800

Client Sample ID: GAC INFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1900	ug/L	100	624		06/16/2010 2157	20
Ethylbenzene - RA	20	ug/L	5.0	624		06/16/2010 2336	1.0
Toluene - RA	47	ug/L	5.0	624		06/16/2010 2336	1.0
Xylenes, Total - RA	55	ug/L	10	624		06/16/2010 2336	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	105	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	108	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	100	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	101	%		624	77 - 132		
Toluene-d8 (Surr) - DL	100	%		624	89 - 108		
Toluene-d8 (Surr) - RA	105	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-53603-1
Lab Sample Id: 510-53603-2
Client Matrix: Water
Date Sampled: 06/15/2010 1150
Date Received: 06/15/2010 1800

Client Sample ID: GAC INFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1800	ug/L	100	624		06/16/2010 2230	20
Ethylbenzene - RA	19	ug/L	5.0	624		06/17/2010 0009	1.0
Toluene - RA	44	ug/L	5.0	624		06/17/2010 0009	1.0
Xylenes, Total - RA	53	ug/L	10	624		06/17/2010 0009	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	104	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	107	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	100	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	99	%		624	77 - 132		
Toluene-d8 (Surr) - DL	100	%		624	89 - 108		
Toluene-d8 (Surr) - RA	103	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53603-1
Lab Sample Id: 510-53603-3
Client Matrix: Water
Date Sampled: 06/15/2010 1516
Date Received: 06/15/2010 1800

Client Sample ID: GAC INFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1900	ug/L	100	624		06/16/2010 2303	20
Ethylbenzene - RA	19	ug/L	5.0	624		06/17/2010 0042	1.0
Toluene - RA	43	ug/L	5.0	624		06/17/2010 0042	1.0
Xylenes, Total - RA	52	ug/L	10	624		06/17/2010 0042	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	105	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	107	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	100	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	102	%		624	77 - 132		
Toluene-d8 (Surr) - DL	101	%		624	89 - 108		
Toluene-d8 (Surr) - RA	103	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53603-1
Lab Sample Id: 510-53603-4
Client Matrix: Water
Date Sampled: 06/15/2010 1518
Date Received: 06/15/2010 1800

Client Sample ID: GAC INFLUENT

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
2,4-Dimethylphenol - DL	140		ug/L	100	625	06/16/2010 0817	06/16/2010 1405	10
Acenaphthene - DL	210		ug/L	100	625	06/16/2010 0817	06/16/2010 1405	10
Fluorene - DL	<100		ug/L	100	625	06/16/2010 0817	06/16/2010 1405	10
Naphthalene - DL	750		ug/L	100	625	06/16/2010 0817	06/16/2010 1405	10
Phenanthrene - DL	<100		ug/L	100	625	06/16/2010 0817	06/16/2010 1405	10
Surrogate						Acceptance Limits		
2,4,6-Tribromophenol - DL	0	D	%		625	10 - 168		
2-Fluorobiphenyl - DL	0	D	%		625	10 - 129		
2-Fluorophenol - DL	0	D	%		625	10 - 87		
Nitrobenzene-d5 - DL	0	D	%		625	10 - 135		
Phenol-d5 - DL	0	D	%		625	10 - 69		
Terphenyl-d14 - DL	0	D	%		625	10 - 142		
GENERAL CHEMISTRY								
Ammonia, undistilled	15		mg/L	1.0	350.1		06/16/2010 1333	50

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-53603-1
Lab Sample Id: 510-53603-5
Client Matrix: Water
Date Sampled: 06/15/2010 0947
Date Received: 06/15/2010 1800

Client Sample ID: GAC EFFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	28	ug/L	5.0	624		06/16/2010 0652	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/16/2010 0652	1.0
Toluene	<5.0	ug/L	5.0	624		06/16/2010 0652	1.0
Xylenes, Total	<10	ug/L	10	624		06/16/2010 0652	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	106	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	106	%		624	77 - 132		
Toluene-d8 (Surr)	100	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-53603-1
Lab Sample Id: 510-53603-6
Client Matrix: Water
Date Sampled: 06/15/2010 1153
Date Received: 06/15/2010 1800

Client Sample ID: GAC EFFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	35	ug/L	5.0	624		06/16/2010 0725	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/16/2010 0725	1.0
Toluene	<5.0	ug/L	5.0	624		06/16/2010 0725	1.0
Xylenes, Total	<10	ug/L	10	624		06/16/2010 0725	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	108	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	105	%		624	77 - 132		
Toluene-d8 (Surr)	99	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53603-1
Lab Sample Id: 510-53603-7
Client Matrix: Water
Date Sampled: 06/15/2010 1512
Date Received: 06/15/2010 1800

Client Sample ID: GAC EFFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	43	ug/L	5.0	624		06/16/2010 0758	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/16/2010 0758	1.0
Toluene	<5.0	ug/L	5.0	624		06/16/2010 0758	1.0
Xylenes, Total	<10	ug/L	10	624		06/16/2010 0758	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	106	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	107	%		624	77 - 132		
Toluene-d8 (Surr)	101	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53603-1
Lab Sample Id: 510-53603-8
Client Matrix: Water
Date Sampled: 06/15/2010 1514
Date Received: 06/15/2010 1800

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	11	ug/L	10	625	06/16/2010 0817	06/16/2010 1423	1.0
Acenaphthene	<10	ug/L	10	625	06/16/2010 0817	06/16/2010 1423	1.0
Fluorene	<10	ug/L	10	625	06/16/2010 0817	06/16/2010 1423	1.0
Naphthalene	<10	ug/L	10	625	06/16/2010 0817	06/16/2010 1423	1.0
Phenanthrene	<10	ug/L	10	625	06/16/2010 0817	06/16/2010 1423	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	99	%		625	10 - 168		
2-Fluorobiphenyl	67	%		625	10 - 129		
2-Fluorophenol	43	%		625	10 - 87		
Nitrobenzene-d5	83	%		625	10 - 135		
Phenol-d5	32	%		625	10 - 69		
Terphenyl-d14	97	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	13	mg/L	1.0	350.1		06/16/2010 1335	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53603-1
Lab Sample Id: 510-53603-9
Client Matrix: Water
Date Sampled: 06/15/2010 0930
Date Received: 06/15/2010 1800

Client Sample ID: TRIP BLANK

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		06/16/2010 0618	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/16/2010 0618	1.0
Toluene	<5.0	ug/L	5.0	624		06/16/2010 0618	1.0
Xylenes, Total	<10	ug/L	10	624		06/16/2010 0618	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	106	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	109	%		624	77 - 132		
Toluene-d8 (Surr)	101	%		624	89 - 108		

DATA REPORTING QUALIFIERS

Client: United States Steel Corporation Job Number: 510-53603-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	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.

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53603-1

Method Blank - Batch: 510-64730

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-64730/30
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2010 0045
Date Prepared: N/A

Analysis Batch: 510-64730
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A9100.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	81 - 126
4-Bromofluorobenzene (Surr)	102	77 - 132
Toluene-d8 (Surr)	101	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-64730

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-64730/28
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/15/2010 2339
Date Prepared: N/A

Analysis Batch: 510-64730
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A9098.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-64730/29
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2010 0012
Date Prepared: N/A

Analysis Batch: 510-64730
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A9099.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	103	104	37 - 151	1	30		
Ethylbenzene	102	102	37 - 162	0	30		
Toluene	104	105	47 - 150	1	30		
Xylenes, Total	102	104		2			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	103	81 - 126
4-Bromofluorobenzene (Surr)	98	99	77 - 132
Toluene-d8 (Surr)	103	101	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53603-1

Method Blank - Batch: 510-64799

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-64799/7
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2010 1219
Date Prepared: N/A

Analysis Batch: 510-64799
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A9121.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108	81 - 126
4-Bromofluorobenzene (Surr)	104	77 - 132
Toluene-d8 (Surr)	101	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-64799

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-64799/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2010 1057
Date Prepared: N/A

Analysis Batch: 510-64799
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A9119.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-64799/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2010 1023
Date Prepared: N/A

Analysis Batch: 510-64799
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A9118.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	106	87	37 - 151	20	30		
Ethylbenzene	105	84	37 - 162	22	30		
Toluene	106	87	47 - 150	20	30		
Xylenes, Total	106	85		22			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105	105	81 - 126
4-Bromofluorobenzene (Surr)	96	98	77 - 132
Toluene-d8 (Surr)	102	102	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53603-1

Method Blank - Batch: 510-64798

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-64798/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2010 1327
Date Prepared: 06/16/2010 0817

Analysis Batch: 510-64813
Prep Batch: 510-64798
Units: ug/L

Instrument ID: SMSA
Lab File ID: D4038.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	85	10 - 168
2-Fluorobiphenyl	60	10 - 129
2-Fluorophenol	43	10 - 87
Nitrobenzene-d5	72	10 - 135
Phenol-d5	34	10 - 69
Terphenyl-d14	93	10 - 142

Lab Control Sample - Batch: 510-64798

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-64798/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2010 1346
Date Prepared: 06/16/2010 0817

Analysis Batch: 510-64813
Prep Batch: 510-64798
Units: ug/L

Instrument ID: SMSA
Lab File ID: D4039.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dimethylphenol	50.0	37.1	74	32 - 119	
Acenaphthene	50.0	35.3	71	47 - 145	
Fluorene	50.0	42.0	84	59 - 121	
Naphthalene	50.0	31.0	62	21 - 133	
Phenanthrene	50.0	38.2	76	54 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	106	10 - 168
2-Fluorobiphenyl	61	10 - 129
2-Fluorophenol	45	10 - 87
Nitrobenzene-d5	74	10 - 135
Phenol-d5	37	10 - 69
Terphenyl-d14	83	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-53603-1

Method Blank - Batch: 510-64837

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-64837/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2010 1305
Date Prepared: N/A

Analysis Batch: 510-64837
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: 6162010-Ammonia-UD.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-64837

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-64837/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2010 1303
Date Prepared: N/A

Analysis Batch: 510-64837
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: 6162010-Ammonia-UD.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.399	100	75 - 125	

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Chain of Custody Record

Temp: 4.8°C

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact		Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY	US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO	Doug Boyea				
ADDRESS	1 North Broadway MS 70 Gary, IN 46402				
PHONE					
Project Name:	CAMU				
Site:					
P O #					
W O #					

Analysis Turnaround Time

- ☐ Standard
- ☒ Rush Charges Authorized for 24 HOURS
- ☐ 2 weeks
- ☐ 1 week
- ☐ 2 days
- ☐ 1 day

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX	NAP, 2-4 DIMETHYL PHENOL, ACENAPTHENE, FLUORININE, PHENANTHRENE	AMMONIA	Special Instructions/Note:
53603-1 GAC INFLUENT (A)	6-15-10	0945	GRAB	AQ	3		X			1 of 3 vials have bubble > 6mm DR 6/16/10
-2 GAC INFLUENT (B)		1150	GRAB	AQ	3		X			
-3 GAC INFLUENT (C)		1516	GRAB	AQ	3		X			
-4 GAC INFLUENT		1518	COMP	AQ	3			X	X	
-5 GAC EFFLUENT (A)		0947	GRAB	AQ	3		X			
-6 GAC EFFLUENT (B)		1153	GRAB	AQ	3		X			
-7 GAC EFFLUENT (C)		1512	GRAB	AQ	3		X			
-8 GAC EFFLUENT		1514	COMP	AQ	3			X	X	
-9 TRIP BLANK	6-15-10	0930	GRAB	AQ	1		X			
							2	1	3	

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Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements:

Relinquished by:	Company: / TEST AMERICA	Date/Time: 6-15-10 @ 1800	Received by:	Company: Test America
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments: US Steel Cooler 4.8°C

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-53603-1

Login Number: 53603
Creator: Richter, Debbie D
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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.	False	1 of 3 vials has bubble >6mm for GAC Influent (A)
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-53807-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Approved for release.
Amanda E Grzybowski
Project Manager I
6/23/2010 11:33 AM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
06/23/2010

cc: Mrs. Susanne Bonola
Doug P Boyea
Ms. Susanne Tomajko-Seydel

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

TestAmerica Laboratories, Inc.
TestAmerica Valparaiso 2400 Cumberland Drive, Valparaiso, IN 46383
Tel (219) 464-2389 Fax (219) 462-2953 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

US EPA ARCHIVE DOCUMENT

Comments
No additional comments.

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

GC/MS VOA
Method(s) 624: The following sample was diluted due to the abundance of target analytes: GAC INFLUENT (A) (510-53807-1), GAC INFLUENT (B) (510-53807-2), GAC INFLUENT (C) (510-53807-3). Elevated reporting limits (RLs) are provided. Batch 65030 method 624.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: The following sample was diluted due to the abundance of target analytes: GAC INFLUENT (510-53807-4). Elevated reporting limits (RLs) are provided.

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.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-53807-1

Method	Analyst	Analyst ID
40CFR136A 624	Hobart, Wes E	WEH
40CFR136A 625	Squires, William D	WDS
MCAWW 350.1	Church, Jason B	JBC

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SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-53807-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-53807-1	GAC INFLUENT (A)	Water	06/21/2010 1140	06/21/2010 1930
510-53807-2	GAC INFLUENT (B)	Water	06/21/2010 1345	06/21/2010 1930
510-53807-3	GAC INFLUENT (C)	Water	06/21/2010 1533	06/21/2010 1930
510-53807-4	GAC INFLUENT	Water	06/21/2010 1535	06/21/2010 1930
510-53807-5	GAC EFFLUENT (A)	Water	06/21/2010 1142	06/21/2010 1930
510-53807-6	GAC EFFLUENT (B)	Water	06/21/2010 1347	06/21/2010 1930
510-53807-7	GAC EFFLUENT (C)	Water	06/21/2010 1537	06/21/2010 1930
510-53807-8	GAC EFFLUENT	Water	06/21/2010 1539	06/21/2010 1930
510-53807-9	TRIP BLANK	Water	06/21/2010 1050	06/21/2010 1930

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53807-1
Lab Sample Id: 510-53807-1
Client Matrix: Water
Date Sampled: 06/21/2010 1140
Date Received: 06/21/2010 1930

Client Sample ID: GAC INFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1300	ug/L	100	624		06/22/2010 1155	20
Ethylbenzene - RA	5.0	ug/L	5.0	624		06/22/2010 1338	1.0
Toluene - RA	11	ug/L	5.0	624		06/22/2010 1338	1.0
Xylenes, Total - RA	14	ug/L	10	624		06/22/2010 1338	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	96	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	94	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - RA	90	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	92	%		624	77 - 132		
Toluene-d8 (Surr) - DL	94	%		624	89 - 108		
Toluene-d8 (Surr) - RA	93	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-53807-1
Lab Sample Id: 510-53807-2
Client Matrix: Water
Date Sampled: 06/21/2010 1345
Date Received: 06/21/2010 1930

Client Sample ID: GAC INFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	370	ug/L	100	624		06/22/2010 1229	20
Ethylbenzene - RA	5.1	ug/L	5.0	624		06/22/2010 1412	1.0
Toluene - RA	11	ug/L	5.0	624		06/22/2010 1412	1.0
Xylenes, Total - RA	14	ug/L	10	624		06/22/2010 1412	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	98	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	95	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - RA	90	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	90	%		624	77 - 132		
Toluene-d8 (Surr) - RA	93	%		624	89 - 108		
Toluene-d8 (Surr) - DL	94	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53807-1
Lab Sample Id: 510-53807-3
Client Matrix: Water
Date Sampled: 06/21/2010 1533
Date Received: 06/21/2010 1930

Client Sample ID: GAC INFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	560	ug/L	100	624		06/22/2010 1303	20
Ethylbenzene - RA	<5.0	ug/L	5.0	624		06/22/2010 1446	1.0
Toluene - RA	11	ug/L	5.0	624		06/22/2010 1446	1.0
Xylenes, Total - RA	13	ug/L	10	624		06/22/2010 1446	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	97	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	95	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - RA	90	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	91	%		624	77 - 132		
Toluene-d8 (Surr) - DL	95	%		624	89 - 108		
Toluene-d8 (Surr) - RA	94	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53807-1
Lab Sample Id: 510-53807-4
Client Matrix: Water
Date Sampled: 06/21/2010 1535
Date Received: 06/21/2010 1930

Client Sample ID: GAC INFLUENT

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
2,4-Dimethylphenol - DL	<100		ug/L	100	625	06/22/2010 0813	06/22/2010 1355	10
Acenaphthene - DL	210		ug/L	100	625	06/22/2010 0813	06/22/2010 1355	10
Fluorene - DL	<100		ug/L	100	625	06/22/2010 0813	06/22/2010 1355	10
Naphthalene - DL	810		ug/L	100	625	06/22/2010 0813	06/22/2010 1355	10
Phenanthrene - DL	<100		ug/L	100	625	06/22/2010 0813	06/22/2010 1355	10
Surrogate						Acceptance Limits		
2,4,6-Tribromophenol - DL	0	D	%		625	10 - 168		
2-Fluorobiphenyl - DL	0	D	%		625	10 - 129		
2-Fluorophenol - DL	0	D	%		625	10 - 87		
Nitrobenzene-d5 - DL	0	D	%		625	10 - 135		
Phenol-d5 - DL	0	D	%		625	10 - 69		
Terphenyl-d14 - DL	0	D	%		625	10 - 142		
GENERAL CHEMISTRY								
Ammonia, undistilled	14		mg/L	1.0	350.1		06/22/2010 1333	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53807-1
Lab Sample Id: 510-53807-5
Client Matrix: Water
Date Sampled: 06/21/2010 1142
Date Received: 06/21/2010 1930

Client Sample ID: GAC EFFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		06/22/2010 1020	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/22/2010 1020	1.0
Toluene	<5.0	ug/L	5.0	624		06/22/2010 1020	1.0
Xylenes, Total	<10	ug/L	10	624		06/22/2010 1020	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	95	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	92	%		624	77 - 132		
Toluene-d8 (Surr)	94	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53807-1
Lab Sample Id: 510-53807-6
Client Matrix: Water
Date Sampled: 06/21/2010 1347
Date Received: 06/21/2010 1930

Client Sample ID: GAC EFFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		06/22/2010 1052	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/22/2010 1052	1.0
Toluene	<5.0	ug/L	5.0	624		06/22/2010 1052	1.0
Xylenes, Total	<10	ug/L	10	624		06/22/2010 1052	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	95	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	93	%		624	77 - 132		
Toluene-d8 (Surr)	100	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53807-1
Lab Sample Id: 510-53807-7
Client Matrix: Water
Date Sampled: 06/21/2010 1537
Date Received: 06/21/2010 1930

Client Sample ID: GAC EFFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		06/22/2010 1123	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/22/2010 1123	1.0
Toluene	<5.0	ug/L	5.0	624		06/22/2010 1123	1.0
Xylenes, Total	<10	ug/L	10	624		06/22/2010 1123	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	97	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	92	%		624	77 - 132		
Toluene-d8 (Surr)	95	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53807-1
Lab Sample Id: 510-53807-8
Client Matrix: Water
Date Sampled: 06/21/2010 1539
Date Received: 06/21/2010 1930

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	<11	ug/L	11	625	06/22/2010 0813	06/22/2010 1336	1.0
Acenaphthene	<11	ug/L	11	625	06/22/2010 0813	06/22/2010 1336	1.0
Fluorene	<11	ug/L	11	625	06/22/2010 0813	06/22/2010 1336	1.0
Naphthalene	<11	ug/L	11	625	06/22/2010 0813	06/22/2010 1336	1.0
Phenanthrene	<11	ug/L	11	625	06/22/2010 0813	06/22/2010 1336	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	45	%		625	10 - 168		
2-Fluorobiphenyl	52	%		625	10 - 129		
2-Fluorophenol	22	%		625	10 - 87		
Nitrobenzene-d5	52	%		625	10 - 135		
Phenol-d5	21	%		625	10 - 69		
Terphenyl-d14	59	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	14	mg/L	1.0	350.1		06/22/2010 1334	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53807-1
Lab Sample Id: 510-53807-9
Client Matrix: Water
Date Sampled: 06/21/2010 1050
Date Received: 06/21/2010 1930

Client Sample ID: TRIP BLANK

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		06/22/2010 0949	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/22/2010 0949	1.0
Toluene	<5.0	ug/L	5.0	624		06/22/2010 0949	1.0
Xylenes, Total	<10	ug/L	10	624		06/22/2010 0949	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	96	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	93	%		624	77 - 132		
Toluene-d8 (Surr)	99	%		624	89 - 108		

DATA REPORTING QUALIFIERS

Client: United States Steel Corporation Job Number: 510-53807-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	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.

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53807-1

Method Blank - Batch: 510-65030

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-65030/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/22/2010 0002
Date Prepared: N/A

Analysis Batch: 510-65030
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E1301.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	81 - 126
4-Bromofluorobenzene (Surr)	90	77 - 132
Toluene-d8 (Surr)	95	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-65030

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-65030/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/21/2010 2259
Date Prepared: N/A

Analysis Batch: 510-65030
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E1299.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-65030/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/21/2010 2330
Date Prepared: N/A

Analysis Batch: 510-65030
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSA
Lab File ID: E1300.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	91	88	37 - 151	3	30		
Ethylbenzene	100	99	37 - 162	2	30		
Toluene	90	87	47 - 150	3	30		
Xylenes, Total	101	100		2			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	96	81 - 126
4-Bromofluorobenzene (Surr)	91	91	77 - 132
Toluene-d8 (Surr)	97	97	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53807-1

Method Blank - Batch: 510-65050

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-65050/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/22/2010 1259
Date Prepared: 06/22/2010 0813

Analysis Batch: 510-65051
Prep Batch: 510-65050
Units: ug/L

Instrument ID: SMSA
Lab File ID: D4100.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	69	10 - 168
2-Fluorobiphenyl	59	10 - 129
2-Fluorophenol	40	10 - 87
Nitrobenzene-d5	65	10 - 135
Phenol-d5	33	10 - 69
Terphenyl-d14	70	10 - 142

Lab Control Sample - Batch: 510-65050

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-65050/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/22/2010 1318
Date Prepared: 06/22/2010 0813

Analysis Batch: 510-65051
Prep Batch: 510-65050
Units: ug/L

Instrument ID: SMSA
Lab File ID: D4101.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dimethylphenol	50.0	24.5	49	32 - 119	
Acenaphthene	50.0	28.7	57	47 - 145	
Fluorene	50.0	33.6	67	59 - 121	
Naphthalene	50.0	26.2	52	21 - 133	
Phenanthrene	50.0	34.9	70	54 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	62	10 - 168
2-Fluorobiphenyl	51	10 - 129
2-Fluorophenol	29	10 - 87
Nitrobenzene-d5	52	10 - 135
Phenol-d5	26	10 - 69
Terphenyl-d14	69	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-53807-1

Method Blank - Batch: 510-65081

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-65081/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/22/2010 1327
Date Prepared: N/A

Analysis Batch: 510-65081
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 6-22-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-65081

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-65081/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/22/2010 1326
Date Prepared: N/A

Analysis Batch: 510-65081
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 6-22-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.396	99	75 - 125	

US EPA ARCHIVE DOCUMENT

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact	Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY: US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO: Doug Boyea	Analysis Turnaround Time			
ADDRESS: 1 North Broadway MS 70, Gary, IN 46402	☐ Standard			
PHONE:	☒ ~~Rush Charges Authorized for 24 HOURS~~			
Project Name: CAMU	☐ 2 weeks			
Site:	☐ 1 week			
P O #	☐ 2 days			
W O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX	NAP, 2-4 DIMETHYL PHENOL, ACENAPTHENE, FLUORININE, PHENANTHRENE	AMMONIA	Special Instructions/Note:
53807-1 GAC INFLUENT (A)	6-14-10	1140	GRAB	AQ	3		X			
-2 GAC INFLUENT (B)		1345	GRAB	AQ	3		X			
-3 GAC INFLUENT (C)		1533	GRAB	AQ	3		X			
-4 GAC INFLUENT		1535	COMP	AQ	3			X	X	
-5 GAC EFFLUENT (A)		1142	GRAB	AQ	3		X			
-6 GAC EFFLUENT (B)		1347	GRAB	AQ	3		X			
-7 GAC EFFLUENT (C)		1537	GRAB	AQ	3		X			
-8 GAC EFFLUENT		1539	COMP	AQ	3			X	X	
-9 TRIP BLANK	6-21-10	1050	GRAB	AQ	1		X			
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							2	1	3	

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Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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

Special Instructions/QC Requirements:

Relinquished by:	Company: [redacted] / TEST AMERICA	Date/Time: 6-21-10 @1950	Received by:	Company: Test America
Relinquished by:	Company:	Date/Time:	Received by:	Company:
~~Relinquished by:~~	~~Company:~~	~~Date/Time:~~	Received by:	Company:

Comments: US Steel Cooler 4.8°C

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-53807-1

Login Number: 53807
Creator: Richter, Debbie D
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-54105-1

Job Description: CAMU Spray Evaporation Weekly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
7/1/2010 11:42 AM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
07/01/2010

cc: Mrs. Susanne Bonola
Doug P Boyea
Ms. Susanne Tomajko-Seydel

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

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Comments
No additional comments.

Receipt
1 of 3 vials has bubble >6mm for GAC Influent (A) and GAC Effluent (B).

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

GC/MS VOA
Method(s) 624: The following sample was diluted due to the abundance of target analytes: GAC INFLUENT (A) (510-54105-1), GAC INFLUENT (B) (510-54105-2), GAC INFLUENT (C) (510-54105-3). Elevated reporting limits (RLs) are provided. Batch 65416 method 624.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: The following sample was diluted due to the abundance of target analytes: GAC INFLUENT (510-54105-4). Elevated reporting limits (RLs) are provided.

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.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-54105-1

Method	Analyst	Analyst ID
40CFR136A 624	Hobart, Wes E	WEH
40CFR136A 625	Squires, William D	WDS
MCAWW 350.1	Church, Jason B	JBC

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SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-54105-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-54105-1	GAC INFLUENT (A)	Water	06/29/2010 0930	06/29/2010 1900
510-54105-2	GAC INFLUENT (B)	Water	06/29/2010 1200	06/29/2010 1900
510-54105-3	GAC INFLUENT (C)	Water	06/29/2010 1535	06/29/2010 1900
510-54105-4	GAC INFLUENT	Water	06/29/2010 1537	06/29/2010 1900
510-54105-5	GAC EFFLUENT (A)	Water	06/29/2010 0932	06/29/2010 1900
510-54105-6	GAC EFFLUENT (B)	Water	06/29/2010 1202	06/29/2010 1900
510-54105-7	GAC EFFLUENT (C)	Water	06/29/2010 1531	06/29/2010 1900
510-54105-8	GAC EFFLUENT	Water	06/29/2010 1533	06/29/2010 1900
510-54105-9	TRIP BLANK	Water	06/29/2010 0910	06/29/2010 1900

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-54105-1
Lab Sample Id: 510-54105-1
Client Matrix: Water
Date Sampled: 06/29/2010 0930
Date Received: 06/29/2010 1900

Client Sample ID: GAC INFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1700	ug/L	100	624		06/30/2010 1146	20
Ethylbenzene - RA	18	ug/L	5.0	624		06/30/2010 1611	1.0
Toluene - RA	43	ug/L	5.0	624		06/30/2010 1611	1.0
Xylenes, Total - RA	50	ug/L	10	624		06/30/2010 1611	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	102	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	107	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	113	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	105	%		624	77 - 132		
Toluene-d8 (Surr) - DL	98	%		624	89 - 108		
Toluene-d8 (Surr) - RA	99	%		624	89 - 108		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-54105-1
Lab Sample Id: 510-54105-2
Client Matrix: Water
Date Sampled: 06/29/2010 1200
Date Received: 06/29/2010 1900

Client Sample ID: GAC INFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1400	ug/L	100	624		06/30/2010 1219	20
Ethylbenzene - RA	18	ug/L	5.0	624		06/30/2010 1644	1.0
Toluene - RA	41	ug/L	5.0	624		06/30/2010 1644	1.0
Xylenes, Total - RA	50	ug/L	10	624		06/30/2010 1644	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	106	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - RA	104	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - DL	108	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - RA	103	%		624	77 - 132		
Toluene-d8 (Surr) - DL	99	%		624	89 - 108		
Toluene-d8 (Surr) - RA	99	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-54105-1
Lab Sample Id: 510-54105-3
Client Matrix: Water
Date Sampled: 06/29/2010 1535
Date Received: 06/29/2010 1900

Client Sample ID: GAC INFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene - DL	1400	ug/L	100	624		06/30/2010 1252	20
Ethylbenzene - RA	18	ug/L	5.0	624		06/30/2010 1718	1.0
Toluene - RA	41	ug/L	5.0	624		06/30/2010 1718	1.0
Xylenes, Total - RA	49	ug/L	10	624		06/30/2010 1718	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - RA	107	%		624	81 - 126		
1,2-Dichloroethane-d4 (Surr) - DL	103	%		624	81 - 126		
4-Bromofluorobenzene (Surr) - RA	105	%		624	77 - 132		
4-Bromofluorobenzene (Surr) - DL	107	%		624	77 - 132		
Toluene-d8 (Surr) - DL	98	%		624	89 - 108		
Toluene-d8 (Surr) - RA	101	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-54105-1
Lab Sample Id: 510-54105-4
Client Matrix: Water
Date Sampled: 06/29/2010 1537
Date Received: 06/29/2010 1900

Client Sample ID: GAC INFLUENT

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
2,4-Dimethylphenol - DL	110		ug/L	110	625	06/30/2010 0751	06/30/2010 1730	10
Acenaphthene - DL	240		ug/L	110	625	06/30/2010 0751	06/30/2010 1730	10
Fluorene - DL	<110		ug/L	110	625	06/30/2010 0751	06/30/2010 1730	10
Naphthalene - DL	1000		ug/L	110	625	06/30/2010 0751	06/30/2010 1730	10
Phenanthrene - DL	<110		ug/L	110	625	06/30/2010 0751	06/30/2010 1730	10
Surrogate						Acceptance Limits		
2,4,6-Tribromophenol - DL	0	D	%		625	10 - 168		
2-Fluorobiphenyl - DL	0	D	%		625	10 - 129		
2-Fluorophenol - DL	0	D	%		625	10 - 87		
Nitrobenzene-d5 - DL	0	D	%		625	10 - 135		
Phenol-d5 - DL	0	D	%		625	10 - 69		
Terphenyl-d14 - DL	0	D	%		625	10 - 142		
GENERAL CHEMISTRY								
Ammonia, undistilled	5.8		mg/L	1.0	350.1		06/30/2010 1327	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-54105-1
Lab Sample Id: 510-54105-5
Client Matrix: Water
Date Sampled: 06/29/2010 0932
Date Received: 06/29/2010 1900

Client Sample ID: GAC EFFLUENT (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		06/30/2010 1004	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/30/2010 1004	1.0
Toluene	<5.0	ug/L	5.0	624		06/30/2010 1004	1.0
Xylenes, Total	<10	ug/L	10	624		06/30/2010 1004	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	105	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	113	%		624	77 - 132		
Toluene-d8 (Surr)	99	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-54105-1
Lab Sample Id: 510-54105-6
Client Matrix: Water
Date Sampled: 06/29/2010 1202
Date Received: 06/29/2010 1900

Client Sample ID: GAC EFFLUENT (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		06/30/2010 1038	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/30/2010 1038	1.0
Toluene	<5.0	ug/L	5.0	624		06/30/2010 1038	1.0
Xylenes, Total	<10	ug/L	10	624		06/30/2010 1038	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	106	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	113	%		624	77 - 132		
Toluene-d8 (Surr)	99	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-54105-1
Lab Sample Id: 510-54105-7
Client Matrix: Water
Date Sampled: 06/29/2010 1531
Date Received: 06/29/2010 1900

Client Sample ID: GAC EFFLUENT (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		06/30/2010 1113	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/30/2010 1113	1.0
Toluene	<5.0	ug/L	5.0	624		06/30/2010 1113	1.0
Xylenes, Total	<10	ug/L	10	624		06/30/2010 1113	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	105	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	117	%		624	77 - 132		
Toluene-d8 (Surr)	99	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-54105-1
Lab Sample Id: 510-54105-8
Client Matrix: Water
Date Sampled: 06/29/2010 1533
Date Received: 06/29/2010 1900

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
2,4-Dimethylphenol	<10	ug/L	10	625	06/30/2010 0751	06/30/2010 1750	1.0
Acenaphthene	<10	ug/L	10	625	06/30/2010 0751	06/30/2010 1750	1.0
Fluorene	<10	ug/L	10	625	06/30/2010 0751	06/30/2010 1750	1.0
Naphthalene	<10	ug/L	10	625	06/30/2010 0751	06/30/2010 1750	1.0
Phenanthrene	<10	ug/L	10	625	06/30/2010 0751	06/30/2010 1750	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	78	%		625	10 - 168		
2-Fluorobiphenyl	71	%		625	10 - 129		
2-Fluorophenol	44	%		625	10 - 87		
Nitrobenzene-d5	72	%		625	10 - 135		
Phenol-d5	31	%		625	10 - 69		
Terphenyl-d14	88	%		625	10 - 142		
GENERAL CHEMISTRY							
Ammonia, undistilled	12	mg/L	1.0	350.1		06/30/2010 1328	50

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-54105-1
Lab Sample Id: 510-54105-9
Client Matrix: Water
Date Sampled: 06/29/2010 0910
Date Received: 06/29/2010 1900

Client Sample ID: TRIP BLANK

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Benzene	<5.0	ug/L	5.0	624		06/30/2010 0931	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		06/30/2010 0931	1.0
Toluene	<5.0	ug/L	5.0	624		06/30/2010 0931	1.0
Xylenes, Total	<10	ug/L	10	624		06/30/2010 0931	1.0
Surrogate					Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	104	%		624	81 - 126		
4-Bromofluorobenzene (Surr)	116	%		624	77 - 132		
Toluene-d8 (Surr)	99	%		624	89 - 108		

DATA REPORTING QUALIFIERS

Client: United States Steel Corporation Job Number: 510-54105-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	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.

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-54105-1

Method Blank - Batch: 510-65416

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-65416/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/30/2010 0858
Date Prepared: N/A

Analysis Batch: 510-65416
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A9431.D
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Benzene	<5.0		5.0
Ethylbenzene	<5.0		5.0
Toluene	<5.0		5.0
Xylenes, Total	<10		10

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102	81 - 126
4-Bromofluorobenzene (Surr)	113	77 - 132
Toluene-d8 (Surr)	99	89 - 108

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-65416

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-65416/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/30/2010 0719
Date Prepared: N/A

Analysis Batch: 510-65416
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A9428.D
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 510-65416/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/30/2010 0752
Date Prepared: N/A

Analysis Batch: 510-65416
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A9429.D
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Benzene	91	95	37 - 151	4	30		
Ethylbenzene	93	99	37 - 162	6	30		
Toluene	91	96	47 - 150	6	30		
Xylenes, Total	94	100		6			

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101	101	81 - 126
4-Bromofluorobenzene (Surr)	109	104	77 - 132
Toluene-d8 (Surr)	100	101	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-54105-1

Method Blank - Batch: 510-65423

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-65423/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/30/2010 1649
Date Prepared: 06/30/2010 0751

Analysis Batch: 510-65431
Prep Batch: 510-65423
Units: ug/L

Instrument ID: SMSB
Lab File ID: C1364.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
2,4-Dimethylphenol	<10		10
Acenaphthene	<10		10
Fluorene	<10		10
Naphthalene	<10		10
Phenanthrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	72	10 - 168
2-Fluorobiphenyl	76	10 - 129
2-Fluorophenol	51	10 - 87
Nitrobenzene-d5	76	10 - 135
Phenol-d5	38	10 - 69
Terphenyl-d14	73	10 - 142

Lab Control Sample - Batch: 510-65423

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-65423/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/30/2010 1709
Date Prepared: 06/30/2010 0751

Analysis Batch: 510-65431
Prep Batch: 510-65423
Units: ug/L

Instrument ID: SMSB
Lab File ID: C1365.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-Dimethylphenol	50.0	34.6	69	32 - 119	
Acenaphthene	50.0	39.9	80	47 - 145	
Fluorene	50.0	41.3	83	59 - 121	
Naphthalene	50.0	33.5	67	21 - 133	
Phenanthrene	50.0	44.4	89	54 - 120	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	87	10 - 168
2-Fluorobiphenyl	78	10 - 129
2-Fluorophenol	56	10 - 87
Nitrobenzene-d5	76	10 - 135
Phenol-d5	40	10 - 69
Terphenyl-d14	93	10 - 142

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-54105-1

Method Blank - Batch: 510-65460

Method: 350.1
Preparation: N/A

Lab Sample ID: MB 510-65460/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/30/2010 1315
Date Prepared: N/A

Analysis Batch: 510-65460
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 06-30-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Ammonia, undistilled	<0.020		0.020

Lab Control Sample - Batch: 510-65460

Method: 350.1
Preparation: N/A

Lab Sample ID: LCS 510-65460/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/30/2010 1313
Date Prepared: N/A

Analysis Batch: 510-65460
Prep Batch: N/A
Units: mg/L

Instrument ID: GSYSB
Lab File ID: NH3 06-30-10 A.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia, undistilled	0.400	0.409	102	75 - 125	

US EPA ARCHIVE DOCUMENT

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact		Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY	US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO	Doug Boyea				
ADDRESS	1 North Broadway MS 70				
	Gary, IN 46402				
PHONE					
Project Name:	CAMU				
Site:					
P O #					
W O #					

Analysis Turnaround Time

- ☐ Standard
- ☒ Rush Charges Authorized for 24 HOURS
- ☐ 2 weeks
- ☐ 1 week
- ☐ 2 days
- ☐ 1 day

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	BTEX	NAP, 2-4 DIMETHYL PHENOL,	ACENAPTHENE, FLUORININE,	PHENANTHRENE	AMMONIA
54105-1 GAC INFLUENT (A)	6-29-10	0930	GRAB	AQ	3		X				
-2 GAC INFLUENT (B)		1200	GRAB	AQ	3		X				
-3 GAC INFLUENT (C)		1535	GRAB	AQ	3		X				
-4 GAC INFLUENT		1537	COMP	AQ	3			X		X	
-5 GAC EFFLUENT (A)		0932	GRAB	AQ	3		X				
-6 GAC EFFLUENT (B)		1202	GRAB	AQ	3		X				
-7 GAC EFFLUENT (C)		1531	GRAB	AQ	3		X				
-8 GAC EFFLUENT		1533	COMP	AQ	3			X		X	
-9 TRIP BLANK	6-29-10	0910	GRAB	AQ	1		X				
							2	1		3	

Special Instructions/Note:

1 of 3 vials has bubble 6mm DR

1 of 3 vials has bubble 6mm DR 6/30

Page 18 of 19

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements:

Relinquished by:	Company: / TEST AMERICA	Date/Time: 6-29-10 @ 1900	Received by:	Company: TestAmerica
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments:

US Steel Cooler Temp = 4.3°C

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-54105-1

Login Number: 54105
Creator: Richter, Debbie D
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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.	False	1 of 3 vials has bubble >6mm for GAC Influent (A) & GAC Effluent (B)
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-52063-1

Job Description: CAMU Spray Evaporation Monthly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
5/12/2010 8:26 AM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
05/12/2010

cc: Mrs. Susanne Bonola
Rick L Menozzi
Ms. Susanne Tomajko-Seydel

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation

Job Number: 510-52063-1

Method	Analyst	Analyst ID
SW846 6010B	Tharpe, Matt	MT
SW846 7470A	Cook, Kelly L	KLC

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: United States Steel Corporation

Job Number: 510-52063-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-52063-1	GAC INFLUENT	Water	05/04/2010 1511	05/04/2010 1725

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-52063-1
Lab Sample Id: 510-52063-1
Client Matrix: Water
Date Sampled: 05/04/2010 1511
Date Received: 05/04/2010 1725

Client Sample ID: GAC INFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
METALS							
Arsenic	<0.030	mg/L	0.030	6010B	05/10/2010 0805	05/11/2010 1145	1.0
Barium	0.65	mg/L	0.010	6010B	05/10/2010 0805	05/11/2010 1145	1.0
Cadmium	<0.010	mg/L	0.010	6010B	05/10/2010 0805	05/11/2010 1145	1.0
Silver	<0.040	mg/L	0.040	6010B	05/10/2010 0805	05/11/2010 1145	1.0
Chromium	<0.010	mg/L	0.010	6010B	05/10/2010 0805	05/11/2010 1145	1.0
Lead	<0.050	mg/L	0.050	6010B	05/10/2010 0805	05/11/2010 1145	1.0
Selenium	<0.020	mg/L	0.020	6010B	05/10/2010 0805	05/11/2010 1145	1.0
Lithium	0.034	mg/L	0.015	6010B	05/10/2010 0805	05/11/2010 1145	1.0
Mercury	<0.00020	mg/L	0.00020	7470A	05/10/2010 1025	05/10/2010 1514	1.0

Client: United States Steel Corporation

Job Number: 510-52063-1

Method Blank - Batch: 510-63195

Method: 6010B
Preparation: 3010A

Lab Sample ID: MB 510-63195/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1056
Date Prepared: 05/10/2010 0805

Analysis Batch: 510-63279
Prep Batch: 510-63195
Units: mg/L

Instrument ID: MICPC
Lab File ID: 201061C
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Arsenic	<0.030		0.030
Barium	<0.010		0.010
Cadmium	<0.010		0.010
Silver	<0.040		0.040
Chromium	<0.010		0.010
Lead	<0.050		0.050
Selenium	<0.020		0.020
Lithium	<0.015		0.015

Lab Control Sample - Batch: 510-63195

Method: 6010B
Preparation: 3010A

Lab Sample ID: LCS 510-63195/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/11/2010 1102
Date Prepared: 05/10/2010 0805

Analysis Batch: 510-63279
Prep Batch: 510-63195
Units: mg/L

Instrument ID: MICPC
Lab File ID: 201061C
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.500	0.495	99	80 - 120	
Barium	1.00	1.04	104	80 - 120	
Cadmium	0.500	0.516	103	80 - 120	
Silver	1.00	1.03	103	80 - 120	
Chromium	0.500	0.517	103	80 - 120	
Lead	0.500	0.511	102	80 - 120	
Selenium	0.500	0.511	102	80 - 120	
Lithium	0.500	0.531	106	80 - 120	

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-52063-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-63195

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	510-52063-1	Analysis Batch:	510-63279	Instrument ID:	MICPC
Client Matrix:	Water	Prep Batch:	510-63195	Lab File ID:	201061C
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	05/11/2010 1202			Final Weight/Volume:	50 mL
Date Prepared:	05/10/2010 0805				

MSD Lab Sample ID:	510-52063-1	Analysis Batch:	510-63279	Instrument ID:	MICPC
Client Matrix:	Water	Prep Batch:	510-63195	Lab File ID:	201061C
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	05/11/2010 1207			Final Weight/Volume:	50 mL
Date Prepared:	05/10/2010 0805				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	104	101	75 - 125	3	20		
Barium	111	101	75 - 125	6	20		
Cadmium	102	100	75 - 125	2	20		
Silver	111	103	75 - 125	7	20		
Chromium	102	99	75 - 125	3	20		
Lead	102	99	75 - 125	3	20		
Selenium	105	103	75 - 125	2	20		
Lithium	113	110	75 - 125	3	20		

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-52063-1

Method Blank - Batch: 510-63211

Method: 7470A
Preparation: 7470A

Lab Sample ID: MB 510-63211/9-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2010 1446
Date Prepared: 05/10/2010 1025

Analysis Batch: 510-63265
Prep Batch: 510-63211
Units: mg/L

Instrument ID: MHGC
Lab File ID: 051010bhg.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	<0.00020		0.00020

Lab Control Sample - Batch: 510-63211

Method: 7470A
Preparation: 7470A

Lab Sample ID: LCS 510-63211/10-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 05/10/2010 1449
Date Prepared: 05/10/2010 1025

Analysis Batch: 510-63265
Prep Batch: 510-63211
Units: mg/L

Instrument ID: MHGC
Lab File ID: 051010bhg.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00507	101	80 - 120	

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

Client Contact		Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY	US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO	Doug Boyea	Analysis Turnaround Time			
ADDRESS	1 North Broadway MS 70	[X] Standard			
	Gary, IN 46402	[ ] Rush Charges Authorized for _____			
PHONE		[ ] 2 weeks			
Project Name:	CAMU (MONTHLY)	[ ] 1 week			
Site:		[ ] 2 days			
P O #		[ ] 1 day			
W O #					

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	6010B/7470A METALS	624	608	625	Special Instructions/Note:
52063-1 GAC INFLUENT	5-4-10	1511	COMP	AQ	1		X				Added 5mL HNO3 DR 5/5/10
~~GAC INFLUENT (A)~~			~~GRAB~~	~~AQ~~	~~3~~			X			~~QUARTERLY - JULY & OCTOBER~~
GAC INFLUENT (B)			GRAB	AQ	3			X			QUARTERLY - JULY & OCTOBER
GAC INFLUENT (C)			GRAB	AQ	3			X			QUARTERLY - JULY & OCTOBER
GAC INFLUENT			COMP	AQ	4				X	X	QUARTERLY - JULY & OCTOBER
GAC EFFLUENT (A)			GRAB	AQ	3			X			QUARTERLY - JULY & OCTOBER
GAC EFFLUENT (B)			GRAB	AQ	3			X			QUARTERLY - JULY & OCTOBER
GAC EFFLUENT (C)			GRAB	AQ	3			X			QUARTERLY - JULY & OCTOBER
GAC EFFLUENT			COMP	AQ	4				X	X	QUARTERLY - JULY & OCTOBER
~~FIELD BLANK~~			~~GRAB~~	~~AQ~~	~~1~~			X			~~QUARTERLY - JULY & OCTOBER~~
							4	2	1	1	

Page 8 of 9

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification
[ ] Non-Hazard [ ] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
[ ] Return To Client [ ] Disposal By Lab [ ] Archive For _____ Months

Special Instructions/QC Requirements:

	Company:	Date/Time:	Received by:	Company:
Relinquished by:	[illegible] / TEST AMERICA	5-4-10 @ 1725		Test Ameri-
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments: US Steel Cooler 1.4 °C

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-52063-1

Login Number: 52063

List Source: TestAmerica Valparaiso

Creator: Looney, Christina M

List Number: 1

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-53095-1

Job Description: CAMU Spray Evaporation Monthly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
6/28/2010 11:45 AM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
06/28/2010

cc: Mrs. Susanne Bonola
Doug P Boyea
Ms. Susanne Tomajko-Seydel

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

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Comments
No additional comments.

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

Metals
Method(s) 6010B: The following sample(s) needs to be re-digested/re-extracted due to too high of a recovery for lithium in the laboratory control sample (LCS).

No other analytical or quality issues were noted.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-53095-1

Method	Analyst	Analyst ID
SW846 6010B	Tharpe, Matt	MT
SW846 6010B	Thomas, Deidra	DT
SW846 7470A	Thomas, Deidra	DT

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-53095-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-53095-1	GAC INFLUENT	Water	06/02/2010 1415	06/02/2010 1940
510-53095-2	GAC EFFLUENT	Water	06/02/2010 1415	06/02/2010 1940

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53095-1
Lab Sample Id: 510-53095-1
Client Matrix: Water
Date Sampled: 06/02/2010 1415
Date Received: 06/02/2010 1940

Client Sample ID: GAC INFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
METALS							
Arsenic	<0.030	mg/L	0.030	6010B	06/07/2010 0819	06/23/2010 1725	1.0
Barium	0.60	mg/L	0.010	6010B	06/07/2010 0819	06/23/2010 1725	1.0
Cadmium	<0.010	mg/L	0.010	6010B	06/07/2010 0819	06/23/2010 1725	1.0
Chromium	<0.010	mg/L	0.010	6010B	06/07/2010 0819	06/23/2010 1725	1.0
Lead	<0.050	mg/L	0.050	6010B	06/07/2010 0819	06/23/2010 1725	1.0
Lithium	0.032	mg/L	0.015	6010B	06/07/2010 0819	06/28/2010 1111	1.0
Selenium	<0.020	mg/L	0.020	6010B	06/07/2010 0819	06/23/2010 1725	1.0
Silver	<0.040	mg/L	0.040	6010B	06/07/2010 0819	06/24/2010 1602	1.0
Mercury	<0.00020	mg/L	0.00020	7470A	06/04/2010 0935	06/04/2010 1321	1.0

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53095-1
Lab Sample Id: 510-53095-2
Client Matrix: Water
Date Sampled: 06/02/2010 1415
Date Received: 06/02/2010 1940

Client Sample ID: GAC EFFLUENT

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
METALS							
Arsenic	<0.030	mg/L	0.030	6010B	06/07/2010 0819	06/23/2010 1742	1.0
Barium	0.62	mg/L	0.010	6010B	06/07/2010 0819	06/23/2010 1742	1.0
Cadmium	<0.010	mg/L	0.010	6010B	06/07/2010 0819	06/23/2010 1742	1.0
Chromium	<0.010	mg/L	0.010	6010B	06/07/2010 0819	06/23/2010 1742	1.0
Lead	<0.050	mg/L	0.050	6010B	06/07/2010 0819	06/23/2010 1742	1.0
Lithium	0.032	mg/L	0.015	6010B	06/07/2010 0819	06/28/2010 1127	1.0
Selenium	<0.020	mg/L	0.020	6010B	06/07/2010 0819	06/23/2010 1742	1.0
Silver	<0.040	mg/L	0.040	6010B	06/07/2010 0819	06/24/2010 1618	1.0
Mercury	<0.00020	mg/L	0.00020	7470A	06/04/2010 0935	06/04/2010 1324	1.0

Client: United States Steel Corporation Job Number: 510-53095-1

Method Blank - Batch: 510-64383

Method: 6010B
Preparation: 3010A

Lab Sample ID: MB 510-64383/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/23/2010 1714
Date Prepared: 06/07/2010 0819

Analysis Batch: 510-65175
Prep Batch: 510-64383
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Arsenic	<0.030		0.030
Barium	<0.010		0.010
Cadmium	<0.010		0.010
Chromium	<0.010		0.010
Lead	<0.050		0.050
Selenium	<0.020		0.020

Method Blank - Batch: 510-64383

Method: 6010B
Preparation: 3010A

Lab Sample ID: MB 510-64383/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/24/2010 1550
Date Prepared: 06/07/2010 0819

Analysis Batch: 510-65232
Prep Batch: 510-64383
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Silver	<0.040		0.040

Method Blank - Batch: 510-64383

Method: 6010B
Preparation: 3010A

Lab Sample ID: MB 510-64383/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/28/2010 1101
Date Prepared: 06/07/2010 0819

Analysis Batch: 510-65337
Prep Batch: 510-64383
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Lithium	<0.015		0.015

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-53095-1

Lab Control Sample - Batch: 510-64383

Method: 6010B
Preparation: 3010A

Lab Sample ID: LCS 510-64383/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/23/2010 1720
Date Prepared: 06/07/2010 0819

Analysis Batch: 510-65175
Prep Batch: 510-64383
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.500	0.494	99	80 - 120	
Barium	1.00	0.982	98	80 - 120	
Cadmium	0.500	0.504	101	80 - 120	
Chromium	0.500	0.539	108	80 - 120	
Lead	0.500	0.516	103	80 - 120	
Selenium	0.500	0.490	98	80 - 120	

Lab Control Sample - Batch: 510-64383

Method: 6010B
Preparation: 3010A

Lab Sample ID: LCS 510-64383/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/24/2010 1556
Date Prepared: 06/07/2010 0819

Analysis Batch: 510-65232
Prep Batch: 510-64383
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	1.00	1.10	110	80 - 120	

Lab Control Sample - Batch: 510-64383

Method: 6010B
Preparation: 3010A

Lab Sample ID: LCS 510-64383/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/28/2010 1106
Date Prepared: 06/07/2010 0819

Analysis Batch: 510-65337
Prep Batch: 510-64383
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Lithium	0.500	0.550	110	80 - 120	

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53095-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-64383

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	510-53095-1	Analysis Batch:	510-65175	Instrument ID:	MICPC
Client Matrix:	Water	Prep Batch:	510-64383	Lab File ID:	61C510
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	06/23/2010 1731			Final Weight/Volume:	50 mL
Date Prepared:	06/07/2010 0819				

MSD Lab Sample ID:	510-53095-1	Analysis Batch:	510-65175	Instrument ID:	MICPC
Client Matrix:	Water	Prep Batch:	510-64383	Lab File ID:	61C510
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	06/23/2010 1736			Final Weight/Volume:	50 mL
Date Prepared:	06/07/2010 0819				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	103	101	75 - 125	1	20		
Barium	97	95	75 - 125	1	20		
Cadmium	99	96	75 - 125	3	20		
Chromium	105	102	75 - 125	3	20		
Lead	102	100	75 - 125	2	20		
Selenium	100	98	75 - 125	2	20		

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-53095-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-64383

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	510-53095-1	Analysis Batch: 510-65232	Instrument ID: MICPC
Client Matrix:	Water	Prep Batch: 510-64383	Lab File ID: 61C510
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	06/24/2010 1607		Final Weight/Volume: 50 mL
Date Prepared:	06/07/2010 0819		

MSD Lab Sample ID:	510-53095-1	Analysis Batch: 510-65232	Instrument ID: MICPC
Client Matrix:	Water	Prep Batch: 510-64383	Lab File ID: 61C510
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	06/24/2010 1613		Final Weight/Volume: 50 mL
Date Prepared:	06/07/2010 0819		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	112	110	75 - 125	2	20		
Barium	103	101	75 - 125	1	20		
Cadmium	106	103	75 - 125	3	20		
Chromium	108	106	75 - 125	2	20		
Lead	109	107	75 - 125	2	20		
Selenium	111	110	75 - 125	2	20		
Silver	113	111	75 - 125	2	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-64383

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	510-53095-1	Analysis Batch: 510-65337	Instrument ID: MICPC
Client Matrix:	Water	Prep Batch: 510-64383	Lab File ID: 61C510
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	06/28/2010 1116		Final Weight/Volume: 50 mL
Date Prepared:	06/07/2010 0819		

MSD Lab Sample ID:	510-53095-1	Analysis Batch: 510-65337	Instrument ID: MICPC
Client Matrix:	Water	Prep Batch: 510-64383	Lab File ID: 61C510
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	06/28/2010 1121		Final Weight/Volume: 50 mL
Date Prepared:	06/07/2010 0819		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Lithium	120	118	75 - 125	1	20		

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-53095-1

Method Blank - Batch: 510-64304

Method: 7470A
Preparation: 7470A

Lab Sample ID: MB 510-64304/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/04/2010 1317
Date Prepared: 06/04/2010 0935

Analysis Batch: 510-64339
Prep Batch: 510-64304
Units: mg/L

Instrument ID: MHGC
Lab File ID: 060410bhg.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	<0.00020		0.00020

Lab Control Sample - Batch: 510-64304

Method: 7470A
Preparation: 7470A

Lab Sample ID: LCS 510-64304/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/04/2010 1319
Date Prepared: 06/04/2010 0935

Analysis Batch: 510-64339
Prep Batch: 510-64304
Units: mg/L

Instrument ID: MHGC
Lab File ID: 060410bhg.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00498	100	80 - 120	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-64304

Method: 7470A
Preparation: 7470A

MS Lab Sample ID: 510-53095-2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/04/2010 1325
Date Prepared: 06/04/2010 0935

Analysis Batch: 510-64339
Prep Batch: 510-64304

Instrument ID: MHGC
Lab File ID: 060410bhg.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 510-53095-2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/04/2010 1327
Date Prepared: 06/04/2010 0935

Analysis Batch: 510-64339
Prep Batch: 510-64304

Instrument ID: MHGC
Lab File ID: 060410bhg.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	105	104	75 - 125	1	20		

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Chain of Custody Record

Temp = 3.6°C

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact		Project Manager: Amanda Grzybowski	Site Contact:	Date:	COC No:
COMPANY	US Steel Gary Works	Tel/Fax: 219-464-2389 Ext. 557	Lab Contact:	Carrier No:	Job No.
REPORT TO	Doug Boyea				
ADDRESS	1 North Broadway MS 70				
	Gary, IN 46402				
PHONE					
Project Name:	CAMU (MONTHLY)				
Site:					
P O #					
W O #					

Analysis Turnaround Time

- [X] Standard
- [ ] Rush Charges Authorized for _____
  - [ ] 2 weeks
  - [ ] 1 week
  - [ ] 2 days
  - [ ] 1 day

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	6010B/7470A METALS	624	608	625	Special Instructions/Note:
53095-1 GAC INFLUENT	6-2-10	1415	COMP	AQ	1		X				Added 2mL HNO3 to Both
-2 GAC EFFLUENT	6-2-10	1415	COMP	AQ	1		X				Samples DL 6/3/10
GAC INFLUENT (A)			GRAB	AQ	3			X			QUARTERLY - JULY & OCTOBER
GAC INFLUENT (B)			GRAB	AQ	3			X			QUARTERLY - JULY & OCTOBER
GAC INFLUENT (C)			GRAB	AQ	3			X			QUARTERLY - JULY & OCTOBER
GAC INFLUENT			COMP	AQ	4				X	X	QUARTERLY - JULY & OCTOBER
GAC EFFLUENT (A)			GRAB	AQ	3			X			QUARTERLY - JULY & OCTOBER
GAC EFFLUENT (B)			GRAB	AQ	3			X			QUARTERLY - JULY & OCTOBER
GAC EFFLUENT (C)			GRAB	AQ	3			X			QUARTERLY - JULY & OCTOBER
GAC EFFLUENT			COMP	AQ	4				X	X	QUARTERLY - JULY & OCTOBER
TRIP BLANK			GRAB	AQ	1			X			QUARTERLY - JULY & OCTOBER
							4	2	1	1	

BF

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Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification

[ ] *Non-Hazard* [ ] *Flammable* [ ] *Skin Irritant* [ ] *Poison B* [ ] *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

[ ] *Return To Client* [ ] *Disposal By Lab* [ ] *Archive For* _____ *Months*

Special Instructions/QC Requirements:

Relinquished by:	Company: / TEST AMERICA	Date/Time: 6-2-10 @ 1940	Received by:	Company: Test America
Relinquished by:	Company:	Date/Time:	Received by:	Company:
Relinquished by:	Company:	Date/Time:	Received by:	Company:

Comments: US Steel Cooler 3.6°C

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-53095-1

Login Number: 53095

List Source: TestAmerica Valparaiso

Creator: Looney, Christina M

List Number: 1

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-51132-1

Job Description: CAMU Spray Evaporation Monthly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
4/16/2010 2:03 PM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
04/16/2010

cc: Doug P Boyea

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

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Comments
No additional comments.

Receipt
1 of 3 vials has bubble >6mm for GAC EFF (A) and GAC EFF (C).

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

GC/MS VOA
Method(s) 624: The continuing calibration verification (CCV) for Chloromethane, Vinyl Chloride, Bromomethane, Chloroethane, 1,1,1-Trichloroethane, Carbon Tetrachloride, cis-1,3-Dichloropropene, Chlorodibromomethane and Bromoform recovered above the upper control limit. The sample associated with this CCV was non-detect for the affected analytes; therefore, the data has been reported. Batch 61793.

Method(s) 624: The continuing calibration verification (CCV) for Bromomethane and Carbon Tetrachloride recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data has been reported. Batch 61957.

Method(s) 624: The following samples were diluted due to the abundance of target analytes: GAC INF (A) (510-51132-1), GAC INF (B) (510-51132-2), GAC INF (C) (510-51132-3). Elevated reporting limits (RLs) are provided. Batch 61957.

