OHD 017 497 587 A.3.1

American Steel Foundries

1001 EAST BROADWAY • ALLIANCE, OHIO 44601

(216) 823-6150 • FAX (216) 821-4568

LEADERSHIP AND SERVICE Since ASF 1902

RECEIVED SEP 10 1996 OFFICE OF RCRA WASTE MANAGEMENT DIVISION EPA, REGION V

August 29, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED **Z - 134 - 815 - 673**

Chief RCRA Enforcement Branch, HRE-8J
United States (U.S.) Environmental Protection Agency (EPA), Region V
77 West Jackson Boulevard
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z - 134 - 815 - 674**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Boulevard
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INCORPORATED(INC.)
CIVIL ACTION NUMBER C87 - 1284A (N.D. OHIO)

This submittal is intended to meet the notification requirements of the Consent Decree and the reporting requirements of Section V. Item 12 of the Ohio Consent Order Number 1993CV01107.

Groundwater monitoring at the Sebring landfill is scheduled for the week of September 23, 1996.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

cc: JFO / RML

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Ohio EPA **Z - 134 - 815 - 675**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **Z - 134 - 815 - 676**
Division of Hazardous Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **Z - 134 - 815 - 677**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Mahoning County Health District **Z - 134 - 815 - 678**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R. D. Setty

C: \WP51\HAZWASTE\USVAMSTD.896

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American Steel Foundries

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FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

RECEIVED
APR 08 1996
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

April 4 , 1996

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, HRE-8J
United States (U.S.) Environmental Protection Agency (EPA),
Region V
77 West Jackson Boulevard
Chicago, Illinois 60604
Attention: Barbara Mazur

Z 134 815 513

Chief, SWERB Section V
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Boulevard
Chicago, Illinois 60604
Attention: Richard Clarizio

Z 134 815 514

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INCORPORATED(INC.)
CIVIL ACTION NUMBER C87 - 1284A (N.D. OHIO)

Progress Report # 16

This submittal is intended to meet the progress report requirements of the Consent Decree and the reporting requirements of Section V. Item 12 of the Ohio Consent Order Number 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

The following have been completed since the last report:

D. SEBRING FACILITY -Closure and Post Closure Requirements:

2. If Ohio EPA does not approve the Sebring Closure Plan or the Post-Closure Plan, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a revised or modified Sebring Post-Closure Plan, in accordance with Ohio Administrative Code Number 3745-66-12(D)(4)

On January 9, 1996, Mr. Gary Deigan, Project Manager, Roy F. Weston, Inc. submitted to Mr. John Palmer, OEPA, December's Surcharge and Settlement Monitoring Monthly Report for American Steel Foundries's Sebring Landfill.

ONE OF THE Amsted INDUSTRIES

In a letter dated February 2, 1996 to Ms. Bernadette Wellman, American Steel Foundries(ASF), Inc. Chicago, Illinois, Mr. John Palmer, OEPA, Division of Hazardous Waste Management, acknowledged receipt of and review of the Supplementary Groundwater Monitoring Supplementary Annual Report for 1994 for the Sebring Landfill. Based on that review he requested American Steel Foundries complete Section 2, line W - 5 for MW - 12, survey the top of well casing at MW - 13 to within +/- 0.01 feet and explain the usage of data qualifier "KL".

In a letter dated February 5, 1996 to Ms. Bernadette Wellman, American Steel Foundries, Inc., Chicago Illinois, Mr. John Palmer, OEPA, Division of Hazardous Waste Management, acknowledged receipt of American Steel Foundries' response to Ohio EPA's November 23, 1996 letter to Ms. Wellman regarding Ohio EPA's review of American Steel Foundries' December 1993 ground water quality analytical results. Mr. Palmer indicated that American Steel Foundries has adequately responded to the four comments identified in the November 23, 1996 letter.

In a letter dated February 8, 1996 from Mr. John Palmer, OEPA, Division of Hazardous Waste Management to Ms. Bernadette Wellman, American Steel Foundries Inc., Chicago, Illinois, Mr. Palmer indicated that American Steel Foundries adequately responded to the four comments in a March 6, 1995 letter to American Steel Foundries regarding the June 1994 water quality analytical results from analysis of samples of ground water at American Steel Foundries' Sebring landfill.

Accompanying a letter dated February 13, 1996 to Mr. John Palmer, Ohio EPA, Division of Hazardous Waste Management from Mr. Gary J. Deigan, Principal Project Manager, Roy F. Weston, Inc., was the Settlement Monitoring Report for American Steel Foundries Sebring Landfill for the eleventh month of settlement monitoring. At this time Mr. Palmer was notified that settlement monitoring Plate 2 (SP - 2) was bent over to an approximately 30 degree position. According to Mr. Deigan, a new riser elevation would be established and that subsequent measurements at SP-2 will then reflect relative settlement and these measurements could be added to prior months to reasonably reflect total settlement.

In a letter dated February 15, 1996 Mr. John Palmer, Ohio EPA, Division of Hazardous Waste Management, acknowledged receipt of American Steel Foundries' Surcharge and Settlement Monitoring - Monthly Report (Eleventh Month). Mr. Palmer reviewed the submittal and had several comments requiring a response in the following month's report. He requested an explanation for the steep change in the rate of settlement at SP-1, an explanation for the sudden rebound at SP-2, and steps to be taken to compensate for the effects of frost heave.

In a letter dated February 20, 1996 from Ms. Bernadette Wellman, Manager - Environmental Affairs, American Steel Foundries, to Mr. John Palmer, Ohio EPA, Division of Hazardous Waste Management, Ms. Wellman notified Mr. Palmer of the receipt of the Notice of Deficiency (NOD) for the Sebring Landfill. Ms. Wellman advised Mr. Palmer that American Steel Foundries will prepare a revised Closure Plan in accordance with the NOD on or before April 30, 1996. Ms. Wellman also indicated that she would forward a draft response to the NOD by March 23, 1996.

In a letter dated March 1, 1996 Mr. John Palmer, Ohio EPA, Division of Hazardous Waste Management acknowledged that the review of American Steel Foundries' September 1995 Groundwater Monitoring Program Plan for the Sebring Landfill was complete. As the result of this review, Ohio EPA had several comments that were listed in the March 1 letter.

In a letter dated March 4, 1996 Mr. John Palmer, Ohio EPA, Division of Hazardous Waste Management acknowledged that the review of American Steel Foundries' March, 1995 ground water quality analytical results for the March semi-annual sampling event at the Sebring landfill was complete. Based on this review, several comments were listed within the letter. Mr. Palmer requested that American Steel Foundries respond to these comments by March 29, 1996 to the Ohio EPA North East District Office.

In a letter dated March 5, 1996 Mr. John Palmer, Ohio EPA, Division of Hazardous Waste Management acknowledged that the review of American Steel Foundries' September, 1995 ground water quality analytical results for the September semi-annual sampling event at the Sebring landfill was complete. Based on this review, several comments were listed within the letter. Mr. Palmer requested that American Steel Foundries respond by March 29, 1996 to the Ohio EPA North East District Office.

Accompanying a letter dated March 20, 1996 to Mr. John Palmer, Ohio EPA, Division of Hazardous Waste Management from Mr. Gary J. Deigan, Principal Project Manager, Roy F. Weston, Inc., was the Settlement Monitoring Report for American Steel Foundries Sebring Landfill for month 12 of settlement monitoring data. At this time Mr. Deigan responded to comments posed by Mr. Palmer in his February 15, 1996 letter regarding the February 13, 1996 settlement report for the Sebring landfill.

NOTE : During this last quarter there have been no construction activities at the Sebring Facility.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this Decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

A letter dated February 5, 1996 was sent from Pat Petrella, Environmental Engineer, American Steel Foundries, Alliance, Ohio to U.S. EPA, Ohio EPA, and the Mahoning County (Ohio) Health Department providing notification that semi-annual groundwater sampling would be conducted at American Steel Foundries' Sebring Landfill on February 22 and 23, 1996.

The first round of semiannual sampling at the Sebring landfill for 1996 was conducted by Roy F. Weston for American Steel Foundries on February 22 and 23, 1996 Roy F. Weston, Inc.

In a letter dated March 29,1996 from Mr. John F. Oesch, Plant Manager, American Steel Foundries, Alliance Facility, to Chief RCRA Enforcement Branch, U.S. EPA and Chief, SWERB, Section V, Office of Regional Counsel, Mr. Oesch notified U.S. EPA, Ohio EPA, and The Mahoning County(Ohio) Health Department that revisions to Tables 3 through 6 of analytical data in the semiannual ground water monitoring report for the sampling event at the Sebring Landfill dated September, 1995 were required. The revised tables were attached to the March 29, 1996 letter.

TEST RESULTS AND SAMPLING SUMMARY

American Steel Foundries plans to discontinue monitoring each load of Electric Arc Furnace (EAF) dust with the EPA Toxic Characteristic Leaching Procedure (TCLP) test for metals.

Attachment "A" shows the electric arc furnace dust composite sample reports that have been received since the last reporting period.

ACTIONS NOT COMPLETED AS REQUIRED

As of the time of the submittal of this progress report, all required actions have been completed and there are currently no anticipated problems.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

PPP / Attachment

cc: REB
JFO / RBR / RML
PFF
BMW

Ohio EPA **Z 134 815 515**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **Z 134 815 516**
Division of Hazardous Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **Z 134 815 517**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

Mahoning County Health District **Z 134 815 566**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R. D. Setty

C: \WP51\HAZWASTE\USVAMSTD.496

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY • ALLIANCE, OHIO 44601 • (216) 823-6150
FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

RECEIVED
FEB 12 1996
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA REGION V

February 5, 1996

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 **Z 134 815 502**
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 134 815 503**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION Number C87 - 1284A (N.D. OHIO)
NOTIFICATION OF SAMPLING ACTIVITIES

This letter fulfills the reporting requirements of Section IX, Item A of the Consent Decree and the reporting requirements of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

A. "U.S. EPA, Ohio EPA, and their respective employees, contractors and authorized representatives shall have access to the Sebring and Alliance facilities at all reasonable times for the purposes of inspecting, sampling, and evaluating compliance with the provisions of this Decree, including the right to photograph and review and copy sampling data and other records. In addition, Defendant shall require by contract that such persons have the authority to inspect at all reasonable times laboratories used by the Defendant or its contractors for analyses. U.S. EPA and Ohio EPA employees, contractors, and other authorized representatives shall have the right to take splits of any samples taken by the defendant or it's contractors in the course of performing work required by this Consent Decree. U.S. EPA shall be given at least

ONE OF THE Amsted INDUSTRIES

ten (10) days written notice prior to any sampling other than sampling for waste determination under Section V of this Decree."

This is to inform you that American Steel Foundries will be conducting the first of the semiannual groundwater monitoring events at the Sebring Landfill Facility on February 22 and 23, 1996.

Should your have any questions, please do hesitate to contact me.

Yours very truly,

Pat P. Petrella
Environmental Engineer

PPP
C:\WP51\LANDFILL\GWMONNOT296

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: JFO
REB
PFF
BMW
RML\RBR

Ohio EPA **Z 134 815 504**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **Z 134 815 505**
Division of Hazardous Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **Z 134 815 506**
Supervisor, Division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

Mahoning County Health District
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Z 134 815 507

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American Steel Foundries

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FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

RECEIVED
JAN 16 1996
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

January 10, 1996

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, HRE-8J **Z 134 815 427**
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 134 815 428**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)

Progress Report # 15

This submittal is intended to meet the progress report requirements of the Consent Decree and the reporting requirements of Section V. Item 12 of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

The following have been completed since the last report:

D. SEBRING FACILITY -Closure and Post Closure Requirements:

2. If Ohio EPA does not approve the Sebring Closure Plan or the Post-Closure Plan, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a revised or modified Sebring Post-Closure Plan, in accordance with Ohio Admin. Code # 3745-66-12(D)(4)

In a letter dated October 11, 1995 addressed to Ms. Bernadette Wellman, ASF from Mr. John Palmer, Ohio EPA, Mr. Palmer acknowledged receipt of September's Surcharge and Settlement Monitoring Rept. for ASF.

On November 7, 1995, Mr. Gary Deigan, Project Manager, Roy F. Weston, Inc. submitted to Mr. John Palmer, OEPA, October's Surcharge and Settlement Monitoring - Monthly Report for ASF's

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The second round of semiannual sampling at the Sebring landfill was conducted the week of Sept. 18, 1995 by Roy F. Weston for ASF. On November 16, 1995, Messrs. Gary Deigan and Gregory S. Kinsall of Roy F. Weston, Inc. submitted to Ms. Bernadette Wellman, ASF, Chicago the Semiannual Groundwater Monitoring Rept. for sampling activities conducted on Sept. 19 and 20, 1995 at the ASF landfill in Sebring, Ohio. Following some minor adjustments, the report was submitted to EPA.

On December 15, 1995, in a letter from Mr. John Oesch, ASF, Alliance Plant Manager, to Ms. Barbara Mazur, Chief, RCRA Enforcement Branch, US EPA, Region V, ASF submitted the Semiannual Groundwater Monitoring Rept., for samples collected on Sept. 19 and 20, 1995 at the Sebring Landfill. Tentative conclusions drawn from these results indicate that Landfill Wastes are not impacting local groundwater.

On December 26, 1995, Mr. John Palmer, OEPA notified Ms. Bernadette Wellman, ASF, Chicago that the Semiannual Groundwater Monitoring Results - - Sept., 1995 were received by OEPA. The letter indicated that the OEPA, Division of Drinking Water was reviewing the submittal and that results would be forwarded to ASF upon completion of the review.

TEST RESULTS AND SAMPLING SUMMARY

American Steel Foundries plans to monitor each load of EAF dust with the EPA Toxic Characteristic Leaching Procedure (TCLP) test for metals for an indefinite period.

Attachment "A" shows the electric arc furnace dust composite sample reports that have been received since the last reporting period.

ACTIONS NOT COMPLETED AS REQUIRED

As of the time of the submittal of this progress report, all required actions have been completed and there are currently no anticipated problems.

cc: REB
BMW
PFF
RML
RBR

Ohio EPA **Z 134 815 429**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **Z 134 815 430**
Division of Hazardous Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **Z 134 815 431**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

Mahoning County Health District **Z 134 815 432**

Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R. D. Setty

C: \WP51\HAZWASTE\USVAMSTD.196

Sebring Landfill
OHD017417587

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American Steel Foundries

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FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

December 26, 1995

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 **Z 134 815 561**
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 134 815 562**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
GROUNDWATER SAMPLING REPORT (SUPPLEMENT)

SAMPLING REPORT NO.6 (SUPPLEMENT)

On December 15, 1995, American Steel Foundries submitted the sampling and analysis report in accordance with Section V, Item E of the Consent Decree and the reporting requirements of Ohio Consent Order No. 199CV01107. To have been included with this submittal was an electronic copy of the Groundwater Monitoring Data in the GRITS / STAT format for the Sept. 19 and 20 sampling event conducted at the Sebring Landfill. The 3.5" Diskette containing this data was omitted from the original submittal. Accompanying this letter for your review is this diskette.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

PPP
Attachments
C:\WP51\LANDFILL\GWSFRESU.B95

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: REB
PFF
BMW
RML\RBR

Ohio EPA **Z 134 815 563**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **Z 134 815 564**
Division of Hazardous Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **Z 134 815 565**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
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44th Floor - Boulevard Towers South
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Chicago, Illinois 60601

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American Steel Foundries

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JOHN OESCH
PLANT MANAGER

December 15, 1995

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WASTE MANAGEMENT DIVISION
EPA, REGION V

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 **Z 134 815 419**
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 134 815 420**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
GROUNDWATER SAMPLING REPORT

SAMPLING REPORT NO.6

This submittal is intended to meet the sampling and analysis reporting requirements of Section V. Item E5 of the Consent Decree and the reporting requirements of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

5. Defendant shall submit to U.S. EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

ONE OF THE Amsted INDUSTRIES

6. In the event that the sampling and analyses conducted pursuant to the approved Groundwater Quality Assessment Plan for the Sebring Facility reveals that hazardous waste or constituents have entered the groundwater, Defendant shall so notify U.S. EPA and Ohio EPA in writing within ten (10) days, and shall continue to monitor groundwater in accordance with the requirements of 40 C.F.R. # 265.93 (d) (7), Ohio Admin. Code #3745-65-93 (d) (7) and the Groundwater Quality Assessment Plan.

Attached for your review are the results of the groundwater sampling event conducted Sept. 19 and 20, 1995 at the American Steel Foundries Sebring Landfill.

Based on the results of the reports, it does not appear that the Sebring Facility is affecting groundwater quality.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Desch
PLANT MANAGER

PPP

Attachments

C:\WP51\LANDFILL\GWSFREPT.B95

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: REB
PFF
BMW
RML\RBR

Ohio EPA **Z 134 815 421**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
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Ohio EPA **Z 134 815 422**
Division of Hazardous Waste Management
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Ohio EPA **Z 134 815 423**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
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Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
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Chicago, Illinois 60601

Mahoning County Health District **Z 134 815 426**
Chief, Solid Waste Program
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Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

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JOHN OESCH
PLANT MANAGER

RECEIVED
1995
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

October 10, 1995

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, HRE-8J **Z 309 033 251**
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 309 033 252**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)

Progress Report # 14

This submittal is intended to meet the progress report requirements of the Consent Decree and the reporting requirements of Section V. Item 12 of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

The following have been completed since the last report:

D. SEBRING FACILITY -Closure and Post Closure Requirements:

2. If Ohio EPA does not approve the Sebring Closure Plan or the Post-Closure Plan, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a revised or modified Sebring Post-Closure Plan, in accordance with Ohio Admin. Code # 3745-66-12(D)(4)

In a June 30, 1995 letter from Mr. Gary J. Deigan, Roy F. Weston Inc. to Mr. John Palmer, OEPA, a followup to the June 13, 1995 letter was provided regarding Tecumseh Pond / Sebring Landfill Separation Berm. The letter supported the June 13, 1995 Surcharge and Settlement Monitoring Report for the Sebring Landfill. Weston concluded that Closure will ensure a less than 50 % rapid drawdown of pool depth in the pond before drawdown based on data collected thus far.

ONE OF THE Amsted INDUSTRIES

In an August 21, 1995 letter to Ms. Burnadette Wellman, ASF, Mr. John Palmer acknowledged receipt of the company's March, 1995 Semiannual Groundwater Monitoring Report. It was received on August 18, 1995. A copy of this report with the above letter was sent to U.S. EPA Region V, RCRA Enforcement and SWERB Section V, Regional Counsel. The report is currently under review by both agencies.

The second round of semiannual sampling at the Sebring landfill was conducted the week of Sept. 18, 1995 by Roy F. Weston for ASF. At the time of this submittal, ASF is awaiting sampling results and a report from Roy F. Weston, Inc.

TEST RESULTS AND SAMPLING SUMMARY

American Steel Foundries plans to monitor each load of EAF dust with the EPA Toxic Characteristic Leaching Procedure (TCLP) test for metals for an indefinite period.

Attachment "A" shows the electric arc furnace dust composite sample reports that have been received since the last reporting period.

ACTIONS NOT COMPLETED AS REQUIRED

As of the time of the submittal of this progress report, all required actions have been completed and there are currently no anticipated problems.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

PPP
Attachment

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY • ALLIANCE, OHIO 44601 • (216) 823-6150
FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

October 9, 1995

CERTIFIED LETTER
RETURN RECEIPT REQUESTED **Z 134 815 412**

Chief RCRA Enforcement Branch, 5HR-12
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 134 815 413**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
REVISED GROUNDWATER MONITORING PLAN

This submittal is intended to meet the reporting requirements of Section V. Item E7 of the Consent Decree and the reporting requirements of the Ohio Consent Order No.1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

7. In the event that the sampling and analysis conducted pursuant to the approved Groundwater Quality Assessment Plan at the Sebring facility reveals that neither hazardous waste nor hazardous constituents have entered the groundwater, Defendant shall submit to U.S. EPA, with one copy to Ohio EPA, a Groundwater Monitoring Plan in accordance with 40 CFR Part 265.90 and 265.91 and OAC Parts 3745 - 65 - 90 and 91. Within 30 days of receipt of written comments from U.S. EPA identifying deficiencies in the Groundwater Monitoring Plan the Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a revised Plan that corrects any deficiencies identified by U.S. EPA. The Defendant shall implement the U.S. EPA modified Groundwater Monitoring Plan within 30 days of U.S. EPA approval of the Plan.

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Attached for your review are copies of the revised Groundwater Monitoring Plan. Should you have any questions regarding this submittal, please contact Mr. Pat Petrella at (216) 823 - 6150, Ext. 206.

In accordance with this approved well monitoring plan, ASF has added four additional sampling wells to the sampling program. The new wells are identified as MW-4B, MW-13P, MW-24 and MW-25. Additionally, up gradient monitoring well MW-19P has been formally removed and abandoned because there was insufficient water flow for sampling at the well's depth elevation of 1035.4 feet.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

PPP
Attachments

C:\WP51\LANDFILL\GWMOPREV.A95

cc: REB
PFF
BMW
RML\RBR

Ohio EPA **Z 134 815 414**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **Z 134 815 415**
Division of Hazardous Waste Management
Northeast District Office
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Twinsburg, Ohio 44087-1969

Edward J. Brosius, ESQ.
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Ohio EPA **Z 134 815 416**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Mahoning County Health District **Z 134 815 417**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

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JOHN OESCH
PLANT MANAGER

RECEIVED
AUG 22 1995
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

August 14, 1995

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 **Z 055 522 334**
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 055 522 335**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
GROUNDWATER SAMPLING REPORT

SAMPLING REPORT NO.5

This submittal is intended to meet the sampling and analysis reporting requirements of Section V. Item E5 of the Consent Decree and the reporting requirements of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

5. Defendant shall submit to U.S. EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

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6. In the event that the sampling and analyses conducted pursuant to the approved Groundwater Quality Assessment Plan for the Sebring Facility reveals that hazardous waste or constituents have entered the groundwater, Defendant shall so notify U.S. EPA and Ohio EPA in writing within ten (10) days, and shall continue to monitor groundwater in accordance with the requirements of 40 C.F.R. # 265.93 (d) (7), Ohio Admin. Code #3745-65-93 (d) (7) and the Groundwater Quality Assessment Plan.

Attached for your review are the results of the groundwater sampling event conducted March 21 & 22, 1995 at the American Steel Foundries Sebring Landfill.

Based on the results of the reports, it does not appear that the Sebring Facility is affecting groundwater quality.

In accordance with the revised approved well monitoring plans, ASF has added four additional sampling wells to the sampling program. The new wells are identified as MW-4B, MW-13P, MW-24 and MW-25. Additionally, up gradient monitoring well MW-19P has been formally removed and abandoned because there was insufficient water flow for sampling at the well's depth elevation of 1035.4 feet.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

TCB

Attachments

C:\WP51\LANDFILL\GWSFREPT.895

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: REB
PFF
BMW
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Ohio EPA **Z 055 522 336**
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Ohio EPA **Z 055 522 337**
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Ohio EPA **Z 055 522 338**
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Mahoning County Health District **Z 055 522 339**
Chief, Solid Waste Program
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Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

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JOHN OESCH
PLANT MANAGER

RECEIVED
APR 12 1995
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

April 04, 1995

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, HRE-8J **Z 055 522 288**
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 055 522 289**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)

GROUNDWATER SAMPLING REPORT RESPONSE TO COMMENTS

This submittal is intended to meet the progress report requirements of Section X of the Consent Decree and the reporting requirements of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this Decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

3. Within thirty (30) days after entry of this Consent Decree, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a Groundwater Quality Assessment Plan for the Sebring facility in accordance with 40 C.F.R. # 265.93 and Ohio Admin. Code # 3745-65-93. Within 30 days of receipt of comments from U.S. EPA identifying any deficiencies in the Groundwater Quality Assessment Plan, Defendant shall submit to U.S. EPA, with a

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copy to Ohio EPA, a revised Plan that corrects any deficiencies identified by the U.S. EPA. The defendant shall implement the U.S. EPA approved or modified Groundwater Quality Assessment Plan within 30 days of U.S. EPA approval of the Plan.

5. Defendant shall submit to U.S. EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

American Steel Foundries has prepared the following response in accordance with Mr. John Palmer's March 06, 1995 request for comments covering the ground water quality analytical test results from the June 15, 16 and 17, 1994 ground water monitoring well sampling event at the Sebring Landfill. Our numbered response sequence corresponds to Ohio EPA "COMMENTS".

RESPONSES

Response to Comment # 1

1. MW-19P was drilled into the lower level of the bedrock in order to determine upgradiant water quality at that level. The amount of water present at that depth has proven to be minimal, at best, and sufficient water for sampling has not been attainable. Because of this condition, well "MW-19P" was formally removed and abandoned in March of 1995 when additional monitoring wells were installed at the site in accordance with the Ohio EPA's request.

Response to Comment # 2

2. The reference to MW-25P in the RMT Inc. July 21, 1994 correspondence to Mr. Terry Bradway, American Steel Foundries, was in error. No such well exists with that number.

Response to Comment # 3

3. The revised Table 3-3 was made and submitted as part of Sampling Report No. 4 on December 05, 1994. A revised copy for your records is attached.

Response to Comment #4

4. American Steel Foundries submitted a report titled "Groundwater Sampling Report Response to Comments" on February 28, 1995 covering this issue and will continue to resolve EPA concerns as part of that subject if they arise.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

C:\WP51\HAZWASTE\USVAMSTE.495

cc: BMW
JW
REB
RML
RBR

Ohio EPA **Z 055 522 290**
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P. C. Schillawski **Z 055 522 293**
Squire Sanders & Dempsey
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Cleveland, Ohio 44114-1304

Mahoning County Health District **Z 055 522 294**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Revised Table 3-3[1]

APPENDIX IX - METALS, METHODS OF ANALYSIS AND PRACTICAL QUANTITATION LIMITS (PQL's)

Analyte	PQL in µg/L	SW-846 Method
Antimony	10	7041
Arsenic[2]	3	7060
Barium[2]	50	6010
Cadmium[2]	0.3	7131
Chromium (total)[2]	2	7191
Cobalt	50	6010
Copper	3	7211
Lead[2]	3	7421
Mercury[2]	0.2	7470,7471
Nickel[2]	40	6010
Selenium[2]	3	7740
Silver[2]	1	7761
Tin	500	RMT Lab Internal
Zinc[2]	20	6010
Sulfide (total)	1000	9030

Notes:

(1) Table originally presented in Groundwater Sampling and Analysis Plan (RMT, 1992). Revised based on First Quarter groundwater sampling results.

(2) Compound or element is found in ASF wastestream.

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American Steel Foundries

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FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

February 27, 1995

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 **Z 055 522 248**
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 055 522 249**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
SURCHARGE AND SETTLEMENT MONITORING PLAN
SEBRING LANDFILL

Attached for your review is a copy of the (Revised February 1995) Surcharge and Settlement Monitoring Plan for the Sebring Landfill Facility . This submittal is intended to meet the reporting requirements of Section D of the Consent Decree and the reporting requirements of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

D. SEBRING FACILITY - Closure and post Closure Requirements

1. Within 75 days after entry of this Decree, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a Sebring Closure Plan for its Sebring facility that provides for closure as a landfill in accordance with 40 C.F.R. # 265.112 and 265.310, and Ohio Admin. Code # 3745-66-12 and 68-10, and other applicable requirements (except to the extent that Ohio EPA determines that a closure plan required by this

subparagraph need not satisfy all the requirements of 40 C.F.R. # 265.310 and Ohio Admin Code # 3745-68-10. Within ninety (90) days after the entry of this Decree, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a Sebring Post-Closure Plan, that provides for compliance with the requirements of 40 C.F.R. # 265.117 and 265.120 and Ohio Admin. Code # 3745-66-17 through 20, in the event that "clean closure" of the Sebring facility cannot be achieved.

2. If Ohio EPA does not approve the Sebring Closure Plan or the Sebring Post Closure Plan, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a revised or modified Sebring Closure Plan and /or Sebring Post-Closure Plan, in accordance with Ohio Admin. Code # 3745-66-12 (D)(4).

GENERAL INFORMATION

The Sebring Landfill Closure Plan was submitted to Ohio EPA and to the U.S. EPA as an attachment to a February 10, 1993 compliance letter from Mr. John Difloure, Plant Manager, American Steel Foundries.

In his June 1, 1994 letter to Mr. Donald R. Schregardus, Director, Ohio EPA, Mr. John Wories Jr., Director Administrative Services, American Steel Foundries requested a meeting with the agency to discuss issues of concern for both parties relative to the Sebring Landfill Closure Plan.

On July 25, 1994 a meeting was held at the Northeast District Office of the Ohio EPA in Twinsburg, Ohio with representatives of the Ohio EPA, RMT Inc. and American Steel Foundries Inc. to discuss the Sebring Landfill Closure Plan issues. Pursuant to that meeting, the previously submitted landfill closure plan was formally withdrawn by Mr. John Oesch, Plant Manager, American Steel Foundries in an August 5, 1994 letter to Mr. Donald R. Schregardus, Director, Ohio EPA.

American Steel Foundries submitted a revised Sebring Landfill Closure Plan to the Ohio EPA and U.S. EPA on December 15,1994.

This submission is for the (Revised February 1995) Surcharge and Settlement Monitoring Plan for the former pond area of the Sebring Landfill Facility. Settlement of this area in advance of the final cover installation is necessary in order to insure cap integrity as well as meet the Ohio EPA's desired 1996 project completion schedule for the Sebring Landfill Closure.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

TCB
Attachments

cc: REB
JW
BMW\RSW
RML
RBR

Ohio EPA **P 401 620 093**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **P 401 620 095**
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Ohio EPA **P 401 620 096**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
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Twinsburg, Ohio 44087-1969

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Chicago, Illinois 60601

P. C. Schillawski **P 401 620 097**
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District **P 401 620 098**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY • ALLIANCE, OHIO 44601 • (216) 823-6150
FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

RECEIVED
FEB 02 1995
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

January 20, 1995

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, HRE-8J **Z 055 522 240**
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 055 522 241**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
LANDFILL CLOSURE PLAN

Attached for your review is a copy of the new December 1994 Sebring Facility Landfill Closure Plan. This submittal is intended to meet the reporting requirements of Section D of the Consent Decree and the reporting requirements of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

D. SEBRING FACILITY - Closure and post Closure Requirements

1. Within 75 days after entry of this Decree, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a Sebring Closure Plan for its Sebring facility that provides for closure as a landfill in accordance with 40 C.F.R. # 265.112 and 265.310, and Ohio Admin. Code # 3745-66-12 and 68-10, and other applicable requirements (except to the extent that Ohio EPA determines that a closure plan required by this subparagraph need not satisfy all the requirements of 40

C.F.R. # 265.310 and Ohio Admin Code # 3745-68-10. Within ninety (90) days after the entry of this Decree, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a Sebring Post-Closure Plan, that provides for compliance with the requirements of 40 C.F.R. # 265.117 and 265.120 and Ohio Admin. Code # 3745-66-17 through 20, in the event that "clean closure" of the Sebring facility cannot be achieved.

2. If Ohio EPA does not approve the Sebring Closure Plan or the Sebring Post Closure Plan, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a revised or modified Sebring Closure Plan and /or Sebring Post-Closure Plan, in accordance with Ohio Admin. Code # 3745-66-12 (D)(4).

GENERAL INFORMATION

A new Sebring Landfill Closure Plan was submitted to U.S. EPA and to the Ohio EPA as an attachment to a December 09, 1994 letter from Mr. John F. Oesch, Plant Manager, American Steel Foundries. The Sebring Landfill Closure Plan contained a Groundwater Quality Assessment Report as Appendix "J".

In a January 06, 1995 letter to the U.S. EPA and to the Ohio EPA, Mr. John F. Oesch, Plant Manager, American Steel Foundries submitted a revised Groundwater Quality Assessment.

Please substitute the attached **3.6 Schedule**, Page 18, for the Page 18, in Appendix "J' of the Sebring Landfill Closure Plan so that the plans will be the same.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

TCB
Attachments

cc: REB
JW
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RML
RBR

Ohio EPA **Z 055 522 242**
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Ohio EPA **Z 055 522 244**
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Mahoning County Health District **Z 055 522 246**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Ohio EPA **Z 055 522 247**
Mr. Ed Kitchen
Environmental Manager
Division of Hazardous Waste Management
1800 WaterMark Drive
Columbus, Ohio 43268-0149

3.6 Schedule

Sampling will be carried out on a semiannual basis. A report containing the sample results and an evaluation of those results will be submitted to the USEPA and OEPA within 30 days of the receipt of the analytical data for each sampling round. In addition, a potentiometric map will be included detailing the position of the waste management unit in relation to the monitoring wells, ground water surface elevation contours and ground water flow direction. Based on review of the water quality results and the potentiometric map, compliance with up and downgradient monitoring well requirements will also be evaluated.

In the event that the sampling and analysis reveals that hazardous waste or hazardous constituents have entered the groundwater, the USEPA and Ohio EPA will be notified in writing within 10 days. Groundwater monitoring will continue to be conducted in accordance with the requirements of 40 CFR §265.93(d)(7), OAC 3745-65-93(d)(7), and the Groundwater Quality Assessment Report.

In addition to the above reporting of analytical data, the Supplementary Annual Groundwater Report will be completed and submitted by the required report date.

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

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FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

January 06, 1995

RECEIVED
JAN 11 1995
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 **Z 055 522 230**
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **P 092 085 940**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
GROUNDWATER QUALITY ASSESSMENT

Attached for your review is a copy of the Groundwater Quality Assessment for the Sebring Landfill. This submittal is intended to meet the reporting requirements of Section V of the Consent Decree and the reporting requirements of the Ohio Consent Order No. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

3. Within thirty (30) days of entry of this Consent Decree, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a Groundwater Quality Assessment Plan for the Sebring facility in accordance with 40 C.F.R. # 265.93 and Ohio Admin. Code 3745-65-93. Within 30 days of receipt of comments from U.S. EPA identifying any deficiencies in the Groundwater Quality Assessment Plan, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a revised plan that corrects any deficiencies identified by U.S. EPA. The Defendant shall implement the U.S. EPA approved or modified Groundwater Quality Assessment Plan within 30 days of U.S. EPA approval of the Plan.

5. Defendant shall submit to U.S. EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E3 above, in accordance with the reporting requirements set forth therein and at 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code #3745-65-93 and 94.

8. Defendant shall comply with all interim status requirements relating to groundwater set forth in 40 C.F.R. Part # 65, Subpart F and Ohio Admin. Code # 3745-65, et seq.

GENERAL INFORMATION

Quarterly groundwater sampling events performed in December 1993, March 1994, June 1994 and September 1994 and submitted to the agency under separate cover have contributed data to the attached report.

On July 25, 1994 a meeting was held at the Northeast District Office of the Ohio EPA in Twinsburg, Ohio with representatives of Ohio EPA, RMT Inc. and American Steel Foundries to discuss the Sebring Landfill Closure Plan issues.

Pursuant to the July 25, 1994 meeting, the previously submitted Landfill Closure Plan was withdrawn by Mr. John Oesch, Plant Manager, American Steel Foundries in an August 5, 1994 letter to Mr. Donald R. Schregardus, Director, Ohio EPA.

This submittal, "GROUNDWATER QUALITY ASSESSMENT" is intended to meet the additional monitoring and well requirements requested by the Ohio EPA. It contains the Groundwater Quality Assessment and the Groundwater Sampling and Analysis Plan. Modifications were made to accommodate Ohio EPA concerns from Mr. Palmer's letters of November 23, 1994, therefore, this submission will differ slightly from Closure Plan submission appendices.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

TCB

Attachments

C:\WP51\LANDFILL\GWQSAPLN.D94

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: REB
JW
BMW\RSW
RML
RBR

Ohio EPA **P 092 085 941**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **P 092 085 942**
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **P 092 085 943**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

P. C. Schillawski **P 092 085 944**
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District **P 092 085 945**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY * P. O. BOX 2060 * ALLIANCE, OHIO 44601

(216) 823-6150 * FAX NO. (216) 821-4568

December 21, 1994

NOTIFICATION OF ERROR

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

RECEIVED
JAN 09 1995
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

Chief RCRA Enforcement Branch, 5HR-12
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
SURCHARGE AND SETTLEMENT MONITORING PLAN
SEBRING LANDFILL

The possibility exists that you received the wrong cover letter with the "Surcharge and Settlement Monitoring Plan". Please check the certification number on the envelope against the one on the letter. Also, the letter title should be the same as one on this notice. If they do not match, discard the incorrect letter and replace it with the letter attached to this notice.