Method(s) 624: The following samples submitted for volatiles analysis were received with insufficient preservation (pH >2): GAC EFF (C) (510-51132-7). Batch 61957.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: The continuing calibration verification (CCV) for analytical batch 61897 recovered above the upper control limit. The samples associated with this CCV were non-detect for the affected analytes; therefore, the data has been reported.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-51132-1

Method	Analyst	Analyst ID
40CFR136A 624	Hall, Jennifer L	JLH
40CFR136A 625	Squires, William D	WDS
40CFR136A 608	Seifert, Brandon R	BRS
SW846 6010B	Tharpe, Matt	MT
SW846 7470A	Thomas, Deidra	DT

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-51132-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-51132-1	GAC INF (A)	Water	04/06/2010 0835	04/06/2010 1925
510-51132-2	GAC INF (B)	Water	04/06/2010 1243	04/06/2010 1925
510-51132-3	GAC INF (C)	Water	04/06/2010 1537	04/06/2010 1925
510-51132-4	GAC INF	Water	04/06/2010 1545	04/06/2010 1925
510-51132-5	GAC EFF (A)	Water	04/06/2010 0838	04/06/2010 1925
510-51132-6	GAC EFF (B)	Water	04/06/2010 1245	04/06/2010 1925
510-51132-7	GAC EFF (C)	Water	04/06/2010 1540	04/06/2010 1925
510-51132-8	GAC EFF	Water	04/06/2010 1550	04/06/2010 1925
510-51132-9	Trip Blank	Water	04/06/2010 0800	04/06/2010 1925

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-1
Client Matrix: Water
Date Sampled: 04/06/2010 0835
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Benzene - DL	1500	ug/L	100	624		04/13/2010 0421	20
Bromoform	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Bromomethane	<10	ug/L	10	624		04/13/2010 0600	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Chloroethane	<10	ug/L	10	624		04/13/2010 0600	1.0
Chloroform	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Chloromethane	<10	ug/L	10	624		04/13/2010 0600	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Ethylbenzene	8.7	ug/L	5.0	624		04/13/2010 0600	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Toluene	21	ug/L	5.0	624		04/13/2010 0600	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/13/2010 0600	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr) - DL	100	%	624	81 - 126
1,2-Dichloroethane-d4 (Surr)	97	%	624	81 - 126
4-Bromofluorobenzene (Surr) - DL	107	%	624	77 - 132
4-Bromofluorobenzene (Surr)	100	%	624	77 - 132

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-1
Client Matrix: Water
Date Sampled: 04/06/2010 0835
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Surrogate					Acceptance Limits		
Toluene-d8 (Surr) - DL	94	%		624	89 - 108		
Toluene-d8 (Surr)	90	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-2
Client Matrix: Water
Date Sampled: 04/06/2010 1243
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Benzene - DL	2100	ug/L	100	624		04/13/2010 0454	20
Bromoform	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Bromomethane	<10	ug/L	10	624		04/13/2010 0633	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Chloroethane	<10	ug/L	10	624		04/13/2010 0633	1.0
Chloroform	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Chloromethane	<10	ug/L	10	624		04/13/2010 0633	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Ethylbenzene	12	ug/L	5.0	624		04/13/2010 0633	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Toluene	32	ug/L	5.0	624		04/13/2010 0633	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/13/2010 0633	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	%	624	81 - 126
1,2-Dichloroethane-d4 (Surr) - DL	95	%	624	81 - 126
4-Bromofluorobenzene (Surr)	101	%	624	77 - 132
4-Bromofluorobenzene (Surr) - DL	110	%	624	77 - 132

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-2
Client Matrix: Water
Date Sampled: 04/06/2010 1243
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Surrogate					Acceptance Limits		
Toluene-d8 (Surr) - DL	91	%		624	89 - 108		
Toluene-d8 (Surr)	89	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-3
Client Matrix: Water
Date Sampled: 04/06/2010 1537
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Benzene - DL	2300	ug/L	100	624		04/13/2010 0527	20
Bromoform	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Bromomethane	<10	ug/L	10	624		04/13/2010 0706	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Chloroethane	<10	ug/L	10	624		04/13/2010 0706	1.0
Chloroform	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Chloromethane	<10	ug/L	10	624		04/13/2010 0706	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Ethylbenzene	12	ug/L	5.0	624		04/13/2010 0706	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Toluene	36	ug/L	5.0	624		04/13/2010 0706	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/13/2010 0706	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr) - DL	98	%	624	81 - 126
1,2-Dichloroethane-d4 (Surr)	92	%	624	81 - 126
4-Bromofluorobenzene (Surr)	102	%	624	77 - 132
4-Bromofluorobenzene (Surr) - DL	107	%	624	77 - 132

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-3
Client Matrix: Water
Date Sampled: 04/06/2010 1537
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Surrogate					Acceptance Limits		
Toluene-d8 (Surr)	90	%		624	89 - 108		
Toluene-d8 (Surr) - DL	92	%		624	89 - 108		

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-4
Client Matrix: Water
Date Sampled: 04/06/2010 1545
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF

		Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
1,2,4-Trichlorobenzene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
1,2-Dichlorobenzene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
1,2-Diphenylhydrazine		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
1,3-Dichlorobenzene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
1,4-Dichlorobenzene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,2'-oxybis(1-Chloropropane)	DNU	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,4,6-Trichlorophenol		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,4-Dichlorophenol		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,4-Dimethylphenol		130	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,4-Dinitrophenol		<530	ug/L	530	625	04/07/2010 1220	04/09/2010 2027	10
2,4-Dinitrotoluene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,6-Dinitrotoluene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2-Chloronaphthalene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2-Chlorophenol		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2-Nitrophenol		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
3 & 4 Methylphenol		130	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
3,3'-Dichlorobenzidine		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
4,6-Dinitro-2-methylphenol		<210	ug/L	210	625	04/07/2010 1220	04/09/2010 2027	10
4-Bromophenyl phenyl ether		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
4-Chloro-3-methylphenol		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
4-Chlorophenyl phenyl ether		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
4-Nitrophenol		<530	ug/L	530	625	04/07/2010 1220	04/09/2010 2027	10
Acenaphthene		240	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Acenaphthylene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Anthracene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Benzidine		<530	ug/L	530	625	04/07/2010 1220	04/09/2010 2027	10
Benzo[a]anthracene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Benzo[a]pyrene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Benzo[b]fluoranthene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Benzo[g,h,i]perylene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Benzo[k]fluoranthene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-4
Client Matrix: Water
Date Sampled: 04/06/2010 1545
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
Bis(2-chloroethoxy)methane	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Bis(2-chloroethyl)ether	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Bis(2-ethylhexyl) phthalate	<210	ug/L	210	625	04/07/2010 1220	04/09/2010 2027	10
Butyl benzyl phthalate	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Chrysene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Dibenz(a,h)anthracene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Diethyl phthalate	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Dimethyl phthalate	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Di-n-butyl phthalate	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Di-n-octyl phthalate	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Fluoranthene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Fluorene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Hexachlorobenzene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Hexachlorobutadiene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Hexachlorocyclopentadiene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Hexachloroethane	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Indeno[1,2,3-cd]pyrene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Isophorone	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Naphthalene	930	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Nitrobenzene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
N-Nitrosodimethylamine	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
N-Nitrosodi-n-propylamine	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
N-Nitrosodiphenylamine	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Pentachlorophenol	<210	ug/L	210	625	04/07/2010 1220	04/09/2010 2027	10
Phenanthrene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Phenol	190	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Pyrene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	103	%		625	10 - 168		
2-Fluorobiphenyl	81	%		625	10 - 129		
Nitrobenzene-d5	72	%		625	10 - 135		

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-4
Client Matrix: Water
Date Sampled: 04/06/2010 1545
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
Surrogate					Acceptance Limits		
Terphenyl-d14	77	%		625	10 - 142		
Phenol-d5	33	%		625	10 - 69		
2-Fluorophenol	47	%		625	10 - 87		
GC SEMI VOA							
PCB-1016	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1221	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1232	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1242	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1248	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1254	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1260	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
Polychlorinated biphenyls, Total	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
Surrogate					Acceptance Limits		
DCB Decachlorobiphenyl	77	%		608	17 - 139		
Dibutylchlorendate	63	%		608	18 - 145		
METALS							
Arsenic	<0.030	mg/L	0.030	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Barium	0.67	mg/L	0.010	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Cadmium	<0.010	mg/L	0.010	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Chromium	<0.010	mg/L	0.010	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Lead	<0.050	mg/L	0.050	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Lithium	0.040	mg/L	0.015	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Selenium	<0.020	mg/L	0.020	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Silver	<0.040	mg/L	0.040	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Mercury	<0.00020	mg/L	0.00020	7470A	04/13/2010 1025	04/13/2010 1420	1.0

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-5
Client Matrix: Water
Date Sampled: 04/06/2010 0838
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Benzene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Bromoform	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Bromomethane	<10	ug/L	10	624		04/08/2010 1424	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Chloroethane	<10	ug/L	10	624		04/08/2010 1424	1.0
Chloroform	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Chloromethane	<10	ug/L	10	624		04/08/2010 1424	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Toluene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/08/2010 1424	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	%	624	81 - 126
4-Bromofluorobenzene (Surr)	122	%	624	77 - 132
Toluene-d8 (Surr)	104	%	624	89 - 108

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-6
Client Matrix: Water
Date Sampled: 04/06/2010 1245
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Benzene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Bromoform	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Bromomethane	<10	ug/L	10	624		04/12/2010 1858	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Chloroethane	<10	ug/L	10	624		04/12/2010 1858	1.0
Chloroform	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Chloromethane	<10	ug/L	10	624		04/12/2010 1858	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Toluene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/12/2010 1858	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111	%	624	81 - 126
4-Bromofluorobenzene (Surr)	104	%	624	77 - 132
Toluene-d8 (Surr)	97	%	624	89 - 108

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1 North Broadway
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Job Number: 510-51132-1
Lab Sample Id: 510-51132-7
Client Matrix: Water
Date Sampled: 04/06/2010 1540
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Benzene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Bromoform	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Bromomethane	<10	ug/L	10	624		04/12/2010 1825	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Chloroethane	<10	ug/L	10	624		04/12/2010 1825	1.0
Chloroform	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Chloromethane	<10	ug/L	10	624		04/12/2010 1825	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Toluene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/12/2010 1825	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113	%	624	81 - 126
4-Bromofluorobenzene (Surr)	112	%	624	77 - 132
Toluene-d8 (Surr)	97	%	624	89 - 108

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-8
Client Matrix: Water
Date Sampled: 04/06/2010 1550
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF

		Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
1,2,4-Trichlorobenzene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
1,2-Dichlorobenzene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
1,2-Diphenylhydrazine		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
1,3-Dichlorobenzene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
1,4-Dichlorobenzene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,2'-oxybis(1-Chloropropane)	DNU	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,4,6-Trichlorophenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,4-Dichlorophenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,4-Dimethylphenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,4-Dinitrophenol		<52	ug/L	52	625	04/07/2010 1220	04/09/2010 2045	1.0
2,4-Dinitrotoluene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,6-Dinitrotoluene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2-Chloronaphthalene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2-Chlorophenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2-Nitrophenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
3 & 4 Methylphenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
3,3'-Dichlorobenzidine		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
4,6-Dinitro-2-methylphenol		<21	ug/L	21	625	04/07/2010 1220	04/09/2010 2045	1.0
4-Bromophenyl phenyl ether		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
4-Chloro-3-methylphenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
4-Chlorophenyl phenyl ether		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
4-Nitrophenol		<52	ug/L	52	625	04/07/2010 1220	04/09/2010 2045	1.0
Acenaphthene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Acenaphthylene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Anthracene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzidine		<52	ug/L	52	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzo[a]anthracene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzo[a]pyrene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzo[b]fluoranthene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzo[g,h,i]perylene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzo[k]fluoranthene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-8
Client Matrix: Water
Date Sampled: 04/06/2010 1550
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
Bis(2-chloroethoxy)methane	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Bis(2-chloroethyl)ether	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Bis(2-ethylhexyl) phthalate	<21	ug/L	21	625	04/07/2010 1220	04/09/2010 2045	1.0
Butyl benzyl phthalate	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Chrysene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Dibenz(a,h)anthracene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Diethyl phthalate	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Dimethyl phthalate	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Di-n-butyl phthalate	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Di-n-octyl phthalate	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Fluoranthene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Fluorene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Hexachlorobenzene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Hexachlorobutadiene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Hexachlorocyclopentadiene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Hexachloroethane	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Indeno[1,2,3-cd]pyrene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Isophorone	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Naphthalene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Nitrobenzene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
N-Nitrosodimethylamine	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
N-Nitrosodi-n-propylamine	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
N-Nitrosodiphenylamine	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Pentachlorophenol	<21	ug/L	21	625	04/07/2010 1220	04/09/2010 2045	1.0
Phenanthrene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Phenol	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Pyrene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	82	%		625	10 - 168		
2-Fluorobiphenyl	65	%		625	10 - 129		
Nitrobenzene-d5	60	%		625	10 - 135		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-8
Client Matrix: Water
Date Sampled: 04/06/2010 1550
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
Surrogate					Acceptance Limits		
Terphenyl-d14	72	%		625	10 - 142		
Phenol-d5	27	%		625	10 - 69		
2-Fluorophenol	39	%		625	10 - 87		
GC SEMI VOA							
PCB-1016	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1221	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1232	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1242	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1248	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1254	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1260	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
Polychlorinated biphenyls, Total	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
Surrogate					Acceptance Limits		
DCB Decachlorobiphenyl	80	%		608	17 - 139		
Dibutylchlorendate	71	%		608	18 - 145		

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-9
Client Matrix: Water
Date Sampled: 04/06/2010 0800
Date Received: 04/06/2010 1925

Client Sample ID: Trip Blank

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Benzene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Bromoform	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Bromomethane	<10	ug/L	10	624		04/12/2010 1751	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Chloroethane	<10	ug/L	10	624		04/12/2010 1751	1.0
Chloroform	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Chloromethane	<10	ug/L	10	624		04/12/2010 1751	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Toluene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/12/2010 1751	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	119	%	624	81 - 126
4-Bromofluorobenzene (Surr)	107	%	624	77 - 132
Toluene-d8 (Surr)	101	%	624	89 - 108

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61793

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-61793/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/08/2010 0320
Date Prepared: N/A

Analysis Batch: 510-61793
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7434.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1-Trichloroethane	<5.0		5.0
1,1,2,2-Tetrachloroethane	<5.0		5.0
1,1,2-Trichloroethane	<5.0		5.0
1,1-Dichloroethane	<5.0		5.0
1,1-Dichloroethene	<5.0		5.0
1,2-Dichloroethane	<5.0		5.0
1,2-Dichloropropane	<5.0		5.0
Benzene	<5.0		5.0
Bromoform	<5.0		5.0
Bromomethane	<10		10
Carbon tetrachloride	<5.0		5.0
Chlorobenzene	<5.0		5.0
Chlorodibromomethane	<5.0		5.0
Chloroethane	<10		10
Chloroform	<5.0		5.0
Chloromethane	<10		10
cis-1,3-Dichloropropene	<5.0		5.0
Dichlorobromomethane	<5.0		5.0
Ethylbenzene	<5.0		5.0
Methylene Chloride	<5.0		5.0
Tetrachloroethene	<5.0		5.0
Toluene	<5.0		5.0
trans-1,2-Dichloroethene	<5.0		5.0
trans-1,3-Dichloropropene	<5.0		5.0
Trichloroethene	<5.0		5.0
Vinyl chloride	<2.0		2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	122	81 - 126
4-Bromofluorobenzene (Surr)	104	77 - 132
Toluene-d8 (Surr)	100	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-61793

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-61793/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/08/2010 0214
Date Prepared: N/A

Analysis Batch: 510-61793
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7432.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-61793/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/08/2010 0247
Date Prepared: N/A

Analysis Batch: 510-61793
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7433.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	113	110	52 - 162	2	30		
1,1,2,2-Tetrachloroethane	82	81	46 - 157	1	30		
1,1,2-Trichloroethane	99	96	52 - 150	4	30		
1,1-Dichloroethane	96	100	59 - 155	4	30		
1,1-Dichloroethene	90	88	10 - 234	2	30		
1,2-Dichloroethane	105	104	49 - 155	1	30		
1,2-Dichloropropane	101	101	10 - 210	0	30		
Benzene	90	92	37 - 151	2	30		
Bromoform	111	115	45 - 169	3	30		
Bromomethane	146	159	10 - 242	8	30		
Carbon tetrachloride	116	115	70 - 140	1	30		
Chlorobenzene	97	99	37 - 160	2	30		
Chlorodibromomethane	116	113	53 - 149	3	30		
Chloroethane	149	141	14 - 230	5	30		
Chloroform	101	103	51 - 138	2	30		
Chloromethane	170	166	10 - 273	3	30		
cis-1,3-Dichloropropene	112	112	10 - 227	1	30		
Dichlorobromomethane	108	110	35 - 155	2	30		
Ethylbenzene	107	109	37 - 162	2	30		
Methylene Chloride	85	86	10 - 221	2	30		
Tetrachloroethene	104	102	64 - 148	2	30		
Toluene	101	100	47 - 150	1	30		
trans-1,2-Dichloroethene	95	96	54 - 156	1	30		
trans-1,3-Dichloropropene	112	111	17 - 183	0	30		
Trichloroethene	107	104	71 - 157	3	30		
Vinyl chloride	167	164	10 - 251	2	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	104	81 - 126
4-Bromofluorobenzene (Surr)	97	101	77 - 132
Toluene-d8 (Surr)	103	104	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61957

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-61957/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/12/2010 1357
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7597.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1-Trichloroethane	<5.0		5.0
1,1,2,2-Tetrachloroethane	<5.0		5.0
1,1,2-Trichloroethane	<5.0		5.0
1,1-Dichloroethane	<5.0		5.0
1,1-Dichloroethene	<5.0		5.0
1,2-Dichloroethane	<5.0		5.0
1,2-Dichloropropane	<5.0		5.0
Benzene	<5.0		5.0
Bromoform	<5.0		5.0
Bromomethane	<10		10
Carbon tetrachloride	<5.0		5.0
Chlorobenzene	<5.0		5.0
Chlorodibromomethane	<5.0		5.0
Chloroethane	<10		10
Chloroform	<5.0		5.0
Chloromethane	<10		10
cis-1,3-Dichloropropene	<5.0		5.0
Dichlorobromomethane	<5.0		5.0
Ethylbenzene	<5.0		5.0
Methylene Chloride	<5.0		5.0
Tetrachloroethene	<5.0		5.0
Toluene	<5.0		5.0
trans-1,2-Dichloroethene	<5.0		5.0
trans-1,3-Dichloropropene	<5.0		5.0
Trichloroethene	<5.0		5.0
Vinyl chloride	<2.0		2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	81 - 126
4-Bromofluorobenzene (Surr)	97	77 - 132
Toluene-d8 (Surr)	99	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61957

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-61957/33
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 0348
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7622.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1-Trichloroethane	<5.0		5.0
1,1,2,2-Tetrachloroethane	<5.0		5.0
1,1,2-Trichloroethane	<5.0		5.0
1,1-Dichloroethane	<5.0		5.0
1,1-Dichloroethene	<5.0		5.0
1,2-Dichloroethane	<5.0		5.0
1,2-Dichloropropane	<5.0		5.0
Benzene	<5.0		5.0
Bromoform	<5.0		5.0
Bromomethane	<10		10
Carbon tetrachloride	<5.0		5.0
Chlorobenzene	<5.0		5.0
Chlorodibromomethane	<5.0		5.0
Chloroethane	<10		10
Chloroform	<5.0		5.0
Chloromethane	<10		10
cis-1,3-Dichloropropene	<5.0		5.0
Dichlorobromomethane	<5.0		5.0
Ethylbenzene	<5.0		5.0
Methylene Chloride	<5.0		5.0
Tetrachloroethene	<5.0		5.0
Toluene	<5.0		5.0
trans-1,2-Dichloroethene	<5.0		5.0
trans-1,3-Dichloropropene	<5.0		5.0
Trichloroethene	<5.0		5.0
Vinyl chloride	<2.0		2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105	81 - 126
4-Bromofluorobenzene (Surr)	107	77 - 132
Toluene-d8 (Surr)	98	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-61957

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-61957/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/12/2010 1208
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7594.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-61957/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/12/2010 1245
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7595.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	83	103	52 - 162	22	30		
1,1,2,2-Tetrachloroethane	77	84	46 - 157	9	30		
1,1,2-Trichloroethane	82	93	52 - 150	12	30		
1,1-Dichloroethane	85	96	59 - 155	12	30		
1,1-Dichloroethene	78	89	10 - 234	14	30		
1,2-Dichloroethane	81	92	49 - 155	13	30		
1,2-Dichloropropane	85	106	10 - 210	22	30		
Benzene	80	97	37 - 151	19	30		
Bromoform	85	94	45 - 169	10	30		
Bromomethane	98	122	10 - 242	22	30		
Carbon tetrachloride	86	107	70 - 140	22	30		
Chlorobenzene	84	105	37 - 160	22	30		
Chlorodibromomethane	83	95	53 - 149	13	30		
Chloroethane	78	90	14 - 230	15	30		
Chloroform	85	100	51 - 138	17	30		
Chloromethane	77	91	10 - 273	16	30		
cis-1,3-Dichloropropene	83	105	10 - 227	23	30		
Dichlorobromomethane	80	100	35 - 155	22	30		
Ethylbenzene	80	108	37 - 162	30	30		
Methylene Chloride	82	87	10 - 221	6	30		
Tetrachloroethene	80	102	64 - 148	24	30		
Toluene	81	104	47 - 150	25	30		
trans-1,2-Dichloroethene	80	92	54 - 156	13	30		
trans-1,3-Dichloropropene	81	98	17 - 183	19	30		
Trichloroethene	83	104	71 - 157	23	30		
Vinyl chloride	82	97	10 - 251	18	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	88	81 - 126
4-Bromofluorobenzene (Surr)	105	102	77 - 132
Toluene-d8 (Surr)	102	100	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-61957

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-61957/30
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 0209
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7619.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-61957/31
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 0242
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7620.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	119	115	52 - 162	3	30		
1,1,2,2-Tetrachloroethane	93	96	46 - 157	2	30		
1,1,2-Trichloroethane	115	116	52 - 150	1	30		
1,1-Dichloroethane	112	104	59 - 155	8	30		
1,1-Dichloroethene	105	102	10 - 234	3	30		
1,2-Dichloroethane	113	107	49 - 155	5	30		
1,2-Dichloropropane	117	124	10 - 210	6	30		
Benzene	111	103	37 - 151	7	30		
Bromoform	114	109	45 - 169	4	30		
Bromomethane	108	145	10 - 242	30	30		
Carbon tetrachloride	122	119	70 - 140	2	30		
Chlorobenzene	122	119	37 - 160	2	30		
Chlorodibromomethane	112	113	53 - 149	0	30		
Chloroethane	97	105	14 - 230	8	30		
Chloroform	121	111	51 - 138	8	30		
Chloromethane	94	111	10 - 273	17	30		
cis-1,3-Dichloropropene	113	119	10 - 227	5	30		
Dichlorobromomethane	115	118	35 - 155	2	30		
Ethylbenzene	124	122	37 - 162	1	30		
Methylene Chloride	101	96	10 - 221	6	30		
Tetrachloroethene	113	119	64 - 148	5	30		
Toluene	119	121	47 - 150	2	30		
trans-1,2-Dichloroethene	100	97	54 - 156	2	30		
trans-1,3-Dichloropropene	108	110	17 - 183	2	30		
Trichloroethene	115	116	71 - 157	2	30		
Vinyl chloride	98	106	10 - 251	8	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	96	81 - 126
4-Bromofluorobenzene (Surr)	98	101	77 - 132
Toluene-d8 (Surr)	101	108	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61758

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-61758/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1100
Date Prepared: 04/07/2010 0754

Analysis Batch: 510-61768
Prep Batch: 510-61758
Units: ug/L

Instrument ID: SMSA
Lab File ID: D2983.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
1,2,4-Trichlorobenzene	<10		10
1,2-Dichlorobenzene	<10		10
1,2-Diphenylhydrazine	<10		10
1,3-Dichlorobenzene	<10		10
1,4-Dichlorobenzene	<10		10
2,2'-oxybis(1-Chloropropane) DNU	<10		10
2,4,6-Trichlorophenol	<10		10
2,4-Dichlorophenol	<10		10
2,4-Dimethylphenol	<10		10
2,4-Dinitrophenol	<50		50
2,4-Dinitrotoluene	<10		10
2,6-Dinitrotoluene	<10		10
2-Chloronaphthalene	<10		10
2-Chlorophenol	<10		10
2-Nitrophenol	<10		10
3 & 4 Methylphenol	<10		10
3,3'-Dichlorobenzidine	<10		10
4,6-Dinitro-2-methylphenol	<20		20
4-Bromophenyl phenyl ether	<10		10
4-Chloro-3-methylphenol	<10		10
4-Chlorophenyl phenyl ether	<10		10
4-Nitrophenol	<50		50
Acenaphthene	<10		10
Acenaphthylene	<10		10
Anthracene	<10		10
Benzidine	<50		50
Benzo[a]anthracene	<10		10
Benzo[a]pyrene	<10		10
Benzo[b]fluoranthene	<10		10
Benzo[g,h,i]perylene	<10		10
Benzo[k]fluoranthene	<10		10
Bis(2-chloroethoxy)methane	<10		10
Bis(2-chloroethyl)ether	<10		10
Bis(2-ethylhexyl) phthalate	<20		20
Butyl benzyl phthalate	<10		10
Chrysene	<10		10
Dibenz(a,h)anthracene	<10		10
Diethyl phthalate	<10		10
Dimethyl phthalate	<10		10
Di-n-butyl phthalate	<10		10
Di-n-octyl phthalate	<10		10
Fluoranthene	<10		10
Fluorene	<10		10

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61758

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-61758/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1100
Date Prepared: 04/07/2010 0754

Analysis Batch: 510-61768
Prep Batch: 510-61758
Units: ug/L

Instrument ID: SMSA
Lab File ID: D2983.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
Hexachlorobenzene	<10		10
Hexachlorobutadiene	<10		10
Hexachlorocyclopentadiene	<10		10
Hexachloroethane	<10		10
Indeno[1,2,3-cd]pyrene	<10		10
Isophorone	<10		10
Naphthalene	<10		10
Nitrobenzene	<10		10
N-Nitrosodimethylamine	<10		10
N-Nitrosodi-n-propylamine	<10		10
N-Nitrosodiphenylamine	<10		10
Pentachlorophenol	<20		20
Phenanthrene	<10		10
Phenol	<10		10
Pyrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	68	10 - 168
2-Fluorobiphenyl	69	10 - 129
Nitrobenzene-d5	70	10 - 135
Terphenyl-d14	90	10 - 142
Phenol-d5	34	10 - 69
2-Fluorophenol	44	10 - 87

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Lab Control Sample - Batch: 510-61758

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-61758/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1118
Date Prepared: 04/07/2010 0754

Analysis Batch: 510-61768
Prep Batch: 510-61758
Units: ug/L

Instrument ID: SMSA
Lab File ID: D2984.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,2,4-Trichlorobenzene	50.0	33.9	68	44 - 142	
1,2-Dichlorobenzene	50.0	31.4	63	32 - 129	
1,3-Dichlorobenzene	50.0	29.7	59	10 - 172	
1,4-Dichlorobenzene	50.0	31.1	62	20 - 124	
2,4,6-Trichlorophenol	50.0	40.7	81	37 - 144	
2,4-Dichlorophenol	50.0	37.1	74	39 - 135	
2,4-Dimethylphenol	50.0	36.3	73	32 - 119	
2,4-Dinitrophenol	50.0	<50	68	10 - 191	
2,4-Dinitrotoluene	50.0	41.2	82	39 - 139	
2,6-Dinitrotoluene	50.0	43.0	86	50 - 158	
2-Chloronaphthalene	50.0	37.5	75	60 - 118	
2-Chlorophenol	50.0	33.4	67	23 - 134	
2-Nitrophenol	50.0	36.3	73	29 - 182	
3 & 4 Methylphenol	50.0	33.1	66	10 - 150	
3,3'-Dichlorobenzidine	50.0	43.5	87		
4,6-Dinitro-2-methylphenol	50.0	42.1	84	10 - 181	
4-Bromophenyl phenyl ether	50.0	48.1	96	53 - 127	
4-Chloro-3-methylphenol	50.0	40.3	81	22 - 147	
4-Chlorophenyl phenyl ether	50.0	41.9	84	25 - 158	
4-Nitrophenol	50.0	<50	35	10 - 132	
Acenaphthene	50.0	38.4	77	47 - 145	
Acenaphthylene	50.0	39.3	79	33 - 145	
Anthracene	50.0	40.8	82	27 - 133	
Benzidine	50.0	<50	72	0 - 200	
Benzo[a]anthracene	50.0	42.9	86	33 - 143	
Benzo[a]pyrene	50.0	42.2	84	17 - 163	
Benzo[b]fluoranthene	50.0	42.3	85	24 - 159	
Benzo[g,h,i]perylene	50.0	40.9	82	10 - 219	
Benzo[k]fluoranthene	50.0	42.3	85	11 - 162	
Bis(2-chloroethoxy)methane	50.0	41.1	82	33 - 184	
Bis(2-chloroethyl)ether	50.0	41.5	83	12 - 158	
Bis(2-ethylhexyl) phthalate	50.0	49.6	99	10 - 158	
Butyl benzyl phthalate	50.0	58.5	117	50 - 150	
Chrysene	50.0	38.8	78	17 - 168	
Dibenz(a,h)anthracene	50.0	39.6	79	10 - 227	
Diethyl phthalate	50.0	44.8	90	10 - 114	
Dimethyl phthalate	50.0	44.8	90	10 - 112	
Di-n-butyl phthalate	50.0	47.0	94	10 - 118	
Di-n-octyl phthalate	50.0	59.5	119	10 - 146	
Fluoranthene	50.0	39.0	78	26 - 137	
Fluorene	50.0	38.7	77	59 - 121	
Hexachlorobenzene	50.0	46.1	92	10 - 152	
Hexachlorobutadiene	50.0	33.6	67	24 - 116	

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Lab Control Sample - Batch: 510-61758

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-61758/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1118
Date Prepared: 04/07/2010 0754

Analysis Batch: 510-61768
Prep Batch: 510-61758
Units: ug/L

Instrument ID: SMSA
Lab File ID: D2984.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorocyclopentadiene	50.0	26.6	53	10 - 100	
Hexachloroethane	50.0	30.8	62	40 - 113	
Indeno[1,2,3-cd]pyrene	50.0	42.8	86	10 - 171	
Isophorone	50.0	39.6	79	21 - 196	
Naphthalene	50.0	32.8	66	21 - 133	
Nitrobenzene	50.0	34.3	69	35 - 180	
N-Nitrosodimethylamine	50.0	24.7	49	10 - 150	
N-Nitrosodi-n-propylamine	50.0	38.7	77	10 - 230	
N-Nitrosodiphenylamine	50.0	44.6	89	10 - 150	
Pentachlorophenol	50.0	34.2	68	14 - 176	
Phenanthrene	50.0	39.3	79	54 - 120	
Phenol	50.0	20.3	41	10 - 112	
Pyrene	50.0	46.8	94	52 - 115	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	78	10 - 168
2-Fluorobiphenyl	77	10 - 129
Nitrobenzene-d5	71	10 - 135
Terphenyl-d14	95	10 - 142
Phenol-d5	35	10 - 69
2-Fluorophenol	44	10 - 87

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61822

Method: 608
Preparation: CWA_Prep

Lab Sample ID: MB 510-61822/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/09/2010 1210
Date Prepared: 04/08/2010 0926

Analysis Batch: 510-61877
Prep Batch: 510-61822
Units: ug/L

Instrument ID: SGCA
Lab File ID: B1829.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
PCB-1016	<0.50		0.50
PCB-1221	<0.50		0.50
PCB-1232	<0.50		0.50
PCB-1242	<0.50		0.50
PCB-1248	<0.50		0.50
PCB-1254	<0.50		0.50
PCB-1260	<0.50		0.50
Polychlorinated biphenyls, Total	<0.50		0.50

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	47	17 - 139
Dibutylchlorendate	84	18 - 145

Lab Control Sample - Batch: 510-61822

Method: 608
Preparation: CWA_Prep

Lab Sample ID: LCS 510-61822/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/09/2010 1225
Date Prepared: 04/08/2010 0926

Analysis Batch: 510-61877
Prep Batch: 510-61822
Units: ug/L

Instrument ID: SGCA
Lab File ID: B1830.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	5.02	3.58	71	50 - 114	
PCB-1260	5.01	4.59	92	10 - 127	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	33	17 - 139
Dibutylchlorendate	89	18 - 145

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-61822

Method: 608
Preparation: CWA_Prep

MS Lab Sample ID:	510-51132-4	Analysis Batch: 510-61877	Instrument ID: SGCA
Client Matrix:	Water	Prep Batch: 510-61822	Lab File ID: B1833.D
Dilution:	1.0		Initial Weight/Volume: 460 mL
Date Analyzed:	04/09/2010 1310		Final Weight/Volume: 5 mL
Date Prepared:	04/08/2010 0926		Injection Volume: 1 uL
			Column ID: PRIMARY
MSD Lab Sample ID:	510-51132-4	Analysis Batch: 510-61877	Instrument ID: SGCA
Client Matrix:	Water	Prep Batch: 510-61822	Lab File ID: B1834.D
Dilution:	1.0		Initial Weight/Volume: 460 mL
Date Analyzed:	04/09/2010 1325		Final Weight/Volume: 5 mL
Date Prepared:	04/08/2010 0926		Injection Volume: 1 uL
			Column ID: PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
PCB-1016	86	86	50 - 114	0	30		
PCB-1260	90	93	10 - 127	3	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	82	82	17 - 139
Dibutylchlorendate	86	82	18 - 145

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-51132-1

Method Blank - Batch: 510-61963

Method: 6010B
Preparation: 3010A

Lab Sample ID: MB 510-61963/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 0947
Date Prepared: 04/12/2010 1041

Analysis Batch: 510-62041
Prep Batch: 510-61963
Units: mg/L

Instrument ID: MICPC
Lab File ID: 201061C
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Arsenic	<0.030		0.030
Barium	<0.010		0.010
Cadmium	<0.010		0.010
Chromium	<0.010		0.010
Lead	<0.050		0.050
Lithium	<0.015		0.015
Selenium	<0.020		0.020
Silver	<0.040		0.040

Lab Control Sample - Batch: 510-61963

Method: 6010B
Preparation: 3010A

Lab Sample ID: LCS 510-61963/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 0952
Date Prepared: 04/12/2010 1041

Analysis Batch: 510-62041
Prep Batch: 510-61963
Units: mg/L

Instrument ID: MICPC
Lab File ID: 201061C
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.500	0.477	95	80 - 120	
Barium	1.00	1.02	102	80 - 120	
Cadmium	0.500	0.506	101	80 - 120	
Chromium	0.500	0.506	101	80 - 120	
Lead	0.500	0.502	100	80 - 120	
Lithium	0.500	0.529	106	80 - 120	
Selenium	0.500	0.507	101	80 - 120	
Silver	1.00	1.01	101	80 - 120	

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-61963

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	510-51132-4	Analysis Batch:	510-62041	Instrument ID:	MICPC
Client Matrix:	Water	Prep Batch:	510-61963	Lab File ID:	201061C
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	04/13/2010 1002			Final Weight/Volume:	50 mL
Date Prepared:	04/12/2010 1041				

MSD Lab Sample ID:	510-51132-4	Analysis Batch:	510-62041	Instrument ID:	MICPC
Client Matrix:	Water	Prep Batch:	510-61963	Lab File ID:	201061C
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	04/13/2010 1007			Final Weight/Volume:	50 mL
Date Prepared:	04/12/2010 1041				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	97	97	75 - 125	0	20		
Barium	101	99	75 - 125	1	20		
Cadmium	95	94	75 - 125	1	20		
Chromium	96	96	75 - 125	1	20		
Lead	99	99	75 - 125	0	20		
Lithium	116	117	75 - 125	1	20		
Selenium	102	101	75 - 125	1	20		
Silver	102	104	75 - 125	2	20		

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-51132-1

Method Blank - Batch: 510-62018

Method: 7470A
Preparation: 7470A

Lab Sample ID: MB 510-62018/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 1416
Date Prepared: 04/13/2010 1025

Analysis Batch: 510-62051
Prep Batch: 510-62018
Units: mg/L

Instrument ID: MHGC
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	<0.00020		0.00020

Lab Control Sample - Batch: 510-62018

Method: 7470A
Preparation: 7470A

Lab Sample ID: LCS 510-62018/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 1418
Date Prepared: 04/13/2010 1025

Analysis Batch: 510-62051
Prep Batch: 510-62018
Units: mg/L

Instrument ID: MHGC
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00493	99	80 - 120	

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106303

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Valparaiso
2400 Cumberland Drive
Valparaiso, IN 46383
Phone: 219-464-2389
Fax: 219-462-2953

Report To:
Contact: Doug Boyea
Company: USS
Address:
Phone:
Fax:
E-Mail:

Bill To:
Contact: SAME
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only ___ of ___

Package Sealed: Yes (No)	Samples Sealed: Yes (No)
Received on Ice: (Yes) No	Samples Intact: (Yes) No
Temperature °C of Cooler: Ussteel Cooler 2.8°C	
Within Hold Time: (Yes) No	Preserv. Indicated: (Yes) No NA
pH Check OK: Yes (No) NA	Res Cl_2 Check OK: Yes No (NA)
Sample Labels and COC Agree: (Yes) No	COC not present

Sampler Name: B. Frye
Signature:
Project Name: CAMU monthly
Project Number:
Project Location:
Lab PM:
Date Required
Hard Copy: ___/___/___
Fax: ___/___/___

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Refrg #	# / Cont.	Volume	Preserv	6010B/7470A	624/624-SIM	8270C/8270C-SIM	608 PCB	Additional Analyses / Remarks
51152-1		GAC INF (A)	4-6-10	0835	W	G						X			
-2		GAC INF (B)		1243		G						X			
-3		GAC INF (C)		1537		G						X			per MB
-4		GAC INF		1545		C					X		X	X	Added 3mL HNO3 to Metals bottle
-5		GAC EFF (A)		0838		G						X			1 of 3 vials has bubble 6mm DR 4/7/10
-6		GAC EFF (B)		1245		G						X			
-7		GAC EFF (C)		1540		G						X			1 of 3 vials has bubble > 6mm DR 4/7/10
-8		GAC EFF		1550		C							X	X	
-9		Trip Blank	4-6-10	0800	W	G						X			

RELINQUISHED BY: B. Frye COMPANY: TestAmerica DATE: 4-6-10 TIME: 1925
RECEIVED BY: [signature] COMPANY: TestAmer DATE: 4/6/10 TIME: 1925
RELINQUISHED BY ___ COMPANY ___ DATE ___ TIME ___
RECEIVED BY ___ COMPANY ___ DATE ___ TIME ___

Matrix Key
WW = Wastewater, W = Water, S = Soil, SL = Sludge, MS = Miscellaneous, OL = Oil, A = Air, SE = Sediment, SO = Solid, DS = Drum Solid, DL = Drum Liquid, L = Leachate, WI = Wipe, O = ___

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other ___

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

COMMENTS

Date Received ___/___/___
Courier: Hand Delivered ☐
Bill of Lading

TAL-8209 (11/07)

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-51132-1

Login Number: 51132
Creator: Richter, Debbie D
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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.	False	1 of 3 vials has bubble >6mm for EFF (A) and EFF (C)
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-51132-1

Job Description: CAMU Spray Evaporation Monthly

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Amanda Grzybowski

Approved for release.
Amanda E Grzybowski
Project Manager I
4/16/2010 2:03 PM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
04/16/2010

cc: Doug P Boyea

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

US EPA ARCHIVE DOCUMENT

Comments
No additional comments.

Receipt
1 of 3 vials has bubble >6mm for GAC EFF (A) and GAC EFF (C).

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

GC/MS VOA
Method(s) 624: The continuing calibration verification (CCV) for Chloromethane, Vinyl Chloride, Bromomethane, Chloroethane, 1,1,1-Trichloroethane, Carbon Tetrachloride, cis-1,3-Dichloropropene, Chlorodibromomethane and Bromoform recovered above the upper control limit. The sample associated with this CCV was non-detect for the affected analytes; therefore, the data has been reported. Batch 61793.

Method(s) 624: The continuing calibration verification (CCV) for Bromomethane and Carbon Tetrachloride recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data has been reported. Batch 61957.

Method(s) 624: The following samples were diluted due to the abundance of target analytes: GAC INF (A) (510-51132-1), GAC INF (B) (510-51132-2), GAC INF (C) (510-51132-3). Elevated reporting limits (RLs) are provided. Batch 61957.

Method(s) 624: The following samples submitted for volatiles analysis were received with insufficient preservation (pH >2): GAC EFF (C) (510-51132-7). Batch 61957.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 625: The continuing calibration verification (CCV) for analytical batch 61897 recovered above the upper control limit. The samples associated with this CCV were non-detect for the affected analytes; therefore, the data has been reported.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-51132-1

Method	Analyst	Analyst ID
40CFR136A 624	Hall, Jennifer L	JLH
40CFR136A 625	Squires, William D	WDS
40CFR136A 608	Seifert, Brandon R	BRS
SW846 6010B	Tharpe, Matt	MT
SW846 7470A	Thomas, Deidra	DT

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-51132-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-51132-1	GAC INF (A)	Water	04/06/2010 0835	04/06/2010 1925
510-51132-2	GAC INF (B)	Water	04/06/2010 1243	04/06/2010 1925
510-51132-3	GAC INF (C)	Water	04/06/2010 1537	04/06/2010 1925
510-51132-4	GAC INF	Water	04/06/2010 1545	04/06/2010 1925
510-51132-5	GAC EFF (A)	Water	04/06/2010 0838	04/06/2010 1925
510-51132-6	GAC EFF (B)	Water	04/06/2010 1245	04/06/2010 1925
510-51132-7	GAC EFF (C)	Water	04/06/2010 1540	04/06/2010 1925
510-51132-8	GAC EFF	Water	04/06/2010 1550	04/06/2010 1925
510-51132-9	Trip Blank	Water	04/06/2010 0800	04/06/2010 1925

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-1
Client Matrix: Water
Date Sampled: 04/06/2010 0835
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Benzene - DL	1500	ug/L	100	624		04/13/2010 0421	20
Bromoform	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Bromomethane	<10	ug/L	10	624		04/13/2010 0600	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Chloroethane	<10	ug/L	10	624		04/13/2010 0600	1.0
Chloroform	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Chloromethane	<10	ug/L	10	624		04/13/2010 0600	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Ethylbenzene	8.7	ug/L	5.0	624		04/13/2010 0600	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Toluene	21	ug/L	5.0	624		04/13/2010 0600	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0600	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/13/2010 0600	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr) - DL	100	%	624	81 - 126
1,2-Dichloroethane-d4 (Surr)	97	%	624	81 - 126
4-Bromofluorobenzene (Surr) - DL	107	%	624	77 - 132
4-Bromofluorobenzene (Surr)	100	%	624	77 - 132

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-1
Client Matrix: Water
Date Sampled: 04/06/2010 0835
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Surrogate					Acceptance Limits		
Toluene-d8 (Surr) - DL	94	%		624	89 - 108		
Toluene-d8 (Surr)	90	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-2
Client Matrix: Water
Date Sampled: 04/06/2010 1243
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Benzene - DL	2100	ug/L	100	624		04/13/2010 0454	20
Bromoform	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Bromomethane	<10	ug/L	10	624		04/13/2010 0633	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Chloroethane	<10	ug/L	10	624		04/13/2010 0633	1.0
Chloroform	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Chloromethane	<10	ug/L	10	624		04/13/2010 0633	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Ethylbenzene	12	ug/L	5.0	624		04/13/2010 0633	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Toluene	32	ug/L	5.0	624		04/13/2010 0633	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0633	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/13/2010 0633	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	95	%	624	81 - 126
1,2-Dichloroethane-d4 (Surr) - DL	95	%	624	81 - 126
4-Bromofluorobenzene (Surr)	101	%	624	77 - 132
4-Bromofluorobenzene (Surr) - DL	110	%	624	77 - 132

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-2
Client Matrix: Water
Date Sampled: 04/06/2010 1243
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Surrogate					Acceptance Limits		
Toluene-d8 (Surr) - DL	91	%		624	89 - 108		
Toluene-d8 (Surr)	89	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-3
Client Matrix: Water
Date Sampled: 04/06/2010 1537
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Benzene - DL	2300	ug/L	100	624		04/13/2010 0527	20
Bromoform	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Bromomethane	<10	ug/L	10	624		04/13/2010 0706	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Chloroethane	<10	ug/L	10	624		04/13/2010 0706	1.0
Chloroform	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Chloromethane	<10	ug/L	10	624		04/13/2010 0706	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Ethylbenzene	12	ug/L	5.0	624		04/13/2010 0706	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Toluene	36	ug/L	5.0	624		04/13/2010 0706	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/13/2010 0706	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/13/2010 0706	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr) - DL	98	%	624	81 - 126
1,2-Dichloroethane-d4 (Surr)	92	%	624	81 - 126
4-Bromofluorobenzene (Surr)	102	%	624	77 - 132
4-Bromofluorobenzene (Surr) - DL	107	%	624	77 - 132

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-3
Client Matrix: Water
Date Sampled: 04/06/2010 1537
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
Surrogate					Acceptance Limits		
Toluene-d8 (Surr)	90	%		624	89 - 108		
Toluene-d8 (Surr) - DL	92	%		624	89 - 108		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-4
Client Matrix: Water
Date Sampled: 04/06/2010 1545
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF

		Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
1,2,4-Trichlorobenzene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
1,2-Dichlorobenzene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
1,2-Diphenylhydrazine		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
1,3-Dichlorobenzene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
1,4-Dichlorobenzene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,2'-oxybis(1-Chloropropane)	DNU	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,4,6-Trichlorophenol		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,4-Dichlorophenol		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,4-Dimethylphenol		130	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,4-Dinitrophenol		<530	ug/L	530	625	04/07/2010 1220	04/09/2010 2027	10
2,4-Dinitrotoluene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2,6-Dinitrotoluene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2-Chloronaphthalene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2-Chlorophenol		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
2-Nitrophenol		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
3 & 4 Methylphenol		130	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
3,3'-Dichlorobenzidine		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
4,6-Dinitro-2-methylphenol		<210	ug/L	210	625	04/07/2010 1220	04/09/2010 2027	10
4-Bromophenyl phenyl ether		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
4-Chloro-3-methylphenol		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
4-Chlorophenyl phenyl ether		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
4-Nitrophenol		<530	ug/L	530	625	04/07/2010 1220	04/09/2010 2027	10
Acenaphthene		240	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Acenaphthylene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Anthracene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Benzidine		<530	ug/L	530	625	04/07/2010 1220	04/09/2010 2027	10
Benzo[a]anthracene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Benzo[a]pyrene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Benzo[b]fluoranthene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Benzo[g,h,i]perylene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Benzo[k]fluoranthene		<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-4
Client Matrix: Water
Date Sampled: 04/06/2010 1545
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
Bis(2-chloroethoxy)methane	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Bis(2-chloroethyl)ether	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Bis(2-ethylhexyl) phthalate	<210	ug/L	210	625	04/07/2010 1220	04/09/2010 2027	10
Butyl benzyl phthalate	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Chrysene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Dibenz(a,h)anthracene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Diethyl phthalate	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Dimethyl phthalate	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Di-n-butyl phthalate	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Di-n-octyl phthalate	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Fluoranthene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Fluorene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Hexachlorobenzene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Hexachlorobutadiene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Hexachlorocyclopentadiene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Hexachloroethane	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Indeno[1,2,3-cd]pyrene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Isophorone	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Naphthalene	930	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Nitrobenzene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
N-Nitrosodimethylamine	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
N-Nitrosodi-n-propylamine	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
N-Nitrosodiphenylamine	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Pentachlorophenol	<210	ug/L	210	625	04/07/2010 1220	04/09/2010 2027	10
Phenanthrene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Phenol	190	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Pyrene	<110	ug/L	110	625	04/07/2010 1220	04/09/2010 2027	10
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	103	%		625	10 - 168		
2-Fluorobiphenyl	81	%		625	10 - 129		
Nitrobenzene-d5	72	%		625	10 - 135		

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-4
Client Matrix: Water
Date Sampled: 04/06/2010 1545
Date Received: 04/06/2010 1925

Client Sample ID: GAC INF

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
Surrogate					Acceptance Limits		
Terphenyl-d14	77	%		625	10 - 142		
Phenol-d5	33	%		625	10 - 69		
2-Fluorophenol	47	%		625	10 - 87		
GC SEMI VOA							
PCB-1016	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1221	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1232	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1242	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1248	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1254	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
PCB-1260	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
Polychlorinated biphenyls, Total	<0.52	ug/L	0.52	608	04/08/2010 0926	04/09/2010 1255	1.0
Surrogate					Acceptance Limits		
DCB Decachlorobiphenyl	77	%		608	17 - 139		
Dibutylchlorendate	63	%		608	18 - 145		
METALS							
Arsenic	<0.030	mg/L	0.030	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Barium	0.67	mg/L	0.010	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Cadmium	<0.010	mg/L	0.010	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Chromium	<0.010	mg/L	0.010	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Lead	<0.050	mg/L	0.050	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Lithium	0.040	mg/L	0.015	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Selenium	<0.020	mg/L	0.020	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Silver	<0.040	mg/L	0.040	6010B	04/12/2010 1041	04/13/2010 0957	1.0
Mercury	<0.00020	mg/L	0.00020	7470A	04/13/2010 1025	04/13/2010 1420	1.0

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-5
Client Matrix: Water
Date Sampled: 04/06/2010 0838
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF (A)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Benzene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Bromoform	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Bromomethane	<10	ug/L	10	624		04/08/2010 1424	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Chloroethane	<10	ug/L	10	624		04/08/2010 1424	1.0
Chloroform	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Chloromethane	<10	ug/L	10	624		04/08/2010 1424	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Toluene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/08/2010 1424	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/08/2010 1424	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	%	624	81 - 126
4-Bromofluorobenzene (Surr)	122	%	624	77 - 132
Toluene-d8 (Surr)	104	%	624	89 - 108

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-6
Client Matrix: Water
Date Sampled: 04/06/2010 1245
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF (B)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Benzene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Bromoform	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Bromomethane	<10	ug/L	10	624		04/12/2010 1858	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Chloroethane	<10	ug/L	10	624		04/12/2010 1858	1.0
Chloroform	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Chloromethane	<10	ug/L	10	624		04/12/2010 1858	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Toluene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1858	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/12/2010 1858	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111	%	624	81 - 126
4-Bromofluorobenzene (Surr)	104	%	624	77 - 132
Toluene-d8 (Surr)	97	%	624	89 - 108

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-7
Client Matrix: Water
Date Sampled: 04/06/2010 1540
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF (C)

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Benzene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Bromoform	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Bromomethane	<10	ug/L	10	624		04/12/2010 1825	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Chloroethane	<10	ug/L	10	624		04/12/2010 1825	1.0
Chloroform	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Chloromethane	<10	ug/L	10	624		04/12/2010 1825	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Toluene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1825	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/12/2010 1825	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113	%	624	81 - 126
4-Bromofluorobenzene (Surr)	112	%	624	77 - 132
Toluene-d8 (Surr)	97	%	624	89 - 108

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Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-8
Client Matrix: Water
Date Sampled: 04/06/2010 1550
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF

		Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
1,2,4-Trichlorobenzene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
1,2-Dichlorobenzene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
1,2-Diphenylhydrazine		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
1,3-Dichlorobenzene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
1,4-Dichlorobenzene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,2'-oxybis(1-Chloropropane)	DNU	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,4,6-Trichlorophenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,4-Dichlorophenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,4-Dimethylphenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,4-Dinitrophenol		<52	ug/L	52	625	04/07/2010 1220	04/09/2010 2045	1.0
2,4-Dinitrotoluene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2,6-Dinitrotoluene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2-Chloronaphthalene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2-Chlorophenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
2-Nitrophenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
3 & 4 Methylphenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
3,3'-Dichlorobenzidine		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
4,6-Dinitro-2-methylphenol		<21	ug/L	21	625	04/07/2010 1220	04/09/2010 2045	1.0
4-Bromophenyl phenyl ether		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
4-Chloro-3-methylphenol		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
4-Chlorophenyl phenyl ether		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
4-Nitrophenol		<52	ug/L	52	625	04/07/2010 1220	04/09/2010 2045	1.0
Acenaphthene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Acenaphthylene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Anthracene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzidine		<52	ug/L	52	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzo[a]anthracene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzo[a]pyrene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzo[b]fluoranthene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzo[g,h,i]perylene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Benzo[k]fluoranthene		<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-8
Client Matrix: Water
Date Sampled: 04/06/2010 1550
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
Bis(2-chloroethoxy)methane	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Bis(2-chloroethyl)ether	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Bis(2-ethylhexyl) phthalate	<21	ug/L	21	625	04/07/2010 1220	04/09/2010 2045	1.0
Butyl benzyl phthalate	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Chrysene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Dibenz(a,h)anthracene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Diethyl phthalate	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Dimethyl phthalate	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Di-n-butyl phthalate	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Di-n-octyl phthalate	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Fluoranthene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Fluorene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Hexachlorobenzene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Hexachlorobutadiene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Hexachlorocyclopentadiene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Hexachloroethane	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Indeno[1,2,3-cd]pyrene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Isophorone	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Naphthalene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Nitrobenzene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
N-Nitrosodimethylamine	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
N-Nitrosodi-n-propylamine	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
N-Nitrosodiphenylamine	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Pentachlorophenol	<21	ug/L	21	625	04/07/2010 1220	04/09/2010 2045	1.0
Phenanthrene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Phenol	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Pyrene	<10	ug/L	10	625	04/07/2010 1220	04/09/2010 2045	1.0
Surrogate					Acceptance Limits		
2,4,6-Tribromophenol	82	%		625	10 - 168		
2-Fluorobiphenyl	65	%		625	10 - 129		
Nitrobenzene-d5	60	%		625	10 - 135		

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Job Number: 510-51132-1
Lab Sample Id: 510-51132-8
Client Matrix: Water
Date Sampled: 04/06/2010 1550
Date Received: 04/06/2010 1925

Client Sample ID: GAC EFF

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
Surrogate					Acceptance Limits		
Terphenyl-d14	72	%		625	10 - 142		
Phenol-d5	27	%		625	10 - 69		
2-Fluorophenol	39	%		625	10 - 87		
GC SEMI VOA							
PCB-1016	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1221	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1232	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1242	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1248	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1254	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
PCB-1260	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
Polychlorinated biphenyls, Total	<0.52	ug/L	0.52	608	04/08/2010 0928	04/09/2010 1340	1.0
Surrogate					Acceptance Limits		
DCB Decachlorobiphenyl	80	%		608	17 - 139		
Dibutylchlorendate	71	%		608	18 - 145		

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-51132-1
Lab Sample Id: 510-51132-9
Client Matrix: Water
Date Sampled: 04/06/2010 0800
Date Received: 04/06/2010 1925

Client Sample ID: Trip Blank

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,1-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,1-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,2-Dichloroethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
1,2-Dichloropropane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Benzene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Bromoform	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Bromomethane	<10	ug/L	10	624		04/12/2010 1751	1.0
Carbon tetrachloride	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Chlorobenzene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Chlorodibromomethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Chloroethane	<10	ug/L	10	624		04/12/2010 1751	1.0
Chloroform	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Chloromethane	<10	ug/L	10	624		04/12/2010 1751	1.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Dichlorobromomethane	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Ethylbenzene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Methylene Chloride	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Tetrachloroethene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Toluene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
trans-1,2-Dichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
trans-1,3-Dichloropropene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Trichloroethene	<5.0	ug/L	5.0	624		04/12/2010 1751	1.0
Vinyl chloride	<2.0	ug/L	2.0	624		04/12/2010 1751	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	119	%	624	81 - 126
4-Bromofluorobenzene (Surr)	107	%	624	77 - 132
Toluene-d8 (Surr)	101	%	624	89 - 108

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61793

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-61793/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/08/2010 0320
Date Prepared: N/A

Analysis Batch: 510-61793
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7434.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1-Trichloroethane	<5.0		5.0
1,1,2,2-Tetrachloroethane	<5.0		5.0
1,1,2-Trichloroethane	<5.0		5.0
1,1-Dichloroethane	<5.0		5.0
1,1-Dichloroethene	<5.0		5.0
1,2-Dichloroethane	<5.0		5.0
1,2-Dichloropropane	<5.0		5.0
Benzene	<5.0		5.0
Bromoform	<5.0		5.0
Bromomethane	<10		10
Carbon tetrachloride	<5.0		5.0
Chlorobenzene	<5.0		5.0
Chlorodibromomethane	<5.0		5.0
Chloroethane	<10		10
Chloroform	<5.0		5.0
Chloromethane	<10		10
cis-1,3-Dichloropropene	<5.0		5.0
Dichlorobromomethane	<5.0		5.0
Ethylbenzene	<5.0		5.0
Methylene Chloride	<5.0		5.0
Tetrachloroethene	<5.0		5.0
Toluene	<5.0		5.0
trans-1,2-Dichloroethene	<5.0		5.0
trans-1,3-Dichloropropene	<5.0		5.0
Trichloroethene	<5.0		5.0
Vinyl chloride	<2.0		2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	122	81 - 126
4-Bromofluorobenzene (Surr)	104	77 - 132
Toluene-d8 (Surr)	100	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-61793

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-61793/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/08/2010 0214
Date Prepared: N/A

Analysis Batch: 510-61793
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7432.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-61793/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/08/2010 0247
Date Prepared: N/A

Analysis Batch: 510-61793
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7433.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	113	110	52 - 162	2	30		
1,1,2,2-Tetrachloroethane	82	81	46 - 157	1	30		
1,1,2-Trichloroethane	99	96	52 - 150	4	30		
1,1-Dichloroethane	96	100	59 - 155	4	30		
1,1-Dichloroethene	90	88	10 - 234	2	30		
1,2-Dichloroethane	105	104	49 - 155	1	30		
1,2-Dichloropropane	101	101	10 - 210	0	30		
Benzene	90	92	37 - 151	2	30		
Bromoform	111	115	45 - 169	3	30		
Bromomethane	146	159	10 - 242	8	30		
Carbon tetrachloride	116	115	70 - 140	1	30		
Chlorobenzene	97	99	37 - 160	2	30		
Chlorodibromomethane	116	113	53 - 149	3	30		
Chloroethane	149	141	14 - 230	5	30		
Chloroform	101	103	51 - 138	2	30		
Chloromethane	170	166	10 - 273	3	30		
cis-1,3-Dichloropropene	112	112	10 - 227	1	30		
Dichlorobromomethane	108	110	35 - 155	2	30		
Ethylbenzene	107	109	37 - 162	2	30		
Methylene Chloride	85	86	10 - 221	2	30		
Tetrachloroethene	104	102	64 - 148	2	30		
Toluene	101	100	47 - 150	1	30		
trans-1,2-Dichloroethene	95	96	54 - 156	1	30		
trans-1,3-Dichloropropene	112	111	17 - 183	0	30		
Trichloroethene	107	104	71 - 157	3	30		
Vinyl chloride	167	164	10 - 251	2	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	104	81 - 126
4-Bromofluorobenzene (Surr)	97	101	77 - 132
Toluene-d8 (Surr)	103	104	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61957

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-61957/8
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/12/2010 1357
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7597.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1-Trichloroethane	<5.0		5.0
1,1,2,2-Tetrachloroethane	<5.0		5.0
1,1,2-Trichloroethane	<5.0		5.0
1,1-Dichloroethane	<5.0		5.0
1,1-Dichloroethene	<5.0		5.0
1,2-Dichloroethane	<5.0		5.0
1,2-Dichloropropane	<5.0		5.0
Benzene	<5.0		5.0
Bromoform	<5.0		5.0
Bromomethane	<10		10
Carbon tetrachloride	<5.0		5.0
Chlorobenzene	<5.0		5.0
Chlorodibromomethane	<5.0		5.0
Chloroethane	<10		10
Chloroform	<5.0		5.0
Chloromethane	<10		10
cis-1,3-Dichloropropene	<5.0		5.0
Dichlorobromomethane	<5.0		5.0
Ethylbenzene	<5.0		5.0
Methylene Chloride	<5.0		5.0
Tetrachloroethene	<5.0		5.0
Toluene	<5.0		5.0
trans-1,2-Dichloroethene	<5.0		5.0
trans-1,3-Dichloropropene	<5.0		5.0
Trichloroethene	<5.0		5.0
Vinyl chloride	<2.0		2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	81 - 126
4-Bromofluorobenzene (Surr)	97	77 - 132
Toluene-d8 (Surr)	99	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61957

Method: 624
Preparation: N/A

Lab Sample ID: MB 510-61957/33
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 0348
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7622.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1,1,1-Trichloroethane	<5.0		5.0
1,1,2,2-Tetrachloroethane	<5.0		5.0
1,1,2-Trichloroethane	<5.0		5.0
1,1-Dichloroethane	<5.0		5.0
1,1-Dichloroethene	<5.0		5.0
1,2-Dichloroethane	<5.0		5.0
1,2-Dichloropropane	<5.0		5.0
Benzene	<5.0		5.0
Bromoform	<5.0		5.0
Bromomethane	<10		10
Carbon tetrachloride	<5.0		5.0
Chlorobenzene	<5.0		5.0
Chlorodibromomethane	<5.0		5.0
Chloroethane	<10		10
Chloroform	<5.0		5.0
Chloromethane	<10		10
cis-1,3-Dichloropropene	<5.0		5.0
Dichlorobromomethane	<5.0		5.0
Ethylbenzene	<5.0		5.0
Methylene Chloride	<5.0		5.0
Tetrachloroethene	<5.0		5.0
Toluene	<5.0		5.0
trans-1,2-Dichloroethene	<5.0		5.0
trans-1,3-Dichloropropene	<5.0		5.0
Trichloroethene	<5.0		5.0
Vinyl chloride	<2.0		2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105	81 - 126
4-Bromofluorobenzene (Surr)	107	77 - 132
Toluene-d8 (Surr)	98	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-61957

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-61957/5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/12/2010 1208
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7594.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-61957/6
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/12/2010 1245
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7595.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	83	103	52 - 162	22	30		
1,1,2,2-Tetrachloroethane	77	84	46 - 157	9	30		
1,1,2-Trichloroethane	82	93	52 - 150	12	30		
1,1-Dichloroethane	85	96	59 - 155	12	30		
1,1-Dichloroethene	78	89	10 - 234	14	30		
1,2-Dichloroethane	81	92	49 - 155	13	30		
1,2-Dichloropropane	85	106	10 - 210	22	30		
Benzene	80	97	37 - 151	19	30		
Bromoform	85	94	45 - 169	10	30		
Bromomethane	98	122	10 - 242	22	30		
Carbon tetrachloride	86	107	70 - 140	22	30		
Chlorobenzene	84	105	37 - 160	22	30		
Chlorodibromomethane	83	95	53 - 149	13	30		
Chloroethane	78	90	14 - 230	15	30		
Chloroform	85	100	51 - 138	17	30		
Chloromethane	77	91	10 - 273	16	30		
cis-1,3-Dichloropropene	83	105	10 - 227	23	30		
Dichlorobromomethane	80	100	35 - 155	22	30		
Ethylbenzene	80	108	37 - 162	30	30		
Methylene Chloride	82	87	10 - 221	6	30		
Tetrachloroethene	80	102	64 - 148	24	30		
Toluene	81	104	47 - 150	25	30		
trans-1,2-Dichloroethene	80	92	54 - 156	13	30		
trans-1,3-Dichloropropene	81	98	17 - 183	19	30		
Trichloroethene	83	104	71 - 157	23	30		
Vinyl chloride	82	97	10 - 251	18	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	88	81 - 126
4-Bromofluorobenzene (Surr)	105	102	77 - 132
Toluene-d8 (Surr)	102	100	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 510-61957

Method: 624
Preparation: N/A

LCS Lab Sample ID: LCS 510-61957/30
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 0209
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7619.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 510-61957/31
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 0242
Date Prepared: N/A

Analysis Batch: 510-61957
Prep Batch: N/A
Units: ug/L

Instrument ID: VMSB
Lab File ID: A7620.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
1,1,1-Trichloroethane	119	115	52 - 162	3	30		
1,1,2,2-Tetrachloroethane	93	96	46 - 157	2	30		
1,1,2-Trichloroethane	115	116	52 - 150	1	30		
1,1-Dichloroethane	112	104	59 - 155	8	30		
1,1-Dichloroethene	105	102	10 - 234	3	30		
1,2-Dichloroethane	113	107	49 - 155	5	30		
1,2-Dichloropropane	117	124	10 - 210	6	30		
Benzene	111	103	37 - 151	7	30		
Bromoform	114	109	45 - 169	4	30		
Bromomethane	108	145	10 - 242	30	30		
Carbon tetrachloride	122	119	70 - 140	2	30		
Chlorobenzene	122	119	37 - 160	2	30		
Chlorodibromomethane	112	113	53 - 149	0	30		
Chloroethane	97	105	14 - 230	8	30		
Chloroform	121	111	51 - 138	8	30		
Chloromethane	94	111	10 - 273	17	30		
cis-1,3-Dichloropropene	113	119	10 - 227	5	30		
Dichlorobromomethane	115	118	35 - 155	2	30		
Ethylbenzene	124	122	37 - 162	1	30		
Methylene Chloride	101	96	10 - 221	6	30		
Tetrachloroethene	113	119	64 - 148	5	30		
Toluene	119	121	47 - 150	2	30		
trans-1,2-Dichloroethene	100	97	54 - 156	2	30		
trans-1,3-Dichloropropene	108	110	17 - 183	2	30		
Trichloroethene	115	116	71 - 157	2	30		
Vinyl chloride	98	106	10 - 251	8	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	98	96	81 - 126
4-Bromofluorobenzene (Surr)	98	101	77 - 132
Toluene-d8 (Surr)	101	108	89 - 108

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61758

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-61758/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1100
Date Prepared: 04/07/2010 0754

Analysis Batch: 510-61768
Prep Batch: 510-61758
Units: ug/L

Instrument ID: SMSA
Lab File ID: D2983.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
1,2,4-Trichlorobenzene	<10		10
1,2-Dichlorobenzene	<10		10
1,2-Diphenylhydrazine	<10		10
1,3-Dichlorobenzene	<10		10
1,4-Dichlorobenzene	<10		10
2,2'-oxybis(1-Chloropropane) DNU	<10		10
2,4,6-Trichlorophenol	<10		10
2,4-Dichlorophenol	<10		10
2,4-Dimethylphenol	<10		10
2,4-Dinitrophenol	<50		50
2,4-Dinitrotoluene	<10		10
2,6-Dinitrotoluene	<10		10
2-Chloronaphthalene	<10		10
2-Chlorophenol	<10		10
2-Nitrophenol	<10		10
3 & 4 Methylphenol	<10		10
3,3'-Dichlorobenzidine	<10		10
4,6-Dinitro-2-methylphenol	<20		20
4-Bromophenyl phenyl ether	<10		10
4-Chloro-3-methylphenol	<10		10
4-Chlorophenyl phenyl ether	<10		10
4-Nitrophenol	<50		50
Acenaphthene	<10		10
Acenaphthylene	<10		10
Anthracene	<10		10
Benzidine	<50		50
Benzo[a]anthracene	<10		10
Benzo[a]pyrene	<10		10
Benzo[b]fluoranthene	<10		10
Benzo[g,h,i]perylene	<10		10
Benzo[k]fluoranthene	<10		10
Bis(2-chloroethoxy)methane	<10		10
Bis(2-chloroethyl)ether	<10		10
Bis(2-ethylhexyl) phthalate	<20		20
Butyl benzyl phthalate	<10		10
Chrysene	<10		10
Dibenz(a,h)anthracene	<10		10
Diethyl phthalate	<10		10
Dimethyl phthalate	<10		10
Di-n-butyl phthalate	<10		10
Di-n-octyl phthalate	<10		10
Fluoranthene	<10		10
Fluorene	<10		10

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61758

Method: 625
Preparation: CWA_Prep

Lab Sample ID: MB 510-61758/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1100
Date Prepared: 04/07/2010 0754

Analysis Batch: 510-61768
Prep Batch: 510-61758
Units: ug/L

Instrument ID: SMSA
Lab File ID: D2983.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
Hexachlorobenzene	<10		10
Hexachlorobutadiene	<10		10
Hexachlorocyclopentadiene	<10		10
Hexachloroethane	<10		10
Indeno[1,2,3-cd]pyrene	<10		10
Isophorone	<10		10
Naphthalene	<10		10
Nitrobenzene	<10		10
N-Nitrosodimethylamine	<10		10
N-Nitrosodi-n-propylamine	<10		10
N-Nitrosodiphenylamine	<10		10
Pentachlorophenol	<20		20
Phenanthrene	<10		10
Phenol	<10		10
Pyrene	<10		10

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	68	10 - 168
2-Fluorobiphenyl	69	10 - 129
Nitrobenzene-d5	70	10 - 135
Terphenyl-d14	90	10 - 142
Phenol-d5	34	10 - 69
2-Fluorophenol	44	10 - 87

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Lab Control Sample - Batch: 510-61758

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-61758/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1118
Date Prepared: 04/07/2010 0754

Analysis Batch: 510-61768
Prep Batch: 510-61758
Units: ug/L

Instrument ID: SMSA
Lab File ID: D2984.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,2,4-Trichlorobenzene	50.0	33.9	68	44 - 142	
1,2-Dichlorobenzene	50.0	31.4	63	32 - 129	
1,3-Dichlorobenzene	50.0	29.7	59	10 - 172	
1,4-Dichlorobenzene	50.0	31.1	62	20 - 124	
2,4,6-Trichlorophenol	50.0	40.7	81	37 - 144	
2,4-Dichlorophenol	50.0	37.1	74	39 - 135	
2,4-Dimethylphenol	50.0	36.3	73	32 - 119	
2,4-Dinitrophenol	50.0	<50	68	10 - 191	
2,4-Dinitrotoluene	50.0	41.2	82	39 - 139	
2,6-Dinitrotoluene	50.0	43.0	86	50 - 158	
2-Chloronaphthalene	50.0	37.5	75	60 - 118	
2-Chlorophenol	50.0	33.4	67	23 - 134	
2-Nitrophenol	50.0	36.3	73	29 - 182	
3 & 4 Methylphenol	50.0	33.1	66	10 - 150	
3,3'-Dichlorobenzidine	50.0	43.5	87		
4,6-Dinitro-2-methylphenol	50.0	42.1	84	10 - 181	
4-Bromophenyl phenyl ether	50.0	48.1	96	53 - 127	
4-Chloro-3-methylphenol	50.0	40.3	81	22 - 147	
4-Chlorophenyl phenyl ether	50.0	41.9	84	25 - 158	
4-Nitrophenol	50.0	<50	35	10 - 132	
Acenaphthene	50.0	38.4	77	47 - 145	
Acenaphthylene	50.0	39.3	79	33 - 145	
Anthracene	50.0	40.8	82	27 - 133	
Benzidine	50.0	<50	72	0 - 200	
Benzo[a]anthracene	50.0	42.9	86	33 - 143	
Benzo[a]pyrene	50.0	42.2	84	17 - 163	
Benzo[b]fluoranthene	50.0	42.3	85	24 - 159	
Benzo[g,h,i]perylene	50.0	40.9	82	10 - 219	
Benzo[k]fluoranthene	50.0	42.3	85	11 - 162	
Bis(2-chloroethoxy)methane	50.0	41.1	82	33 - 184	
Bis(2-chloroethyl)ether	50.0	41.5	83	12 - 158	
Bis(2-ethylhexyl) phthalate	50.0	49.6	99	10 - 158	
Butyl benzyl phthalate	50.0	58.5	117	50 - 150	
Chrysene	50.0	38.8	78	17 - 168	
Dibenz(a,h)anthracene	50.0	39.6	79	10 - 227	
Diethyl phthalate	50.0	44.8	90	10 - 114	
Dimethyl phthalate	50.0	44.8	90	10 - 112	
Di-n-butyl phthalate	50.0	47.0	94	10 - 118	
Di-n-octyl phthalate	50.0	59.5	119	10 - 146	
Fluoranthene	50.0	39.0	78	26 - 137	
Fluorene	50.0	38.7	77	59 - 121	
Hexachlorobenzene	50.0	46.1	92	10 - 152	
Hexachlorobutadiene	50.0	33.6	67	24 - 116	

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Lab Control Sample - Batch: 510-61758

Method: 625
Preparation: CWA_Prep

Lab Sample ID: LCS 510-61758/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/07/2010 1118
Date Prepared: 04/07/2010 0754

Analysis Batch: 510-61768
Prep Batch: 510-61758
Units: ug/L

Instrument ID: SMSA
Lab File ID: D2984.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorocyclopentadiene	50.0	26.6	53	10 - 100	
Hexachloroethane	50.0	30.8	62	40 - 113	
Indeno[1,2,3-cd]pyrene	50.0	42.8	86	10 - 171	
Isophorone	50.0	39.6	79	21 - 196	
Naphthalene	50.0	32.8	66	21 - 133	
Nitrobenzene	50.0	34.3	69	35 - 180	
N-Nitrosodimethylamine	50.0	24.7	49	10 - 150	
N-Nitrosodi-n-propylamine	50.0	38.7	77	10 - 230	
N-Nitrosodiphenylamine	50.0	44.6	89	10 - 150	
Pentachlorophenol	50.0	34.2	68	14 - 176	
Phenanthrene	50.0	39.3	79	54 - 120	
Phenol	50.0	20.3	41	10 - 112	
Pyrene	50.0	46.8	94	52 - 115	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	78	10 - 168
2-Fluorobiphenyl	77	10 - 129
Nitrobenzene-d5	71	10 - 135
Terphenyl-d14	95	10 - 142
Phenol-d5	35	10 - 69
2-Fluorophenol	44	10 - 87

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Method Blank - Batch: 510-61822

Method: 608
Preparation: CWA_Prep

Lab Sample ID: MB 510-61822/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/09/2010 1210
Date Prepared: 04/08/2010 0926

Analysis Batch: 510-61877
Prep Batch: 510-61822
Units: ug/L

Instrument ID: SGCA
Lab File ID: B1829.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
PCB-1016	<0.50		0.50
PCB-1221	<0.50		0.50
PCB-1232	<0.50		0.50
PCB-1242	<0.50		0.50
PCB-1248	<0.50		0.50
PCB-1254	<0.50		0.50
PCB-1260	<0.50		0.50
Polychlorinated biphenyls, Total	<0.50		0.50

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	47	17 - 139
Dibutylchlorendate	84	18 - 145

Lab Control Sample - Batch: 510-61822

Method: 608
Preparation: CWA_Prep

Lab Sample ID: LCS 510-61822/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/09/2010 1225
Date Prepared: 04/08/2010 0926

Analysis Batch: 510-61877
Prep Batch: 510-61822
Units: ug/L

Instrument ID: SGCA
Lab File ID: B1830.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	5.02	3.58	71	50 - 114	
PCB-1260	5.01	4.59	92	10 - 127	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	33	17 - 139
Dibutylchlorendate	89	18 - 145

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-61822

Method: 608
Preparation: CWA_Prep

MS Lab Sample ID:	510-51132-4	Analysis Batch: 510-61877	Instrument ID: SGCA
Client Matrix:	Water	Prep Batch: 510-61822	Lab File ID: B1833.D
Dilution:	1.0		Initial Weight/Volume: 460 mL
Date Analyzed:	04/09/2010 1310		Final Weight/Volume: 5 mL
Date Prepared:	04/08/2010 0926		Injection Volume: 1 uL
			Column ID: PRIMARY
MSD Lab Sample ID:	510-51132-4	Analysis Batch: 510-61877	Instrument ID: SGCA
Client Matrix:	Water	Prep Batch: 510-61822	Lab File ID: B1834.D
Dilution:	1.0		Initial Weight/Volume: 460 mL
Date Analyzed:	04/09/2010 1325		Final Weight/Volume: 5 mL
Date Prepared:	04/08/2010 0926		Injection Volume: 1 uL
			Column ID: PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
PCB-1016	86	86	50 - 114	0	30		
PCB-1260	90	93	10 - 127	3	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	82	82	17 - 139
Dibutylchlorendate	86	82	18 - 145

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-51132-1

Method Blank - Batch: 510-61963

Method: 6010B
Preparation: 3010A

Lab Sample ID: MB 510-61963/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 0947
Date Prepared: 04/12/2010 1041

Analysis Batch: 510-62041
Prep Batch: 510-61963
Units: mg/L

Instrument ID: MICPC
Lab File ID: 201061C
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Arsenic	<0.030		0.030
Barium	<0.010		0.010
Cadmium	<0.010		0.010
Chromium	<0.010		0.010
Lead	<0.050		0.050
Lithium	<0.015		0.015
Selenium	<0.020		0.020
Silver	<0.040		0.040

Lab Control Sample - Batch: 510-61963

Method: 6010B
Preparation: 3010A

Lab Sample ID: LCS 510-61963/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 0952
Date Prepared: 04/12/2010 1041

Analysis Batch: 510-62041
Prep Batch: 510-61963
Units: mg/L

Instrument ID: MICPC
Lab File ID: 201061C
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.500	0.477	95	80 - 120	
Barium	1.00	1.02	102	80 - 120	
Cadmium	0.500	0.506	101	80 - 120	
Chromium	0.500	0.506	101	80 - 120	
Lead	0.500	0.502	100	80 - 120	
Lithium	0.500	0.529	106	80 - 120	
Selenium	0.500	0.507	101	80 - 120	
Silver	1.00	1.01	101	80 - 120	

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-51132-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-61963

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	510-51132-4	Analysis Batch:	510-62041	Instrument ID:	MICPC
Client Matrix:	Water	Prep Batch:	510-61963	Lab File ID:	201061C
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	04/13/2010 1002			Final Weight/Volume:	50 mL
Date Prepared:	04/12/2010 1041				

MSD Lab Sample ID:	510-51132-4	Analysis Batch:	510-62041	Instrument ID:	MICPC
Client Matrix:	Water	Prep Batch:	510-61963	Lab File ID:	201061C
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	04/13/2010 1007			Final Weight/Volume:	50 mL
Date Prepared:	04/12/2010 1041				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	97	97	75 - 125	0	20		
Barium	101	99	75 - 125	1	20		
Cadmium	95	94	75 - 125	1	20		
Chromium	96	96	75 - 125	1	20		
Lead	99	99	75 - 125	0	20		
Lithium	116	117	75 - 125	1	20		
Selenium	102	101	75 - 125	1	20		
Silver	102	104	75 - 125	2	20		

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Client: United States Steel Corporation Job Number: 510-51132-1

Method Blank - Batch: 510-62018

Method: 7470A
Preparation: 7470A

Lab Sample ID: MB 510-62018/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 1416
Date Prepared: 04/13/2010 1025

Analysis Batch: 510-62051
Prep Batch: 510-62018
Units: mg/L

Instrument ID: MHGC
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	<0.00020		0.00020

Lab Control Sample - Batch: 510-62018

Method: 7470A
Preparation: 7470A

Lab Sample ID: LCS 510-62018/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 04/13/2010 1418
Date Prepared: 04/13/2010 1025

Analysis Batch: 510-62051
Prep Batch: 510-62018
Units: mg/L

Instrument ID: MHGC
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00493	99	80 - 120	

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106303

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Valparaiso
2400 Cumberland Drive
Valparaiso, IN 46383
Phone: 219-464-2389
Fax: 219-462-2953

Report To:
Contact: Doug Boyea
Company: USS
Address:
Phone:
Fax:
E-Mail:

Bill To:
Contact: SAME
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only ___ of ___

Package Sealed: Yes (No)	Samples Sealed: Yes (No)
Received on Ice: (Yes) No	Samples Intact: (Yes) No
Temperature °C of Cooler: Ussteel Cooler 2.8°C	
Within Hold Time: (Yes) No	Preserv. Indicated: (Yes) No NA
pH Check OK: Yes (No) NA	Res Cl_2 Check OK: Yes No (NA)
Sample Labels and COC Agree: (Yes) No	COC not present

Sampler Name: B. Frye
Signature:
Project Name: CAMU monthly
Project Number:
Project Location:
Lab PM:
Date Required
Hard Copy: ___/___/___
Fax: ___/___/___

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Refrg #	# / Cont.	Volume	Preserv	6010B/7470A	624/624-SIM	8270C/8270C-SIM	608 PCB	Additional Analyses / Remarks
51152-1		GAC INF (A)	4-6-10	0835	W	G						X			
-2		GAC INF (B)		1243		G						X			
-3		GAC INF (C)		1537		G						X			per MB
-4		GAC INF		1545		C					X		X	X	Added 3mL HNO3 to Metals bottle
-5		GAC EFF (A)		0838		G						X			1 of 3 vials has bubble 6mm DR 4/7/10
-6		GAC EFF (B)		1245		G						X			
-7		GAC EFF (C)		1540		G						X			1 of 3 vials has bubble > 6mm DR 4/7/10
-8		GAC EFF		1550		C							X	X	
-9		Trip Blank	4-6-10	0800	W	G						X			

RELINQUISHED BY: B. Frye COMPANY: TestAmerica DATE: 4-6-10 TIME: 1925
RECEIVED BY: [signature] COMPANY: TestAmer DATE: 4/6/10 TIME: 1925
RELINQUISHED BY ___ COMPANY ___ DATE ___ TIME ___
RECEIVED BY ___ COMPANY ___ DATE ___ TIME ___

Matrix Key
WW = Wastewater, W = Water, S = Soil, SL = Sludge, MS = Miscellaneous, OL = Oil, A = Air, SE = Sediment, SO = Solid, DS = Drum Solid, DL = Drum Liquid, L = Leachate, WI = Wipe, O = ___

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other ___

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

COMMENTS

Date Received ___/___/___
Courier: Hand Delivered ☐
Bill of Lading

TAL-8209 (11/07)

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-51132-1

Login Number: 51132
Creator: Richter, Debbie D
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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.	False	1 of 3 vials has bubble >6mm for EFF (A) and EFF (C)
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 510-53286-1

Job Description: LEACHATE QUARTERLY

For:
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Attention: Jeff L Rey

Approved for release.
Amanda E Grzybowski
Project Manager I
7/6/2010 12:06 PM

Amanda E Grzybowski
Project Manager I
amanda.grzybowski@testamericainc.com
07/06/2010

cc: Mrs. Susanne Bonola
Ms. Susanne Tomajko-Seydel

The test results in this report meet all NELAC requirements for parameters which accreditation is required or available. Any exceptions to NELAC requirements are noted in this report. Pursuant to NELAC, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Project Manager who signed this test report. Valparaiso IL EPA Accreditation #100432.

TestAmerica Laboratories, Inc.
TestAmerica Valparaiso 2400 Cumberland Drive, Valparaiso, IN 46383
Tel (219) 464-2389 Fax (219) 462-2953 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

US EPA ARCHIVE DOCUMENT

Job Narrative
510-53286-1

Comments
8260B and 8270C analysis for Appendix 9 Organics was subcontracted to TestAmerica Chicago.

No additional comments.

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

GC/MS VOA
Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: LEACHATE UNIT 1 (510-53286-1), LEACHATE UNIT 2 (510-53286-2). Evidence of matrix interference is present (pH of samples is 11). The samples were reanalyzed with similar results.

Method(s) 8260B: The pH of samples 510-53286-1 & -2 was 11.

Method(s) 8260B: The following sample(s) was diluted due to the abundance of target and/or non-target analytes: LEACHATE UNIT 1 (510-53286-1), LEACHATE UNIT 2 (510-53286-2). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The laboratory control sample (LCS) for batch 87650 exceeded control limits for the following analytes: 1,2-Dichloroethane (127%) and Vinyl Acetate (164%). These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No other analytical or quality issues were noted.

GC/MS Semi VOA
Method(s) 8270C: The following samples were diluted due to the abundance of non-target analytes: LEACHATE UNIT 1 (510-53286-1), LEACHATE UNIT 2 (510-53286-2). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: The laboratory control sample (LCS) for batch 87519 was below control limits for 3,3'- Dimethylbenzidine at 9% (10% -108%). All other analytes were within control limits. No further action was required.LEACHATE UNIT 1 (510-53286-1), LEACHATE UNIT 2 (510-53286-2)

Method(s) 8260B, 8270C: Internal standard (ISTD1-3) responses for the following sample (APPIX CCV) were outside of acceptance limits, biased high: LEACHATE UNIT 1 (510-53286-1), LEACHATE UNIT 2 (510-53286-2). The CCV was not re-analyzed. No internal standard responses were calculated off of APPIX CCV ISTD's. No further action was taken.LEACHATE UNIT 1 (510-53286-1), LEACHATE UNIT 2 (510-53286-2)

Method(s) 8270C: Internal standard (ISTD) retention times for the following samples were outside the ± 0.5 minutes of acceptance from the mid-point of the initial calibration: LEACHATE UNIT 1 (510-53286-1), LEACHATE UNIT 2 (510-53286-2). The samples were within ± 0.5 minutes from the daily calibration verification. No corrective action was required per TAL Chicago SOP.

No other analytical or quality issues were noted.

GC Semi VOA
No analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Field Service / Mobile Lab
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

US EPA ARCHIVE DOCUMENT

METHOD / ANALYST SUMMARY

Client: United States Steel Corporation Job Number: 510-53286-1

Method	Analyst	Analyst ID
SW846 8260B	Manzano, Louis	LM
SW846 8270C	Bergen, Joe	JB
SW846 8082	Seifert, Brandon R	BRS
SW846 6010B	Tharpe, Matt	MT
SW846 6010B	Thomas, Deidra	DT
SW846 7470A	Thomas, Deidra	DT
EPA Field Sampling	Analysts, Field/Sub	FA
SM SM 2510B	Cook, Kelly L	KLC

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: United States Steel Corporation Job Number: 510-53286-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
510-53286-1	LEACHATE UNIT 1	Water	06/08/2010 1150	06/08/2010 1810
510-53286-2	LEACHATE UNIT 2	Water	06/08/2010 1232	06/08/2010 1810
510-53286-3	LEACHATE UNIT 1 TRIP BLANK	Water	06/08/2010 1150	06/08/2010 1810
510-53286-4	LEACHATE UNIT 2 TRIP BLANK	Water	06/08/2010 1232	06/08/2010 1810

US EPA ARCHIVE DOCUMENT

Jeff L Rey
United States Steel Corporation
1 North Broadway
Gary, IN 46402

Job Number: 510-53286-1
Lab Sample Id: 510-53286-1
Client Matrix: Water
Date Sampled: 06/08/2010 1150
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 1

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
1,1,1,2-Tetrachloroethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
1,1,1-Trichloroethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
1,1,2,2-Tetrachloroethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
1,1,2-Trichloroethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
1,1-Dichloroethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
1,1-Dichloroethene	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
1,2,3-Trichloropropane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
1,2-Dibromo-3-Chloropropane	<10		ug/L	10	8260B	06/12/2010 0752	06/12/2010 0752	5.0
1,2-Dibromoethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
1,2-Dichloroethane	<5.0	*	ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
1,2-Dichloropropane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
2-Chloro-1,3-butadiene	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
2-Hexanone	<25		ug/L	25	8260B	06/12/2010 0752	06/12/2010 0752	5.0
3-Chloropropene	<12		ug/L	12	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Acetone	30		ug/L	25	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Acetonitrile	<100		ug/L	100	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Acrolein	<500		ug/L	500	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Acrylonitrile	<100		ug/L	100	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Benzene - DL	1300		ug/L	50	8260B	06/12/2010 0814	06/12/2010 0814	50
Bromodichloromethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Bromoform	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Bromomethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Carbon disulfide	<25		ug/L	25	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Carbon tetrachloride	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Chlorobenzene	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Chloroethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Chloroform	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Chloromethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
cis-1,3-Dichloropropene	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Dibromochloromethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Dibromomethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0

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	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
Dichlorodifluoromethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Ethyl methacrylate	<12		ug/L	12	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Ethylbenzene	9.7		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Iodomethane	<12		ug/L	12	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Isobutanol	<500		ug/L	500	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Methacrylonitrile	<12		ug/L	12	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Methyl Ethyl Ketone	<25		ug/L	25	8260B	06/12/2010 0752	06/12/2010 0752	5.0
methyl isobutyl ketone	<25		ug/L	25	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Methyl methacrylate	<12		ug/L	12	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Methylene Chloride	<10		ug/L	10	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Pentachloroethane	<50		ug/L	50	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Propionitrile	<100		ug/L	100	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Styrene	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Tetrachloroethene	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Toluene	24		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
trans-1,2-Dichloroethene	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
trans-1,3-Dichloropropene	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
trans-1,4-Dichloro-2-butene	<50		ug/L	50	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Trichloroethene	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Trichlorofluoromethane	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Vinyl acetate	<25	*	ug/L	25	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Vinyl chloride	<5.0		ug/L	5.0	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Xylenes, Total	29		ug/L	10	8260B	06/12/2010 0752	06/12/2010 0752	5.0
Surrogate						Acceptance Limits		
1,2-Dichloroethane-d4 (Surr) - DL	123		%		8260B	80 - 129		
1,2-Dichloroethane-d4 (Surr)	119		%		8260B	80 - 129		
Toluene-d8 (Surr)	106		%		8260B	80 - 115		
Toluene-d8 (Surr) - DL	108		%		8260B	80 - 115		
4-Bromofluorobenzene (Surr)	100		%		8260B	80 - 115		
4-Bromofluorobenzene (Surr) - DL	101		%		8260B	80 - 115		
Dibromofluoromethane	0	X	%		8260B	80 - 124		

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	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
Surrogate						Acceptance Limits		
Dibromofluoromethane - DL	30	X	%		8260B	80 - 124		
GC/MS SEMI VOA								
1,2,4,5-Tetrachlorobenzene	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
1,2,4-Trichlorobenzene	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
1,2-Dichlorobenzene	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
1,3-Dichlorobenzene	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
1,4-Dichlorobenzene	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
1,4-Dioxane	<100		ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
1,4-Naphthoquinone	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
1-Naphthylamine	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2,2'-oxybis[1-chloropropane]	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2,3,4,6-Tetrachlorophenol	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2,4,5-Trichlorophenol	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2,4,6-Trichlorophenol	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2,4-Dichlorophenol	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2,4-Dimethylphenol	100		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2,4-Dinitrophenol	<100		ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2,4-Dinitrotoluene	<5.1		ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2,6-Dichlorophenol	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2,6-Dinitrotoluene	<2.5		ug/L	2.5	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2-Acetylaminofluorene	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2-Chloronaphthalene	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2-Chlorophenol	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2-Methylnaphthalene	66		ug/L	2.5	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2-Methylphenol	31		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2-Naphthylamine	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2-Nitroaniline	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2-Nitrophenol	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
2-Picoline	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0

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	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
2-sec-Butyl-4,6-dinitrophenol	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
3 & 4 Methylphenol	110		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
3,3'-Dichlorobenzidine	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
3,3'-Dimethylbenzidine	<100	*	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
3-Methylcholanthrene	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
3-Nitroaniline	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
4,6-Dinitro-2-methylphenol	<100		ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
4-Aminobiphenyl	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
4-Bromophenyl phenyl ether	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
4-Chloro-3-methylphenol	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
4-Chloroaniline	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
4-Chlorophenyl phenyl ether	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
4-Nitroaniline	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
4-Nitrophenol	<100		ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
4-Nitroquinoline-1-oxide	<100		ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
5-Nitro-o-toluidine	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
7,12-Dimethylbenz(a)anthracene	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Acenaphthene	150		ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Acenaphthylene	11		ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Acetophenone	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
alpha,alpha-Dimethyl phenethylamine	<200		ug/L	200	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Aniline	<100		ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Anthracene	<5.1		ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Aramite	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Benzo[a]anthracene	<1.0		ug/L	1.0	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Benzo[a]pyrene	<1.0		ug/L	1.0	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Benzo[b]fluoranthene	<1.0		ug/L	1.0	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Benzo[g,h,i]perylene	<5.1		ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Benzo[k]fluoranthene	<1.0		ug/L	1.0	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Benzyl alcohol	<100		ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Bis(2-chloroethoxy)methane	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0

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	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
Bis(2-chloroethyl)ether	<10	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Bis(2-ethylhexyl) phthalate	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Butyl benzyl phthalate	<10	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Chrysene	<2.5	ug/L	2.5	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Diallate	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Dibenz(a,h)anthracene	<1.5	ug/L	1.5	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Dibenzofuran	61	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Diethyl phthalate	<10	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Dimethyl phthalate	<10	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Di-n-butyl phthalate	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Di-n-octyl phthalate	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Diphenylamine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Ethyl 4,4'-Dichlorobenzilate	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Ethyl methanesulfonate	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Fluoranthene	<5.1	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Fluorene	47	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Hexachlorobenzene	<2.5	ug/L	2.5	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Hexachlorobutadiene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Hexachlorocyclopentadiene	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Hexachloroethane	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Hexachlorophene	<510	ug/L	510	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Hexachloropropene	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Indeno[1,2,3-cd]pyrene	<1.0	ug/L	1.0	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Isophorone	<10	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Isosafrole	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
m-Dinitrobenzene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Methapyrilene	<200	ug/L	200	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Methyl methanesulfonate	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Naphthalene - DL	610	ug/L	10	8270C	06/10/2010 1020	06/18/2010 1607	10
Nitrobenzene	<5.1	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2224	5.0
N-Nitrosodiethylamine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0

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GC/MS SEMI VOA							
N-Nitrosodimethylamine	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
N-Nitrosodi-n-butylamine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
N-Nitrosodi-n-propylamine	<2.5	ug/L	2.5	8270C	06/10/2010 1020	06/17/2010 2224	5.0
N-Nitrosodiphenylamine	<5.1	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2224	5.0
N-Nitrosomethylethylamine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
N-Nitrosomorpholine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
N-Nitrosopiperidine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
N-Nitrosopyrrolidine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
o-Toluidine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
p-Dimethylamino azobenzene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Pentachlorobenzene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Pentachloronitrobenzene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Pentachlorophenol	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Phenacetin	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Phenanthrene	16	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Phenol	160	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
p-Phenylene diamine	<200	ug/L	200	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Pronamide	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Pyrene	<5.1	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Pyridine	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2224	5.0
Safrole	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0
sym-Trinitrobenzene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2224	5.0

Surrogate				Acceptance Limits
2-Fluorophenol	50	%	8270C	20 - 100
Phenol-d5	34	%	8270C	20 - 100
Nitrobenzene-d5	52	%	8270C	38 - 109
2-Fluorobiphenyl	65	%	8270C	37 - 102
2,4,6-Tribromophenol	111	%	8270C	41 - 134
Terphenyl-d14	106	%	8270C	47 - 120

GC SEMI VOA

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	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC SEMI VOA							
PCB-1016	<0.55	ug/L	0.55	8082	06/15/2010 1331	06/16/2010 1746	1.0
PCB-1221	<0.55	ug/L	0.55	8082	06/15/2010 1331	06/16/2010 1746	1.0
PCB-1232	<0.55	ug/L	0.55	8082	06/15/2010 1331	06/16/2010 1746	1.0
PCB-1242	<0.55	ug/L	0.55	8082	06/15/2010 1331	06/16/2010 1746	1.0
PCB-1248	<0.55	ug/L	0.55	8082	06/15/2010 1331	06/16/2010 1746	1.0
PCB-1254	<0.55	ug/L	0.55	8082	06/15/2010 1331	06/16/2010 1746	1.0
PCB-1260	<0.55	ug/L	0.55	8082	06/15/2010 1331	06/16/2010 1746	1.0
Polychlorinated biphenyls, Total	<0.55	ug/L	0.55	8082	06/15/2010 1331	06/16/2010 1746	1.0
Surrogate					Acceptance Limits		
DCB Decachlorobiphenyl	61	%		8082	10 - 146		
Dibutylchlorendate	72	%		8082	10 - 159		
METALS							
Arsenic	<0.030	mg/L	0.030	6010B	06/11/2010 0802	06/23/2010 1948	1.0
Barium	0.58	mg/L	0.010	6010B	06/11/2010 0802	06/23/2010 1948	1.0
Cadmium	<0.010	mg/L	0.010	6010B	06/11/2010 0802	06/23/2010 1948	1.0
Chromium	<0.010	mg/L	0.010	6010B	06/11/2010 0802	06/24/2010 1841	1.0
Lead	<0.050	mg/L	0.050	6010B	06/11/2010 0802	06/23/2010 1948	1.0
Lithium	0.032	mg/L	0.015	6010B	06/11/2010 0802	06/30/2010 1509	1.0
Selenium	<0.020	mg/L	0.020	6010B	06/11/2010 0802	06/23/2010 1948	1.0
Silver	<0.040	mg/L	0.040	6010B	06/11/2010 0802	06/24/2010 1841	1.0
Mercury	<0.00020	mg/L	0.00020	7470A	06/14/2010 0850	06/14/2010 1304	1.0
FIELD SERVICE / MOBILE LAB							
Field pH	12.2	SU		Field Sampling		06/08/2010 1150	1.0
Field Temperature	59.6	Degrees F		Field Sampling		06/08/2010 1150	1.0
GENERAL CHEMISTRY							
Specific Conductance	10000	umhos/cm	1.0	SM 2510B		06/11/2010 1611	1.0

Jeff L Rey
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1 North Broadway
Gary, IN 46402

Job Number: 510-53286-1
Lab Sample Id: 510-53286-2
Client Matrix: Water
Date Sampled: 06/08/2010 1232
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 2

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA							
1,1,1,2-Tetrachloroethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
1,1,1-Trichloroethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
1,1,2,2-Tetrachloroethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
1,1,2-Trichloroethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
1,1-Dichloroethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
1,1-Dichloroethene	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
1,2,3-Trichloropropane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
1,2-Dibromo-3-Chloropropane	<10	ug/L	10	8260B	06/12/2010 0836	06/12/2010 0836	5.0
1,2-Dibromoethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
1,2-Dichloroethane	<5.0 *	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
1,2-Dichloropropane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
2-Chloro-1,3-butadiene	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
2-Hexanone	<25	ug/L	25	8260B	06/12/2010 0836	06/12/2010 0836	5.0
3-Chloropropene	<12	ug/L	12	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Acetone	42	ug/L	25	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Acetonitrile	<100	ug/L	100	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Acrolein	<500	ug/L	500	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Acrylonitrile	<100	ug/L	100	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Benzene	8.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Bromodichloromethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Bromoform	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Bromomethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Carbon disulfide	<25	ug/L	25	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Carbon tetrachloride	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Chlorobenzene	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Chloroethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Chloroform	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Chloromethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
cis-1,3-Dichloropropene	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Dibromochloromethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Dibromomethane	<5.0	ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0

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1 North Broadway
Gary, IN 46402

Job Number: 510-53286-1
Lab Sample Id: 510-53286-2
Client Matrix: Water
Date Sampled: 06/08/2010 1232
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 2

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
Dichlorodifluoromethane	<5.0		ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Ethyl methacrylate	<12		ug/L	12	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Ethylbenzene	<5.0		ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Iodomethane	<12		ug/L	12	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Isobutanol	<500		ug/L	500	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Methacrylonitrile	<12		ug/L	12	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Methyl Ethyl Ketone	<25		ug/L	25	8260B	06/12/2010 0836	06/12/2010 0836	5.0
methyl isobutyl ketone	<25		ug/L	25	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Methyl methacrylate	<12		ug/L	12	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Methylene Chloride	<10		ug/L	10	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Pentachloroethane	<50		ug/L	50	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Propionitrile	<100		ug/L	100	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Styrene	<5.0		ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Tetrachloroethene	<5.0		ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Toluene	<5.0		ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
trans-1,2-Dichloroethene	<5.0		ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
trans-1,3-Dichloropropene	<5.0		ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
trans-1,4-Dichloro-2-butene	<50		ug/L	50	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Trichloroethene	<5.0		ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Trichlorofluoromethane	<5.0		ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Vinyl acetate	<25	*	ug/L	25	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Vinyl chloride	<5.0		ug/L	5.0	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Xylenes, Total	10		ug/L	10	8260B	06/12/2010 0836	06/12/2010 0836	5.0
Surrogate						Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	122		%		8260B	80 - 129		
Toluene-d8 (Surr)	106		%		8260B	80 - 115		
4-Bromofluorobenzene (Surr)	100		%		8260B	80 - 115		
Dibromofluoromethane	0	X	%		8260B	80 - 124		
GC/MS SEMI VOA								
1,2,4,5-Tetrachlorobenzene	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0

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Job Number: 510-53286-1
Lab Sample Id: 510-53286-2
Client Matrix: Water
Date Sampled: 06/08/2010 1232
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 2

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA								
1,2,4-Trichlorobenzene	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
1,2-Dichlorobenzene	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
1,3-Dichlorobenzene	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
1,4-Dichlorobenzene	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
1,4-Dioxane	<100		ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
1,4-Naphthoquinone	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
1-Naphthylamine	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2,2'-oxybis[1-chloropropane]	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2,3,4,6-Tetrachlorophenol	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2,4,5-Trichlorophenol	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2,4,6-Trichlorophenol	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2,4-Dichlorophenol	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2,4-Dimethylphenol	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2,4-Dinitrophenol	<100		ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2,4-Dinitrotoluene	<5.1		ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2,6-Dichlorophenol	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2,6-Dinitrotoluene	<2.5		ug/L	2.5	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2-Acetylaminofluorene	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2-Chloronaphthalene	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2-Chlorophenol	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2-Methylnaphthalene	94		ug/L	2.5	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2-Methylphenol	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2-Naphthylamine	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2-Nitroaniline	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2-Nitrophenol	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2-Picoline	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
2-sec-Butyl-4,6-dinitrophenol	<51		ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
3 & 4 Methylphenol	<10		ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
3,3'-Dichlorobenzidine	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
3,3'-Dimethylbenzidine	<100	*	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
3-Methylcholanthrene	<25		ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0

Jeff L Rey
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1 North Broadway
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Job Number: 510-53286-1
Lab Sample Id: 510-53286-2
Client Matrix: Water
Date Sampled: 06/08/2010 1232
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 2

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
3-Nitroaniline	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
4,6-Dinitro-2-methylphenol	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
4-Aminobiphenyl	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
4-Bromophenyl phenyl ether	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
4-Chloro-3-methylphenol	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
4-Chloroaniline	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
4-Chlorophenyl phenyl ether	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
4-Nitroaniline	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
4-Nitrophenol	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
4-Nitroquinoline-1-oxide	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
5-Nitro-o-toluidine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
7,12-Dimethylbenz(a)anthracene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Acenaphthene	150	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Acenaphthylene	21	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Acetophenone	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
alpha,alpha-Dimethyl phenethylamine	<200	ug/L	200	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Aniline	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Anthracene	<5.1	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Aramite	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Benzo[a]anthracene	<1.0	ug/L	1.0	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Benzo[a]pyrene	<1.0	ug/L	1.0	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Benzo[b]fluoranthene	<1.0	ug/L	1.0	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Benzo[g,h,i]perylene	<5.1	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Benzo[k]fluoranthene	<1.0	ug/L	1.0	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Benzyl alcohol	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Bis(2-chloroethoxy)methane	<10	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Bis(2-chloroethyl)ether	<10	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Bis(2-ethylhexyl) phthalate	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Butyl benzyl phthalate	<10	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Chrysene	<2.5	ug/L	2.5	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Diallate	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0

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Job Number: 510-53286-1
Lab Sample Id: 510-53286-2
Client Matrix: Water
Date Sampled: 06/08/2010 1232
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 2

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
Dibenz(a,h)anthracene	<1.5	ug/L	1.5	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Dibenzofuran	88	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Diethyl phthalate	<10	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Dimethyl phthalate	<10	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Di-n-butyl phthalate	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Di-n-octyl phthalate	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Diphenylamine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Ethyl 4,4'-Dichlorobenzilate	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Ethyl methanesulfonate	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Fluoranthene	<5.1	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Fluorene	55	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Hexachlorobenzene	<2.5	ug/L	2.5	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Hexachlorobutadiene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Hexachlorocyclopentadiene	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Hexachloroethane	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Hexachlorophene	<510	ug/L	510	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Hexachloropropene	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Indeno[1,2,3-cd]pyrene	<1.0	ug/L	1.0	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Isophorone	<10	ug/L	10	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Isosafrole	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
m-Dinitrobenzene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Methapyrilene	<200	ug/L	200	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Methyl methanesulfonate	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Naphthalene	390	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Nitrobenzene	<5.1	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
N-Nitrosodiethylamine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
N-Nitrosodimethylamine	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
N-Nitrosodi-n-butylamine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
N-Nitrosodi-n-propylamine	<2.5	ug/L	2.5	8270C	06/10/2010 1020	06/17/2010 2245	5.0
N-Nitrosodiphenylamine	<5.1	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
N-Nitrosomethylethylamine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0

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Job Number: 510-53286-1
Lab Sample Id: 510-53286-2
Client Matrix: Water
Date Sampled: 06/08/2010 1232
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 2

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS SEMI VOA							
N-Nitrosomorpholine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
N-Nitrosopiperidine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
N-Nitrosopyrrolidine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
o-Toluidine	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
p-Dimethylamino azobenzene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Pentachlorobenzene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Pentachloronitrobenzene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Pentachlorophenol	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Phenacetin	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Phenanthrene	26	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Phenol	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
p-Phenylene diamine	<200	ug/L	200	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Pronamide	<51	ug/L	51	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Pyrene	<5.1	ug/L	5.1	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Pyridine	<100	ug/L	100	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Safrole	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
sym-Trinitrobenzene	<25	ug/L	25	8270C	06/10/2010 1020	06/17/2010 2245	5.0
Surrogate					Acceptance Limits		
2-Fluorophenol	33	%		8270C	20 - 100		
Phenol-d5	31	%		8270C	20 - 100		
Nitrobenzene-d5	62	%		8270C	38 - 109		
2-Fluorobiphenyl	79	%		8270C	37 - 102		
2,4,6-Tribromophenol	88	%		8270C	41 - 134		
Terphenyl-d14	116	%		8270C	47 - 120		
GC SEMI VOA							
PCB-1016	<0.57	ug/L	0.57	8082	06/15/2010 1331	06/16/2010 1801	1.0
PCB-1221	<0.57	ug/L	0.57	8082	06/15/2010 1331	06/16/2010 1801	1.0
PCB-1232	<0.57	ug/L	0.57	8082	06/15/2010 1331	06/16/2010 1801	1.0
PCB-1242	<0.57	ug/L	0.57	8082	06/15/2010 1331	06/16/2010 1801	1.0
PCB-1248	<0.57	ug/L	0.57	8082	06/15/2010 1331	06/16/2010 1801	1.0

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1 North Broadway
Gary, IN 46402

Job Number: 510-53286-1
Lab Sample Id: 510-53286-2
Client Matrix: Water
Date Sampled: 06/08/2010 1232
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 2

	Result/Qualifier	Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC SEMI VOA							
PCB-1254	<0.57	ug/L	0.57	8082	06/15/2010 1331	06/16/2010 1801	1.0
PCB-1260	<0.57	ug/L	0.57	8082	06/15/2010 1331	06/16/2010 1801	1.0
Polychlorinated biphenyls, Total	<0.57	ug/L	0.57	8082	06/15/2010 1331	06/16/2010 1801	1.0
Surrogate					Acceptance Limits		
DCB Decachlorobiphenyl	70	%		8082	10 - 146		
Dibutylchlorendate	76	%		8082	10 - 159		
METALS							
Arsenic	<0.030	mg/L	0.030	6010B	06/11/2010 0802	06/23/2010 2004	1.0
Barium	0.35	mg/L	0.010	6010B	06/11/2010 0802	06/23/2010 2004	1.0
Cadmium	<0.010	mg/L	0.010	6010B	06/11/2010 0802	06/23/2010 2004	1.0
Chromium	<0.010	mg/L	0.010	6010B	06/11/2010 0802	06/24/2010 1857	1.0
Lead	<0.050	mg/L	0.050	6010B	06/11/2010 0802	06/23/2010 2004	1.0
Lithium	0.062	mg/L	0.015	6010B	06/11/2010 0802	06/24/2010 1857	1.0
Selenium	<0.020	mg/L	0.020	6010B	06/11/2010 0802	06/23/2010 2004	1.0
Silver	<0.040	mg/L	0.040	6010B	06/11/2010 0802	06/24/2010 1857	1.0
Mercury	<0.00020	mg/L	0.00020	7470A	06/14/2010 0850	06/14/2010 1306	1.0
FIELD SERVICE / MOBILE LAB							
Field pH	12.3	SU		Field Sampling		06/08/2010 1232	1.0
Field Temperature	58.7	Degrees F		Field Sampling		06/08/2010 1232	1.0
GENERAL CHEMISTRY							
Specific Conductance	10000	umhos/cm	1.0	SM 2510B		06/11/2010 1613	1.0

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Job Number: 510-53286-1
Lab Sample Id: 510-53286-3
Client Matrix: Water
Date Sampled: 06/08/2010 1150
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 1 TRIP BLANK

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
1,1,1,2-Tetrachloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
1,1,1-Trichloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
1,1,2,2-Tetrachloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
1,1,2-Trichloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
1,1-Dichloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
1,1-Dichloroethene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
1,2,3-Trichloropropane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
1,2-Dibromo-3-Chloropropane	<2.0		ug/L	2.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
1,2-Dibromoethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
1,2-Dichloroethane	<1.0	*	ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
1,2-Dichloropropane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
2-Chloro-1,3-butadiene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
2-Hexanone	<5.0		ug/L	5.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
3-Chloropropene	<2.5		ug/L	2.5	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Acetone	<5.0		ug/L	5.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Acetonitrile	<20		ug/L	20	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Acrolein	<100		ug/L	100	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Acrylonitrile	<20		ug/L	20	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Benzene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Bromodichloromethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Bromoform	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Bromomethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Carbon disulfide	<5.0		ug/L	5.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Carbon tetrachloride	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Chlorobenzene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Chloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Chloroform	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Chloromethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
cis-1,3-Dichloropropene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Dibromochloromethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Dibromomethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0

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Job Number: 510-53286-1
Lab Sample Id: 510-53286-3
Client Matrix: Water
Date Sampled: 06/08/2010 1150
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 1 TRIP BLANK

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
Dichlorodifluoromethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Ethyl methacrylate	<2.5		ug/L	2.5	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Ethylbenzene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Iodomethane	<2.5		ug/L	2.5	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Isobutanol	<100		ug/L	100	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Methacrylonitrile	<2.5		ug/L	2.5	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Methyl Ethyl Ketone	<5.0		ug/L	5.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
methyl isobutyl ketone	<5.0		ug/L	5.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Methyl methacrylate	<2.5		ug/L	2.5	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Methylene Chloride	<2.0		ug/L	2.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Pentachloroethane	<10		ug/L	10	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Propionitrile	<20		ug/L	20	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Styrene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Tetrachloroethene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Toluene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
trans-1,2-Dichloroethene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
trans-1,3-Dichloropropene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
trans-1,4-Dichloro-2-butene	<10		ug/L	10	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Trichloroethene	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Trichlorofluoromethane	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Vinyl acetate	<5.0	*	ug/L	5.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Vinyl chloride	<1.0		ug/L	1.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0
Xylenes, Total	<2.0		ug/L	2.0	8260B	06/12/2010 0648	06/12/2010 0648	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	118	%	8260B	80 - 129
Toluene-d8 (Surr)	107	%	8260B	80 - 115
4-Bromofluorobenzene (Surr)	96	%	8260B	80 - 115
Dibromofluoromethane	101	%	8260B	80 - 124

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Job Number: 510-53286-1
Lab Sample Id: 510-53286-4
Client Matrix: Water
Date Sampled: 06/08/2010 1232
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 2 TRIP BLANK

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
1,1,1,2-Tetrachloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
1,1,1-Trichloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
1,1,2,2-Tetrachloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
1,1,2-Trichloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
1,1-Dichloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
1,1-Dichloroethene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
1,2,3-Trichloropropane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
1,2-Dibromo-3-Chloropropane	<2.0		ug/L	2.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
1,2-Dibromoethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
1,2-Dichloroethane	<1.0	*	ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
1,2-Dichloropropane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
2-Chloro-1,3-butadiene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
2-Hexanone	<5.0		ug/L	5.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
3-Chloropropene	<2.5		ug/L	2.5	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Acetone	<5.0		ug/L	5.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Acetonitrile	<20		ug/L	20	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Acrolein	<100		ug/L	100	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Acrylonitrile	<20		ug/L	20	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Benzene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Bromodichloromethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Bromoform	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Bromomethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Carbon disulfide	<5.0		ug/L	5.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Carbon tetrachloride	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Chlorobenzene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Chloroethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Chloroform	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Chloromethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
cis-1,3-Dichloropropene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Dibromochloromethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Dibromomethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0

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Job Number: 510-53286-1
Lab Sample Id: 510-53286-4
Client Matrix: Water
Date Sampled: 06/08/2010 1232
Date Received: 06/08/2010 1810

Client Sample ID: LEACHATE UNIT 2 TRIP BLANK

	Result/Qualifier		Unit	RL	Method	Date Prepared	Date Analyzed	Dilution
GC/MS VOA								
Dichlorodifluoromethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Ethyl methacrylate	<2.5		ug/L	2.5	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Ethylbenzene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Iodomethane	<2.5		ug/L	2.5	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Isobutanol	<100		ug/L	100	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Methacrylonitrile	<2.5		ug/L	2.5	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Methyl Ethyl Ketone	<5.0		ug/L	5.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
methyl isobutyl ketone	<5.0		ug/L	5.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Methyl methacrylate	<2.5		ug/L	2.5	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Methylene Chloride	<2.0		ug/L	2.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Pentachloroethane	<10		ug/L	10	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Propionitrile	<20		ug/L	20	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Styrene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Tetrachloroethene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Toluene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
trans-1,2-Dichloroethene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
trans-1,3-Dichloropropene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
trans-1,4-Dichloro-2-butene	<10		ug/L	10	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Trichloroethene	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Trichlorofluoromethane	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Vinyl acetate	<5.0	*	ug/L	5.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Vinyl chloride	<1.0		ug/L	1.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0
Xylenes, Total	<2.0		ug/L	2.0	8260B	06/12/2010 0709	06/12/2010 0709	1.0

Surrogate				Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	126	%	8260B	80 - 129
Toluene-d8 (Surr)	111	%	8260B	80 - 115
4-Bromofluorobenzene (Surr)	101	%	8260B	80 - 115
Dibromofluoromethane	109	%	8260B	80 - 124

DATA REPORTING QUALIFIERS

Client: United States Steel Corporation Job Number: 510-53286-1

Lab Section	Qualifier	Description
GC/MS VOA		
	*	LCS or LCSD exceeds the control limits
	X	Surrogate is outside control limits
GC/MS Semi VOA		
	*	LCS or LCSD exceeds the control limits

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53286-1

Method Blank - Batch: 500-87650

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 500-87650/26
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/12/2010 0102
Date Prepared: 06/12/2010 0102

Analysis Batch: 500-87650
Prep Batch: N/A
Units: ug/L

Instrument ID: MS06
Lab File ID: 6M0611.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
1,1,1,2-Tetrachloroethane	<1.0		1.0
1,1,1-Trichloroethane	<1.0		1.0
1,1,2,2-Tetrachloroethane	<1.0		1.0
1,1,2-Trichloroethane	<1.0		1.0
1,1-Dichloroethane	<1.0		1.0
1,1-Dichloroethene	<1.0		1.0
1,2,3-Trichloropropane	<1.0		1.0
1,2-Dibromo-3-Chloropropane	<2.0		2.0
1,2-Dibromoethane	<1.0		1.0
1,2-Dichloroethane	<1.0		1.0
1,2-Dichloropropane	<1.0		1.0
2-Chloro-1,3-butadiene	<1.0		1.0
2-Hexanone	<5.0		5.0
3-Chloropropene	<2.5		2.5
Acetone	<5.0		5.0
Acetonitrile	<20		20
Acrolein	<100		100
Acrylonitrile	<20		20
Benzene	<1.0		1.0
Bromodichloromethane	<1.0		1.0
Bromoform	<1.0		1.0
Bromomethane	<1.0		1.0
Carbon disulfide	<5.0		5.0
Carbon tetrachloride	<1.0		1.0
Chlorobenzene	<1.0		1.0
Chloroethane	<1.0		1.0
Chloroform	<1.0		1.0
Chloromethane	<1.0		1.0
cis-1,3-Dichloropropene	<1.0		1.0
Dibromochloromethane	<1.0		1.0
Dibromomethane	<1.0		1.0
Dichlorodifluoromethane	<1.0		1.0
Ethyl methacrylate	<2.5		2.5
Ethylbenzene	<1.0		1.0
Iodomethane	<2.5		2.5
Isobutanol	<100		100
Methacrylonitrile	<2.5		2.5
Methyl Ethyl Ketone	<5.0		5.0
methyl isobutyl ketone	<5.0		5.0
Methyl methacrylate	<2.5		2.5
Methylene Chloride	<2.0		2.0
Pentachloroethane	<10		10
Propionitrile	<20		20

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53286-1

Method Blank - Batch: 500-87650

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 500-87650/26
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/12/2010 0102
Date Prepared: 06/12/2010 0102

Analysis Batch: 500-87650
Prep Batch: N/A
Units: ug/L

Instrument ID: MS06
Lab File ID: 6M0611.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Styrene	<1.0		1.0
Tetrachloroethene	<1.0		1.0
Toluene	<1.0		1.0
trans-1,2-Dichloroethene	<1.0		1.0
trans-1,3-Dichloropropene	<1.0		1.0
trans-1,4-Dichloro-2-butene	<10		10
Trichloroethene	<1.0		1.0
Trichlorofluoromethane	<1.0		1.0
Vinyl acetate	<5.0		5.0
Vinyl chloride	<1.0		1.0
Xylenes, Total	<2.0		2.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	121	80 - 129
Toluene-d8 (Surr)	108	80 - 115
4-Bromofluorobenzene (Surr)	100	80 - 115
Dibromofluoromethane	102	80 - 124

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53286-1

Lab Control Sample - Batch: 500-87650

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 500-87650/27
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/12/2010 0019
Date Prepared: 06/12/2010 0019

Analysis Batch: 500-87650
Prep Batch: N/A
Units: ug/L

Instrument ID: MS06
Lab File ID: 6S0611.D
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	25.0	27.7	111	80 - 126	
1,1,1-Trichloroethane	25.0	28.5	114	76 - 127	
1,1,2,2-Tetrachloroethane	25.0	26.1	104	70 - 123	
1,1,2-Trichloroethane	25.0	25.8	103	70 - 127	
1,1-Dichloroethane	25.0	26.9	108	67 - 122	
1,1-Dichloroethene	25.0	26.9	108	55 - 127	
1,2,3-Trichloropropane	25.0	27.2	109	76 - 121	
1,2-Dibromo-3-Chloropropane	25.0	23.6	94	55 - 126	
1,2-Dibromoethane	25.0	27.0	108	77 - 123	
1,2-Dichloroethane	25.0	31.8	127	71 - 124	*
1,2-Dichloropropane	25.0	27.2	109	75 - 120	
2-Hexanone	25.0	32.0	128	54 - 140	
Acetone	25.0	31.9	128	42 - 149	
Benzene	25.0	26.2	105	73 - 117	
Bromodichloromethane	25.0	28.8	115	79 - 124	
Bromoform	25.0	23.1	92	59 - 122	
Bromomethane	25.0	24.1	96	35 - 181	
Carbon disulfide	25.0	22.4	90	38 - 123	
Carbon tetrachloride	25.0	30.0	120	66 - 138	
Chlorobenzene	25.0	26.5	106	78 - 113	
Chloroethane	25.0	28.8	115	52 - 150	
Chloroform	25.0	27.9	111	74 - 121	
Chloromethane	25.0	26.7	107	51 - 151	
cis-1,3-Dichloropropene	26.9	26.4	98	66 - 122	
Dibromochloromethane	25.0	28.4	114	68 - 122	
Dibromomethane	25.0	28.2	113	76 - 121	
Dichlorodifluoromethane	25.0	27.9	112	46 - 182	
Ethylbenzene	25.0	26.3	105	80 - 116	
Iodomethane	25.0	22.7	91	67 - 142	
Methyl Ethyl Ketone	25.0	30.9	123	52 - 148	
methyl isobutyl ketone	25.0	31.5	126	58 - 134	
Methylene Chloride	25.0	26.5	106	62 - 127	
Styrene	25.0	26.5	106	80 - 120	
Tetrachloroethene	25.0	26.8	107	76 - 116	
Toluene	25.0	25.1	100	76 - 119	
trans-1,2-Dichloroethene	25.0	26.8	107	67 - 125	
trans-1,3-Dichloropropene	24.3	24.7	102	66 - 110	
Trichloroethene	25.0	27.4	110	77 - 118	
Trichlorofluoromethane	25.0	31.4	126	69 - 142	
Vinyl acetate	25.0	40.9	164	37 - 159	*
Vinyl chloride	25.0	22.3	89	56 - 128	
Xylenes, Total	75.0	80.1	107	79 - 120	

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Client: United States Steel Corporation Job Number: 510-53286-1

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	120	80 - 129
Toluene-d8 (Surr)	105	80 - 115
4-Bromofluorobenzene (Surr)	104	80 - 115
Dibromofluoromethane	106	80 - 124

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53286-1

Method Blank - Batch: 500-87519

Method: 8270C
Preparation: 3510C

Lab Sample ID: MB 500-87519/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/17/2010 1851
Date Prepared: 06/10/2010 1020

Analysis Batch: 500-88125
Prep Batch: 500-87519
Units: ug/L

Instrument ID: MS12
Lab File ID: 87519M.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
1,2,4,5-Tetrachlorobenzene	<5.0		5.0
1,2,4-Trichlorobenzene	<2.0		2.0
1,2-Dichlorobenzene	<2.0		2.0
1,3-Dichlorobenzene	<2.0		2.0
1,4-Dichlorobenzene	<2.0		2.0
1,4-Dioxane	<20		20
1,4-Naphthoquinone	<10		10
1-Naphthylamine	<10		10
2,2'-oxybis[1-chloropropane]	<2.0		2.0
2,3,4,6-Tetrachlorophenol	<5.0		5.0
2,4,5-Trichlorophenol	<10		10
2,4,6-Trichlorophenol	<5.0		5.0
2,4-Dichlorophenol	<10		10
2,4-Dimethylphenol	<10		10
2,4-Dinitrophenol	<20		20
2,4-Dinitrotoluene	<1.0		1.0
2,6-Dichlorophenol	<5.0		5.0
2,6-Dinitrotoluene	<0.50		0.50
2-Acetylaminofluorene	<5.0		5.0
2-Chloronaphthalene	<2.0		2.0
2-Chlorophenol	<5.0		5.0
2-Methylnaphthalene	<0.50		0.50
2-Methylphenol	<2.0		2.0
2-Naphthylamine	<10		10
2-Nitroaniline	<5.0		5.0
2-Nitrophenol	<10		10
2-Picoline	<10		10
2-sec-Butyl-4,6-dinitrophenol	<10		10
3 & 4 Methylphenol	<2.0		2.0
3,3'-Dichlorobenzidine	<5.0		5.0
3,3'-Dimethylbenzidine	<20		20
3-Methylcholanthrene	<5.0		5.0
3-Nitroaniline	<10		10
4,6-Dinitro-2-methylphenol	<20		20
4-Aminobiphenyl	<10		10
4-Bromophenyl phenyl ether	<5.0		5.0
4-Chloro-3-methylphenol	<10		10
4-Chloroaniline	<10		10
4-Chlorophenyl phenyl ether	<5.0		5.0
4-Nitroaniline	<10		10
4-Nitrophenol	<20		20
4-Nitroquinoline-1-oxide	<20		20
5-Nitro-o-toluidine	<5.0		5.0

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53286-1

Method Blank - Batch: 500-87519

Method: 8270C
Preparation: 3510C

Lab Sample ID: MB 500-87519/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/17/2010 1851
Date Prepared: 06/10/2010 1020

Analysis Batch: 500-88125
Prep Batch: 500-87519
Units: ug/L

Instrument ID: MS12
Lab File ID: 87519M.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
7,12-Dimethylbenz(a)anthracene	<5.0		5.0
Acenaphthene	<1.0		1.0
Acenaphthylene	<1.0		1.0
Acetophenone	<5.0		5.0
alpha,alpha-Dimethyl phenethylamine	<40		40
Aniline	<20		20
Anthracene	<1.0		1.0
Aramite	<5.0		5.0
Benzo[a]anthracene	<0.20		0.20
Benzo[a]pyrene	<0.20		0.20
Benzo[b]fluoranthene	<0.20		0.20
Benzo[g,h,i]perylene	<1.0		1.0
Benzo[k]fluoranthene	<0.20		0.20
Benzyl alcohol	<20		20
Bis(2-chloroethoxy)methane	<2.0		2.0
Bis(2-chloroethyl)ether	<2.0		2.0
Bis(2-ethylhexyl) phthalate	<10		10
Butyl benzyl phthalate	<2.0		2.0
Chrysene	<0.50		0.50
Diallate	<5.0		5.0
Dibenz(a,h)anthracene	<0.30		0.30
Dibenzofuran	<2.0		2.0
Diethyl phthalate	<2.0		2.0
Dimethyl phthalate	<2.0		2.0
Di-n-butyl phthalate	<5.0		5.0
Di-n-octyl phthalate	<10		10
Diphenylamine	<5.0		5.0
Ethyl 4,4'-Dichlorobenzilate	<5.0		5.0
Ethyl methanesulfonate	<5.0		5.0
Fluoranthene	<1.0		1.0
Fluorene	<1.0		1.0
Hexachlorobenzene	<0.50		0.50
Hexachlorobutadiene	<5.0		5.0
Hexachlorocyclopentadiene	<20		20
Hexachloroethane	<5.0		5.0
Hexachlorophene	<100		100
Hexachloropropene	<20		20
Indeno[1,2,3-cd]pyrene	<0.20		0.20
Isophorone	<2.0		2.0
Isosafrole	<5.0		5.0
m-Dinitrobenzene	<5.0		5.0
Methapyrilene	<40		40
Methyl methanesulfonate	<5.0		5.0

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Client: United States Steel Corporation

Job Number: 510-53286-1

Method Blank - Batch: 500-87519

Method: 8270C
Preparation: 3510C

Lab Sample ID: MB 500-87519/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/17/2010 1851
Date Prepared: 06/10/2010 1020

Analysis Batch: 500-88125
Prep Batch: 500-87519
Units: ug/L

Instrument ID: MS12
Lab File ID: 87519M.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 1 uL