Please accept our apology for any inconvenience that this error may have caused. If you have any additional questions, comments or concerns, please do not hesitate to call me at (216) 823-6150 Ext. 206.

Very truly yours,

T.C. Bradway

T.C.Bradway
Environmental Manager

C:\WP51\LANDFILL\LFCLPNNM.D94

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: REB
JW
BMW\RSW
RML
RBR

Ohio EPA
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

P. C. Schillawski
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY * P. O. BOX 2060 * ALLIANCE, OHIO 44601

(216) 823-6150 * FAX NO. (216) 821-4568

December 21, 1994

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, HRE-8J **Z 055 522 222**
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V Z 055 522 216
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)

GROUNDWATER SAMPLING REPORT RESPONSE TO COMMENTS

This submittal is intended to meet the progress report requirements of Section X of the Consent Decree and the reporting requirements of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this Decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

3. Within thirty (30) days after entry of this Consent Decree, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a Groundwater Quality Assessment Plan for the Sebring facility in accordance with 40 C.F.R. # 265.93 and Ohio Admin. Code # 3745-65-93. Within 30 days of receipt of comments from U.S. EPA identifying any deficiencies in the Groundwater Quality Assessment Plan, Defendant shall submit to U.S. EPA, with a

ONE OF THE Amsted INDUSTRIES

copy to Ohio EPA, a revised Plan that corrects any deficiencies identified by the U.S. EPA. The defendant shall implement the U.S. EPA approved or modified Groundwater Quality Assessment Plan within 30 days of U.S. EPA approval of the Plan.

5. Defendant shall submit to U.S.EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

American Steel Foundries has prepared the following response to the June 28, 1994 correspondence from Mr. John Palmer, Ohio EPA, Northeast District Office, Division of Hazardous Waste Management. This Correspondence is pursuant to Ohio EPA review of the February 23, 1994 submittal of the groundwater sampling analytical results.

RESPONSES

Response to Comment # 1

1. This issue is considered closed.

Response to Comment # 2

2. This issue is considered closed.

Response to Comment # 3

3. This issue is considered closed.

Response to Comment #4

4. ASF believes potentiometric maps to be an annual report requirement only but has constructed one for the December 1993 and March 1994 sampling events. See attachments A and B. Potentiometric maps for the June and September events were submitted with the sampling report data for those events.

By certified letter, American Steel Foundries is documenting that we are addressing all four of the Ohio EPA's comments in the subject correspondence. A new revised plan incorporating your requests is being prepared and will be submitted in January of 1995. American Steel Foundries will include potentiometric maps and GRITS/STAT electronic data disc with each future sampling event.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

C:\WP51\HAZWASTE\USVAMSTE.D94

cc: BMW/RSW
JW
REB
RML
RBR

Ohio EPA Z 055 522 217
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA Z 055 522 218
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA Z 055 522 219
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

P. C. Schillawski Z 055 522 220
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District Z 055 522 221
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

ATTACHMENT "C"

MEMORANDUM
November 9, 1994

Mr. J. F. Oesch
Plant Manager

GRITS/STAT
VERSION 4.21
TRAINING SEMINAR

On November 8, 1994, T. C. Bradway, Environmental Manager, attended the subject training seminar in Columbus, Ohio, sponsored by A. T. Kearney, Chicago, Illinois. GRITS/STAT is a U.S. EPA Computer Program for tracking groundwater monitoring well test data and includes a statistics module for evaluating well performance. Students were given the program disks, operations manuals and User Documentation. Classroom instruction included navigation through the various functions of program systems and an overview of its potential for evaluation of monitoring well data. EPA report generation was also reviewed.

The U.S. EPA mandates that monitoring well reports be submitted in electronic form using this program or a compatible electric format.

I recommend that GRITS/STAT be included in our network program list because the data it is capable of generating will be beneficial to the Chicago Office, Granite City and Alliance.

Yours very truly,

T. C. Bradway

T. C. Bradway
Environmental Manager

cc: RBR
RML
JW
BMW
RSW
EJB
JEK

C:\WP51\LANDFILL\GRIDSTAT.N94

PURPOSE

These one day workshops are sponsored by the U.S. EPA Region 5 Office of RCRA to provide an introductory course in the use of GRITS/STAT (GRound water Information Tracking System with STATistics Module) version 4.21. GRITS/STAT version 4.21 is the latest release of the U.S. EPA's comprehensive ground water database system designed to store, analyze, and report data generated during ground water monitoring at RCRA, CERCLA, and other regulated facilities and sites. The workshops will provide hands-on training in the use of GRITS/STAT ver. 4.21.

GRITS/STAT was developed as a joint project by U.S. EPA Regions 5 and 7, U.S. EPA Office of Research and Development, and U.S. EPA Office of Solid Waste to accomplish two main goals:

- To standardize the electronic submittal of ground water data submittals, and
- To provide a statistics package that would perform statistical tests easily and reliably.

Originally, GRITS/STAT ver. 4.14 was released in December 1992. The current release, ver. 4.21, became available in June 1994. If you are required to submit ground water monitoring data, and if you perform statistical analysis on your data in conformance with U.S. EPA guidance documents, GRITS/STAT may be of value to you.

The GRITS/STAT ver. 4.21 software, users manual, study guide, and guidance documents will be provided to workshop participants.

Who should attend: GRITS/STAT users and potential users, including State and Federal regulators, facilities and sites which are required to monitor ground water, contractors and laboratories which are involved in collecting or analyzing ground water samples for clients. No prior experience is required, although computer experience is helpful.

TOPICS TO BE COVERED

- Getting started using GRITS/STAT
- GRITS/STAT program structure
- Basic and advanced data entry
- Strategies for large data sets
- Quality Assuring your work
- Retrieving the data you want
- Using GRITS/STAT reports module
- Using GRITS/STAT export module
- Graphs and plots
- Statistical methods
- Other resources available

WORKSHOP REGISTRATION

The workshops are presented free of charge. Attendance is on a first-come, first-served basis and is limited to 25 people per workshop. The attached registration card should be completed and mailed or faxed as soon as possible, indicating your first, second and third choice of locations. Deadline for registration is one week prior to the workshop you wish to attend. You will receive confirmation information including an agenda and meeting site location directions and information. For workshop registration or additional workshop information, contact Bill Wesley, A.T. Kearney, Inc., 222 West Adams, Chicago, IL 60606 [(312) 223-6546, Fax: (312) 223-6372].

SEMINAR LOCATIONS

E. Lansing - Computer Center, Michigan State University 8:00 am

Cincinnati - ORD-CERI, 26 W. Martin Luther King Drive

Springfield - Illinois Dept. of Central Management Services, 200 W. Washington

Madison - Computer Science Bldg, University of Wisconsin, 1210 W. Dayton

Columbus - Alliance Computer Services, 425 Metro Pl. N., Dublin, OH

Indianapolis - Indiana Govt. Ctr. - S. Training Ctr., 402 W. Washington

GRITS/STAT WORKSHOP REGISTRATION

Please enroll me for the following GRITS/STAT workshop (please indicate your first, second, and third choice by marking 1, 2, or 3).

☐	Lansing, Michigan	October 21, 1994
☐	Cincinnati, Ohio	October 25, 1994
☐	Springfield, Illinois	November 2, 1994
☐	Madison, Wisconsin	November 4, 1994
☒	Columbus, Ohio	November 8, 1994
☐	Indianapolis, Indiana	November 10, 1994

Name: Terry C. Bradway

Title: Environmental Manager

Organization: American Steel Foundries

Address/Mail Code: 1001 E. Broadway St.

City: Alliance **State:** Oh **Zip:** 44601

Telephone: (216) 823-6150, Ext. 206

Fax: (216) 821-4568

Mail to:

GRITS/STAT Registration
A.T. Kearney, Inc.
222 West Adams
Chicago, IL 60606

or Fax to: (312) 223-6372

☐ I am a current GRITS/STAT user.

☒ I will bring my own laptop con er.

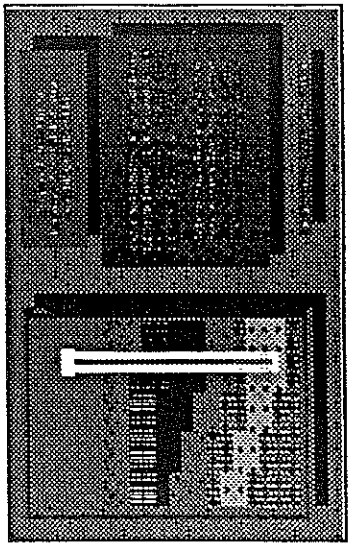
Printed on Recycled Paper

United States
Environmental Protection Agency
Region 5

EPA GRITS/STAT
ver. 4.21

*G*Roundwater
*I*nformation
*T*racking System
with
*STA*Tistics Module

TRAINING WORKSHOPS



Lansing, MI	Oct. 21
Cincinnati, OH	Oct. 25
Springfield, IL	Nov. 2
Madison, WI	Nov. 4
Columbus, OH	Nov. 8
Indianapolis, IN	Nov. 10

Printed on Rec. J Paper

United States
Environmental Protection Agency
77 West Jackson HRP-8J
Chicago, IL 60604

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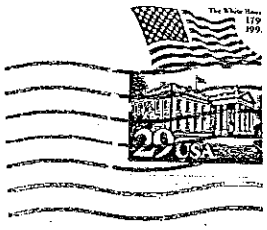

TERRY BRADWAY
AMERICAN STEEL FOUNDRIES- SEBRING
1001 E. BROADWAY ST.
ALLIANCE, OH 44601 0060

Place
Stamp
Here

GRITS/STAT Training Workshop
c/o Bill Wesley
A.T. Kearney
222 West Adams
Chicago, IL 60606

312-223-6372

TRC
TRC Environmental Corporation

1307 Butterfield Road, Suite 420
Downers Grove, IL 60515
☎ (708) 810-1122
Fax (708) 810-1494

November 22, 1994

Mr. Terry Bradway
American Steel Foundries
1001 E. Broadway St.
Alliance, OH 44601

Subject: Computer virus discovered at EPA's GRITS/STAT workshops

Dear Mr. Bradway:

A computer virus known as "Form" was detected on the GRITS/STAT installation diskettes used during the training workshops recently conducted in Region 5. This virus was evidently transferred to the diskettes from an infected computer brought to the workshops to which GRITS/STAT was installed. Although to date no cases of the virus have been reported outside of the installation disks, there is the potential that the virus may have been transmitted to any computer used at the workshops. If you brought a portable computer to the workshop, or if you are currently using any diskette that was used at the workshops, we recommend that you run a virus checker on your computer. (The 5.25" installation diskettes distributed at the workshop are clean.) The following virus checkers will detect this virus: Norton's antivirus, Central Point Antivirus, McAfee's MDisk, or DOS 6.2.

Note that nothing is written back to the installation disks during installation. It appears, therefore, that this virus does not require a write operation to be transmitted.

If you find the virus, please call the GRITS/STAT Hotline at (913) 551-7074 to help us track down the extent of the contagion. Also, please contact the Hotline if you have any questions.

Regretfully yours,

Miriam C. Foshay

Miriam C. Foshay
TRC Team Lead

ATTACHMENT "D"

December 13, 1994

Mr. Terry Bradway
Environmental Manager
American Steel Foundries
1001 East Broadway
P.O. Box 2060
Alliance, OH 44601-0060

Dear Terry:

Per your request, attached please find the Scope of Services to electronically enter your 1993 and 1994 ground water monitoring data for the Sebring landfill site into the latest version of the Grits database system.

As you know the project will begin with entering the details of the facility and monitoring network. A parameter list will then be entered followed by the parameter results on a quarterly basis.

At the end of the project we will submit to you a floppy of the completed work that may then be copied into your Grits database system.

Please call should you have any questions regarding this proposal or any of the ongoing projects.

Sincerely,

Craig S. Schmeisser

Craig S. Schmeisser
Project Manager

Enclosure

cc: Bernadette Wellman

RMT INC.

RESIDUALS MANAGEMENT TECHNOLOGY, INC. — COLUMBUS
5890 SAWMILL ROAD - SUITE 100
DUBLIN, OH - 43017-1591
614/793-0026 - 614/793-0151 FAX

90-99758.04:MH:MSC:brad1214

SCOPE OF SERVICES

PROJECT ELEMENT 1: GROUND WATER RESULTS DATA ENTRY

Objective:

- To provide American Steel Foundries with a completed Grits database of 1993 and 1994 quarterly ground water sampling results from the Sebring Landfill monitoring system.

Scope of Services:

- Complete the facility identification, ground water well information and parameter list databases to prepare the system for ground water data entry.
- Enter the 1993 and 1994 quarterly groundwater data into the Grits database.

Output:

- Provide a 3 1/2" floppy disk to American Steel Foundry of data entered into the Grits database.

Cost Estimate:

- $1,700

PROJECT AGREEMENT

RMT, INC.

RMT, Inc. ("RMT"), proposes to provide consulting services to American Steel Foundries ("Client") with respect to Air Quality Services ("Project").

The Agreement consists of the following documents:

(a) This PROJECT AGREEMENT
(b) Scope of Services ("Proposal") (attached)
(c) General Terms and Conditions in Master Services Agreement between Client and RMT
(d) Schedule of Charges (attached)
(e) Change orders that may be authorized at various times throughout the Project
(f) Other documents, as the parties may hereafter mutually agree to in writing

RMT shall be compensated for its Services in accordance with the General Terms and Conditions.

RMT reserves the right to revoke or modify the attached Proposal at any time before its acceptance. This Proposal is valid until December 22, 1994 unless previously revoked.

Your acceptance of this Project Agreement constitutes the Agreement between RMT and Client.

Offered By:

RMT, Inc.

Craig S. Schmeisser
(Signature)

Craig S. Schmeisser
(Printed Name)

Project Manager
(Title)

December 14, 1994
(Date)

Accepted By :

American Steel Foundries

(Signature)

(Printed Name)

(Title)

(Date)

PLEASE SIGN AND RETURN ONE COPY TO RMT

PROJECT AGREEMENT

RMT, INC.

RMT, Inc. ("RMT"), proposes to provide consulting services to American Steel Foundries ("Client") with respect to Air Quality Services ("Project").

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(f) Other documents, as the parties may hereafter mutually agree to in writing

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RMT reserves the right to revoke or modify the attached Proposal at any time before its acceptance. This Proposal is valid until December 22, 1994 unless previously revoked.

Your acceptance of this Project Agreement constitutes the Agreement between RMT and Client.

Offered By:	**Accepted By :**
RMT, Inc.	American Steel Foundries
Craig S. Schmeisser (Signature)	_____ (Signature)
Craig S. Schmeisser (Printed Name)	_____ (Printed Name)
Project Manager (Title)	_____ (Title)
December 14, 1994 (Date)	_____ (Date)

PLEASE SIGN AND RETURN ONE COPY TO RMT

SCHEDULE OF CHARGES - STANDARD RATE

January 1, 1994 — December 31, 1994

PERSONNEL* CHARGES

Senior Consultant	$110 -175/hour
Consultant, Project and Technical Management	$ 95 -125/hour
Senior Project Technical	$ 85 -115/hour
Project Technical II	$ 70 - 105/hour
Project Technical I	$ 60 - 95/hour
Staff Technical II	$ 55 - 80/hour
Staff Technical I	$ 45 - 65/hour
Senior Technician, Designer	$ 55 - 80/hour
Technician II	$ 45 - 70/hour
Technician I	$ 30 - 65/hour
Administration	$ 25 - 50/hour

*Personnel include direct and contract employees.
Expert testimony rates quoted separately.

OTHER CHARGES

Computer: Auto CADD & other computer service charges, per hour	$ 25.00
Engineering & Scientific Applications Software, per hour	$ 45.00
InterGraph, per hour	$ 35.00
Equipment Use	Std. Rate Sheet
Facsimile Transmissions, per sheet	$ 2.00
Laboratory Analysis	Std. Rate Sheet
Prints: Blueline, per sq. foot	$ 0.15
Mylar, per sq. foot	$ 2.00
Reproduction, per sheet	$ 0.15
Sample Storage: Chemistry Lab Samples	$ 1.50/sample/mo.
Over 30 days, after results completed	$ 10.00/mo./minimum
Geotechnical and Soils Samples	$ 10.00 /unit/first mo. $ 1.00 /unit/mo. after
Vehicles: Car, per mile	$ 0.37
Field Vehicle	$ 50.00/day plus $ 0.35/mile

Outside services, equipment, and facilities not furnished directly by RMT, Inc., will be billed at cost plus 15%.

Services may include, but are not limited to, the following:

- Aerial photography & mapping
- Meals and lodging
- Outside laboratory testing
- Printing and photographic reproduction
- Rental of equipment and vehicles
- Sample disposal
- Shipping
- Special fees, permits, insurance, etc.
- Subcontractors to RMT, Inc.
- Supplies
- Telephone
- Transportation on public carriers

Payment terms: Net thirty (30) days. Thereafter, one percent (1%) interest per month on the unpaid balance will be charged.

&A

AMERICAN STEEL FOUNDRIES
DETAILED COST ESTIMATE

Project: Ground Water Date Entry
Date: December 13, 1994

Labor:

	Hours	Rate	Total
Senior Consultant	0	0	$0
Project Manager	1	105	$105
Senior Technical	3	90	$270
Project Engineer	0	0	$0
Staff Engineer	0	0	$0
Staff Technician	24	45	1080
Admin	0	40	$0
		Labor Subtotal:	$1,455

Expenses:

Airfare	$0
Lodging	$0
Meals	$0
Car Rental	$0
Computer	125
Faxes, phone, copies, postage	$20
Misc	$100
Expense Subttl:	$245

Grand Total: $1,700

ATTACHMENT "E"

AMERICAN STEEL FOUNDRIES
REQUISITION ON SUPPLY AGENT
FOR MATERIALS, SUPPLIES AND SERVICES

P.O. NO. A-94299 S ...p. #1
P.O. DATE
REQN. NO.

DATE	PAGE	OF
DEC 16, 1994	1	1

DATE REQUIRED: JANUARY 3, 1995

VENDOR NAME: R.M.T. INC., ADDRESS: 5890 SAWMILL ROAD, SUITE 100, DUBLIN, OHIO 43017-1591 VENDOR NO.

LOC. NO.	ACCT. NO.	W.O. OR PROJ. NO.	UNIT OR EQUIP. NO.	TERMS	F.O.B.
		A-169			

SUGGESTED VENDOR

EST. VALUE: $1700

REQUIRED FOR: GROUND WATER MONITORING ENV-94026

ITEM	QUANTITY	STOCK NO.	DESCRIPTION	TAX CODE	PRICE	UNIT	RECEIVING DEPT. ONLY 1	2	3	4
			PLEASE SUPPLEMENT P.O. A-94299							
			AS FOLLOWS.							
			PROVIDE AMERICAN STEEL FOUNDRIES							
			WITH A COMPLETE GRITS DATABASE							
			OF THE 1993 AND 1994 QUARTERLY							
			GROUND WATER SAMPLING RESULTS							
			FROM THE SEBRING LANDFILL MONITORING							
			SYSTEM IN ACCORDANCE WITH ASF'S							
			REQUEST FOR QUOTATION							
			COST NOT TO EXCEED		$1,700.00					
			RATES PER ATTACHED SCHEDULE							
			SEND ATTACHED QUOTATION TO							
			CHICAGO WITH A-2							

COMMENTS

DATE				
SHIPPED				
WEIGHT				

REQUESTED BY: [signature] PURCHASING AGENT: AUTHORIZED BY: [signature]

A-2-1 REV. 8-84

WHITE - INV. APPROVAL • GREEN - PURCHASING • YELLOW - RECEIVING • PINK - FILE • GOLDENROD - REQUISITIONER

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY * P. O. BOX 2060 * ALLIANCE, OHIO 44601

(216) 823-6150 * FAX NO. (216) 821-4568

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OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

December 19, 1994

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, HRE-8J
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Z 055 522 222

Chief, SWERB Section V
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Z 055 522 216

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)

GROUNDWATER SAMPLING REPORT RESPONSE TO COMMENTS

This submittal is intended to meet the progress report requirements of Section X of the Consent Decree and the reporting requirements of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this Decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

3. Within thirty (30) days after entry of this Consent Decree, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a Groundwater Quality Assessment Plan for the Sebring facility in accordance with 40 C.F.R. # 265.93 and Ohio Admin. Code # 3745-65-93. Within 30 days of receipt of comments from U.S. EPA identifying any deficiencies in the Groundwater Quality Assessment Plan, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a revised Plan that corrects any

ONE OF THE Amsted INDUSTRIES

deficiencies identified by the U.S. EPA. The defendant shall implement the U.S. EPA approved or modified Groundwater Quality Assessment Plan within 30 days of U.S. EPA approval of the Plan.

5. Defendant shall submit to U.S.EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

American Steel Foundries has prepared the following response to the July 12, 1994 correspondence from Mr. John Palmer, Ohio EPA, Northeast District Office, Division of Hazardous Waste Management. This Correspondence is pursuant to Ohio EPA review of the February 23, 1994 submittal of the groundwater sampling analytical results.

RESPONSES

Response to Comment # 1

1. This issue is considered closed.

Response to Comment # 2

2. This issue is addressed as follows:

A. All reports of sampling events for the calendar year of 1993 were submitted. The Ohio EPA gave final approval to the Groundwater Quality Assessment Plan and the Ground Water Sampling and Analysis Plan on October 13, 1993. Therefore, after monitoring well installation in accordance with the approved plan, there was only sufficient time for one quarterly sampling event in calendar 1993.

B. A potentiometric map has been constructed for the December 1993 and March 1994 sampling events. See attachments A and B. Potentiometric maps for June 1994 and September 1994 events were submitted with the sampling report data for those events.

Response to Comment # 3A

3. This issue is considered closed.

Response to Comment # 3B

4. This issue is considered closed.

Response to Comment #4

5. American Steel Foundries recognizes that GRITS/STAT disk data submission was not a requirement of the Ground Water Sampling Analysis Plan when submitted or approved, however, we have taken the following steps to comply with your request:

A. On November 8, 1994, Mr. T.C. Bradway, Environmental Manager, American Steel Foundries received training in the GRITS/STAT program from A. T. Kearney in a Seminar at Columbus, Ohio. See Attachment C.

B. On December 13, 1994 Our consultant, RMT Inc. responded to a request for quotation to enter the required data on the GRITS/STAT Program. See attachment D.

C. On December 16, 1994 a purchase order was issued to RMT Inc. to proceed with the data entry. See attachment E.

D. The GRITS/STAT data will be submitted in early January 1995 to the Ohio EPA in the required disk format for each sampling event performed since December 01, 1993. The January submission is requested in order to have sufficient time to enter and check all data for accuracy.

By this certified letter, American Steel Foundries is documenting that we are addressing the Ohio EPA's Comments Nos. 2 and 4 of the subject correspondence. A new revised plan, incorporating these requests is being prepared and will be submitted in January of 1995. American Steel Foundries will include Potentiometric Maps and GRITS/STAT electronic data disk with each future sampling event.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

cc: BMW/RSW
JW
REB
RML
RBR

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Chief, Division of Solid and Hazardous Waste
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C:\WP51\HAZWASTE\USVAMSTF.D94

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

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December 19, 1994

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WASTE MANAGEMENT DIVISION
EPA, REGION V

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 **P 092 085 932**
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **P 092 085 933**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
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Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
SURCHARGE AND SETTLEMENT MONITORING PLAN
SEBRING LANDFILL

Attached for your review is a copy of the December 1994 Surcharge and Settlement Monitoring Plan for the Sebring Landfill Facility . This submittal is intended to meet the reporting requirements of Section D of the Consent Decree and the reporting requirements of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

D. SEBRING FACILITY - Closure and post Closure Requirements

1. Within 75 days after entry of this Decree, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a Sebring Closure Plan for its Sebring facility that provides for closure as a landfill in accordance with 40 C.F.R. # 265.112 and 265.310, and Ohio Admin. Code # 3745-66-12 and 68-10, and other applicable requirements (except to the extent that Ohio EPA determines that a closure plan required by this

subparagraph need not satisfy all the requirements of 40 C.F.R. # 265.310 and Ohio Admin Code # 3745-68-10. Within ninety (90) days after the entry of this Decree, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a Sebring Post-Closure Plan, that provides for compliance with the requirements of 40 C.F.R. # 265.117 and 265.120 and Ohio Admin. Code # 3745-66-17 through 20, in the event that "clean closure" of the Sebring facility cannot be achieved.

2. If Ohio EPA does not approve the Sebring Closure Plan or the Sebring Post Closure Plan, Defendant shall submit to Ohio EPA, with a copy to U.S. EPA, a revised or modified Sebring Closure Plan and /or Sebring Post-Closure Plan, in accordance with Ohio Admin. Code # 3745-66-12 (D)(4).

GENERAL INFORMATION

The Sebring Landfill Closure Plan was submitted to Ohio EPA and to the U.S. EPA as an attachment to a February 10, 1993 compliance letter from Mr. John Difloure, Plant Manager, American Steel Foundries.

In his June 1, 1994 letter to Mr. Donald R. Schregardus, Director, Ohio EPA, Mr. John Wories Jr., Director Administrative Services, American Steel Foundries requested a meeting with the agency to discuss issues of concern for both parties relative to the Sebring Landfill Closure Plan.

On July 25, 1994 a meeting was held at the Northeast District Office of the Ohio EPA in Twinsburg, Ohio with representatives of the Ohio EPA, RMT Inc. and American Steel Foundries Inc. to discuss the Sebring Landfill Closure Plan issues. Pursuant to that meeting, the previously submitted landfill closure plan was formally withdrawn by Mr. John Oesch, Plant Manager, American Steel Foundries in an August 5, 1994 letter to Mr. Donald R. Schregardus, Director, Ohio EPA.

American Steel Foundries submitted a revised Sebring Landfill Closure Plan to the Ohio EPA and U.S. EPA on December 15,1994.

This submission is for the Surcharge and Settlement Monitoring Plan for the former pond area of the Sebring Landfill Facility. As discussed during the meetings with the Ohio EPA, settlement of this area in advance of the final cover installation is necessary in order to insure cap integrity as well as meet the Ohio EPA's desired 1996 project completion schedule for the Sebring Landfill Closure.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

TCB
Attachments

C:\WP51\LANDFILL\LFCLPNSM.D94

cc: REB
JW
BMW\RSW
RML
RBR

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JOHN OESCH
PLANT MANAGER

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DEC 15 1994
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

December 05, 1994

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 P 092 085 917
U.S. EPA, Region V
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Chief, SWERB Section V P 092 085 918
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Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
GROUNDWATER SAMPLING REPORT

SAMPLING REPORT NO.4

This submittal is intended to meet the sampling and analysis reporting requirements of Section V. Item E5 of the Consent Decree and the reporting requirements of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

5. Defendant shall submit to U.S. EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

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6. In the event that the sampling and analyses conducted pursuant to the approved Groundwater Quality Assessment Plan for the Sebring Facility reveals that hazardous waste or constituents have entered the groundwater, Defendant shall so notify U.S. EPA and Ohio EPA in writing within ten (10) days, and shall continue to monitor groundwater in accordance with the requirements of 40 C.F.R. # 265.93 (d) (7), Ohio Admin. Code #3745-65-93 (d) (7) and the Groundwater Quality Assessment Plan.

Attached for your review are the results of the fourth quarter groundwater sampling event conducted September 14 and 15, 1994 at the American Steel Foundries Sebring Landfill.

Based on the results of the reports, it does not appear that the Sebring Facility is affecting groundwater quality.

In accordance with the EPA approved Groundwater Quality Assessment Plan and the Groundwater Sampling and Analysis Plan, parameters for the quarterly sampling events were determined from the results of the first sampling.

The sampling program for this monitoring period include the following:

1. Water quality and indicator parameters (table 3-1 of the plan).

2. Selected appendix IX metals as set forth in table 3-3 of the plan, revised. The excluded metals are:
   a. beryllium
   b. cyanide
   c. thallium
   d. vanadium

3. Compounds found in the ASF Alliance Facility waste streams as set forth in table 3-5 of the plan.

4. Chloroform was detected in upgradient well MW-19 on the first quarterly sampling. Due to the upgradient location, we do not believe that the chloroform is due to the facility, but have continued to test for that volatile organic compound.

In accordance with the revised approved plans, we used the same second quarterly sampling parameters for the fourth quarterly sampling event. We have also made adjustments to the sample reports in accordance with Mr. John Palmers's letters of June 28 and July 15, 1994. If additional changes are required, please contact Mr. T.C.Bradway, Environmental Manager, American Steel Foundries, 1001 E. Broadway St., Alliance, Ohio 44601, (216) 823-6150 Ext. 206.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

TCB

Attachments

C:\WP51\LANDFILL\GWSFREPT.D94

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: REB
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BMW\RSW
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Attn: R.D.Setty

Table 1

GROUNDWATER ELEVATIONS
SEBRING FACILITY
AMERICAN STEEL FOUNDRIES
ALLIANCE, OHIO

Well Designation	Geologic Material	Top of Casing Elevation	September 13 - 15, 1994	
			Depth to Water	Groundwater Elevation
MW-1	Shale	1126.73	35.27	1091.46
MW-1A	Shale	1126.09	34.61	1091.48
MW-2	Shale	1101.96	25.00	1076.96
MW-3	Spoils	1093.14	16.30	1076.84
MW-4	Spoils	1085.13	8.40	1076.73
MW-4A	Spoils	1085.20	8.48	1076.72
MW-12	Sand and Spoils	1087.94	10.14	1077.80
MW-13	Spoils	1107.70	29.19	1078.51
MW-14	Shale	1131.18	50.64	1080.54
MW-19	Bedrock	1141.16	28.40	1112.76
MW-19P	Bedrock	1141.36	102.90	1038.46
MW-20	Bedrock	1113.21	34.45	1078.76
MW-21	Spoils	1101.12	21.60	1078.12
MW-21P	Bedrock	1100.17	23.00	1078.57
MW-22	Spoils	1091.01	13.81	1077.20
MW-22P	Bedrock	1091.23	20.03	1071.20
MW-23	Spoils	1107.81	19.21	1088.60

Table 3-1[1]

WATER QUALITY PARAMETERS AND WASTE CONSTITUENT ANALYTICAL METHODS AND PRACTICAL QUANTITATION LIMITS

Parameters	SW-846 Analytical Method	Practical Quantitation Limits
pH	9040/9041	0.1 pH unit
Alkalinity, carbonate/bicarbonate	403	20 mg/L
Total Organic Carbon	9060	0.25 mg/L
Total Organic Halogen	9020	0.010 mg/L
Iron - ICP[2]	6010	0.10 mg/L
Chloride[2]	9250	2.0 mg/L
Fluoride[2]	EPA 340.2	0.1 mg/L
Manganese - ICP[2]	6010	0.005 mg/L
Nitrate, Nitrogen	9200	0.05 mg/L
Phenols (colorimetric)[2]	9066	0.01 mg/L
Sodium - ICP	6010	0.50 mg/L
Specific Conductance	9050	10 μmhos/cm
Sulfate[2]	9036	10 mg/L

Notes:

Practical Quantitation Limits are for RMT Laboratories.
ICP - Inductively Coupled Plasma Emission Spectrophotometry.
(1) Table originally presented in Groundwater Sampling and Analysis Plan (RMT, 1992).
(2) Compound or element is found in ASF wastestream.

Revised Table 3-3[1]

APPENDIX IX - METALS, METHODS OF ANALYSIS AND PRACTICAL QUANTITATION LIMITS (PQL's)

Analyte	PQL in μg/L	SW-846 Method
Antimony	10	7041
Arsenic[2]	3	7060
Barium[2]	50	6010
Cadmium[2]	0.3	7131
Chromium (total)[2]	2	7191
Cobalt	50	6010
Copper	3	7211
Lead[2]	3	7421
Mercury[2]	0.2	7470,7471
Nickel[2]	40	6010
Selenium[2]	3	7740
Silver[2]	1	7761
Tin	500	RMT Lab Internal
Zinc[2]	20	6010
Sulfide (total)	1000	9030

Notes:

(1) Table originally presented in Groundwater Sampling and Analysis Plan (RMT, 1992). Revised based on First Quarter groundwater sampling results.

(2) Compound or element is found in ASF wastestream.

Table 3-5[1]

COMPOUNDS FOUND IN ASF WASTESTREAM

Arsenic	Lead
Barium	Manganese
Cadmium	Mercury
Chloride	Nickel
Chromium	Phenol
Fluoride	Selenium
Iron	Silver
Sulfate	Zinc

Note:

(1) Table originally presented in Groundwater Sampling and Analysis Plan (RMT, 1992).