Analyte	Result	Qual	RL
Naphthalene	<1.0		1.0
Nitrobenzene	<1.0		1.0
N-Nitrosodiethylamine	<5.0		5.0
N-Nitrosodimethylamine	<10		10
N-Nitrosodi-n-butylamine	<5.0		5.0
N-Nitrosodi-n-propylamine	<0.50		0.50
N-Nitrosodiphenylamine	<1.0		1.0
N-Nitrosomethylethylamine	<5.0		5.0
N-Nitrosomorpholine	<5.0		5.0
N-Nitrosopiperidine	<5.0		5.0
N-Nitrosopyrrolidine	<5.0		5.0
o-Toluidine	<5.0		5.0
p-Dimethylamino azobenzene	<5.0		5.0
Pentachlorobenzene	<5.0		5.0
Pentachloronitrobenzene	<5.0		5.0
Pentachlorophenol	<20		20
Phenacetin	<5.0		5.0
Phenanthrene	<1.0		1.0
Phenol	<5.0		5.0
p-Phenylene diamine	<40		40
Pronamide	<10		10
Pyrene	<1.0		1.0
Pyridine	<20		20
Safrole	<5.0		5.0
sym-Trinitrobenzene	<5.0		5.0

Surrogate	% Rec	Acceptance Limits
2-Fluorophenol	37	20 - 100
Phenol-d5	26	20 - 100
Nitrobenzene-d5	73	38 - 109
2-Fluorobiphenyl	70	37 - 102
2,4,6-Tribromophenol	70	41 - 134
Terphenyl-d14	88	47 - 120

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53286-1

Lab Control Sample - Batch: 500-87519

Method: 8270C
Preparation: 3510C

Lab Sample ID: LCS 500-87519/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/17/2010 1913
Date Prepared: 06/10/2010 1020

Analysis Batch: 500-88125
Prep Batch: 500-87519
Units: ug/L

Instrument ID: MS12
Lab File ID: 87519BS.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,2,4,5-Tetrachlorobenzene	50.0	34.6	69	37 - 100	
1,2,4-Trichlorobenzene	50.0	31.2	62	51 - 100	
1,2-Dichlorobenzene	50.0	29.2	58	35 - 100	
1,3-Dichlorobenzene	50.0	27.7	55	33 - 100	
1,4-Dichlorobenzene	50.0	28.5	57	33 - 100	
1,4-Dioxane	50.0	<20	36	10 - 100	
2,2'-oxybis[1-chloropropane]	50.0	33.5	67	44 - 100	
2,3,4,6-Tetrachlorophenol	50.0	41.5	83	50 - 150	
2,4,5-Trichlorophenol	50.0	41.5	83	54 - 110	
2,4,6-Trichlorophenol	50.0	39.6	79	54 - 103	
2,4-Dichlorophenol	50.0	36.9	74	57 - 102	
2,4-Dimethylphenol	50.0	28.2	56	44 - 103	
2,4-Dinitrophenol	50.0	45.2	90	40 - 124	
2,4-Dinitrotoluene	50.0	44.7	89	56 - 119	
2,6-Dinitrotoluene	50.0	41.0	82	60 - 111	
2-Chloronaphthalene	50.0	34.7	69	48 - 100	
2-Chlorophenol	50.0	32.9	66	58 - 100	
2-Methylnaphthalene	50.0	31.7	63	44 - 100	
2-Methylphenol	50.0	30.5	61	49 - 100	
2-Nitroaniline	50.0	49.2	98	71 - 113	
2-Nitrophenol	50.0	35.1	70	53 - 103	
2-sec-Butyl-4,6-dinitrophenol	50.0	41.3	83	50 - 150	
3 & 4 Methylphenol	50.0	31.7	63	47 - 100	
3,3'-Dichlorobenzidine	50.0	40.5	81	60 - 127	
3,3'-Dimethylbenzidine	50.0	<20	9	10 - 108	*
3-Nitroaniline	50.0	42.1	84	49 - 116	
4,6-Dinitro-2-methylphenol	50.0	41.2	82	58 - 116	
4-Bromophenyl phenyl ether	50.0	43.3	87	51 - 112	
4-Chloro-3-methylphenol	50.0	40.7	81	58 - 106	
4-Chloroaniline	50.0	36.6	73	54 - 100	
4-Chlorophenyl phenyl ether	50.0	38.3	77	51 - 102	
4-Nitroaniline	50.0	44.4	89	48 - 122	
4-Nitrophenol	50.0	<20	34	22 - 100	
Acenaphthene	50.0	36.1	72	48 - 100	
Acenaphthylene	50.0	34.8	70	48 - 100	
Acetophenone	50.0	36.2	72	49 - 105	
Aniline	50.0	25.6	51	32 - 100	
Anthracene	50.0	38.7	77	50 - 111	
Benzo[a]anthracene	50.0	41.9	84	66 - 121	
Benzo[a]pyrene	50.0	35.6	71	61 - 137	
Benzo[b]fluoranthene	50.0	33.6	67	60 - 143	
Benzo[g,h,i]perylene	50.0	40.0	80	57 - 152	
Benzo[k]fluoranthene	50.0	39.4	79	50 - 145	

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Client: United States Steel Corporation

Job Number: 510-53286-1

Lab Control Sample - Batch: 500-87519

Method: 8270C
Preparation: 3510C

Lab Sample ID: LCS 500-87519/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/17/2010 1913
Date Prepared: 06/10/2010 1020

Analysis Batch: 500-88125
Prep Batch: 500-87519
Units: ug/L

Instrument ID: MS12
Lab File ID: 87519BS.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzyl alcohol	50.0	32.7	65	47 - 100	
Bis(2-chloroethoxy)methane	50.0	35.9	72	61 - 100	
Bis(2-chloroethyl)ether	50.0	33.7	67	43 - 106	
Bis(2-ethylhexyl) phthalate	50.0	43.8	88	71 - 125	
Butyl benzyl phthalate	50.0	45.1	90	72 - 129	
Chrysene	50.0	37.3	75	61 - 127	
Dibenz(a,h)anthracene	50.0	39.9	80	60 - 146	
Dibenzofuran	50.0	36.7	73	53 - 100	
Diethyl phthalate	50.0	42.1	84	59 - 110	
Dimethyl phthalate	50.0	40.3	81	57 - 108	
Di-n-butyl phthalate	50.0	40.0	80	57 - 118	
Di-n-octyl phthalate	50.0	37.1	74	56 - 146	
Fluoranthene	50.0	39.3	79	54 - 120	
Fluorene	50.0	37.8	76	53 - 103	
Hexachlorobenzene	50.0	43.8	88	52 - 115	
Hexachlorobutadiene	50.0	30.0	60	30 - 100	
Hexachlorocyclopentadiene	50.0	25.3	51	18 - 100	
Hexachloroethane	50.0	28.4	57	31 - 100	
Indeno[1,2,3-cd]pyrene	50.0	40.5	81	60 - 151	
Isophorone	50.0	33.0	66	60 - 100	
Naphthalene	50.0	30.8	62	43 - 100	
Nitrobenzene	50.0	35.7	71	56 - 100	
N-Nitrosodiethylamine	50.0	36.5	73	50 - 150	
N-Nitrosodimethylamine	50.0	21.6	43	13 - 100	
N-Nitrosodi-n-butylamine	50.0	37.6	75	50 - 150	
N-Nitrosodi-n-propylamine	50.0	37.5	75	53 - 110	
N-Nitrosodiphenylamine	50.0	43.3	87	46 - 118	
N-Nitrosomethylethylamine	50.0	31.2	62	50 - 150	
N-Nitrosopiperidine	50.0	38.5	77	50 - 150	
N-Nitrosopyrrolidine	50.0	37.8	76	50 - 150	
Pentachlorobenzene	50.0	39.9	80	50 - 150	
Pentachlorophenol	50.0	38.3	77	48 - 121	
Phenanthrene	50.0	36.7	73	52 - 112	
Phenol	50.0	17.8	36	21 - 100	
Pyrene	50.0	37.8	76	61 - 130	
Pyridine	50.0	20.4	41	11 - 100	

Surrogate	% Rec	Acceptance Limits
2-Fluorophenol	40	20 - 100
Phenol-d5	27	20 - 100
Nitrobenzene-d5	69	38 - 109
2-Fluorobiphenyl	68	37 - 102
2,4,6-Tribromophenol	91	41 - 134

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Client: United States Steel Corporation Job Number: 510-53286-1

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14	85	47 - 120

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Client: United States Steel Corporation

Job Number: 510-53286-1

Method Blank - Batch: 510-64758

Method: 8082
Preparation: 3510C

Lab Sample ID: MB 510-64758/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2010 1630
Date Prepared: 06/15/2010 1331

Analysis Batch: 510-64836
Prep Batch: 510-64758
Units: ug/L

Instrument ID: SGCA
Lab File ID: B2242.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
PCB-1016	<0.50		0.50
PCB-1221	<0.50		0.50
PCB-1232	<0.50		0.50
PCB-1242	<0.50		0.50
PCB-1248	<0.50		0.50
PCB-1254	<0.50		0.50
PCB-1260	<0.50		0.50
Polychlorinated biphenyls, Total	<0.50		0.50

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	69	10 - 146
Dibutylchlorendate	86	10 - 159

Lab Control Sample - Batch: 510-64758

Method: 8082
Preparation: 3510C

Lab Sample ID: LCS 510-64758/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/16/2010 1645
Date Prepared: 06/15/2010 1331

Analysis Batch: 510-64836
Prep Batch: 510-64758
Units: ug/L

Instrument ID: SGCA
Lab File ID: B2243.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	5.02	3.16	63	55 - 116	
PCB-1260	5.01	4.30	86	64 - 115	

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	60	10 - 146
Dibutylchlorendate	94	10 - 159

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Client: United States Steel Corporation Job Number: 510-53286-1

Method Blank - Batch: 510-64618

Method: 6010B
Preparation: 3010A

Lab Sample ID: MB 510-64618/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/23/2010 1932
Date Prepared: 06/11/2010 0802

Analysis Batch: 510-65175
Prep Batch: 510-64618
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Arsenic	<0.030		0.030
Barium	<0.010		0.010
Cadmium	<0.010		0.010
Lead	<0.050		0.050
Selenium	<0.020		0.020

Method Blank - Batch: 510-64618

Method: 6010B
Preparation: 3010A

Lab Sample ID: MB 510-64618/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/24/2010 1824
Date Prepared: 06/11/2010 0802

Analysis Batch: 510-65232
Prep Batch: 510-64618
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Chromium	<0.010		0.010
Lithium	<0.015		0.015
Silver	<0.040		0.040

Method Blank - Batch: 510-64618

Method: 6010B
Preparation: 3010A

Lab Sample ID: MB 510-64618/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/30/2010 1459
Date Prepared: 06/11/2010 0802

Analysis Batch: 510-65469
Prep Batch: 510-64618
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Lithium	<0.015		0.015

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-53286-1

Lab Control Sample - Batch: 510-64618 **Method: 6010B**
Preparation: 3010A

Lab Sample ID: LCS 510-64618/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/23/2010 1937
Date Prepared: 06/11/2010 0802

Analysis Batch: 510-65175
Prep Batch: 510-64618
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.500	0.486	97	80 - 120	
Barium	1.00	0.963	96	80 - 120	
Cadmium	0.500	0.488	98	80 - 120	
Lead	0.500	0.501	100	80 - 120	
Selenium	0.500	0.474	95	80 - 120	

Lab Control Sample - Batch: 510-64618 **Method: 6010B**
Preparation: 3010A

Lab Sample ID: LCS 510-64618/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/24/2010 1830
Date Prepared: 06/11/2010 0802

Analysis Batch: 510-65232
Prep Batch: 510-64618
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chromium	0.500	0.513	103	80 - 120	
Lithium	0.500	0.555	111	80 - 120	
Silver	1.00	1.06	106	80 - 120	

Lab Control Sample - Batch: 510-64618 **Method: 6010B**
Preparation: 3010A

Lab Sample ID: LCS 510-64618/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/30/2010 1504
Date Prepared: 06/11/2010 0802

Analysis Batch: 510-65469
Prep Batch: 510-64618
Units: mg/L

Instrument ID: MICPC
Lab File ID: 61C510
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Lithium	0.500	0.559	112	80 - 120	

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-53286-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-64618

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	510-53286-1	Analysis Batch: 510-65175	Instrument ID: MICPC
Client Matrix:	Water	Prep Batch: 510-64618	Lab File ID: 61C510
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	06/23/2010 1954		Final Weight/Volume: 50 mL
Date Prepared:	06/11/2010 0802		

MSD Lab Sample ID:	510-53286-1	Analysis Batch: 510-65175	Instrument ID: MICPC
Client Matrix:	Water	Prep Batch: 510-64618	Lab File ID: 61C510
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	06/23/2010 1959		Final Weight/Volume: 50 mL
Date Prepared:	06/11/2010 0802		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	100	99	75 - 125	1	20		
Barium	96	97	75 - 125	1	20		
Cadmium	95	95	75 - 125	0	20		
Lead	100	99	75 - 125	1	20		
Selenium	97	96	75 - 125	0	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-64618

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	510-53286-1	Analysis Batch: 510-65232	Instrument ID: MICPC
Client Matrix:	Water	Prep Batch: 510-64618	Lab File ID: 61C510
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	06/24/2010 1846		Final Weight/Volume: 50 mL
Date Prepared:	06/11/2010 0802		

MSD Lab Sample ID:	510-53286-1	Analysis Batch: 510-65232	Instrument ID: MICPC
Client Matrix:	Water	Prep Batch: 510-64618	Lab File ID: 61C510
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	06/24/2010 1852		Final Weight/Volume: 50 mL
Date Prepared:	06/11/2010 0802		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Chromium	99	101	75 - 125	2	20		
Silver	110	112	75 - 125	2	20		

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53286-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-64618

Method: 6010B
Preparation: 3010A

MS Lab Sample ID:	510-53286-1	Analysis Batch: 510-65469	Instrument ID: MICPC
Client Matrix:	Water	Prep Batch: 510-64618	Lab File ID: 61C510
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	06/30/2010 1514		Final Weight/Volume: 50 mL
Date Prepared:	06/11/2010 0802		

MSD Lab Sample ID:	510-53286-1	Analysis Batch: 510-65469	Instrument ID: MICPC
Client Matrix:	Water	Prep Batch: 510-64618	Lab File ID: 61C510
Dilution:	1.0		Initial Weight/Volume: 50 mL
Date Analyzed:	06/30/2010 1519		Final Weight/Volume: 50 mL
Date Prepared:	06/11/2010 0802		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Lithium	118	121	75 - 125	2	20		

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation Job Number: 510-53286-1

Method Blank - Batch: 510-64691

Method: 7470A
Preparation: 7470A

Lab Sample ID: MB 510-64691/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/14/2010 1300
Date Prepared: 06/14/2010 0850

Analysis Batch: 510-64710
Prep Batch: 510-64691
Units: mg/L

Instrument ID: MHGC
Lab File ID: 061410hg.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Mercury	<0.00020		0.00020

Lab Control Sample - Batch: 510-64691

Method: 7470A
Preparation: 7470A

Lab Sample ID: LCS 510-64691/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/14/2010 1302
Date Prepared: 06/14/2010 0850

Analysis Batch: 510-64710
Prep Batch: 510-64691
Units: mg/L

Instrument ID: MHGC
Lab File ID: 061410hg.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00508	102	80 - 120	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 510-64691

Method: 7470A
Preparation: 7470A

MS Lab Sample ID: 510-53286-2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/14/2010 1308
Date Prepared: 06/14/2010 0850

Analysis Batch: 510-64710
Prep Batch: 510-64691

Instrument ID: MHGC
Lab File ID: 061410hg.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 510-53286-2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/14/2010 1311
Date Prepared: 06/14/2010 0850

Analysis Batch: 510-64710
Prep Batch: 510-64691

Instrument ID: MHGC
Lab File ID: 061410hg.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	101	96	75 - 125	5	20		

US EPA ARCHIVE DOCUMENT

Client: United States Steel Corporation

Job Number: 510-53286-1

Method Blank - Batch: 510-64689

Method: SM 2510B
Preparation: N/A

Lab Sample ID: MB 510-64689/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/11/2010 1605
Date Prepared: N/A

Analysis Batch: 510-64689
Prep Batch: N/A
Units: umhos/cm

Instrument ID: GATITRA
Lab File ID: 10061102.TXT
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Specific Conductance	<1.0		1.0

Lab Control Sample - Batch: 510-64689

Method: SM 2510B
Preparation: N/A

Lab Sample ID: LCS 510-64689/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/11/2010 1602
Date Prepared: N/A

Analysis Batch: 510-64689
Prep Batch: N/A
Units: umhos/cm

Instrument ID: GATITRA
Lab File ID: 10061102.TXT
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Specific Conductance	1000	1070	107	90 - 110	

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY RECORD

COC Record No: _____

TestAmerica Laboratories

Customer Information		Project Information		Analysis / Methods	
PO:		Project Name:	**Quarterly Leachate**	A	608 PCB
WO:		Project ID:	**960001200**	B	8260 APEX IX **Sub TA Chicago**
Company:	**US Steel Corporation**	Bill To:	Same	C	8270 APEX IX **Sub TA Chicago**
Report to:	Rick Menozzi	Invoice ATTN:		D	Metals/Hg
Address:	600 Grant Street	Address:	Same	E	Conductivity
	Room 2068				
	Pittsburgh PA 15219-2703				
Phone:		Phone:		**Data Package**	
Fax:		Fax:			
email:				**June**	
SAMPLER (Print):					

53286

SAMPLE INFORMATION

No.	Description	Preservation	Date	Time	Type	Matrix	Containers		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Page 41	UNIT 1 LEACHATE	NONE	6-8-10	1150	GRAB	AQ	4	A1000	X		X		X													
		NONE	"	"	GRAB	AQ	3	40ml Vial		X																
		HNO3	"	"	GRAB	AQ	1	P500				X		Added 5 mL HNO3 DR 6/9/10												
~~03~~ 04	UNIT 1 LEACHATE TRIP BLANK	HCL ~~NONE~~ DR	6-8-10	1150	GRAB	AQ	1	40ml Vial		X																
~~45~~																										

PH: 12.2
Temperature: 59.6
~~Conductivity:~~ BF

Sampler: D. MARSHALL

Shipment Method:

Required Turnaround:

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	6-8-10		6/8/10				
Company: TEST AMERICA	Time: 1810	Company: Test America	Time: 1810	Company:	Time:	Company:	Time:

Comments: US Steel Coolers 2.9°C 2.3°C 3.7°C

US EPA ARCHIVE DOCUMENT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY RECORD

COC Record No: _____

TestAmerica Laboratories

Customer Information		Project Information		Analysis / Methods	
PO:		Project Name:	**Quarterly Leachate**	A	608 PCB
WO:		Project ID:	**960001200**	B	8260 APEX IX **Sub TA Chicago**
Company:	**US Steel Corporation**	Bill To:	Same	C	8270 APEX IX **Sub TA Chicago**
Report to:	Rick Menozzi	Invoice ATTN:		D	Metals/Hg
Address:	600 Grant Street	Address:	Same	E	Conductivity
	Room 2068				
	Pittsburgh PA 15219-2703				
Phone:		Phone:		**Data Package**	
Fax:		Fax:			
email:				**June**	
SAMPLER (Print):					

53286

SAMPLE INFORMATION

No.	Description	Preservation	Date	Time	Type	Matrix	Containers		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Page 42 of 45	UNIT 2 LEACHATE	NONE	6-8-10	1232	GRAB	AQ	4	A1000	X		X		X													
		NONE	"	"	GRAB	AQ	3	40ml Vial		X																
		HNO3	"	"	GRAB	AQ	1	P500				X		Added 5mL HNO3 to pH <2												
	UNIT 2 LEACHATE TRIP BLANK	~~HCL~~ NONE	6-8-10	1232	GRAB	AQ	1	40ml Vial		X																

PH: 12.3
Temperature: 58.7
~~Conductivity:~~ BF

Sampler: ~~D. MARSHALL~~ BF

Shipment Method:

Required Turnaround:

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	6-8-10		6/8/10				
Company: TEST AMERICA	Time: 1810	Company: Test America	Time: 1810	Company:	Time:	Company:	Time:

Comments:
US Steel Coolers 2.9°c 2.3°c 3.7°c

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-53286-1

Login Number: 53286
Creator: Looney, Christina M
List Number: 1

List Source: TestAmerica Valparaiso

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-53286-1

Login Number: 53286
Creator: Lunt, Jeff T
List Number: 1

List Source: TestAmerica Chicago
List Creation: 06/09/10 01:49 PM

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

Login Sample Receipt Check List

Client: United States Steel Corporation

Job Number: 510-53286-1

Login Number: 53286
Creator: Lunt, Jeff T
List Number: 2

List Source: TestAmerica Chicago
List Creation: 06/09/10 01:54 PM

Question	T / F/ NA	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	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

US EPA ARCHIVE DOCUMENT

HAPs Emission Calculations June 2010 Analytical Data
CAMU Unit 1 Leachate Collection System.

Flow to the sprinklers **250 gpm**

Conversion Factors					
360000 gpd	1 gallon	=	3.78	Liters	
1360800 L / day	1 ug	=	2.2E-09	lbs	

Detected HAPs Pollutant:

	ug/L		lb/L		lbs/day		tons/year	
Benzene	1300		2.86E-06		3.892	lbs/day	0.7103	
Ethylbenzene	9.7	ug/L	2.13E-08	lb/L	0.029	lbs/day	0.0053	tons/year
Toluene	24	ug/L	5.28E-08	lb/L	0.072	lbs/day	0.0131	tons/year
Xylenes	29	ug/L	6.38E-08	lb/L	0.087	lbs/day	0.0158	tons/year
Dibenzofuran	61	ug/L	1.34E-07	lb/L	0.183	lbs/day	0.0333	tons/year
Naphthalene	610	ug/L	1.34E-06	lb/L	1.826	lbs/day	0.3333	tons/year
Phenol	160	ug/L	3.52E-07	lb/L	0.479	lbs/day	0.0874	tons/year
				TOTAL	**6.567**	lbs/day	**1.1986**	tons/year

Flow to the sprinklers **400 gpm**

Conversion Factors					
576000 gpd	1 gallon	=	3.78	Liters	
2177280 L / day	1 ug	=	2.2E-09	lbs	

Detected HAPs Pollutant:

Benzene	1300	ug/L	2.86E-06	lb/L	6.227	lbs/day	1.1364	tons/year
Ethylbenzene	9.7	ug/L	2.13E-08	lb/L	0.046	lbs/day	0.0085	tons/year
Toluene	24	ug/L	5.28E-08	lb/L	0.115	lbs/day	0.0210	tons/year
Xylenes	29	ug/L	6.38E-08	lb/L	0.139	lbs/day	0.0254	tons/year
Dibenzofuran	61	ug/L	1.34E-07	lb/L	0.292	lbs/day	0.0533	tons/year
Naphthalene	610	ug/L	1.34E-06	lb/L	2.922	lbs/day	0.5332	tons/year
Phenol	160	ug/L	3.52E-07	lb/L	0.766	lbs/day	0.1399	tons/year
				TOTAL	**10.508**	lbs/day	**1.9177**	tons/year

Flow to the sprinklers **350 gpm**

Conversion Factors					
504000 gpd	1 gallon	=	3.78	Liters	
1905120 L / day	1 ug	=	2.2E-09	lbs	

Detected HAPs Pollutant:

Benzene	1300	ug/L	2.86E-06	lb/L	5.449	lbs/day	0.9944	tons/year
Ethylbenzene	9.7	ug/L	2.13E-08	lb/L	0.041	lbs/day	0.0074	tons/year
Toluene	24	ug/L	5.28E-08	lb/L	0.101	lbs/day	0.0184	tons/year
Xylenes	29	ug/L	6.38E-08	lb/L	0.122	lbs/day	0.0222	tons/year
Dibenzofuran	61	ug/L	1.34E-07	lb/L	0.256	lbs/day	0.0467	tons/year
Naphthalene	610	ug/L	1.34E-06	lb/L	2.557	lbs/day	0.4666	tons/year
Phenol	160	ug/L	3.52E-07	lb/L	0.671	lbs/day	0.1224	tons/year
				TOTAL	**9.194**	lbs/day	**1.6780**	tons/year

All other HAPs were below detection level of test procedure.

Air Impacts: Leachate Unit 1

November 2008

Emission Calculations based on 11/14/08 Analytical Data from Leak Detect Unit 1.

Flow to the sprinklers	400	gpm	Conversion Factors				
	576000	gpd		1	gallon	=	3.78 Liters
	2177280	L / day		1	ug	=	2.2E-09 lbs

Pollutant:								
Benzene	1100	ug/L	2.42E-06	lb/L	5.269	lbs/day	0.9616	tons/year
Ethylbenzene	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
Styrene	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
Toluene	19	ug/L	4.18E-08	lb/L	0.091	lbs/day	0.0166	tons/year
Xylenes	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
Dibenzofuran	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
Naphthalene	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
Phenol	0	ug/L	0.00E+00	lb/L	0.000	lbs/day	0.0000	tons/year
				totals	5.360	lbs/day	0.9782	tons/year

All other Haps were below detection level of test procedure.

US EPA ARCHIVE DOCUMENT

Air Impacts: Leachate Unit 1

November 2009

Emission Calculations based on 9/3/09 sample #1 Analytical Data from Leachate Unit 1.

Flow to the sprinklers	400	gpm	Conversion Factors				
	576000	gpd		1	gallon	=	3.78 Liters
	2177280	L / day		1	ug	=	2.2E-09 lbs

Pollutant:								
Benzene	1900	ug/L	4.18E-06	lb/L	9.101	lbs/day	1.6609	tons/year
Ethylbenzene	20	ug/L	4.40E-08	lb/L	0.096	lbs/day	0.0175	tons/year
Styrene	1	ug/L	2.20E-09	lb/L	0.005	lbs/day	0.0009	tons/year
Toluene	45	ug/L	9.90E-08	lb/L	0.216	lbs/day	0.0393	tons/year
Xylenes	51	ug/L	1.12E-07	lb/L	0.244	lbs/day	0.0446	tons/year
Dibenzofuran	37	ug/L	8.14E-08	lb/L	0.177	lbs/day	0.0323	tons/year
Naphthalene	670	ug/L	1.47E-06	lb/L	3.209	lbs/day	0.5857	tons/year
Phenol	220	ug/L	4.84E-07	lb/L	1.054	lbs/day	0.1923	tons/year
				totals	14.102	lbs/day	2.5736	tons/year

All other Haps were below detection level of test procedure.

US EPA ARCHIVE DOCUMENT

Original Emission Calculations based on 10/14/08 Analytical Data from Leachate Unit 2.
Potential Emissions based on 400gpm pumped, 100% evaporation, 24 hrs/d, 365 d/y

Flow to the sprinklers	400	gpm	Conversion Factors			
	576000	gpd	1	gallon	=	3.78 Liters
	2177280	L / day	1	ug	=	2.2E-09 lbs

Assuming all 400 gpm that is pumped is evaportated.
Pollutant:

Benzene	17	ug/L	3.74E-08	lb/L	0.081	lbs/day	0.0149	tons/year
Ethylbenzene	5.1	ug/L	1.12E-08	lb/L	0.024	lbs/day	0.0045	tons/year
Styrene	3.5	ug/L	7.70E-09	lb/L	0.017	lbs/day	0.0031	tons/year
Toluene	9.3	ug/L	2.05E-08	lb/L	0.045	lbs/day	0.0081	tons/year
Xylenes	32	ug/L	7.04E-08	lb/L	0.153	lbs/day	0.0280	tons/year
Dibenzofuran	190	ug/L	4.18E-07	lb/L	0.910	lbs/day	0.1661	tons/year
Naphthalene	1700	ug/L	3.74E-06	lb/L	8.143	lbs/day	1.4861	tons/year
Phenol	25	ug/L	5.50E-08	lb/L	0.120	lbs/day	0.0219	tons/year
				totals	9.493	lbs/day	1.7325	tons/year

All other Haps were below detection level of test procedure.

Original Emission Calculations based on 10/14/08 Analytical Data from Leachate Unit 2.
Potential Emission based on "as built" design.
250 GPM SYSTEM
System operates max 12 hours per day.
System operates 9 months per year.

Flow to the sprinklers	250	gpm	Conversion Factors			
Max -12 hrs/day	180000	gpd	1	gallon	=	3.78 Liters
toal flow per day	680400	L / day	1	ug	=	2.2E-09 lbs
Days of operation	240					

Assuming all 250 gpm that is pumped is evaportated.
Pollutant:

Benzene	17	ug/L	3.74E-08	lb/L	0.025	lbs/day	0.0031	tons/year
Ethylbenzene	5.1	ug/L	1.12E-08	lb/L	0.008	lbs/day	0.0009	tons/year
Styrene	3.5	ug/L	7.70E-09	lb/L	0.005	lbs/day	0.0006	tons/year
Toluene	9.3	ug/L	2.05E-08	lb/L	0.014	lbs/day	0.0017	tons/year
Xylenes	32	ug/L	7.04E-08	lb/L	0.048	lbs/day	0.0057	tons/year
Dibenzofuran	190	ug/L	4.18E-07	lb/L	0.284	lbs/day	0.0341	tons/year
Naphthalene	1700	ug/L	3.74E-06	lb/L	2.545	lbs/day	0.3054	tons/year
Phenol	25	ug/L	5.50E-08	lb/L	0.037	lbs/day	0.0045	tons/year
				totals	2.967	lbs/day	0.3560	tons/year

Original Emission Calculations based on 10/14/08 Analytical Data from Leachate Unit 2.
Potential Emission if flow is increased to 400gpm by adding sprinklers.
400 GPM SYSTEM
System operates max 12 hours per day.
System operates 9 months per year.

Flow to the sprinklers	400	gpm	Conversion Factors			
Max -12 hrs/day	288000	gpd	1	gallon	=	3.78 Liters
toal flow per day	1088640	L / day	1	ug	=	2.2E-09 lbs
Days of operation	240					

Assuming all 400 gpm that is pumped is evaportated.
Pollutant:

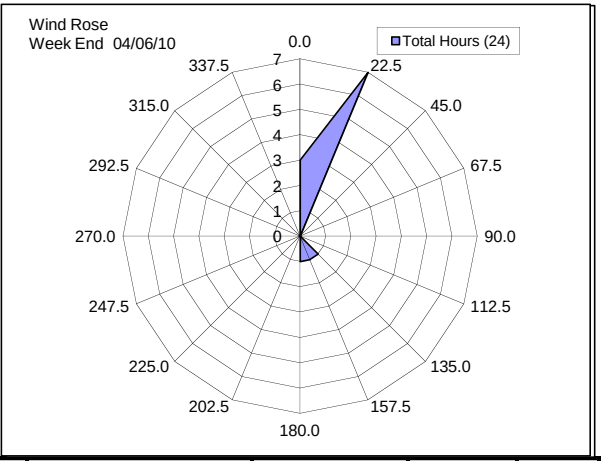
Benzene	17	ug/L	3.74E-08	lb/L	0.041	lbs/day	0.0049	tons/year
Ethylbenzene	5.1	ug/L	1.12E-08	lb/L	0.012	lbs/day	0.0015	tons/year
Styrene	3.5	ug/L	7.70E-09	lb/L	0.008	lbs/day	0.0010	tons/year
Toluene	9.3	ug/L	2.05E-08	lb/L	0.022	lbs/day	0.0027	tons/year
Xylenes	32	ug/L	7.04E-08	lb/L	0.077	lbs/day	0.0092	tons/year
Dibenzofuran	190	ug/L	4.18E-07	lb/L	0.455	lbs/day	0.0546	tons/year
Naphthalene	1700	ug/L	3.74E-06	lb/L	4.072	lbs/day	0.4886	tons/year
Phenol	25	ug/L	5.50E-08	lb/L	0.060	lbs/day	0.0072	tons/year
				totals	4.747	lbs/day	0.5696	tons/year

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 316 - 90316 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**4/3/2010**
Discovery Date	**4/6/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**4/16/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**NNE**



Parameter	CAMU Station 1 03/29/10 - 03/30/10 9:18 - 8:49 Ug/m3		Notification Determination	CAMU Stat 2/3 03/29/10 - 03/30/10 9:14 - 8:41 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.883252912	U	No exceedance	0.894		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	0.586422629	J	No exceedance	2.052	JU	No exceedance	6	30
Toluene	0.364113977	J	No exceedance	0.537	JJ	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 03/29/10 - 03/30/10 8:59 - 8:14 Ug/m3		Notification Determination	GB (Ellsworth School) 03/29/10 - 03/30/10 9:03 - 8:20 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.714816972		No exceedance	0.844783694		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.379445092	J	No exceedance	0.76655574		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 316 90316**
Baker Label	**90316**
Week Ending	**4/3/2010**
Discovery Date	**4/6/2010**
Validation Date	**4/16/2010**

Parameter	CAMU Station 1 03/29/10 - 03/30/10 9:18 - 8:49 Ug/m3		CAMU Station 2 03/29/10 - 03/30/10 9:16 - 8:41 Ug/m3		CAMU Station 3 03/29/10 - 03/30/10 9:14 - 8:37 Ug/m3	
Benzene	0.883252912	U	0.974750416		0.812292013	
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	0.586422629	J	1.439400998	J	2.665557404	U
Toluene	0.364113977	J	0.536589018	J	0.536589018	J
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 03/29/10 - 03/30/10 8:59 - 8:14 Ug/m3		GB (Ellsworth School) 03/29/10 - 03/30/10 9:03 - 8:20 Ug/m3	
Benzene	0.714816972		0.844783694	
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.379445092	J	0.76655574	
Xylenes	0.883270391	UU	0.883270391	UU

Notes

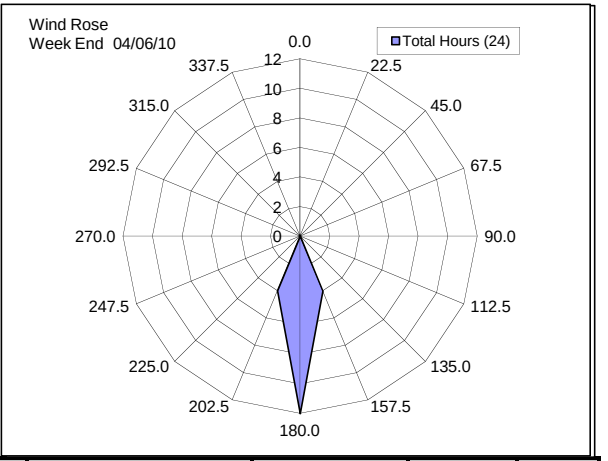
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 317 - 90317 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**4/3/2010**
Discovery Date	**4/6/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**4/16/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**S**



Parameter	CAMU Station 1 03/30/10 - 03/31/10 8:48 - 8:20 Ug/m3		Notification Determination	CAMU Stat 2/3 03/30/10 - 03/31/10 8:36 - 8:13 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	1.20219218		No exceedance	0.569	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	0.746356073	J	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.843211314		No exceedance	0.997		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.038	UUUJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 03/30/10 - 03/31/10 8:14 - 7:52 Ug/m3		Notification Determination	GB (Ellsworth School) 03/30/10 - 03/31/10 8:18 - 7:57 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.487375208	J	No exceedance	0.779800333		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.485789101	J	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.536589018	J	No exceedance	1.878061564		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.832792221	J	No exceedance	12502	62510

Notes

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3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 317 90317**
Baker Label	**90317**
Week Ending	**4/3/2010**
Discovery Date	**4/6/2010**
Validation Date	**4/16/2010**

Parameter	CAMU Station 1 03/30/10 - 03/31/10 8:48 - 8:20 Ug/m3		CAMU Station 2 03/30/10 - 03/31/10 8:39 - 8:07 Ug/m3		CAMU Station 3 03/30/10 - 03/31/10 8:36 - 8:13 Ug/m3	
Benzene	1.20219218		0.61734193	J	0.519866889	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	0.746356073	J	2.665557404	U	2.665557404	U
Toluene	0.843211314		0.881539101		1.111505824	
Xylenes	0.883270391	UU	0.883270391	UU	1.192412646	UJ

Parameter	GB (Ellsworth) 03/30/10 - 03/31/10 8:14 - 7:52 Ug/m3		GB (Ellsworth School) 03/30/10 - 03/31/10 8:18 - 7:57 Ug/m3	
Benzene	0.487375208	J	0.779800333	
Ethylbenzene	0.883252912	U	0.485789101	J
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.536589018	J	1.878061564	
Xylenes	0.883270391	UU	1.832792221	J

Notes

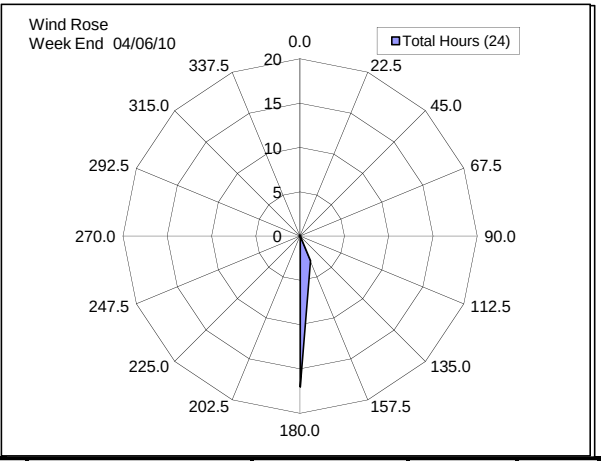
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 318 - 90318 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**4/3/2010**
Discovery Date	**4/8/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**4/16/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**S**



Parameter	CAMU Station 1 03/31/10 - 04/01/10 8:20 - 8:18 Ug/m3		Notification Determination	CAMU Stat 2/3 03/31/10 - 04/01/10 8:13 - 8:08 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.649833611		No exceedance	0.487	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	0.799667221	J	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.498261231	J	No exceedance	1.073	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 03/31/10 - 04/01/10 7:52 - 7:50 Ug/m3		Notification Determination	GB (Ellsworth School) 03/31/10 - 04/01/10 7:57 - 7:53 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.487375208	J	No exceedance	0.552358569	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	1.111505824		No exceedance	0.728227953	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

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3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 318 90318**
Baker Label	**90318**
Week Ending	**4/3/2010**
Discovery Date	**4/8/2010**
Validation Date	**4/16/2010**

Parameter	CAMU Station 1 03/31/10 - 04/01/10 8:20 - 8:18 Ug/m3		CAMU Station 2 03/31/10 - 04/01/10 8:17 - 8:08 Ug/m3		CAMU Station 3 03/31/10 - 04/01/10 8:13 - 8:06 Ug/m3	
Benzene	0.649833611		0.519866889	J	0.454883527	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	0.799667221	J	2.665557404	U	2.665557404	U
Toluene	0.498261231	J	1.686422629		0.459933444	J
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 03/31/10 - 04/01/10 7:52 - 7:50 Ug/m3		GB (Ellsworth School) 03/31/10 - 04/01/10 7:57 - 7:53 Ug/m3	
Benzene	0.487375208	J	0.552358569	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	1.111505824		0.728227953	J
Xylenes	0.883270391	UU	0.883270391	UU

Notes

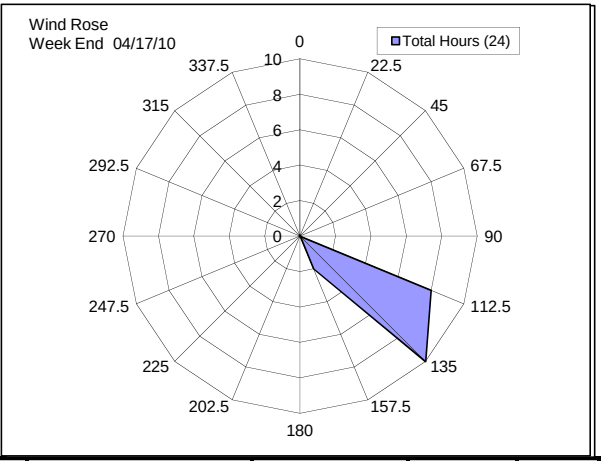
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 322 - 90322 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**4/17/2010**
Discovery Date	**4/16/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**4/26/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SE**



Parameter	CAMU Station 1 04/12/10 - 04/13/10 8:03 - 8:20 Ug/m3		Notification Determination	CAMU Stat 2/3 04/12/10 - 04/13/10 7:59 - 8:16 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.61734193	J	No exceedance	0.504	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.459933444	J	No exceedance	0.376	JJ	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 04/12/10 - 04/13/10 7:45 - 7:56 Ug/m3		Notification Determination	GB (Ellsworth School) 04/12/10 - 04/13/10 7:48 - 8:05 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.58485025	J	No exceedance	0.454883527	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.574916805	J	No exceedance	0.574916805	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 322 90322**
Baker Label	**90322**
Week Ending	**4/17/2010**
Discovery Date	**4/16/2010**
Validation Date	**4/26/2010**

Parameter	CAMU Station 1 04/12/10 - 04/13/10 8:03 - 8:20 Ug/m3		CAMU Station 2 04/12/10 - 04/13/10 8:00 - 8:16 Ug/m3		CAMU Station 3 04/12/10 - 04/13/10 7:59 - 8:13 Ug/m3	
Benzene	0.61734193	J	0.552358569	J	0.454883527	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U	2.665557404	U
Toluene	0.459933444	J	0.379445092	J	0.371779534	J
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 04/12/10 - 04/13/10 7:45 - 7:56 Ug/m3		GB (Ellsworth School) 04/12/10 - 04/13/10 7:48 - 8:05 Ug/m3	
Benzene	0.58485025	J	0.454883527	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.574916805	J	0.574916805	J
Xylenes	0.883270391	UU	0.883270391	UU

Notes

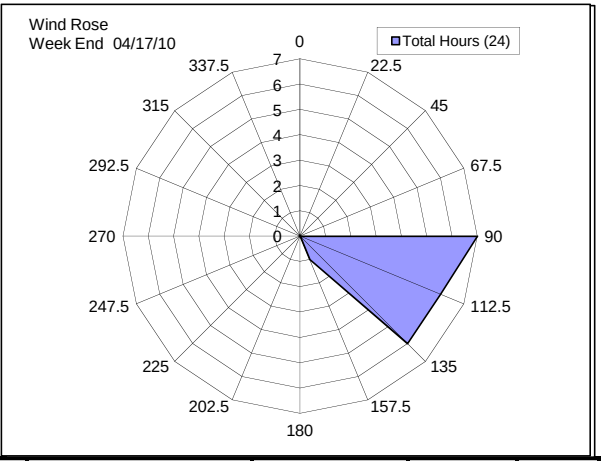
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 323 - 90323 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**4/17/2010**
Discovery Date	**4/16/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**4/26/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**ESE**



Parameter	CAMU Station 1 04/13/10 - 04/14/10 8:21 - 8:12 Ug/m3		Notification Determination	CAMU Stat 2/3 04/13/10 - 04/14/10 8:15 - 8:10 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.58485025	J	No exceedance	0.650		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.662	UJ	No exceedance	1813	9065
Naphthalene	0.693044925	J	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.958194676		No exceedance	3.986	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.192	UUJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 04/13/10 - 04/14/10 7:58 - 7:43 Ug/m3		Notification Determination	GB (Ellsworth School) 04/13/10 - 04/14/10 8:04 - 7:53 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.487375208	J	No exceedance	5.848502496		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	4.10712604		No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	0.533111481	J	No exceedance	6	30
Toluene	1.303144759		No exceedance	80.48835275		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	15.45722546		No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 323 90323**
Baker Label	**90323**
Week Ending	**4/17/2010**
Discovery Date	**4/16/2010**
Validation Date	**4/26/2010**

Parameter	CAMU Station 1 04/13/10 - 04/14/10 8:21 - 8:12 Ug/m3		CAMU Station 2 04/13/10 - 04/14/10 8:18 - 8:10 Ug/m3		CAMU Station 3 04/13/10 - 04/14/10 8:15 - 8:04 Ug/m3	
Benzene	0.58485025	J	0.487375208		0.812292013	
Ethylbenzene	0.883252912	U	0.883252912	U	0.441626456	J
Naphthalene	0.693044925	J	2.665557404	U	2.665557404	U
Toluene	0.958194676		0.689900166	J	7.282279534	
Xylenes	0.883270391	UU	0.883270391	UU	1.5015599	J

Parameter	GB (Ellsworth) 04/13/10 - 04/14/10 7:58 - 7:43 Ug/m3		GB (Ellsworth School) 04/13/10 - 04/14/10 8:04 - 7:53 Ug/m3	
Benzene	0.487375208	J	5.848502496	
Ethylbenzene	0.883252912	U	4.10712604	
Naphthalene	2.665557404	U	0.533111481	J
Toluene	1.303144759		80.48835275	
Xylenes	0.883270391	UU	15.45722546	

Notes

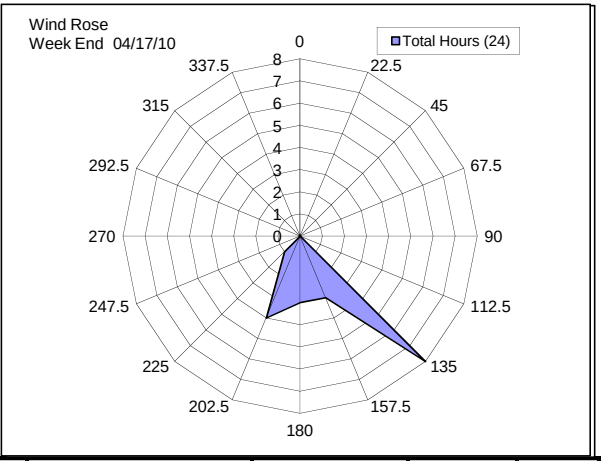
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 324 - 90324 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**4/17/2010**
Discovery Date	**4/19/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**4/26/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SE**



Parameter	CAMU Station 1 04/14/10 - 04/15/10 8:14 - 8:08 Ug/m3		Notification Determination	CAMU Stat 2/3 04/14/10 - 04/15/10 8:03 - 8:06 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.747308652		No exceedance	0.552	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.878801997		No exceedance	2.666	UU	No exceedance	6	30
Toluene	4.216056572		No exceedance	0.997		No exceedance	713	3565
Xylenes [4]	1.104084859	UJ	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 04/14/10 - 04/15/10 7:47 - 7:46 Ug/m3		Notification Determination	GB (Ellsworth School) 04/14/10 - 04/15/10 7:53 - 7:51 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.58485025	J	No exceedance	0.552358569	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	1.533111481		No exceedance	1.303144759		No exceedance	713	3565
Xylenes [4]	1.015932616	UJ	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 324 90324**
Baker Label	**90324**
Week Ending	**4/17/2010**
Discovery Date	**4/19/2010**
Validation Date	**4/26/2010**

Parameter	CAMU Station 1 04/14/10 - 04/15/10 8:14 - 8:08 Ug/m3		CAMU Station 2 04/14/10 - 04/15/10 8:08 - 8:06 Ug/m3		CAMU Station 3 04/14/10 - 04/15/10 8:03 - 8:04 Ug/m3	
Benzene	0.747308652		0.552358569	J	0.552358569	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.878801997		2.665557404	U	2.665557404	U
Toluene	4.216056572		0.958194676		1.03485025	
Xylenes	1.104084859	UJ	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 04/14/10 - 04/15/10 7:47 - 7:46 Ug/m3		GB (Ellsworth School) 04/14/10 - 04/15/10 7:53 - 7:51 Ug/m3	
Benzene	0.58485025	J	0.552358569	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	1.533111481		1.303144759	
Xylenes	1.015932616	UJ	0.883270391	UU

Notes

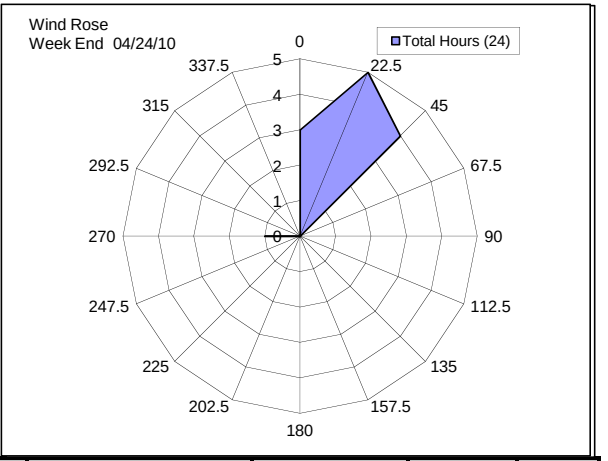
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 325 - 90325 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**4/24/2010**
Discovery Date	**4/23/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**5/3/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**NNE**



Parameter	CAMU Station 1 04/20/10 - 04/21/10 8:01 - 8:06 Ug/m3		Notification Determination	CAMU Stat 2/3 04/20/10 - 04/21/10 7:55 - 8:02 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	1.039733777		No exceedance	1.283		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.612	JU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	1.999	JU	No exceedance	6	30
Toluene	1.03485025		No exceedance	2.491		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.292	JJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 04/20/10 - 04/21/10 7:47 - 7:46 Ug/m3		Notification Determination	GB (Ellsworth School) 04/20/10 - 04/21/10 7:46 - 7:50 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	1.299667221		No exceedance	1.364650582		No exceedance	8	40
Ethylbenzene	0.406296339	J	No exceedance	0.618277038	J	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	3.027895175		No exceedance	4.216056572		No exceedance	713	3565
Xylenes [4]	1.607553994	J	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

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3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 325 90325**
Baker Label	**90325**
Week Ending	**4/24/2010**
Discovery Date	**4/23/2010**
Validation Date	**5/3/2010**

Parameter	CAMU Station 1 04/20/10 - 04/21/10 8:01 - 8:06 Ug/m3		CAMU Station 2 04/20/10 - 04/21/10 7:58 - 8:02 Ug/m3		CAMU Station 3 04/20/10 - 04/21/10 7:55 - 7:58 Ug/m3	
Benzene	1.039733777		1.332158902		1.23468386	
Ethylbenzene	0.883252912	U	0.340052371	J	0.883252912	U
Naphthalene	2.665557404	U	1.332778702	J	2.665557404	U
Toluene	1.03485025		2.491306156		2.491306156	
Xylenes	0.883270391	UU	1.377903245	J	1.205665183	J

Parameter	GB (Ellsworth) 04/20/10 - 04/21/10 7:43 - 7:46 Ug/m3		GB (Ellsworth School) 04/20/10 - 04/21/10 7:46 - 7:50 Ug/m3	
Benzene	1.299667221		1.364650582	
Ethylbenzene	0.406296339	J	0.618277038	J
Naphthalene	2.665557404	U	2.665557404	U
Toluene	3.027895175		4.216056572	
Xylenes	1.607553994	J	2.119850666	J

Notes

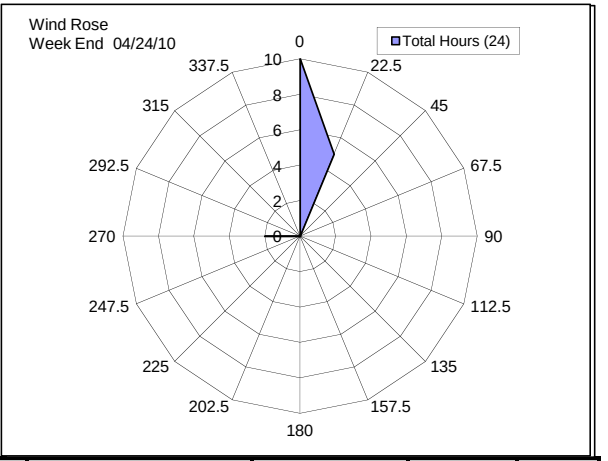
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 326 - 90326 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**4/24/2010**
Discovery Date	**4/26/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**5/3/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**N**



Parameter	CAMU Station 1 04/21/10 - 04/22/10 8:06 - 8:15 Ug/m3		Notification Determination	CAMU Stat 2/3 04/21/10 - 04/22/10 8:02 - 8:08 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.422391847	J	No exceedance	0.520	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.266	JU	No exceedance	6	30
Toluene	0.498261231	J	No exceedance	0.441	JJ	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 04/21/10 - 04/22/10 7:46 - 7:49 Ug/m3		Notification Determination	GB (Ellsworth School) 04/21/10 - 04/22/10 7:50- 7:52 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.649833611		No exceedance	0.519866889	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.728227953	J	No exceedance	0.728227953	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 326 90326**
Baker Label	**90326**
Week Ending	**4/24/2010**
Discovery Date	**4/26/2010**
Validation Date	**5/3/2010**

Parameter	CAMU Station 1 04/21/10 - 04/22/10 8:06 - 8:15 Ug/m3		CAMU Station 2 04/21/10 - 04/22/10 8:02 - 8:08 Ug/m3		CAMU Station 3 04/21/10 - 04/22/10 7:58 - 8:02 Ug/m3	
Benzene	0.422391847	J	0.649833611		0.389900166	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	1.865890183	J	2.665557404	U
Toluene	0.498261231	J	0.498261231	J	0.38327787	J
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 04/21/10 - 04/22/10 7:46 - 7:49 Ug/m3		GB (Ellsworth School) 04/21/10 - 04/22/10 7:50- 7:52 Ug/m3	
Benzene	0.649833611		0.519866889	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.728227953	J	0.728227953	J
Xylenes	0.883270391	UU	0.883270391	UU

Notes

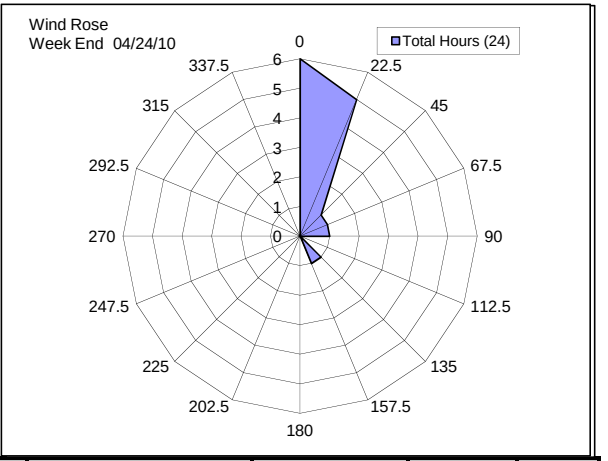
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 327 - 90327 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**4/24/2010**
Discovery Date	**4/27/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**5/3/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**N**



Parameter	CAMU Station 1 04/22/10 - 04/23/10 8:15 - 8:15 Ug/m3		Notification Determination	CAMU Stat 2/3 04/22/10 - 04/23/10 8:03 - 8:13 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.487375208	J	No exceedance	0.601	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.360281198	J	No exceedance	0.466	JJ	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.972	UJUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 04/22/10 - 04/23/10 7:49 - 7:58 Ug/m3		Notification Determination	GB (Ellsworth School) 04/22/10 - 04/23/10 7:52 - 8:00 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.58485025	J	No exceedance	0.552358569	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.321953411	J	No exceedance	0.38327787	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 327 90327**
Baker Label	**90327**
Week Ending	**4/24/2010**
Discovery Date	**4/27/2010**
Validation Date	**5/3/2010**

Parameter	CAMU Station 1 04/22/10 - 04/23/10 8:15 - 8:15 Ug/m3		CAMU Station 2 04/22/10 - 04/23/10 8:08 - 8:13 Ug/m3		CAMU Station 3 04/22/10 - 04/23/10 8:03 - 8:11 Ug/m3	
Benzene	0.487375208	J	0.714816972		0.487375208	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U	2.665557404	U
Toluene	0.360281198	J	0.651572379	J	0.279792845	J
Xylenes	0.883270391	UU	1.059920965	UJ	0.883270391	UU

Parameter	GB (Ellsworth) 04/22/10 - 04/23/10 7:49 - 7:58 Ug/m3		GB (Ellsworth School) 04/22/10 - 04/23/10 7:52 - 8:00 Ug/m3	
Benzene	0.58485025	J	0.552358569	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.321953411	J	0.38327787	J
Xylenes	0.883270391	UU	0.883270391	UU

Notes

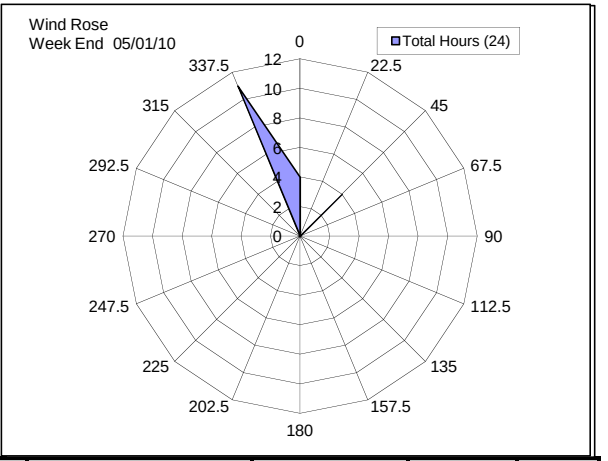
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 328 - 90328 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/1/2010**
Discovery Date	**4/29/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**5/11/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**NNW**



Parameter	CAMU Station 1 04/26/10 - 04/27/10 7:59 - 8:03 Ug/m3		Notification Determination	CAMU Stat 2/3 04/26/10 - 04/27/10 7:56 - 8:00 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.237189268	J	No exceedance	0.515	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	1.733	JU	No exceedance	6	30
Toluene	0.76655574	J	No exceedance	0.650	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.016	UJUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 04/26/10 - 04/27/10 7:46 - 8:03 Ug/m3		Notification Determination	GB (Ellsworth School) 04/26/10 - 04/27/10 7:48 - 7:45 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.519866889	J	No exceedance	0.357408486	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.298956739	J	No exceedance	0.38327787	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 328 90328**
Baker Label	**90328**
Week Ending	**5/1/2010**
Discovery Date	**4/29/2010**
Validation Date	**5/11/2010**

Parameter	CAMU Station 1 04/26/10 - 04/27/10 7:59 - 8:03 Ug/m3		CAMU Station 2 04/26/10 - 04/27/10 7:58 - 8:00 Ug/m3		CAMU Station 3 04/26/10 - 04/27/10 7:56 - 7:58 Ug/m3	
Benzene	0.237189268	J	0.714816972		0.315169301	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	0.799667221	J	2.665557404	U
Toluene	0.76655574	J	1.073178037		0.226133943	J
Xylenes	0.883270391	UU	1.148248752	UJ	0.883270391	UU

Parameter	GB (Ellsworth) 04/26/10 - 04/27/10 7:46 - 8:03 Ug/m3		GB (Ellsworth School) 04/26/10 - 04/27/10 7:48 - 7:45 Ug/m3	
Benzene	0.519866889	J	0.357408486	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.298956739	J	0.38327787	J
Xylenes	0.883270391	UU	0.883270391	UU

Notes

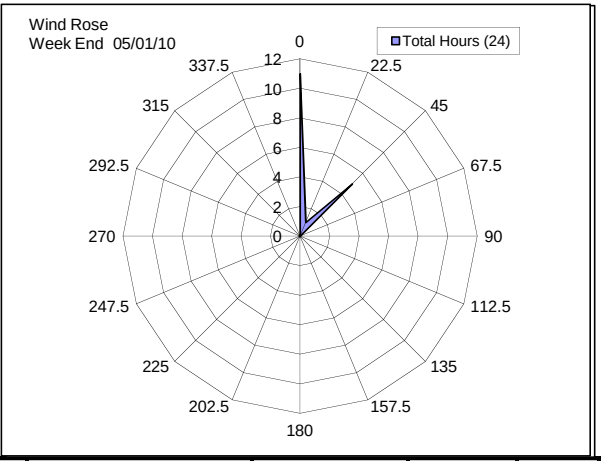
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 329 - 90329 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/1/2010**
Discovery Date	**4/30/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**5/11/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**N**



Parameter	CAMU Station 1 04/27/10 - 04/28/10 8:03- 8:10 Ug/m3		Notification Determination	CAMU Stat 2/3 04/27/10 - 04/28/10 7:55 - 8:06 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.454883527	J	No exceedance	0.284	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	1.893	JU	No exceedance	6	30
Toluene	0.728227953	J	No exceedance	0.767	JU	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.078	JUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 04/27/10 - 04/28/10 7:40 - 7:44 Ug/m3		Notification Determination	GB (Ellsworth School) 04/27/10 - 04/28/10 7:44 - 7:48 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.61734193	J	No exceedance	0.454883527	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.651572379	J	No exceedance	0.804883527		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 329 90329**
Baker Label	**90329**
Week Ending	**5/1/2010**
Discovery Date	**4/30/2010**
Validation Date	**5/11/2010**

Parameter	CAMU Station 1 04/27/10 - 04/28/10 8:03- 8:10 Ug/m3		CAMU Station 2 04/27/10 - 04/28/10 8:00 - 8:06 Ug/m3		CAMU Station 3 04/27/10 - 04/28/10 7:55 - 8:05 Ug/m3	
Benzene	0.454883527	J	0.311920133	J	0.256684276	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	1.11953411	J	2.665557404	U
Toluene	0.728227953	J	0.76655574	J	0.76655574	U
Xylenes	0.883270391	UU	1.271911647	J	0.883270391	UU

Parameter	GB (Ellsworth) 04/27/10 - 04/28/10 7:40 - 7:44 Ug/m3		GB (Ellsworth School) 04/27/10 - 04/28/10 7:44 - 7:48 Ug/m3	
Benzene	0.61734193	J	0.454883527	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.651572379	J	0.804883527	
Xylenes	0.883270391	UU	0.883270391	UU

Notes

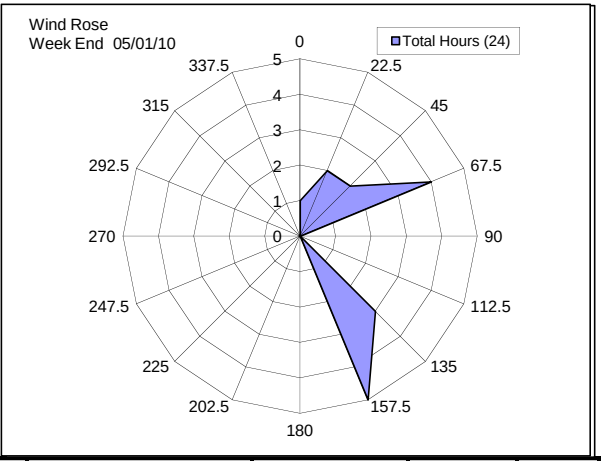
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 330 - 90330 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/1/2010**
Discovery Date	**5/3/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**5/11/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SSE**