Appendix A

SUMMARY OF ANALYTICAL RESULTS

ANALYTICAL LABORATORY RESULTS
SEBRING FACILITY
AMERICAN STEEL FOUNDRIES

Parameter	Units	MW-20 (DUP) 14-Sep-94	FIELD BLANK 14-Sep-94	MW-01A 14-Sep-94	MW-04A 14-Sep-94	MW-13 14-Sep-94	MW-14 14-Sep-94
ALKALINITY, CARBONATE	MG/L	290	< 20	< 20	420	< 20	200
ANTIMONY, DISSOLVED	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
ARSENIC, DISSOLVED	UG/L	3.8	< 3	< 3	< 3	< 3	< 3
BARIUM, DISSOLVED	UG/L	< 50	< 50	< 50	< 50	< 50	< 50
CADMIUM, DISSOLVED	UG/L	< 0.3	< 0.3	1.6	< 0.3	0.96	< 0.3
CHLORIDE	MG/L	25	< 2	270	11	78	26
CHLOROFORM	UG/L	< 10	< 10	< 10	< 2	< 10	< 10
CHROMIUM, DISSOLVED	UG/L	< 2	< 2	2.5	< 50	< 2	< 2
COBALT, DISSOLVED	UG/L	< 50	< 50	< 50	< 3	110	< 50
COPPER, DISSOLVED	UG/L	< 3	< 3	34	0.24	< 3	< 3
FLUORIDE	MG/L	0.46	< 0.1	0.92	4900	0.88	0.34
IRON, DISSOLVED	UG/L	18000	< 100	34000	< 3	30000	1900
LEAD, DISSOLVED	UG/L	< 3	< 3	< 3	4000	< 3	< 3
MANGANESE, DISSOLVED	UG/L	7700	< 5	2700	< 0.2	12000	600
MERCURY, DISSOLVED	UG/L	< 0.2	< 0.2	< 0.2	< 40	< 0.2	< 0.2
NICKEL, DISSOLVED	UG/L	< 40	< 40	86	< 0.05	160	< 40
NITROGEN, NITRATE	MG/L	< 0.05	< 0.05	< 0.25	< 0.01	< 0.05	0.052
PHENOLICS, TOTAL RECOVERABLE	MG/L	< 0.01	< 0.01	< 0.01	< 6	< 0.01	0.02
SELENIUM, DISSOLVED	UG/L	< 6	< 6	< 6	< 1	< 6	< 6
SILVER, DISSOLVED	UG/L	< 1	< 1	< 1	32000	< 1	< 1
SODIUM, DISSOLVED	UG/L	110000	< 500	120000	980	42000	38000
SULFATE	MG/L	750	< 10	570	< 1	930	1200
SULFIDE	MG/L	1.2	< 1	< 1	< 500	< 1	< 1
TIN, DISSOLVED	UG/L	< 500	< 500	< 500	18	< 500	< 500
TOTAL ORGANIC CARBON AS NPOC	MG/L	13	< 0.25	17	< 5	24	9.3
TOTAL ORGANIC HALIDES	UG/L	6.8	< 5	17	24	14	62
ZINC, DISSOLVED	UG/L	< 20	< 20	150		240	< 20

ANALYTICAL LABORATORY RESULTS
SEBRING FACILITY
AMERICAN STEEL FOUNDRIES

Parameters	Units	MW-19 14-Sep-94	MW-19P 14-Sep-94	MW-20 14-Sep-94	MW-21 14-Sep-94	MW-21P 14-Sep-94	MW-22 14-Sep-94
ALKALINITY, CARBONATE	MG/L	< 20		290	350	380	< 140
ANTIMONY, DISSOLVED	UG/L	< 10		< 10	< 10	< 10	10
ARSENIC, DISSOLVED	UG/L	< 3		< 3	7.8	< 3	< 3
BARIUM, DISSOLVED	UG/L	< 50		< 50	< 50	140	< 50
CADMIUM, DISSOLVED	UG/L	0.66		0.98	0.35	< 0.3	< 0.3
CHLORIDE	MG/L	4.8		20	60	160	< 33
CHLOROFORM	UG/L	0.4		< 10	< 10	< 10	10
CHROMIUM, DISSOLVED	UG/L	< 2		< 2	< 2	< 2	< 2
COBALT, DISSOLVED	UG/L	< 50		< 50	< 50	< 50	< 50
COPPER, DISSOLVED	UG/L	7.7		< 3	< 3	5.6	< 3
FLUORIDE	MG/L	< 0.1		0.47	0.66	2.9	< 0.6
IRON, DISSOLVED	UG/L	< 100		19000	35000	2300	17000
LEAD, DISSOLVED	UG/L	< 3		< 3	< 3	< 3	3
MANGANESE, DISSOLVED	UG/L	510		8300	10000	69	< 5500
MERCURY, DISSOLVED	UG/L	< 0.2		< 0.2	< 0.2	< 0.2	0.2
NICKEL, DISSOLVED	UG/L	< 40		< 40	< 40	< 40	< 40
NITROGEN, NITRATE	MG/L	1.2		< 0.05	< 0.05	0.55	< 0.05
PHENOLICS, TOTAL RECOVERABLE	MG/L	0.011		0.011	< 0.01	0.015	< 0.012
SELENIUM, DISSOLVED	UG/L	< 6		< 6	< 6	< 6	6
SILVER, DISSOLVED	UG/L	< 1		< 1	< 1	< 1	< 1
SODIUM, DISSOLVED	UG/L	5800		110000	120000	340000	< 41000
SULFATE	MG/L	42		750	1200	470	400
SULFIDE	MG/L	1.3		< 1	4	1.3	1
TIN, DISSOLVED	UG/L	< 500		< 500	< 500	< 500	< 500
TOTAL ORGANIC CARBON AS NPOC	MG/L	26		7.8	7.4	43	< 23
TOTAL ORGANIC HALIDES	UG/L	< 5		5.8	13	59	17
ZINC, DISSOLVED	UG/L	45		21	22	< 20	21

ANALYTICAL LABORATORY RESULTS
SEBRING FACILITY
AMERICAN STEEL FOUNDRIES

Parameters	Units	MW-22P 14-Sep-94	MW-23 14-Sep-94
ALKALINITY, CARBONATE	MG/L	770	34
ANTIMONY, DISSOLVED	UG/L	< 10	< 10
ARSENIC, DISSOLVED	UG/L	< 3	< 3
BARIUM, DISSOLVED	UG/L	140	< 50
CADMIUM, DISSOLVED	UG/L	< 0.3	< 0.3
CHLORIDE	MG/L	63	240
CHLOROFORM	UG/L	< 10	< 10
CHROMIUM, DISSOLVED	UG/L	< 2	< 2
COBALT, DISSOLVED	UG/L	< 50	< 50
COPPER, DISSOLVED	UG/L	< 3	< 3
FLUORIDE	MG/L	9.5	0.11
IRON, DISSOLVED	UG/L	190	30000
LEAD, DISSOLVED	UG/L	< 6	< 3
MANGANESE, DISSOLVED	UG/L	22	3700
MERCURY, DISSOLVED	UG/L	< 0.2	< 0.2
NICKEL, DISSOLVED	UG/L	< 40	< 40
NITROGEN, NITRATE	MG/L	< 0.05	< 0.05
PHENOLICS, TOTAL RECOVERABLE	MG/L	< 0.01	< 0.01
SELENIUM, DISSOLVED	UG/L	< 6	< 6
SILVER, DISSOLVED	UG/L	< 1	< 1
SODIUM, DISSOLVED	UG/L	500000	8800
SULFATE	MG/L	300	170
SULFIDE	MG/L	< 1	< 1
TIN, DISSOLVED	UG/L	< 500	< 500
TOTAL ORGANIC CARBON AS NPOC	MG/L	26	1.2
TOTAL ORGANIC HALIDES	UG/L	7.4	11
ZINC, DISSOLVED	UG/L	35	59

Appendix B

ANALYTICAL LABORATORY REPORT

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-007
STATION ID: MW-1A
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/15/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	< 3.0	3.0		ug/L
Barium, dissolved	< 50	50		ug/L
Cadmium, dissolved	1.6	0.30		ug/L
Chromium, dissolved	2.5	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	34	3.0		ug/L
Iron, dissolved	34000	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	2700	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	86	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	120000	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	150	20		ug/L
Alkalinity as CaCO3	< 20	20		mg/L
Chloride	270	2.0		mg/L
Fluoride	0.92	0.10		mg/L
Nitrogen, nitrate	< 0.25	0.050	M	mg/L
Phenolics, total recoverable	< 0.010	0.010		mg/L
Sulfate	570	10		mg/L
Sulfide	< 1.0	1.0		mg/L
Total organic carbon as NPOC	17	0.25		mg/L
Total organic halides	17	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-004
STATION ID: MW-4A
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/14/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	< 3.0	3.0		ug/L
Barium, dissolved	< 50	50		ug/L
Cadmium, dissolved	< 0.30	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	< 3.0	3.0		ug/L
Iron, dissolved	4900	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	4000	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	< 40	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	32000	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	24	20		ug/L
Alkalinity as CaCO3	420	20		mg/L
Chloride	11	2.0		mg/L
Fluoride	0.24	0.10		mg/L
Nitrogen, nitrate	< 0.050	0.050	H(1)	mg/L
Phenolics, total recoverable	< 0.010	0.010		mg/L
Sulfate	980	10		mg/L
Sulfide	< 1.0	1.0		mg/L
Total organic carbon as NPOC	18	0.25		mg/L
Total organic halides	< 5.0	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-006
STATION ID: MW-13
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/15/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	< 3.0	3.0		ug/L
Barium, dissolved	< 50	50		ug/L
Cadmium, dissolved	0.96	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	110	50		ug/L
Copper, dissolved	< 3.0	3.0		ug/L
Iron, dissolved	30000	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	12000	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	160	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	42000	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	240	20		ug/L
Alkalinity as CaCO3	< 20	20		mg/L
Chloride	78	2.0		mg/L
Fluoride	0.88	0.10		mg/L
Nitrogen, nitrate	< 0.050	0.050		mg/L
Phenolics, total recoverable	< 0.010	0.010		mg/L
Sulfate	930	10		mg/L
Sulfide	< 1.0	1.0		mg/L
Total organic carbon as NPOC	24	0.25		mg/L
Total organic halides	14	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-003
STATION ID: MW-14
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/14/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	< 3.0	3.0		ug/L
Barium, dissolved	< 50	50		ug/L
Cadmium, dissolved	< 0.30	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	< 3.0	3.0		ug/L
Iron, dissolved	1900	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	600	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	< 40	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	38000	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	< 20	20		ug/L
Alkalinity as CaCO3	200	20		mg/L
Chloride	26	2.0		mg/L
Fluoride	0.34	0.10		mg/L
Nitrogen, nitrate	0.052	0.050	H(1)	mg/L
Phenolics, total recoverable	0.020	0.010		mg/L
Sulfate	1200	10		mg/L
Sulfide	< 1.0	1.0		mg/L
Total organic carbon as NPOC	9.3	0.25		mg/L
Total organic halides	62	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-011
STATION ID: MW-19
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/15/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved		10		ug/L
Arsenic, dissolved	< 3.0	3.0		ug/L
Barium, dissolved	< 50	50		ug/L
Cadmium, dissolved	0.66	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	7.7	3.0		ug/L
Iron, dissolved	< 100	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	510	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	< 40	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	5800	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	45	20		ug/L
Alkalinity as CaCO3	< 20	20		mg/L
Chloride	4.8	2.0		mg/L
Fluoride	< 0.10	0.10		mg/L
Nitrogen, nitrate	1.2	0.050		mg/L
Phenolics, total recoverable	0.011	0.010		mg/L
Sulfate	42	10		mg/L
Sulfide	1.3	1.0		mg/L
Total organic carbon as NPOC	26	0.25		mg/L
Total organic halides	< 5.0	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-005
STATION ID: MW-20
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/15/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	< 3.0	3.0		ug/L
Barium, dissolved	< 50	50		ug/L
Cadmium, dissolved	0.98	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	< 3.0	3.0		ug/L
Iron, dissolved	19000	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	8300	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	< 40	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	110000	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	21	20		ug/L
Alkalinity as CaCO3	290	20		mg/L
Chloride	20	2.0		mg/L
Fluoride	0.47	0.10		mg/L
Nitrogen, nitrate	< 0.050	0.050		mg/L
Phenolics, total recoverable	0.011	0.010		mg/L
Sulfate	750	10		mg/L
Sulfide	< 1.0	1.0		mg/L
Total organic carbon as NPOC	7.8	0.25		mg/L
Total organic halides	5.8	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-010
STATION ID: MW-21
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/14/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	7.8	3.0		ug/L
Barium, dissolved	< 50	50		ug/L
Cadmium, dissolved	0.35	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	< 3.0	3.0		ug/L
Iron, dissolved	35000	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	10000	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	< 40	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	120000	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	22	20		ug/L
Alkalinity as CaCO3	350	20		mg/L
Chloride	60	2.0		mg/L
Fluoride	0.66	0.10		mg/L
Nitrogen, nitrate	< 0.050	0.050		mg/L
Phenolics, total recoverable	< 0.010	0.010		mg/L
Sulfate	1200	10		mg/L
Sulfide	4.0	1.0		mg/L
Total organic carbon as NPOC	7.4	0.25		mg/L
Total organic halides	13	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-009
STATION ID: MW-21P
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/15/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	< 3.0	3.0		ug/L
Barium, dissolved	140	50		ug/L
Cadmium, dissolved	< 0.30	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	5.6	3.0		ug/L
Iron, dissolved	2300	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	69	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	< 40	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	340000	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	< 20	20		ug/L
Alkalinity as CaCO3	380	20		mg/L
Chloride	160	2.0		mg/L
Fluoride	2.9	0.10		mg/L
Nitrogen, nitrate	0.55	0.050		mg/L
Phenolics, total recoverable	0.015	0.010		mg/L
Sulfate	470	10		mg/L
Sulfide	1.3	1.0		mg/L
Total organic carbon as NPOC	43	0.25		mg/L
Total organic halides	59	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-001
STATION ID: MW-22
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/14/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	< 3.0	3.0		ug/L
Barium, dissolved	< 50	50		ug/L
Cadmium, dissolved	< 0.30	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	< 3.0	3.0		ug/L
Iron, dissolved	17000	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	5500	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	< 40	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	41000	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	21	20		ug/L
Alkalinity as CaCO3	140	20		mg/L
Chloride	33	2.0		mg/L
Fluoride	0.60	0.10		mg/L
Nitrogen, nitrate	< 0.050	0.050		mg/L
Phenolics, total recoverable	0.012	0.010		mg/L
Sulfate	400	10		mg/L
Sulfide	< 1.0	1.0		mg/L
Total organic carbon as NPOC	23	0.25		mg/L
Total organic halides	17	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-002
STATION ID: MW-22P
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/14/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	< 3.0	3.0		ug/L
Barium, dissolved	140	50		ug/L
Cadmium, dissolved	< 0.30	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	< 3.0	3.0		ug/L
Iron, dissolved	190	100		ug/L
Lead, dissolved	< 6.0	3.0	S	ug/L
Manganese, dissolved	22	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	< 40	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	500000	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	35	20		ug/L
Alkalinity as CaCO3	770	20		mg/L
Chloride	63	2.0		mg/L
Fluoride	9.50	0.10		mg/L
Nitrogen, nitrate	< 0.050	0.050		mg/L
Phenolics, total recoverable	< 0.010	0.010		mg/L
Sulfate	300	10		mg/L
Sulfide	< 1.0	1.0		mg/L
Total organic carbon as NPOC	26	0.25		mg/L
Total organic halides	7.4	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-008
STATION ID: MW-23
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/15/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	< 3.0	3.0		ug/L
Barium, dissolved	< 50	50		ug/L
Cadmium, dissolved	< 0.30	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	< 3.0	3.0		ug/L
Iron, dissolved	30000	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	3700	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	< 40	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	8800	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	59	20		ug/L
Alkalinity as CaCO3	34	20		mg/L
Chloride	240	2.0		mg/L
Fluoride	0.11	0.10		mg/L
Nitrogen, nitrate	< 0.050	0.050		mg/L
Phenolics, total recoverable	< 0.010	0.010		mg/L
Sulfate	170	10		mg/L
Sulfide	< 1.0	1.0		mg/L
Total organic carbon as NPOC	1.2	0.25		mg/L
Total organic halides	11	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-012
STATION ID: DUP
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/15/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	3.8	3.0		ug/L
Barium, dissolved	< 50	50		ug/L
Cadmium, dissolved	< 0.30	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	< 3.0	3.0		ug/L
Iron, dissolved	18000	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	7700	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	< 40	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	110000	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	< 20	20		ug/L
Alkalinity as CaCO3	290	20		mg/L
Chloride	25	2.0		mg/L
Fluoride	0.46	0.10		mg/L
Nitrogen, nitrate	< 0.050	0.050		mg/L
Phenolics, total recoverable	< 0.010	0.010		mg/L
Sulfate	750	10		mg/L
Sulfide	1.2	1.0		mg/L
Total organic carbon as NPOC	13	0.25		mg/L
Total organic halides	6.8	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 02169.18
LAB SAMPLE NUMBER: 5514-013
STATION ID: FIELD BLANK
WI DNR LAB ID: 113138520

REPORT DATE: 10/12/94
COLLECTION DATE: 09/15/94
MATRIX TYPE: GW

INORGANIC ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE	UNITS
Antimony, dissolved	< 10	10		ug/L
Arsenic, dissolved	< 3.0	3.0		ug/L
Barium, dissolved	< 50	50		ug/L
Cadmium, dissolved	< 0.30	0.30		ug/L
Chromium, dissolved	< 2.0	2.0		ug/L
Cobalt, dissolved	< 50	50		ug/L
Copper, dissolved	< 3.0	3.0		ug/L
Iron, dissolved	< 100	100		ug/L
Lead, dissolved	< 3.0	3.0		ug/L
Manganese, dissolved	< 5.0	5.0		ug/L
Mercury, dissolved	< 0.20	0.20		ug/L
Nickel, dissolved	< 40	40		ug/L
Selenium, dissolved	< 6.0	3.0	M	ug/L
Silver, dissolved	< 1.0	1.0		ug/L
Sodium, dissolved	< 500	500		ug/L
Tin, dissolved	< 500	500		ug/L
Zinc, dissolved	< 20	20		ug/L
Alkalinity as CaCO3	< 20	20		mg/L
Chloride	< 2.0	2.0		mg/L
Fluoride	< 0.10	0.10		mg/L
Nitrogen, nitrate	< 0.050	0.050		mg/L
Phenolics, total recoverable	< 0.010	0.010		mg/L
Sulfate	< 10	10		mg/L
Sulfide	< 1.0	1.0		mg/L
Total organic carbon as NPOC	< 0.25	0.25		mg/L
Total organic halides	< 5.0	5.0		ug/L

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

Inorganic Data Qualifier Sheet

B Reported value is less than RMT'S established Estimated Quantitation Limit (EQL) as per client's request.

H(n) Analysis performed "n" days past holding time.

M Elevated detection limit due to matrix effects. (See Sample Narrative).

S The reported value was determined by the Method of Standard Addition (MSA).

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

SAMPLE NARRATIVE
INORGANIC ANALYSIS

PROJECT NAME: AMERICAN STEEL FDRY
PROJECT NUMBER: 2169.18
WORKORDER NUMBER: 5514
DATE: 10/12/94

Sample number 5514-007 showed unacceptable spike recoveries for Nitrate analysis when analyzed both undiluted and at a 1:2 dilution. A 1:5 dilution showed an acceptable spike recovery. The detection limit was raised accordingly and the result given the M qualifier.

During the selenium analysis for LIMS sample number 5514-001 the matrix spike recovery was 47% which is outside of the acceptable control limits. The sample was diluted 1:2 and post-spiked with an acceptable recovery of 80%. Therefore, all of the samples in the batch (LIMS sample numbers 5514-001 through 5514-013) were diluted 1:2 for reporting. The results were flagged with the M qualifier to denote the presence of matrix interference and the detection limit was elevated in accordance with the dilution factor.

During the analysis of lead on LIMS sample number 5514-002 the recovery test was 139% which is outside of the acceptable control limits of 85-115%. The analyst observed a considerable amount of background interference. The sample was diluted 1:2 and the recovery test was repeated with a recovery of 120%. The analyst then analyzed the sample by the method of standard additions (MSA). The result was flagged with an S qualifier to denote that the detection limit has been elevated in accordance with the dilution factor used in the MSA procedure.

Appendix C

CHAIN-OF-CUSTODY FORMS

RMI INC.
LABORATORIES

Madison, WI 53717
744 Heartland Trail
Phone (608) 831-4444
FAX (608) 831-7530

Fox Valley, WI
Columbus, OH
Milwaukee, WI

Nashville, TN
Greenville, SC

Augusta, GA
Lansing, MI

Chicago, IL
Los Angeles, CA

Cincinnati, OH
Madison, WI

F-268 (R2/92)
(Use Black Ink Only)

CHAIN OF CUSTODY RECORD

No. 049821

Bottles Prepared by:

Date/Time: 9-14-94

Project No.: 2169.18

Client: ASF

Filtered (Yes/No): N N Y N Y N

Preserved (Code): A C C D B E

Code: A - None; B - HNO_3; C - H_2SO_4; D - NaOH; E - HCl; F - _____

Lab No.	Yr. 94 Date	Time	Sample Station ID	Total Number Of Containers	500ml Plastic	1L Amber Glass	125ml Amber Glass	1L Plastic	1L Plastic	40ml Vials		MATRIX	Comments:
	9/14	1600	MW-22	9	1	2	1	1	1	3		GW	
	9/14	1700	MW-22P	9	1	2	1	1	1	3		GW	
	9/14	1100	MW-14	9	1	2	1	1	1	3		GW	
	9/14	1430	MW-14A	9	1	2	1	1	1	3		GW	
	9/15	1130	MW-20	9	1	2	1	1	1	3		GW	
	9/15	930	MW-13	9	1	2	1	1	1	3		GW	
	9/15	1030	MW-1A	9	1	2	1	1	1	3		GW	
	9/15	1300	MW-23	9	1	2	1	1	1	3		GW	
	9/	800	MW-21	9	1	2	1	1	1	3		GW	
	9/14	1900	MW-21P	9	1	2	1	1	1	3	--	GW	
	9/15	900	MW-19	9	1	2	1	1	1	3		GW	
	9/15	1130	DUP	9	1	2	1	1	1	3		GW	
	9/15	630	BLANK	9	1	2	1	1	1	3		GW	

SAMPLER
Relinquished by (Sig.) ①: [signature] — Date/Time: 9/15/94 1500

Received by (Sig.) ②: Federal Express — Shipper Name & #: — Date/Time:

Relinquished by (Sig.) ③: — Date/Time:

Received by (Sig.) ④: — Shipper Name & #: — Date/Time:

Relinquished by (Sig.) ⑤: — Date/Time:

Received by (Sig.) ⑥: — Shipper Name & #: — Date/Time:

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)
Receipt Temp: _____ Receipt pH: _____

Custody Seal: Present/Absent — Seal: Intact/Not Intact — Seal #'s:

WHITE - LABORATORY COPY — YELLOW - REPORT APPENDIX

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY • ALLIANCE, OHIO 44601 • (216) 823-6150
FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

RECEIVED
MAY 20 1994
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

May 09, 1994

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 **P 738 585 697**
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **P 738 585 698**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
GROUNDWATER SAMPLING REPORT

SAMPLING REPORT NO.2

This submittal is intended to meet the sampling and analysis reporting requirements of the Consent Decree and the reporting requirements of Section V. Item 12 of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

5. Defendant shall submit to U.S. EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

ONE OF THE Amsted INDUSTRIES

6. In the event that the sampling and analyses conducted pursuant to the approved Groundwater Quality Assessment Plan for the Sebring Facility reveals that hazardous waste or constituents have entered the groundwater, Defendant shall so notify U.S. EPA and Ohio EPA in writing within ten (10) days, and shall continue to monitor groundwater in accordance with the requirements of 40 C.F.R. # 265.93 (d) (7), Ohio Admin. Code #3745-65-93 (d) (7) and the Groundwater Quality Assessment Plan.

Attached for your review are the results of the first quarter groundwater sampling event conducted March 15 through 16, 1994 at the American Steel Foundries Sebring Landfill.

Based on the results of the first two reports, it does not appear that the Sebring Facility is affecting groundwater quality.

In accordance with the EPA approved Groundwater Quality Assessment Plan and the Groundwater Sampling and Analysis Plan, parameters for the quarterly sampling events were determined from the results of the first sampling.

We are preparing for the next quarterly sampling event, during the week of June 13, 1994. The sampling program for this quarter monitoring period will include the following:

1. Water quality and indicator parameters (table 3-1 of the plan).

2. Selected appendix IX metals as set forth in table 3-3 of the plan, revised. The excluded metals are:
   a. beryllium
   b. cyanide
   c. thallium
   d. vanadium

3. Compounds found in the ASF Alliance Facility waste streams as set forth in table 3-5 of the plan.

4. Chloroform was detected in upgradient well MW-19 on the first quarterly sampling. Due to the upgradient location, we do not believe that the chloroform is due to the facility but have continued to test for that volatile organic compound. The second test was below detectable limits.

In accordance with the revised approved plans, we will use the second quarterly sampling parameters for the third and fourth quarterly sampling events. However, if adjustments are required, please contact Mr. T.C.Bradway, Environmental Manager, American Steel Foundries, 1001 E. Broadway St., Alliance, Ohio 44601, (216) 823-6150 Ext. 206.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

TCB

Attachments

cc: DJM
JW
BW\RSW
ERH
RML
RBR

Ohio EPA **P 738 585 699**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **P 738 585 700**
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **P 738 585 701**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

P. C. Schillawski **P 738 585 702**
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District **P 738 585 703**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

April 18, 1994

Mr. Terry Bradway
American Steel Foundries
1001 East Broadway
Alliance, Ohio 44601

Re: Results of March, 1994 Groundwater Sampling - Second Quarter
American Steel Foundries - Sebring Facility
Alliance, Ohio

Dear Terry,

This letter report presents the results of the second quarterly groundwater sampling conducted at the American Steel Foundries (ASF) Sebring Facility located in Alliance, Ohio. Sampling was performed by RMT, Inc. during the period March 15 through 16, 1994 in accordance with the Groundwater Quality Assessment Plan (RMT, Inc., 1992) and Groundwater Sampling and Analysis Plan (RMT, Inc., 1992).

Description of Monitoring Program

The Groundwater Quality Assessment Plan (Plan) requires that during the first quarterly sampling wells MW-1A, MW-4A, MW-13, MW-14, MW-19, MW-19P, MW-20, MW-21, MW-21P, MW-22, MW-22P, MW-25P, and MW-23 be sampled and analyzed for:

- Water quality and indicator parameters (Table 3-1 of the Plan)
- Volatile organic compounds (Table 3-2 of the Plan)
- Appendix IX Metals (Table 3-3 of the Plan)

After the first quarterly sampling, the results were reviewed and the sampling program for the following three quarters established. This sampling program includes the following and was adhered to for the second quarter sampling event.

- Water quality and indicator parameters (Table 3-1 of the Plan)
- Compounds found in the ASF Alliance facility waste stream (Table 3-5 of the Plan)
- Compounds detected at concentrations above the practical quantitation limits (PQL) during the first quarterly sampling round (Table 3-4 of the Plan, revised).

RMT INC.

RESIDUALS MANAGEMENT TECHNOLOGY, INC. — CHICAGO
999 PLAZA DRIVE • SUITE 100
SCHAUMBURG, IL • 60173-5407
708/995-1500 • 708/995-1900 FAX

Discussion of Analytical Results

Inorganic analytical results are presented in Appendix A. Concentrations of these analytes were well below the Maximum Contaminant Levels (MCLs) established by the Safe Drinking Water Act (SDWA) with one exception. The concentration of nickel at well MW-13 (150 μg/L) exceeded the proposed MCL of 100 μg/L.

Groundwater Level Measurements and Well Inspections

Groundwater level measurements were collected concurrently with the second quarterly sampling event. Groundwater elevations are presented on Table 1. Based on these groundwater elevations groundwater flow direction is toward the west, consistent with previous observations.

Each well was inspected prior to sampling. Based on that inspection, each well is in good working order and no redevelopment or repair is necessary at this time.

Conclusion

Based on the results from the second quarterly sampling event, it does not appear that the landfill is affecting groundwater quality. The results of the subsequent two sampling events will be evaluated and a summary report prepared after the fourth quarter sampling. This report will discuss hydrogeologic conditions in more detail.

If you have any questions regarding this report please contact us.

Sincerely,
RMT, Inc.

Alan J. Schmidt

Alan J. Schmidt, C.P.G.

Lynn Hall

Lynn Hall
Project Manager

cc: Mr. John Wories, Jr., ASF

April 25, 1994

Mr. Terry Bradway
American Steel Foundries
1001 East Broadway
Alliance, Ohio 44601

RE: Results of March, 1994 Groundwater Sampling - Second Quarter
American Steel Foundries - Sebring Facility
Alliance, Ohio

Dear Mr. Bradway,

During the second quarter monitoring well sampling event at the Alliance landfill, RMT was unable to obtain a sample for analysis from Well 19-P (upgradient) due to insufficient well recovery.

In order to avoid this occurrence during the third sampling round, Well 19-P will be purged 3-4 days in advance to allow for well recovery.

Please call if you have any questions.

Sincerely,

Lynn Hall

Lynn Hall
Project Manager

RMT INC.

RESIDUALS MANAGEMENT TECHNOLOGY, INC. — CHICAGO
999 PLAZA DRIVE - SUITE 100
SCHAUMBURG, IL - 60173-5407
708/995-1500 - 708/995-1900 FAX

Table 1

GROUNDWATER ELEVATIONS
SEBRING FACILITY
AMERICAN STEEL FOUNDRIES
ALLIANCE, OHIO

Well Designation	Geologic Material	Top of Casing Elevation	March 15 - 16, 1994	
			Depth to Water	Groundwater Elevation
MW-1	Shale	1126.73	34.45	1092.28
MW-1A	Shale	1126.09	33.89	1092.20
MW-2	Shale	1101.96	23.42	1078.54
MW-3	Spoils	1093.14	14.62	1078.52
MW-4	Spoils	1085.13	7.07	1078.06
MW-4A	Spoils	1085.20	7.68	1077.52
MW-12	Sand and Spoils	1087.94	9.05	1078.89
MW-13	Spoils	1107.70	24.60	1083.10
MW-14	Shale	1131.18	48.70	1082.48
MW-19	Bedrock	1141.16	25.83	1115.33
MW-19P	Bedrock	1141.36	103.12	1038.24
MW-20	Bedrock	1113.21	29.81	1083.40
MW-21	Spoils	1101.12	20.86	1080.26
MW-21P	Bedrock	1100.17	20.77	1079.40
MW-22	Spoils	1091.01	12.27	1078.74
MW-22P	Bedrock	1091.23	18.63	1072.60
MW-23	Spoils	1107.81	18.75	1089.06

Table 3-1[1]

WATER QUALITY PARAMETERS AND WASTE CONSTITUENT ANALYTICAL METHODS AND PRACTICAL QUANTITATION LIMITS

Parameters	SW-846 Analytical Method	Practical Quantitation Limits
pH	9040/9041	0.1 pH unit
Alkalinity, carbonate/bicarbonate	403	20 mg/L
Total Organic Carbon	9060	0.25 mg/L
Total Organic Halogen	9020	0.010 mg/L
Iron - ICP[2]	6010	0.10 mg/L
Chloride[2]	9250	2.0 mg/L
Fluoride[2]	EPA 340.2	0.1 mg/L
Manganese - ICP[2]	6010	0.005 mg/L
Nitrate, Nitrogen	9200	0.05 mg/L
Phenols (colorimetric)[2]	9066	0.01 mg/L
Sodium - ICP	6010	0.50 mg/L
Specific Conductance	9050	10 μmhos/cm
Sulfate[2]	9036	10 mg/L

Notes:

Practical Quantitation Limits are for RMT Laboratories.
ICP - Inductively Coupled Plasma Emission Spectrophotometry.
(1) Table originally presented in Groundwater Sampling and Analysis Plan (RMT, 1992).
(2) Compound or element is found in ASF wastestream.

Revised Table 3-3[1]

APPENDIX IX - METALS, METHODS OF ANALYSIS AND PRACTICAL QUANTITATION LIMITS (PQL's)

Analyte	PQL in µg/L	SW-846 Method
Antimony	10	7041
Arsenic[2]	3	7060
Barium[2]	50	6010
Cadmium[2]	0.3	7131
Chromium (total)[2]	2	7191
Cobalt	50	6010
Copper	3	7211
Lead[2]	3	7421
Mercury[2]	0.2	7470,7471
Nickel[2]	40	6010
Selenium[2]	3	7740
Silver[2]	1	7761
Tin	200	RMT Lab Internal
Zinc[2]	20	6010
Sulfide (total)	1000	9030

Notes:

(1) Table originally presented in Groundwater Sampling and Analysis Plan (RMT, 1992). Revised based on First Quarter groundwater sampling results.

(2) Compound or element is found in ASF wastestream.

Table 3-5[1] COMPOUNDS FOUND IN ASF WASTESTREAM	
Arsenic	Lead
Barium	Manganese
Cadmium	Mercury
Chloride	Nickel
Chromium	Phenol
Fluoride	Selenium
Iron	Silver
Sulfate	Zinc

Note:

(1) Table originally presented in Groundwater Sampling and Analysis Plan (RMT, 1992).

Appendix A

SUMMARY OF ANALYTICAL RESULTS

PROJECT NUMBER: 2169.18

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
INORGANIC RESULTS

PARAMETER	UNITS	FIELD BLANK 16-MAR-94 4193-010	MW-01A 15-MAR-94 4193-003	MW-04A 15-MAR-94 4193-004	MW-13 15-MAR-94 4193-009	MW-14 15-MAR-94 4193-005	MW-19 16-MAR-94 4193-011
ALKALINITY, BICARBONATE	mg/L	<20	<20	480	44	200	<20
ALKALINITY, CARBONATE	mg/L	<20	<20	<20	<20	<20	<20
ANTIMONY, DISSOLVED	ug/L	<10	<10	<10	<10	<10	<10
ARSENIC, DISSOLVED	ug/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
BARIUM, DISSOLVED	ug/L	<50	<50	<50	<50	<50	<50
CADMIUM, DISSOLVED	ug/L	<0.30	3.2	0.67	4.3	<0.30	0.89
CHLORIDE	mg/L	<2.0	310	15	45	32	13
CHROMIUM, DISSOLVED	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
COBALT, DISSOLVED	ug/L	<50	<50	72	100	<50	<50
CONDUCTANCE, SPECIFIC	UMHOS/CM	NA	1430	1690	1790	1920	119
COPPER, DISSOLVED	ug/L	<3.0	11	<3.0	<3.0	<3.0	<3.0
FLUORIDE	mg/L	<0.10	0.82	0.17	0.38	0.25	<0.10
IRON, DISSOLVED	ug/L	<100	2000	14000	27000	1500	<100
LEAD, DISSOLVED	ug/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
MANGANESE, DISSOLVED	ug/L	<5.0	1000	6200	11000	660	59
MERCURY, DISSOLVED	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
NICKEL, DISSOLVED	ug/L	<40	<40	79	150	<40	<40
NITROGEN, NITRATE	mg/L	0.064	0.48	<0.050	<0.050	<0.050	1.1
pH, FIELD	SU	NA	3.2	6	5.1	6.2	5.4
PHENOLICS, TOTAL RECOVERABLE	mg/L	<0.010	0.034	<0.010	0.012	0.26	<0.010
SELENIUM, DISSOLVED	ug/L	<12 S,M	<12 S,M	<12 S,M	<12 S,M	<12 S,M	<12 S,M
SILVER, DISSOLVED	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
SODIUM, DISSOLVED	ug/L	<500	140000	31000	33000	37000	4800
SULFATE	mg/L	<10	540	600	970	1100	32
SULFIDE, TOTAL	mg/L	<1.0	<1.0	1.7	<1.0	1.2	<1.0
TIN, DISSOLVED	ug/L	<500	<500	<500	<500	<500	<500
TOTAL ORGANIC CARBON AS NPOC	mg/L	<0.25	1.1	13	4.3	2.2	1.1
TOTAL ORGANIC HALIDES	ug/L	<5.0	20	<5.0	<5.0	10	<5.0
ZINC, DISSOLVED	ug/L	<20	56	91	230	<20	<20

PROJECT NUMBER: 2169.18

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
INORGANIC RESULTS

PARAMETER	UNITS	MW-19P 15-MAR-94 4193-006	MW-20 16-MAR-94 4193-013	MW-21 15-MAR-94 4193-006	MW-21P 16-MAR-94 4193-014	MW-22 15-MAR-94 4193-007	MW-22P 15-MAR-94 4193-008
ALKALINITY, BICARBONATE	mg/L		370	360	350	130	770
ALKALINITY, CARBONATE	mg/L		<20	<20	<20	<20	<20
ANTIMONY, DISSOLVED	ug/L		<10	<10	<10	<10	<10
ARSENIC, DISSOLVED	ug/L		3.3	6.8	<3.0	5.5	<3.0
BARIUM, DISSOLVED	ug/L		<50	<50	240	<50	170
CADMIUM, DISSOLVED	ug/L		<0.30	<0.30	0.65	<0.30	<0.30
CHLORIDE	mg/L		27	54	42	44	72
CHROMIUM, DISSOLVED	ug/L		<2.0	<2.0	<2.0	<2.0	<2.0
COBALT, DISSOLVED	ug/L		<50	<50	<50	<50	<50
CONDUCTANCE, SPECIFIC	UMHOS/CM		1850	2620	1260	1060	2050
COPPER, DISSOLVED	ug/L		<3.0	<3.0	<3.0	6.3	<3.0
FLUORIDE	mg/L		0.40	0.55	3.6	0.66	10
IRON, DISSOLVED	ug/L		19000	34000	<100	15000	<100
LEAD, DISSOLVED	ug/L		<3.0	<3.0	<3.0	<3.0	<3.0
MANGANESE, DISSOLVED	ug/L		8200	11000	21	5900	19
MERCURY, DISSOLVED	ug/L		<0.20	<0.20	<0.20	<0.20	<0.20
NICKEL, DISSOLVED	ug/L		<40	<40	<40	<40	<40
NITROGEN, NITRATE	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
pH, FIELD	SU		5.7	6.2	7.0	5.9	7.3
PHENOLICS, TOTAL RECOVERABLE	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
SELENIUM, DISSOLVED	ug/L		<12 S,M	<12 S,M	<12 S,M	<12 S,M	<12 S,M
SILVER, DISSOLVED	ug/L		<1.0	<1.0	<1.0	<1.0	<1.0
SODIUM, DISSOLVED	ug/L		89000	130000	270000	39000	470000
SULFATE	mg/L		790	1200	470	420	340
SULFIDE, TOTAL	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0
TIN, DISSOLVED	ug/L		<500	<500	<500	<500	<500
TOTAL ORGANIC CARBON AS NPOC	mg/L		4.4	5.5	2.3	3.6	2.4
TOTAL ORGANIC HALIDES	ug/L		30	25	<5.0	9.6	17
ZINC, DISSOLVED	ug/L		<20	<20	<20	<20	<20

PROJECT NUMBER: 2169.18

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
INORGANIC RESULTS

PARAMETER	UNITS	MW-23 16-MAR-94 4193-015
ALKALINITY, BICARBONATE	mg/L	66
ALKALINITY, CARBONATE	mg/L	<20
ANTIMONY, DISSOLVED	ug/L	<10
ARSENIC, DISSOLVED	ug/L	<3.0
BARIUM, DISSOLVED	ug/L	<50
CADMIUM, DISSOLVED	ug/L	4.6
CHLORIDE	mg/L	240
CHROMIUM, DISSOLVED	ug/L	<2.0
COBALT, DISSOLVED	ug/L	<50
CONDUCTANCE, SPECIFIC	UMHOS/CM	1300
COPPER, DISSOLVED	ug/L	<3.0
FLUORIDE	mg/L	0.12
IRON, DISSOLVED	ug/L	120
LEAD, DISSOLVED	ug/L	<3.0
MANGANESE, DISSOLVED	ug/L	4400
MERCURY, DISSOLVED	ug/L	<0.20
NICKEL, DISSOLVED	ug/L	<40
NITROGEN, NITRATE	mg/L	0.22
pH, FIELD	SU	6.0
PHENOLICS, TOTAL RECOVERABLE	mg/L	<0.010
SELENIUM, DISSOLVED	ug/L	<12 S,M
SILVER, DISSOLVED	ug/L	<1.0
SODIUM, DISSOLVED	ug/L	12000
SULFATE	mg/L	280
SULFIDE, TOTAL	mg/L	<1.0
TIN, DISSOLVED	ug/L	<500
TOTAL ORGANIC CARBON AS NPOC	mg/L	0.66
TOTAL ORGANIC HALIDES	ug/L	<5.0
ZINC, DISSOLVED	ug/L	21

Appendix B

ANALYTICAL LABORATORY REPORT

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-010
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/16/94
STATION ID: FIELD BLANK

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	<20	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	<2.0	mg/L
Fluoride	<0.10	mg/L
Nitrogen, nitrate	0.064	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	<10	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	<0.25	mg/L
Total organic halides	<5.0	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	<100	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	<5.0	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	<500	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	<20	ug/L

Jeffrey A. Gordon 4-8-94
Approval Signature

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CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-003
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/15/94
STATION ID: MW-1A

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	<20	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	310	mg/L
Fluoride	0.82	mg/L
Nitrogen, nitrate	0.48	mg/L
Phenolics, total recoverable	0.034	mg/L
Sulfate	540	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	1.1	mg/L
Total organic halides	20	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Cadmium, dissolved	3.2	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	11	ug/L
Iron, dissolved	2000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	1000	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	140000	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	56	ug/L

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CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-004
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/15/94
STATION ID: MW-4A

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	480	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	15	mg/L
Fluoride	0.17	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	600	mg/L
Sulfide	1.7	mg/L
Total organic carbon as NPOC	13	mg/L
Total organic halides	<5.0	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Cadmium, dissolved	0.67	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	72	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	14000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	6200	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	79	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	31000	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	91	ug/L

Jeffrey A. Gordon 4-8-94
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CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-009
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/15/94
STATION ID: MW-13

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	44	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	45	mg/L
Fluoride	0.38	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	0.012	mg/L
Sulfate	970	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	4.3	mg/L
Total organic halides	<5.0	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Cadmium, dissolved	4.3	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	100	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	27000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	11000	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	150	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	33000	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	230	ug/L

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CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-005
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/15/94
STATION ID: MW-14

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	200	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	32	mg/L
Fluoride	0.25	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	0.26	mg/L
Sulfate	1100	mg/L
Sulfide	1.2	mg/L
Total organic carbon as NPOC	2.2	mg/L
Total organic halides	10	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	1500	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	660	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	37000	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	<20	ug/L

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CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-011
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/16/94
STATION ID: MW-19

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	<20	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	13	mg/L
Fluoride	<0.10	mg/L
Nitrogen, nitrate	1.1	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	32	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	1.1	mg/L
Total organic halides	<5.0	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Cadmium, dissolved	0.89	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	<100	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	59	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	4800	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	<20	ug/L

Jeffrey A. Gordon 4-8-94
Approval Signature

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CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-013
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/16/94
STATION ID: MW-20

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	370	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	27	mg/L
Fluoride	0.40	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	790	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	4.4	mg/L
Total organic halides	30	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	3.3	ug/L
Barium, dissolved	<50	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	19000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	8200	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	89000	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	<20	ug/L

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CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-006
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/15/94
STATION ID: MW-21

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	360	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	54	mg/L
Fluoride	0.55	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	1200	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	5.5	mg/L
Total organic halides	25	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	6.8	ug/L
Barium, dissolved	<50	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	34000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	11000	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	130000	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	<20	ug/L

Approval Signature Jeffrey G. Gordon 4-8-94

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CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-014
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/16/94
STATION ID: MW-21P

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	350	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	42	mg/L
Fluoride	3.6	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	470	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	2.3	mg/L
Total organic halides	<5.0	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	240	ug/L
Cadmium, dissolved	0.65	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	<100	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	21	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	270000	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	<20	ug/L

Jeffrey G. Gordon 4-8-94
Approval Signature

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CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-007
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/15/94
STATION ID: MW-22

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	130	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	44	mg/L
Fluoride	0.66	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	420	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	3.6	mg/L
Total organic halides	9.6	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	5.5	ug/L
Barium, dissolved	<50	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	6.3	ug/L
Iron, dissolved	15000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	5900	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	39000	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	<20	ug/L

Jeffrey A. Gordon 4-8-94
Approval Signature

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CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-008
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/15/94
STATION ID: MW-22P

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	770	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	72	mg/L
Fluoride	10	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	340	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	2.4	mg/L
Total organic halides	17	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	170	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	<100	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	19	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	470000	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	<20	ug/L

Approval Signature Jeffrey A. Gordon 4-8-94

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CLIENT: AMERICAN STEEL FOUNDRIES
SAMPLE #: 4193-015
PROJECT #: 02169.17
WORK ORDER #: 4193
WI DNR LAB ID: 113138520

REPORT DATE: 04/08/94
COLLECTION DATE: 03/16/94
STATION ID: MW-23

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	66	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	240	mg/L
Fluoride	0.12	mg/L
Nitrogen, nitrate	0.22	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	280	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	0.66	mg/L
Total organic halides	<5.0	ug/L
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Cadmium, dissolved	4.6	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	120	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	4400	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<12 S,M	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	12000	ug/L
Tin, dissolved	<500	ug/L
Zinc, dissolved	21	ug/L

Approval Signature Jeffrey G. Gordon 4-8-94

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Inorganic Data Qualifier Sheet

M Elevated detection limit due to matrix effects. (See Case Narrative).

S The reported value was determined by the Method of Standard Addition (MSA).

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SAMPLE NARRATIVE
INORGANIC ANALYSIS

PROJECT NAME: American Steel Foundry
PROJECT NUMBER: 2169.17
WORKORDER NUMBER: 4193
DATE: April 7, 1993

Analysis of the recovery test for selenium on LIMS sample number 4193-004 yielded a percent recovery of 53%, failing to meet the established control limits of 85-115%. The sample was diluted 1:2 and the recovery test yielded a 58% recovery. A 1:5 dilution was performed and the recovery test result was 60%. At this point the sample was analyzed by method of standard additions (MSA), the post-spike recovery was 75% which is outside the established control limits of 80-120%. The sample was then diluted 1:2 and analyzed by MSA, the post-spike recovery was acceptable at 84%. The entire sample batch, LIMS sample numbers 4193-003 through 011, and 4193-013 through 015, was diluted 1:2 and analyzed by MSA. The samples were flagged with the M qualifier to indicate the presence of matrix interferences, and also with the S qualifier to identify the MSA procedure was used. The detection limit was elevated accordingly.

April 25, 1994

Mr. Terry Bradway
American Steel Foundries
1001 East Broadway
Alliance, Ohio 44601

RE: Results of March, 1994 Groundwater Sampling - Second Quarter
American Steel Foundries - Sebring Facility
Alliance, Ohio

Dear Mr. Bradway,

During the second quarter monitoring well sampling event at the Alliance landfill, RMT was unable to obtain a sample for analysis from Well 19-P (upgradient) due to insufficient well recovery.

In order to avoid this occurrence during the third sampling round, Well 19-P will be purged 3-4 days in advance to allow for well recovery.

Please call if you have any questions.

Sincerely,

Lynn Hall

Lynn Hall
Project Manager

RMT INC.

RESIDUALS MANAGEMENT TECHNOLOGY, INC. — CHICAGO
999 PLAZA DRIVE • SUITE 100
SCHAUMBURG, IL • 60173-5407
708/995-1500 • 708/995-1900 FAX

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-002
STATION ID: TRIP BLANK
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE:
EXTRACTION DATE: --------
ANALYSIS DATE: 03/21/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Mark A. Mieritz 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-010
STATION ID: FIELD BLANK
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/16/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/21/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform	4	10	Q

Mark L. Meuth 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-003
STATION ID: MW-1A
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/15/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/21/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Mark A. Misenty 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-004
STATION ID: MW-4A
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/15/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/21/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Sample received with headspace.

Mark H. Meiert 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-009
STATION ID: MW-13
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/15/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/21/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Mark A. Mieritz 4/7/94
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-005
STATION ID: MW-14
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/15/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/21/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Mark A. Mauty 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-006
STATION ID: MW-21
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/15/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/21/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Mark A. Mertz 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-007
STATION ID: MW-22
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/15/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/21/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Mark A. Mieuch 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-008
STATION ID: MW-22P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/15/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/21/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Mark A. Meuth 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-011
STATION ID: MW-19
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/16/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/22/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Mark L. Mueller 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-012
STATION ID: MW-19P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/16/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/22/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform	4	10	Q

Mark H. Maisch 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-013
STATION ID: MW-20
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/16/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/22/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Mark D. Mauty 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-014
STATION ID: MW-21P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/16/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/22/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Mark H. Maier 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: AMERICAN STEEL FOUNDRIES
PROJECT #: 02169.17
SAMPLE #: 4193-015
STATION ID: MW-23
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 04/06/94
COLLECTION DATE: 03/16/94
EXTRACTION DATE: --------
ANALYSIS DATE: 03/22/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Chloroform		10	U

Mark A. Maurer 4/7/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

Organic GC/MS Data Qualifier Sheet

B(n)	Analyte is present in the method blank. If the processes that were applied to the sample were applied to the method blank, the value of the analyte in the method blank would likely be "n".
D	Analyte value from a diluted analysis.
E	Analyte concentration exceeds calibration range (see Sample Narrative).
H(n)	Analysis performed "n" days past holding time.
J	Estimated concentration of tentatively identified compounds (TICs).
K	Concentration may be elevated due to the presence of an unrequested analyte (see Sample Narrative).
NR	Not required.
Q	Qualitative mass spectral evidence of analyte present; concentration is less than the reporting limit.
U	Analyte undetected.
W	Sample received with headspace.

Effective 02/22/94

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY • ALLIANCE, OHIO 44601 • (216) 823-6150
FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

August 05, 1994

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 Z 309 033 141
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V Z 309 033 142
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
GROUNDWATER SAMPLING REPORT

SAMPLING REPORT NO.3

This submittal is intended to meet the sampling and analysis reporting requirements of the Consent Decree and the reporting requirements of Section V. Item 12 of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

5. Defendant shall submit to U.S. EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

ONE OF THE Amsted INDUSTRIES

6. In the event that the sampling and analyses conducted pursuant to the approved Groundwater Quality Assessment Plan for the Sebring Facility reveals that hazardous waste or constituents have entered the groundwater, Defendant shall so notify U.S. EPA and Ohio EPA in writing within ten (10) days, and shall continue to monitor groundwater in accordance with the requirements of 40 C.F.R. # 265.93 (d) (7), Ohio Admin. Code #3745-65-93 (d) (7) and the Groundwater Quality Assessment Plan.

Attached for your review are the results of the third quarter groundwater sampling event conducted June 15 through 17, 1994 at the American Steel Foundries Sebring Landfill.

Based on the results of the first two reports, it does not appear that the Sebring Facility is affecting groundwater quality.

In accordance with the EPA approved Groundwater Quality Assessment Plan and the Groundwater Sampling and Analysis Plan, parameters for the quarterly sampling events were determined from the results of the first sampling.

We are preparing for the next quarterly sampling event, during the week of September 12, 1994. The sampling program for this quarter monitoring period will include the following:

1. Water quality and indicator parameters (table 3-1 of the plan).

2. Selected appendix IX metals as set forth in table 3-3 of the plan, revised. The excluded metals are:
   a. beryllium
   b. cyanide
   c. thallium
   d. vanadium

3. Compounds found in the ASF Alliance Facility waste streams as set forth in table 3-5 of the plan.

4. Chloroform was detected in upgradient well MW-19 on the first quarterly sampling. Due to the upgradient location, we do not believe that the chloroform is due to the facility but have continued to test for that volatile organic compound. The second test was below detectable limits.

In accordance with the revised approved plans, we will use the same second quarterly sampling parameters for the fourth quarterly sampling event. We have also made adjustments to the sample reports in accordance with Mr. John Palmers's letters of June 28 and July 15, 1994. If additional changes are required, please contact Mr. T.C.Bradway, Environmental Manager, American Steel Foundries, 1001 E. Broadway St., Alliance, Ohio 44601, (216) 823-6150 Ext. 206.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

TCB

Attachments

C:\WP51\LANDFILL\GWSFREPT.894

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: DJM
JW
BMW\RSW
RML
RBR

Ohio EPA Z 309 033 143
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA Z 309 033 144
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA Z 309 033 145
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

P. C. Schillawski Z 309 033 146
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District Z 309 033 147
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY • ALLIANCE, OHIO 44601 • (216) 823-6150
FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

RECEIVED
AUG 01 1994
OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V

July 27, 1994

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, HRE-8J **Z 309 033 126**
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 309 033 127**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)

GROUNDWATER SAMPLING REPORT RESPONSE TO COMMENTS

This submittal is intended to meet the progress report requirements of Section X of the Consent Decree and the reporting requirements of Section V. Item 12 of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this Decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

3. Within thirty (30) days after entry of this Consent Decree, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a Groundwater Quality Assessment Plan for the Sebring facility in accordance with 40 C.F.R. # 265.93 and Ohio Admin. Code # 3745-65-93. Within 30 days of receipt of comments from U.S. EPA identifying

ONE OF THE Amsted INDUSTRIES

any deficiencies in the Groundwater Quality Assessment Plan, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a revised Plan that corrects any deficiencies identified by the U.S. EPA. The defendant shall implement the U.S. EPA approved or modified Groundwater Quality Assessment Plan within 30 days of U.S. EPA approval of the Plan.

5. Defendant shall submit to U.S.EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

American Steel Foundries has prepared the following response to the July 22, 1994 correspondence from Mr. John Palmer, Ohio EPA, Northeast District Office, Division of Hazardous Waste Management. This Correspondence is pursuant to Ohio EPA review of the February 23, 1994 submittal of the groundwater sampling analytical results.

RESPONSES

Response to Comment # 1

1. Well No. 19P (upgradient) will be resampled during the week of August 8,1994 in order to meet the sample requirements of the approved Groundwater Sampling and Analysis Plan.

Response to Comment # 2

2. All volatile organic compounds were analyzed according to EPA SW-846 method detection limits. However, for reporting purposes, the results of the analyses were reported according to practical quantitation limits (PQL's) currently specified by the U.S. EPA Contract Laboratory Program (CLP) statement of work. The February 23, 1994 report is being revised to reflect the PQL's in the Groundwater Quality Assessment Plan. The revised reports are attached herewith. The reported results continue to be consistent with the conclusion that there are no observed impacts to the groundwater from the landfill.

Response to Comment # 3

3. Tin is specified according to a method comparable EPA SW-846 Method 6010. No method detection limit are specified. However, ASF's contract laboratory is able to achieve a 500 ug/L practical quanitation limit. The PQL of 200 ug/L

specified in the approved Groundwater Quality Assessment Plan is not technically achievable and was in error as originally presented. ASF is requesting that pursuant to this correspondence, that the PQL for tin be modified to 500 ug/L. Furthermore, it should be noted that tin is not a constituent of concern associated with ASF's waste deposited in the landfill.

Response to Comment # 4

4. Chain-of-Custody (COC) forms were not originally submitted with the analytical results because it is not a requirement of the approved Groundwater Quality Assessment Plan. However, as an indication of good faith, ASF will submit the requested COC forms herewith.

Response to Comment # 5

5. The submittal of a potentiometric map is not required with each quarterly submittal of ground water monitoring results. A potentiometric is required to be submitted on an annual basis as specified by the reporting requirements of OAC 3745-65-94. However, after three quarters of ground water sampling and measurement of surface elevations, ASF will submit a potentiometric surface map herewith and with all future quarterly sampling events.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

BMW/TCB

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: BMW/RSW
JW
DJM
RML
RBR

Ohio EPA **Z 309 033 128**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **Z 309 033 129**
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **Z 309 033 130**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

P. C. Schillawski **Z 309 033 131**
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District **Z 309 033 132**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

C:\WP51\HAZWASTE\USVAMSTD.TB2

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY • ALLIANCE, OHIO 44601 • (216) 823-6150
FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

July 22, 1994

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, HRE-8J
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Z 309 033 126

Chief, SWERB Section V
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Z 309 033 127

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)

GROUNDWATER SAMPLING REPORT RESPONSE TO COMMENTS

This submittal is intended to meet the progress report requirements of Section X of the Consent Decree and the reporting requirements of Section V. Item 12 of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this Decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

3. Within thirty (30) days after entry of this Consent Decree, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a Groundwater Quality Assessment Plan for the Sebring facility in accordance with 40 C.F.R. # 265.93 and Ohio Admin. Code # 3745-65-93. Within 30 days of receipt of comments from U.S. EPA identifying

ONE OF THE Amsted INDUSTRIES

any deficiencies in the Groundwater Quality Assessment Plan, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a revised Plan that corrects any deficiencies identified by the U.S. EPA. The defendant shall implement the U.S. EPA approved or modified Groundwater Quality Assessment Plan within 30 days of U.S. EPA approval of the Plan.

5. Defendant shall submit to U.S.EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

American Steel Foundries has prepared the following response to the June 28, 1994 correspondence from Mr. John Palmer, Ohio EPA, Northeast District Office, Division of Hazardous Waste Management. This Correspondence is pursuant to Ohio EPA review of the February 23, 1994 submittal of the groundwater sampling analytical results.

RESPONSES

Response to Comment # 1

1. All volatile organic compounds were analyzed according to EPA SW-846 method detection limits. However, for reporting purposes, the results of the analyses were reported according to practical quantitation limits (PQL's) currently specified by the U.S. EPA Contract Laboratory Program (CLP) statement of work. The February 23, 1994 report is being revised to reflect the PQL's in the Groundwater Quality Assessment Plan. The revised reports are attached herewith. The reported results continue to be consistent with the conclusion that there are no observed impacts to the groundwater from the landfill.

Response to Comment # 2

2. Tin is specified according to a method comparable EPA SW-846 Method 6010. No method detection limit are specified. However, ASF's contract laboratory is able to achieve a 500 ug/L practical quanitation limit. The PQL of 200 ug/L specified in the approved Groundwater Quality Assessment Plan is not technically achievable and was in error as originally presented. ASF is requesting that pursuant to this correspondence, that the PQL for tin be modified to 500 ug/L. Furthermore, it should be noted that tin is not a constituent of concern associated with ASF's waste deposited in the landfill.

Response to Comment # 3

3. Chain-of-Custody (COC) forms were not originally submitted with the analytical results because it is not a requirement of the approved Groundwater Quality Assessment Plan. However, as an intention of good faith, ASF will submit the requested COC forms herewith.

Response to Comment #4

4. The submittal of a potentiometric map is not required with each quarterly submittal of ground water monitoring results. A potentiometric is required to be submitted on an annual basis as specified by the reporting requirements of OAC 3745-65-94. However, after three quarters of ground water sampling and measurement of surface elevations, ASF will submit a potentiometric surface map herewith.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

BMW

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: BMW/RSW
JW
DJM
RML
RBR

Ohio EPA **Z 309 033 128**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **Z 309 033 129**
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **Z 309 033 130**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

P. C. Schillawski **Z 309 033 131**
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District **Z 309 033 132**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

C:\WP51\HAZWASTE\USVAMSTE.TB02

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY • ALLIANCE, OHIO 44601 • (216) 823-6150
FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

July 22, 1994

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, HRE-8J
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Z 309 033 126

Chief, SWERB Section V
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Z 309 033 127

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)

RESPONSE TO GROUNDWATER COMMENTS

This submittal is intended to meet the progress report requirements of Section X of the Consent Decree and the reporting requirements of Section V. Item 12 of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms wit the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

5. Defendant shall submit to U.S.EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

ONE OF THE Amsted INDUSTRIES

American Steel Foundries has prepared the following response to the July 15, 1994 correspondence from Mr. John Palmer, Ohio EPA, Northeast District Office, Division of Hazardous Waste Management. This Correspondence is pursuant to Ohio EPA review of the 1993 Generator Annual Hazardous Waste Report for ASF.

RESPONSES

Response to Comment # 1

1. No response required.

Response to Comment # 2

2. ASF and their contractor, RMT, Inc. are aware that submittal of an annual report in conformance with the approved Groundwater Quality Assessment Plan is required pursuant to OAC 3745-65-94 et seq. However, it is unclear to ASF whether the definition of annual is defined by the calendar year, or four successive quarters of ground water monitoring. It is our understanding that the annual report is pursuant to four successive quarters of ground water monitoring, commencing from the first quarter following approval of the Groundwater Quality Assessment Plan and therefore was not available for the 1993 Annual Generator Report.

Response to Comment # 3

3A. At the time of the submittal of the Annual Generator Report the data for MW-20, Lines W-11 through W-16, was not available. ASF has since received the data and has attached the revised report.

3b. The sampling date error has been corrected on the attached revised report.

Response to Comment #4

4. ASF is unaware of a written request or requirement in the approved Groundwater Quality Assessment Plan for submittal of ground water monitoring data in electronic form. It is ASF's policy to release reports and data in electronic form only upon receipt of a signed waiver of liability for use of the electronic data. ASF requests clarification from Ohio EPA regarding this requirement.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

BMW
TCB

C:\WP51\HAZWASTE\USVASTED.TB1

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: BMW/RSW
JW
DJM
RML
RBR

Ohio EPA **Z 309 033 128**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **Z 309 033 129**
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **Z 309 033 130**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
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Chicago, Illinois 60601

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Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District **Z 309 033 132**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

C:\WP51\HAZWASTE\USVAMSTD.TB1

OEPA LTR 7/15/94

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-1A Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 8/6/91

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1126.09 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 40.0'

W-5 WELL LOG (Check all available log types) ODNR LOG No. ____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE
____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up X Down ____ Other ____ Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1126.59

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1093.9

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1083.9

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1123.9

W-15 WELL DEPTH AT INSTALLATION (ft) 1084.0

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) Dry

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 , 54 . 00 " Longitude 81 02 , 23 . 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-4A Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 8-8-91

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1085.2 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 15

W-5 WELL LOG (Check all available log types) ODWR LOG No. ____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE ____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up ____ Down X Other ____ Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1085.7

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1078.3

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1068.3

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1082.8

W-15 WELL DEPTH AT INSTALLATION (ft) 1067.8

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) Dry

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 43 00 " Longitude 81 02 ' 30 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-13 Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 8-7-91

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1107.7 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 38.5

W-5 WELL LOG (Check all available log types) ODNR LOG No. ____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE
____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up____ Down ____ Other Side Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1108.2

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1078.2

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1068.2

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1106.2

W-15 WELL DEPTH AT INSTALLATION (ft) 1067.7

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) Dry

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 53 00 " Longitude 81 02 ' 27 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-14 Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 8-14-91

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1131.18 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 61.5

W-5 WELL LOG (Check all available log types) ODNR LOG No. _____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE
____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up X Down ____ Other ____ Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1131.5

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1079.4

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1069.4

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1128.9

W-15 WELL DEPTH AT INSTALLATION (ft) 1067.4

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) Dry

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 49 00 " Longitude 81 02 ' 27 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-19 Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 11-22-93

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1141.16 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 32

W-5 WELL LOG (Check all available log types) ODNR LOG No. _____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE
____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 8B = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up X Down ____ Other ____ Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1141.16

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1116.9

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1106.9

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1138.9

W-15 WELL DEPTH AT INSTALLATION (ft) 1106.9

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) Dry

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 52 . 00 " Longitude 81 02 ' 23 . 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-19P Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 11-22-93

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1141.21 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 104

W-5 WELL LOG (Check all available log types) ODNR LOG No. ____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE
____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up X Down ____ Other ____ Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1141.36

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1040.4

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1035.4

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1139.4

W-15 WELL DEPTH AT INSTALLATION (ft) 1035.4

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) Dry

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 52.00 " Longitude 81 02 ' 23.00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-20 Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 11-08-93

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1112.96 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 39

W-5 WELL LOG (Check all available log types) ODNR LOG No. ____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE
____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up ____ Down X Other ____ Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1113.21

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1081.91

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1071.91

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1110.91

W-15 WELL DEPTH AT INSTALLATION (ft) 1071.91

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) 1077.81

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 52 00 " Longitude 81 02 ' 27 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-21 Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 11-24-93

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1101.08 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 31

W-5 WELL LOG (Check all available log types) COWR LOG No. ____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE ____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 8B = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up ____ Down X Other ____ Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1101.12

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1078.5

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1068.5

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1098.5

W-15 WELL DEPTH AT INSTALLATION (ft) 1067.5

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) 1076.4

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 49 . 00 " Longitude 81 02 ' 20 . 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-21P Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 11-24-93

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1099.62 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 65

W-5 WELL LOG (Check all available log types) ODNR LOG No. _____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE
____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up____ Down X Other _____ Unknown _____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1100.17

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1038.1

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1033.1

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1098.1

W-15 WELL DEPTH AT INSTALLATION (ft) 1033.1

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) Dry

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 49 00 " Longitude 81 02 ' 29 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-22 Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 11-11-93

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1090.79 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 20

W-5 WELL LOG (Check all available log types) ODNR LOG No. _____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE
____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up____ Down X Other _____ Unknown _____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1091.07

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1078.6

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1068.6

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1088.6

W-15 WELL DEPTH AT INSTALLATION (ft) 1068.6

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) Dry

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 44 . 00 " Longitude 81 02 ' 30 . 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-22P Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 11-10-93

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1091.05 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 65

W-5 WELL LOG (Check all available log types) ODNR LOG No. _____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ H= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE ____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 8B = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up____ Down X Other _____ Unknown _____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1091.23

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1029.0

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1024.0

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1089.0

W-15 WELL DEPTH AT INSTALLATION (ft) 1024.0

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) Dry

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 44. 00 " Longitude 81 02 ' 30.00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION Z -- WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-23 Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 11-23-93

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1107.49 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 27

W-5 WELL LOG (Check all available log types) ODNR LOG No. _____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE
____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up____ Down ____ Other Side Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1107.81

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1090.6

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1080.6

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1106.6

W-15 WELL DEPTH AT INSTALLATION (ft) 1079.6

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) Dry

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 55 . 00 " Longitude 81 02 ' 26 . 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 3 - SAMPLING EVENT INFORMATION

Complete one set of Sampling Event forms for each sampling date during the past calendar year. If the owner/operator is using a set of sampling events as background for statistical well comparisons, a Sampling Event form for each of those sampling events should be submitted as well. (If the sampling event required three or fewer consecutive days, the owner/operator may report the event as a single date as long as that fact is noted under "S-4 Comments".)

S-1 SAMPLING DATE: ~~WEEK OF 12/1/3/93~~ DECEMBER 14-17, 1993

S-2 SAMPLING FREQUENCY (Check the frequency which best describes the sampling protocol for this event)

____	A=Annual	____	S=Semi-annual
X	Q=Quarterly	____	M=Monthly
____	O=Other		

S-3 DOCUMENT DATE Date of the document from which these data are taken: 1-24-94

S-4 SAMPLING EVENT COMMENTS THIS IS THE FIRST SAMPLING EVENT IN ACCORDANCE WITH THE GROUNDWATER QUALITY ASSESSMENT PLAN AND IS TO BE USED TO DETERMINE TEST PARAMETERS.

S-5 MAP OF SURFACE ELEVATION CONTOURS AND GROUND WATER FLOW DIRECTION

For owner/operators conducting a detection monitoring program, in order to meet the requirements of OAC Rule 3745-65-94(A)(2)(c) for reporting results of ground water surface elevations under OAC Rule 3745-65-93(F), Ohio EPA requires that owner/operators submit a map indicating the position of the hazardous waste management unit in relation to the monitoring wells. (See W-19) Monitoring well ground water surface elevation contours and ground water flow direction shall be indicated on the map(s). Separate maps shall be included if there are two or more separate ground water flow zones monitored. A description of any response necessary to restore compliance with up and downgradient monitoring well requirements of OAC Rule 3745-65-91(A) (i.e., installation of additional wells) shall be attached.

TABLE 1 - DATA FORM INSTRUCTIONS

Use as many pages as necessary for each sampling date.

1. a. On the first line of Table 1 report ground water level elevations for each well in relation to Mean Sea Level, accurate to 0.01 feet.

   b. On the lines following ground water elevation level information, enter the names of the parameters that were analyzed. Include Drinking Water Parameters, Ground Water Quality Parameters, Indicator Parameters and any site specific parameters from all RCRA wells for each sampling event.

   c. Please designate wells as upgradient (UP) or downgradient (DN) [example: W2, DN]. List values for upgradient well(s) first. Upgradient wells should have four replicate measurements of each Indicator Parameter for each sampling date.

   d. List duplicate measurements of the same well separately, e.g. "MW-1 DUP".

   e. If more than one measurement of each indicator parameter was made from samples taken from downgradient wells, please report these as well.

2. Enter the EPA code for the method by which the parameter was measured.

3. Enter the units of measurement (ppb, feet).

4. Enter the limits of detection for this analytical test.

5. Enter the name of the well that was tested in the space above Data DQ (Data Qualifiers). Under the column marked "Data", enter the measurement results. Under "DQ", mark the Data Qualifiers found below which best indicate any limits to interpretation of the data. Any two codes may be combined.

A = Average value	L = Actual value> Reported value	U = Tested but not detected
C = Determined present by GC/EC	N = Tentatively identified	V = Calculated value
D = Value is from a diluted sample	O = Analysis lost	X = Too numerous to count
F = Field measurement	P = Present but not quantified	Y = Sample not filtered
J = Estimated value	R = Rejected - do not use	Z = Not suitable for analysis
K = Actual value< Reported value	S = Sample not stored properly	

SAMPLE DATE December 14-17, 1993
DATA PAGE 1 OF

TABLE 1. DATA ENTRY FORM

PARAMETER NAME	EPA METHOD CODE	UNITS MEASURED	DETECTION LIMIT	ENTER WELL NAMES HERE											
				MW-1A (UP)		MW-4A (DN)		MW-13 (SIDE)		MW-14 (UP)		MW-19 (UP)		MW-19P (UP)	
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
GROUND WATER ELEVATION	---	FEET	---	1091.43	F	1077.15	F	1080.49	F	1081.66	F	1113.52	F	1075.12	F
ALKALINITY, BICARBONATE	403	MG/L	20	<20	U	350	KL	76	KL	210	KL	<20	U	530	KL
ALKALINITY, CARBONATE	403	MG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	44	KL
CHLORIDE	9250	MG/L	2	97	KL	5.6	KL	50	KL	28	KL	16	KL	210	KL
CONDUCTANCE, SPECIFIC	9050	UMBOS/CM	10	1,100	KL	2100	KL	2000	KL	2200	KL	170	KL	1000	KL
CYANIDE, TOTAL	9012	MG/L	.01	<.01	U	<.01	U	<.01	U	<.01	U	<.01	U	<.01	U
FLOURIDE	EPA 340.2	MG/L	.1	.69	KL	.17	KL	.36	KL	.31	KL	.14	KL	2.1	KL
NITROGEN, NITRATE	9200	MG/L	.05	.52	KL	<.05	U	<.05	U	<.05	U	1.4	KL	<.05	U
PHENOLICS, TOTAL REC.	9066	MG/L	.01	<.01	U	.013	KL	<.01	U	<.01	U	<.01	U	<.01	U
SULFATE	9036	MG/L	10	240	KL	870	KL	1100	KL	1100	KL	43	KL	330	KL
SULFIDE	9030	MG/L	1	<1	U	<1	U	2.0	KL	1.9	KL	1.6	KL	<1	U
TOTAL ORGANIC CARBON	9060	MG/L	.25	.60	KL	7.0	KL	8.2	KL	3.3	KL	1.9	KL	3.3	KL
TOTAL ORGANIC HALIDES	9020	UG/L	10	8.0	KL	<5.0	U	8.6	KL	7.4	KL	<5.0	U	34	KL
PH, LABORATORY	9040/9041	PH	.1	3.5H(1)	KL	6.4H(1)	KL	5.5H(1)	KL	7.2H(2)	KL	6.2H(2)	KL	9.0H(3)	KL
ANTIMONY, DISSOLVED	7041	UG/L	10	<10	U	14	KL	<10	U	<10	U	<10	U	<10	U
ARSENIC, DISSOLVED	7060	UG/L	3	<3	U	3.5	KL	<3	U	<3	U	<3	U	12	KL
BARIUM, DISSOLVED	6010	UG/L	50	<50	U	<50	U	<50	U	<50	U	<50	U	<50	U
BERYLLIUM, DISSOLVED	6010	UG/L	5	<5	U	<5	U	<5	U	<5	U	<5	U	<5	U
CADMIUM, DISSOLVED	7131	UG/L	.3	.76	KL	<.3	U	.96	KL	<.3	U	<.3	U	<.3	U
CHROMIUM, DISSOLVED	7191	UG/L	2	<2	U	<2	U	<2	U	<2	U	<2	U	<2	U
COBALT, DISSOLVED	6010	UG/L	50	<50	U	66	KL	120	KL	<50	U	<50	U	<50	U
COPPER, DISSOLVED	7211	UG/L	3	16	KL	4.4	KL	<3.0	U	<3.0	U	<3.0	U	9.9	KL
IRON, DISSOLVED	6010	UG/L	100	11,000	KL	39,000	KL	32,000	KL	1700	KL	<100	U	330	KL
LEAD, DISSOLVED	7421	UG/L	3	<3	U	<3	U	<3	U	<3	U	<3	U	<3	U
MANGANESE, DISSOLVED	6010	UG/L	5	1200	KL	7,800	KL	13,000	KL	620	KL	900	KL	<5	U
MERCURY, DISSOLVED	7470	UG/L	.2	<.2	U	<.2	U	<.2	U	<.2	U	<.2	U	<.2	U

SAMPLE DATE December 14-17, 1993
DATA PAGE 2 OF 2

TABLE 1. DATA ENTRY FORM

PARAMETER NAME	EPA METHOD CODE	UNITS MEASURED	DETECTION LIMIT	ENTER WELL NAMES HERE											
				MW-1A (UP)		MW-4A (DN)		MW-13 (SIDE)		MW-14 (UP)		MW-19 (UP)		MW-19P (UP)	
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
	---		---												
NICKEL, DISSOLVED	6010	UG/L	40	<.40	U	82	KL	160	KL	<.40	U	<.40	U	<.40	U
SELENIUM, DISSOLVED	7740	UG/L	3	<3	U	<3	U	<3	U	<3	U	<3	U	<3	U
SILVER, DISSOLVED	7761	UG/L	1	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U
SODIUM, DISSOLVED	6010	UG/L	500	61,050	KL	31,000	KL	37,000	KL	39,000	KL	760	KL	200,000	KL
THALLIUM, DISSOLVED	7841	UG/L	3	<3	U	<3	U	<3	U	<3	U	<3	U	<3	U
TIN, DISSOLVED	-	UG/L	500	<500	U	<500	U	<500	U	<500	U	<500	U	<500	U
VANADIUM, DISSOLVED	6010	UG/L	50	<50	U	<50	U	<50	U	<50	U	<50	U	<50	U
ZINC, DISSOLVED	6010	UG/L	20	70	KL	66	KL	250	KL	<20	U	<20	U	<20	U

SAMPLE DATE December 14-17, 1993
DATA PAGE 3 OF 1

TABLE 1. DATA ENTRY FORM

PARAMETER NAME	EPA METHOD CODE	UNITS MEASURED	DETECTION LIMIT	ENTER WELL NAMES HERE											
				MW-1A (UP)		MW-4A (DN)		MW-13 (SIDE)		MW-14 (UP)		MW-19 (UP)		MW-19P (UP)	
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
	---		---												
(VOLATILE ORGANICS)															
1,2 DICHLOROETHENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
DICHLORODIFLUOROMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
CHLOROMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
BROMOMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
VINYL CHLORIDE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
CHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
METHYLENE CHLORIDE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	2	KL
ACROLEIN	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
ACRYLONITRILE	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
ACETONE	8260	UG/L	10	3	KL	3	KL	3	KL	3	KL	3	KL	7	KL
CARBON DISULFIDE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
TRICHLOROFLUOROMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,1-DICHLOROETHENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
IODOMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
3-CHLORO-1-PROPENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
ACETONITRILE	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
1,1-DICHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
2-CHLORO-1,3-BUTADIENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
PROPIONITRILE	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
METHACRYLONITRILE	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
ISOBUTANOL	8260	UG/L	100	<100	U	<100	U	<100	U	<100	U	<100	U	<100	U
CHLOROFORM	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	1	KL	26	KL
1,2-DICHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
2-BUTANONE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U