Parameter	CAMU Station 1 04/28/10 - 04/29/10 8:10- 8:02 Ug/m3		Notification Determination	CAMU Stat 2/3 04/28/10 - 04/29/10 8:03 - 8:00 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.519866889	J	No exceedance	0.520	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	J	No exceedance	2.399	JU	No exceedance	6	30
Toluene	0.279792845		No exceedance	0.441	JJ	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.994	UJUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 04/28/10 - 04/29/10 7:44 - 7:41 Ug/m3		Notification Determination	GB (Ellsworth School) 04/28/10 - 04/29/10 7:48 - 7:45 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.519866889	J	No exceedance	0.519866889	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.574916805	J	No exceedance	0.728227953	J	No exceedance	713	3565
Xylenes [4]	1.104084859	UJ	No exceedance	1.059920965	UJ	No exceedance	12502	62510

Notes

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3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 330 90330**
Baker Label	**90330**
Week Ending	**5/1/2010**
Discovery Date	**5/3/2010**
Validation Date	**5/11/2010**

Parameter	CAMU Station 1 04/28/10 - 04/29/10 8:10- 8:02 Ug/m3		CAMU Station 2 04/28/10 - 04/29/10 8:06 - 8:00 Ug/m3		CAMU Station 3 04/28/10 - 04/29/10 8:03 - 7:58 Ug/m3	
Benzene	0.519866889	J	0.487375208	J	0.552358569	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	J	2.132445923	J	2.665557404	U
Toluene	0.279792845		0.498261231	J	0.38327787	J
Xylenes	0.883270391	UU	1.104084859	UJ	0.883270391	UU

Parameter	GB (Ellsworth) 04/28/10 - 04/29/10 7:44 - 7:41 Ug/m3		GB (Ellsworth School) 04/28/10 - 04/29/10 7:48 - 7:45 Ug/m3	
Benzene	0.519866889	J	0.519866889	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.574916805	J	0.728227953	J
Xylenes	1.104084859	UJ	1.059920965	UJ

Notes

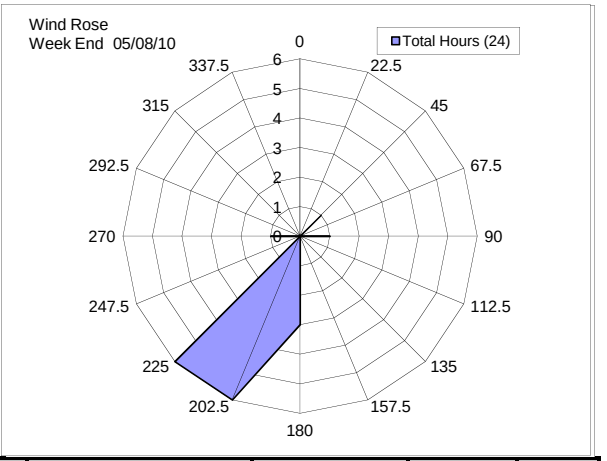
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 331 - 90331 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/8/2010**
Discovery Date	**5/7/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**5/25/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SSW**



Parameter	CAMU Station 1 05/04/10 - 05/05/10 8:03- 8:00 Ug/m3		Notification Determination	CAMU Stat 2/3 05/04/10 - 05/05/10 7:57 - 7:59 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.292425125	J	No exceedance	0.401	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	1.237	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.459933444	J	No exceedance	2.338	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	3.621	UU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/04/10 - 05/05/10 7:43 - 7:45 Ug/m3		Notification Determination	GB (Ellsworth School) 05/04/10 - 05/05/10 7:47 - 7:48 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.305421797	J	No exceedance	0.324916805	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.421605657	J	No exceedance	0.536589018	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 331 90331**
Baker Label	**90331**
Week Ending	**5/8/2010**
Discovery Date	**5/7/2010**
Validation Date	**5/25/2010**

Parameter	CAMU Station 1 05/04/10 - 05/05/10 8:03- 8:00 Ug/m3		CAMU Station 2 05/04/10 - 05/05/10 7:59 - 7:59 Ug/m3		CAMU Station 3 05/04/10 - 05/05/10 7:57 - 7:57 Ug/m3	
Benzene	0.292425125	J	0.315169301	J	0.487375208	J
Ethylbenzene	0.883252912	U	0.883252912	U	1.589855241	
Naphthalene	2.665557404	U	2.665557404	U	2.665557404	U
Toluene	0.459933444	J	0.459933444	J	4.216056572	
Xylenes	0.883270391	UU	0.883270391	UU	6.359570715	

Parameter	GB (Ellsworth) 05/04/10 - 05/05/10 7:43 - 7:45 Ug/m3		GB (Ellsworth School) 05/04/10 - 05/05/10 7:47 - 7:48 Ug/m3	
Benzene	0.305421797	J	0.324916805	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.421605657	J	0.536589018	J
Xylenes	0.883270391	UU	0.883270391	UU

Notes

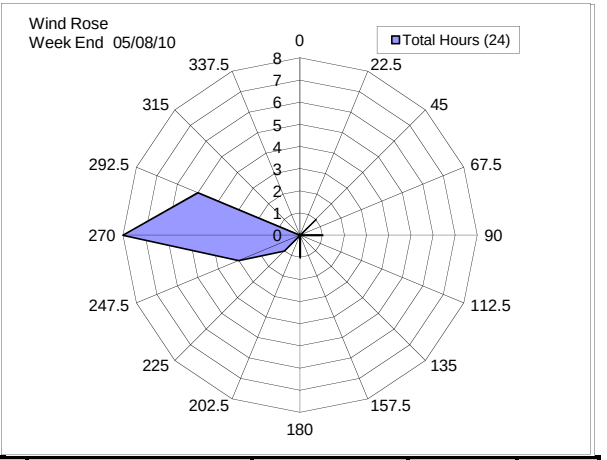
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 332 - 90332 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/8/2010**
Discovery Date	**5/10/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**5/25/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**W**



Parameter	CAMU Station 1 05/05/10 - 05/06/10 8:01- 8:03 Ug/m3		Notification Determination	CAMU Stat 2/3 05/05/10 - 05/06/10 7:56 - 8:03 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.487375208	J	No exceedance	0.455	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	UU	No exceedance	6	30
Toluene	1.456455907		No exceedance	0.824		No exceedance	713	3565
Xylenes [4]	1.148248752	UJ	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/05/10 - 05/06/10 7:44 - 7:45 Ug/m3		Notification Determination	GB (Ellsworth School) 05/05/10 - 05/06/10 7:48 - 7:48 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.422391847	J	No exceedance	0.487375208	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.574916805	J	No exceedance	0.76655574		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 332 90332**
Baker Label	**90332**
Week Ending	**5/8/2010**
Discovery Date	**5/10/2010**
Validation Date	**5/25/2010**

Parameter	CAMU Station 1 05/05/10 - 05/06/10 8:01- 8:03 Ug/m3		CAMU Station 2 05/05/10 - 05/06/10 7:59 - 8:03 Ug/m3		CAMU Station 3 05/05/10 - 05/06/10 7:56 - 8:00 Ug/m3	
Benzene	0.487375208	J	0.454883527	J	0.454883527	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U	2.665557404	U
Toluene	1.456455907		0.881539101		0.76655574	
Xylenes	1.148248752	UJ	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 05/05/10 - 05/06/10 7:44 - 7:45 Ug/m3		GB (Ellsworth School) 05/05/10 - 05/06/10 7:48 - 7:48 Ug/m3	
Benzene	0.422391847	J	0.487375208	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.574916805	J	0.76655574	
Xylenes	0.883270391	UU	0.883270391	UU

Notes

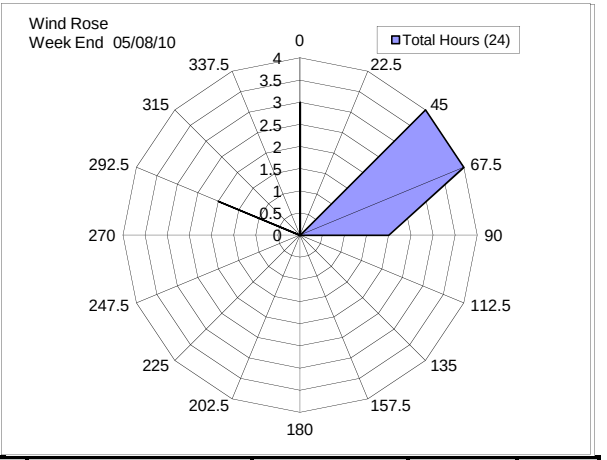
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 333 - 90333 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/8/2010**
Discovery Date	**5/11/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**5/25/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**ENE**



Parameter	CAMU Station 1 05/06/10 - 05/07/10 8:06- 8:24 Ug/m3		Notification Determination	CAMU Stat 2/3 05/06/10 - 05/07/10 8:00 - 8:19 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.487375208	J	No exceedance	0.439	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.106	UJ	No exceedance	6	30
Toluene	0.218468386	J	No exceedance	0.479	JJ	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/06/10 - 05/07/10 7:44 - 8:03 Ug/m3		Notification Determination	GB (Ellsworth School) 05/06/10 - 05/07/10 7:48 - 8:08 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.519866889	J	No exceedance	0.487375208	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	0.586422629	J	No exceedance	6	30
Toluene	0.252963394	J	No exceedance	0.352615641	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 333 90333**
Baker Label	**90333**
Week Ending	**5/8/2010**
Discovery Date	**5/11/2010**
Validation Date	**5/25/2010**

Parameter	CAMU Station 1 05/06/10 - 05/07/10 8:06- 8:24 Ug/m3		CAMU Station 2 05/06/10 - 05/07/10 8:03 - 8:19 Ug/m3		CAMU Station 3 05/06/10 - 05/07/10 8:00 - 8:17 Ug/m3	
Benzene	0.487375208	J	0.454883527	J	0.422391847	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U	1.546023295	J
Toluene	0.218468386	J	0.498261231	J	0.459933444	J
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 05/06/10 - 05/07/10 7:44 - 8:03 Ug/m3		GB (Ellsworth School) 05/06/10 - 05/07/10 7:48 - 8:08 Ug/m3	
Benzene	0.519866889	J	0.487375208	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	0.586422629	J
Toluene	0.252963394	J	0.352615641	J
Xylenes	0.883270391	UU	0.883270391	UU

Notes

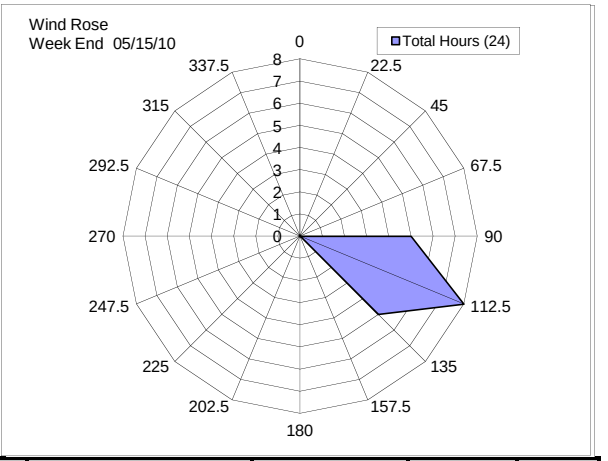
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 334 - 90334 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/15/2010**
Discovery Date	**5/13/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/15/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**ESE**



Parameter	CAMU Station 1 05/10/10 - 05/11/10 8:01- 8:17 Ug/m3		Notification Determination	CAMU Stat 2/3 05/10/10 - 05/11/10 7:56 - 8:15 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.324916805	J	No exceedance	0.301	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.29512396	J	No exceedance	0.293	JJ	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/10/10 - 05/11/10 8:11 - 7:59 Ug/m3		Notification Determination	GB (Ellsworth School) 05/10/10 - 05/11/10 8:15 - 8:02 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.25018594	J	No exceedance	0.311920133	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.337284526	J	No exceedance	0.421605657	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 334 90334**
Baker Label	**90334**
Week Ending	**5/15/2010**
Discovery Date	**5/13/2010**
Validation Date	**6/15/2010**

Parameter	CAMU Station 1 05/10/10 - 05/11/10 8:01- 8:17 Ug/m3		CAMU Station 2 05/10/10 - 05/11/10 7:58 - 8:15 Ug/m3		CAMU Station 3 05/10/10 - 05/11/10 7:56 - 8:12 Ug/m3	
Benzene	0.324916805	J	0.295674293	J	0.305421797	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U	2.665557404	U
Toluene	0.29512396	J	0.298956739	J	0.287458403	J
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 05/10/10 - 05/11/10 8:11 - 7:59 Ug/m3		GB (Ellsworth School) 05/10/10 - 05/11/10 8:15 - 8:02 Ug/m3	
Benzene	0.25018594	J	0.311920133	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.337284526	J	0.421605657	J
Xylenes	0.883270391	UU	0.883270391	UU

Notes

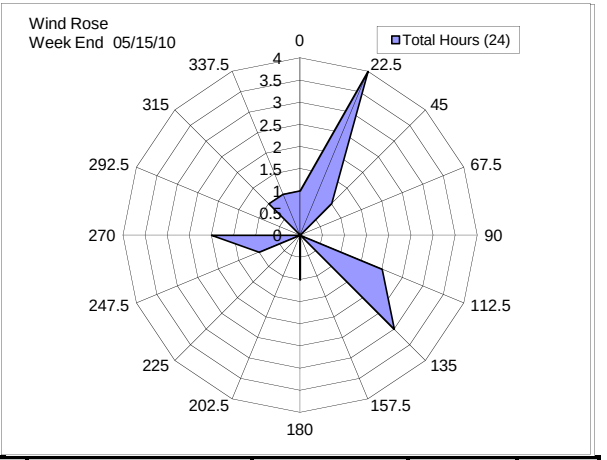
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 335 - 90335 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/15/2010**
Discovery Date	**5/17/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/15/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**NNE**



Parameter	CAMU Station 1 05/11/10 - 05/12/10 8:17- 8:11 Ug/m3		Notification Determination	CAMU Stat 2/3 05/11/10 - 05/12/10 8:12 - 8:09 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.487375208	J	No exceedance	0.471	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.919866889		No exceedance	0.671	JJ	No exceedance	713	3565
Xylenes [4]	1.240996548	J	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/11/10 - 05/12/10 7:58 - 7:50 Ug/m3		Notification Determination	GB (Ellsworth School) 05/11/10 - 05/12/10 8:02 - 7:57 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.519866889	J	No exceedance	0.519866889	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.728227953	J	No exceedance	8.432113145		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 335 90335**
Baker Label	**90335**
Week Ending	**5/15/2010**
Discovery Date	**5/17/2010**
Validation Date	**6/15/2010**

Parameter	CAMU Station 1 05/11/10 - 05/12/10 8:17- 8:11 Ug/m3		CAMU Station 2 05/11/10 - 05/12/10 8:15 - 8:09 Ug/m3		CAMU Station 3 05/11/10 - 05/12/10 8:12 - 8:05 Ug/m3	
Benzene	0.487375208	J	0.487375208	J	0.454883527	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U	2.665557404	U
Toluene	0.919866889		0.689900166	J	0.651572379	J
Xylenes	1.240996548	J	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 05/11/10 - 05/12/10 7:58 - 7:50 Ug/m3		GB (Ellsworth School) 05/11/10 - 05/12/10 8:02 - 7:57 Ug/m3	
Benzene	0.519866889	J	0.519866889	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.728227953	J	8.432113145	
Xylenes	0.883270391	UU	0.883270391	UU

Notes

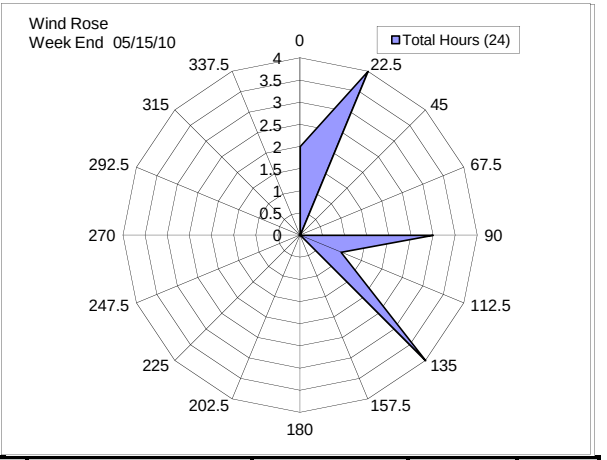
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 336 - 90336 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/15/2010**
Discovery Date	**5/17/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/18/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**NNE-SE**



Parameter	CAMU Station 1 05/12/10 - 05/13/10 8:11- 8:06 Ug/m3		Notification Determination	CAMU Stat 2/3 05/12/10 - 05/13/10 8:05 - 8:05 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.649833611		No exceedance	0.601	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.613244592	J	No exceedance	0.690	JJ	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/12/10 - 05/13/10 7:51 - 7:49 Ug/m3		Notification Determination	GB (Ellsworth School) 05/12/10 - 05/13/10 7:56 - 7:52 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.61734193	J	No exceedance	0.58485025	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.574916805	J	No exceedance	0.651572379	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 336 90336**
Baker Label	**90336**
Week Ending	**5/15/2010**
Discovery Date	**5/17/2010**
Validation Date	**6/18/2010**

Parameter	CAMU Station 1 05/12/10 - 05/13/10 8:11- 8:06 Ug/m3		CAMU Station 2 05/12/10 - 05/13/10 8:09 - 8:05 Ug/m3		CAMU Station 3 05/12/10 - 05/13/10 8:05 - 8:03 Ug/m3	
Benzene	0.649833611		0.61734193	J	0.58485025	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U	2.665557404	U
Toluene	0.613244592	J	0.651572379	J	0.728227953	J
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 05/12/10 - 05/13/10 7:51 - 7:49 Ug/m3		GB (Ellsworth School) 05/12/10 - 05/13/10 7:56 - 7:52 Ug/m3	
Benzene	0.61734193	J	0.58485025	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.574916805	J	0.651572379	J
Xylenes	0.883270391	UU	0.883270391	UU

Notes

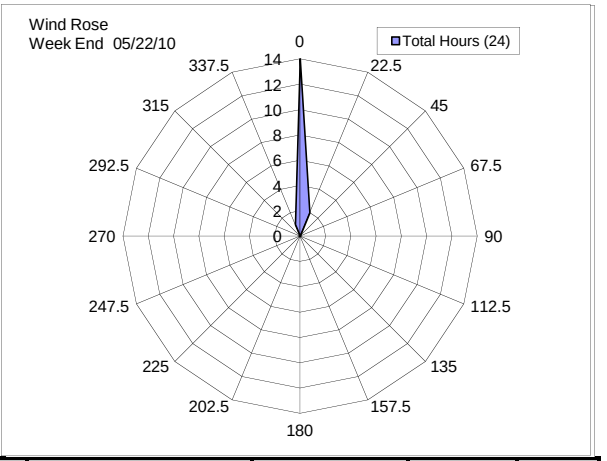
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 337 - 90337 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/22/2010**
Discovery Date	**5/25/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/18/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**N**



Parameter	CAMU Station 1 05/18/10 - 05/19/10 8:04- 8:09 Ug/m3		Notification Determination	CAMU Stat 2/3 05/18/10 - 05/19/10 7:56 - 8:05 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.883252912	U	No exceedance	0.601	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.159	J	No exceedance	6	30
Toluene	0.536589018	J	No exceedance	0.575	JJ	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.016	UUUJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/18/10 - 05/19/10 7:45- 7:49 Ug/m3		Notification Determination	GB (Ellsworth School) 05/18/10 - 05/19/10 7:50 - 7:54 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.714816972		No exceedance	0.714816972		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.804883527		No exceedance	1.226489185		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.064559069	UJ	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 337 90337**
Baker Label	**90337**
Week Ending	**5/22/2010**
Discovery Date	**5/252010**
Validation Date	**6/18/2010**

Parameter	CAMU Station 1 05/18/10 - 05/19/10 8:04- 8:09 Ug/m3		CAMU Station 2 05/18/10 - 05/19/10 7:58 - 8:05 Ug/m3		CAMU Station 3 05/18/10 - 05/19/10 7:56 - 8:03 Ug/m3	
Benzene	0.883252912	U	0.58485025	J	0.61734193	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	3.678469218		0.639733777	J
Toluene	0.536589018	J	0.498261231	J	0.651572379	J
Xylenes	0.883270391	UU	0.883270391	UU	1.148248752	UJ

Parameter	GB (Ellsworth) 05/18/10 - 05/19/10 7:45 - 7:49 Ug/m3		GB (Ellsworth School) 05/18/10 - 05/19/10 7:50 - 7:54 Ug/m3	
Benzene	0.714816972		0.714816972	
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.804883527		1.226489185	
Xylenes	0.883270391	UU	1.064559069	UJ

Notes

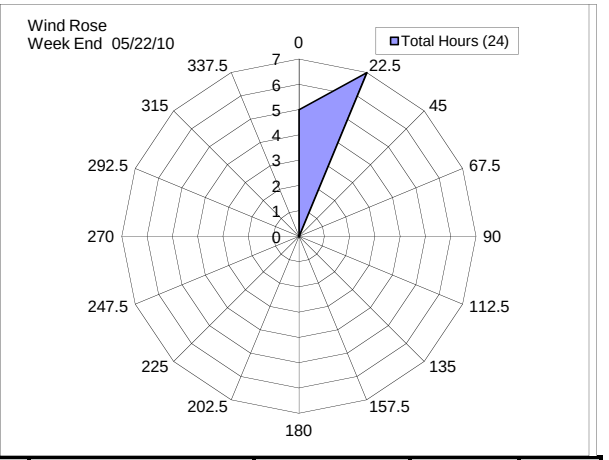
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 338 - 90338 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/22/2010**
Discovery Date	**5/25/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/18/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**NNE**



Parameter	CAMU Station 1 05/19/10 - 05/20/10 8:08- 8:10 Ug/m3		Notification Determination	CAMU Stat 2/3 05/19/10 - 05/20/10 8:03 - 8:07 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.909767055		No exceedance	0.715	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.594	JU	No exceedance	1813	9065
Naphthalene	1.279467554	J	No exceedance	4.531	U	No exceedance	6	30
Toluene	1.303144759		No exceedance	1.284		No exceedance	713	3565
Xylenes [4]	1.29399297	J	No exceedance	1.263	JUJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/19/10 - 05/20/10 7:50 - 7:50 Ug/m3		Notification Determination	GB (Ellsworth School) 05/19/10 - 05/20/10 7:52 - 7:56 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	1.23468386		No exceedance	1.884517471		No exceedance	8	40
Ethylbenzene	0.340052371	J	No exceedance	0.662439684	J	No exceedance	1813	9065
Naphthalene	0.693044925	J	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	2.108028286		No exceedance	3.794450915		No exceedance	713	3565
Xylenes [4]	1.492728619	J	No exceedance	2.782305324	J	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 338 90338**
Baker Label	**90338**
Week Ending	**5/22/2010**
Discovery Date	**5/252010**
Validation Date	**6/18/2010**

Parameter	CAMU Station 1 05/19/10 - 05/20/10 8:08- 8:10 Ug/m3		CAMU Station 2 05/19/10 - 05/20/10 8:05 - 8:07 Ug/m3		CAMU Station 3 05/19/10 - 05/20/10 8:03 - 8:05 Ug/m3	
Benzene	0.909767055		1.072225458		0.357408486	J
Ethylbenzene	0.883252912	U	0.304722255	J	0.883252912	U
Naphthalene	1.279467554	J	6.39733777		2.665557404	U
Toluene	1.303144759		1.763078203		0.804883527	
Xylenes	1.29399297	J	1.466231032	J	1.059920965	UJ

Parameter	GB (Ellsworth) 05/19/10 - 05/20/10 7:50 - 7:50 Ug/m3		GB (Ellsworth School) 05/19/10 - 05/20/10 7:52 - 7:56 Ug/m3	
Benzene	1.23468386		1.884517471	
Ethylbenzene	0.340052371	J	0.662439684	J
Naphthalene	0.693044925	J	2.665557404	U
Toluene	2.108028286		3.794450915	
Xylenes	1.492728619	J	2.782305324	J

Notes

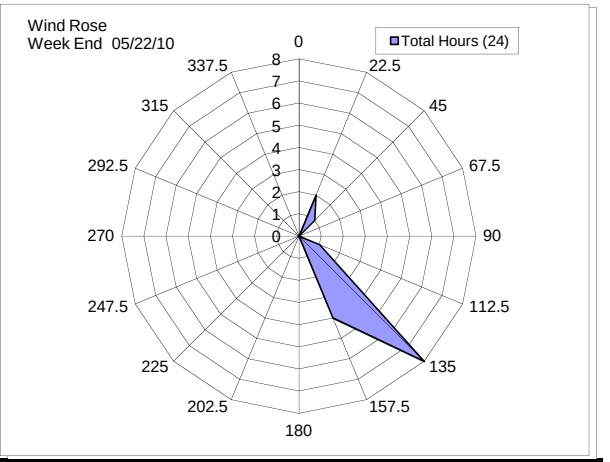
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 339 - 90339 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/22/2010**
Discovery Date	**5/25/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/15/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SE**



Parameter	CAMU Station 1 05/20/10 - 05/21/10 8:09 - 7:58 Ug/m3		Notification Determination	CAMU Stat 2/3 05/20/10 - 05/21/10 8:04 - 7:56 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.682325291		No exceedance	0.715	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	1.148	UU	No exceedance	1813	9065
Naphthalene	1.226156406	J	No exceedance	3.065	JU	No exceedance	6	30
Toluene	0.728227953	J	No exceedance	0.882	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.927	UUUJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/20/10 - 05/21/10 7:49 - 7:43 Ug/m3		Notification Determination	GB (Ellsworth School) 05/20/10 - 05/21/10 7:54 - 7:46 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.487375208	J	No exceedance	0.682325291		No exceedance	8	40
Ethylbenzene	0.3488849	J	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	1.878061564		No exceedance	0.996522463		No exceedance	713	3565
Xylenes [4]	1.426484651	J	No exceedance	1.012932616	UJ	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 339 90339**
Baker Label	**90339**
Week Ending	**5/22/2010**
Discovery Date	**5/252010**
Validation Date	**6/15/2010**

Parameter	CAMU Station 1 05/20/10 - 05/21/10 8:09 - 7:58 Ug/m3		CAMU Station 2 05/20/10 - 05/21/10 8:07 - 7:56 Ug/m3		CAMU Station 3 05/20/10 - 05/21/10 8:04 - 7:55 Ug/m3	
Benzene	0.682325291		0.649833611	J	0.779800333	
Ethylbenzene	0.883252912	U	1.413204659	U	0.883252912	U
Naphthalene	1.226156406	J	3.465224626	J	2.665557404	U
Toluene	0.728227953	J	0.958194676	J	0.804883527	
Xylenes	0.883270391	UU	0.883270391	UU	0.971593178	UJ

Parameter	GB (Ellsworth) 05/20/10 - 05/21/10 7:49 - 7:43 Ug/m3		GB (Ellsworth School) 05/20/10 - 05/21/10 7:54 - 7:46 Ug/m3	
Benzene	0.487375208	J	0.682325291	
Ethylbenzene	0.3488849	J	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	1.878061564		0.996522463	
Xylenes	1.426484651	J	1.012932616	UJ

Notes

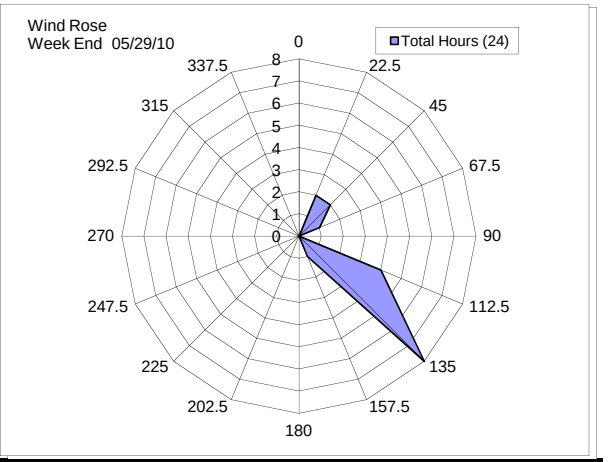
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 340 - 90340 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/29/2010**
Discovery Date	**5/27/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/15/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SE**



Parameter	CAMU Station 1 05/24/10 - 05/25/10 8:03 - 8:06 Ug/m3		Notification Determination	CAMU Stat 2/3 05/24/10 - 05/25/10 7:59 - 8:03 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.649833611		No exceedance	0.552	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.417	JJ	No exceedance	1813	9065
Naphthalene	3.678469218		No exceedance	2.052	JJ	No exceedance	6	30
Toluene	1.41812812		No exceedance	2.740		No exceedance	713	3565
Xylenes [4]	1.36906822	U	No exceedance	1.663	JJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/24/10 - 05/25/10 7:47 - 7:49 Ug/m3		Notification Determination	GB (Ellsworth School) 05/24/10 - 05/25/10 7:51 - 7:52 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.58485025	J	No exceedance	0.58485025	J	No exceedance	8	40
Ethylbenzene	0.423961398	J	No exceedance	0.335636106	J	No exceedance	1813	9065
Naphthalene	2.345690516	J	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	1.533111481		No exceedance	1.533111481		No exceedance	713	3565
Xylenes [4]	1.589888935	J	No exceedance	1.362417765	J	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 340 90340**
Baker Label	**90340**
Week Ending	**5/29/2010**
Discovery Date	**5/27/2010**
Validation Date	**6/15/2010**

Parameter	CAMU Station 1 05/24/10 - 05/25/10 8:03 - 8:06 Ug/m3		CAMU Station 2 05/24/10 - 05/25/10 8:01 - 8:03 Ug/m3		CAMU Station 3 05/24/10 - 05/25/10 7:59 - 8:00 Ug/m3	
Benzene	0.649833611		0.58485025	J	0.519866889	J
Ethylbenzene	0.883252912	U	0.529951747	J	0.304722255	J
Naphthalene	3.678469218		2.185757072	J	1.919201331	J
Toluene	1.41812812		4.216056572		1.264816972	
Xylenes	1.36906822	U	2.075689267	J	1.249830324	J

Parameter	GB (Ellsworth) 05/24/10 - 05/25/10 7:47 - 7:49 Ug/m3		GB (Ellsworth School) 05/24/10 - 05/25/10 7:51 - 7:52 Ug/m3	
Benzene	0.58485025	J	0.58485025	J
Ethylbenzene	0.423961398	J	0.335636106	J
Naphthalene	2.345690516	J	2.665557404	U
Toluene	1.533111481		1.533111481	
Xylenes	1.589888935	J	1.362417765	J

Notes

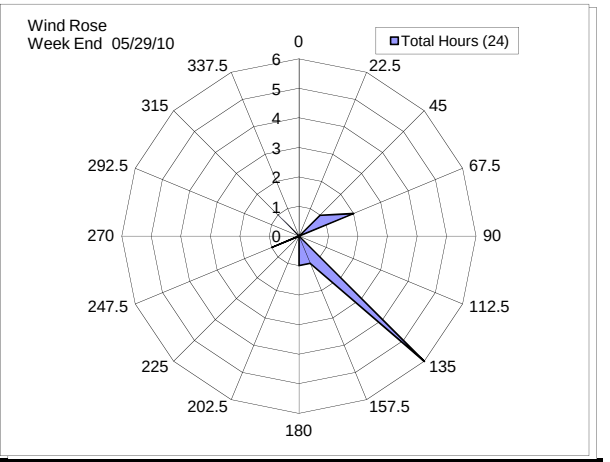
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 341 - 90341 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/29/2010**
Discovery Date	**5/28/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/15/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SE**



Parameter	CAMU Station 1 05/25/10 - 05/26/10 8:05 - 8:09 Ug/m3		Notification Determination	CAMU Stat 2/3 05/25/10 - 05/26/10 8:00 - 8:06 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	1.754550749		No exceedance	2.453		No exceedance	8	40
Ethylbenzene	0.485789101	J	No exceedance	0.415	JJ	No exceedance	1813	9065
Naphthalene	5.86422629		No exceedance	2.905	U	No exceedance	6	30
Toluene	2.682945092		No exceedance	7.800		No exceedance	713	3565
Xylenes [4]	2.119851913	J	No exceedance	1.760	JJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/25/10 - 05/26/10 7:48 - 7:52 Ug/m3		Notification Determination	GB (Ellsworth School) 05/25/10 - 05/26/10 7:52 - 7:57 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	1.884517471		No exceedance	1.722059068		No exceedance	8	40
Ethylbenzene	0.618277038	J	No exceedance	0.485789101	J	No exceedance	1813	9065
Naphthalene	0.693044925	J	No exceedance	0.693044925	J	No exceedance	6	30
Toluene	3.832778702		No exceedance	3.066222962		No exceedance	713	3565
Xylenes [4]	2.693980033	J	No exceedance	2.252342346	J	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
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3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 341 90341**
Baker Label	**90341**
Week Ending	**5/29/2010**
Discovery Date	**5/28/2010**
Validation Date	**6/15/2010**

Parameter	CAMU Station 1 05/25/10 - 05/26/10 8:05 - 8:09 Ug/m3		CAMU Station 2 05/25/10 - 05/26/10 8:02 - 8:06 Ug/m3		CAMU Station 3 05/25/10 - 05/26/10 8:00 - 8:05 Ug/m3	
Benzene	1.754550749		1.949500832		2.956742928	
Ethylbenzene	0.485789101	J	0.485789101	J	0.344468636	J
Naphthalene	5.86422629		3.145357737		2.665557404	U
Toluene	2.682945092		2.18468386		13.41472546	
Xylenes	2.119851913	J	2.2081797	J	1.311658703	J

Parameter	GB (Ellsworth) 05/25/10 - 05/26/10 7:48 - 7:52 Ug/m3		GB (Ellsworth School) 05/25/10 - 05/26/10 7:52 - 7:57 Ug/m3	
Benzene	1.884517471		1.722059068	
Ethylbenzene	0.618277038	J	0.485789101	J
Naphthalene	0.693044925	J	0.693044925	J
Toluene	3.832778702		3.066222962	
Xylenes	2.693980033	J	2.252342346	J

Notes

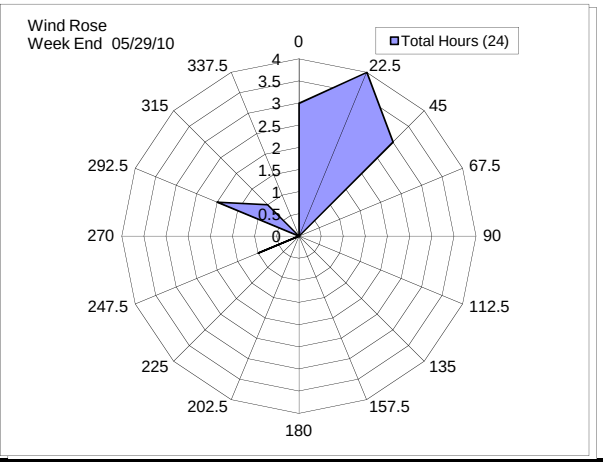
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 342 - 90342 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**5/29/2010**
Discovery Date	**6/1/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/15/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**NNE**



Parameter	CAMU Station 1 05/26/10 - 05/27/10 8:09 - 8:07 Ug/m3		Notification Determination	CAMU Stat 2/3 05/26/10 - 05/27/10 8:04 - 8:06 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.519866889	J	No exceedance	0.601	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	1.759267887	J	No exceedance	4.798	U	No exceedance	6	30
Toluene	0.843211314		No exceedance	1.246		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	10.047	UJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 05/26/10 - 05/27/10 7:51 - 7:52 Ug/m3		Notification Determination	GB (Ellsworth School) 05/26/10 - 05/27/10 7:56 - 7:56 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	1.039733777		No exceedance	0.454883527		No exceedance	8	40
Ethylbenzene	0.750764975	J	No exceedance	0.883252912	J	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	J	No exceedance	6	30
Toluene	4.216056572		No exceedance	1.03485025		No exceedance	713	3565
Xylenes [4]	2.958381859	J	No exceedance	0.971593178	J	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 342 90342**
Baker Label	**90342**
Week Ending	**5/29/2010**
Discovery Date	**6/1/2010**
Validation Date	**6/15/2010**

Parameter	CAMU Station 1 05/26/10 - 05/27/10 8:09 - 8:07 Ug/m3		CAMU Station 2 05/26/10 - 05/27/10 8:06 - 8:06 Ug/m3		CAMU Station 3 05/26/10 - 05/27/10 8:04 - 8:04 Ug/m3	
Benzene	0.519866889	J	0.747308652		0.454883527	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	1.759267887	J	6.930449251		2.665557404	U
Toluene	0.843211314		1.533111481		0.958194676	
Xylenes	0.883270391	UU	18.99019967		1.104084859	UJ

Parameter	GB (Ellsworth) 05/26/10 - 05/27/10 7:51 - 7:52 Ug/m3		GB (Ellsworth School) 05/26/10 - 05/27/10 7:56 - 7:56 Ug/m3	
Benzene	1.039733777		0.454883527	J
Ethylbenzene	0.750764975	J	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	4.216056572		1.03485025	
Xylenes	2.958381859	J	0.971593178	UJ

Notes

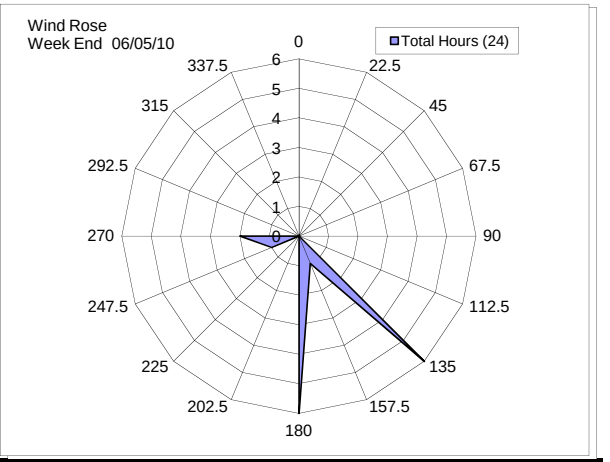
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 343 - 90343 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/5/2010**
Discovery Date	**6/7/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/15/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SSE**



Parameter	CAMU Station 1 06/01/10 - 06/02/10 7:40 - 8:01 Ug/m3		Notification Determination	CAMU Stat 2/3 06/01/10 - 06/02/10 7:38 - 8:03 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.454883527	J	No exceedance	0.374	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	1.226156406	J	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.728227953	J	No exceedance	1.131		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.038	UUUJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 06/01/10 - 06/02/10 7:20 - 7:42 Ug/m3		Notification Determination	GB (Ellsworth School) 06/01/10 - 06/02/10 7:23 - 7:48 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.422391847	J	No exceedance	0.422391847	J	No exceedance	8	40
Ethylbenzene	0.706602329	J	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	8.432113145		No exceedance	0.919866889		No exceedance	713	3565
Xylenes [4]	2.159603286	J	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
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3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 343 90343**
Baker Label	**90343**
Week Ending	**6/5/2010**
Discovery Date	**6/7/2010**
Validation Date	**6/15/2010**

Parameter	CAMU Station 1 06/01/10 - 06/02/10 7:40 - 8:01 Ug/m3		CAMU Station 2 06/01/10 - 06/02/10 7:39 - 8:03 Ug/m3		CAMU Station 3 06/01/10 - 06/02/10 7:38 - 7:59 Ug/m3	
Benzene	0.454883527	J	0.357408486	J	0.389900166	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	1.226156406	J	2.665557404	U	2.665557404	U
Toluene	0.728227953	J	0.958194676		1.303144759	
Xylenes	0.883270391	UU	0.883270391	UU	1.192412646	UJ

Parameter	GB (Ellsworth) 06/01/10 - 06/02/10 7:20 - 7:42 Ug/m3		GB (Ellsworth School) 06/01/10 - 06/02/10 7:23 - 7:48 Ug/m3	
Benzene	0.422391847	J	0.422391847	J
Ethylbenzene	0.706602329	J	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	8.432113145		0.919866889	
Xylenes	2.159603286	J	0.883270391	UU

Notes

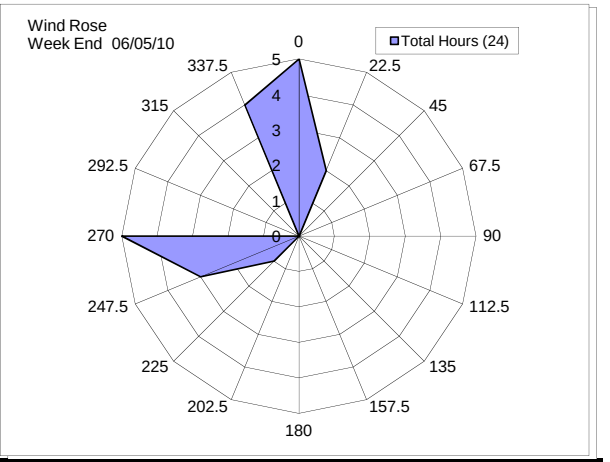
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 344 - 90344 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/5/2010**
Discovery Date	**6/7/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/15/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**NW**



Parameter	CAMU Station 1 06/02/10 - 06/03/10 8:07 - 8:00 Ug/m3		Notification Determination	CAMU Stat 2/3 06/02/10 - 06/03/10 7:48 - 8:03 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.487375208	J	No exceedance	0.520	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	1.332778702	J	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.728227953	J	No exceedance	0.613	JJ	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 06/02/10 - 06/03/10 7:42 - 7:48 Ug/m3		Notification Determination	GB (Ellsworth School) 06/02/10 - 06/03/10 7:47 - 7:51 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.552358569	J	No exceedance	0.58485025	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.881539101		No exceedance	1.188161398		No exceedance	713	3565
Xylenes [4]	0.971593178	UJ	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 344 90344**
Baker Label	**90344**
Week Ending	**6/5/2010**
Discovery Date	**6/7/2010**
Validation Date	**6/15/2010**

Parameter	CAMU Station 1 06/02/10 - 06/03/10 8:07 - 8:00 Ug/m3		CAMU Station 2 06/02/10 - 06/03/10 8:01 - 8:03 Ug/m3		CAMU Station 3 06/02/10 - 06/03/10 7:48 - 8:01 Ug/m3	
Benzene	0.487375208	J	0.519866889	J	0.519866889	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	1.332778702	J	2.665557404	U	2.665557404	U
Toluene	0.728227953	J	0.613244592	J	0.613244592	J
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 06/02/10 - 06/03/10 7:42 - 7:48 Ug/m3		GB (Ellsworth School) 06/02/10 - 06/03/10 7:47 - 7:51 Ug/m3	
Benzene	0.552358569	J	0.58485025	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.881539101		1.188161398	
Xylenes	0.971593178	UJ	0.883270391	UU

Notes

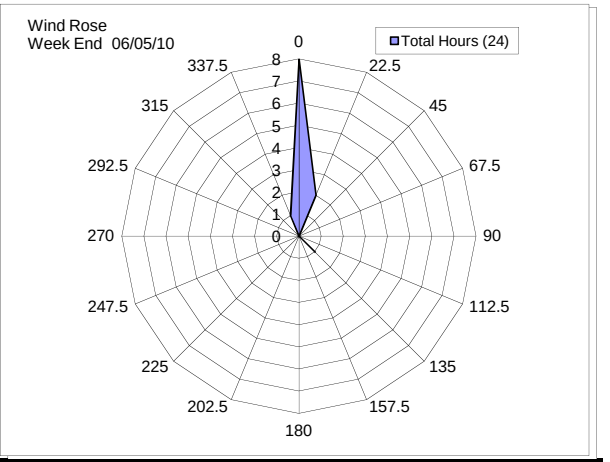
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 345 - 90345 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/5/2010**
Discovery Date	**6/8/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**6/15/2010**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**N**



Parameter	CAMU Station 1 06/03/10 - 06/04/10 8:05 - 8:01 Ug/m3		Notification Determination	CAMU Stat 2/3 06/03/10 - 06/04/10 8:01 - 8:00 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.649833611		No exceedance	0.650	0.64983	No exceedance	8	40
Ethylbenzene	0.927415557		No exceedance	0.927	0.92741	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	2.66555	No exceedance	6	30
Toluene	11.88161398		No exceedance	11.882	11.8816	No exceedance	713	3565
Xylenes [4]	2.25341098	J	No exceedance	2.253	098No	No exceedance	12502	62510

Parameter	GB (Ellsworth) 06/03/10 - 06/04/10 7:48 - 7:41 Ug/m3		Notification Determination	GB (Ellsworth School) 06/03/10 - 06/04/10 7:51 - 7:44 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.61734193	J	No exceedance	0.844783694		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.958194676		No exceedance	1.073178037		No exceedance	713	3565
Xylenes [4]	1.015757072	UJ	No exceedance	1.015757072	UJ	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 345 90345**
Baker Label	**90345**
Week Ending	**6/5/2010**
Discovery Date	**6/8/2010**
Validation Date	**6/15/2010**

Parameter	CAMU Station 1 06/03/10 - 06/04/10 8:05 - 8:01 Ug/m3		CAMU Station 2 06/03/10 - 06/04/10 8:03 - 8:00 Ug/m3		CAMU Station 3 06/03/10 - 06/04/10 8:01 - 7:58 Ug/m3	
Benzene	0.649833611		0.487375208	J	0.519866889	J
Ethylbenzene	0.927415557		0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.452312812	J	2.665557404	U
Toluene	11.88161398		0.728227953	J	0.651572379	J
Xylenes	2.25341098	J	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 06/03/10 - 06/04/10 7:48 - 7:41 Ug/m3		GB (Ellsworth School) 06/03/10 - 06/04/10 7:51 - 7:44 Ug/m3	
Benzene	0.61734193	J	0.844783694	
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.958194676		1.073178037	
Xylenes	1.015757072	UJ	1.015757072	UJ

Notes

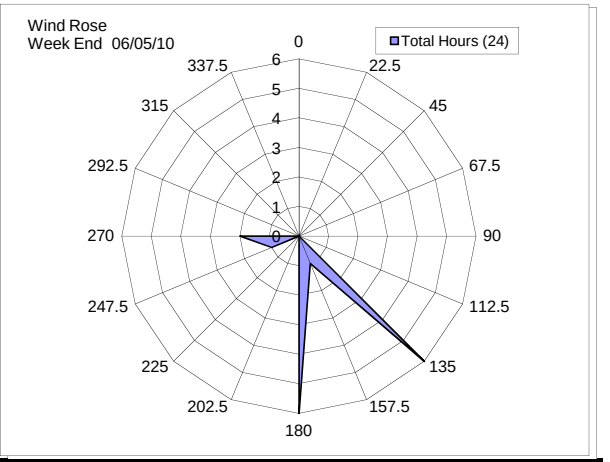
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 343 - 90343 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/5/2010**
Discovery Date	**6/7/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SSE**



Parameter	CAMU Station 1 06/01/10 - 06/02/10 7:40 - 8:01 Ug/m3		Notification Determination	CAMU Stat 2/3 06/01/10 - 06/02/10 7:38 - 8:03 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.454883527	J	No exceedance	0.374	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	1.226156406	J	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.728227953	J	No exceedance	1.131		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.038	UUUJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 06/01/10 - 06/02/10 7:20 - 7:42 Ug/m3		Notification Determination	GB (Ellsworth School) 06/01/10 - 06/02/10 7:23 - 7:48 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.422391847	J	No exceedance	0.422391847	J	No exceedance	8	40
Ethylbenzene	0.706602329	J	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	8.432113145		No exceedance	0.919866889		No exceedance	713	3565
Xylenes [4]	2.159603286	J	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 343 90343**
Baker Label	**90343**
Week Ending	**6/5/2010**
Discovery Date	**6/7/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/01/10 - 06/02/10 7:40 - 8:01 Ug/m3		CAMU Station 2 06/01/10 - 06/02/10 7:39 - 8:03 Ug/m3		CAMU Station 3 06/01/10 - 06/02/10 7:38 - 7:59 Ug/m3	
Benzene	0.454883527	J	0.357408486	J	0.389900166	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	1.226156406	J	2.665557404	U	2.665557404	U
Toluene	0.728227953	J	0.958194676		1.303144759	
Xylenes	0.883270391	UU	0.883270391	UU	1.192412646	UJ

Parameter	GB (Ellsworth) 06/01/10 - 06/02/10 7:20 - 7:42 Ug/m3		GB (Ellsworth School) 06/01/10 - 06/02/10 7:23 - 7:48 Ug/m3	
Benzene	0.422391847	J	0.422391847	J
Ethylbenzene	0.706602329	J	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	8.432113145		0.919866889	
Xylenes	2.159603286	J	0.883270391	UU

Notes

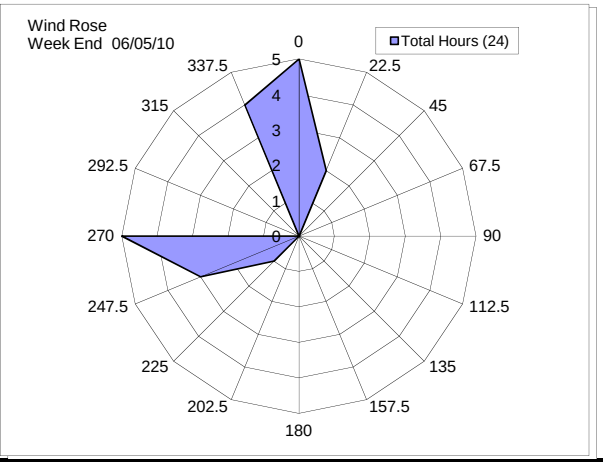
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 344 - 90344 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/5/2010**
Discovery Date	**6/7/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**NW**



Parameter	CAMU Station 1 06/02/10 - 06/03/10 8:07 - 8:00 Ug/m3		Notification Determination	CAMU Stat 2/3 06/01/10 - 06/02/10 7:48 - 8:03 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.487375208	J	No exceedance	0.520	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	1.332778702	J	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.728227953	J	No exceedance	0.613	JJ	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 06/02/10 - 06/03/10 7:42 - 7:48 Ug/m3		Notification Determination	GB (Ellsworth School) 06/01/10 - 06/02/10 7:47 - 7:51 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.552358569	J	No exceedance	0.58485025	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.881539101		No exceedance	1.188161398		No exceedance	713	3565
Xylenes [4]	0.971593178	UJ	No exceedance	0.883270391	UU	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 344 90344**
Baker Label	**90344**
Week Ending	**6/5/2010**
Discovery Date	**6/7/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/02/10 - 06/03/10 8:07 - 8:00 Ug/m3		CAMU Station 2 06/02/10 - 06/03/10 8:01 - 8:03 Ug/m3		CAMU Station 3 06/02/10 - 06/03/10 7:48 - 8:01 Ug/m3	
Benzene	0.487375208	J	0.519866889	J	0.519866889	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	1.332778702	J	2.665557404	U	2.665557404	U
Toluene	0.728227953	J	0.613244592	J	0.613244592	J
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 06/02/10 - 06/03/10 7:42 - 7:48 Ug/m3		GB (Ellsworth School) 06/02/10 - 06/03/10 7:47 - 7:51 Ug/m3	
Benzene	0.552358569	J	0.58485025	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.881539101		1.188161398	
Xylenes	0.971593178	UJ	0.883270391	UU

Notes

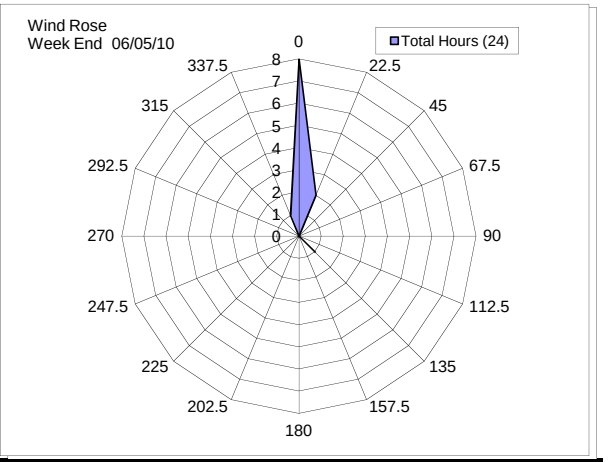
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 345 - 90345 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/5/2010**
Discovery Date	**6/8/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**N**



Parameter	CAMU Station 1 06/03/10 - 06/04/10 8:05 - 8:01 Ug/m3		Notification Determination	CAMU Stat 2/3 06/03/10 - 06/04/10 8:01 - 8:00 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.649833611		No exceedance	0.650	0.64983	No exceedance	8	40
Ethylbenzene	0.927415557		No exceedance	0.927	0.92741	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	2.66555	No exceedance	6	30
Toluene	11.88161398		No exceedance	11.882	11.8816	No exceedance	713	3565
Xylenes [4]	2.25341098	J	No exceedance	2.253	098No	No exceedance	12502	62510

Parameter	GB (Ellsworth) 06/03/10 - 06/04/10 7:48 - 7:41 Ug/m3		Notification Determination	GB (Ellsworth School) 06/03/10 - 06/04/10 7:51 - 7:44 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.61734193	J	No exceedance	0.844783694		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.958194676		No exceedance	1.073178037		No exceedance	713	3565
Xylenes [4]	1.015757072	UJ	No exceedance	1.015757072	UJ	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 345 90345**
Baker Label	**90345**
Week Ending	**6/5/2010**
Discovery Date	**6/8/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/03/10 - 06/04/10 8:05 - 8:01 Ug/m3		CAMU Station 2 06/03/10 - 06/04/10 8:03 - 8:00 Ug/m3		CAMU Station 3 06/03/10 - 06/04/10 8:01 - 7:58 Ug/m3	
Benzene	0.649833611		0.487375208	J	0.519866889	J
Ethylbenzene	0.927415557		0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.452312812	J	2.665557404	U
Toluene	11.88161398		0.728227953	J	0.651572379	J
Xylenes	2.25341098	J	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 06/03/10 - 06/04/10 7:48 - 7:41 Ug/m3		GB (Ellsworth School) 06/03/10 - 06/04/10 7:51 - 7:44 Ug/m3	
Benzene	0.61734193	J	0.844783694	
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.958194676		1.073178037	
Xylenes	1.015757072	UJ	1.015757072	UJ

Notes

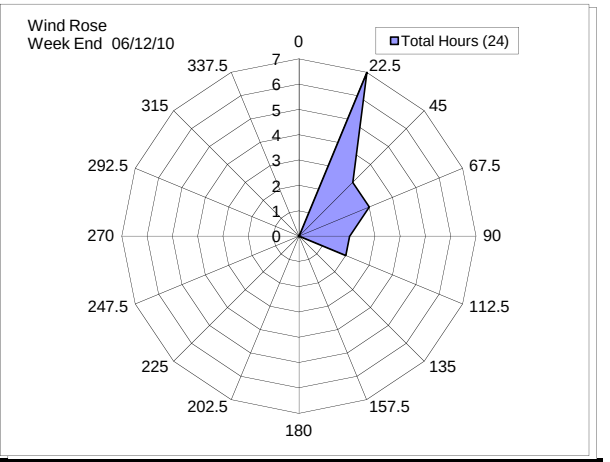
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 346 - 90346 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/12/2010**
Discovery Date	**6/10/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**NNE**



Parameter	CAMU Station 1 06/07/10 - 06/08/10 8:17 - 8:08 Ug/m3		Notification Determination	CAMU Stat 2/3 06/07/10 - 06/08/10 8:13 - 8:04 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.747308652		No exceedance	0.829		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	0.959600666	J	No exceedance	2.399	JU	No exceedance	6	30
Toluene	0.651572379	J	No exceedance	0.613	JJ	No exceedance	713	3565
Xylenes [4]	0.715434859	UJ	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth) 06/07/10 - 06/08/10 7:51 - 7:48 Ug/m3		Notification Determination	GB (Ellsworth School) 06/07/10 - 06/08/10 7:53 - 7:52 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.877275374		No exceedance	0.747308652		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.309138519	J	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	0.651572379	J	No exceedance	2.299667221		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.360239434	J	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 346 90346**
Baker Label	**90346**
Week Ending	**6/12/2010**
Discovery Date	**6/10/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/07/10 - 06/08/10 8:17 - 8:08 Ug/m3		CAMU Station 2 06/07/10 - 06/08/10 8:14 - 8:04 Ug/m3		CAMU Station 3 06/07/10 - 06/08/10 8:13 - 8:01 Ug/m3	
Benzene	0.747308652		0.812292013		0.844783694	
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	0.959600666	J	2.132445923	J	2.665557404	U
Toluene	0.651572379	J	0.613244592	J	0.613244592	J
Xylenes	0.715434859	UJ	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth) 06/07/10 - 06/08/10 7:51 - 7:48 Ug/m3		GB (Ellsworth School) 06/07/10 - 06/08/10 7:53 - 7:52 Ug/m3	
Benzene	0.877275374		0.747308652	
Ethylbenzene	0.883252912	U	0.309138519	J
Naphthalene	2.665557404	U	2.665557404	U
Toluene	0.651572379	J	2.299667221	
Xylenes	0.883270391	UU	1.360239434	J

Notes

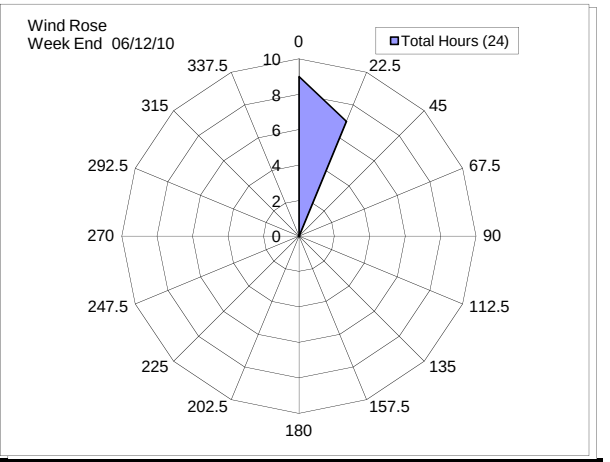
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 347 - 90347 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/12/2010**
Discovery Date	**6/1710/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**N**



Parameter	CAMU Station 1 06/08/10 - 06/09/10 8:08 - 8:38 Ug/m3		Notification Determination	CAMU Stat 2/3 06/08/10 - 06/09/10 8:01 - 8:32 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.552358569	J	No exceedance	0.634	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.609	JU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	UU	No exceedance	6	30
Toluene	1.226489185		No exceedance	1.476		No exceedance	713	3565
Xylenes [4]	1.059920965	UJ	No exceedance	1.279	JJJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 06/08/10 - 06/09/10 7:47 - 7:47 Ug/m3		Notification Determination	GB (Ellsworth School) 06/08/10 - 06/09/10 7:52 - 7:51 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.552358569	J	No exceedance	0.519866889	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883252912	U	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	1.41812812		No exceedance	1.379800333		No exceedance	713	3565
Xylenes [4]	1.104084859	UJ	No exceedance	1.029010857	JJ	No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 347 90347**
Baker Label	**90347**
Week Ending	**6/12/2010**
Discovery Date	**6/11/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/08/10 - 06/09/10 8:08 - 8:38 Ug/m3		CAMU Station 2 06/08/10 - 06/09/10 8:04 - 8:32 Ug/m3		CAMU Station 3 06/08/10 - 06/09/10 8:01 - 8:00 Ug/m3	
Benzene	0.552358569	J	0.58485025	J	0.682325291	
Ethylbenzene	0.883252912	U	0.335636106	J	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U	2.665557404	U
Toluene	1.226489185		1.533111481		1.41812812	
Xylenes	1.059920965	UJ	1.430899567	J	1.126171381	JJ

Parameter	GB (Ellsworth) 06/08/10 - 06/09/10 7:47 - 7:47 Ug/m3		GB (Ellsworth School) 06/08/10 - 06/09/10 7:52 - 7:51 Ug/m3	
Benzene	0.552358569	J	0.519866889	J
Ethylbenzene	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	2.665557404	U
Toluene	1.41812812		1.379800333	
Xylenes	1.104084859	UJ	1.029010857	JJ

Notes

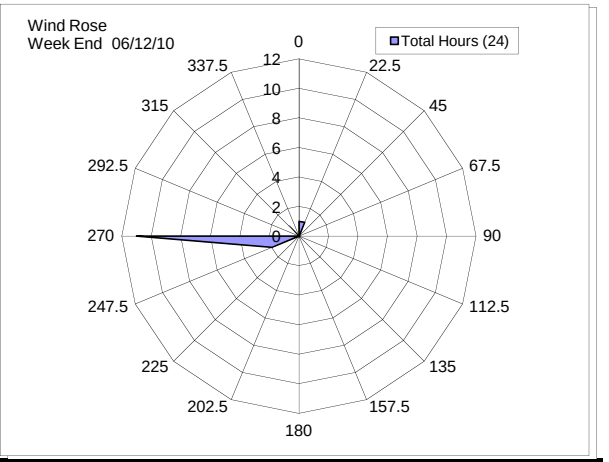
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 348 - 90348 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/12/2010**
Discovery Date	**6/14/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**W**



Parameter	CAMU Station 1 06/09/10 - 06/10/10 8:37 - 8:11 Ug/m3		Notification Determination	CAMU Stat 2/3 06/09/10 - 06/10/10 7:58 - 8:15 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.747308652		No exceedance	0.812		No exceedance	8	40
Ethylbenzene	0.344468636	J	No exceedance	0.601	UJ	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	UU	No exceedance	6	30
Toluene	3.027895175		No exceedance	2.281		No exceedance	713	3565
Xylenes [4]	1.461814767	J	No exceedance	1.217	JJJ	No exceedance	12502	62510