SAMPLE DATE December 14-17, 1993
DATA PAGE 4 OF 1

TABLE 1. DATA ENTRY FORM

PARAMETER NAME	EPA METHOD CODE	UNITS MEASURED	DETECTION LIMIT	ENTER WELL NAMES HERE											
				MW-1A (UP)		MW-4A (DN)		MW-13 (SIDE)		MW-14 (UP)		MW-19 (UP)		MW-19P (UP)	
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
	---		---												
1,1,1-TRICHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
CARBON TETRACHLORIDE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
VINYL ACETATE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
BROMODICHLOROMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	2	KL
1,2-DICHLOROPROPANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
DIBROMOMETHANE	8260	UG/L	10	.5	K	<10	U	.4	KL	.4	KL	.5	KL	.5	KL
CIS-1,3,DICHLOROPROPENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
TRICHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
BENSENE	8260	UG/L	10	<10	U	<10	U	.3	KL	<10	U	<10	U	.9	KL
DIBROMOCHLOROMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,1,2-TRICHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
TRANS-1,3-DICHLOROPROPANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
BROMOFORM	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
4-METHYL-2-PENTANONE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
2-HEXANONE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,2-DIBROMOETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,1,1,2-TETRACHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,1,2,2-TETRACHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	.9	L
TETRACHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
TOLUENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
CHLOROBENZENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
ETHYLBENZENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
STYRENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U

SAMPLE DATE December 14-17, 1993
DATA PAGE 5 OF

TABLE 1. DATA ENTRY FORM

PARAMETER NAME	EPA METHOD CODE	UNITS MEASURED	DETECTION LIMIT	ENTER WELL NAMES HERE											
				MW-1A (UP)		MW-4A (DN)		MW-13 (SIDE)		MW-14 (UP)		MW-19 (UP)		MW-19P (UP)	
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
	---		---												
XYLENE, TOTAL	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,2,3-TRICHLOROPROPANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
TRANS-1,4DICHLORO-2-BUTENE	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
1,2-DIBROMO-3-CHLOROPROPANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U

SAMPLE DATE December 14-17, 1993
DATA PAGE 6 OF 1

TABLE 1. DATA ENTRY FORM

PARAMETER NAME	EPA METHOD CODE	UNITS MEASURED	DETECTION LIMIT	ENTER WELL NAMES HERE											
				MW-20 (DN)		MW-21 (DN)		MW-21P (DN)		MW-22 (DN)		MW-22P (DN)		MW-23 (SIDE)	
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
GROUND WATER ELEVATION	---	FEET	---	1071.3	F	1079.3	F	1078.25	F	1077.83	F	1071.63	F	1089.65	F
ALKALINITY, BICARBONATE	403	MG/L	20	330	KL	360	KL	360	KL	150	KL	770	KL	160	KL
ALKALINITY, CARBONATE	403	MG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
CHLORIDE	9250	MG/L	2	22	KL	52	KL	39	KL	34	KL	60	KL	26	KL
CONDUCTANCE, SPECIFIC	9050	UMBOS/CM	10	21,000	KL	2700	KL	1800	KL	1500	KL	2300	KL	2100	KL
CYANIDE, TOTAL	9012	MG/L	.01	<.01	U	<.01	U	<.01	U	<.01	U	<.01	U	<.01	U
FLOURIDE	EPA 340.2	MG/L	.1	.48	KL	.49	KL	3.3	KL	.45	KL	9.0	KL	.22	KL
NITROGEN, NITRATE	9200	MG/L	.05	<.05	U	<.05	U	<.05	U	<.05	U	1.4	KL	<.05	U
PHENOLICS, TOTAL REC.	9066	MG/L	.01	<.01	U	.01	U	<.01	U	<.01	U	<.01	U	<.01	U
SULFATE	9036	MG/L	10	870	KL	1300	KL	460	KL	500	KL	330	KL	1200	KL
SULFIDE	9030	MG/L	1	<1	U	3.1	KL	<1	U	1.1	KL	3.2	KL	<1	U
TOTAL ORGANIC CARBON	9060	MG/L	.25	5.1	KL	15	KL	1.8	KL	27	KL	2.8	KL	1.1	KL
TOTAL ORGANIC HALIDES	9020	UG/L	10	<5.0	U	13	KL	11	KL	15	KL	<5.0	U	<5.0	U
PH,LABORATORY	9040/9041	PH	.1	6.5H(1)	KL	6.4H(1)	KL	7.8H(3)	KL	6.3H(1)	KL	8.2H(1)	KL	6.9H(1)	KL
ANTIMONY, DISSOLVED	7041	UG/L	10	<10	U	14	KL	<10	U	<10	U	<10	U	<10	U
ARSENIC, DISSOLVED	7060	UG/L	3	<3	U	4.5	KL	<3	U	<3	U	<3	U	12	KL
BARIUM, DISSOLVED	6010	UG/L	50	<50	U	<50	U	120	KL	<50	U	200	KL	<50	U
BERYLLIUM, DISSOLVED	6010	UG/L	5	<5	U	<5	U	<5	U	<5	U	<5	U	<5	U
CADMIUM, DISSOLVED	7131	UG/L	.3	.3	U	.32	KL	<.3	U	<.3	U	<.3	U	.7	KL
CHROMIUM, DISSOLVED	7191	UG/L	2	<2	U	<2	U	<2	U	<2	U	<2	U	<2	U
COBALT, DISSOLVED	6010	UG/L	50	<50	U	66	KL	120	KL	<50	U	<50	U	<50	U
COPPER, DISSOLVED	7211	UG/L	3	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U	<3.0	U
IRON, DISSOLVED	6010	UG/L	100	12,000	KL	35,000	KL	<000	U	16,000	KL	530	KL	11,000	KL
LEAD, DISSOLVED	7421	UG/L	3	<3	U	<3	U	<3	U	<3	U	<3	U	<3	U
MANGANESE, DISSOLVED	6010	UG/L	5	10,000	KL	13,000	KL	37	KL	8,000	KL	49	KL	5200	KL
MERCURY, DISSOLVED	7470	UG/L	.2	<.2	U	<.2	U	<.2	U	<.2	U	<.2	U	<.2	U

TABLE 1. DATA ENTRY FORM

SAMPLE DATE December 14-17, 1993
DATA PAGE 7 OF 1

PARAMETER NAME	EPA METHOD CODE	UNITS MEASURED	DETECTION LIMIT	ENTER WELL NAMES HERE											
				MW-20 (DN)		MW-21 (DN)		MW-21P (DN)		MW-22 (DN)		MW-22P (DN)		MW-23 (SIDE)	
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
	---		---												
NICKEL, DISSOLVED	6010	UG/L	40	<.40	U	<40	U	44	KL	<.40	U	<.40	U	<.40	U
SELENIUM, DISSOLVED	7740	UG/L	3	<3	U	<3	U	<3	U	<3	U	<3	U	<3	U
SILVER, DISSOLVED	7761	UG/L	1	<1	U	<1	U	<1	U	<1	U	<1	U	<1	U
SODIUM, DISSOLVED	6010	UG/L	500	99,000	KL	130,000	KL	290,000	KL	40,000	KL	470,000	KL	41,000	KL
THALLIUM, DISSOLVED	7841	UG/L	3	<3	U	<3	U	<3	U	<3	U	<3	U	<3	U
TIN, DISSOLVED	-	UG/L	500	<500	U	<500	U	<500	U	<500	U	<500	U	<500	U
VANADIUM, DISSOLVED	6010	UG/L	50	<50	U	<50	U	<50	U	<50	U	<50	U	<50	U
ZINC, DISSOLVED	6010	UG/L	20	<20	U	32	KL	<20	U	40	KL	<20	U	<20	U

SAMPLE DATE December 14-17, 1993
DATA PAGE 8 OF 1

TABLE 1. DATA ENTRY FORM

PARAMETER NAME	EPA METHOD CODE	UNITS MEASURED	DETECTION LIMIT	ENTER WELL NAMES HERE											
				MW-20 (DN)		MW-21 (DN)		MW-21P (DN)		MW-22 (DN)		MW-22P (DN)		MW-23 (SIDE)	
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
	---		---												
(VOLATILE ORGANICS)															
1,2 DICHLOROETHENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
DICHLORODIFLUOROMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
CHLOROMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
BROMOMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
VINYL CHLORIDE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
CHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
METHYLENE CHLORIDE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	2	KL
ACROLEIN	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
ACRYLONITRILE	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
ACETONE	8260	UG/L	10	2	KL	2	KL	4	KL	5	KL	4	KL	5	KL
CARBON DISULFIDE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
TRICHLOROFLUOROMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,1-DICHLOROETHENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
IODOMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
3-CHLORO-1-PROPENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
ACETONITRILE	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
1,1-DICHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
2-CHLORO-1,3-BUTADIENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
PROPIONITRILE	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
METHACRYLONITRILE	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
ISOBUTANOL	8260	UG/L	100	<100	U	<100	U	<100	U	<100	U	<100	U	<100	U
CHLOROFORM	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	1	KL	26	KL
1,2-DICHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
2-BUTANONE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U

SAMPLE DATE December 14-17, 1993
DATA PAGE 9 OF 1

TABLE 1. DATA ENTRY FORM

PARAMETER NAME	EPA METHOD CODE	UNITS MEASURED	DETECTION LIMIT	ENTER WELL NAMES HERE											
				MW-20 (DN)		MW-21 (DN)		MW-21P (DN)		MW-22 (DN)		MW-22P (DN)		MW-23 (SIDE)	
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
	---		---												
1,1,1-TRICHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
CARBON TETRACHLORIDE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
VINYL ACETATE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
BROMODICHLOROMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	2	KL
1,2-DICHLOROPROPENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
DIBROMOMETHENE	8260	UG/L	10	.4	K	<10	U	<10	U	.4	KL	<10	U	.5	KL
CIS-1,3,DICHLOROPROPENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
TRICHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
BENSENE	8260	UG/L	10	<10	U	<10	U	.3	KL	<10	U	<10	U	.9	KL
DIBROMOCHLOROMETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,1,2-TRICHLOROETHENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
TRANS-1,3-DICHLOROPROPANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
BROMOFORM	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
4-METHYL-2-PENTANONE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
2-HEXANONE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,2-DIBROMOETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,1,1,2-TETRACHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,1,2,2-TETRACHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
TETRACHLOROETHANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	.9	L
TOLUENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
CHLOROBENZENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
ETHYLBENZENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
STYRENE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U

SAMPLE DATE December 14-17, 1993
DATA PAGE 10 OF 1

TABLE 1. DATA ENTRY FORM

PARAMETER NAME	EPA METHOD CODE	UNITS MEASURED	DETECTION LIMIT	ENTER WELL NAMES HERE											
				MW-20 (DN)		MW-21 (DN)		MW-21P (DN)		MW-22 (DN)		MW-22P (DN)		MW-23 (SIDE)	
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
	---		---												
XYLENE, TOTAL	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
1,2,3-TRICHLOROPROPANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U
TRANS-1,4DICHLORO-2-BUTENE	8260	UG/L	20	<20	U	<20	U	<20	U	<20	U	<20	U	<20	U
1,2-DIBROMO-3-CHLOROPROPANE	8260	UG/L	10	<10	U	<10	U	<10	U	<10	U	<10	U	<10	U

SECTION 4 - STATISTICS

Report statistical evaluation of indicator parameters (Results of t-test). [OAC Rule 3745-65-94(A)(2)(b)] Only owner/operators that have completed four quarters of ground water monitoring data and, at least, the first semi-annual sampling of indicator parameters need to report anything in this section. Report upgradient well(s) first. Statistically significant differences shall be bolded, underlined or readily identified in some other manner in the Table 2. Results of statistical analyses performed on any other site-specific parameters shall be submitted as part of the annual report. Attach additional pages as needed.

Ohio EPA requests interpretations of ground water quality data not analyzed statistically also be submitted as part of Section 4 (comments pertaining to applicability of the data to determining whether ground water quality has been affected by facility operations).

Put "Not Applicable" under the section heading, if appropriate.

TABLE 2

STATISTICAL EVALUATIONS OF INDICATOR PARAMETERS

Well # ~~All~~ WELLS: MW-1A, MW-4A, MW-13, MW-14, MW-19, MW-19P, MW-20, MW-21, MW-21P, MW-22, MW-22P, MW-23 ____ AR t-test or ____ CABF t-test

Parameter	Reps	pH (S.U.)	Specific Conductance (umhos)	TOC (mg/l)	TOX (mg/l)
First Semi-Annual					
Sample Date _____		(INSUFFICIENT DATA)			
		(ONLY ONE SAMPLING HAS BEEN COMPLETED			
Mean		TO DATE)			
Variance					
Background Variance					
t*					
tc					
Significant Difference at 0.01? (Yes or No)					
Second Semi-Annual					
Sample Date _____					
Mean					
Variance					
Background Mean					
t*					
tc					
Significant Difference at 0.01? (Yes or No)					

If another statistical method has been approved by means of Director's F&O's Consent Agreements or Closure/Post Closure Plans or permits, please include the statistical method, normality data, significance level and result.

SECTION 5 - ASSESSMENT MONITORING

To summarize efforts to determine rate and extent of migration as well as the concentration of the hazardous waste or hazardous waste constituents in the ground water, Ohio EPA considers certain information to always be required and additional information to be necessary under specific circumstances. (Put "Not Applicable" under this section heading, if your facility is operating under a detection monitoring program.)

Required information

Ohio EPA requires reporting of all results relating to the performance standards for assessment monitoring [OAC Rule 3745-65-93(D)(4)].

RATE: Ohio EPA requires supporting calculations pertaining to the rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period be provided.

EXTENT: Ohio EPA requires that the extent of migration of the hazardous waste or hazardous waste constituents in the ground water be shown in map form. Separate maps should be included for each sampling event. If ground water contamination is being assessed in more than one hydrogeologic zone, separate maps also should be included for each zone. The maps(s) shall indicate:

- The position of the hazardous waste management unit in relation to the monitoring wells and the extent of plume boundaries.
- The monitoring well ground water surface elevations and ground water flow directions for each sampling event.

CONCENTRATION: Ohio EPA requires that the concentration of hazardous waste or hazardous waste constituents in the ground water be documented by means of submission of:

- Results of quarterly laboratory and/or consultants reports of analyses and evaluations required by OAC Rule 3745-65-93(D)(4) including any site-specific waste stream constituents and degradation products of those constituents.
- Tables summarizing the data from the lab sheets.
- The position of the hazardous waste management unit in relation to the monitoring wells and the extent of hazardous waste or hazardous waste constituent migration (plume boundary(s)).
- Monitoring well ground water surface elevations and ground water flow direction for each sampling event.

Additional Information That May Be Necessary

Ohio EPA considers that, in addition to the above required information, submission of additional information may be necessary to meet the requirements of OAC Rule 3745-65-94(B)(2) depending upon the particular assessment program. This additional information must be sufficient to document that the rate and extent of migration and concentration of hazardous waste or hazardous waste constituents have been fully determined for the specified waste management unit. Types of information that may be essential include, but are not limited to:

a. Any additional hydrogeologic information that has been gathered using supporting methodology, i.e. soil gas analysis or geophysics.

b. Data relating to a prior detection monitoring program implemented by the owner or operator at the facility, including the original background year information pertaining to the concentration or values of the indicator parameters listed in OAC Rule 3745-65-92(B) for each upgradient ground water monitoring well.

c. Any statistical evaluations that have been utilized to fulfill the assessment monitoring performance standards.

If the assessment goals of determination of concentration and rate and extent of migration of hazardous waste constituents have not been fully met, Ohio EPA requests that the owner or operator summarize activities planned to meet these performance standards.

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-1 Past identifiers for this well: No.1

W-2 INSTALLATION DATE (mo/day/year) 7/11/85

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1126.73 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 55.0'

W-5 WELL LOG (Check all available log types) ODNR LOG No. _____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE
____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up X Down ____ Other ____ Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1127.2'

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1079.7

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1074.7

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1124.2

W-15 WELL DEPTH AT INSTALLATION (ft) 1069.2

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) 1091.8

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 54. 00 " Longitude 81 02 ' 23. 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 3 - SAMPLING EVENT INFORMATION

Complete one set of Sampling Event forms for each sampling date during the past calendar year. If the owner/operator is using a set of sampling events as background for statistical well comparisons, a Sampling Event form for each of those sampling events should be submitted as well. (If the sampling event required three ~~or fewer~~ consecutive days, the owner/operator may report the event as a single date as long as that fact is noted under "S-4 Comments".)

S-1 SAMPLING DATE: None

S-2 SAMPLING FREQUENCY (Check the frequency which best describes the sampling protocol for this event)

_____ A=Annual

_____ S=Semi-annual

_____ Q=Quarterly

_____ M=Monthly

_____ O=Other

S-3 DOCUMENT DATE Date of the document from which these data are taken: None

S-4 SAMPLING EVENT COMMENTS _____

S-5 MAP OF SURFACE ELEVATION CONTOURS AND GROUND WATER FLOW DIRECTION

For owner/operators conducting a detection monitoring program, in order to meet the requirements of OAC Rule 3745-65-94(A)(2)(c) for reporting results of ground water surface elevations under OAC Rule 3745-65-93(F), Ohio EPA requires that owner/operators submit a map indicating the position of the hazardous waste management unit in relation to the monitoring wells. (See W-19) Monitoring well ground water surface elevation contours and ground water flow direction shall be indicated on the map(s). Separate maps shall be included if there are two or more separate ground water flow zones monitored. A description of any response necessary to restore compliance with up and downgradient monitoring well requirements of OAC Rule 3745-65-91(A) (i.e., installation of additional wells) shall be attached.

TABLE 1 - DATA FORM INSTRUCTIONS

Use as many pages as necessary for each sampling date.

1. a. On the first line of Table 1 report ground water level elevations for each well in relation to Mean Sea Level, accurate to 0.01 feet.

   b. On the lines following ground water elevation level information, enter the names of the parameters that were analyzed. Include Drinking Water Parameters, Ground Water Quality Parameters, Indicator Parameters and any site specific parameters from all RCRA wells for each sampling event.

   c. Please designate wells as upgradient (UP) or downgradient (DN) [example: W2, DN]. List values for upgradient well(s) first. Upgradient wells should have four replicate measurements of each Indicator Parameter for each sampling date.

   d. List duplicate measurements of the same well separately, e.g. "MW-1 DUP".

   e. If more than one measurement of each indicator parameter was made from samples taken from downgradient wells, please report these as well.

2. Enter the EPA code for the method by which the parameter was measured.

3. Enter the units of measurement (ppb, feet).

4. Enter the limits of detection for this analytical test.

5. Enter the name of the well that was tested in the space above Data DQ (Data Qualifiers). Under the column marked "Data", enter the measurement results. Under "DQ", mark the Data Qualifiers found below which best indicate any limits to interpretation of the data. Any two codes may be combined.

A = Average value	L = Actual value> Reported value	U = Tested but not detected
C = Determined present by GC/EC	N = Tentatively identified	V = Calculated value
D = Value is from a diluted sample	O = Analysis lost	X = Too numerous to count
F = Field measurement	P = Present but not quantified	Y = Sample not filtered
J = Estimated value	R = Rejected - do not use	Z = Not suitable for analysis
K = Actual value< Reported value	S = Sample not stored properly	

SAMPLE DATE _____ _____

TABLE 1. DATA ENTRY FORM

DATA page _____ of _____

1. PARAMETER NAME	2. EPA METHOD CODE	3. UNITS MEASURED	4. DETECTION LIMIT	5. ENTER WELL NAMES HERE MW-1											
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
Ground Water Elevation	----	feet	----												
THIS WELL IS NOT INCLUDED IN THE CURRENT GROUNDWATER QUALITY ASSESSMENT PLAN.															

SECTION 4 - STATISTICS

Report statistical evaluation of indicator parameters (Results of t-test). [OAC Rule 3745-65-94(A)(2)(b)] Only owner/operators that have completed four quarters of ground water monitoring data and, at least, the first semi-annual sampling of indicator parameters need to report anything in this section. Report upgradient well(s) first. Statistically significant differences shall be bolded, underlined or readily identified in some other manner in the Table 2. Results of statistical analyses performed on any other site-specific parameters shall be submitted as part of the annual report. Attach additional pages as needed.

Ohio EPA requests interpretations of ground water quality data not analyzed statistically also be submitted as part of Section 4 (comments pertaining to applicability of the data to determining whether ground water quality has been affected by facility operations).

Put "Not Applicable" under the section heading, if appropriate.

TABLE 2

STATISTICAL EVALUATIONS OF INDICATOR PARAMETERS

Well # MW-1 ____ AR t-test or ____ CABF t-test

Parameter	Reps	pH (S.U.)	Specific Conductance (umhos)	TOC (mg/l)	TOX (mg/l)
First Semi-Annual					
Sample Date _____					
		NO SAMPLING PERFORMED IN 1993.			
Mean					
Variance					
Background Variance					
t*					
tc					
Significant Difference at 0.017 (Yes or No)					
Second Semi-Annual					
Sample Date _____					
Mean					
Variance					
Background Mean					
t*					
tc					
Significant Difference at 0.017 (Yes or No)					

If another statistical method has been approved by means of Director's F&O's Consent Agreements or Closure/Post Closure Plans or permits, please include the statistical method, normality data, significance level and result.

SECTION 5 - ASSESSMENT MONITORING

To summarize efforts to determine rate and extent of migration as well as the concentration of the hazardous waste or hazardous waste constituents in the ground water, Ohio EPA considers certain information to always be required and additional information to be necessary under specific circumstances. (Put "Not Applicable" under this section heading, if your facility is operating under a detection monitoring program.)

Required information

Ohio EPA requires reporting of all results relating to the performance standards for assessment monitoring [OAC Rule 3745-65-93(D)(4)].

RATE: Ohio EPA requires supporting calculations pertaining to the rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period be provided.

EXTENT: Ohio EPA requires that the extent of migration of the hazardous waste or hazardous waste constituents in the ground water be shown in map form. Separate maps should be included for each sampling event. If ground water contamination is being assessed in more than one hydrogeologic zone, separate maps also should be included for each zone. The maps(s) shall indicate:

- The position of the hazardous waste management unit in relation to the monitoring wells and the extent of plume boundaries.
- The monitoring well ground water surface elevations and ground water flow directions for each sampling event.

CONCENTRATION: Ohio EPA requires that the concentration of hazardous waste or hazardous waste constituents in the ground water be documented by means of submission of:

- Results of quarterly laboratory and/or consultants reports of analyses and evaluations required by OAC Rule 3745-65-93(D)(4) including any site-specific waste stream constituents and degradation products of those constituents.
- Tables summarizing the data from the lab sheets.
- The position of the hazardous waste management unit in relation to the monitoring wells and the extent of hazardous waste or hazardous waste constituent migration (plume boundary(s)).
- Monitoring well ground water surface elevations and ground water flow direction for each sampling event.

Additional Information That May Be Necessary

Ohio EPA considers that, in addition to the above required information, submission of additional information may be necessary to meet the requirements of OAC Rule 3745-65-94(B)(2) depending upon the particular assessment program. This additional information must be sufficient to document that the rate and extent of migration and concentration of hazardous waste or hazardous waste constituents have been fully determined for the specified waste management unit. Types of information that may be essential include, but are not limited to:

a. Any additional hydrogeologic information that has been gathered using supporting methodology, i.e. soil gas analysis or geophysics.

b. Data relating to a prior detection monitoring program implemented by the owner or operator at the facility, including the original background year information pertaining to the concentration or values of the indicator parameters listed in OAC Rule 3745-65-92(B) for each upgradient ground water monitoring well.

c. Any statistical evaluations that have been utilized to fulfill the assessment monitoring performance standards.

If the assessment goals of determination of concentration and rate and extent of migration of hazardous waste constituents have not been fully met, Ohio EPA requests that the owner or operator summarize activities planned to meet these performance standards.

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-2 Past identifiers for this well: No. 2

W-2 INSTALLATION DATE (mo/day/year) 7/10/85

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1101.96 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 35.5'

W-5 WELL LOG (Check all available log types) ODNR LOG No. _____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE ____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up____ Down X Other _____ Unknown _____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1102.8

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1071.2

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1066.2

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1100.3

W-15 WELL DEPTH AT INSTALLATION (ft) 1064.8

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) 1074.3

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 50 00 " Longitude 81 02 ' 30 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 3 - SAMPLING EVENT INFORMATION

Complete one set of Sampling Event forms for each sampling date during the past calendar year. If the owner/operator is using a set of sampling events as background for statistical well comparisons, a Sampling Event form for each of those sampling events should be submitted as well. (If the sampling event required three or fewer consecutive days, the owner/operator may report the event as a single date as long as that fact is noted under "S-4 Comments".)

S-1 SAMPLING DATE: None

S-2 SAMPLING FREQUENCY (Check the frequency which best describes the sampling protocol for this event)

_____ A=Annual

_____ S=Semi-annual

_____ Q=Quarterly

_____ M=Monthly

_____ O=Other

S-3 DOCUMENT DATE Date of the document from which these data are taken: None

S-4 SAMPLING EVENT COMMENTS _____

S-5 MAP OF SURFACE ELEVATION CONTOURS AND GROUND WATER FLOW DIRECTION

For owner/operators conducting a detection monitoring program, in order to meet the requirements of OAC Rule 3745-65-94(A)(2)(c) for reporting results of ground water surface elevations under OAC Rule 3745-65-93(F), Ohio EPA requires that owner/operators submit a map indicating the position of the hazardous waste management unit in relation to the monitoring wells. (See W-19) Monitoring well ground water surface elevation contours and ground water flow direction shall be indicated on the map(s). Separate maps shall be included if there are two or more separate ground water flow zones monitored. A description of any response necessary to restore compliance with up and downgradient monitoring well requirements of OAC Rule 3745-65-91(A) (i.e., installation of additional wells) shall be attached.

TABLE 1 - DATA FORM INSTRUCTIONS

Use as many pages as necessary for each sampling date.

1. a. On the first line of Table 1 report ground water level elevations for each well in relation to Mean Sea Level, accurate to 0.01 feet.

   b. On the lines following ground water elevation level information, enter the names of the parameters that were analyzed. Include Drinking Water Parameters, Ground Water Quality Parameters, Indicator Parameters and any site specific parameters from all RCRA wells for each sampling event.

   c. Please designate wells as upgradient (UP) or downgradient (DN) [example: W2, DN]. List values for upgradient well(s) first. Upgradient wells should have four replicate measurements of each Indicator Parameter for each sampling date.

   d. List duplicate measurements of the same well separately, e.g. "MW-1 DUP".

   e. If more than one measurement of each indicator parameter was made from samples taken from downgradient wells, please report these as well.

2. Enter the EPA code for the method by which the parameter was measured.

3. Enter the units of measurement (ppb, feet).

4. Enter the limits of detection for this analytical test.

5. Enter the name of the well that was tested in the space above Data DQ (Data Qualifiers). Under the colum marked "Data", enter the measurement results. Under "DQ", mark the Data Qualifiers found below which best indicate any limits to interpretation of the data. Any two codes may be combined.

A = Average value	L = Actual value> Reported value	U = Tested but not detected
C = Determined present by GC/EC	N = Tentatively identified	V = Calculated value
D = Value is from a diluted sample	O = Analysis lost	X = Too numerous to count
F = Field measurement	P = Present but not quantified	Y = Sample not filtered
J = Estimated value	R = Rejected - do not use	Z = Not suitable for analysis
K = Actual value< Reported value	S = Sample not stored properly	

SAMPLE DATE _____

TABLE 1. DATA ENTRY FORM

DATA page _____ of _____

1. PARAMETER NAME	2. EPA METHOD CODE	3. UNITS MEASURED	4. DETECTION LIMIT	5. ENTER WELL NAMES HERE MW-2											
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
Ground Water Elevation	----	feet	----												
THIS WELL IS NOT INCLUDED IN THE CURRENT GROUNDWATER QUALITY ASSESSMENT PLAN.															

SECTION 4 - STATISTICS

Report statistical evaluation of indicator parameters (Results of t-test). [OAC Rule 3745-65-94(A)(2)(b)] Only owner/operators that have completed four quarters of ground water monitoring data and, at least, the first semi-annual sampling of indicator parameters need to report anything in this section. Report upgradient well(s) first. Statistically significant differences shall be bolded, underlined or readily identified in some other manner in the Table 2. Results of statistical analyses performed on any other site-specific parameters shall be submitted as part of the annual report. Attach additional pages as needed.

Ohio EPA requests interpretations of ground water quality data not analyzed statistically also be submitted as part of Section 4 (comments pertaining to applicability of the data to determining whether ground water quality has been affected by facility operations).

Put "Not Applicable" under the section heading, if appropriate.

TABLE 2

STATISTICAL EVALUATIONS OF INDICATOR PARAMETERS

Well # MW-2 ____ AR t-test or ____ CABF t-test

Parameter	Reps	pH (S.U.)	Specific Conductance (umhos)	TOC (mg/l)	TOX (mg/l)
First Semi-Annual					
Sample Date _____					
		NO SAMPLING PERFORMED IN 1993.			
Mean					
Variance					
Background Variance					
t*					
tc					
Significant Difference at 0.017 (Yes or No)					
Second Semi-Annual					
Sample Date _____					
Mean					
Variance					
Background Mean					
t*					
tc					
Significant Difference at 0.017 (Yes or No)					

If another statistical method has been approved by means of Director's F&O's Consent Agreements or Closure/Post Closure Plans or permits, please include the statistical method, normality data, significance level and result.

SECTION 5 - ASSESSMENT MONITORING

To summarize efforts to determine rate and extent of migration as well as the concentration of the hazardous waste or hazardous waste constituents in the ground water, Ohio EPA considers certain information to always be required and additional information to be necessary under specific circumstances. (Put "Not Applicable" under this section heading, if your facility is operating under a detection monitoring program.)

Required information

Ohio EPA requires reporting of all results relating to the performance standards for assessment monitoring [OAC Rule 3745-65-93(D)(4)].

RATE: Ohio EPA requires supporting calculations pertaining to the rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period be provided.

EXTENT: Ohio EPA requires that the extent of migration of the hazardous waste or hazardous waste constituents in the ground water be shown in map form. Separate maps should be included for each sampling event. If ground water contamination is being assessed in more than one hydrogeologic zone, separate maps also should be included for each zone. The maps(s) shall indicate:

- The position of the hazardous waste management unit in relation to the monitoring wells and the extent of plume boundaries.
- The monitoring well ground water surface elevations and ground water flow directions for each sampling event.

CONCENTRATION: Ohio EPA requires that the concentration of hazardous waste or hazardous waste constituents in the ground water be documented by means of submission of:

- Results of quarterly laboratory and/or consultants reports of analyses and evaluations required by OAC Rule 3745-65-93(D)(4) including any site-specific waste stream constituents and degradation products of those constituents.
- Tables summarizing the data from the lab sheets.
- The position of the hazardous waste management unit in relation to the monitoring wells and the extent of hazardous waste or hazardous waste constituent migration (plume boundary(s)).
- Monitoring well ground water surface elevations and ground water flow direction for each sampling event.

Additional Information That May Be Necessary

Ohio EPA considers that, in addition to the above required information, submission of additional information may be necessary to meet the requirements of OAC Rule 3745-65-94(B)(2) depending upon the particular assessment program. This additional information must be sufficient to document that the rate and extent of migration and concentration of hazardous waste or hazardous waste constituents have been fully determined for the specified waste management unit. Types of information that may be essential include, but are not limited to:

a. Any additional hydrogeologic information that has been gathered using supporting methodology, i.e. soil gas analysis or geophysics.

b. Data relating to a prior detection monitoring program implemented by the owner or operator at the facility, including the original background year information pertaining to the concentration or values of the indicator parameters listed in OAC Rule 3745-65-92(B) for each upgradient ground water monitoring well.

c. Any statistical evaluations that have been utilized to fulfill the assessment monitoring performance standards.

If the assessment goals of determination of concentration and rate and extent of migration of hazardous waste constituents have not been fully met, Ohio EPA requests that the owner or operator summarize activities planned to meet these performance standards.

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-3 Past identifiers for this well: No.3

W-2 INSTALLATION DATE (mo/day/year) 7/10/85

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1093.14 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 26.5'

W-5 WELL LOG (Check all available log types) ODNR LOG No. ____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE ____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up ____ Down X Other ____ Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1093.7

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1071.4

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1066.4

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1091.2

W-15 WELL DEPTH AT INSTALLATION (ft) 1064.7

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) 1076.7

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 49 00 " Longitude 81 02 ' 30 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 3 - SAMPLING EVENT INFORMATION

Complete one set of Sampling Event forms for each sampling date during the past calendar year. If the owner/operator is using a set of sampling events as background for statistical well comparisons, a Sampling Event form for each of those sampling events should be submitted as well. (If the sampling event required three 5 or fewer consecutive days, the owner/operator may report the event as a single date as long as that fact is noted under "S-4 Comments".)

S-1 SAMPLING DATE: None

S-2 SAMPLING FREQUENCY (Check the frequency which best describes the sampling protocol for this event)

_____ A=Annual

_____ S=Semi-annual

_____ Q=Quarterly

_____ M=Monthly

_____ O=Other

S-3 DOCUMENT DATE Date of the document from which these data are taken: None

S-4 SAMPLING EVENT COMMENTS _____

S-5 MAP OF SURFACE ELEVATION CONTOURS AND GROUND WATER FLOW DIRECTION

For owner/operators conducting a detection monitoring program, in order to meet the requirements of OAC Rule 3745-65-94(A)(2)(c) for reporting results of ground water surface elevations under OAC Rule 3745-65-93(F), Ohio EPA requires that owner/operators submit a map indicating the position of the hazardous waste management unit in relation to the monitoring wells. (See W-19) Monitoring well ground water surface elevation contours and ground water flow direction shall be indicated on the map(s). Separate maps shall be included if there are two or more separate ground water flow zones monitored. A description of any response necessary to restore compliance with up and downgradient monitoring well requirements of OAC Rule 3745-65-91(A) (i.e., installation of additional wells) shall be attached.

TABLE 1 - DATA FORM INSTRUCTIONS

Use as many pages as necessary for each sampling date.

1. a. On the first line of Table 1 report ground water level elevations for each well in relation to Mean Sea Level, accurate to 0.01 feet.

   b. On the lines following ground water elevation level information, enter the names of the parameters that were analyzed. Include Drinking Water Parameters; Ground Water Quality Parameters, Indicator Parameters and any site specific parameters from all RCRA wells for each sampling event.

   c. Please designate wells as upgradient (UP) or downgradient (DN) [example: W2, DN]. List values for upgradient well(s) first. Upgradient wells should have four replicate measurements of each Indicator Parameter for each sampling date.

   d. List duplicate measurements of the same well separately, e.g. "MW-1 DUP".

   e. If more than one measurement of each indicator parameter was made from samples taken from downgradient wells, please report these as well.

2. Enter the EPA code for the method by which the parameter was measured.

3. Enter the units of measurement (ppb, feet).

4. Enter the limits of detection for this analytical test.

5. Enter the name of the well that was tested in the space above Data DQ (Data Qualifiers). Under the column marked "Data", enter the measurement results. Under "DQ", mark the Data Qualifiers found below which best indicate any limits to interpretation of the data. Any two codes may be combined.

A = Average value	L = Actual value> Reported value	U = Tested but not detected
C = Determined present by GC/EC	N = Tentatively identified	V = Calculated value
D = Value is from a diluted sample	O = Analysis lost	X = Too numerous to count
F = Field measurement	P = Present but not quantified	Y = Sample not filtered
J = Estimated value	R = Rejected - do not use	Z = Not suitable for analysis
K = Actual value< Reported value	S = Sample not stored properly	

SAMPLE DATE _____ _____

TABLE 1. DATA ENTRY FORM

DATA page _____ of _____

1. PARAMETER NAME	2. EPA METHOD CODE	3. UNITS MEASURED	4. DETECTION LIMIT	5. ENTER WELL NAMES HERE MW-3											
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
Ground Water Elevation	----	feet	----												
THIS WELL IS NOT INCLUDED IN THE CURRENT GROUNDWATER QUALITY ASSESSMENT PLAN.															