Parameter	GB (Ellsworth) 06/09/10 - 06/10/10 7:44 - 7:55 Ug/m3		Notification Determination	GB (Ellsworth School) 06/09/10 - 06/10/10 7:51 - 7:58 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.714816972		No exceedance	0.812292013		No exceedance	8	40
Ethylbenzene	0.432793927	J	No exceedance	0.344468636	J	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.665557404	U	No exceedance	6	30
Toluene	3.142878536		No exceedance	2.223011647		No exceedance	713	3565
Xylenes [4]	1.766543261	J	No exceedance	1.457397254	J	No exceedance	12502	62510

Notes

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2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 348 90348**
Baker Label	**90348**
Week Ending	**6/12/2010**
Discovery Date	**6/14/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/09/10 - 06/10/10 8:37 - 8:11 Ug/m3		CAMU Station 2 06/09/10 - 06/10/10 8:32 - 8:15 Ug/m3		CAMU Station 3 06/09/10 - 06/10/10 7:58 - 8:14 Ug/m3	
Benzene	0.747308652		0.779800333		0.844783694	
Ethylbenzene	0.344468636	J	0.883252912	U	0.317971048	J
Naphthalene	2.665557404	U	2.665557404	U	2.665557404	U
Toluene	3.027895175		2.299667221		2.261339434	
Xylenes	1.461814767	J	1.095256073	JJ	1.338156864	J

Parameter	GB (Ellsworth) 06/09/10 - 06/10/10 7:44 - 7:55 Ug/m3		GB (Ellsworth School) 06/09/10 - 06/10/10 7:51 - 7:58 Ug/m3	
Benzene	0.714816972		0.812292013	
Ethylbenzene	0.432793927	J	0.344468636	J
Naphthalene	2.665557404	U	2.665557404	U
Toluene	3.142878536		2.223011647	
Xylenes	1.766543261	J	1.457397254	J

Notes

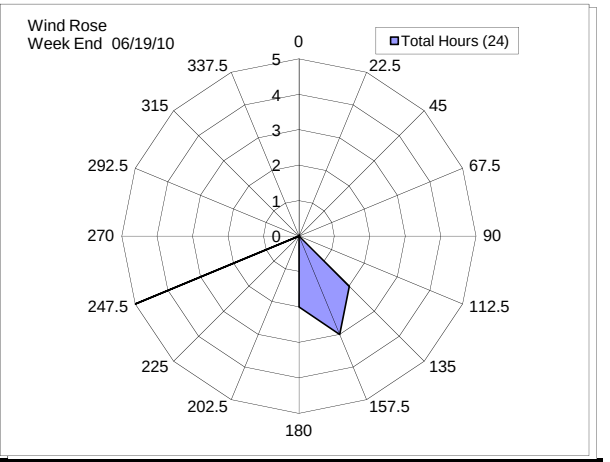
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 349 - 90349 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/19/2010**
Discovery Date	**6/18/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SSE**



Parameter	CAMU Station 1 06/15/10 - 06/16/10 7:59 - 8:06 Ug/m3		Notification Determination	CAMU Stat 2/3 06/15/10 - 06/16/10 7:53 - 8:02 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.519866889	J	No exceedance	0.520	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.707	UJ	No exceedance	1813	9065
Naphthalene	0.693044925	J	No exceedance	1.591	JU	No exceedance	6	30
Toluene	1.149833611		No exceedance	1.169		No exceedance	713	3565
Xylenes [4]	1.108504867	JJ	No exceedance	2.186	UUJ	No exceedance	12502	62510

Parameter	GB (Ellsworth)	Notification Determination	GB (Ellsworth School)	Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	**Sampling Temporarily Discontinued**	No exceedance	**Sampling Temporarily Discontinued**	No exceedance	8	40
Ethylbenzene		No exceedance		No exceedance	1813	9065
Naphthalene		No exceedance		No exceedance	6	30
Toluene		No exceedance		No exceedance	713	3565
Xylenes [4]		No exceedance		No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 349 90349**
Baker Label	**90349**
Week Ending	**6/19/2010**
Discovery Date	**6/18/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/15/10 - 06/16/10 7:59 - 8:06 Ug/m3		CAMU Station 2 06/15/10 - 06/16/10 7:56 - 8:02 Ug/m3		CAMU Station 3 06/15/10 - 06/16/10 7:53 - 7:53 Ug/m3	
Benzene	0.519866889	J	0.519866889	J	0.519866889	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.529951747	J
Naphthalene	0.693044925	J	0.517118136	J	2.665557404	U
Toluene	1.149833611		1.073178037		1.264816972	
Xylenes	1.108504867	JJ	0.883270391	UU	3.488925025	J

Parameter	GB (Ellsworth)	GB (Ellsworth School)
Benzene	**Sampling Temporarily Discontinued**	
Ethylbenzene		
Naphthalene		
Toluene		
Xylenes		

Notes

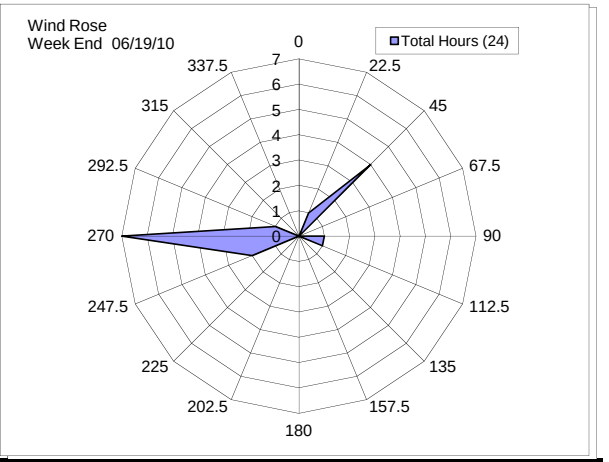
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 350 - 90350 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/19/2010**
Discovery Date	**6/21/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**W**



Parameter	CAMU Station 1 06/16/10 - 06/17/10 8:06 - 7:58 Ug/m3		Notification Determination	CAMU Stat 2/3 06/15/10 - 06/16/10 7:55 - 7:55 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.454883527	J	No exceedance	0.699		No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	1.136	JJ	No exceedance	6	30
Toluene	0.76655574	U	No exceedance	1.054		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth)	Notification Determination	GB (Ellsworth School)	Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	**Sampling Temporarily Discontinued**	No exceedance	**Sampling Temporarily Discontinued**	No exceedance	8	40
Ethylbenzene		No exceedance		No exceedance	1813	9065
Naphthalene		No exceedance		No exceedance	6	30
Toluene		No exceedance		No exceedance	713	3565
Xylenes [4]		No exceedance		No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 350 90350**
Baker Label	**90350**
Week Ending	**6/19/2010**
Discovery Date	**6/21/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/16/10 - 06/17/10 8:06 - 7:58 Ug/m3		CAMU Station 2 06/16/10 - 06/17/10 8:03 - 7:55 Ug/m3		CAMU Station 3 06/16/10 - 06/17/10 7:55 - 7:42 Ug/m3	
Benzene	0.454883527	J	0.714816972		0.682325291	
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.665557404	U	1.759267887	J	0.511787022	J
Toluene	0.76655574	U	1.073178037		1.03485025	
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth)	GB (Ellsworth School)
Benzene	**Sampling Temporarily Discontinued**	
Ethylbenzene		
Naphthalene		
Toluene		
Xylenes		

Notes

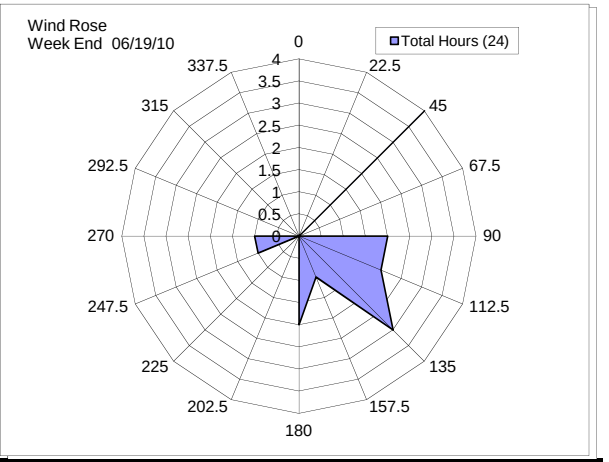
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 351 - 90351 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/19/2010**
Discovery Date	**6/22/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SE**



Parameter	CAMU Station 1 06/17/10 - 06/18/10 7:58 - 8:03 Ug/m3		Notification Determination	CAMU Stat 2/3 06/15/10 - 06/16/10 7:43 - 7:57 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.454883527	J	No exceedance	0.439	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	2.079134775	J	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.76655574		No exceedance	2.683		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth)	Notification Determination	GB (Ellsworth School)	Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	**Sampling Temporarily Discontinued**	No exceedance	**Sampling Temporarily Discontinued**	No exceedance	8	40
Ethylbenzene		No exceedance		No exceedance	1813	9065
Naphthalene		No exceedance		No exceedance	6	30
Toluene		No exceedance		No exceedance	713	3565
Xylenes [4]		No exceedance		No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 351 90351**
Baker Label	**90351**
Week Ending	**6/19/2010**
Discovery Date	**6/22/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/17/10 - 06/18/10 7:58 - 8:03 Ug/m3		CAMU Station 2 06/17/10 - 06/18/10 7:55 - 7:57 Ug/m3		CAMU Station 3 06/17/10 - 06/18/10 7:43 - 7:46 Ug/m3	
Benzene	0.454883527	J	0.422391847	J	0.454883527	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	2.079134775	J	2.665557404	U	2.665557404	U
Toluene	0.76655574		0.76655574		4.599334443	
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth)	GB (Ellsworth School)
Benzene	**Sampling Temporarily Discontinued**	
Ethylbenzene		
Naphthalene		
Toluene		
Xylenes		

Notes

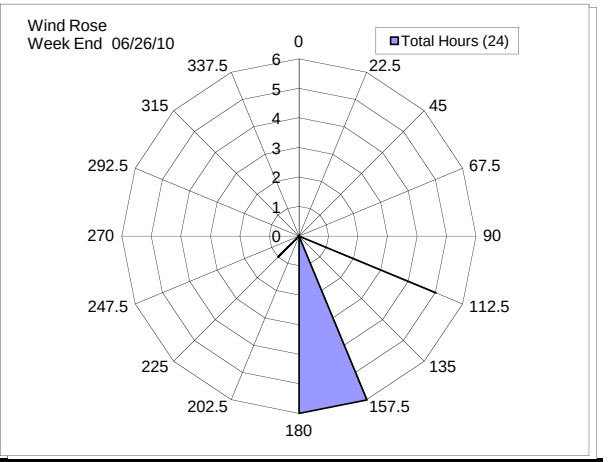
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 352 - 90352 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/26/2010**
Discovery Date	**6/24/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**S/SSE**



Parameter	CAMU Station 1 06/21/10 - 06/22/10 8:15 -78563 Ug/m3		Notification Determination	CAMU Stat 2/3 06/21/10 - 06/22/10 7:43 - 7:57 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.389900166	J	No exceedance	0.374	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.883	UU	No exceedance	1813	9065
Naphthalene	1.226156406	J	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.613244592	J	No exceedance	0.805		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	0.883	UUUU	No exceedance	12502	62510

Parameter	GB (Ellsworth)	Notification Determination	GB (Ellsworth School)	Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	**Sampling Temporarily Discontinued**	No exceedance	**Sampling Temporarily Discontinued**	No exceedance	8	40
Ethylbenzene		No exceedance		No exceedance	1813	9065
Naphthalene		No exceedance		No exceedance	6	30
Toluene		No exceedance		No exceedance	713	3565
Xylenes [4]		No exceedance		No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 352 90352**
Baker Label	**90352**
Week Ending	**6/26/2010**
Discovery Date	**6/24/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/21/10 - 06/22/10 8:15 -78563 Ug/m3		CAMU Station 2 06/21/10 - 06/22/10 8:11 - 7:51 Ug/m3		CAMU Station 3 06/21/10 - 06/22/10 7:56 - 7:44 Ug/m3	
Benzene	0.389900166	J	0.324916805	J	0.422391847	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.883252912	U
Naphthalene	1.226156406	J	2.665557404	U	2.665557404	U
Toluene	0.613244592	J	0.804883527		0.804883527	
Xylenes	0.883270391	UU	0.883270391	UU	0.883270391	UU

Parameter	GB (Ellsworth)	GB (Ellsworth School)
Benzene	**Sampling Temporarily Discontinued**	
Ethylbenzene		
Naphthalene		
Toluene		
Xylenes		

Notes

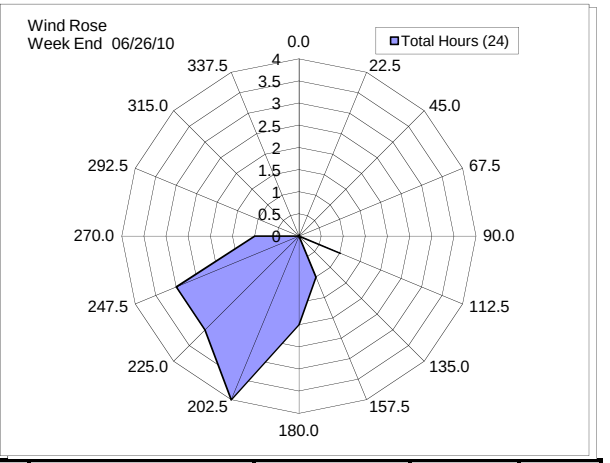
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 353 - 90353 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/26/2010**
Discovery Date	**6/25/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**SSW**



Parameter	CAMU Station 1 06/22/10 - 06/23/10 7:56 - 8:00 Ug/m3		Notification Determination	CAMU Stat 2/3 06/22/10 - 06/23/10 7:44 - 7:54 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.324916805	J	No exceedance	0.536	J	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	6.624	U	No exceedance	1813	9065
Naphthalene	0.906289517	J	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.76655574		No exceedance	0.939		No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	27.602	UU	No exceedance	12502	62510

Parameter	GB (Ellsworth)	Notification Determination	GB (Ellsworth School)	Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	Sampling Temporarily Discontinued	No exceedance	Sampling Temporarily Discontinued	No exceedance	8	40
Ethylbenzene		No exceedance		No exceedance	1813	9065
Naphthalene		No exceedance		No exceedance	6	30
Toluene		No exceedance		No exceedance	713	3565
Xylenes [4]		No exceedance		No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
3 - Qualifiers for CAMU Station 2/3 - All qualifiers representing both stands 2 and 3 are presented
4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 353 90353**
Baker Label	**90353**
Week Ending	**6/26/2010**
Discovery Date	**6/25/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/22/10 - 06/23/10 7:56 - 8:00 Ug/m3		CAMU Station 2 06/22/10 - 06/23/10 7:51 - 7:54 Ug/m3		CAMU Station 3 06/22/10 - 06/23/10 7:44 - 7:48 Ug/m3	
Benzene	0.324916805	J	0.747308652		0.324916805	J
Ethylbenzene	0.883252912	U	12.36554077		0.883252912	U
Naphthalene	0.906289517	J	2.665557404	U	2.665557404	U
Toluene	0.76655574		1.073178037		0.804883527	
Xylenes	0.883270391	UU	54.32122712		0.883270391	UU

Parameter	GB (Ellsworth)	GB (Ellsworth School)
Benzene	**Sampling Temporarily Discontinued**	
Ethylbenzene		
Naphthalene		
Toluene		
Xylenes		

Notes

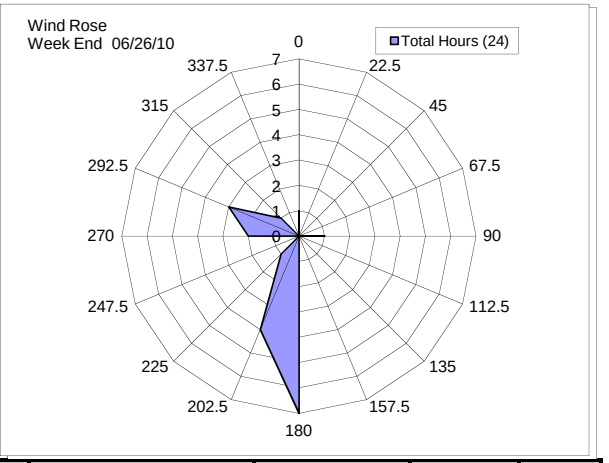
1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

US EPA ARCHIVE DOCUMENT

WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 354 - 90354 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**6/26/2010**
Discovery Date	**7/2/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**S**



Parameter	CAMU Station 1 06/23/10 - 06/24/10 8:00 - 8:04 Ug/m3		Notification Determination	CAMU Stat 2/3 06/23/10 - 06/24/10 7:48 - 8:00 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.519866889	J	No exceedance	0.281	JJ	No exceedance	8	40
Ethylbenzene	2.473108153		No exceedance	0.629	UJ	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	UU	No exceedance	6	30
Toluene	5.749168053		No exceedance	0.882		No exceedance	713	3565
Xylenes [4]	4.107212146		No exceedance	1.040	UJJJ	No exceedance	12502	62510

Parameter	GB (Ellsworth)	Notification Determination	GB (Ellsworth School)	Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	Sampling Temporarily Discontinued	No exceedance	Sampling Temporarily Discontinued	No exceedance	8	40
Ethylbenzene		No exceedance		No exceedance	1813	9065
Naphthalene		No exceedance		No exceedance	6	30
Toluene		No exceedance		No exceedance	713	3565
Xylenes [4]		No exceedance		No exceedance	12502	62510

Notes

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4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

US EPA ARCHIVE DOCUMENT

Monitoring Results	**AD3 354 90354**
Baker Label	**90354**
Week Ending	**6/26/2010**
Discovery Date	**7/2/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/23/10 - 06/24/10 8:00 - 8:04 Ug/m3		CAMU Station 2 06/23/10 - 06/24/10 7:54 - 8:00 Ug/m3		CAMU Station 3 06/23/10 - 06/24/10 7:48 - 7:50 Ug/m3	
Benzene	0.519866889	J	0.289175957	J	0.272930116	J
Ethylbenzene	2.473108153		0.883252912	U	0.375382488	J
Naphthalene	2.665557404	U	2.665557404	U	2.665557404	U
Toluene	5.749168053		0.804883527		0.958194676	
Xylenes	4.107212146		1.059920965	UJ	1.020178328	JJ

Parameter	GB (Ellsworth)	GB (Ellsworth School)
Benzene	Sampling Temporarily Discontinued	
Ethylbenzene		
Naphthalene		
Toluene		
Xylenes		

Notes

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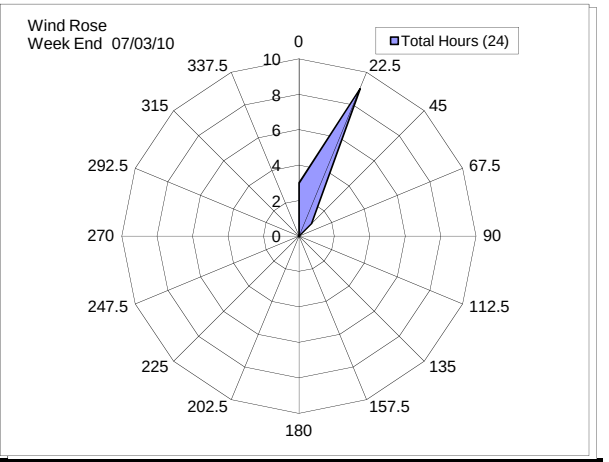
WEEK ENDING REPORTING VALUES

Sampling Events	**AD3 355 - 90355 After Dredging Three**
Sampling Programs	**Times Per Week**
Week Ending	**7/3/2010**
Discovery Date	**7/2/2010**
Verbal Notification Date	**N/A**
Validation Received Date	**Pending**
Written Notification Date	**N/A**
Exceedances	**0**
Predominant wind direction	**NNE**



Parameter	CAMU Station 1 06/29/10 - 06/30/10 8:08 - 7:59 Ug/m3		Notification Determination	CAMU Stat 2/3 06/29/10 - 06/30/10 7:55 - 7:52 Ug/m3		Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	0.224192596	J	No exceedance	0.354	JJ	No exceedance	8	40
Ethylbenzene	0.883252912	U	No exceedance	0.707	UJ	No exceedance	1813	9065
Naphthalene	2.665557404	U	No exceedance	2.666	UU	No exceedance	6	30
Toluene	0.249130616	J	No exceedance	2.395	J	No exceedance	713	3565
Xylenes [4]	0.883270391	UU	No exceedance	1.301	UUJ	No exceedance	12502	62510

Parameter	GB (Ellsworth)	Notification Determination	GB (Ellsworth School)	Notification Determination	Notification Levels Ug/m3	Action Levels Ug/m3
Benzene	Sampling Temporarily Discontinued	No exceedance	Sampling Temporarily Discontinued	No exceedance	8	40
Ethylbenzene		No exceedance		No exceedance	1813	9065
Naphthalene		No exceedance		No exceedance	6	30
Toluene		No exceedance		No exceedance	713	3565
Xylenes [4]		No exceedance		No exceedance	12502	62510

Notes

1 - Location is on Ellsworth Avenue at the northern most point accessible by motor vehicle.
2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.
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4 - m-xylene, p -xylene and o- xylene are combined to make total xylenes. The qualifier(s) presented may represent only one constituent in the total Xylenes calculation
J = Estimated Value
U = Non - Detect
B = Method Blank Contamination
RDD = Resumed Dredging Daily
2** = 2nd Occurance of Daily Sampling and sequential numbering.
A = Monday Sampling Event No corresponding 24 hour event collected; Wind direction based on 4 hours surrounding the grab sample event
EXAMPLE: RDD208A = Resumed Dredging Daily Event 2nd occurance of Daily Sampling (the first being the first two weeks of resumed dredging 1/15 -1/29/07) Event #8 Gr

No Sample Taken
Action Level Exceedance
Notification Level Exceedance

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Monitoring Results	**AD3 355 90355**
Baker Label	**90355**
Week Ending	**7/3/2010**
Discovery Date	**7/2/2010**
Validation Date	**Pending**

Parameter	CAMU Station 1 06/29/10 - 06/30/10 8:08 - 7:59 Ug/m3		CAMU Station 2 06/29/10 - 06/30/10 8:03 - 7:52 Ug/m3		CAMU Station 3 06/29/10 - 06/30/10 7:55 - 7:47 Ug/m3	
Benzene	0.224192596	J	0.285926789	J	0.422391847	J
Ethylbenzene	0.883252912	U	0.883252912	U	0.529951747	J
Naphthalene	2.665557404	U	2.665557404	U	2.665557404	U
Toluene	0.249130616	J	0.574916805	J	4.216056572	
Xylenes	0.883270391	UU	0.883270391	UU	1.717963103	J

Parameter	GB (Ellsworth)	GB (Ellsworth School)
Benzene	Sampling Temporarily Discontinued	
Ethylbenzene		
Naphthalene		
Toluene		
Xylenes		

Notes

1 - Location is on the intersection of Ellsworth Avenue at the farthest Northern point available.

2 - Location is on Ellsworth Avenue, Inbetween 3rd and 4th Avenue near parking lot entrance to school.

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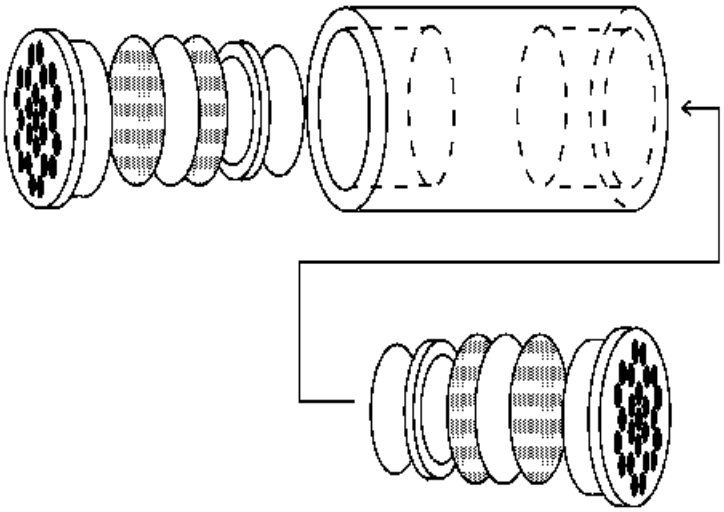
NH3
Sampling Protocol
Using The Ogawa Sampler*



V3.98

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Notice

Certain products mentioned in this User's Guide may be trademarks. These products have been mentioned for identification purposes only.

Version Number

Edition	Month / Year
1.0	September / 2005

US EPA ARCHIVE DOCUMENT

General Information

1. "*Water*", in all cases, shall mean water meeting ASTM Type I specifications. (Equal to Milli-Q by Millipore). Use Reagent grade chemicals for all applications.

2. "*Wash*", in all cases, shall mean cleaning thoroughly with water meeting ASTM Type I specifications.

3. All sampler components should be carefully washed and dried before each use. This is an important function, and special care should be taken to do this step carefully.

4. Washing, drying, assembly of sampler, and loading with the proper pre-coated filters should be done in a clean area, free of NH3 contamination. It is not necessary to use a glovebox.

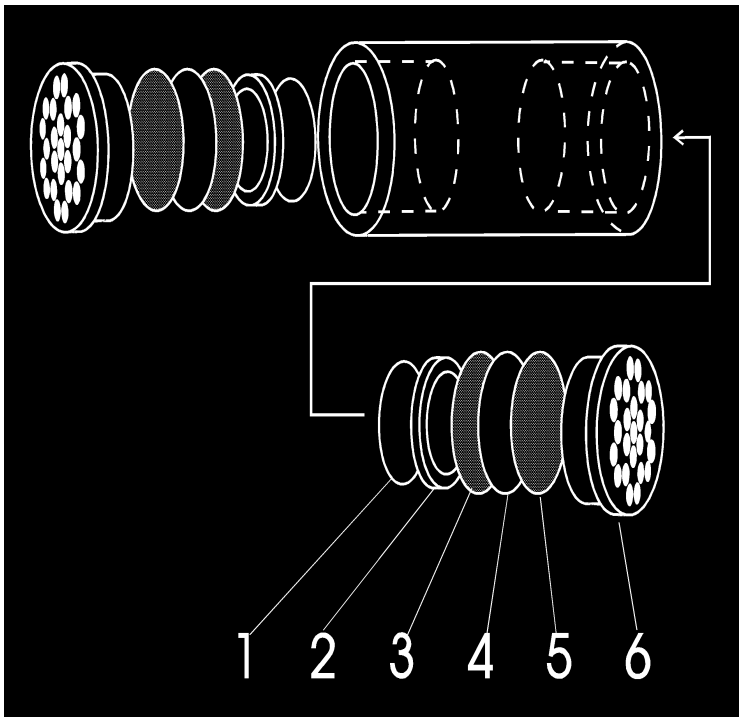
5. When the point of research is outdoors, the sampler should be given protection from the sun and rainfall. Ogawa & Co., USA, Inc. has an opaque shelter and mounting bracket designed for that purpose.

6. Direct exposure of individuals can be easily measured by using the alligator clip to attach the sampler to clothing as close to the face as possible.

Ogawa Sampler Assembly

The sampler is comprised of 2 chambers. In each chamber of the sampler, the assembly stack-up is described below. Start at the innermost position with the pad and progress outwards to the diffuser end cap.

1 Solid Pad
2 Pad Retaining Ring
3 Stainless Screen
4 Coated Collection Fi
5 Stainless Screen
6 Diffuser End Cap



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Transport and Storage

After assembly, the loaded sampler is placed into the re-sealable plastic bag. The bagged sampler is placed into the brown airtight container, provided, and taken to the exposure site. After exposure, the above procedure is again followed to safely seal the used sampler into the brown airtight vial. It is then taken to the laboratory for analysis.

The sampler has the following lifetime associated with the various components

	Refrigerated Storage Method	Frozen Storage Method
Sealed in glass vial and aluminum pouch	90 days	1 year
Resealed in vial, after opening	90 days	
Loaded sampler in bag placed in brown vial with lid	90 days	
Exposed loaded sampler, in bag placed in brown vial with lid	14 days	
Extracted solution in water, in sealed vial	90 days	

Table 1: Shelf life associated with Passive Sampler Components

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Application of the Sampler in an Outdoor Micro-Environment

It is mandatory to protect the loaded sampler from moisture while it is being exposed. To accomplish this task, and still retain proper airflow to the device, it is necessary to use P/N PS-115 Opaque Shelter w/sampler bracket, which is shown on our price list as being for NO-NO_x, NO_2, and SO_2.

The PS-115 mounting bracket is attached to the site using several small screws or by passing a wire through two holes on each side of the bracket and then around the pole or post.

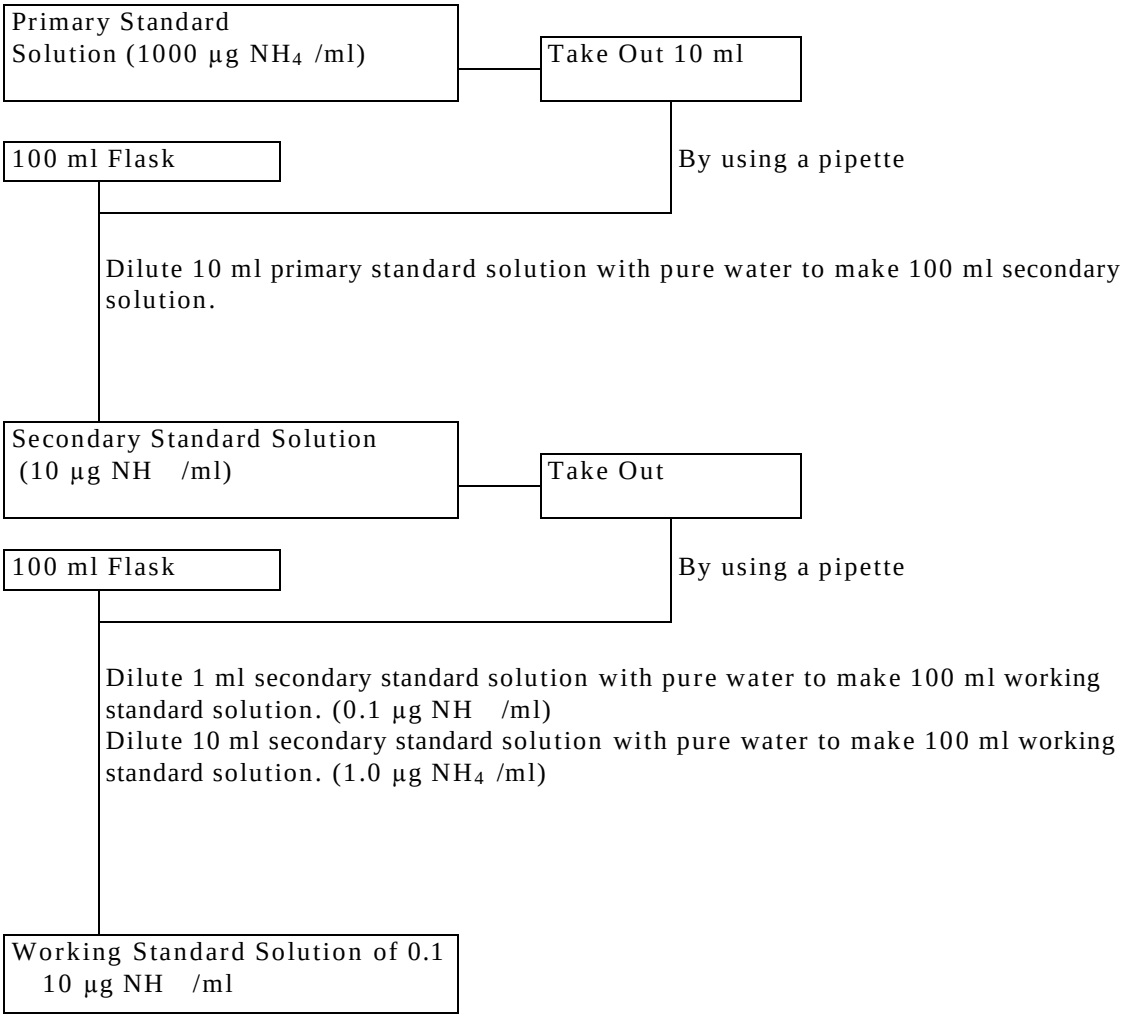
The sampler easily clips on to the bracket and the cup slides over the bracket to protect the sampler.

The PS-106 sampler bracket, once the sampler is clipped to it, easily slips over the shelter to hold the sampler in the correct position within the shelter.

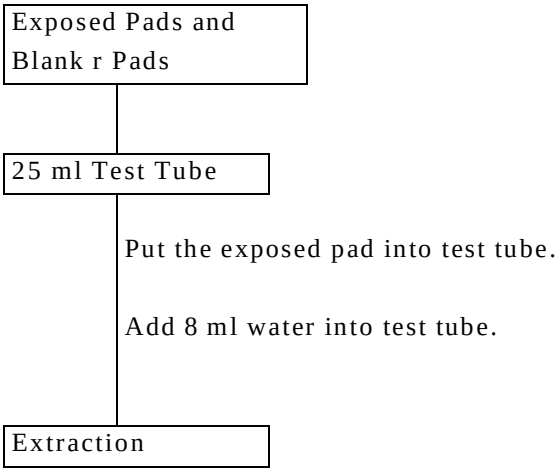
US EPA ARCHIVE DOCUMENT

NH_3 Analytical Procedure using Ogawa Sampler

1. Preparing of the NH_4 Standard Solution



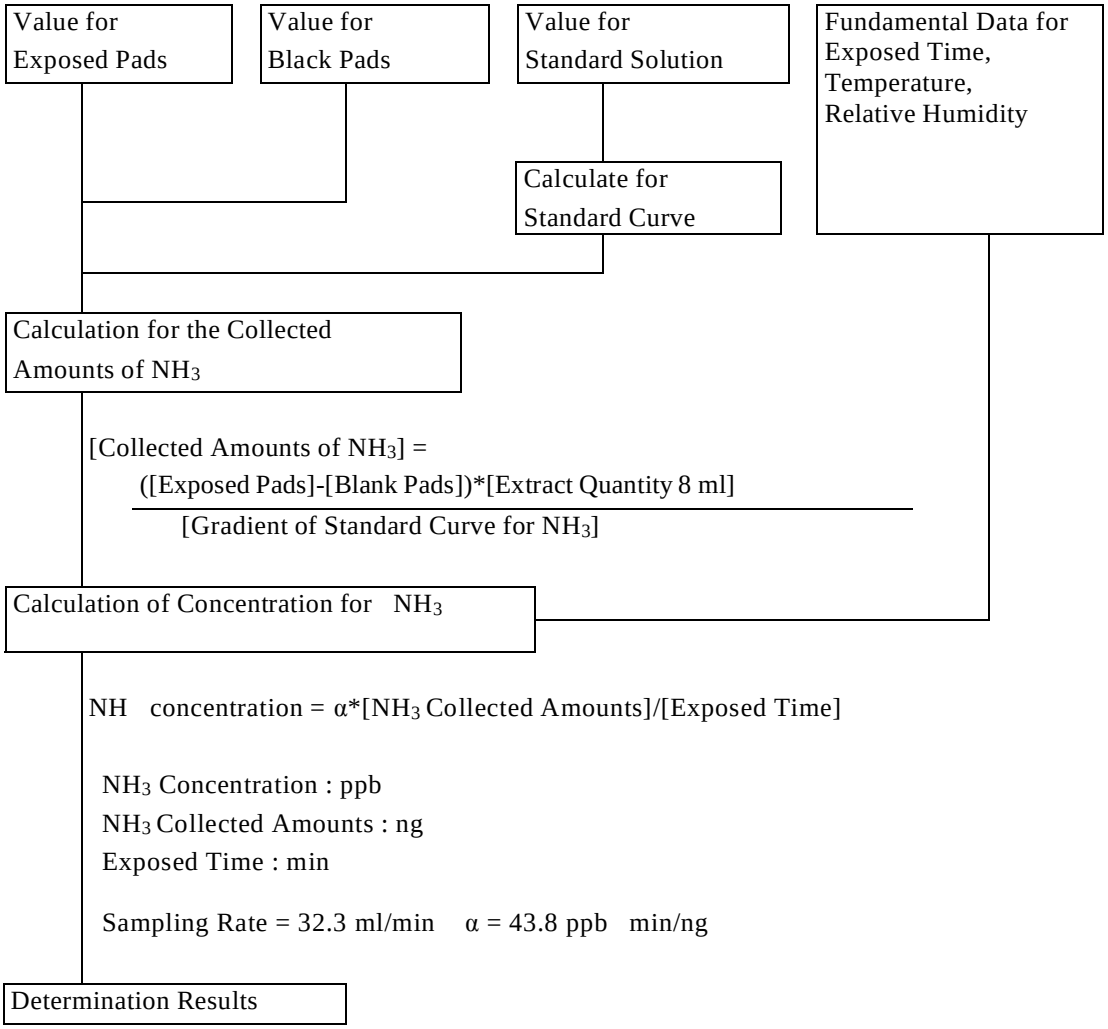
4. Analytical Procedure of NH_3



After extracted 30 minutes, shake slowly.

Analyzed by IC

5. Calculation for NH_3 Concentration



US EPA ARCHIVE DOCUMENT

Baseline ambient gaseous ammonia concentrations in the Four Corners area and eastern Oklahoma, USA

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Received 12th May 2008, Accepted 11th September 2008
First published as an Advance Article on the web 25th September 2008
DOI: 10.1039/b807984f

Ambient ammonia monitoring using Ogawa passive samplers was conducted in the Four Corners area and eastern Oklahoma, USA during 2007. The resulting data will be useful in the multipollutant management of ozone, nitrogen oxides, and visibility (atmospheric regional haze) in the Four Corners area, an area with growing oil/gas production and increasing coal-based power plant construction. The passive monitoring data also add new ambient ammonia concentration information for the U.S. and will be useful to scientists involved in present and future visibility modeling exercises. Three week integrated passive ammonia samples were taken at five sites in the Four Corners area and two sites in eastern Oklahoma from December, 2006 through December, 2007 (January, 2008 for two sites). Results show significantly higher regional background ammonia concentrations in eastern Oklahoma (1.8 parts per billion (ppb) arithmetic mean) compared to the Four Corners area (0.2 ppb arithmetic mean). Annual mean ammonia concentrations for all Four Corners area sites for the 2007 study ranged from 0.2 ppb to 1.5 ppb. Peak ambient ammonia concentrations occurred in the spring and summer in both areas. The passive samplers deployed at the Stilwell, Oklahoma site compared favorably with other passive samplers and a continuous ammonia monitoring instrument.

1. Introduction

In late 2005 the Four Corners Air Quality Task Force (FCAQTF) was formed to address air quality issues associated with growth in the oil/gas production and coal-fired power plant industries.[1] The Four Corners area includes southwest Colorado, northwest New Mexico, southeast Utah, and northeast Arizona. One of the concerns of the FCAQTF is that ambient ozone concentrations in the area may not meet the new U.S. 8 hour ozone standard of 0.075 parts per million (ppm).[2] In order to mitigate increases in ambient ozone concentrations, certain controls are being considered for the ozone precursor nitrogen oxides, such as selective and non-selective catalytic reduction on oil and gas production equipment and power plants. The use of selective or non-selective catalytic reduction controls would, however, result in the release of more ammonia emissions to the atmosphere. Ammonia is known to be a precursor of fine particulate matter,[3] which adversely affects public health, atmospheric visibility, and acid deposition patterns.[4] Currently, it is not known whether or not increased ammonia emissions in the Four Corners area would be significant enough to cause a degradation in atmospheric visibility. To enable air quality managers to answer this question in the future, ambient monitoring of gaseous ammonia (NH_3) was instituted to set a current baseline. Then in the future, after nitrogen oxide controls have been implemented along with any gaseous ammonia increases due to growth in other sources such as population and mobile vehicles, ambient monitoring of gaseous NH_3 can take place again to compare to the current baseline. Thus, the states of New Mexico and Colorado in the Four Corners area requested to work with the U.S. Environmental Protection Agency (EPA) Region 6 in 2006 in order to obtain a current ambient ammonia monitoring baseline. To keep costs low Ogawa passive sampling devices (PSDs) were deployed for the baseline study, and the U.S. EPA Region 6 laboratory in Houston, Texas, provided the laboratory preparation and ion chromatographic (IC) analytical work. Simple to use PSDs, including the Ogawa PSD, have been successfully used in many published ambient ammonia studies around the world.[5–15] The U.S. currently lacks a routine national Federal Reference Method (FRM) ambient monitoring network for ammonia, so the data from the 2007 study in the Four Corners area and eastern Oklahoma also add new ambient ammonia concentration information for the U.S., adding to previous

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ambient ammonia monitoring data collected in eastern, western, and southeastern U.S. states.[14–19]

2. Experimental

2.1 Study sites

There were six passive ammonia sites that sampled for the entire year-long study. In addition, in response to the Quapaw Tribe's interest in obtaining ambient ammonia concentrations around a nearby mushroom processing facility, a seventh site participated in the study for the last eight 3 week integrated sampling periods. A map of all study sites from the three different areas, including annual mean ammonia concentrations for the six sites that operated year-long, is depicted in Fig. 1. A variety of site types was desired and included: regional background sites in both the Four Corners area (Mesa Verde National Park) and eastern Oklahoma (Stilwell); oil and gas development impacted sites in the Four Corners area (Navajo Lake and Southern Ute). The Southern Ute site was also impacted by mobile source emissions, being nearby a major highway; a coal-fired power plant impacted site in the Four Corners area (Substation); an urban site in the Four Corners area (Farmington Airport), and finally a nearby source oriented site situated to record higher ambient ammonia concentrations (Quapaw site in northeastern Oklahoma).

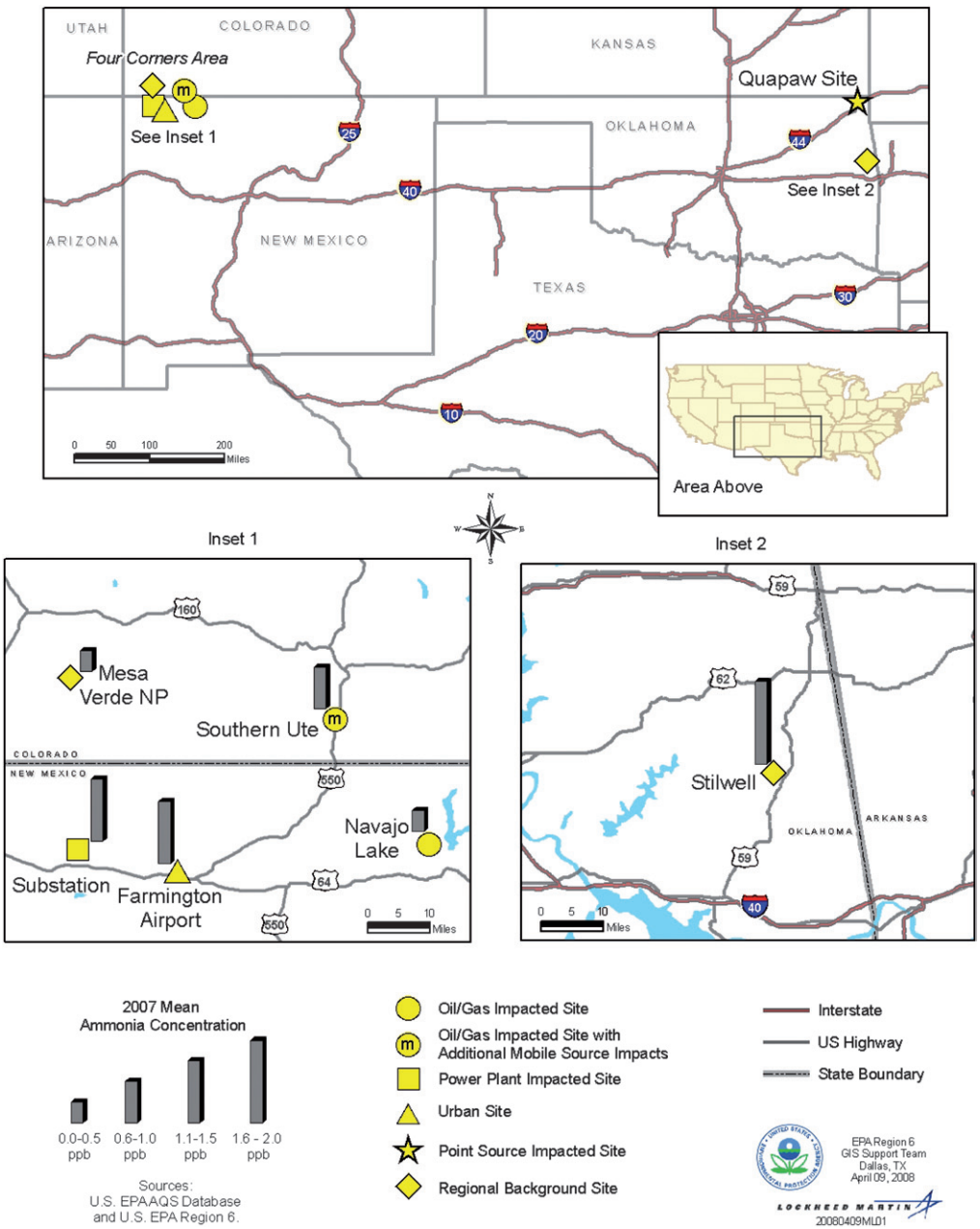

Fig. 1 Map of the 2007 passive ammonia monitoring sites and annual mean concentrations in the Four Corners area and eastern Oklahoma.

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2.2 Field instrumentation

For the passive ammonia sampling, Ogawa passive sampling devices (PSDs) were used, previously obtained from Ogawa & Co., Inc., Pompano Beach, Florida. The Ogawa PSD is composed of a solid cylindrical polymeric body (two centimetres by three centimetres long) with a diffusion barrier and two stainless steel screens on each side. At most of the sites the ammonia PSDs were mounted on aluminium pole assemblies about 1.5 metres above ground level (agl). A few of the sites installed the aluminium pole assemblies on top of existing air monitoring sampling trailers (about 5 metres agl). Each PSD was placed under a rain shelter for wind face velocity and precipitation protection. Gaseous ammonia, upon natural diffusion into the PSD, was collected on filters coated with citric acid. The filters used in this study were purchased from Ogawa by the New Mexico Environment Department, the Cherokee Nation, and the U.S. EPA Region 6 laboratory in Houston. The detection limit of the ammonia PSD in our study, defined as two times the standard deviation of the blank values, was 0.18 ug m^{-3} for 3 week integrated deployments, which compares favorably with previous passive ammonia field studies.[13,14,20] Every deployment involved duplicate sampling for both field samples and field transport blanks. The two field transport blanks were averaged and subtracted from each field sample. The two field samples were then averaged for the final ammonia concentration. All calculations were done in accordance with the Ogawa sampling protocol for ammonia[21] and included corrections for local ambient temperature.

Since 2004 the Cherokee Nation has operated a continuous ammonia monitor at their Stilwell, Oklahoma site. The continuous ammonia monitor is a Pranalytica Nitrolux 200 continuous trace level ammonia analyser, which measures ambient ammonia concentrations by ultrasonic acoustic spectroscopy. Weekly performance checks (*e.g.* for error or maintenance flags, filter or battery change, laser overheat) on the Nitrolux instrument are conducted by the Cherokee Nation, and once every year the instrument is sent to Pranalytica for checkout and any required repairs. For 2007 the Stilwell Nitrolux instrument was operated from January 1 through September 15, 2007.

2.3 Laboratory procedures

2.3.1 Sample preparation and handling. Since gaseous ammonia is ubiquitous in trace quantities in the laboratory environment (*e.g.* from human breath and in moisture from sweat glands), and since it was desired to credibly monitor low regional background ammonia concentrations, great care was taken in preparing and handling the passive ammonia PSDs. First, the ammonia PSDs were prepared in an ammonia-scrubbed down-draft clean hood. The PSDs were then placed into thick (at least 0.05 millimetres thick) Ziploc bags, and the Ziploc bags were then placed into SC475 68 millilitre (ml) plastic vials with tight screw caps (from Environmental Express in Mt. Pleasant, South Carolina). The plastic vials, along with log sheets and return mail labels, were then packed into thermal bags for either FedEx or UPS small box shipping. Onsite sample change-out training was conducted with all of the operators for all of the sites for consistency and to further help in minimizing sample contamination. Powder-free disposable gloves were employed by all laboratory chemists and monitoring site operators.

2.3.2 Chemical analyses. After each three weeks of sampling the ammonia PSDs were shipped back to the EPA Region 6 Houston laboratory. The ammonia filters were removed from the PSDs under the down-draft clean hood. The filters were then extracted with 8 ml of deionized water and ultrasonicated for 45 minutes. Sample solutions were analysed using a Metrohm MIC-2 advanced modular ion chromatograph (IC). The Metrohm IC was equipped with a guard column and MetroSep C2-250 (4 millimetres (mm) by 250 mm) separation column for cations. An eluent mixture of 4 millimoles (mM) tartaric acid plus 1 mM 2,6-pyridine dicarboxylic acid (PDCA) at a flow rate of 1 ml min^{-1} was used to elute the ammonium ion (IC detection limit for the ammonium ion = 0.025 ppm). The IC was used in non-suppressed conductivity detection mode with detector settings at a range of one millisiemen per centimetre (mS cm^{-1}) and 100 uS cm^{-1} full scale.

3. Results and discussion

3.1 Precision and comparisons of the passive data

The precision for the year-long study was reviewed by analysis of the absolute differences of 124 data pairs from all seven sites (Fig. 2), using the median absolute difference and 90th percentile of all of the absolute difference values per Sirois and Vet.[22] The absolute difference between duplicate field samples had a median value of 0.1 ppb with 90% having a 0.3 ppb or lower difference. Lower precision was measured at the higher ambient ammonia concentrations (all from the Quapaw site). For the 16 data pairs from the Quapaw site the absolute difference between duplicate field samples had a median value of 0.2 ppb with 90% having a 0.75 ppb or lower difference.

The Ogawa PSDs used in this study have been successfully validated and used in previous published studies.[13,14,18] To support our confidence that the Ogawa PSDs were providing reliable indicators of ambient ammonia concentrations, we conducted two data comparisons. First, at the Stilwell site, the passive ammonia data were compared to the continuously running Nitrolux monitoring data. The Nitrolux monitor operated through September 15, 2007. As seen in Fig. 3, the passive

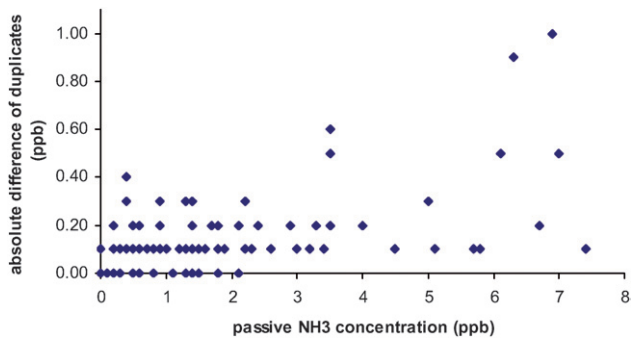

Fig. 2 Precision of the Ogawa NH_3 PSDs for the 2007 Four Corners area and eastern Oklahoma passive ammonia study.

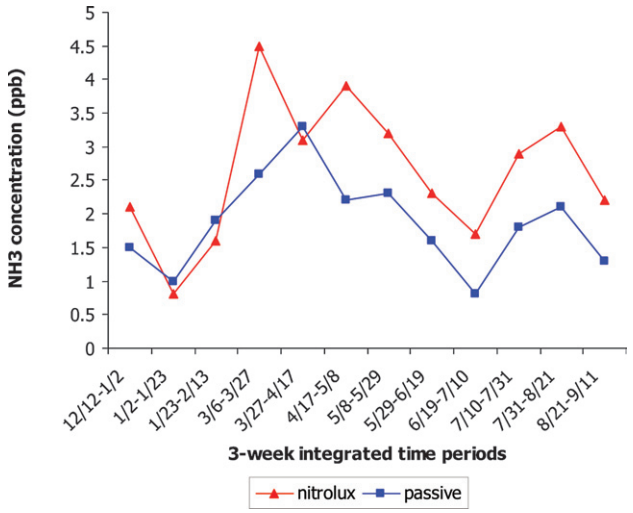

Fig. 3 Comparison of 3 week integrated passive ammonia data with continuous hourly Nitrolux ammonia data at the Stilwell, Oklahoma site; data capture of the Nitrolux monitor > 70% for each time period; 12/12/06–9/11/07.

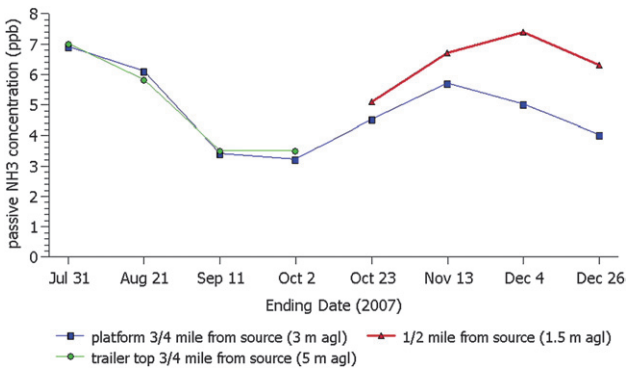

Fig. 4 Passive ammonia data time series for the Quapaw, Oklahoma site; 3 week integrated samples.

ammonia data overall tracked well with the Nitrolux ammonia data, with the Nitrolux ammonia concentrations usually higher than the passive ammonia concentrations. The correlation coefficient, r, was 0.74. The difference in arithmetic means was 0.7 ppb, but was not statistically significant (2.6 ppb mean ammonia concentration for the Nitrolux *versus* a 1.9 ppb mean ammonia concentration for the passive samples). It is important to note that since the Nitrolux monitor was not calibrated on site (*i.e.* only calibrated by the manufacturer once a year), the data from the Nitrolux monitor could only be viewed as providing an estimate of ambient ammonia concentrations rather than providing more precise measurements of ambient ammonia concentrations. Second, also at the Stilwell site, the passive ammonia data were compared to supplementary passive ammonia data being collected through a short-term Environment Canada study. Both studies used the Ogawa passive sampling device (PSD), with the Environment Canada Ogawa PSDs slightly modified (*i.e.* using 25 millimetre diameter filters instead of 14.5 millimetre diameter filters, and having more holes in the diffusion barriers), and operating at 2 week intervals instead of 3 week intervals. The Environment Canada PSDs were loaded, unloaded and analysed at their own laboratory in Toronto, Canada. The Environment Canada ammonia study ran through March, 2007, so a three month comparison with the EPA Region 6 passive data was possible. As seen in Table 1 the six week and twelve week average concentrations of the EPA Region 6 passive ammonia data and the Environment Canada passive ammonia data compared within +7% at best and within −20% at worst (calculated as 100× [EPA-EC]/EPA).

Table 1 Comparison of EPA Region 6 and Environment Canada Ogawa passive sample data at the Stilwell site; mean ammonia concentrations; 2007

Time period	EPA Region 6 sampler mean (ppb)	Environment Canada sampler mean (ppb)
1/2–2/13 (first 6 weeks)	1.5	1.4
2/13–3/27 (second 6 weeks)	2.0	2.4
1/2–3/27 (entire 12 weeks)	1.7	1.9

Additional information which contributed to confidence in the passive data was obtained from the Quapaw Tribe source-oriented site. This site not only provided important data for the tribe concerning ambient ammonia concentrations close to a local mushroom processing facility (*i.e.* about 0.75 miles NNE of the facility), but also checked the ability of the PSD to adequately record higher concentrations of ambient ammonia concentrations compared to the considerably lower ambient ammonia concentrations recorded at the Four Corners area and Stilwell sites. Fig. 4 shows the time series of all passive ammonia samples taken at the Quapaw site (first samples taken July 13–July 31, 2007). The first four sampling periods involved collocated samples taken at slightly different heights (3 metres agl *versus* 5 metres agl), and those samples tracked close with the platform ambient ammonia concentration average at 4.9 ppb and the trailer top ambient ammonia concentration average at 5.0 ppb. For the second four sampling periods, the trailer top pair of duplicate samples was moved about 0.25 miles closer to the mushroom processing plant. All samples tracked well with the samples closer to the mushroom processing facility recording the higher passive ammonia concentrations (6.4 ppb average at 0.5 miles from the facility *versus* a 4.8 ppb average at 0.75 miles from the facility).

3.2 Time series analyses

A time series of the 3 week integrated passive ammonia samples was constructed for each site for the year-long 2007 study period. For the five Four Corners area sites (Fig. 5) the time series traces of passive ammonia concentrations generally increased from the beginning winter months to the warmer summer months, reaching peak ammonia concentrations during the July 10–July 31, 2007 time period, before generally decreasing in concentrations during the fall months. There were two notable exceptions to this general trend. First, the Southern Ute site recorded an additional peak ammonia concentration during the spring (the April 17–May 8, 2007 time period). There is moderate local agricultural activity around the Southern Ute site, so field

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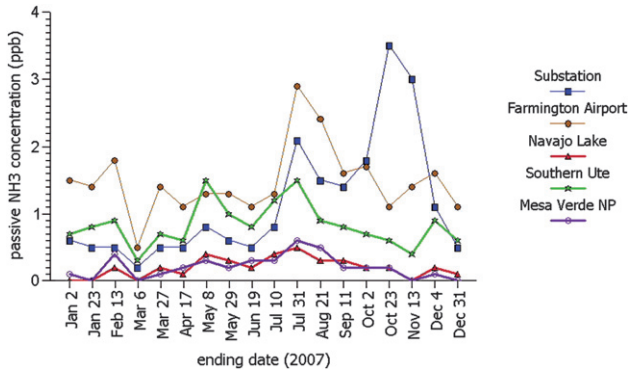

Fig. 5 Passive ammonia data time series for the Four Corners area sites; 3 week integrated samples; ending dates 1/3/08 for Southern Ute and 1/22/08 for Mesa Verde NP.

fertilization probably caused the spring peak. Second, the Substation site, impacted by two coal-fired power plants, recorded additional peak ammonia concentrations during the fall (the October 2–October 23, 2007 and the October 23–November 13, 2007 time periods). These fall concentrations at the Substation site were also the highest ambient ammonia concentrations recorded in the Four Corners area for the year-long study.

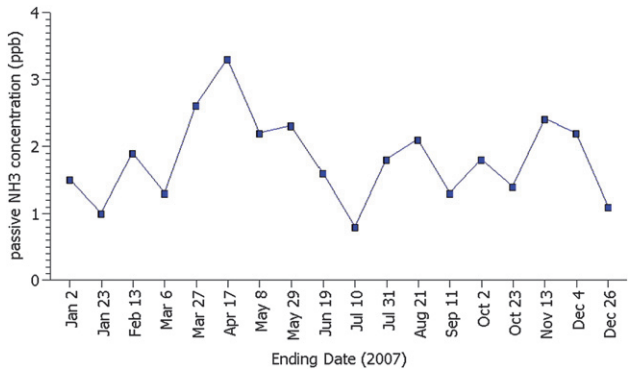

Fig. 6 Passive ammonia data time series for the Stilwell, Oklahoma site; 3 week integrated samples.

The time series trace for the Stilwell, Oklahoma site is shown in Fig. 6. The Stilwell site recorded its peak ambient ammonia concentration during the spring (the March 27–April 17, 2007 time period), probably due to agricultural fertilization activity. Table 2 displays the summary statistics for the five Four Corners area sites and the Stilwell, Oklahoma site. Of note is that the Stilwell site, representing regional background ammonia concentrations for eastern Oklahoma (1.8 ppb arithmetic mean), was nine times higher than the regional background site for the Four Corners area (0.2 ppb arithmetic mean at Mesa Verde National Park). Agricultural ammonia emissions, including microbial decomposition of animal waste from confined animal feeding operations (CAFOs), are higher in the region around eastern Oklahoma compared to the Four Corners area, resulting in a greater county ammonia emissions density for the Stilwell site *versus* the Four Corners area.[23]

In the Four Corners area, the urban Farmington Airport site recorded the highest annual mean ammonia concentration (1.5 ppb), followed by the power plant impacted Substation site (1.1 ppb). The rural Navajo Lake site, located in an area with growing oil and gas production, recorded an annual mean ammonia concentration (0.2 ppb) identical to the regional background site at Mesa Verde National Park. The Southern Ute site, also located in an area with growing oil and gas production but with added mobile source impacts, recorded a higher annual mean of 0.8 ppb.

3.3 Examination of the passive data in a national and international context

The Four Corners area and eastern Oklahoma passive ammonia data were reviewed in the context of other United States and International ammonia monitoring studies. Table 3 presents summaries of some year-long ambient ammonia monitoring studies culled from a current literature review. The Four Corners area and eastern Oklahoma ranges of annual mean concentrations for ambient ammonia are lower compared to the International and Delaware, U.S. studies, but similar to the concentration ranges seen in the southeastern U.S. states. Peak ambient ammonia concentrations in the spring or summer or fall were seen at sites in all of the studies, with winter maxima occurrences rare.

Table 2 Summary statistics for Four Corners area and Stilwell, Oklahoma passive ammonia sites; 3 week integrated samples; December 12, 2006–December 26, 2007[a]

Site (type)	Mean (ppb)	Min. (ppb)	Max. (ppb)	σ (ppb)	95% confidence interval around mean (ppb)
Substation (power plant impacted)	1.1	0.2	3.5	0.9	0.7–1.6
Farmington Airport (urban)	1.5	0.5	2.9	0.5	1.2–1.7
Navajo Lake (rural, oil/gas impacted)	0.2	No detection	0.5	0.1	0.1–0.3
Southern Ute (oil/gas/mobile source impacted)	0.8	0.3	1.5	0.3	0.7–1.0
Mesa Verde NP (rural, regional background)	0.2	No detection	0.6	0.2	0.1–0.3
Stilwell (rural, regional background)	1.8	0.8	3.3	0.6	1.5–2.1

[a] Ending dates December 31, 2007 for Substation, Farmington Airport and Navajo Lake, January 3, 2008 for Southern Ute, and January 22, 2008 for Mesa Verde NP.

Table 3 Comparison of Four Corners area and eastern Oklahoma passive ammonia data with other USA and International studies

Study area (reference #)	Time period	Range of annual mean concentrations (ppb)	Peak season(s)
Four Corners Area, USA, New Mexico, Colorado (this study)	12/2006–1/2008	0.2–1.5	Summer and fall (also one spring peak)
Eastern Oklahoma, USA (this study)	12/2006–12/2007	1.8 (one site)	Spring
Delaware inland bays, USA[14]	4/2000–4/2001	<0.7–>8.6	Spring and summer
SE USA, Georgia, Alabama, Mississippi, Florida[17]	1/2004–12/2004	0.23–2.44	Spring and late summer/fall
Denmark heathland[24]	5/1995–5/1996	2.9 (one site)	Spring
Scotland, UK 10 m from road edges[25]	4/2002–4/2003	0.2–4.5	Rural, semi-rural: late summer/fall Other sites with high background: winter
Austria and Bavaria[5]	10/1995–10/1996 and 4/1998–4/1999	1.3–9	Rural: summer
36 regional sites in Asia, Africa and South America[7]	9/1999–8/2000	<1–22 (median values)	Site to site variations
Netherlands[8]	9/2000–9/2001	1.4–25.7	Spring
Switzerland[9]	10/1999–9/2000	0.6–10.7	Summer

4. Conclusion

The 2007 passive ammonia monitoring study in the Four Corners area and eastern Oklahoma was important because it provided first time year-long baseline data of ambient ammonia concentrations in the Four Corners area and eastern Oklahoma in a simple and cost-effective manner, and it added new multi-site ambient ammonia concentration information for additional areas in the United States. It is important for air quality managers, when assessing nitrogen oxide emission controls for ambient ozone mitigation, to also consider ambient ammonia and atmospheric visibility impacts. The passive ammonia data in this study had a median absolute difference between duplicate field samples of 0.1 ppb, and compared favorably to other collocated passive data and a collocated continuous instrument at the Stilwell, Oklahoma site. In a larger context, the Four Corners area/eastern Oklahoma 2007 ambient ammonia concentrations were lower compared to previous international and eastern U.S. studies, but similar to previous measurements taken in some southeastern U.S States. In the future, after the implementation of new nitrogen oxide controls on oil/gas and power plant sources in the Four Corners area along with any growth in other ammonia sources, multiple passive samplers are planned to be deployed again to determine if ambient ammonia concentrations have significantly changed from the 2007 baseline data. Similarly in eastern Oklahoma in the future, passive samplers could be deployed again to determine if ammonia concentrations, largely from regional agricultural emissions, have significantly changed. It is recommended that the future studies be multi-year in duration in order to properly assess inter-annual variability of the ambient ammonia concentrations. The 2007 (and future) passive ammonia data should prove useful to modelers in present and future atmospheric visibility modeling exercises of both the Four Corners area and eastern Oklahoma. The models should be more accurate with inclusion of the passive ambient ammonia data, and the models will help determine if any atmospheric changes in ammonia concentrations significantly affect atmospheric visibility.

Acknowledgements

The authors are grateful to all the field operators involved in day to day careful ambient data collection. The authors thank Mr. Till Stoeckenius of ENVIRON Corporation for review of the draft manuscript, and thank Maria Martinez, David Neleigh, Rick McMillin and Dr Melvin Ritter for their support of passive monitoring studies. The authors also thank Melody Lister and Jeff Danielson for the excellent GIS map production.

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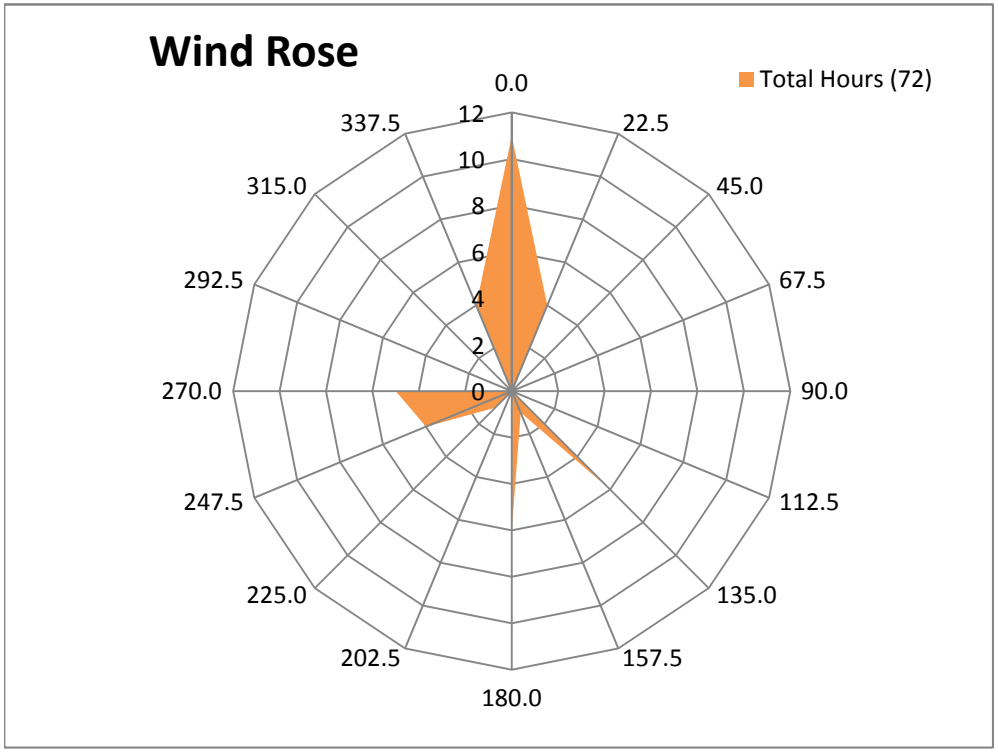

AMMONIA REPORTING VALUES

Sampling Event	**Week 1**	
Sampling Program	Ammonia Sampling	
Sampling Period	**3 - Day**	
Begin Sample Date/Time	6/1/2010	7:33
End Sample Date/Time	6/4/2010	8:04
Exceedance	No	
Verbal Notification Date	N/A	
Written Notification Date	N/A	
Predominant wind direction	North	

3-Day Samples

	Screening Level µ/cu.m.	East Stand		North Stand		South Stand	
		ppb	µ/cu.m.	ppb	µ/cu.m.	ppb	µ/cu.m.
Ammonia (NH_3)	100	6.46	4.65	5.23	3.76	6.75	4.86
Duration							
		Start	**End**	**Start**	**End**	**Start**	**End**
Date		6/1/2010	6/4/2010	6/1/2010	6/4/2010	6/1/2010	6/4/2010
Time		7:33	7:56	7:41	8:04	7:37	7:58

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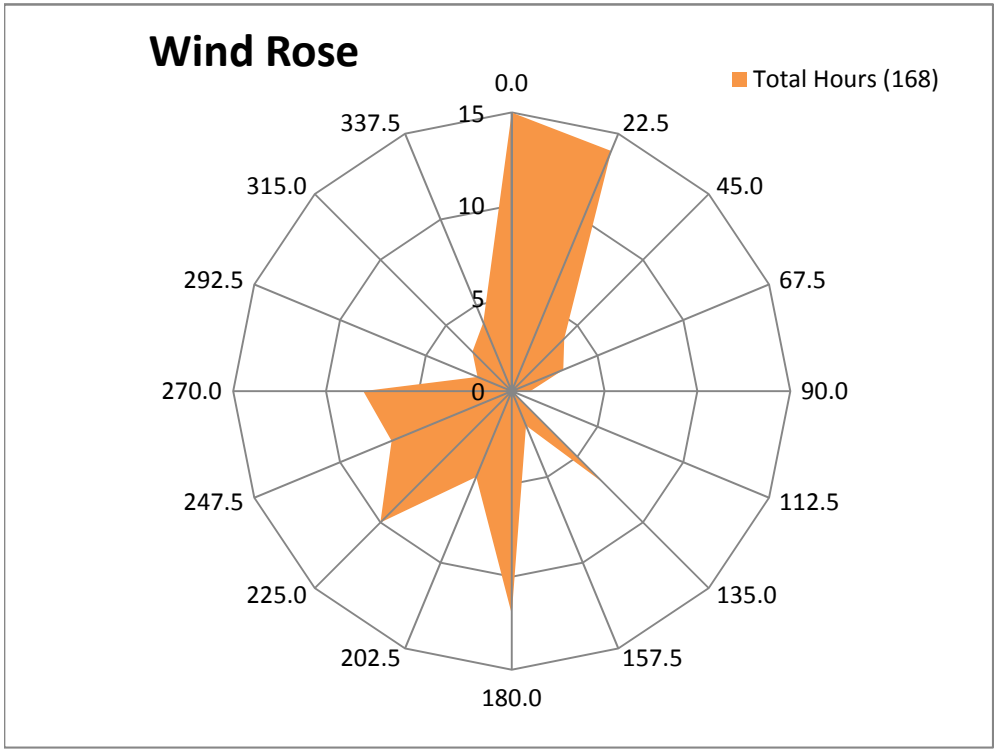

AMMONIA REPORTING VALUES

Sampling Event	**Week 1**	
Sampling Program	Ammonia Sampling	
Sampling Period	**7 - Day**	
Begin Sample Date/Time	6/1/2010	7:33
End Sample Date/Time	6/7/2010	8:20
Exceedance	No	
Verbal Notification Date	N/A	
Written Notification Date	N/A	
Predominant wind direction	North	

7-Day Samples

	Screening Level µ/cu.m.	East Stand		North Stand		South Stand	
		ppb	µ/cu.m.	ppb	µ/cu.m.	ppb	µ/cu.m.
Ammonia (NH_3)	100	6.57	4.73	4.11	2.96	2.97	2.14
Duration							
		Start	**End**	**Start**	**End**	**Start**	**End**
Date		6/1/2010	6/7/2010	6/1/2010	6/7/2010	6/1/2010	6/7/2010
Time		7:33	8:06	7:41	8:20	7:37	8:10

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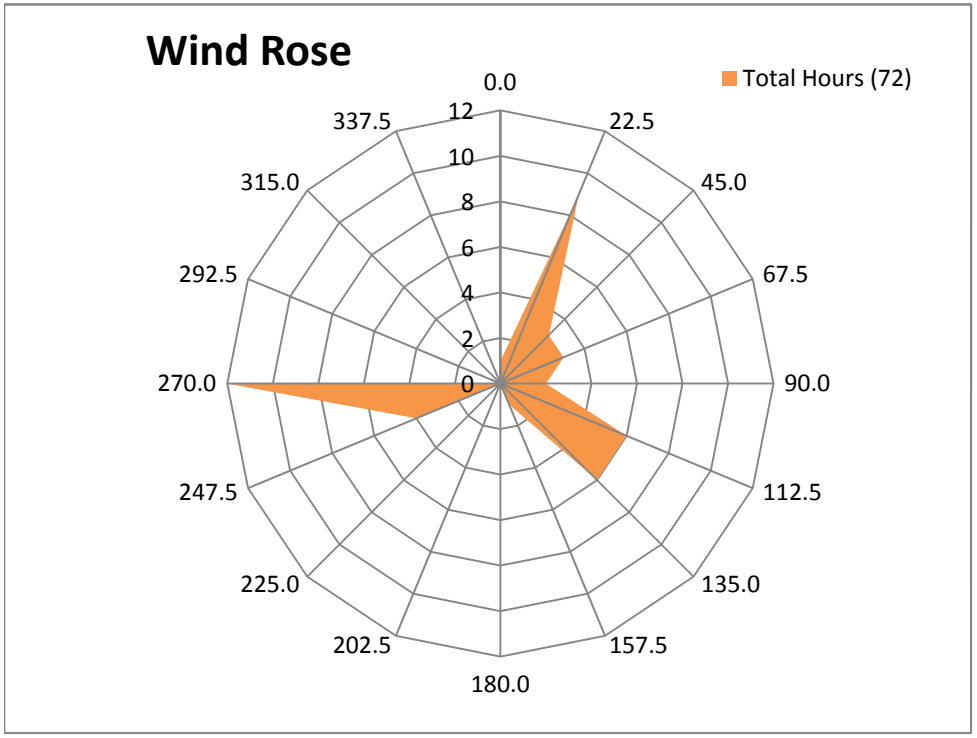

AMMONIA REPORTING VALUES

Sampling Event	**Week 2**	
Sampling Program	Ammonia Sampling	
Sampling Period	**3 - Day**	
Begin Sample Date/Time	6/7/2010	8:06
End Sample Date/Time	6/10/2010	8:19
Exceedance	No	
Verbal Notification Date	N/A	
Written Notification Date	N/A	
Predominant wind direction	West	

3-Day Samples

	Screening Level µ/cu.m.	East Stand		North Stand		South Stand	
		ppb	µ/cu.m.	ppb	µ/cu.m.	ppb	µ/cu.m.
Ammonia (NH_3)	100	10.00	7.20	5.93	4.27	6.90	4.97
Duration							
		Start	**End**	**Start**	**End**	**Start**	**End**
Date		6/7/2010	6/10/2010	6/7/2010	6/10/2010	6/7/2010	6/10/2010
Time		8:06	8:11	8:22	8:19	8:10	8:13

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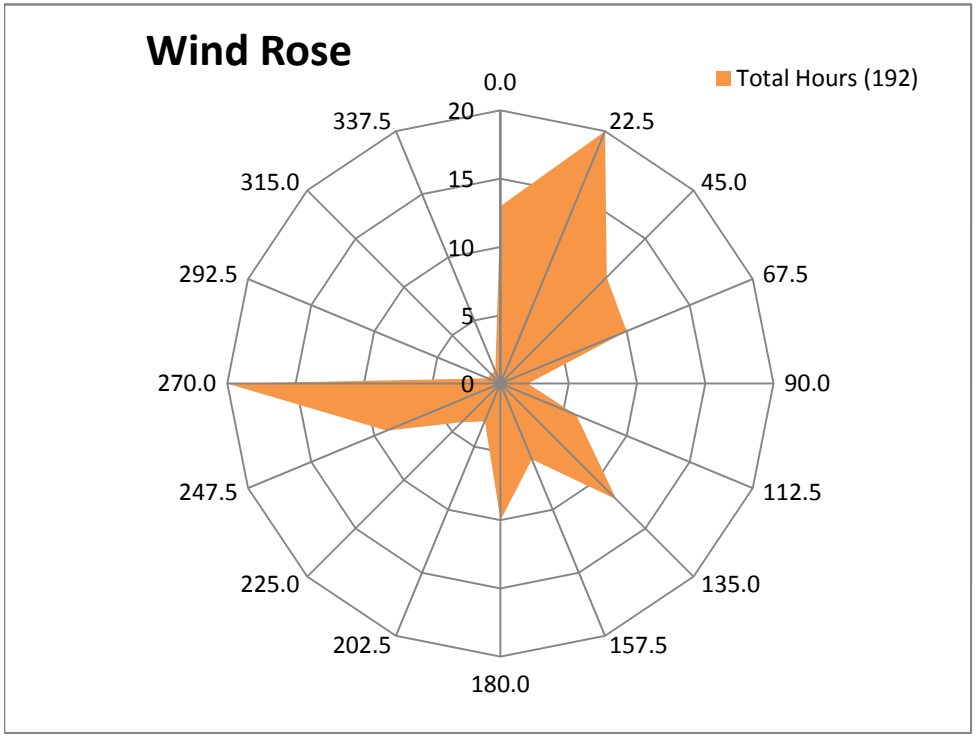

AMMONIA REPORTING VALUES

Sampling Event	**Week 2**	
Sampling Program	Ammonia Sampling	
Sampling Period	**8 - Day**	
Begin Sample Date/Time	6/7/2010	8:06
End Sample Date/Time	6/16/2010	8:03
Exceedance	No	
Verbal Notification Date	N/A	
Written Notification Date	N/A	
Predominant wind direction	NNE	

8-Day Samples

	Screening Level µ/cu.m.	East Stand		North Stand		South Stand	
		ppb	µ/cu.m.	ppb	µ/cu.m.	ppb	µ/cu.m.
Ammonia (NH_3)	100	4.34	3.13	3.62	2.60	4.43	3.19
Duration							
		Start	**End**	**Start**	**End**	**Start**	**End**
Date		6/7/2010	6/16/2010	6/7/2010	6/16/2010	6/7/2010	6/16/2010
Time		8:06	7:49	8:22	8:03	8:10	7:52

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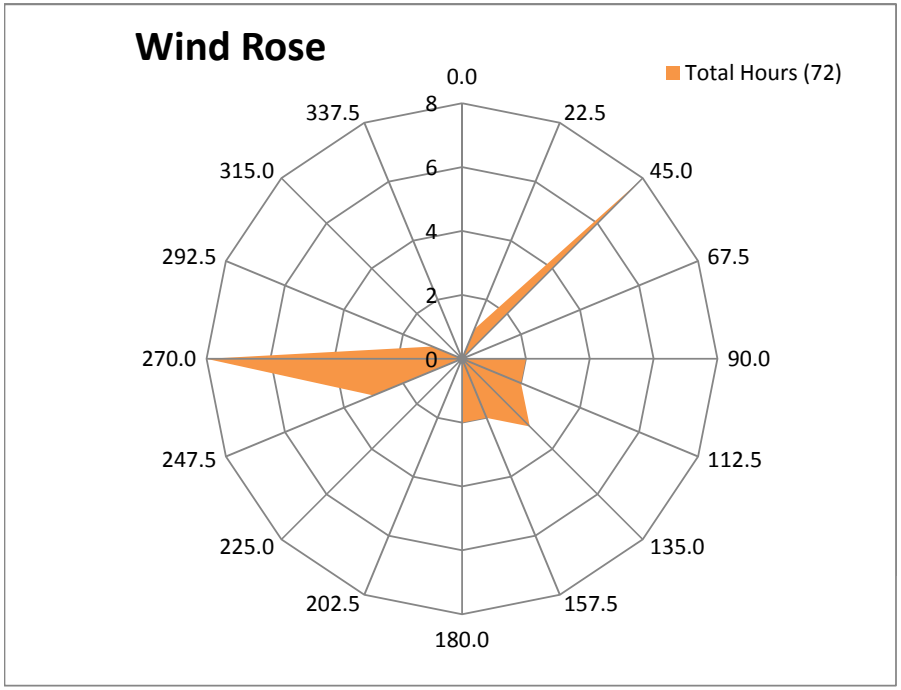

AMMONIA REPORTING VALUES

Sampling Event	**Week 3**	
Sampling Program	Ammonia Sampling	
Sampling Period	**3 - Day**	
Begin Sample Date/Time	6/16/2010	7:49
End Sample Date/Time	6/18/2010	8:03
Exceedance	No	
Verbal Notification Date	N/A	
Written Notification Date	N/A	
Predominant wind direction	West	

3-Day Samples

	Screening Level µ/cu.m.	East Stand		North Stand		South Stand	
		ppb	µ/cu.m.	ppb	µ/cu.m.	ppb	µ/cu.m.
Ammonia (NH_3)	100	14.60	10.51	13.90	10.01	NA	#VALUE!
Duration							
		Start	**End**	**Start**	**End**	**Start**	**End**
Date		6/16/2010	6/18/2010	6/16/2010	6/18/2010	6/16/2010	6/18/2010
Time		7:49	7:43	8:03	8:03	7:52	7:45

Note: No Sample was submitted for the South Stand due to human error. Filter Pads were loaded incorrectly.

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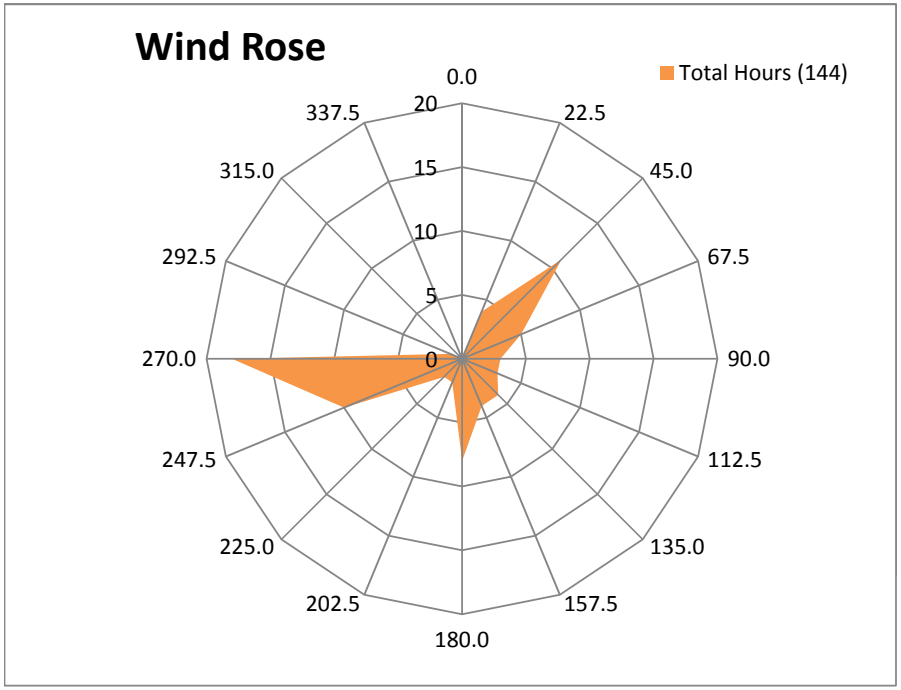

AMMONIA REPORTING VALUES

Sampling Event	**Week 3**	
Sampling Program	Ammonia Sampling	
Sampling Period	**6 - Day**	
Begin Sample Date/Time	6/16/2010	7:49
End Sample Date/Time	6/21/2010	8:19
Exceedance	No	
Verbal Notification Date	N/A	
Written Notification Date	N/A	
Predominant wind direction	West	

6-Day Samples

	Screening Level µ/cu.m.	East Stand		North Stand		South Stand	
		ppb	µ/cu.m.	ppb	µ/cu.m.	ppb	µ/cu.m.
Ammonia (NH_3)	100	4.81	3.46	6.04	4.35	5.39	3.88
Duration							
		Start	**End**	**Start**	**End**	**Start**	**End**
Date		6/16/2010	6/21/2010	6/16/2010	6/21/2010	6/16/2010	6/21/2010
Time		7:49	7:50	8:03	8:19	7:52	7:53

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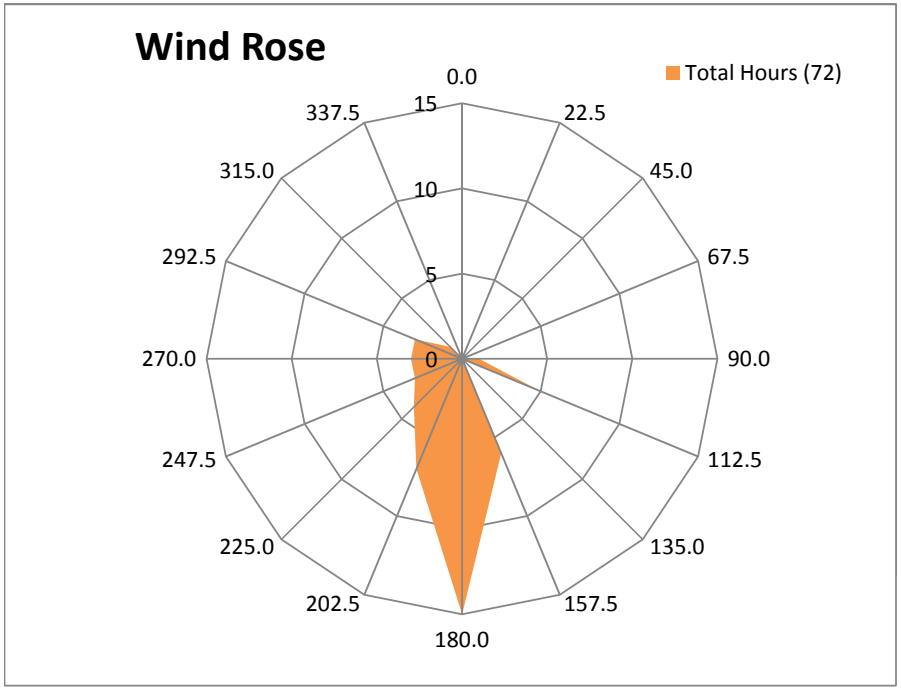

AMMONIA REPORTING VALUES

Sampling Event	**Week 4**	
Sampling Program	Ammonia Sampling	
Sampling Period	**3 - Day**	
Begin Sample Date/Time	6/21/2010	7:50
End Sample Date/Time	6/24/2010	8:10
Exceedance	No	
Verbal Notification Date	N/A	
Written Notification Date	N/A	
Predominant wind direction	South	

3-Day Samples

	Screening Level µ/cu.m.	East Stand		North Stand		South Stand	
		ppb	µ/cu.m.	ppb	µ/cu.m.	ppb	µ/cu.m.
Ammonia (NH_3)	100	9.20	6.63	9.99	7.19	7.43	5.35
Duration							
		Start	**End**	**Start**	**End**	**Start**	**End**
Date		6/21/2010	6/24/2010	6/21/2010	6/24/2010	6/21/2010	6/24/2010
Time		7:50	7:43	8:19	8:10	7:53	7:47

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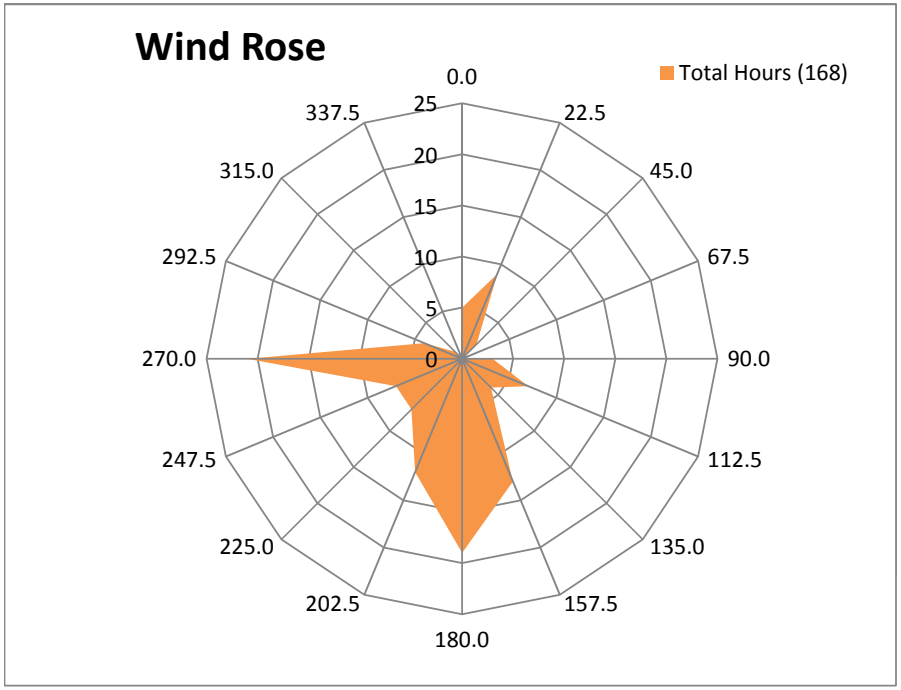

AMMONIA REPORTING VALUES

Sampling Event	**Week 4**	
Sampling Program	Ammonia Sampling	
Sampling Period	**8 - Day**	
Begin Sample Date/Time	6/21/2010	7:50
End Sample Date/Time	6/29/2010	8:13
Exceedance	No	
Verbal Notification Date	N/A	
Written Notification Date	N/A	
Predominant wind direction	South	

8-Day Samples

	Screening Level µ/cu.m.	East Stand		North Stand		South Stand	
		ppb	µ/cu.m.	ppb	µ/cu.m.	ppb	µ/cu.m.
Ammonia (NH_3)	100	4.50	3.24	4.95	3.57	4.14	2.98
Duration							
		Start	**End**	**Start**	**End**	**Start**	**End**
Date		6/21/2010	6/29/2010	6/21/2010	6/29/2010	6/21/2010	6/29/2010
Time		7:50	7:47	8:19	8:13	7:53	7:53

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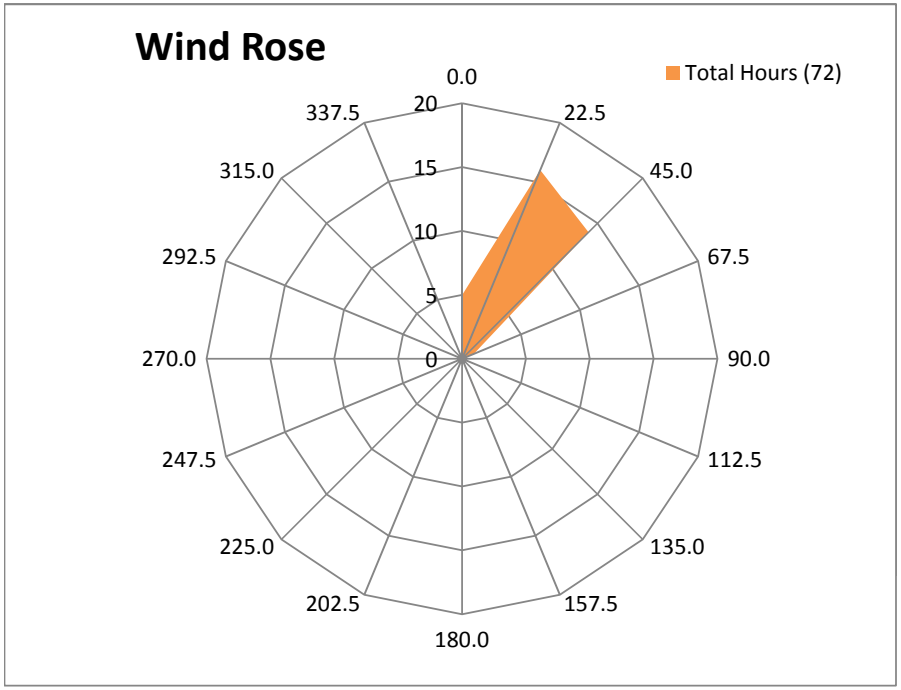

AMMONIA REPORTING VALUES

Sampling Event	**Week 5**	
Sampling Program	Ammonia Sampling	
Sampling Period	**3 - Day**	
Begin Sample Date/Time	6/29/2010	7:47
End Sample Date/Time	7/2/2010	7:55
Exceedance	No	
Verbal Notification Date	N/A	
Written Notification Date	N/A	
Predominant wind direction	NNE	

3-Day Samples

	Screening Level µ/cu.m.	East Stand		North Stand		South Stand	
		ppb	µ/cu.m.	ppb	µ/cu.m.	ppb	µ/cu.m.
Ammonia (NH_3)	100	2.30	1.65	7.58	5.46	2.53	1.82
Duration							
		Start	**End**	**Start**	**End**	**Start**	**End**
Date		6/29/2010	7/2/2010	6/29/2010	7/2/2010	6/29/2010	7/2/2010
Time		7:47	7:50	7:53	7:55	8:13	8:20

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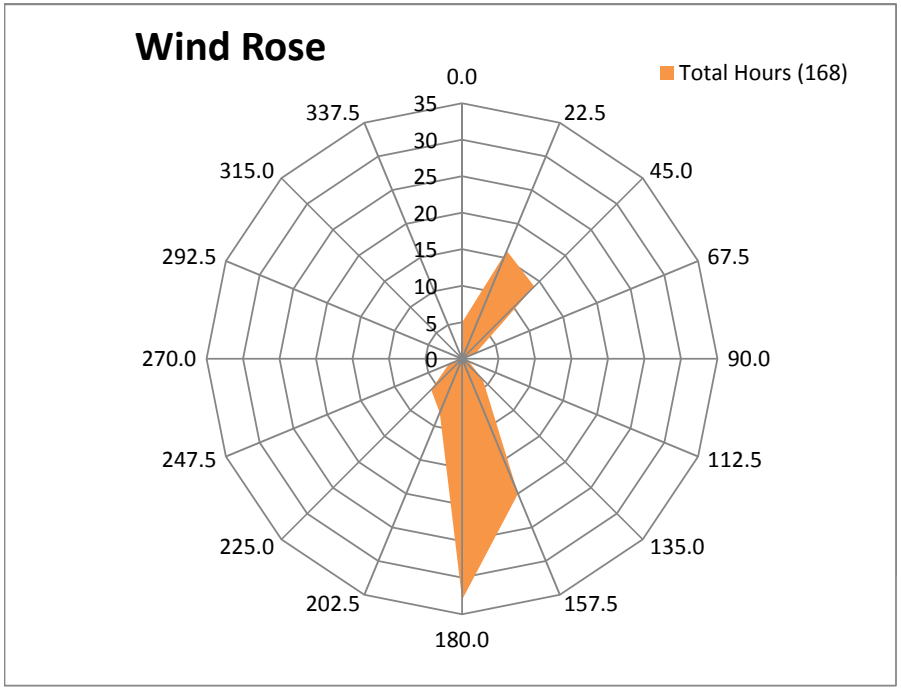

AMMONIA REPORTING VALUES

Sampling Event	**Week 5**	
Sampling Program	Ammonia Sampling	
Sampling Period	**8 - Day**	
Begin Sample Date/Time	6/29/2010	7:47
End Sample Date/Time	7/6/2010	7:45
Exceedance	No	
Verbal Notification Date	N/A	
Written Notification Date	N/A	
Predominant wind direction	South	

8-Day Samples

	Screening Level µ/cu.m.	East Stand		North Stand		South Stand	
		ppb	µ/cu.m.	ppb	µ/cu.m.	ppb	µ/cu.m.
Ammonia (NH_3)	100	2.42	1.74	2.16	1.55	2.97	2.13
Duration							
		Start	**End**	**Start**	**End**	**Start**	**End**
Date		6/29/2010	7/6/2010	6/29/2010	7/6/2010	6/29/2010	7/6/2010
Time		7:47	7:40	7:53	7:45	8:13	8:22

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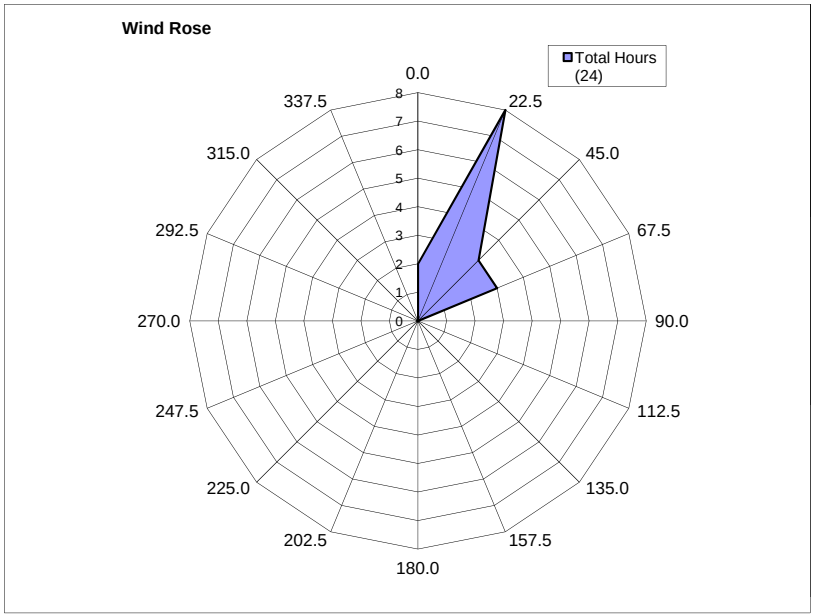

DAILY PM10 REPORTING VALUES

Sampling Event	**June 7, 2010**
Sampling Program	Background
Sampling Period	10:00 - 23:45
Begin Sample Day	10:00
End Sample Day	23:45
Unit 1 - Average PM10 Concentration (Ug/m3)	14.59
Unit 2 - Average PM10 Concentration (Ug/m3)	24.93
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	NNE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	15	**Average Concentration (µg/m^3)**	24.93
Relative Humidity (%)	34.537	**Relative Humidity (%)**	37.536
Ambient temberature (C)	16.194	**Ambient temberature (C)**	16.627
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

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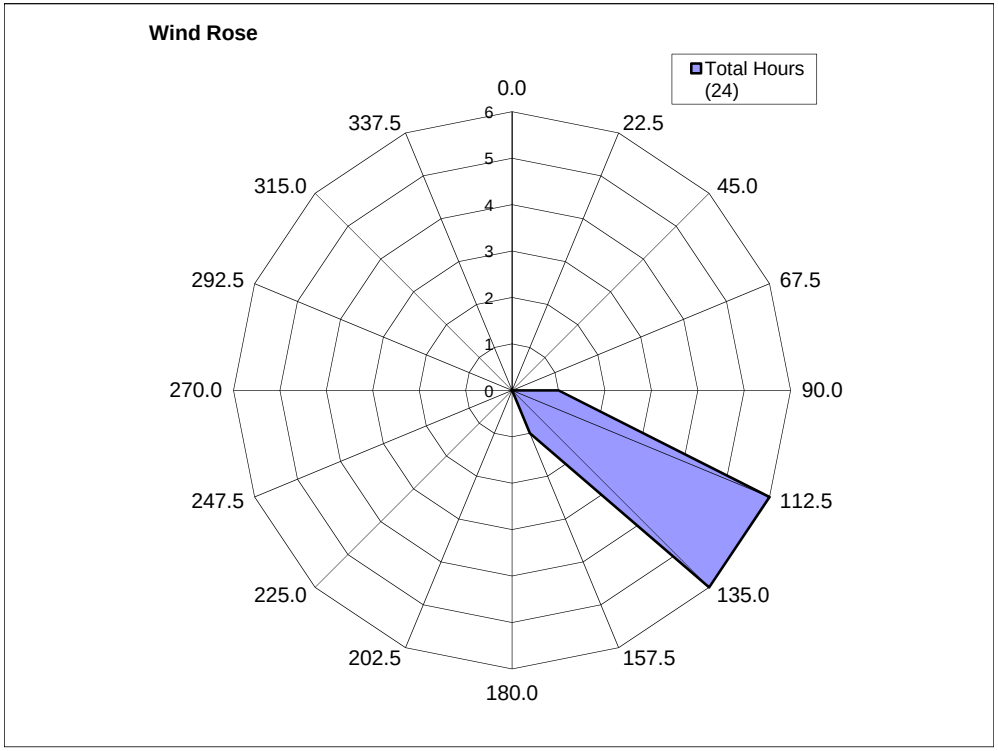

DAILY PM10 REPORTING VALUES

Sampling Event	**June 8, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	16.88
Unit 2 - Average PM10 Concentration (Ug/m3)	16.17
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	ESE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	17	**Average Concentration (µg/m^3)**	16.17
Relative Humidity (%)	43.146	**Relative Humidity (%)**	45.323
Ambient temberature (C)	15.532	**Ambient temberature (C)**	16.049
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

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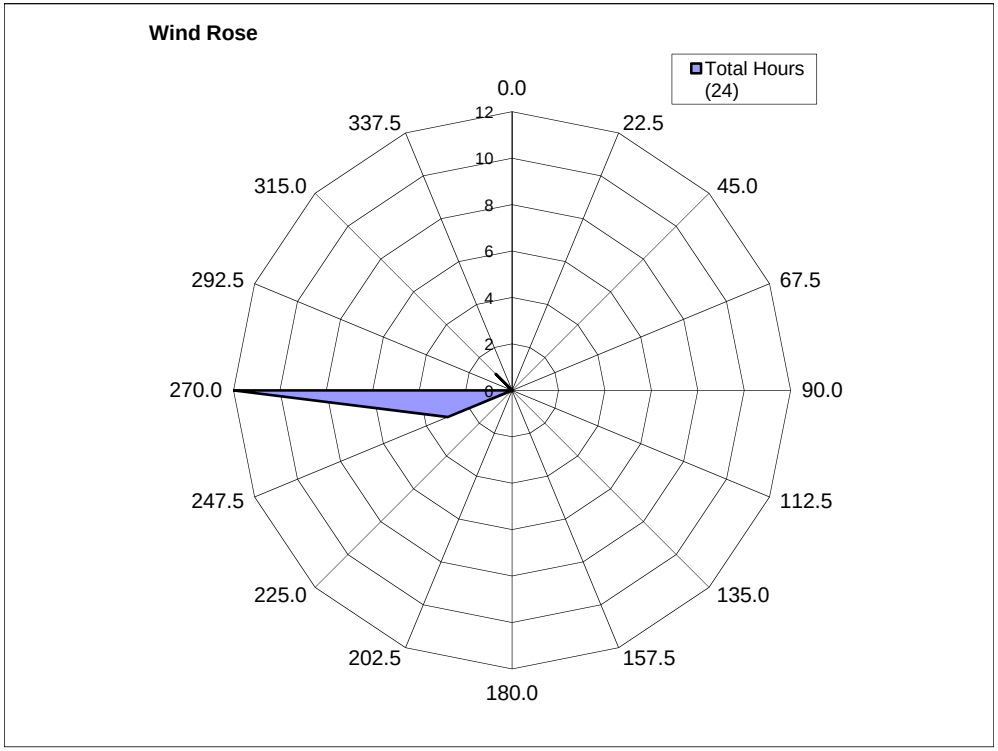

DAILY PM10 REPORTING VALUES

Sampling Event	**June 9, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	26.49
Unit 2 - Average PM10 Concentration (Ug/m3)	21.50
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	W

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	26.49	**Average Concentration (µg/m^3)**	21.50
Relative Humidity (%)	31.753	**Relative Humidity (%)**	33.229
Ambient temberature (C)	23.014	**Ambient temberature (C)**	23.413
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

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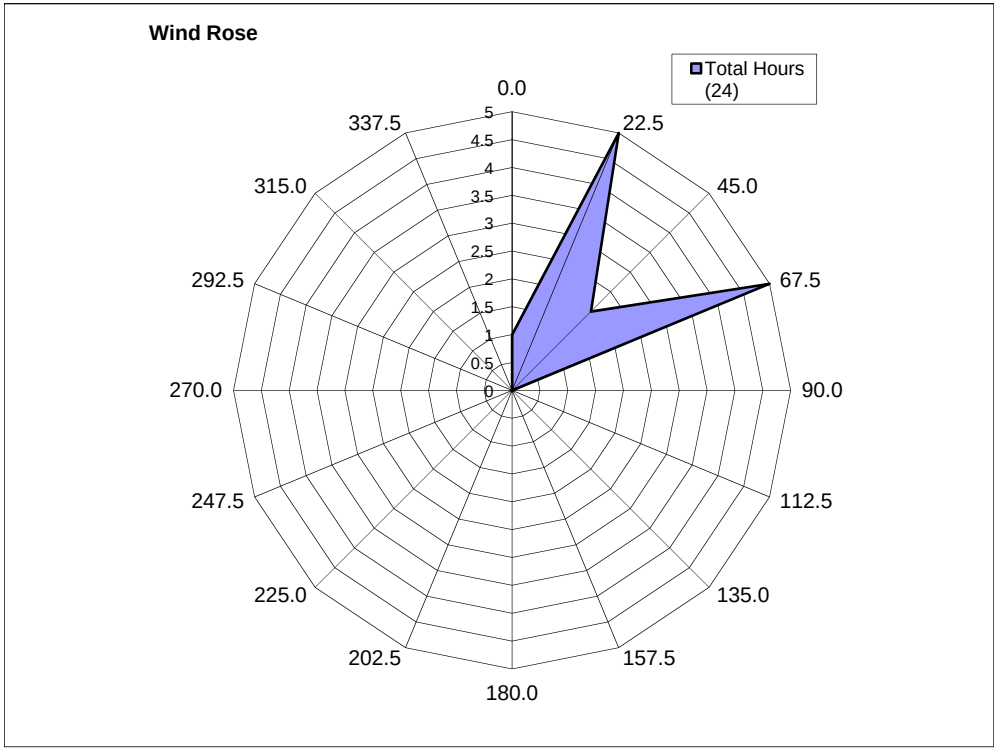

DAILY PM10 REPORTING VALUES

Sampling Event	**June 10, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	30.58
Unit 2 - Average PM10 Concentration (Ug/m3)	34.83
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	NE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	30.58	**Average Concentration (µg/m^3)**	34.83
Relative Humidity (%)	34.667	**Relative Humidity (%)**	38.219
Ambient temberature (C)	18.853	**Ambient temberature (C)**	19.472
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

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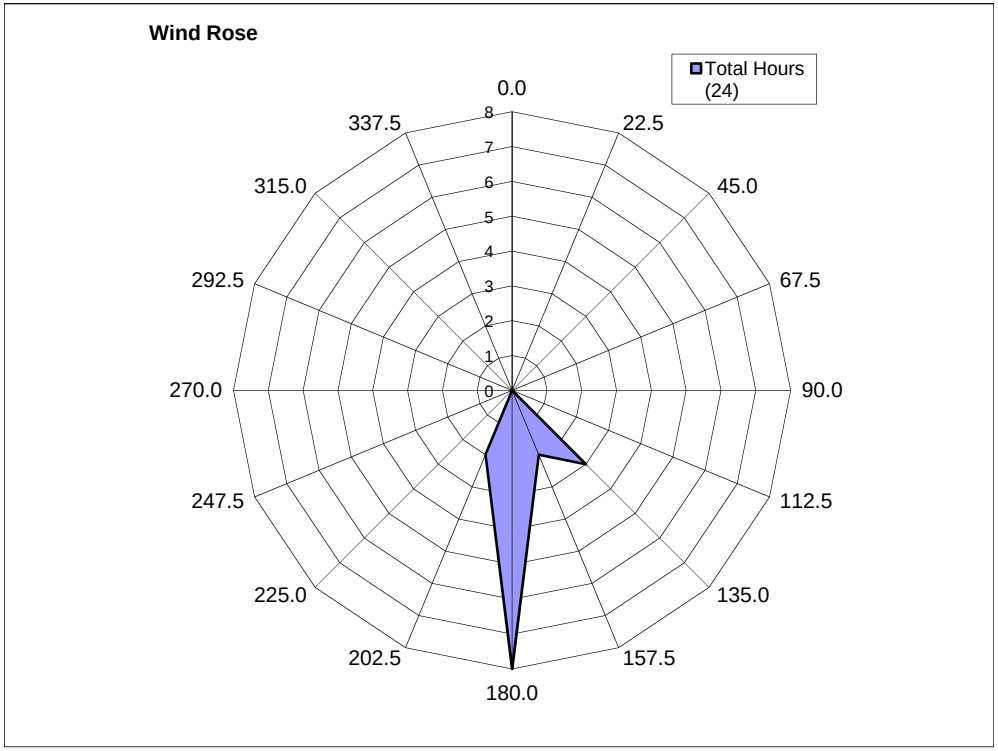

DAILY PM10 REPORTING VALUES

Sampling Event	**June 11, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	29.63
Unit 2 - Average PM10 Concentration (Ug/m3)	27.50
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	S

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	29.63	**Average Concentration (µg/m^3)**	27.50
Relative Humidity (%)	35.490	**Relative Humidity (%)**	38.625
Ambient temberature (C)	24.941	**Ambient temberature (C)**	25.746
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

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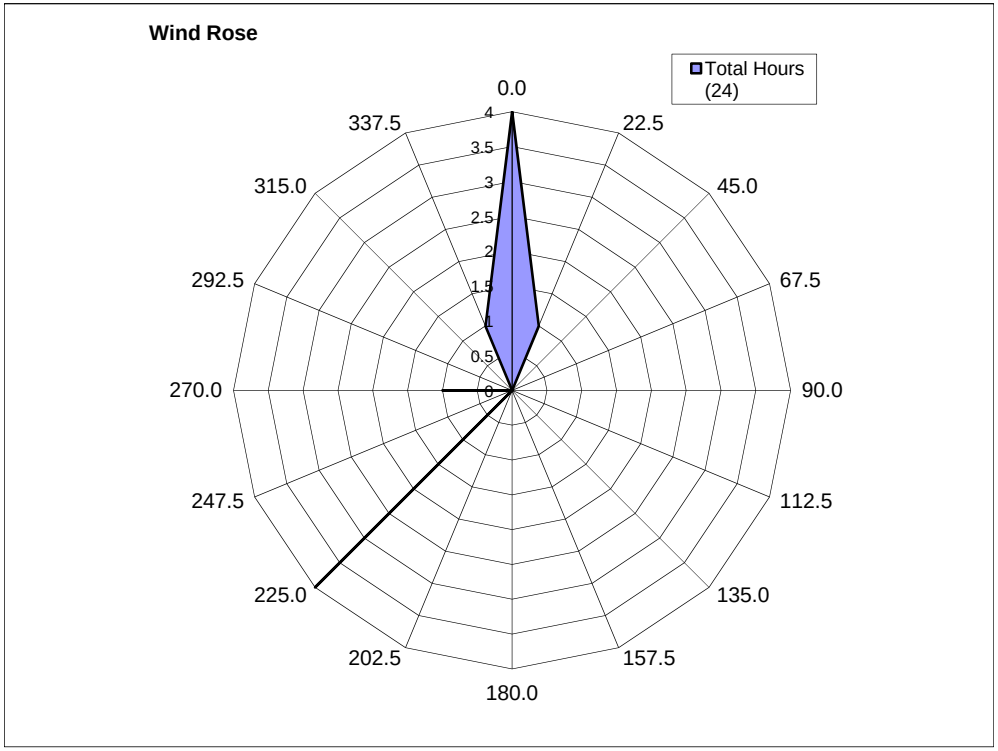

DAILY PM10 REPORTING VALUES

Sampling Event	**June 12, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	31.54
Unit 2 - Average PM10 Concentration (Ug/m3)	25.96
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	N

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	31.54	**Average Concentration (µg/m^3)**	25.96
Relative Humidity (%)	43.927	**Relative Humidity (%)**	45.625
Ambient temberature (C)	19.732	**Ambient temberature (C)**	20.026
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

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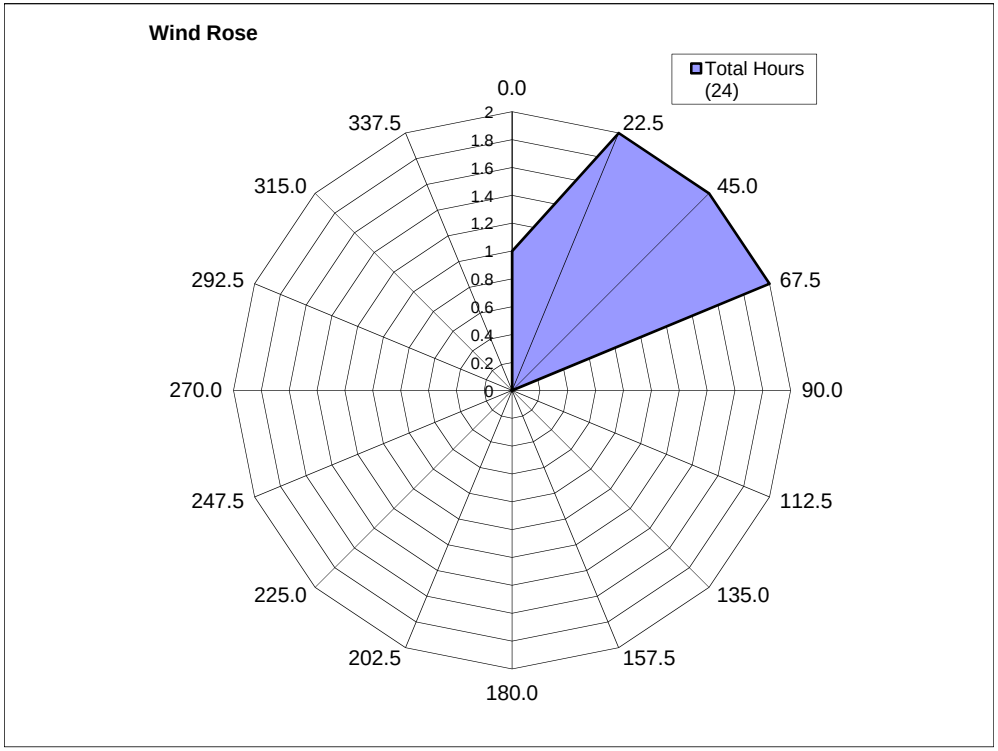


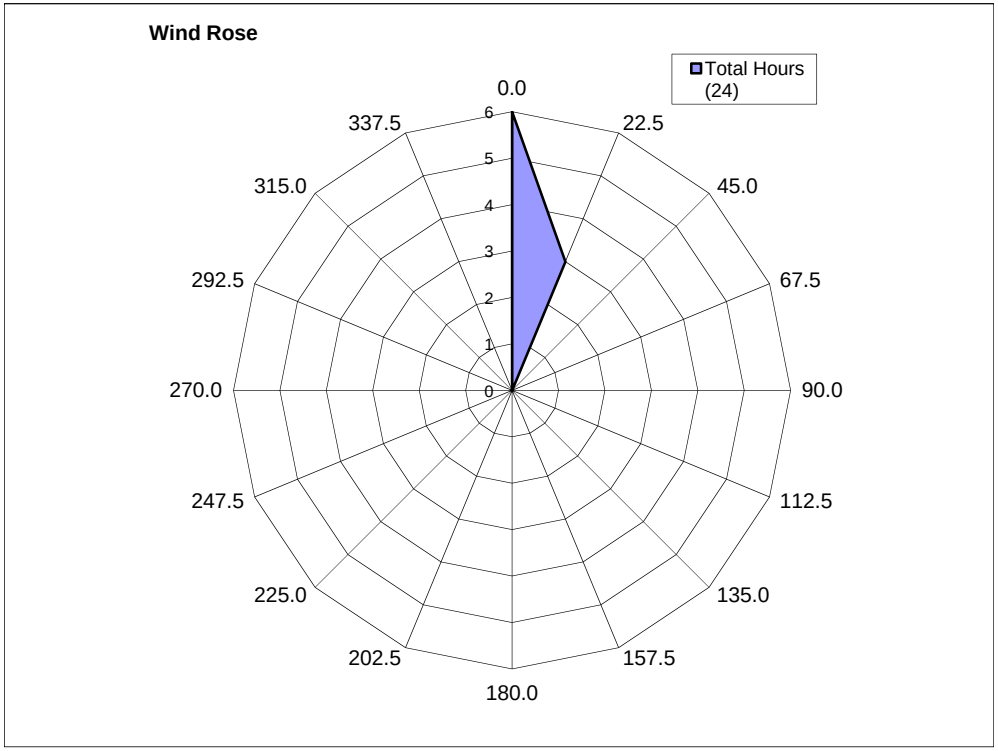
DAILY PM10 REPORTING VALUES

Sampling Event	**June 13, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	24.38
Unit 2 - Average PM10 Concentration (Ug/m3)	22.21
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	NE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	24.38	**Average Concentration (µg/m^3)**	22.21
Relative Humidity (%)	43.104	**Relative Humidity (%)**	44.698
Ambient temberature (C)	16.947	**Ambient temberature (C)**	17.646
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



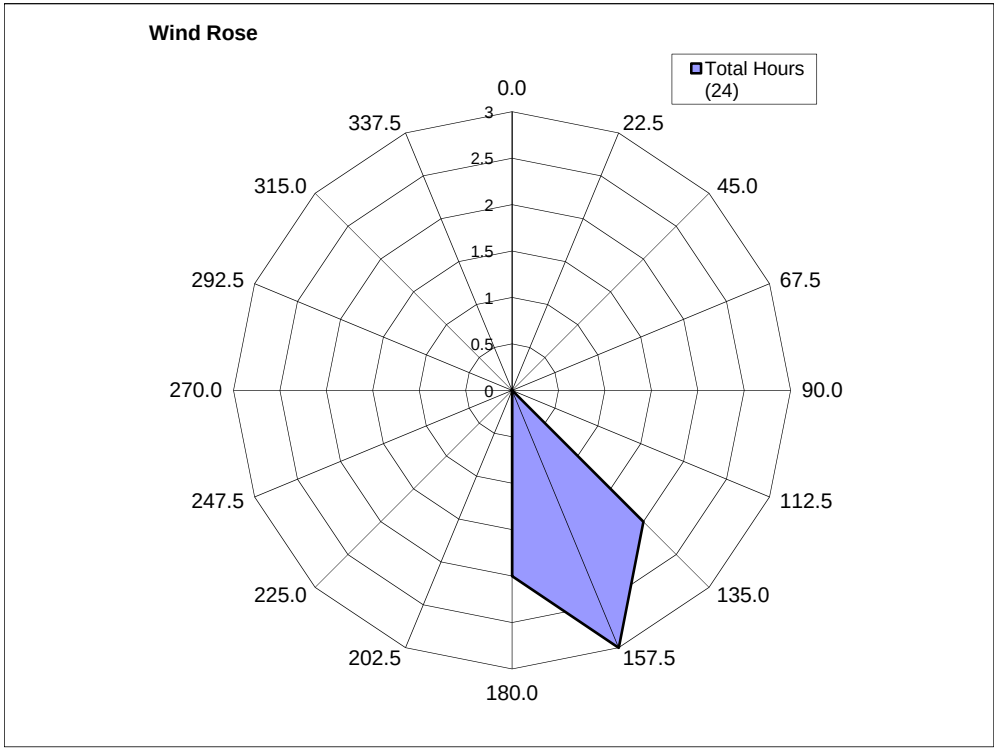
DAILY PM10 REPORTING VALUES

Sampling Event	**June 14, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	33.54
Unit 2 - Average PM10 Concentration (Ug/m3)	33.27
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	N

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	33.54	**Average Concentration (µg/m^3)**	33.27
Relative Humidity (%)	44.625	**Relative Humidity (%)**	45.183
Ambient temberature (C)	17.291	**Ambient temberature (C)**	18.187
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



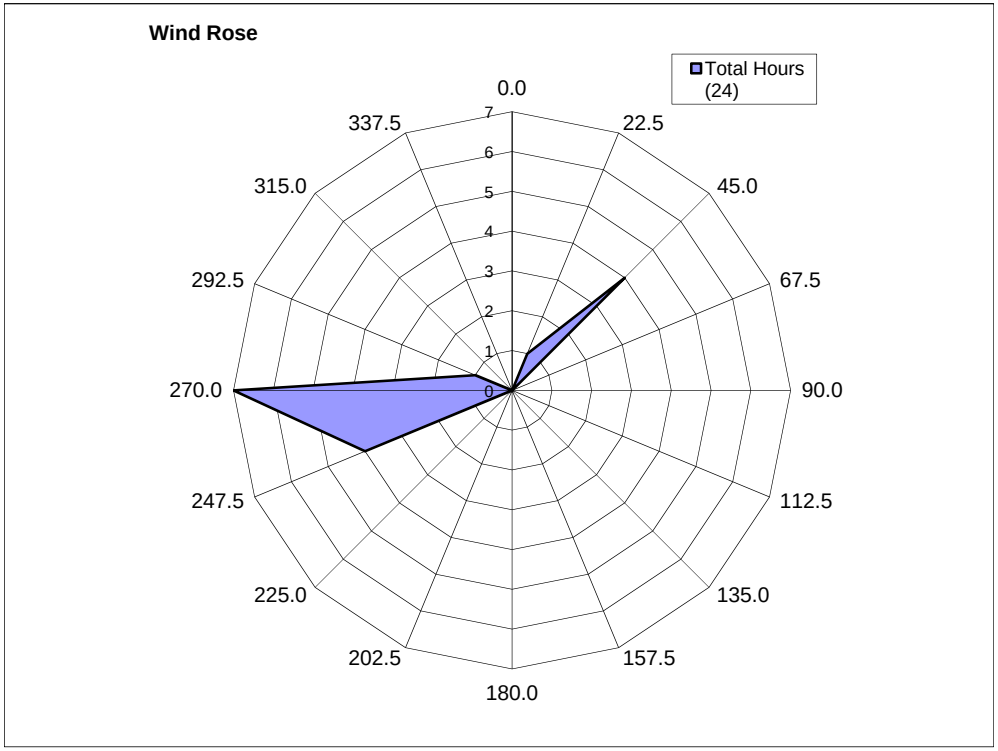
DAILY PM10 REPORTING VALUES

Sampling Event	**June 15, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	23.29
Unit 2 - Average PM10 Concentration (Ug/m3)	28.38
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	SSE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	23.29	**Average Concentration (µg/m^3)**	28.38
Relative Humidity (%)	42.313	**Relative Humidity (%)**	40.021
Ambient temberature (C)	20.303	**Ambient temberature (C)**	21.675
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



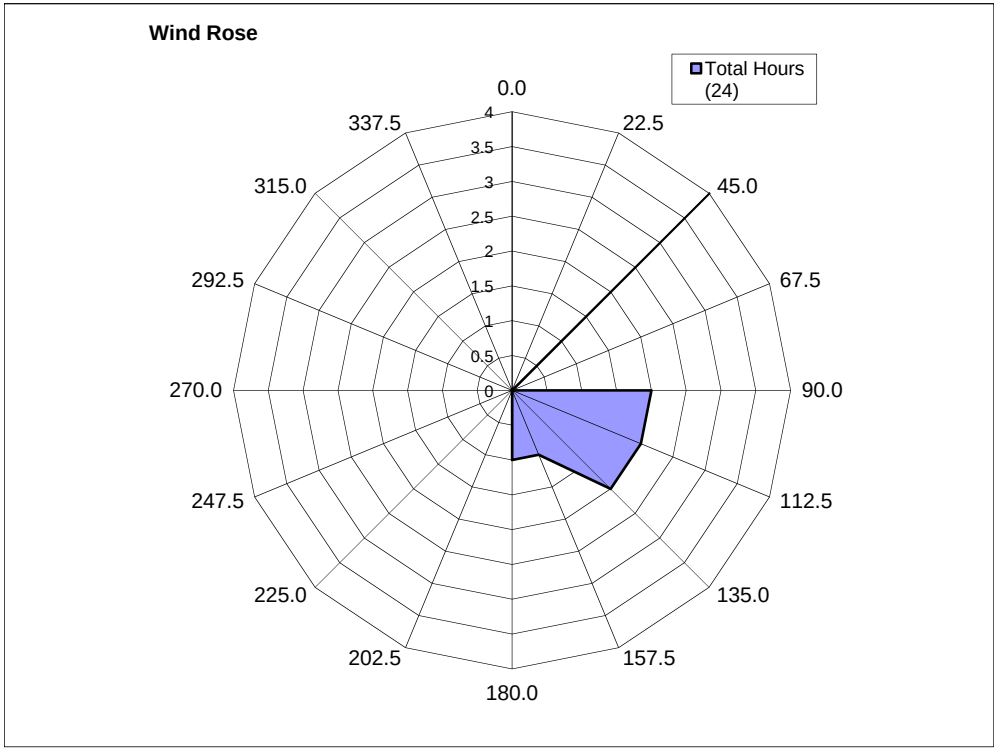
DAILY PM10 REPORTING VALUES

Sampling Event	**June 16, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	20.60
Unit 2 - Average PM10 Concentration (Ug/m3)	18.13
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	W