SECTION 4 - STATISTICS

Report statistical evaluation of indicator parameters (Results of t-test). [OAC Rule 3745-65-94(A)(2)(b)] Only owner/operators that have completed four quarters of ground water monitoring data and, at least, the first semi-annual sampling of indicator parameters need to report anything in this section. Report upgradient well(s) first. Statistically significant differences shall be bolded, underlined or readily identified in some other manner in the Table 2. Results of statistical analyses performed on any other site-specific parameters shall be submitted as part of the annual report. Attach additional pages as needed.

Ohio EPA requests interpretations of ground water quality data not analyzed statistically also be submitted as part of Section 4 (comments pertaining to applicability of the data to determining whether ground water quality has been affected by facility operations).

Put "Not Applicable" under the section heading, if appropriate.

TABLE 2

STATISTICAL EVALUATIONS OF INDICATOR PARAMETERS

Well # MW-3 ____ AR t-test or _____ CABF t-test

Parameter	Reps	pH (S.U.)	Specific Conductance (umhos)	TOC (mg/l)	TOX (mg/l)
First Semi-Annual					
Sample Date _____					
		NO SAMPLING PERFORMED IN 1993.			
Mean					
Variance					
Background Variance					
t*					
tc					
Significant Difference at 0.017 (Yes or No)					
Second Semi-Annual					
Sample Date _____					
Mean					
Variance					
Background Mean					
t*					
tc					
Significant Difference at 0.017 (Yes or No)					

If another statistical method has been approved by means of Director's F&O's Consent Agreements or Closure/Post Closure Plans or permits, please include the statistical method, normality data, significance level and result.

SECTION 5 - ASSESSMENT MONITORING

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Required information

Ohio EPA requires reporting of all results relating to the performance standards for assessment monitoring [OAC Rule 3745-65-93(D)(4)].

RATE: Ohio EPA requires supporting calculations pertaining to the rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period be provided.

EXTENT: Ohio EPA requires that the extent of migration of the hazardous waste or hazardous waste constituents in the ground water be shown in map form. Separate maps should be included for each sampling event. If ground water contamination is being assessed in more than one hydrogeologic zone, separate maps also should be included for each zone. The maps(s) shall indicate:

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- The monitoring well ground water surface elevations and ground water flow directions for each sampling event.

CONCENTRATION: Ohio EPA requires that the concentration of hazardous waste or hazardous waste constituents in the ground water be documented by means of submission of:

- Results of quarterly laboratory and/or consultants reports of analyses and evaluations required by OAC Rule 3745-65-93(D)(4) including any site-specific waste stream constituents and degradation products of those constituents.
- Tables summarizing the data from the lab sheets.
- The position of the hazardous waste management unit in relation to the monitoring wells and the extent of hazardous waste or hazardous waste constituent migration (plume boundary(s)).
- Monitoring well ground water surface elevations and ground water flow direction for each sampling event.

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a. Any additional hydrogeologic information that has been gathered using supporting methodology, i.e. soil gas analysis or geophysics.

b. Data relating to a prior detection monitoring program implemented by the owner or operator at the facility, including the original background year information pertaining to the concentration or values of the indicator parameters listed in OAC Rule 3745-65-92(B) for each upgradient ground water monitoring well.

c. Any statistical evaluations that have been utilized to fulfill the assessment monitoring performance standards.

If the assessment goals of determination of concentration and rate and extent of migration of hazardous waste constituents have not been fully met, Ohio EPA requests that the owner or operator summarize activities planned to meet these performance standards.

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-4 Past identifiers for this well: No. 4

W-2 INSTALLATION DATE (mo/day/year) 7/09/85

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1085.13 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 32.0'

W-5 WELL LOG (Check all available log types) ODNR LOG No. ____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE
____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 88 = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
____ 1F = Dewatering
____ 07 = Test Hole (uncased)
X 8A = RCRA monitoring, compliance
____ 8C = Other Ground Water Observation

W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up____ Down X Other ____ Unknown ____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1085.6

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1057.6

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1052.6

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1082.6

W-15 WELL DEPTH AT INSTALLATION (ft) 1050.6

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) 1074.6

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 43.00 " Longitude 81 02 ' 30 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

SECTION 3 - SAMPLING EVENT INFORMATION

Complete one set of Sampling Event forms for each sampling date during the past calendar year. If the owner/operator is using a set of sampling events as background for statistical well comparisons, a Sampling Event form for each of those sampling events should be submitted as well. (If the sampling event required three or fewer consecutive days, the owner/operator may report the event as a single date as long as that fact is noted under "S-4 Comments".)

S-1 **SAMPLING DATE:** None

S-2 **SAMPLING FREQUENCY** (Check the frequency which best describes the sampling protocol for this event)

_____ A=Annual

_____ S=Semi-annual

_____ Q=Quarterly

_____ M=Monthly

_____ O=Other

S-3 **DOCUMENT DATE** Date of the document from which these data are taken: None

S-4 **SAMPLING EVENT COMMENTS** _____

S-5 **MAP OF SURFACE ELEVATION CONTOURS AND GROUND WATER FLOW DIRECTION**

For owner/operators conducting a detection monitoring program, in order to meet the requirements of OAC Rule 3745-65-94(A)(2)(c) for reporting results of ground water surface elevations under OAC Rule 3745-65-93(F), Ohio EPA requires that owner/operators submit a map indicating the position of the hazardous waste management unit in relation to the monitoring wells. (See W-19) Monitoring well ground water surface elevation contours and ground water flow direction shall be indicated on the map(s). Separate maps shall be included if there are two or more separate ground water flow zones monitored. A description of any response necessary to restore compliance with up and downgradient monitoring well requirements of OAC Rule 3745-65-91(A) (i.e., installation of additional wells) shall be attached.

TABLE 1 - DATA FORM INSTRUCTIONS

Use as many pages as necessary for each sampling date.

1. a. On the first line of Table 1 report ground water level elevations for each well in relation to Mean Sea Level, accurate to 0.01 feet.

   b. On the lines following ground water elevation level information, enter the names of the parameters that were analyzed. Include Drinking Water Parameters; Ground Water Quality Parameters, Indicator Parameters and any site specific parameters from all RCRA wells for each sampling event.

   c. Please designate wells as upgradient (UP) or downgradient (DN) [example: W2, DN]. List values for upgradient well(s) first. Upgradient wells should have four replicate measurements of each Indicator Parameter for each sampling date.

   d. List duplicate measurements of the same well separately, e.g. "MW-1 DUP".

   e. If more than one measurement of each indicator parameter was made from samples taken from downgradient wells, please report these as well.

2. Enter the EPA code for the method by which the parameter was measured.

3. Enter the units of measurement (ppb, feet).

4. Enter the limits of detection for this analytical test.

5. Enter the name of the well that was tested in the space above Data DQ (Data Qualifiers). Under the column marked "Data", enter the measurement results. Under "DQ", mark the Data Qualifiers found below which best indicate any limits to interpretation of the data. Any two codes may be combined.

A = Average value	L = Actual value> Reported value	U = Tested but not detected
C = Determined present by GC/EC	N = Tentatively identified	V = Calculated value
D = Value is from a diluted sample	O = Analysis lost	X = Too numerous to count
F = Field measurement	P = Present but not quantified	Y = Sample not filtered
J = Estimated value	R = Rejected - do not use	Z = Not suitable for analysis
K = Actual value< Reported value	S = Sample not stored properly	

SAMPLE DATE _____ _____

TABLE 1. DATA ENTRY FORM

DATA page _____ of _____

1. PARAMETER NAME	2. EPA METHOD CODE	3. UNITS MEASURED	4. DETECTION LIMIT	5. ENTER WELL NAMES HERE MW-4											
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
Ground Water Elevation	----	feet	----												
THIS WELL IS NOT INCLUDED IN THE CURRENT GROUNDWATER QUALITY ASSESSMENT PLAN.															

SECTION 4 - STATISTICS

Report statistical evaluation of indicator parameters (Results of t-test). [OAC Rule 3745-65-94(A)(2)(b)] Only owner/operators that have completed four quarters of ground water monitoring data and, at least, the first semi-annual sampling of indicator parameters need to report anything in this section. Report upgradient well(s) first. Statistically significant differences shall be bolded, underlined or readily identified in some other manner in the Table 2. Results of statistical analyses performed on any other site-specific parameters shall be submitted as part of the annual report. Attach additional pages as needed.

Ohio EPA requests interpretations of ground water quality data not analyzed statistically also be submitted as part of Section 4 (comments pertaining to applicability of the data to determining whether ground water quality has been affected by facility operations).

Put "Not Applicable" under the section heading, if appropriate.

TABLE 2

STATISTICAL EVALUATIONS OF INDICATOR PARAMETERS

Well # MW-4 ____ AR t-test or _____ CABF t-test

Parameter	Reps	pH (S.U.)	Specific Conductance (umhos)	TOC (mg/l)	TOX (mg/l)
First Semi-Annual					
Sample Date _____					
		NO SAMPLING PERFORMED IN 1993.			
Mean					
Variance					
Background Variance					
t*					
tc					
Significant Difference at 0.017 (Yes or No)					
Second Semi-Annual					
Sample Date _____					
Mean					
Variance					
Background Mean					
t*					
tc					
Significant Difference at 0.017 (Yes or No)					

If another statistical method has been approved by means of Director's F&O's Consent Agreements or Closure/Post Closure Plans or permits, please include the statistical method, normality data, significance level and result.

SECTION 5 - ASSESSMENT MONITORING

To summarize efforts to determine rate and extent of migration as well as the concentration of the hazardous waste or hazardous waste constituents in the ground water, Ohio EPA considers certain information to always be required and additional information to be necessary under specific circumstances. (Put "Not Applicable" under this section heading, if your facility is operating under a detection monitoring program.)

Required information

Ohio EPA requires reporting of all results relating to the performance standards for assessment monitoring [OAC Rule 3745-65-93(D)(4)].

RATE: Ohio EPA requires supporting calculations pertaining to the rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period be provided.

EXTENT: Ohio EPA requires that the extent of migration of the hazardous waste or hazardous waste constituents in the ground water be shown in map form. Separate maps should be included for each sampling event. If ground water contamination is being assessed in more than one hydrogeologic zone, separate maps also should be included for each zone. The maps(s) shall indicate:

- The position of the hazardous waste management unit in relation to the monitoring wells and the extent of plume boundaries.
- The monitoring well ground water surface elevations and ground water flow directions for each sampling event.

CONCENTRATION: Ohio EPA requires that the concentration of hazardous waste or hazardous waste constituents in the ground water be documented by means of submission of:

- Results of quarterly laboratory and/or consultants reports of analyses and evaluations required by OAC Rule 3745-65-93(D)(4) including any site-specific waste stream constituents and degradation products of those constituents.
- Tables summarizing the data from the lab sheets.
- The position of the hazardous waste management unit in relation to the monitoring wells and the extent of hazardous waste or hazardous waste constituent migration (plume boundary(s)).
- Monitoring well ground water surface elevations and ground water flow direction for each sampling event.

Additional Information That May Be Necessary

Ohio EPA considers that, in addition to the above required information, submission of additional information may be necessary to meet the requirements of OAC Rule 3745-65-94(B)(2) depending upon the particular assessment program. This additional information must be sufficient to document that the rate and extent of migration and concentration of hazardous waste or hazardous waste constituents have been fully determined for the specified waste management unit. Types of information that may be essential include, but are not limited to:

a. Any additional hydrogeologic information that has been gathered using supporting methodology, i.e. soil gas analysis or geophysics.

b. Data relating to a prior detection monitoring program implemented by the owner or operator at the facility, including the original background year information pertaining to the concentration or values of the indicator parameters listed in OAC Rule 3745-65-92(B) for each upgradient ground water monitoring well.

c. Any statistical evaluations that have been utilized to fulfill the assessment monitoring performance standards.

If the assessment goals of determination of concentration and rate and extent of migration of hazardous waste constituents have not been fully met, Ohio EPA requests that the owner or operator summarize activities planned to meet these performance standards.

SECTION 2 - WELL INFORMATION

For the 1993 Annual Report all owner/operators shall complete one set of Well Information Forms for each well that is part of the regulated system. Each well in a cluster of nested wells shall be listed on a separate Well Information Form. In subsequent years, only Well Information Forms for newly installed wells need be submitted.

W-1 WELL IDENTIFICATION CODE MW-12 Past identifiers for this well: None

W-2 INSTALLATION DATE (mo/day/year) 8-8-91

W-3 REFERENCE WELL ELEVATION LEVEL: Mean Sea Level 1087.94 North American Vertical Datum 1988 (NAVD) ____

W-4 WELL DEPTH Measured from Ground Surface (ft) 35.5

W-5 WELL LOG (Check all available log types) ODNR LOG No. _____

X D= Core-record of strata through which borehole passes
____ F= Drillers-brief record of gross characteristics of strata
____ M= Geologist-Graphic record of strata from microscopic exam

W-6 CASING MATERIAL (Check one)

X PVC Plastic
____ ABS Plastic
____ PTFE ____ Other
____ Stainless Steel
____ Epoxy Fiberglass
____ Teflon
____ Galvanized Steel

W-7 INTERIOR DIAMETER OF WELL CASING 2" inches

W-8 WELL USE CODE (Check one)

____ 1A = Public Water Supply
____ 1C = Extraction & Treatment
____ 1E = Industrial Supply
____ 06 = Seismic Monitoring
____ 09 = Tracer (monitoring)
____ 8B = Piezometer
____ 1B = Private Water Supply
____ 1D = Irrigation Supply
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X 8A = RCRA monitoring, compliance
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W-9 WELL QA CODE

Yes Was this well designed and constructed by a consultant who followed EPA guidelines concerning tamper controls, use of inert materials and other requirements?

Yes If so, has the well been inspected by the State or EPA in the last five years?

Yes Did the well pass State/EPA inspection - does it meet the objectives?

W-10 GRADIENT POSITION Up____ Down X Other _____ Unknown _____

W-11 ELEVATION OF TOP OF EXTERIOR WELL CASING (ft) 1088.4

W-12 ELEVATION OF THE TOP OF THE WELL SCREEN (ft) 1060.5

W-13 ELEVATION OF THE BOTTOM OF WELL SCREEN (ft) 1050.5

W-14 ELEVATION OF GROUND SURFACE AT WELL PIPE (ft) 1085.6

W-15 WELL DEPTH AT INSTALLATION (ft) 1050.1

W-16 GROUND WATER LEVEL AT INSTALLATION (ft) 1076.0

W-17 WELL LOCATION Enter latitude and longitude for each well.

Latitude 40 54 ' 43 00 " Longitude 81 02 ' 27 00 "

W-18 LATITUDE/LONGITUDE METHOD (See Facility Location) G

W-19 WELL LOCATION MAP Submit a site map indicating approximate locations of each well. (See S-5.)

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S-1 SAMPLING DATE: None

S-2 SAMPLING FREQUENCY (Check the frequency which best describes the sampling protocol for this event)

_____ A=Annual

_____ S=Semi-annual

_____ Q=Quarterly

_____ M=Monthly

_____ O=Other

S-3 DOCUMENT DATE Date of the document from which these data are taken: None

S-4 SAMPLING EVENT COMMENTS _____

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   d. List duplicate measurements of the same well separately, e.g. "MW-1 DUP".

   e. If more than one measurement of each indicator parameter was made from samples taken from downgradient wells, please report these as well.

2. Enter the EPA code for the method by which the parameter was measured.

3. Enter the units of measurement (ppb, feet).

4. Enter the limits of detection for this analytical test.

5. Enter the name of the well that was tested in the space above Data DQ (Data Qualifiers). Under the column marked "Data", enter the measurement results. Under "DQ", mark the Data Qualifiers found below which best indicate any limits to interpretation of the data. Any two codes may be combined.

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J = Estimated value	R = Rejected - do not use	Z = Not suitable for analysis
K = Actual value< Reported value	S = Sample not stored properly	

SAMPLE DATE _____ _____

TABLE 1. DATA ENTRY FORM

DATA page _____ of _____

1. PARAMETER NAME	2. EPA METHOD CODE	3. UNITS MEASURED	4. DETECTION LIMIT	5. ENTER WELL NAMES HERE MW-12											
				DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ	DATA	DQ
Ground Water Elevation	....	feet	....												
THIS WELL IS NOT INCLUDED IN THE CURRENT GROUNDWATER QUALITY ASSESSMENT PLAN.															

SECTION 4 - STATISTICS

Report statistical evaluation of indicator parameters (Results of t-test). [OAC Rule 3745-65-94(A)(2)(b)] Only owner/operators that have completed four quarters of ground water monitoring data and, at least, the first semi-annual sampling of indicator parameters need to report anything in this section. Report upgradient well(s) first. Statistically significant differences shall be bolded, underlined or readily identified in some other manner in the Table 2. Results of statistical analyses performed on any other site-specific parameters shall be submitted as part of the annual report. Attach additional pages as needed.

Ohio EPA requests interpretations of ground water quality data not analyzed statistically also be submitted as part of Section 4 (comments pertaining to applicability of the data to determining whether ground water quality has been affected by facility operations).

Put "Not Applicable" under the section heading, if appropriate.

TABLE 2

STATISTICAL EVALUATIONS OF INDICATOR PARAMETERS

Well #MW-12 ____ AR t-test or ____ CABF t-test

Parameter	Reps	pH (S.U.)	Specific Conductance (umhos)	TOC (mg/l)	TOX (mg/l)
First Semi-Annual					
Sample Date _____					
		NO SAMPLING PERFORMED IN 1993.			
Mean					
Variance					
Background Variance					
t*					
tc					
Significant Difference at 0.017 (Yes or No)					
Second Semi-Annual					
Sample Date _____					
Mean					
Variance					
Background Mean					
t*					
tc					
Significant Difference at 0.017 (Yes or No)					

If another statistical method has been approved by means of Director's F&O's Consent Agreements or Closure/Post Closure Plans or permits, please include the statistical method, normality data, significance level and result.

SECTION 5 - ASSESSMENT MONITORING

To summarize efforts to determine rate and extent of migration as well as the concentration of the hazardous waste or hazardous waste constituents in the ground water, Ohio EPA considers certain information to always be required and additional information to be necessary under specific circumstances. (Put "Not Applicable" under this section heading, if your facility is operating under a detection monitoring program.)

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- The monitoring well ground water surface elevations and ground water flow directions for each sampling event.

CONCENTRATION: Ohio EPA requires that the concentration of hazardous waste or hazardous waste constituents in the ground water be documented by means of submission of:

- Results of quarterly laboratory and/or consultants reports of analyses and evaluations required by OAC Rule 3745-65-93(D)(4) including any site-specific waste stream constituents and degradation products of those constituents.
- Tables summarizing the data from the lab sheets.
- The position of the hazardous waste management unit in relation to the monitoring wells and the extent of hazardous waste or hazardous waste constituent migration (plume boundary(s)).
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Ohio EPA considers that, in addition to the above required information, submission of additional information may be necessary to meet the requirements of OAC Rule 3745-65-94(B)(2) depending upon the particular assessment program. This additional information must be sufficient to document that the rate and extent of migration and concentration of hazardous waste or hazardous waste constituents have been fully determined for the specified waste management unit. Types of information that may be essential include, but are not limited to:

a. Any additional hydrogeologic information that has been gathered using supporting methodology, i.e. soil gas analysis or geophysics.

b. Data relating to a prior detection monitoring program implemented by the owner or operator at the facility, including the original background year information pertaining to the concentration or values of the indicator parameters listed in OAC Rule 3745-65-92(B) for each upgradient ground water monitoring well.

c. Any statistical evaluations that have been utilized to fulfill the assessment monitoring performance standards.

If the assessment goals of determination of concentration and rate and extent of migration of hazardous waste constituents have not been fully met, Ohio EPA requests that the owner or operator summarize activities planned to meet these performance standards.

OEPA LTR 6/28/94
" " 7/22/94

July 18, 1994

Mr. Terry Bradway
American Steel Foundries
1001 East Broadway
Alliance, Ohio 44601

Re: Ohio EPA Letter Date 6/28/94

Dear Terry,

In response to the Ohio EPA letter of June 28, 1994, written by John Palmer, Hazardous Waste Division, concerning discrepancies in the First Quarter Monitoring Report, RMT is submitted the following comments and revisions;

1. The analytical volatile organic compound reports are being reissued with the PQL's as stated in the approved Groundwater Sampling and Analysis Plan. The sampling protocol for the remaining three (3) quarters remains the same since there was no change in instrument sensitivity or laboratory method procedures. I have attached a letter from the Director, Mr. Altstaetter, of our Laboratory which will give a more detailed explanation. RMT would like to have Mr. Altstaetter's letter submitted to the Ohio EPA.

2. The RMT laboratory has reviewed the PQL limits for tin and their consensus is that the original stated PQL of 200 μg/L was in error. The method performance for tin corresponds to a PQL of 500 μg/L, as reported. The Ohio EPA should be notified of the discrepancy.

3. Chain-of-Custody forms are attached for the first and second quarter sampling events. The third quarter report, and all future submittals, will have the chain-of-custody forms included.

4. The Groundwater Sampling and Analysis Plan does not require that potentiometric maps, which are visual representations of the submitted table of groundwater elevations, be included with the quarterly reports. It is RMT's intent to submit potentiometric maps with the one-year summary and statistical evaluation report.

If you have any further questions, please call me.

Sincerely,

Lynn Hall

Lynn Hall

c [redacted]. Wories, Jr., Chicago
[redacted] B. Wellman, Chicago

RMT INC.

RESIDUALS MANAGEMENT TECHNOLOGY, INC. — CHICAGO
999 PLAZA DRIVE - SUITE 100
SCHAUMBURG, IL - 60173-5407
708/995-1500 - 708/995-1900 FAX

July 18, 1994

Ms. Lynn Hall
Project Manager
RMT, Inc.
999 Plaza Drive
Suite 100
Schaumburg, IL 60173-5407

Re: Project 2169.17, American Steel Foundries

Dear Lynn:

The RMT Laboratory has corrected and reissued the GC/MS Volatile Organics analytical reports (reference U.S. EPA Method 8260) from Project 2169.17. These reports were generated from the December 1993 collection period.

The reason for this reissue was because the originally reported Estimated Quantitation Limits (EQLs) did not correspond to the EQLs required for this project as published in the approved Study Plan. We sincerely apologize for this oversite and hope that this did not unduly inconvenience you and American Steel Foundries.

We do not believe that data quality and/or data usability is affected by this process. The analytical work in question was performed according to U.S. EPA methodology from current SW-846 protocols and the RMT Laboratory Quality Assurance Manual and RMT written Standard Operating Procedures. The originally reported EQLs are the only report data that are affected - not the originally submitted instrument/method detection limits nor any other method acceptance/rejection criteria of the subject data.

The EQLs are generally 5 to 10 times method detection limits and may be nominally chosen within these guidelines to simplify data reporting (see attached EQL reference from SW-846). The RMT Laboratory raised some of their routinely reported GC/MS volatile organic EQLs after the originally ASF Study Plan was prepared and prior to the December 1993 sampling. This process change was implemented based in part on guidance from recent U.S. EPA Superfund analytical guidance documents.. This process change does not invalidate RMT's originally proposed lower EQLs as they are within SW-846 and RMT Quality Assurance guidelines.

You additionally requested that we review the Tin EQL that was in the Study Plan. The 200 μg/L EQL was in error. Our method performance data for Tin corresponds to a 500 μg/L EQL as originally reported to you in our analytical report.

Again, we apologize for the inconvenience. Please feel free to contact me for any additional information

Sincerely,

Chris Altstaetter

Chris C. Altstaetter
Manager, Business Development

RMT INC.

RMT LABORATORIES — MADISON, WI
744 HEARTLAND TRAIL - 53717-1934
P.O. BOX 8923 - 53708-8923
608/831-4444 - 608/831-7530 FAX

TABLE 3.
ESTIMATED QUANTITATION LIMITS FOR VOLATILE ANALYTES[a]

	Estimated Quantitation Limits		
	Ground water µg/L		Low Soil/Sediment[b] µg/kg
Volume of water purged	5 mL	25 mL	
All analytes in Table 1	5	1	5

[a] Estimated Quantitation Limit (EQL) - The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. The EQL is generally 5 to 10 times the MDL. However, it may be nominally chosen within these guidelines to simplify data reporting. For many analytes the EQL analyte concentration is selected for the lowest non-zero standard in the calibration curve. Sample EQLs are highly matrix-dependent. The EQLs listed herein are provided for guidance and may not always be achievable. See the following information for further guidance on matrix-dependent EQLs.

[b] EQLs listed for soil/sediment are based on wet weight. Normally data is reported on a dry weight basis; therefore, EQLs will be higher, based on the percent dry weight in each sample.

Other Matrices	Factor[c]
Water miscible liquid waste	50
High-concentration soil and sludge	125
Non-water miscible waste	500

[c]EQL = [EQL for low soil sediment (Table 3)] X [Factor]. For non-aqueous samples, the factor is on a wet-weight basis.

REVISED ANALYTICAL REPORTS FOR FIRST QUARTER GROUNDWATER SAMPLING EVENT

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-008
STATION ID: MW-1A
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	3	10	QB(5)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane	0.5	5	QB(0.6)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-008
STATION ID: MW-1A
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Ken P. Meer 7-15-94
Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-003
STATION ID: MW-4A
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	3	10	QB(4)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane		5	U
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-003
STATION ID: MW-4A
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Meech 7-15-94

Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-009
STATION ID: MW-13
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	3	10	QB(5)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane	0.4	5	QB(0.6)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene	0.3	5	Q
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-009
STATION ID: MW-13
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Meek 7-15-94

Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-006
STATION ID: MW-14
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/14/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	3	10	QB(5)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane	0.4	5	QB(0.6)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

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CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-006
STATION ID: MW-14
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/14/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Mach 7-15-94
Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-005
STATION ID: MW-19
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/14/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	3	10	QB(5)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform	1	5	Q
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane	0.5	5	QB(0.6)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-005
STATION ID: MW-19
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/14/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Meeh 7-15-94
Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-001
STATION ID: MW-19P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride	2	5	Q
Acrolein		100	U
Acrylonitrile		25	U
Acetone	7	10	QB(4)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform	26	5	
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane	2	5	Q
1,2-Dichloropropane		5	U
Dibromomethane	0.5	5	QB(0.5)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene	0.9	5	Q
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-001
STATION ID: MW-19P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene	0.9	5	Q
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Meier 7-15-94
Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-004
STATION ID: MW-20
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	2	10	QB(4)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane	0.4	5	QB(0.5)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-004
STATION ID: MW-20
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Meek 7-15-94

Approval Signature

RMT LABORATORIES - 744 HEARTLAND TRAIL - MADISON, WI - 53717-1934 - P.O. BOX 8923 - MADISON, WI - 53708-8923 - 608/831-4444 - 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-005
STATION ID: MW-21
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	2	10	QB(4)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane		5	U
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-005
STATION ID: MW-21
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Meier 7-14-94

Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-002
STATION ID: MW-21P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	4	10	QB(4)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane		5	U
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

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CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-002
STATION ID: MW-21P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kim P. Meier 7-15-94
Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-010
STATION ID: MW-22
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	5	10	QB(5)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane	0.4	5	QB(0.6)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

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CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-010
STATION ID: MW-22
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Meek 7-15-94

Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-006
STATION ID: MW-22P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	4	10	QB(4)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane		5	U
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-006
STATION ID: MW-22P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Meek 7-14-94
Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-011
STATION ID: MW-23
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	5	10	QB(5)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane	0.5	5	QB(0.6)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-011
STATION ID: MW-23
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Meek 7-15-94

Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-003
STATION ID: FIELD BLANK
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	10	10	QB(4)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform	0.5	5	Q
1,2-Dichloroethane		5	U
2-Butanone	4	10	Q
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane	0.5	5	QB(0.5)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-003
STATION ID: FIELD BLANK
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Meade 7-15-94

Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-001
STATION ID: TRIP BLANK 1
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 11/5/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	4	10	QB(5)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane	0.5	5	QB(0.6)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-001
STATION ID: TRIP BLANK 1
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE: 11/15/93
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Mazur 7-15-94
Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-002
STATION ID: TRIP BLANK 2
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE:
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	5	10	QB(5)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane	0.5	5	QB(0.6)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-002
STATION ID: TRIP BLANK 2
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE:
EXTRACTION DATE: -------
ANALYSIS DATE: 12/20/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Mach 7-15-94
Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-004
STATION ID: TRIP BLANK #3
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE:
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		5	U
Dichlorodifluoromethane		5	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chlorethane		10	U
Methylene chloride		5	U
Acrolein		100	U
Acrylonitrile		25	U
Acetone	4	10	QB(4)
Carbon disulfide		5	U
Trichlorofluoromethane		5	U
1,1-Dichloroethene		5	U
Iodomethane		5	U
3-Chloro-1-propene		5	U
Acetonitrile		50	U
1,1,-Dichloroethane		5	U
2-Chloro-1,3-butadiene		5	U
Propionitrile		100	U
Methacrylonitrile		100	U
Isobutanol		100	U
Chloroform		5	U
1,2-Dichloroethane		5	U
2-Butanone		10	U
1,1,1-Trichloroethane		5	U
Carbon tetrachloride		5	U
Vinyl acetate		10	U
Bromodichloromethane		5	U
1,2-Dichloropropane		5	U
Dibromomethane	0.5	5	QB(0.5)
cis-1,3-Dichloropropene		5	U
Trichloroethene		5	U
Benzene		5	U
Dibromochloromethane		5	U
1,1,2-Trichloroethane		5	U
trans-1,3-Dichloropropene		5	U
Bromoform		5	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		5	U
1,1,1,2-Tetrachloroethane		5	U
1,1,2,2-Tetrachloroethane		5	U

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CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-004
STATION ID: TRIP BLANK #3
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 07/15/94
COLLECTION DATE:
EXTRACTION DATE: -------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		5	U
Toluene		5	U
Chlorobenzene		5	U
Ethylbenzene		5	U
Styrene		5	U
Xylenes, total		5	U
1,2,3-Trichloropropane		5	U
trans-1,4-Dichloro-2-butene		50	U
1,2-Dibromo-3-chloropropane		5	U

Revised/Reissued report

Kevin P. Meem 7-15-94

Approval Signature

CHAIN-OF-CUSTODY FORMS
FOR FIRST QUARTER GROUNDWATER SAMPLING EVENT

LABORATORIES
FAX (608) 831-7530
Troy, MI

№ 037744

F-268 (R2/92)
Use Black Ink Only)

CHAIN OF CUSTODY RECORD

Bottles Prepared by: | Date/Time

Project No. 2169.17 | Client: American Steel Foundry

Filtered (Yes/No)
Preserved (Code)

Code: A - None
B - HNO3
C - H_2SO_4
D - NaOH
E - HCl
F - ZnAc+NaOH

3717 RMT Lab NO.	Yr. Date	Time	Sample Station ID	Total Number Of Containers	Container Inventory: liter pl	liter pl	D N	F N					MATRIX GW-NK 12/16/93	Comments:
003	12/14	0900	MW-3	2	1	1								added NAOH to ZnAc+NaOH
004	↓	1735	MW-12	2	1	1								bottles to adjust preservation
005	↓	1325	MW-19	2	1	1								
006	↓	1610	MW-14	2	1	1								
			Trip Blank											

SAMPLER Relinquished by (Sig.)	Date/Time	Received by (Sig.) Shipper Name & #	Date/Time
① Client		② Federal Express	12/15/93
Relinquished by (Sig.) ③	Date/Time	Received by (Sig.) ④ Shipper Name & #	Date/Time
Relinquished by (Sig.) ⑤ Federal Express	Date/Time	Received by (Sig.) ⑥ Shipper Name & # Doug Fay	Date/Time 12/16/93 1040

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)
Receipt Temp 3°C
Receipt pH unacceptable

Present/Absent | Seal | Intact/Not Intact | Seal #'s

WHITE - LABORATORY COPY

TO: RMT-SCHAUMBURG
FROM: LAB RMT LAB
JUL 18, 1994 2:27PM P.0

BORATOR
Phone (608) 831-
FAX (608) 831-7530
Troy, MI

GW-nk 12/16/93

№ 044613

58 (R2/92)
Black Ink Only)

CHAIN OF CUSTODY RECORD

ties Prepared by: DMF | Date/Time 12/01/93

ject No. 2169.17 | Client: American Steel Foundries

Filtered (Yes/No) | Preserved (Code)

Code: A - None, B - HNO3, C - H_2SO_4, D - NaOH, E - HCl, F - ZnAc + NaOH

RMT Lab NO.	Yr. '93 Date	Time	Sample Station ID	Total Number Of Containers	liter pl (A)	250 ml pl (A)	125 ml gl amb (C)	liter amb gl (C)	liter amb gl (C)	liter pl (B)	500 ml gl am (B)	liter pl (D)	liter pl (D)	40 ml gl (E)	40 mg/l trip blank (F)	Comments:
007	12/15	1110	MW-1	12	1	1	1	1	1	1	1	1	1	3		Added NAOH to all
008	12/15	1140	MW-1A	12	1	1	1	1	1	1	1	1	1	3		ZnAc+NaOH bottles
009	12/15	1325	MW-13	12	1	1	1	1	1	1	1	1	1	3		to adjust pH
010	12/15	1445	MW-22	12	1	1	1	1	1	1	1	1	1	3		
011	12/15	1610	MW-23	12	1	1	1	1	1	1	1	1	1	3		
002	—		Trip Blank 2-UNO 12/17/93	2											2	

SAMPLER
Relinquished by (Sig.) ① Randall R. Welch | Date/Time 12/15/93 | Received by (Sig.) ② Fed Ex Shipper Name & # 1238933264 | Date/Time 12/15/93

Relinquished by (Sig.) ③ | Date/Time | Received by (Sig.) ④ Shipper Name & # | Date/Time

Relinquished by (Sig.) Federal Express | Date/Time 12/16/93 1040 | Received by (Sig.) ⑤ Shipper Name & # Doug Foy | Date/Time 12/16/93 1040

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)
Receipt Temp 3°C | Receipt pH inacceptable

Present/Absent | Seal | Intact/Not Intact | Seal #'s

WHITE - LABORATORY COPY · YELLOW - REPORT APPENDIX · PINK - SAMPLER/SUBMITT

TO: RMT-SCHAUMBURG JUL 18, 1994 2:26PM P.
FROM: LAB RMT LAB

JUL 18, 1994 2:26PM P.02

LABORATORIES
Phone (608) 831-[illegible]
FAX (608) 831-7530
Baton Rouge, LA
Troy, MI

F-268 (R2/88)
(Use Black Ink Only)

CHAIN OF CUSTODY RECORD

Sample Type: (GW, WW, SW, Soil, Other) AK 12/16/93

№ 034028

72870-4

Bottles Prepared by: | Date/Time | Office Code: (State)

Project No. 2169.17 2169.17 see 12/2/93 | Client: ASF

Filtered (Yes/No) N N N Y Y N N
Preserved (Code) A C A B B E C E
Refrigerated (Yes/No) Y Y Y Y Y Y Y Y

Code: A - None
B - HNO3
C - H_2SO_4
D - NaOH
E - HCl

3712 RMT Lab NO.	Yr. 93 Date	Time	Sample Station ID	Total Number Of Containers	Container Inventory: 1L pl	1L gl am	250 ml pl	1L pl	500 gl am	40 ml gl	125 ml gl	40 ml	Comments:
003	12/14	0900	MW-3	10	1	2	1	1	1	3	1		~~Added NaOH to all Zn~~ DMF 12/16/93
004	↓	1735	MW-12	10	1	2	1	1	1	3	1		
005	↓	1325	MW-19	10	1	2	10*	1	1	3	1		*Bottle not found during bottle inventory
006	↓	1610	MW-14	10	1	2	1	1	1	3	1		
001	11/15		Trip Blank 1 - LAB 12/17/93	2								2	

SAMPLER Relinquished by (Sig.)	Date/Time	Received by (Sig.)	Date/Time
① Randall L Welch	12/14/93 1945	② Fed Ex Shipper Name & # 0704383234	
③		④ Shipper Name & #	
⑤ Fedex	12/15/93 1:05 pm	⑥ Betsy Nallapfeld Shipper Name & #	12/15/93 1:05 pm

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)
Receipt Temp 3°C Receipt pH [illegible]
Client P.O. Number.
Subsequent Analysis: (Check)
Date Resubmitted