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	20.60	**Average Concentration (µg/m^3)**	18.13
Relative Humidity (%)	34.832	**Relative Humidity (%)**	31.344
Ambient temberature (C)	22.220	**Ambient temberature (C)**	23.365
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



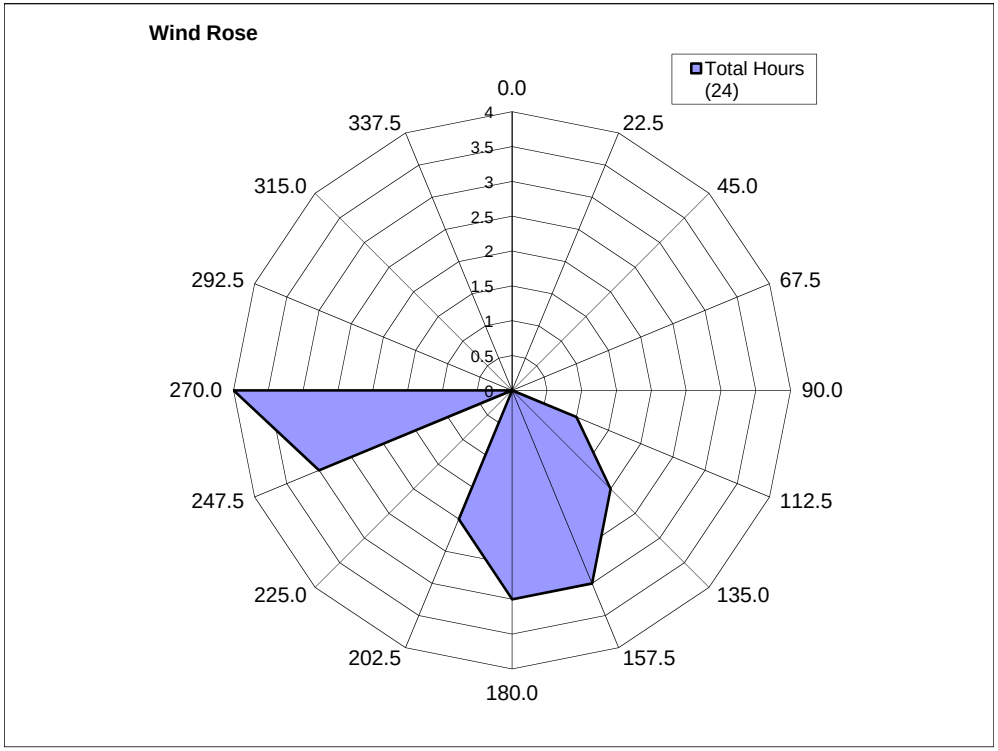
DAILY PM10 REPORTING VALUES

Sampling Event	**June 17, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	33.63
Unit 2 - Average PM10 Concentration (Ug/m3)	32.83
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	E

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	33.63	**Average Concentration (µg/m^3)**	32.83
Relative Humidity (%)	33.354	**Relative Humidity (%)**	28.417
Ambient temberature (C)	22.934	**Ambient temberature (C)**	24.424
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



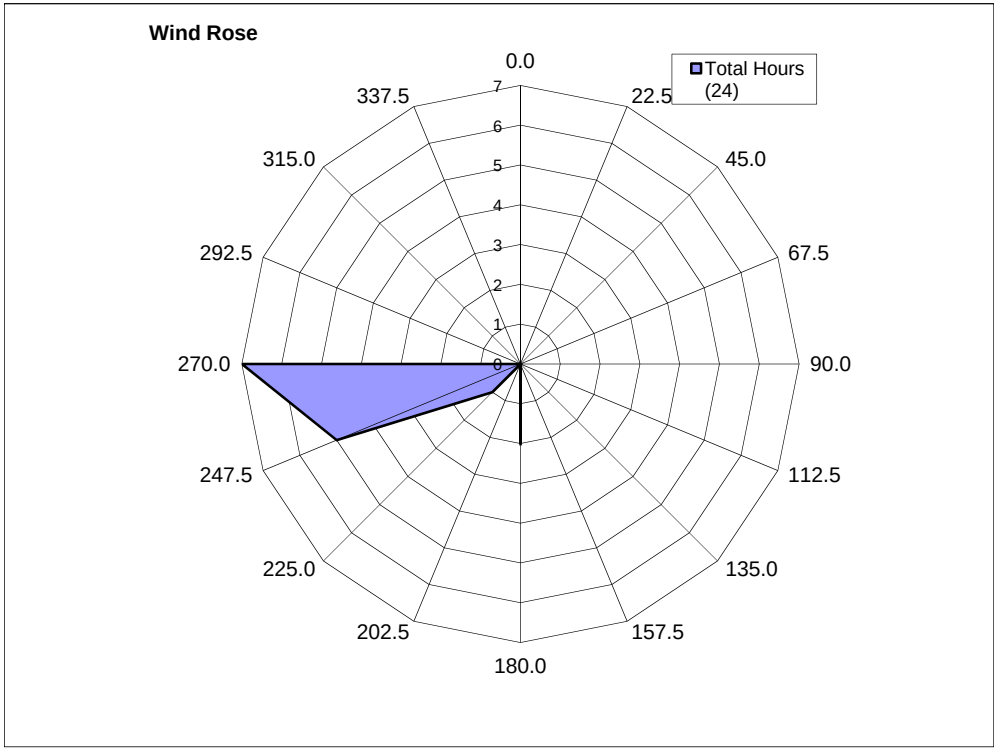
DAILY PM10 REPORTING VALUES

Sampling Event	**June 18, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	25.25
Unit 2 - Average PM10 Concentration (Ug/m3)	23.21
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	W

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	25.25	**Average Concentration (µg/m^3)**	23.21
Relative Humidity (%)	38.729	**Relative Humidity (%)**	34.979
Ambient temberature (C)	23.453	**Ambient temberature (C)**	25.521
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



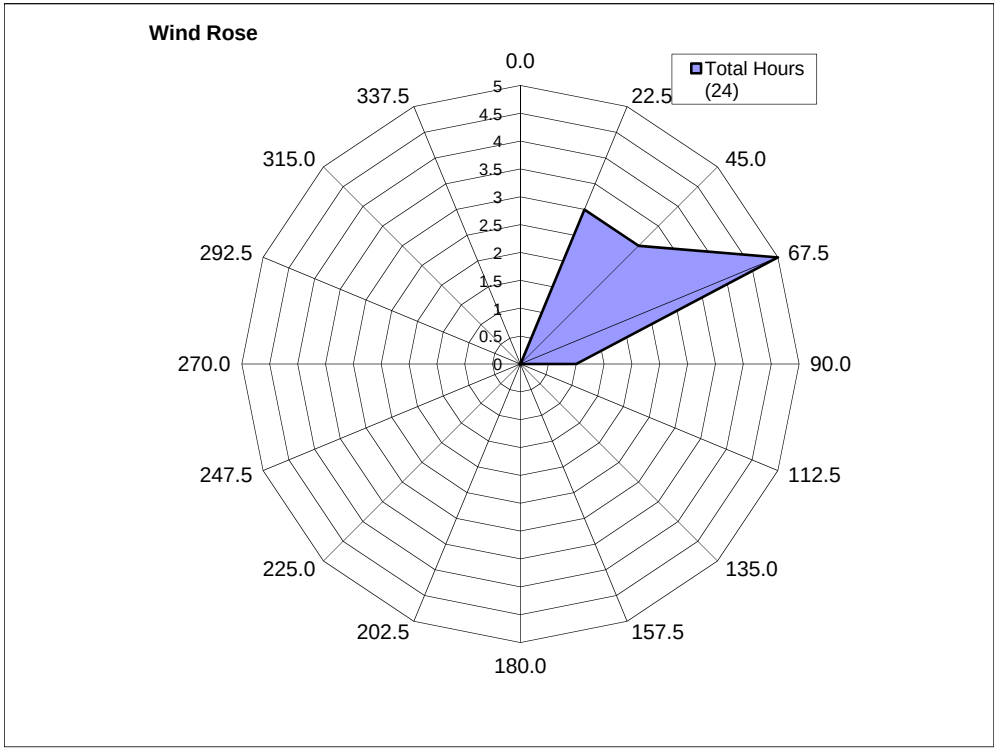
DAILY PM10 REPORTING VALUES

Sampling Event	**June 19, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	15.04
Unit 2 - Average PM10 Concentration (Ug/m3)	12.21
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	W

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	15.04	**Average Concentration (µg/m^3)**	12.21
Relative Humidity (%)	33.427	**Relative Humidity (%)**	29.302
Ambient temberature (C)	23.557	**Ambient temberature (C)**	25.850
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



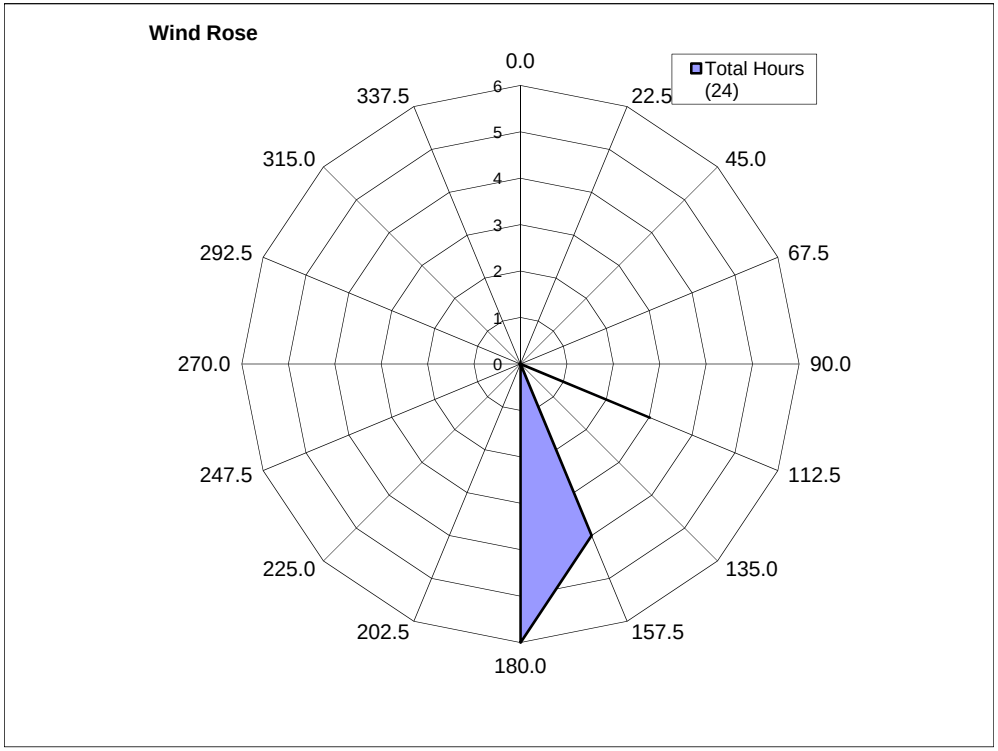
DAILY PM10 REPORTING VALUES

Sampling Event	**June 20, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	25.83
Unit 2 - Average PM10 Concentration (Ug/m3)	25.21
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	ENE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	25.83	**Average Concentration (µg/m^3)**	25.21
Relative Humidity (%)	37.458	**Relative Humidity (%)**	33.135
Ambient temberature (C)	20.809	**Ambient temberature (C)**	22.636
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



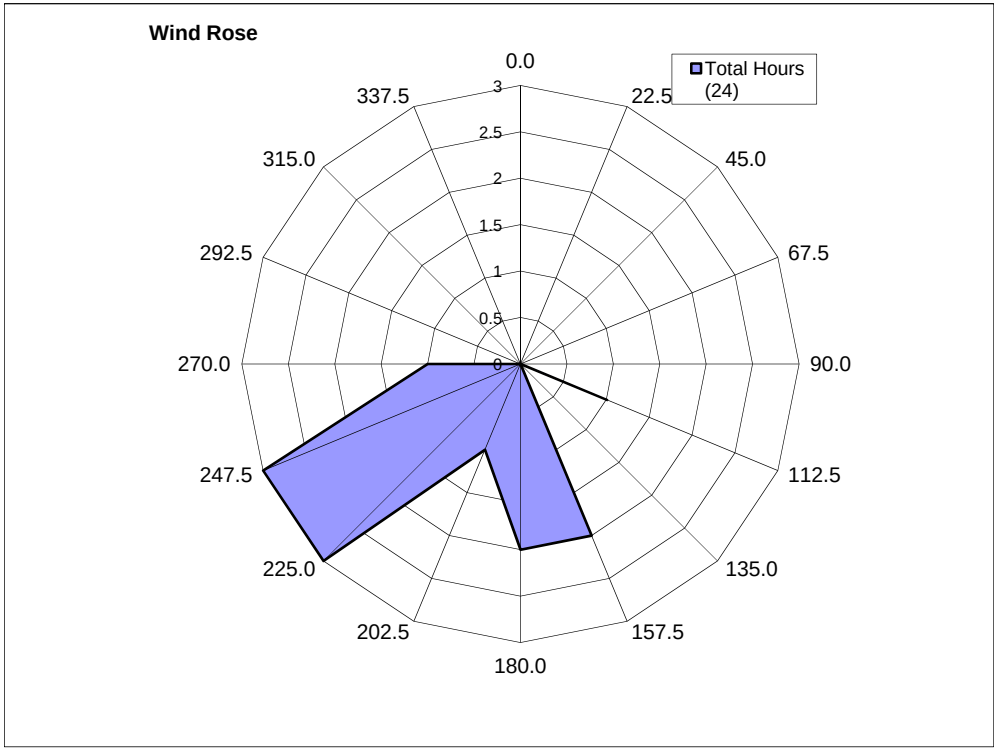
DAILY PM10 REPORTING VALUES

Sampling Event	**June 21, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	25.54
Unit 2 - Average PM10 Concentration (Ug/m3)	17.83
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	South

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	25.54	**Average Concentration (µg/m^3)**	17.83
Relative Humidity (%)	40.313	**Relative Humidity (%)**	35.448
Ambient temberature (C)	22.775	**Ambient temberature (C)**	23.957
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



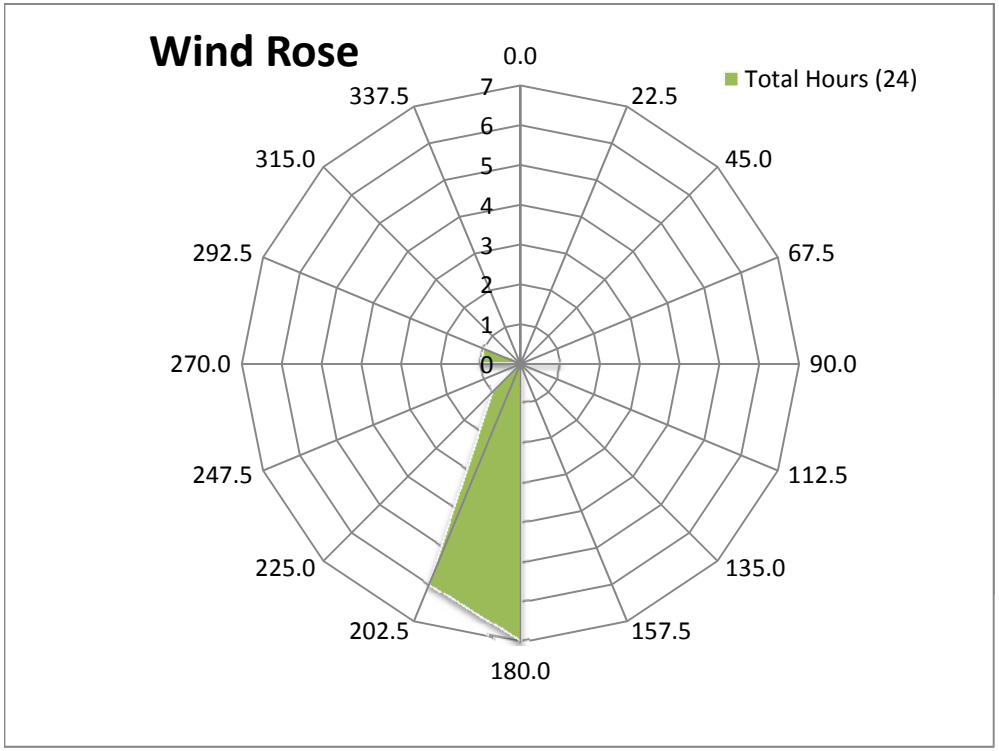
DAILY PM10 REPORTING VALUES

Sampling Event	**June 22, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	19.13
Unit 2 - Average PM10 Concentration (Ug/m3)	16.38
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	SW

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	19.13	**Average Concentration (µg/m^3)**	16.38
Relative Humidity (%)	36.573	**Relative Humidity (%)**	32.271
Ambient temberature (C)	24.855	**Ambient temberature (C)**	26.166
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



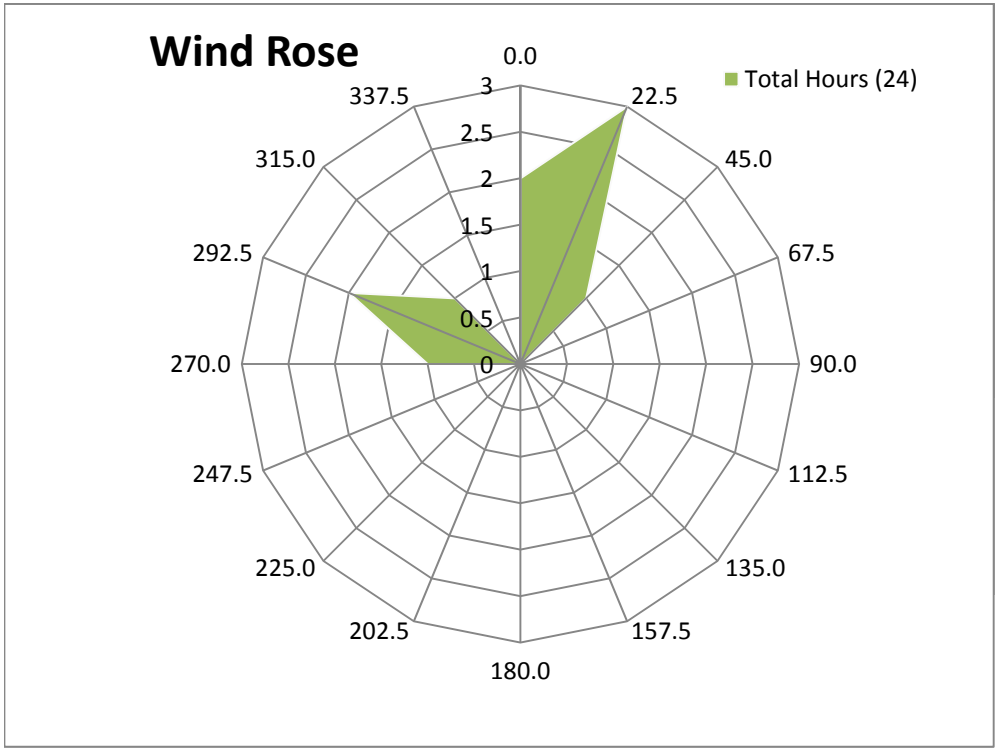
DAILY PM10 REPORTING VALUES

Sampling Event	**June 23, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	27.58
Unit 2 - Average PM10 Concentration (Ug/m3)	22.83
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	South

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	27.58	**Average Concentration (µg/m^3)**	22.83
Relative Humidity (%)	43.438	**Relative Humidity (%)**	40.240
Ambient temberature (C)	23.589	**Ambient temberature (C)**	24.814
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



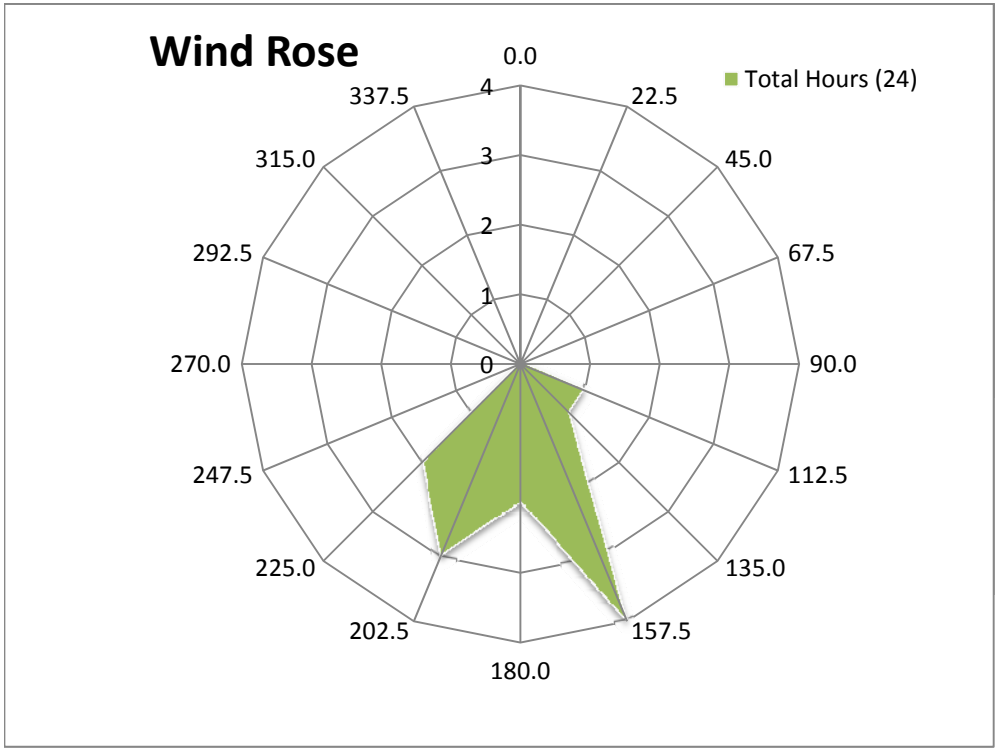
DAILY PM10 REPORTING VALUES

Sampling Event	**June 24, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	18.29
Unit 2 - Average PM10 Concentration (Ug/m3)	17.96
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	NNE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	18.29	**Average Concentration (µg/m^3)**	17.96
Relative Humidity (%)	36.313	**Relative Humidity (%)**	32.385
Ambient temberature (C)	21.021	**Ambient temberature (C)**	22.335
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



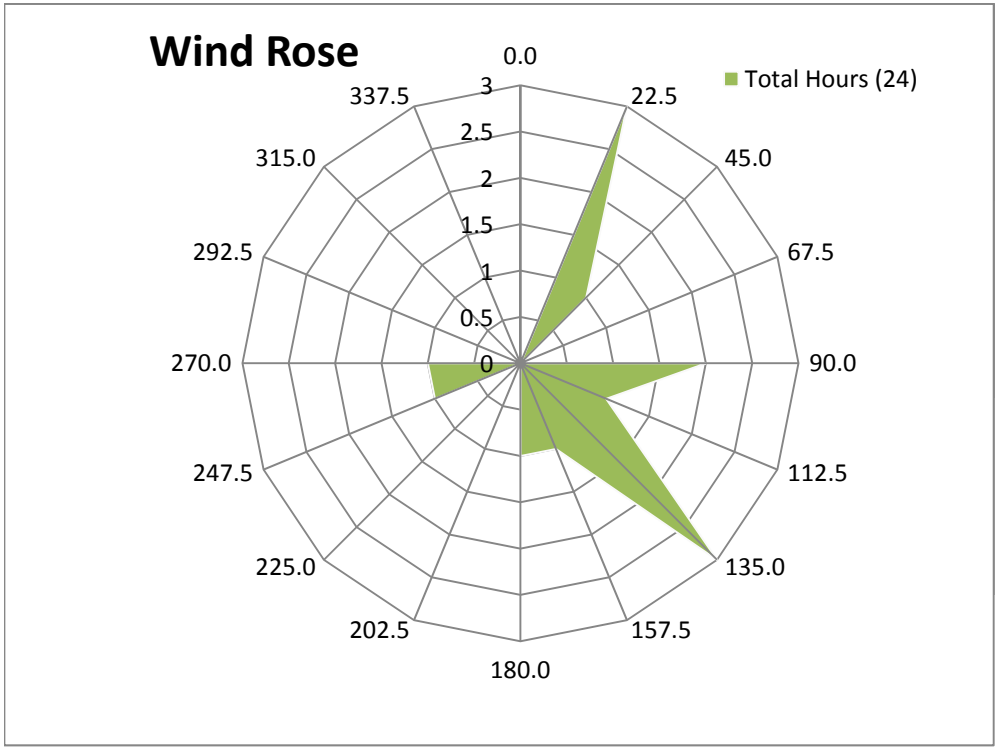
DAILY PM10 REPORTING VALUES

Sampling Event	**June 25, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	27.25
Unit 2 - Average PM10 Concentration (Ug/m3)	28.50
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	SSE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	27.25	**Average Concentration (µg/m^3)**	28.50
Relative Humidity (%)	33.490	**Relative Humidity (%)**	29.427
Ambient temberature (C)	22.694	**Ambient temberature (C)**	24.125
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



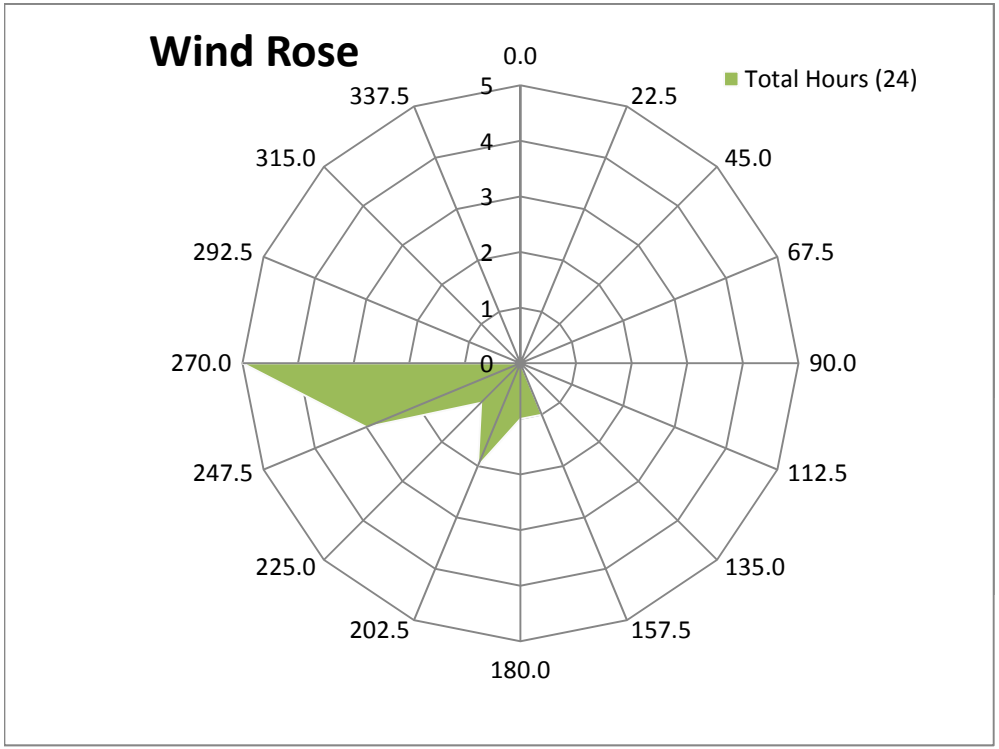
DAILY PM10 REPORTING VALUES

Sampling Event	**June 26, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	29.83
Unit 2 - Average PM10 Concentration (Ug/m3)	30.63
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	SE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	29.83	**Average Concentration (µg/m^3)**	30.63
Relative Humidity (%)	36.250	**Relative Humidity (%)**	31.458
Ambient temberature (C)	23.778	**Ambient temberature (C)**	25.110
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



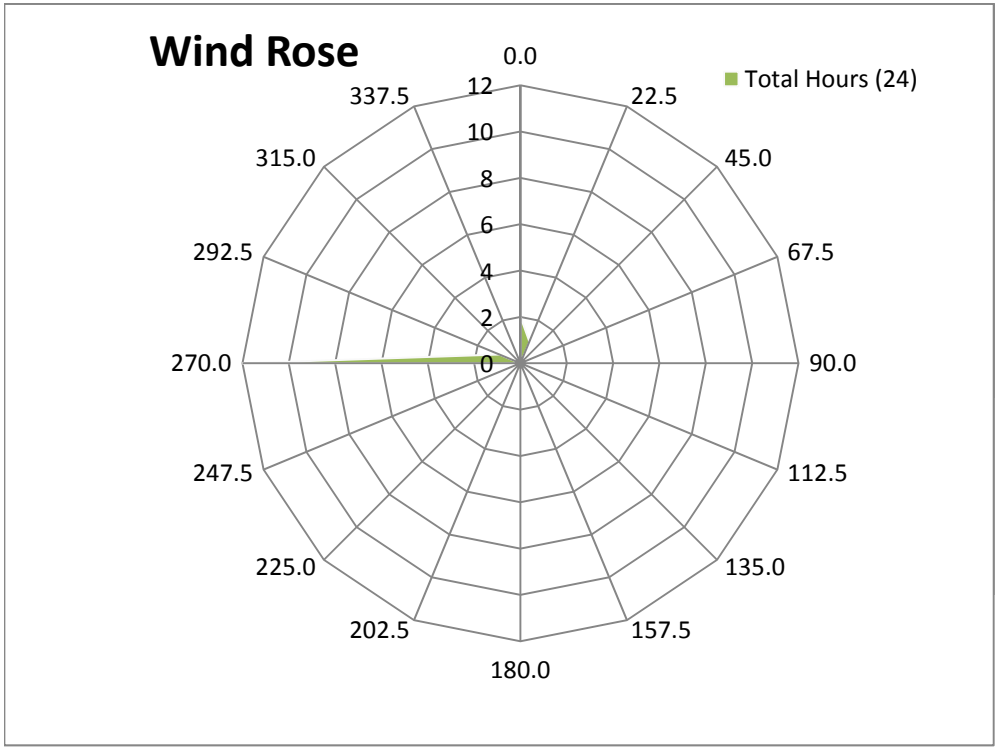
DAILY PM10 REPORTING VALUES

Sampling Event	**June 27, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	20.88
Unit 2 - Average PM10 Concentration (Ug/m3)	21.50
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	W

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	20.88	**Average Concentration (µg/m^3)**	21.50
Relative Humidity (%)	38.771	**Relative Humidity (%)**	34.760
Ambient temberature (C)	25.260	**Ambient temberature (C)**	26.715
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



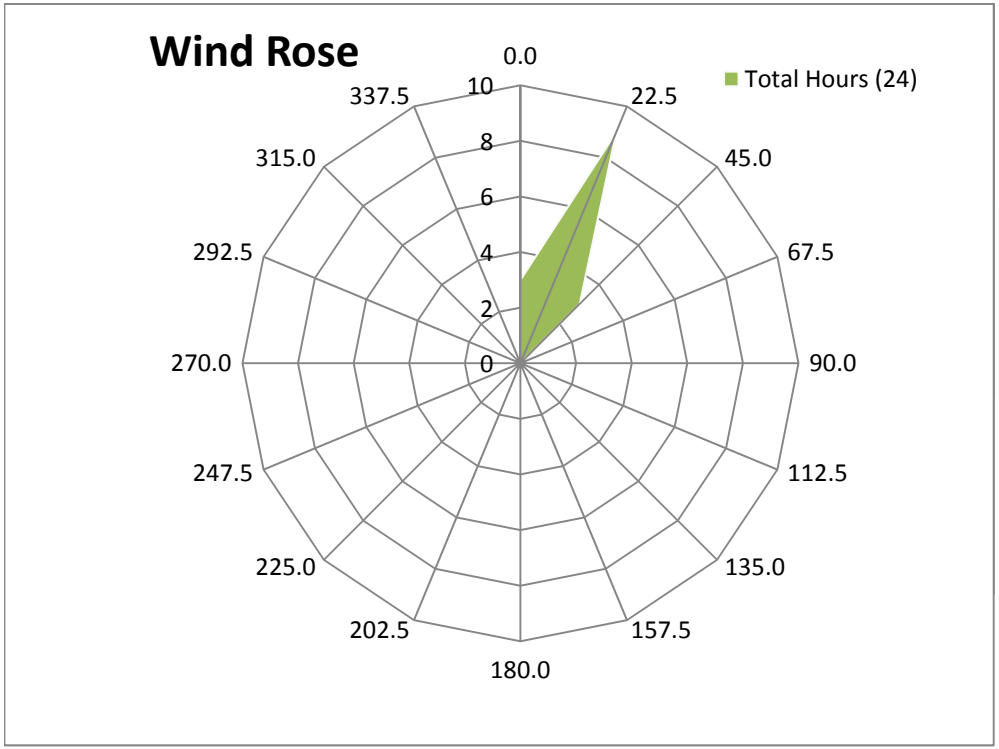
DAILY PM10 REPORTING VALUES

Sampling Event	**June 28, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	20.38
Unit 2 - Average PM10 Concentration (Ug/m3)	18.63
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	W

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	20.38	**Average Concentration (µg/m^3)**	18.63
Relative Humidity (%)	32.063	**Relative Humidity (%)**	28.240
Ambient temberature (C)	24.576	**Ambient temberature (C)**	25.416
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



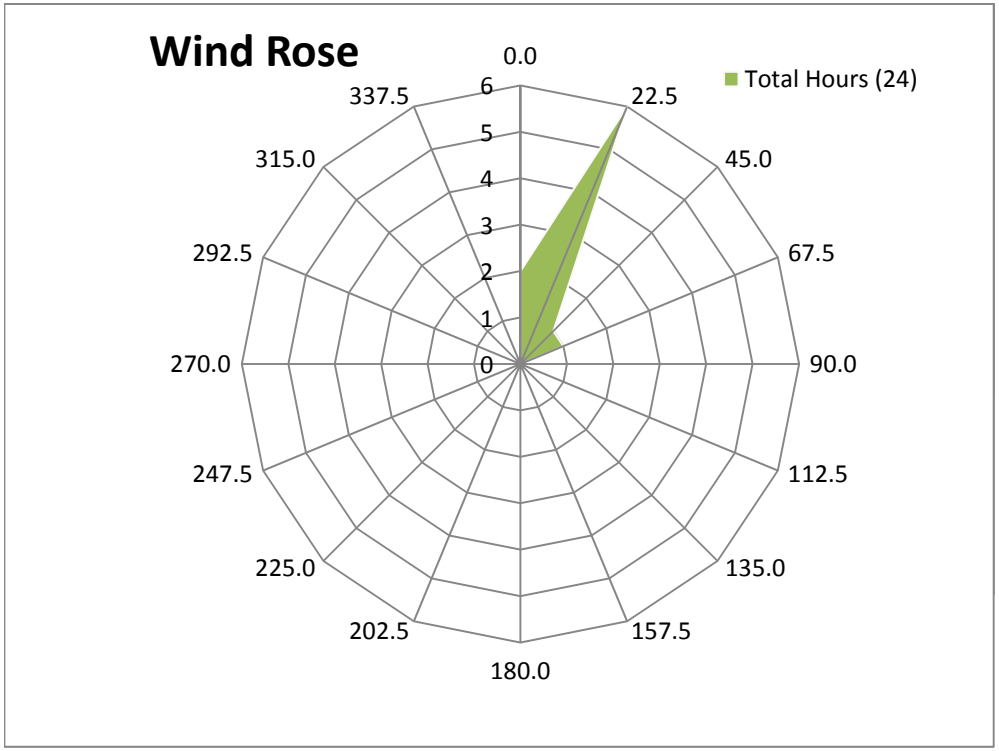
DAILY PM10 REPORTING VALUES

Sampling Event	**June 29, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	8.17
Unit 2 - Average PM10 Concentration (Ug/m3)	9.21
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	NNE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	8.17	**Average Concentration (µg/m^3)**	9.21
Relative Humidity (%)	32.781	**Relative Humidity (%)**	27.479
Ambient temberature (C)	19.103	**Ambient temberature (C)**	20.208
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



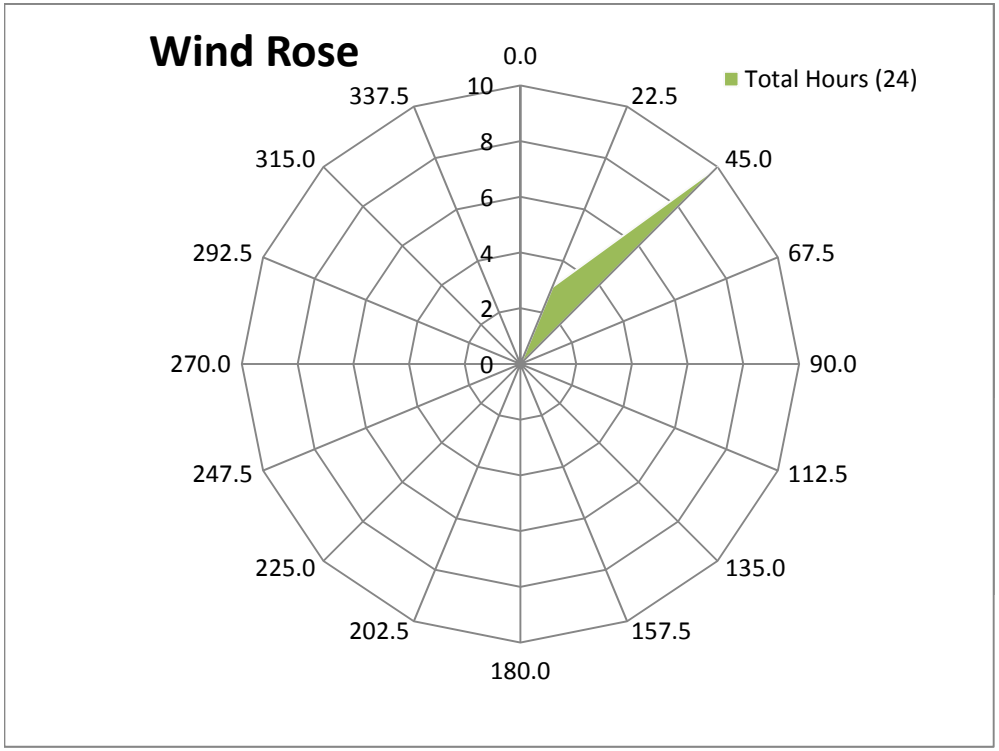
DAILY PM10 REPORTING VALUES

Sampling Event	**June 30, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	16.33
Unit 2 - Average PM10 Concentration (Ug/m3)	15.83
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	NNE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	16.33	**Average Concentration (µg/m^3)**	15.83
Relative Humidity (%)	31.219	**Relative Humidity (%)**	26.427
Ambient temberature (C)	17.870	**Ambient temberature (C)**	18.911
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



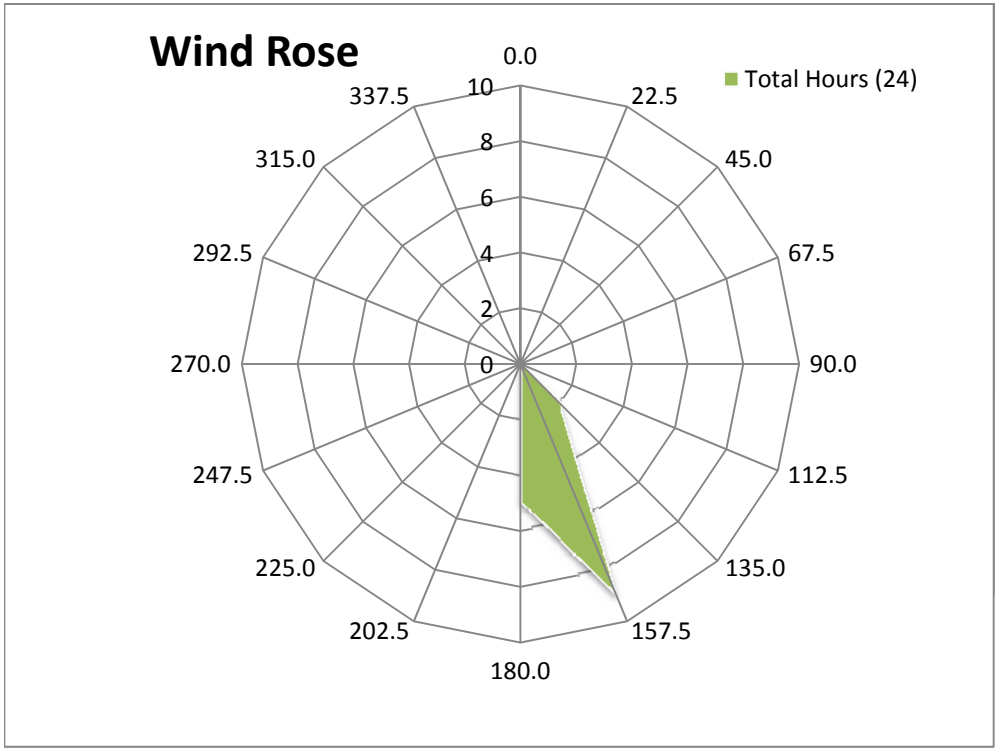
DAILY PM10 REPORTING VALUES

Sampling Event	**July 1, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	11.08
Unit 2 - Average PM10 Concentration (Ug/m3)	15.63
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	NNE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	11.08	**Average Concentration (µg/m^3)**	15.63
Relative Humidity (%)	30.281	**Relative Humidity (%)**	25.688
Ambient temberature (C)	18.574	**Ambient temberature (C)**	19.678
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



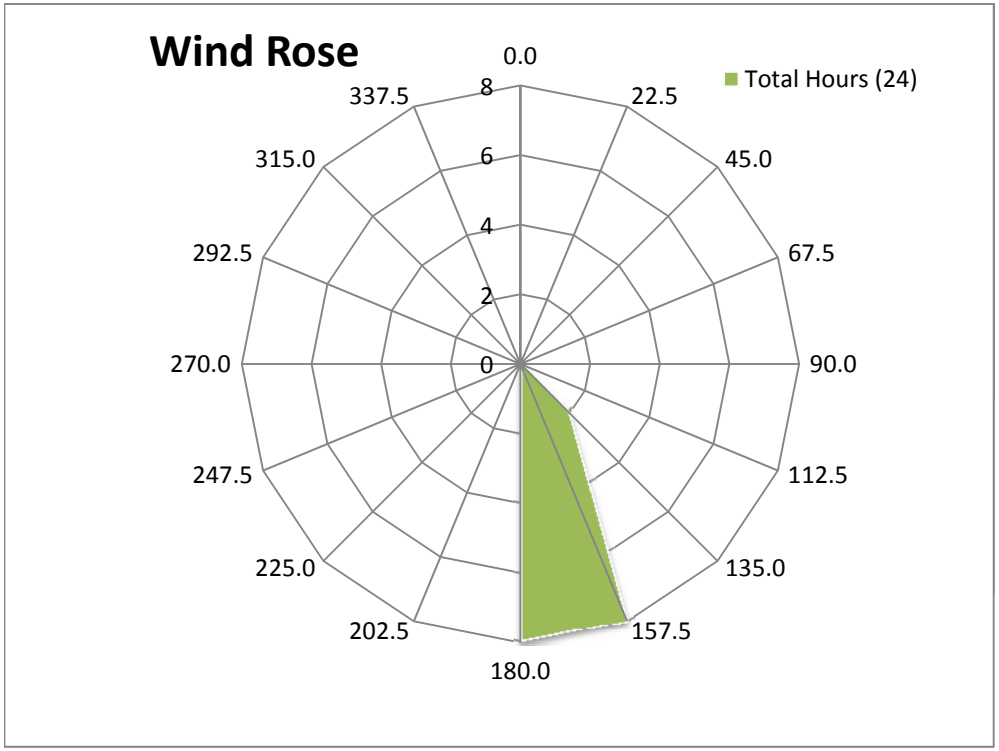
DAILY PM10 REPORTING VALUES

Sampling Event	**July 2, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	16.46
Unit 2 - Average PM10 Concentration (Ug/m3)	16.17
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	SSE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	16.46	**Average Concentration (µg/m^3)**	16.17
Relative Humidity (%)	28.427	**Relative Humidity (%)**	23.677
Ambient temberature (C)	21.526	**Ambient temberature (C)**	22.794
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



DAILY PM10 REPORTING VALUES

Sampling Event	**July 3, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	23.00
Unit 2 - Average PM10 Concentration (Ug/m3)	24.33
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	S

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	23.00	**Average Concentration (µg/m^3)**	24.33
Relative Humidity (%)	29.115	**Relative Humidity (%)**	24.229
Ambient temberature (C)	22.953	**Ambient temberature (C)**	24.380
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

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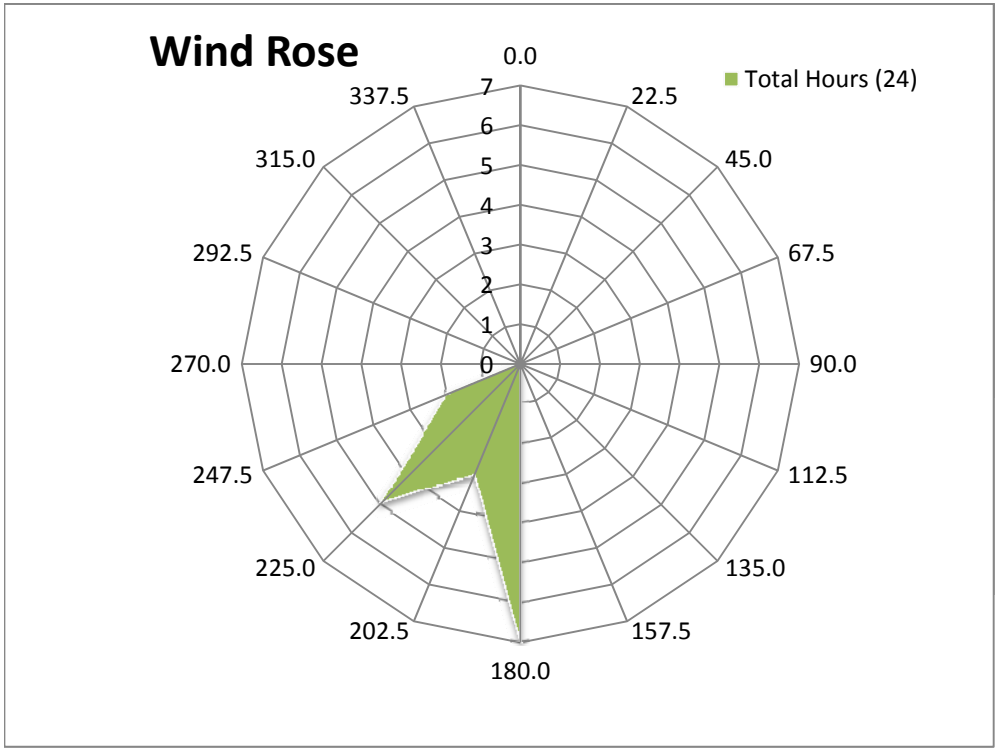

DAILY PM10 REPORTING VALUES

Sampling Event	**July 4, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	37.50
Unit 2 - Average PM10 Concentration (Ug/m3)	33.83
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	S

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	37.50	**Average Concentration (µg/m^3)**	33.83
Relative Humidity (%)	32.469	**Relative Humidity (%)**	27.688
Ambient temberature (C)	26.419	**Ambient temberature (C)**	27.945
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

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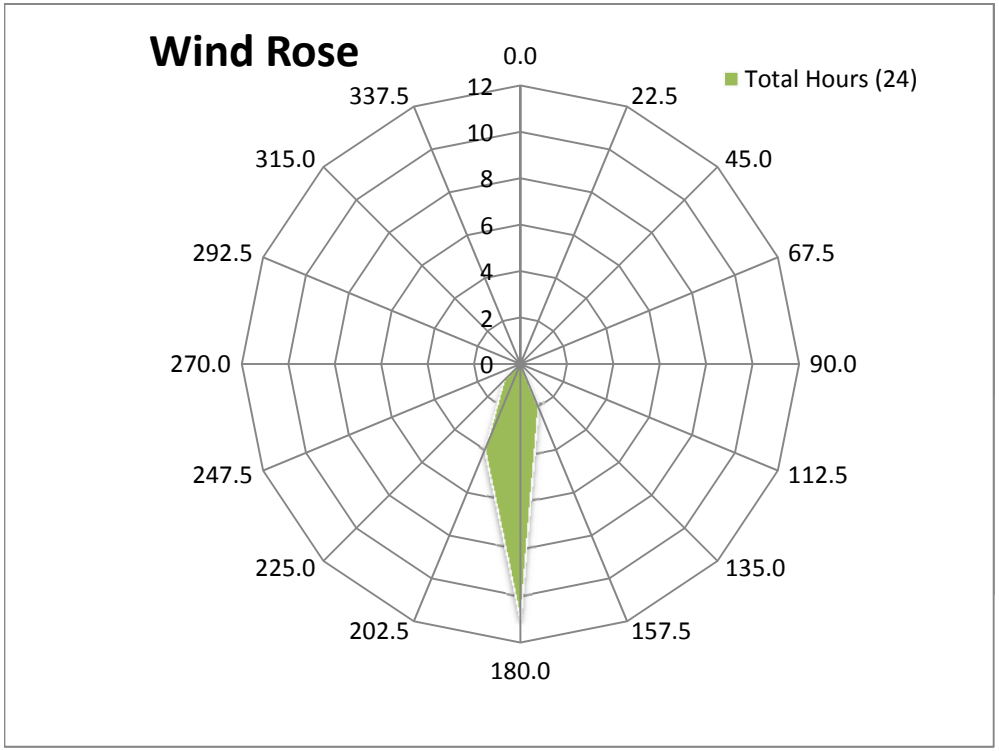

DAILY PM10 REPORTING VALUES

Sampling Event	**July 5, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	47.00
Unit 2 - Average PM10 Concentration (Ug/m3)	38.63
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	S

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	47.00	**Average Concentration (µg/m^3)**	38.63
Relative Humidity (%)	31.583	**Relative Humidity (%)**	26.365
Ambient temberature (C)	27.583	**Ambient temberature (C)**	29.001
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

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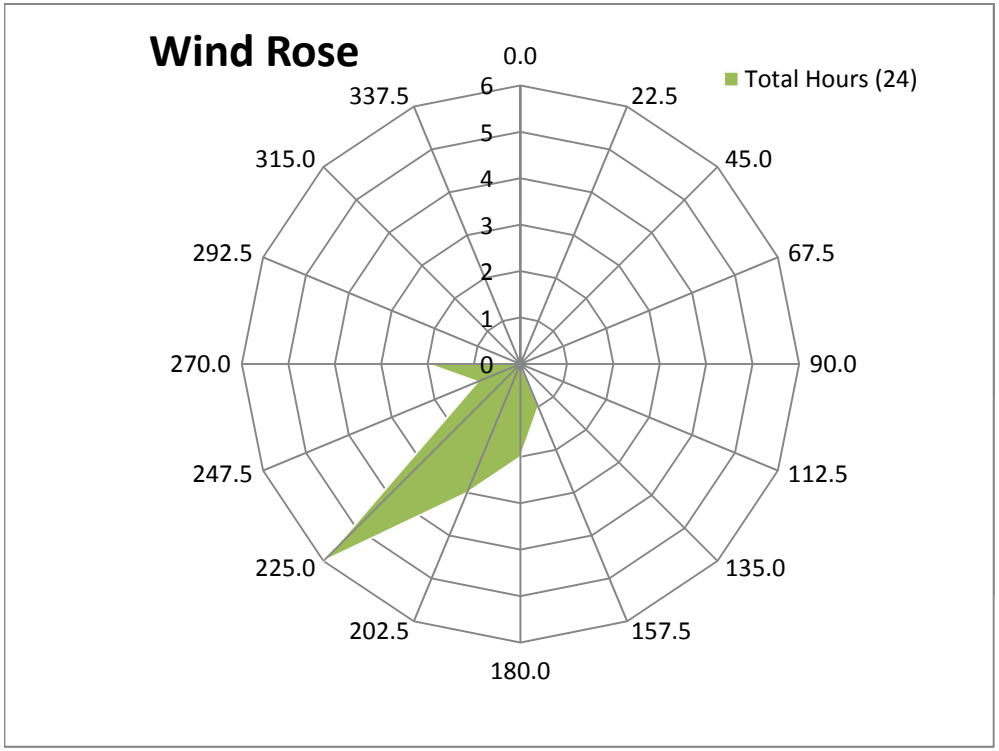

DAILY PM10 REPORTING VALUES

Sampling Event	**July 6, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	35.29
Unit 2 - Average PM10 Concentration (Ug/m3)	32.52
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	SW

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	35.29	**Average Concentration (µg/m^3)**	32.52
Relative Humidity (%)	33.302	**Relative Humidity (%)**	27.284
Ambient temberature (C)	26.689	**Ambient temberature (C)**	28.458
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

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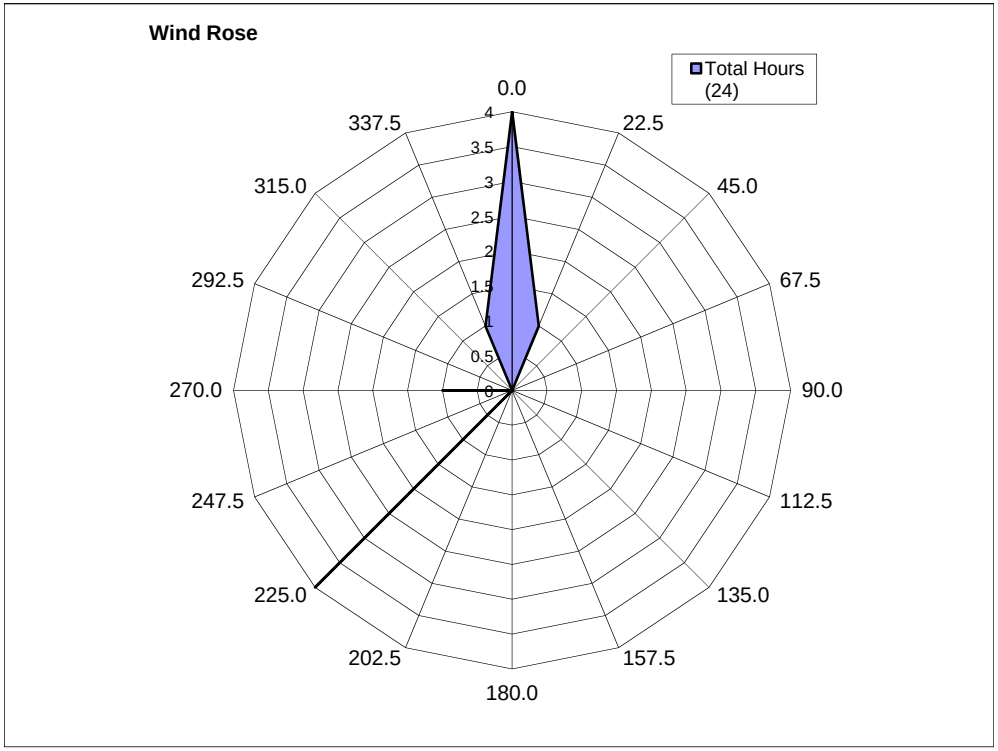

DAILY PM10 REPORTING VALUES

Sampling Event	**June 12, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	31.54
Unit 2 - Average PM10 Concentration (Ug/m3)	25.96
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	N

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	31.54	**Average Concentration (µg/m^3)**	25.96
Relative Humidity (%)	43.927	**Relative Humidity (%)**	45.625
Ambient temberature (C)	19.732	**Ambient temberature (C)**	20.026
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

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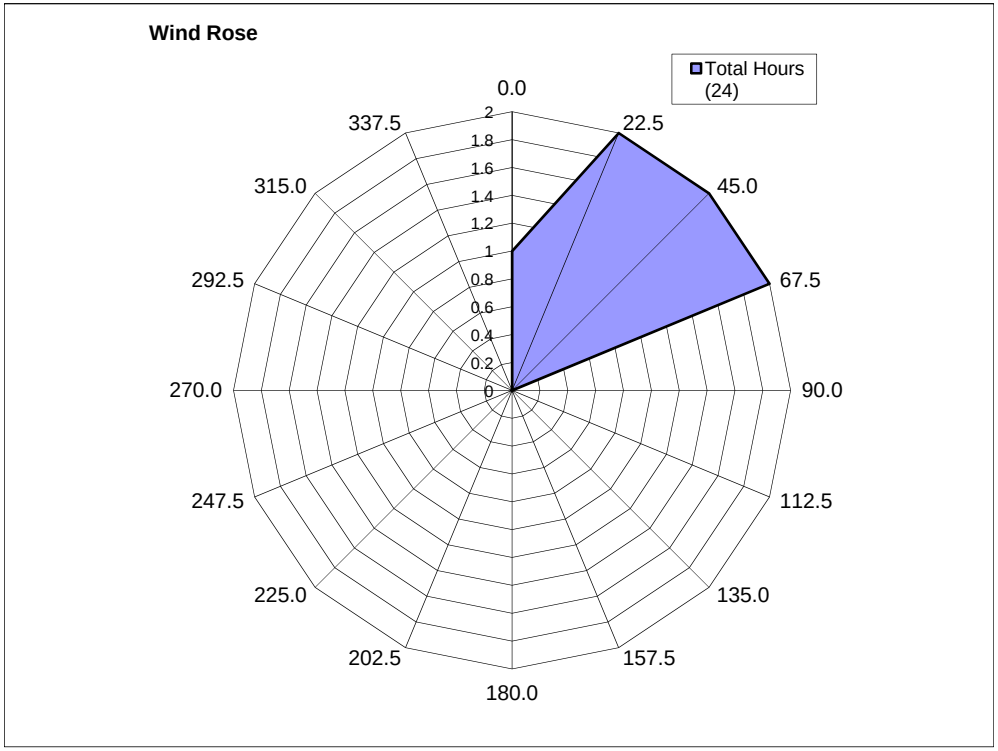


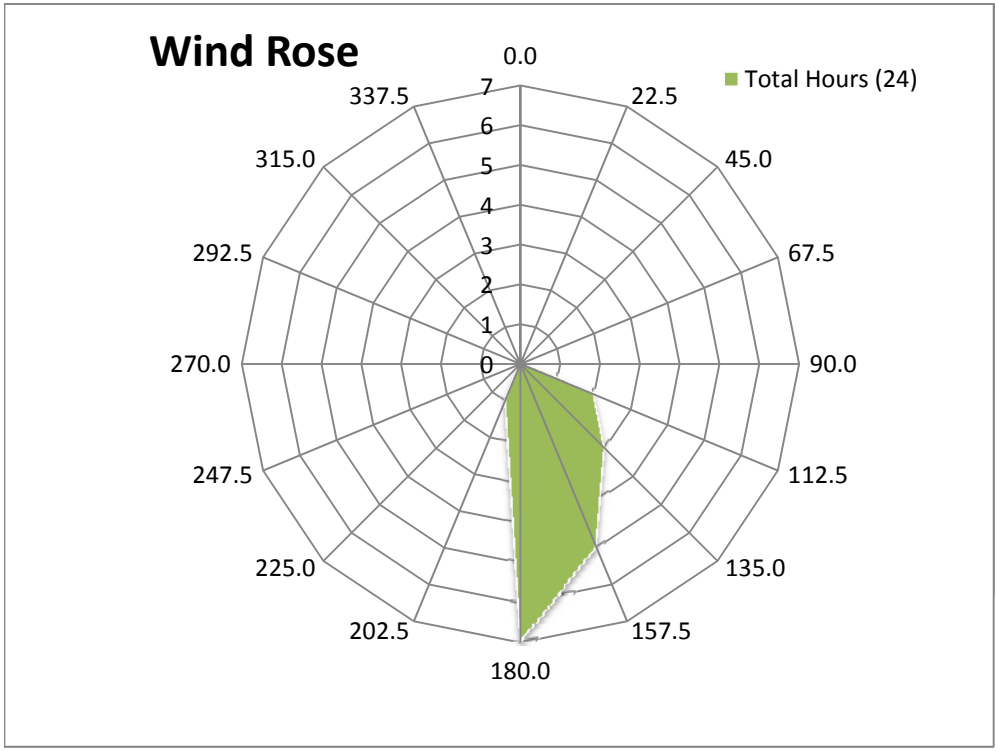
DAILY PM10 REPORTING VALUES

Sampling Event	**June 13, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	24.38
Unit 2 - Average PM10 Concentration (Ug/m3)	22.21
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	NE

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	24.38	**Average Concentration (µg/m^3)**	22.21
Relative Humidity (%)	43.104	**Relative Humidity (%)**	44.698
Ambient temberature (C)	16.947	**Ambient temberature (C)**	17.646
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150

US EPA ARCHIVE DOCUMENT



DAILY PM10 REPORTING VALUES

Sampling Event	**July 14, 2010**
Sampling Program	Background
Unit 1 - Average PM10 Concentration (Ug/m3)	32.75
Unit 2 - Average PM10 Concentration (Ug/m3)	32.50
Exceedance	No
Verbal Notification Date	N/A
Written Notification Date	N/A
Predominant wind direction	S

24 Hour Averages

South Berm Unit 1		South Berm Unit 2	
Average Concentration (µg/m^3)	32.75	**Average Concentration (µg/m^3)**	32.50
Relative Humidity (%)	34.813	**Relative Humidity (%)**	28.146
Ambient temberature (C)	26.170	**Ambient temberature (C)**	27.441
Notification Level (µg/m3)	50	**Notification Level (µg/m3)**	50
Action Level (µg/m3)	150	**Action Level (µg/m3)**	150