Seal # NA at'chd by ◯ Recvd. Intact by ◯ Seal # at'chd by ◯ Recvd. Intact by ◯

FROM: LAB RMT LAB TO: RMT-SCHAUMBURG

RMT LABORATORIES
744 Heartland Trail
Phone (608) 831-4444
FAX (608) 831-7530
Atlanta, GA
Baton Rouge, LA
Troy, MI
Nashville, TN
Schaumburg, IL
Waukesha, WI

F-268 (R2/92)
(Use Black Ink Only)

CHAIN OF CUSTODY RECORD

GW-nk 12/20/93

№ 040326

Bottles Prepared by: | Date/Time

Project No. 2169.17 | Client: ASF

Filtered (Yes/No) N Y N N N Y N N
Preserved (Code) A B D F C B A C

Code: A - None
B - HNO3
C - H_2SO_4
D - NaOH
E - HCl
F - Zn Act Na OH

RMT 3746 Lab NO.	Yr. 93 Date	Time	Sample Station ID	Total Number Of Containers	Container Inventory: 1L pl	1L pl	1L pl	1L pl	1L gl am	500 ml gl am	250 pl	125 ml gl am	40 ml gl	60 ml pl	Comments:
001	12/17	0940	MW-19P	12	1	1	1	1	2	1	1	1	3		
002	12/17	0810	MW-21P	12	1	1	1	1	2	1	1	1	3		Added NaOH to 1 liter pl (sulfide) to adjust pH.
003	12/17	1100	Field Blank	12	1	1	1	1	2	1	1	1	3		
004	—		Trip Blank	2									2		
005			Temp Blank	1										1	
006	12/17	1035	MW-19	1							1				Added to C-O-C

SAMPLER Relinquished by (Sig.)	Date/Time	Received by (Sig.)	Date/Time
① Randall Welch	12/17/93 1400	② Fed Ex Shipper Name & # Airbill 0718579326	
Relinquished by (Sig.) ③	Date/Time	Received by (Sig.) ④ Shipper Name & #	Date/Time
Relinquished by (Sig.) ⑤ Fedex	Date/Time 12/20/93 11:00 pm	Received by (Sig.) ⑥ Betsy Nallefeld Shipper Name & #	Date/Time 12/20/93 11:00 pm

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)
Receipt Temp 5.0 C
Receipt pH unacceptable

Custody Seal Na Present/Absent | Seal | Intact/Not Intact | Seal #'s

WHITE - LABORATORY COPY

RMT LABORATORIES

Madison, WI 53... 744 Heartland Trail Phone (608) 831-4444 FAX (608) 831-7530

...nta N..., CA Atlanta, GA Baton Rouge, LA Troy, MI

...Led... Nashville, TN

...envil... Schaumburg, IL

...n, O... Waukesha, WI

F-268 (R2/92)
(Use Black Ink Only)

CHAIN OF CUSTODY RECORD

№ 044614

Bottles Prepared by: | Date/Time

Project No. 2169.17 | Client: ASF

3728

Filtered (Yes/No) / Preserved (Code): N A, N D, N F, Y B, N C, Y B, N A, N C, N E

Code: A - None, B - HNO3, C - H_2SO4, D - NaOH, E - HCl, F - ZnAc + NaOH

RMT Lab NO.	Yr. '93 Date	Time	Sample Station ID	Total Number Of Containers	Container Inventory: 1 Liter pl	1 Liter pl	1 Liter pl	1 Liter pl	1 Liter gl am	1 Liter gl am	500 ml gl am	250 ml pl	125 ml gl am	40 ml vial	Comments:
001	12/16	1640	MW-2	12	1	1	1	1	2	1	1	1	3		Added NaOH to 1x1L
002	12/16	1010	MW-4 *	12	1	1	1	1	2	1	1	1	3		pl - Sulfides to
003	12/16	0810	MW-4A	12	1	1	1	1	2	1	1	1	3		all Samples BJN 12/17/93
004	12/16	1505	MW-20	12	1	1	1	1	2	1	1	1	3		
005	12/16	1310	MW-21	12	1	1	1	1	2	1	1	1	3		
006	12/16	1410	MW-22P	12	1	1	1	1	2	1	1	1	3		
~~007~~			~~Trip Blank #3 BJN 12/17/93~~	~~2~~											Did not receive 12/17/93
															*MW4 1x2L amber's H2SO4 received with cap broken BJN 12/17/93

SAMPLER Relinquished by (Sig.)	Date/Time	Received by (Sig.)	Date/Time
① Randall L Welch 12/16/93	12/16/93 1900	② Fed Ex Shipper Name & # airbill 0718579422	
Relinquished by (Sig.) ③	Date/Time	Received by (Sig.) ④ Shipper Name & #	Date/Time
Relinquished by (Sig.) ⑤ Fedex	Date/Time 12/17/93 10:45	Received by (Sig.) ⑥ Betsy Naulefeld Shipper Name & #	Date/Time 12/17/93 10:45

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)

Receipt Temp: 3.0 C

Receipt pH: unacceptable See Comment

Custody Seal NA Present/Absent | Seal | Intact/Not Intact | Seal #'s

WHITE - LABORATORY COPY YELLOW - REPORT APPENDIX PINK - SAMPLER/SUBMITTER

CHAIN-OF-CUSTODY FORMS
FOR SECOND QUARTER GROUNDWATER SAMPLING EVENT

Sheet #1

RMT INC. LABORATORIES
Madison, WI 53717
744 Heartland Trail
Phone (608) 831-4444
FAX (608) 831-7530
Fox Valley, WI
Columbus, OH
Milwaukee, WI
Nashville, TN
Greenville, SC
Augusta, GA
Lansing, MI
Chicago, IL
Los Angeles, CA
Cincinnati, OH
Madison, WI

F-268 (R2/92)
(Use Black Ink Only)

CHAIN OF CUSTODY RECORD

046064

Bottles Prepared by: FOY
Date/Time: 3-8-94

Project No.: 21694
Client: ASF

Filtered (Yes/No): N N Y Y N N N
Preserved (Code): A E B B D F A

Code: A - None
B - HNO3
C - H_2SO_4
D - NaOH
E - HCl
F - 2nAc NaOH

Lab No.	Yr. 1994 Date	Time	Sample Station ID	Total Number Of Containers	Container Inventory: 60ml pl	40ml vial	liter pl	500ml glass	liter pl	liter pl	liter pl	MATRIX	Comments:
			Trip Blank	1	1							gw	these samples
			Trip Blank	2		2							collected
	3/15	1715	MW-1A	12		3	1	1	1	1	1		3/15/94 not
	3/15/94	1240	MW-4A	12		3	1	1	1	1	1		
		1430	MW-14	12		3	1	1	1	1	1		3/14/94 as labeled!
		1010	MW-21	12		3	1	1	1	1	1		
		1120	MW-22	12		3	1	1	1	1	1		
		1155	MW-22P	12		3	1	1	1	1	1		
		1540	MW-13	12		3	1	1	1	1	1		

SAMPLER	Date/Time	Received by (Sig.)	Date/Time
Relinquished by (Sig.) ① Randall Lubitsch	3/14/94 1900	② Federal Express Shipper Name & # airbill 15115 19865	3/15/94 1900
Relinquished by (Sig.) ③		Received by (Sig.) ④ Shipper Name & #	
Relinquished by (Sig.) ⑤		Received by (Sig.) ⑥ Shipper Name & #	

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)
Receipt Temp
Receipt pH

Sheet #2

RMT INC. LABORATORIES

Madison, WI 53717
744 Heartland Trail
Phone (608) 831-4444
FAX (608) 831-7530

Fox Valley, WI
Columbus, OH
Milwaukee, WI

Nashville, TN
Greenville, SC

Augusta, GA
Lansing, MI

Chicago, IL
Los Angeles, CA

Cincinnati, OH
Madison, WI

F-268 (R2/92)
(Use Black Ink Only)

CHAIN OF CUSTODY RECORD

No. 046065

Bottles Prepared by: FOY
Date/Time: 3-5-94

Project No.: 216917
Client: ASF

Filtered (Yes/No)
Preserved (Code)

Code: A - None
B - HNO3
C - H_2SO4
D - NaOH
E - HCl
F - ____

Lab No.	Yr. 1994 Date	Time	Sample Station ID	Total Number Of Containers	Container Inventory: 250 ml/ml	125 ml/gal amb	liter/gal amb					MATRIX	Comments:
	3/15	1715	MW-1A	see	1	1	2					gw	these samples collected
	3/15/94	1290	MW-4A	see	1	1	2						3/15/94 not
		1430	MW-14	see	1	1	2						
		1010	MW-21	sheet	1	1	2						3/14/94 as labeled!
		1120	MW-22	eq	1	1	2						
		1155	MW-22P		1	1	2						
		1540	MW-13	#1									
				for									
				total									

SAMPLER	Date/Time	Received by (Sig.)	Date/Time
Relinquished by (Sig.) ① Randall L Welch	3/14/94 1900	② Federal Express Shipper Name & # airbill 1511549885	3/14/94 1900
Relinquished by (Sig.) ③		Received by (Sig.) ④ Shipper Name & #	
Relinquished by (Sig.) ⑤		Received by (Sig.) ⑥ Shipper Name & #	

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)

Receipt Temp

Receipt pH

stody Pres sent al Inta Intac

RMT INC. LABORATORIES
Madison, WI 53717
744 Heartland Trail
Phone (608) 831-4444
FAX (608) 831-7530
Fox Valley, WI
Columbus, OH
Milwaukee, WI
Nashville, TN
Greenville, SC
Augusta, GA
Lansing, MI
Chicago, IL
Los Angeles, CA
Cincinnati, OH
Madison, WI

F-268 (R2/92)
(Use Black Ink Only)

CHAIN OF CUSTODY RECORD

SHEET #2

046066

Bottles Prepared by: | Date/Time:

Project No.: 2169/8 | Client: ASF

Container Inventory: 250 ml pl | 125 glom | liter glom

Filtered (Yes/No): N N N
Preserved (Code): A C C

Code: A - None
B - HNO3
C - H_2SO4
D - NaOH
E - HCl
F - ____

Lab No.	Yr. 94 Date	Time	Sample Station ID	Total Number Of Containers	250 ml pl	125 glom	liter glom					MATRIX	Comments:
	3/16	0815	Field Blank	Sea	1	1	2						
		1020	MW-19	Sheet	1	1	2						
		1310	MW-19P	#1	–	–	–						
		0930	MW-20		1	1	2						
		1110	MW-21P	for	1	1	2						
		1205	MW-23	totals	1	1	2						

SAMPLER
Relinquished by (Sig.) ① Randall L Welch | Date/Time 3/16/94 1600 | Received by (Sig.) ② Federal Express | Date/Time 3/16/94 1600
Shipper Name & # airbill 1238929296

Relinquished by (Sig.) ③ | Date/Time | Received by (Sig.) ④ | Date/Time
Shipper Name & #

Relinquished by (Sig.) ⑤ | Date/Time | Received by (Sig.) ⑥ | Date/Time
Shipper Name & #

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)
Receipt Temp | Receipt pH

Custody | Present | Intact

RMT INC. LABORATORIES
Madison, WI 53717
744 Heartland Trail
Phone (608) 831-4444
FAX (608) 831-7530
Fox Valley, WI
Columbus, OH
Milwaukee, WI
Nashville, TN
Greenville, SC
Augusta, GA
Lansing, MI
Chicago, IL
Los Angeles, CA
Cincinnati, OH
Madison, WI

F-268 (R2/92)
(Use Black Ink Only)

CHAIN OF CUSTODY RECORD

046068

Bottles Prepared by: | Date/Time:

Project No: 216918 | Client:

Filtered (Yes/No): N N Y Y N N N
Preserved (Code): A E B B D F A

Code: A - None
B - HNO3
C - H_2SO4
D - NaOH
E - HCl
F - _____

Lab No.	Yr. 94 Date	Time	Sample Station ID	Total Number Of Containers	Container Inventory: 60 ml pl	40 ml vial	1 liter pl	500 ml gl am	liter pl	liter pl	liter pl	MATRIX	Comments:
	3/16	0815	Field Blank	12		3	1	1	1	1	1	SW	
		1020	MW-19	12		3	1	1	1	1	1		
		1310	MW-19P	3		3	-	-	-	-	-		
		0930	MW-20	12		3	1	1	1	1	1		
		1110	MW-21P	12		3	1	1	1	1	1		
		1205	MW-23	12		3	1	1	1	1	1		

SAMPLER
Relinquished by (Sig.) ① [signature] | Date/Time 3/16/94 1600 | Received by (Sig.) ② Federal Express Shipper Name & # airbill 1238929296 | Date/Time 3/16/94 1600

Relinquished by (Sig.) ③ | Date/Time | Received by (Sig.) ④ Shipper Name & # | Date/Time

Relinquished by (Sig.) ⑤ | Date/Time | Received by (Sig.) ⑥ Shipper Name & # | Date/Time

HAZARDS ASSOCIATED WITH SAMPLES

(For Lab Use Only)
Receipt Temp _____ Receipt pH _____

Custody Seal _____ Present/Absent _____ Seal _____ Intact/Not Intact _____ Seal #'s _____

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY · ALLIANCE, OHIO 44601 · (216) 823-6150
FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

April 01,1994

Certified Mail

Director
Ohio Environmental Protection Agency
P.O. Box 1049
Columbus, Ohio 43266-0149

P 738 585 692

Mr. John Palmer
Environmental Specialist
Division of Hazardous Waste Management
Northeast District Office
2110 E. Aurora Road
Twinsburg, Ohio 44087-1969

P 738 585 693

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
SEBRING LANDFILL GROUNDWATER SAMPLING

Mr. John Palmer's attached letter of March 11, 1994 has been received and evaluated. He states that Ohio EPA has finished a preliminary review of the Ground Water Sampling Report and has offered the following comments.

Our responses are numbered in sequence with Mr. Palmer's comments and are as follows:

1. The proposed target analyses for the second, third and fourth quarter monitoring events were approved by the Ohio EPA as listed in the RMT report dated February 15, 1994.

2. ASF concurs that beryllium, cyanide, thallium and vanadium were to be EXCLUDED from the testing analyses approved by the Ohio EPA.

3. The assumption that American Steel Foundries was analyzing for pH and specific conductance in the Laboratory was in error. Ms. Mary Lynn Hall from RMT Inc. has assured me in her letter dated March 24, 1994 that only field testing of these parameters are being performed in accordance with the approved plan.

4. Mr. Palmer has requested that Indicator Parameters be run in quadruplicate on each monitoring well.

This testing protocol is NOT part of the currently approved Sampling and Analysis Plan and significantly expands the laboratory work requirements and cost of the groundwater testing program.

American Steel Foundries respectfully requests that this decision be re-evaluated because the current approved plan does provide a significant data base for each well. Although quadruplicate sampling provides additional base line data for OEPA review, it is redundant. Any questionable result can be tagged and tracked through the continuous monitoring requirements within the existing approved plan.

5. We have attached several copies of the current Sebring Facility Closure Plan site map for Ohio EPA use in accordance with your request.

Should you have any additional requests, comments or concerns, please do not hesitate to call Mr.T.C.Bradway, Environmental Manager, at (216) 823-6150 Ext. 206.

Very truly yours,

J.F. Oesch RBR

J.F.Oesch
Plant Manager

cc: RSW
DJM
JW
EJB
RML
RBR
TCB

Chief RCRA Enforcement Branch, HRE-8J P 738 585 686
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago , Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V P 738 585 687
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Ohio EPA P 738 585 694
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O.Box 1049
Columbus, Ohio 43268-0149

Ohio EPA P 738 585 689
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA P 738 585 690
Supervisor, Division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

P. C. Schillawski P 738 585 691
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Attachment

C:\WP51\HAZWASTE\GRDWATER.394

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY • ALLIANCE, OHIO 44601 • (216) 823-6150
FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

RECEIVED
MAR 09 1995
OFFICE OF RCRA
WASTE MANAGEMENT DIVISION
EPA, REGION V

March 3, 1994

NOTIFICATION OF ERROR

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 **Z 055 522 248**
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 055 522 249**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
SURCHARGE AND SETTLEMENT MONITORING PLAN
SEBRING LANDFILL
AND
GROUNDWATER SAMPLING RESPONSE TO COMMENTS

The two subject documents were sent **unsigned** in error by certified mail under the certification number shown next to your address on this notice. Please replace the unsigned letter you received with the attached signed letter.

American Steel Foundries apologizes for any inconvenience that this error may have caused. If you have any additional questions, comments or concerns, please do not hesitate to call me at (216) 823-6150 Ext. 206.

Very truly yours,

T.C. Bradway

T.C.Bradway
Environmental Manager

C:\WP51\LANDFILL\LFCLPNNM.395

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: REB
JW
BMW\RSW
RML
RBR

Ohio EPA **P 401 620 093**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **P 401 620 095**
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **P 401 622 096**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

P. C. Schillawski **P 401 622 097**
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District **P 401 622 098**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

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FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

February 28, 1994

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, HRE-8J **Z 055 522 248**
U.S. EPA, Region V
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Barbara Mazur

Chief, SWERB Section V **Z 055 522 249**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)

GROUNDWATER SAMPLING REPORT RESPONSE TO COMMENTS

This submittal is intended to meet the progress report requirements of Section X of the Consent Decree and the reporting requirements of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this Decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

3. Within thirty (30) days after entry of this Consent Decree, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a Groundwater Quality Assessment Plan for the Sebring facility in accordance with 40 C.F.R. # 265.93 and Ohio Admin. Code # 3745-65-93. Within 30 days of receipt of comments from U.S. EPA identifying any deficiencies in the Groundwater Quality Assessment Plan, Defendant shall submit to U.S. EPA, with a

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copy to Ohio EPA, a revised Plan that corrects any deficiencies identified by the U.S. EPA. The defendant shall implement the U.S. EPA approved or modified Groundwater Quality Assessment Plan within 30 days of U.S. EPA approval of the Plan.

5. Defendant shall submit to U.S.EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

American Steel Foundries has prepared the following response to the June 28, 1994 correspondence from Mr. John Palmer, Ohio EPA, Northeast District Office, Division of Hazardous Waste Management. This Correspondence is pursuant to Ohio EPA review of the February 23, 1994 submittal of the groundwater sampling analytical results.

RESPONSE

American Steel Foundries addressed all four of Mr. John Palmer's response to comments in a December 21, 1994 letter from Mr. John F. Oesch, Pant Manager, American Steel Foundries and is completing the response to comment #4 with this submittal.

Response to Comment #4

American Steel Foundries will include potentiometric maps and GRITS/STAT electronic data disk with each future sampling event. Additionally, American Steel Foundries has included, with this letter, a complete set of GRITS/STAT system backup disks for all four of the quarterly sampling events performed during the past 15 months. The complete system backup was provided because we are experiencing difficulty copying the individual sampling events and do not wish to delay submittal of the information any longer.

American Steel Foundries is documenting that we have addressed all four of the Ohio EPA's comments in the subject correspondence and considers the matter complete.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Oesch
PLANT MANAGER

Attachment = GRITS/STAT data disks to OEPA John Palmer

C:\WP51\HAZWASTE\USVAMSTE.295

cc: BMW/RSW
JW
REB
RML
RBR

Ohio EPA **P 401 620 093**
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43268-0149

Ohio EPA **P 401 620 095**
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA **P 401 620 096**
Supervisor, division of Solid and Infectious Waste Management
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

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P. C. Schillawski **P 401 620 097**
Squire Sanders & Dempsey
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Cleveland, Ohio 44114-1304

Mahoning County Health District **P 401 620 098**
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

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FAX NO. (216) 821-4568

JOHN OESCH
PLANT MANAGER

February 23, 1994

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

P 738 585 663

RECEIVED
MAR 2 1994
OFFICE OF RCRA
WASTE MA MENT DIVISION
EP RION V

Chief RCRA Enforcement Branch, 5HR-12
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: Barbara Mazur

P 738 585 664

Chief, SWERB Section V
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)
GROUNDWATER SAMPLING REPORT

SAMPLING REPORT NO.1

This submittal is intended to meet the sampling and analysis reporting requirements of the Consent Decree and the reporting requirements of Section V. Item 12 of the Ohio Consent Order NO. 1993CV01107. The numbering of each item conforms with the Consent Decree Sequence.

E. SEBRING FACILITY - GROUNDWATER REQUIREMENTS

1. All sampling and analysis procedures performed under this decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

5. Defendant shall submit to U.S. EPA and Ohio EPA written reports containing the results of all analyses conducted pursuant to the Groundwater Quality Assessment Plan of paragraph E.3 above, in accordance with the reporting requirements set forth therein and 40 C.F.R. # 265.93 and 265.94 and Ohio Admin. Code # 3745-65-93 and 94.

ONE OF THE Amsted INDUSTRIES

6. In the event that the sampling and analyses conducted pursuant to the approved Groundwater Quality Assessment Plan for the Sebring Facility reveals that hazardous waste or constituents have entered the groundwater, Defendant shall so notify U.S. EPA and Ohio EPA in writing within ten (10) days, and shall continue to monitor groundwater in accordance with the requirements of 40 C.F.R. # 265.93 (d) (7), Ohio Admin. Code #3745-65-93 (d) (7) and the Groundwater Quality Assessment Plan.

Attached for your review are the results of the first quarter groundwater sampling event conducted December 14 through 17, 1993 at the American Steel Foundries Sebring Landfill.

Based on the results of the first report, it does not appear that the Sebring Facility is affecting groundwater quality.

In accordance with the EPA approved Groundwater Quality Assessment Plan and the Groundwater Sampling and Analysis Plan, parameters for the next three quarterly sampling events are to be determined from the results of the first sampling.

We are preparing for the next quarterly sampling event, during the week of March 14, 1994 and propose that the sampling program for the second, third and fourth quarter monitoring periods include the following:

1. Water quality and indicator parameters (table 3-1 of the plan).

2. Selected appendix IX metals as set forth in table 3-3 of the plan, revised. These metals are:
   a. beryllium
   b. cyanide
   c. thallium
   d. vanadium

3. Compounds found in the ASF Alliance Facility waste streams as set forth in table 3-5 of the plan.

4. Chloroform was detected in at upgradient well MW-19. Due to the upgradient location, we do not believe that the chloroform is due to the facility but will continue to test for that volatile organic compound. No other volatile organic compounds were detected above PQL. We are not including them in future tests.

Since the next test period is quickly approaching, we trust that this plan meets with U.S. and Ohio EPAs' approval. However, if adjustments are required, please contact Mr. T.C.Bradway, Environmental Manager, American Steel Foundries, 1001 E. Broadway St., Alliance, Ohio 44601, (216) 823-6150 Ext. 206.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

Yours very truly,

J. F. Gesch
PLANT MANAGER

TCB

Attachments

cc: RSW
DJM
JW
ERH
RML
RBR

Ohio EPA **P 738 585 665**
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Ohio EPA **P 738 585 682**
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Mahoning County Health District
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

February 15, 1994

Mr. Terry Bradway
American Steel Foundries
1001 East Broadway
Alliance, Ohio 44601

Re: Results of December, 1993 Groundwater Sampling - First Quarter
American Steel Foundries - Sebring Facility
Alliance, Ohio

Dear Terry,

This letter report presents the results of the first quarterly groundwater sampling conducted at the American Steel Foundries (ASF) Sebring Facility located in Alliance, Ohio. Sampling was performed by RMT, Inc. during the period December 14 through 17, 1993 in accordance with the Groundwater Quality Assessment Plan (RMT, Inc., 1992) and Groundwater Sampling and Analysis Plan (RMT, Inc., 1992).

Description of Monitoring Program

The Groundwater Quality Assessment Plan (Plan) requires that during the first quarterly sampling wells MW-1A, MW-4A, MW-13, MW-14, MW-19, MW-19P, MW-20, MW-21, MW-21P, MW-22, MW-22P, MW-25P, and MW-23 be sampled and analyzed for:

- Water quality and indicator parameters (Table 3-1 of the Plan)
- Volatile organic compounds (Table 3-2 of the Plan)
- Appendix IX Metals (Table 3-3 of the Plan)

After the first quarterly sampling, the results are to be reviewed and the sampling program for the following three quarters established. This sampling program is to include:

- Water quality and indicator parameters (Table 3-1 of the Plan)
- Compounds found in the ASF Alliance facility waste stream (Table 3-5 of the Plan)
- Compounds detected at concentrations above the practical quantitation limits (PQL) during this first quarterly sampling round

RMT INC.

RESIDUALS MANAGEMENT TECHNOLOGY, INC. — CHICAGO
999 PLAZA DRIVE · SUITE 100
SCHAUMBURG, IL · 60173-5407
708/995-1500 · 708/995-1900 FAX

2169.17:MSZ:ASF0208

Discussion of Analytical Results

Volatile organic compounds (VOCs) were not detected above the PQL with one exception. Chloroform was detected at 26 μg/L at upgradient well MW-19P. Well MW-19P is the deeper well at well nest MW19/MW-19P and is screened in the bedrock. Based on its upgradient location, the chloroform is not due to the landfill.

Several VOCs were detected below the PQL. These VOCs were qualified by the laboratory because the compounds were also found in the method blank. These VOCs, therefore, are not the result of the landfill. A summary of organic analytical results is presented in Appendix A. Organic analytical laboratory reports showing the equipment quantitation limit (EQL), which is equivalent to the PQL, and the results, are presented in Appendix B. Laboratory data qualifiers are discussed in Appendix C.

Several inorganic analytes exceeded the PQLs. However, concentrations of these analytes were well below the Maximum Contaminant Levels (MCLs) established by the Safe Drinking Water Act (SDWA) with one exception. The concentration of nickel at well MW-13 (160 μg/L) exceeded the proposed MCL of 100 μg/L. Inorganic analytes which did not exceed the PQLs included:

- Beryllium
- Chromium
- Cyanide
- Lead
- Mercury
- Selenium
- Silver
- Thallium
- Tin
- Vanadium

Inorganic analytical results are presented in Appendix A.

Groundwater Level Measurements and Well Inspections

Groundwater level measurements were collected concurrently with the first quarterly sampling event. Groundwater elevations are presented on Table 1. Based on these groundwater elevations groundwater flow direction is toward the west, consistent with previous observations.

Each well was inspected prior to sampling. Based on that inspection, each well is in good working order and no redevelopment or repair is necessary at this time.

Proposed Second, Third, and Fourth Quarter Monitoring

During the second, third, and fourth quarter monitoring the following parameters will be analyzed:

- Water quality and indicator parameters (Table 3-1 of the Plan)

- Selected Appendix IX metals (Table 3-3 of the Plan, revised)
- Compounds found in ASF wastestream (Table 3-5 of the Plan)

The selected Appendix IX metals list excludes the following compounds that were not detected above the PQL and that are not on Table 3-5 of the Plan: beryllium, cyanide, thallium, and vanadium. RMT recommends that VOCs not be analyzed during subsequent quarters because the only VOC detected was chloroform at one upgradient well. Therefore VOCs are not being released from the landfill and should not be considered contaminants of concern. The list of parameters for the second, third and fourth quarters are summarized on the attached Tables 3-1, 3-3, and 3-5.

Conclusion

Based on the results from the first quarterly sampling event, it does not appear that the landfill is affecting groundwater quality. The results of the subsequent three sampling events will be evaluated and a summary report prepared after the fourth quarter sampling. This report will discuss hydrogeologic conditions in more detail.

If you have any questions regarding this report please contact us.

Sincerely,
RMT, Inc.

Alan J. Schmidt

Alan J. Schmidt, C.P.G.

Lynn Hall

Lynn Hall
Project Manager

cc: Mr. John Wories, Jr., ASF

Table 1

GROUNDWATER ELEVATIONS
SEBRING FACILITY
AMERICAN STEEL FOUNDRIES
ALLIANCE, OHIO

Well Designation	Geologic Material	Top of Casing Elevation	December 14-17, 1994	
			Depth to Water	Groundwater Elevation
MW-1	Shale	1126.73	34.11	1092.62
MW-1A	Shale	1126.09	34.66	1091.43
MW-2	Shale	1101.96	24.32	1076.64
MW-3	Spoils	1093.14	15.53	1076.61
MW-4	Spoils	1085.13	7.90	1077.23
MW-4A	Spoils	1085.20	8.05	1077.15
MW-12	Sand and Spoils	1087.94	9.69	1078.25
MW-13	Spoils	1107.70	27.21	1080.49
MW-14	Shale	1131.18	49.52	1081.66
MW-19	Bedrock	1141.16	27.64	1113.52
MW-19P	Bedrock	1141.36	66.24	1075.12
MW-20	Bedrock	1113.21	41.48	1071.73
MW-21	Spoils	1101.12	21.82	1079.30
MW-21P	Bedrock	1100.17	21.92	1078.25
MW-22	Spoils	1091.01	13.18	1077.83
MW-22P	Bedrock	1091.23	19.60	1071.63
MW-23	Spoils	1107.81	18.16	1089.65

Table 3-1[1]

WATER QUALITY PARAMETERS AND WASTE CONSTITUENT ANALYTICAL METHODS AND PRACTICAL QUANTITATION LIMITS

Parameters	SW-846 Analytical Method	Practical Quantitation Limits
pH	9040/9041	0.1 pH unit
Alkalinity, carbonate/bicarbonate	403	20 mg/L
Total Organic Carbon	9060	0.25 mg/L
Total Organic Halogen	9020	0.010 mg/L
Iron - ICP[2]	6010	0.10 mg/L
Chloride[2]	9250	2.0 mg/L
Fluoride[2]	EPA 340.2	0.1 mg/L
Manganese - ICP[2]	6010	0.005 mg/L
Nitrate, Nitrogen	9200	0.05 mg/L
Phenols (colorimetric)[2]	9066	0.01 mg/L
Sodium - ICP	6010	0.50 mg/L
Specific Conductance	9050	10 μmhos/cm
Sulfate[2]	9036	10 mg/L

Notes:

Practical Quantitation Limits are for RMT Laboratories.
ICP - Inductively Coupled Plasma Emission Spectrophotometry.
(1) Table originally presented in Groundwater Sampling and Analysis Plan (RMT, 1992).
(2) Compound or element is found in ASF wastestream.

Revised Table 3-3[1]

APPENDIX IX - METALS, METHODS OF ANALYSIS AND PRACTICAL QUANTITATION LIMITS (PQL's)

Analyte	PQL in μg/L	SW-846 Method
Antimony	10	7041
Arsenic[2]	3	7060
Barium[2]	50	6010
Cadmium[2]	0.3	7131
Chromium (total)[2]	2	7191
Cobalt	50	6010
Copper	3	7211
Lead[2]	3	7421
Mercury[2]	0.2	7470,7471
Nickel[2]	40	6010
Selenium[2]	3	7740
Silver[2]	1	7761
Tin	200	RMT Lab Internal
Zinc[2]	20	6010
Sulfide (total)	1000	9030

Notes:

(1) Table originally presented in Groundwater Sampling and Analysis Plan (RMT, 1992). Revised based on First Quarter groundwater sampling results.

(2) Compound or element is found in ASF wastestream.

Table 3-5[1]	
COMPOUNDS FOUND IN ASF WASTESTREAM	
Arsenic	Lead
Barium	Manganese
Cadmium	Mercury
Chloride	Nickel
Chromium	Phenol
Fluoride	Selenium
Iron	Silver
Sulfate	Zinc

Note:

(1) Table originally presented in Groundwater Sampling and Analysis Plan (RMT, 1992).

Appendix A

SUMMARY OF ANALYTICAL RESULTS

PROJECT NUMBER: 2169.17
BEGINNING DATE: 01-DEC-93
ENDING DATE: 01-JAN-94

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
VOLATILE ORGANIC RESULTS

PARAMETER	UNITS	FIELD BLANK 17-DEC-93 3746-003		MW-01A 15-DEC-93 3717-008		MW-04A 16-DEC-93 3728-003		MW-13 15-DEC-93 3717-009		MW-14 14-DEC-93 3717-006		MW-19 14-DEC-93 3717-005	
1,1,1,2-TETRACHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,1,1-TRICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,1,2,2-TETRACHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,1,2-TRICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,1-DICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,1-DICHLOROETHENE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2,3-TRICHLOROPROPANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2-DIBROMOETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2-DICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2-DICHLOROETHENE, TOTAL	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2-DICHLOROPROPANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
2-BUTANONE	UG/L	4	Q	< 10		< 10		< 10		< 10		< 10	
2-CHLORO-1,3-BUTADIENE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
2-HEXANONE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
3-CHLORO-1-PROPENE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
4-METHYL-2-PENTANONE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
ACETONE	UG/L	10	QB	3	QB	3	QB	3	QB	3	QB	3	QB
ACETONITRILE	UG/L	< 20		< 20		< 20		< 20		< 20		< 20	
ACROLEIN	UG/L	< 20		< 20		< 20		< 20		< 20		< 20	
ACRYLONITRILE	UG/L	< 20		< 20		< 20		< 20		< 20		< 20	
BENZENE	UG/L	< 10		< 10		< 10		0.3	Q	< 10		< 10	
BROMODICHLOROMETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
BROMOFORM	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
BROMOMETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CARBON DISULFIDE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CARBON TETRACHLORIDE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CHLOROBENZENE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CHLORODIBROMOMETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CHLOROFORM	UG/L	0.5	Q	< 10		< 10		< 10		< 10		1	Q
CHLOROMETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CIS-1,3-DICHLOROPROPENE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
DIBROMOMETHANE	UG/L	0.5	QB	0.5	QB	< 10		0.4	QB	0.4	QB	0.5	QB
DICHLORODIFLUOROMETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	

04-FEB-94

mnvalid:MWO.BJC

PROJECT NUMBER. 2169.17
BEGINNING DATE: 01-DEC-93
ENDING DATE: 01-JAN-94

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
VOLATILE ORGANIC RESULTS

PARAMETER	UNITS	MW-19P 17-DEC-93 3746-001		MW-20 16-DEC-93 3728-004		MW-21 16-DEC-93 3728-005		MW-21P 17-DEC-93 3746-002		MW-22 15-DEC-93 3717-010		MW-22P 16-DEC-93 3728-006	
1,1,1,2-TETRACHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,1,1-TRICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,1,2,2-TETRACHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,1,2-TRICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,1-DICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,1-DICHLOROETHENE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2,3-TRICHLOROPROPANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2-DIBROMOETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2-DICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2-DICHLOROETHENE, TOTAL	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
1,2-DICHLOROPROPANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
2-BUTANONE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
2-CHLORO-1,3-BUTADIENE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
2-HEXANONE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
3-CHLORO-1-PROPENE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
4-METHYL-2-PENTANONE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
ACETONE	UG/L	7	QB	2	QB	2	QB	4	QB	5	QB	4	QB
ACETONITRILE	UG/L	< 20		< 20		< 20		< 20		< 20		< 20	
ACROLEIN	UG/L	< 20		< 20		< 20		< 20		< 20		< 20	
ACRYLONITRILE	UG/L	< 20		< 20		< 20		< 20		< 20		< 20	
BENZENE	UG/L	0.9	Q	< 10		< 10		< 10		< 10		< 10	
BROMODICHLOROMETHANE	UG/L	2	Q	< 10		< 10		< 10		< 10		< 10	
BROMOFORM	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
BROMOMETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CARBON DISULFIDE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CARBON TETRACHLORIDE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CHLOROBENZENE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CHLORODIBROMOMETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CHLOROETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CHLOROFORM	UG/L	26		< 10		< 10		< 10		< 10		< 10	
CHLOROMETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
CIS-1,3-DICHLOROPROPENE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	
DIBROMOMETHANE	UG/L	0.5	QB	0.4	QB	< 10		< 10		0.4	QB	< 10	
DICHLORODIFLUOROMETHANE	UG/L	< 10		< 10		< 10		< 10		< 10		< 10	

04-FEB-94

mnvalid:MWO.BJC

PROJECT NUMBER: 2169.17
BEGINNING DATE: 01-DEC-93
ENDING DATE: 01-JAN-94

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
VOLATILE ORGANIC RESULTS

PARAMETER	UNITS	MW-23 15-DEC-93 3717-011		TRIP BLANK 1 14-DEC-93 3717-001		TRIP BLANK 2 15-DEC-93 3717-002		TRIP BLANK 3 17-DEC-93 3746-004	
1,1,1,2-TETRACHLOROETHANE	UG/L	< 10		< 10		< 10		< 10	
1,1,1-TRICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10	
1,1,2,2-TETRACHLOROETHANE	UG/L	< 10		< 10		< 10		< 10	
1,1,2-TRICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10	
1,1-DICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10	
1,1-DICHLOROETHENE	UG/L	< 10		< 10		< 10		< 10	
1,2,3-TRICHLOROPROPANE	UG/L	< 10		< 10		< 10		< 10	
1,2-DIBROMO-3-CHLOROPROPANE	UG/L	< 10		< 10		< 10		< 10	
1,2-DIBROMOETHANE	UG/L	< 10		< 10		< 10		< 10	
1,2-DICHLOROETHANE	UG/L	< 10		< 10		< 10		< 10	
1,2-DICHLOROETHENE, TOTAL	UG/L	< 10		< 10		< 10		< 10	
1,2-DICHLOROPROPANE	UG/L	< 10		< 10		< 10		< 10	
2-BUTANONE	UG/L	< 10		< 10		< 10		< 10	
2-CHLORO-1,3-BUTADIENE	UG/L	< 10		< 10		< 10		< 10	
2-HEXANONE	UG/L	< 10		< 10		< 10		< 10	
3-CHLORO-1-PROPENE	UG/L	< 10		< 10		< 10		< 10	
4-METHYL-2-PENTANONE	UG/L	< 10		< 10		< 10		< 10	
ACETONE	UG/L	5	QB	4	QB	5	QB	4	QB
ACETONITRILE	UG/L	< 20		< 20		< 20		< 20	
ACROLEIN	UG/L	< 20		< 20		< 20		< 20	
ACRYLONITRILE	UG/L	< 20		< 20		< 20		< 20	
BENZENE	UG/L	< 10		< 10		< 10		< 10	
BROMODICHLOROMETHANE	UG/L	< 10		< 10		< 10		< 10	
BROMOFORM	UG/L	< 10		< 10		< 10		< 10	
BROMOMETHANE	UG/L	< 10		< 10		< 10		< 10	
CARBON DISULFIDE	UG/L	< 10		< 10		< 10		< 10	
CARBON TETRACHLORIDE	UG/L	< 10		< 10		< 10		< 10	
CHLOROBENZENE	UG/L	< 10		< 10		< 10		< 10	
CHLORODIBROMOMETHANE	UG/L	< 10		< 10		< 10		< 10	
CHLOROETHANE	UG/L	< 10		< 10		< 10		< 10	
CHLOROFORM	UG/L	< 10		< 10		< 10		< 10	
CHLOROMETHANE	UG/L	< 10		< 10		< 10		< 10	
CIS-1,3-DICHLOROPROPENE	UG/L	< 10		< 10		< 10		< 10	
DIBROMOMETHANE	UG/L	0.5	QB	0.5	QB	0.5	QB	0.5	QB
DICHLORODIFLUOROMETHANE	UG/L	< 10		< 10		< 10		< 10	

04-FEB-94

mnvalid:MWO.BJC

PROJECT NUMBER: 2169.17
BEGINNING DATE: 01-DEC-93
ENDING DATE: 01-JAN-94

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
VOLATILE ORGANIC RESULTS

PARAMETER	UNITS	FIELD BLANK 17-DEC-93 3746-003	MW-01A 15-DEC-93 3717-008	MW-04A 16-DEC-93 3728-003	MW-13 15-DEC-93 3717-009	MW-14 14-DEC-93 3717-006	MW-19 14-DEC-93 3717-005
ETHYLBENZENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
FLUOROTRICHLOROMETHANE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
IODOMETHANE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
ISOBUTANOL	UG/L	< 100	< 100	< 100	< 100	< 100	< 100
METHACRYLONITRILE	UG/L	< 20	< 20	< 20	< 20	< 20	< 20
METHYLENE CHLORIDE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
PROPIONITRILE	UG/L	< 20	< 20	< 20	< 20	< 20	< 20
STYRENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
TETRACHLOROETHENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
TOLUENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
TRANS-1,3-DICHLOROPROPENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
TRANS-1,4-DICHLORO-2-BUTENE	UG/L	< 20	< 20	< 20	< 20	< 20	< 20
TRICHLOROETHENE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
VINYL ACETATE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
VINYL CHLORIDE	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
XYLENE, TOTAL	UG/L	< 10	< 10	< 10	< 10	< 10	< 10

PROJECT NUMBER: 2169.17
BEGINNING DATE: 01-DEC-93
ENDING DATE: 01-JAN-94

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
VOLATILE ORGANIC RESULTS

PARAMETER	UNITS	MW-19P 17-DEC-93 3746-001		MW-20 16-DEC-93 3728-004	MW-21 16-DEC-93 3728-005	MW-21P 17-DEC-93 3746-002	MW-22 15-DEC-93 3717-010	MW-22P 16-DEC-93 3728-006
ETHYLBENZENE	UG/L	< 10		< 10	< 10	< 10	< 10	< 10
FLUOROTRICHLOROMETHANE	UG/L	< 10		< 10	< 10	< 10	< 10	< 10
IODOMETHANE	UG/L	< 10		< 10	< 10	< 10	< 10	< 10
ISOBUTANOL	UG/L	< 100		< 100	< 100	< 100	< 100	< 100
METHACRYLONITRILE	UG/L	< 20		< 20	< 20	< 20	< 20	< 20
METHYLENE CHLORIDE	UG/L	2	Q	< 10	< 10	< 10	< 10	< 10
PROPIONITRILE	UG/L	< 20		< 20	< 20	< 20	< 20	< 20
STYRENE	UG/L	< 10		< 10	< 10	< 10	< 10	< 10
TETRACHLOROETHENE	UG/L	< 10		< 10	< 10	< 10	< 10	< 10
TOLUENE	UG/L	0.9	Q	< 10	< 10	< 10	< 10	< 10
TRANS-1,3-DICHLOROPROPENE	UG/L	< 10		< 10	< 10	< 10	< 10	< 10
TRANS-1,4-DICHLORO-2-BUTENE	UG/L	< 20		< 20	< 20	< 20	< 20	< 20
TRICHLOROETHENE	UG/L	< 10		< 10	< 10	< 10	< 10	< 10
VINYL ACETATE	UG/L	< 10		< 10	< 10	< 10	< 10	< 10
VINYL CHLORIDE	UG/L	< 10		< 10	< 10	< 10	< 10	< 10
XYLENE, TOTAL	UG/L	< 10		< 10	< 10	< 10	< 10	< 10

04-FEB-94

mnvalid:MWO.BJC

PROJECT NUMBER: 2169.17
BEGINNING DATE: 01-DEC-93
ENDING DATE: 01-JAN-94

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
VOLATILE ORGANIC RESULTS

PARAMETER	UNITS	MW-23 15-DEC-93 3717-011	TRIP BLANK 1 14-DEC-93 3717-001	TRIP BLANK 2 15-DEC-93 3717-002	TRIP BLANK 3 17-DEC-93 3746-004
ETHYLBENZENE	UG/L	< 10	< 10	< 10	< 10
FLUOROTRICHLOROMETHANE	UG/L	< 10	< 10	< 10	< 10
IODOMETHANE	UG/L	< 10	< 10	< 10	< 10
ISOBUTANOL	UG/L	< 100	< 100	< 100	< 100
METHACRYLONITRILE	UG/L	< 20	< 20	< 20	< 20
METHYLENE CHLORIDE	UG/L	< 10	< 10	< 10	< 10
PROPIONITRILE	UG/L	< 20	< 20	< 20	< 20
STYRENE	UG/L	< 10	< 10	< 10	< 10
TETRACHLOROETHENE	UG/L	< 10	< 10	< 10	< 10
TOLUENE	UG/L	< 10	< 10	< 10	< 10
TRANS-1,3-DICHLOROPROPENE	UG/L	< 10	< 10	< 10	< 10
TRANS-1,4-DICHLORO-2-BUTENE	UG/L	< 20	< 20	< 20	< 20
TRICHLOROETHENE	UG/L	< 10	< 10	< 10	< 10
VINYL ACETATE	UG/L	< 10	< 10	< 10	< 10
VINYL CHLORIDE	UG/L	< 10	< 10	< 10	< 10
XYLENE, TOTAL	UG/L	< 10	< 10	< 10	< 10

PROJECT NUMBER. 2169.17
BEGINNING DATE: 01-DEC-93
ENDING DATE: 01-JAN-94

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
INORGANIC RESULTS

PARAMETER	UNITS	FIELD BLANK 17-DEC-93 3746-003	MW-01A 15-DEC-93 3717-008	MW-04A 16-DEC-93 3728-003	MW-13 15-DEC-93 3717-009	MW-14 14-DEC-93 3717-006	MW-19 14-DEC-93 3717-005
ALKALINITY, BICARBONATE	MG/L	< 20	< 20	350	76	210	< 20
ALKALINITY, CARBONATE	MG/L	< 20	< 20	< 20	< 20	< 20	< 20
ANTIMONY, DISSOLVED	UG/L	< 10	< 10	14	< 10	< 10	< 10
ARSENIC, DISSOLVED	UG/L	< 3.0	< 3.0	3.5	< 3.0	< 3.0	< 3.0
BARIUM, DISSOLVED	UG/L	< 50	< 50	< 50	< 50	< 50	< 50
BERYLLIUM, DISSOLVED	UG/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
CADMIUM, DISSOLVED	UG/L	< 0.30	0.76	< 0.30	0.96	< 0.30	< 0.30
CHLORIDE	MG/L	< 2.0	97	5.6	50	28	16
CHROMIUM, DISSOLVED	UG/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
COBALT, DISSOLVED	UG/L	< 50	< 50	66	120	< 50	< 50
CONDUCTANCE, SPECIFIC	UMHOS/CM	< 10	1100	2100	2000	2200	170
COPPER, DISSOLVED	UG/L	< 3.0	16	4.4	< 3.0	< 3.0	< 3.0
CYANIDE, TOTAL	MG/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
FLUORIDE	MG/L	< 0.10	0.69	0.17	0.36	0.31	0.14
IRON, DISSOLVED	UG/L	< 100	11000	39000	32000	1700	< 100
LEAD, DISSOLVED	UG/L	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MANGANESE, DISSOLVED	UG/L	< 5.0	1200	7800	13000	620	900
MERCURY, DISSOLVED	UG/L	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
NICKEL, DISSOLVED	UG/L	< 40	< 40	82	160	< 40	< 40
NITROGEN, NITRATE	MG/L	< 0.050 H	0.52	< 0.050	< 0.050	< 0.050	1.4
NITROGEN, NITRATE + NITRITE	MG/L	< 0.050					
PH, LABORATORY	SU	5.7 H	3.5 H	6.4 H	5.5 H	7.2 H	6.2 H
PHENOLICS, TOTAL RECOVERABLE	MG/L	< 0.010	< 0.010	0.013	< 0.010	< 0.010	< 0.010
SELENIUM, DISSOLVED	UG/L	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
SILVER, DISSOLVED	UG/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SODIUM, DISSOLVED	UG/L	< 500	61000	31000	37000	39000	7600
SULFATE	MG/L	< 10	240	870	1100	1100	43
SULFIDE, TOTAL	MG/L	< 1.0	< 1.0	< 1.0	2.0	1.9	1.6
THALLIUM, DISSOLVED	UG/L	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
TIN, DISSOLVED	UG/L	< 500	< 500	< 500	< 500	< 500	< 500
TOTAL ORGANIC CARBON AS NPOC	MG/L	< 0.25	0.60	7.0	8.2	3.3	1.9
TOTAL ORGANIC HALIDES	UG/L	< 5.0	8.0	< 5.0	8.6	7.4	< 5.0
VANADIUM, DISSOLVED	UG/L	< 50	< 50	< 50	< 50	< 50	< 50
ZINC, DISSOLVED	UG/L	< 20	70	66	250	< 20	< 20

04-FEB-94

mnvalid:MWI.BJC

PROJECT NUMBER: 2169.17
BEGINNING DATE: 01-DEC-93
ENDING DATE: 01-JAN-94

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
INORGANIC RESULTS

PARAMETER	UNITS	MW-19P 17-DEC-93 3746-001	MW-20 16-DEC-93 3728-004	MW-21 16-DEC-93 3728-005	MW-21P 17-DEC-93 3746-002	MW-22 15-DEC-93 3717-010	MW-22P 16-DEC-93 3728-006
ALKALINITY, BICARBONATE	MG/L	530	330	360	360	150	770
ALKALINITY, CARBONATE	MG/L	44	< 20	< 20	< 20	< 20	< 20
ANTIMONY, DISSOLVED	UG/L	< 10	< 10	< 10	< 10	< 10	< 10
ARSENIC, DISSOLVED	UG/L	12	< 3.0	4.5	< 3.0	< 3.0	< 3.0
BARIUM, DISSOLVED	UG/L	< 50	< 50	< 50	120	< 50	200
BERYLLIUM, DISSOLVED	UG/L	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
CADMIUM, DISSOLVED	UG/L	< 0.30	< 0.30	0.32	< 0.30	< 0.30	< 0.30
CHLORIDE	MG/L	210	22	52	39	34	60
CHROMIUM, DISSOLVED	UG/L	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
COBALT, DISSOLVED	UG/L	< 50	< 50	< 50	< 50	< 50	< 50
CONDUCTANCE, SPECIFIC	UMHOS/CM	1000	2100	2700	1800	1500	2300
COPPER, DISSOLVED	UG/L	9.9	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
CYANIDE, TOTAL	MG/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
FLUORIDE	MG/L	2.1	0.48	0.49	3.3	0.45	9.0
IRON, DISSOLVED	UG/L	330	12000	35000	< 100	16000	530
LEAD, DISSOLVED	UG/L	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
MANGANESE, DISSOLVED	UG/L	< 5.0	10000	13000	37	8000	49
MERCURY, DISSOLVED	UG/L	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
NICKEL, DISSOLVED	UG/L	< 40	< 40	< 40	< 40	44	< 40
NITROGEN, NITRATE	MG/L	0.23 H	< 0.050	< 0.050	< 0.050 H	< 0.050	< 0.050
NITROGEN, NITRATE + NITRITE	MG/L	< 0.050			< 0.050		
PH, LABORATORY	SU	9.0 H	6.5 H	6.4 H	7.8 H	6.3 H	8.2 H
PHENOLICS, TOTAL RECOVERABLE	MG/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
SELENIUM, DISSOLVED	UG/L	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
SILVER, DISSOLVED	UG/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
SODIUM, DISSOLVED	UG/L	200000	99000	130000	290000	40000	470000
SULFATE	MG/L	330	870	1300	460	500	330
SULFIDE, TOTAL	MG/L	3.3	< 1.0	3.1	< 1.0	1.1	3.2
THALLIUM, DISSOLVED	UG/L	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
TIN, DISSOLVED	UG/L	< 500	< 500	< 500	< 500	< 500	< 500
TOTAL ORGANIC CARBON AS NPOC	MG/L	34	5.1	15	1.8	27	2.8
TOTAL ORGANIC HALIDES	UG/L	130	< 5.0	13	11	15	< 5.0
VANADIUM, DISSOLVED	UG/L	< 50	< 50	< 50	< 50	< 50	< 50
ZINC, DISSOLVED	UG/L	< 20	< 20	32	< 20	40	< 20

04-FEB-94

mnvalid:MWI.BJC

PROJECT NUMBER 2169.17
BEGINNING DATE: 01-DEC-93
ENDING DATE: 01-JAN-94

AMERICAN STEEL FOUNDRIES - ALLIANCE, OHIO
INORGANIC RESULTS

PARAMETER	UNITS	MW-23 15-DEC-93 3717-011	
ALKALINITY, BICARBONATE	MG/L	160	
ALKALINITY, CARBONATE	MG/L	< 20	
ANTIMONY, DISSOLVED	UG/L	< 10	
ARSENIC, DISSOLVED	UG/L	< 3.0	
BARIUM, DISSOLVED	UG/L	< 50	
BERYLLIUM, DISSOLVED	UG/L	< 5.0	
CADMIUM, DISSOLVED	UG/L	0.70	
CHLORIDE	MG/L	26	
CHROMIUM, DISSOLVED	UG/L	< 2.0	
COBALT, DISSOLVED	UG/L	< 50	
CONDUCTANCE, SPECIFIC	UMHOS/CM	2100	
COPPER, DISSOLVED	UG/L	< 3.0	
CYANIDE, TOTAL	MG/L	< 0.010	
FLUORIDE	MG/L	0.22	
IRON, DISSOLVED	UG/L	11000	
LEAD, DISSOLVED	UG/L	< 3.0	
MANGANESE, DISSOLVED	UG/L	5200	
MERCURY, DISSOLVED	UG/L	< 0.20	
NICKEL, DISSOLVED	UG/L	< 40	
NITROGEN, NITRATE	MG/L	< 0.050	
NITROGEN, NITRATE + NITRITE	MG/L		
PH, LABORATORY	SU	6.9	H
PHENOLICS, TOTAL RECOVERABLE	MG/L	< 0.010	
SELENIUM, DISSOLVED	UG/L	< 3.0	
SILVER, DISSOLVED	UG/L	< 1.0	
SODIUM, DISSOLVED	UG/L	41000	
SULFATE	MG/L	1200	
SULFIDE, TOTAL	MG/L	< 1.0	
THALLIUM, DISSOLVED	UG/L	< 3.0	
TIN, DISSOLVED	UG/L	< 500	
TOTAL ORGANIC CARBON AS NPOC	MG/L	1.1	
TOTAL ORGANIC HALIDES	UG/L	< 5.0	
VANADIUM, DISSOLVED	UG/L	< 50	
ZINC, DISSOLVED	UG/L	< 20	

04-FEB-94

mnvalid:MWI.BJC

Appendix B

ANALYTICAL LABORATORY REPORT

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-008
STATION ID: MW-1A
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	3	10	QB(5)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane	0.5	10	QB(0.6)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

RMT LABORATORIES 744 HEARTLAND TRAIL · MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-008
STATION ID: MW-1A
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Mark A. Maitz 1/20/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-003
STATION ID: MW-4A
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/21/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	3	10	QB(4)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane		10	U
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-003
STATION ID: MW-4A
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/21/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

James J. Yoder
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-009
STATION ID: MW-13
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	3	10	QB(5)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane	0.4	10	QB(0.6)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene	0.3	10	Q
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-009
STATION ID: MW-13
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Mark A. Mierity 1/20/94
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-006
STATION ID: MW-14
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/14/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	3	10	QB(5)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane	0.4	10	QB(0.6)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-006
STATION ID: MW-14
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/14/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Mark A. Mientz 1/20/94
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-005
STATION ID: MW-19
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/14/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	3	10	QB(5)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform	1	10	Q
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane	0.5	10	QB(0.6)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-005
STATION ID: MW-19
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/14/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Mark S. Mierz 1/20/94
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-001
STATION ID: MW-19P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/24/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride	2	10	Q
Acrolein		20	U
Acrylonitrile		20	U
Acetone	7	10	QB(4)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform	26	10	
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane	2	10	Q
1,2-Dichloropropane		10	U
Dibromomethane	0.5	10	QB(0.5)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene	0.9	10	Q
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

RMT LABORATORIES 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-001
STATION ID: MW-19P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/24/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene	0.9	10	Q
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Mark A. Meintz 1/24/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-004
STATION ID: MW-20
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/21/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	2	10	QB(4)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane	0.4	10	QB(0.5)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-004
STATION ID: MW-20
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/21/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

James J. Yoder
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-005
STATION ID: MW-21
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/21/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	2	10	QB(4)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane		10	U
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

RMT LABORATORIES · 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-005
STATION ID: MW-21
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/21/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

James D. Yoder
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-002
STATION ID: MW-21P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/31/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	4	10	QB(4)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane		10	U
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

RMT LABORATORIES · 744 HEARTLAND TRAIL MADISON, WI · 53717-1934 · P.O. BOX 8923 MADISON, WI 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-002
STATION ID: MW-21P
METHOD: 8260
WI DNR LAB 113138520

REPORT DATE: 01/31/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Barbara A. Rubio 1/31/94
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-010
STATION ID: MW-22
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Mark A. Mont 1/20/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-006
STATION ID: MW-22P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/21/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	4	10	QB(4)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane		10	U
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

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CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3728-006
STATION ID: MW-22P
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/21/94
COLLECTION DATE: 12/16/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

James J. Yoder
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-011
STATION ID: MW-23
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	5	10	QB(5)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane	0.5	10	QB(0.6)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI · 53717-1934 · P.O. BOX 8923 MADISON, WI · 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-011
STATION ID: MW-23
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Mark A. Mieritz 1/20/94
Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

Organic GC/MS Data Qualifier Sheet

B(n)	Analyte is present in the method blank. If the processes that were applied to the sample were applied to the method blank, the value of the analyte in the method blank would likely be "n".
D	Analyte value from a diluted analysis.
E	Analyte concentration exceeds calibration range (see Sample Narrative).
H(n)	Analysis performed "n" days past holding time.
K	Concentration may be elevated due to the presence of an unrequested analyte (see Sample Narrative).
NR	Not required.
Q	Qualitative mass spectral evidence of analyte present; concentration is less than the reporting limit.
U	Analyte undetected.
W	Sample received with headspace.

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Organic GC/MS Data Qualifier Sheet

B(n)	Analyte is present in the method blank. If the processes that were applied to the sample were applied to the method blank, the value of the analyte in the method blank would likely be "n".
D	Analyte value from a diluted analysis.
E	Analyte concentration exceeds calibration range (see Sample Narrative).
H(n)	Analysis performed "n" days past holding time.
K	Concentration may be elevated due to the presence of an unrequested analyte (see Sample Narrative).
NR	Not required.
Q	Qualitative mass spectral evidence of analyte present; concentration is less than the reporting limit.
U	Analyte undetected.
W	Sample received with headspace.

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 MADISON, WI 53708-8923 · 608/831-4444 · 608/831-7530 FAX

SAMPLE NARRATIVE
VOLATILE ORGANIC ANALYSIS

PROJECT NAME: ASF
PROJECT NUMBER: 2169.17
SAMPLE NUMBER(S): 3746-001 through 3746-004
DATE: 01/24/94

If volatiles were present between the IDL and the PQL, the value would have been reported with an "estimated value" qualifing code.

The attached is a listing of the IDLs from the MS73 Instrument analyzed on January 05, 1994 associated with the above sample numbers.

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

PROJECT NAME: ASF
PROJECT NUMBER: 2169.17
SAMPLE NUMBER(S): 3746-001 through 3746-004
DATE: 01/24/94

COMPOUND	IDL
Dichlorodifluoromethane	1
Chloromethane	1
Bromomethane	1
Vinyl Chloride	1
Chloroethane	2
Methylene Chloride	0.8
Acrolein	9
Acrylonitrile	2
Acetone	10
Carbon Disulfide	1
Trichlorofluoromethane	1
1,1-Dichloroethene	1
Iodomethane	1
3-Chloro-1-propene	2
Acetonitrile	1
1,1-Dichloroethane	0.8
1,2-dichloroethene (total)	2
2-Chloro-1,3-butadiene	1
Propionitrile	2
Methacrylonitrile	2
Isobutanol	33
Chloroform	0.6
1,2-Dichloroethane	0.4
2-Butanone	2
1,1,1-Trichloroethane	0.9
Carbon Tetrachloride	1
Vinyl acetate	1
Bromodichloromethane	0.6
1,2-Dichloropropane	0.5
Dibromomethane	0.4
Cis-1,3-dichloropropene	0.7
Trichloroethene	0.8
Benzene	0.7
Dibromochloromethane	0.5
1,1,2-Trichloroethane	0.5
Trans-1,3-dichloropropene	0.8
Bromoform	0.5
4-Methyl-2-pentanone	0.9
2-Hexanone	1
1,2-Dibromoethane	0.5
1,1,1,2-Tetrachloroethane	0.6
1,1,2,2-Tetrachloroethane	0.5
Tetrachloroethene	1
Toluene	0.8
Chlorobenzene	0.6
Ethylbenzene	0.6
Styrene	0.6
Xylene (total)	2
1,2,3-Trichloropropane	0.8
trans-1,4-Dichloro-2-butene	1
1,2-Dibromo-3-chloropropane	0.7

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Organic GC/MS Data Qualifier Sheet

B(n)	Analyte is present in the method blank. If the processes that were applied to the sample were applied to the method blank, the value of the analyte in the method blank would likely be "n".
D	Analyte value from a diluted analysis.
E	Analyte concentration exceeds calibration range (see Sample Narrative).
H(n)	Analysis performed "n" days past holding time.
K	Concentration may be elevated due to the presence of an unrequested analyte (see Sample Narrative).
NR	Not required.
Q	Qualitative mass spectral evidence of analyte present; concentration is less than the reporting limit.
U	Analyte undetected.
W	Sample received with headspace.

Effective 08/20/93

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-003
STATION ID: FIELD BLANK
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/24/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	10	10	QB(4)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform	0.5	10	Q
1,2-Dichloroethane		10	U
2-Butanone	4	10	Q
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane	0.5	10	QB(0.5)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-003
STATION ID: FIELD BLANK
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/24/94
COLLECTION DATE: 12/17/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Mark A. Mieritz 1/24/94
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-004
STATION ID: TRIP BLANK #3
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/24/94
COLLECTION DATE:
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	4	10	QB(4)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane	0.5	10	QB(0.5)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

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CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3746-004
STATION ID: TRIP BLANK #3
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/24/94
COLLECTION DATE:
EXTRACTION DATE: --------
ANALYSIS DATE: 12/21/93
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Mark A. Mieuty 1/24/94

Approval Signature

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CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-001
STATION ID: TRIP BLANK 1
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 11/15/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	4	10	QB(5)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane	0.5	10	QB(0.6)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

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CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-001
STATION ID: TRIP BLANK 1
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 11/15/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Mark A. Moritz 1/20/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-002
STATION ID: TRIP BLANK 2
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE:
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	5	10	QB(5)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane	0.5	10	QB(0.6)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

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CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-010
STATION ID: MW-22
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
1,2-Dichloroethene, total		10	U
Dichlorodifluoromethane		10	U
Chloromethane		10	U
Bromomethane		10	U
Vinyl chloride		10	U
Chloroethane		10	U
Methylene chloride		10	U
Acrolein		20	U
Acrylonitrile		20	U
Acetone	5	10	QB(5)
Carbon disulfide		10	U
Trichlorofluoromethane		10	U
1,1-Dichloroethene		10	U
Iodomethane		10	U
3-Chloro-1-propene		10	U
Acetonitrile		20	U
1,1-Dichloroethane		10	U
2-Chloro-1,3-butadiene		10	U
Propionitrile		20	U
Methacrylonitrile		20	U
Isobutanol		100	U
Chloroform		10	U
1,2-Dichloroethane		10	U
2-Butanone		10	U
1,1,1-Trichloroethane		10	U
Carbon tetrachloride		10	U
Vinyl acetate		10	U
Bromodichloromethane		10	U
1,2-Dichloropropane		10	U
Dibromomethane	0.4	10	QB(0.6)
cis-1,3-Dichloropropene		10	U
Trichloroethene		10	U
Benzene		10	U
Dibromochloromethane		10	U
1,1,2-Trichloroethane		10	U
trans-1,3-Dichloropropene		10	U
Bromoform		10	U
4-Methyl-2-pentanone		10	U
2-Hexanone		10	U
1,2-Dibromoethane		10	U
1,1,1,2-Tetrachloroethane		10	U
1,1,2,2-Tetrachloroethane		10	U

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CLIENT: ASF
SAMPLE #: 3746-002
PROJECT #: 02169.17
WORK ORDER #: 3746
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/17/93
STATION ID: MW-21P

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	<20	ug/L

Patricia M. McCluskey 1/21/94
Approval Signature

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CLIENT: ASF
SAMPLE #: 3717-010
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
STATION ID: MW-22

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	150	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	34	mg/L
Conductance, specific	1500	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	0.45	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	500	mg/L
Sulfide	1.1	mg/L
Total organic carbon as NPOC	27	mg/L
Total organic halides	15	ug/L
pH, laboratory	6.3 H(1)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	16000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	8000	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	44	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	40000	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

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CLIENT: ASF
SAMPLE #: 3717-010
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
STATION ID: MW-22

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	40	ug/L

Patricia M. McCluskey 1/20/94
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 MADISON, WI · 53708-8923 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
SAMPLE #: 3728-006
PROJECT #: 02169.17
WORK ORDER #: 3728
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/16/93
STATION ID: MW-22P

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	770	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	60	mg/L
Conductance, specific	2300	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	9.0	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	330	mg/L
Sulfide	3.2	mg/L
Total organic carbon as NPOC	2.8	mg/L
Total organic halides	<5.0	ug/L
pH, laboratory	8.2 H(1)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	200	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	530	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	49	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	470000	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

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CLIENT: ASF
SAMPLE #: 3728-006
PROJECT #: 02169.17
WORK ORDER #: 3728
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/16/93
STATION ID: MW-22P

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	<20	ug/L

1/20/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
SAMPLE #: 3717-011
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
STATION ID: MW-23

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	160	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	26	mg/L
Conductance, specific	2100	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	0.22	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	1200	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	1.1	mg/L
Total organic halides	<5.0	ug/L
pH, laboratory	6.9 H(1)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	0.70	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	11000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	5200	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	41000	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

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CLIENT: ASF
SAMPLE #: 3717-011
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
STATION ID: MW-23

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	<20	ug/L

Patricia M. McClintock 1/20/94
Approval Signature

RMT LABORATORIES · 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 MADISON, WI 53708-8923 · 608/831-4444 · 608/831-7530 FAX

Inorganic Data Qualifier Sheet

H(n) Analysis performed "n" days past holding time.

M Elevated detection limit due to matrix effects. (See Case Narrative).

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CLIENT: ASF
PROJECT NO.: 2169.17
SAMPLE NOS.: 3728-001 - 3728-006
WORK ORDER NO.: 3728
REPORT DATE: 01/21/94

CASE NARRATIVE

Nitrate analysis was requested for LIMS Sample No. 3728-001. Due to an interference, the result of the analysis was a more negative value than the detection limit. A dilution was performed on the sample. It was reported with an elevated detection limit and an M qualifier.

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CLIENT: ASF
SAMPLE #: 3746-003
PROJECT #: 02169.17
WORK ORDER #: 3746
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/17/93
STATION ID: FIELD BLANK

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	<20	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	<2.0	mg/L
Conductance, specific	<10	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	<0.10	mg/L
Nitrogen, nitrate	<0.050 H(34 hr)	mg/L
Nitrogen, nitrate + nitrite	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	<10	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	<0.25	mg/L
Total organic halides	<5.0	ug/L
pH, laboratory	5.7 H(3)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	<100	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	<5.0	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	<500	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

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CLIENT: ASF
SAMPLE #: 3746-003
PROJECT #: 02169.17
WORK ORDER #: 3746
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/17/93
STATION ID: FIELD BLANK

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	<20	ug/L

Patricia M. McClintock 1/21/94
Approval Signature

Appendix C

LABORATORY DATA QUALIFIERS

RMT LABORATORIES · 744 HEARTLAND TRAIL · MADISON, WI · 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

Organic GC/MS Data Qualifier Sheet

B(n)	Analyte is present in the method blank. If the processes that were applied to the sample were applied to the method blank, the value of the analyte in the method blank would likely be "n".
D	Analyte value from a diluted analysis.
E	Analyte concentration exceeds calibration range (see Sample Narrative).
H(n)	Analysis performed "n" days past holding time.
K	Concentration may be elevated due to the presence of an unrequested analyte (see Sample Narrative).
NR	Not required.
Q	Qualitative mass spectral evidence of analyte present; concentration is less than the reporting limit.
U	Analyte undetected.
W	Sample received with headspace.

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 P.O. BOX 8923 MADISON, WI 53708-8923 608/831-4444 608/831-7530 FAX

SAMPLE NARRATIVE
VOLATILE ORGANIC ANALYSIS

PROJECT NAME: ASF
PROJECT NUMBER: 2169.17
SAMPLE NUMBER(S): 3728-001 through 3728-006
DATE: 01/24/94

If volatiles were present between the IDL and the PQL, the value would have been reported with an "estimated value" qualifing code.

The attached is a listing of the IDLs from the MS73 Instrument analyzed on January 05, 1994 associated with the above sample numbers.

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 608/831-4444 · 608/831-7530 FAX

PROJECT NAME: ASF
PROJECT NUMBER: 2169.17
SAMPLE NUMBER(S): 3728-001 through 3728-006
DATE: 01/24/94

COMPOUND	IDL
Dichlorodifluoromethane	1
Chloromethane	1
Bromomethane	1
Vinyl Chloride	1
Chloroethane	2
Methylene Chloride	0.8
Acrolein	9
Acrylonitrile	2
Acetone	10
Carbon Disulfide	1
Trichlorofluoromethane	1
1,1-Dichloroethene	1
Iodomethane	1
3-Chloro-1-propene	2
Acetonitrile	1
1,1-Dichloroethane	0.8
1,2-dichloroethene (total)	2
2-Chloro-1,3-butadiene	1
Propionitrile	2
Methacrylonitrile	2
Isobutanol	33
Chloroform	0.6
1,2-Dichloroethane	0.4
2-Butanone	2
1,1,1-Trichloroethane	0.9
Carbon Tetrachloride	1
Vinyl acetate	1
Bromodichloromethane	0.6
1,2-Dichloropropane	0.5
Dibromomethane	0.4
Cis-1,3-dichloropropene	0.7
Trichloroethene	0.8
Benzene	0.7
Dibromochloromethane	0.5
1,1,2-Trichloroethane	0.5
Trans-1,3-dichloropropene	0.8
Bromoform	0.5
4-Methyl-2-pentanone	0.9
2-Hexanone	1
1,2-Dibromoethane	0.5
1,1,1,2-Tetrachloroethane	0.6
1,1,2,2-Tetrachloroethane	0.5
Tetrachloroethene	1
Toluene	0.8
Chlorobenzene	0.6
Ethylbenzene	0.6
Styrene	0.6
Xylene (total)	2
1,2,3-Trichloropropane	0.8
trans-1,4-Dichloro-2-butene	1
1,2-Dibromo-3-chloropropane	0.7

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SAMPLE NARRATIVE
VOLATILE ORGANIC ANALYSIS

PROJECT NAME: ASF
PROJECT NUMBER: 2169.17
SAMPLE NUMBER(S): 3717-001 through 3717-011
DATE: 01/24/94

If volatiles were present between the IDL and the PQL, the value would have been reported with an "estimated value" qualifing code.

The attached is a listing of the IDLs from the MS72 Instrument analyzed on January 09, 1994 associated with the above sample numbers.

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PROJECT NAME: ASF
PROJECT NUMBER: 2169.17
SAMPLE NUMBER(S): 3717-001 through 3717-011
DATE: 01/24/94

COMPOUND	IDL
Dichlorodifluoromethane	1
Chloromethane	1
Bromomethane	1
Vinyl Chloride	1
Chloroethane	2
Methylene Chloride	0.8
Acrolein	9
Acrylonitrile	2
Acetone	10
Carbon Disulfide	1
Trichlorofluoromethane	1
1,1-Dichloroethene	1
Iodomethane	1
3-Chloro-1-propene	2
Acetonitrile	1
1,1-Dichloroethane	0.8
1,2-dichloroethene (total)	2
2-Chloro-1,3-butadiene	1
Propionitrile	2
Methacrylonitrile	2
Isobutanol	33
Chloroform	0.6
1,2-Dichloroethane	0.4
2-Butanone	2
1,1,1-Trichloroethane	0.9
Carbon Tetrachloride	1
Vinyl acetate	1
Bromodichloromethane	0.6
1,2-Dichloropropane	0.5
Dibromomethane	0.4
Cis-1,3-dichloropropene	0.7
Trichloroethene	0.8
Benzene	0.7
Dibromochloromethane	0.5
1,1,2-Trichloroethane	0.5
Trans-1,3-dichloropropene	0.8
Bromoform	0.5
4-Methyl-2-pentanone	0.9
2-Hexanone	1
1,2-Dibromoethane	0.5
1,1,1,2-Tetrachloroethane	0.6
1,1,2,2-Tetrachloroethane	0.5
Tetrachloroethene	1
Toluene	0.8
Chlorobenzene	0.6
Ethylbenzene	0.6
Styrene	0.6
Xylene (total)	2
1,2,3-Trichloropropane	0.8
trans-1,4-Dichloro-2-butene	1
1,2-Dibromo-3-chloropropane	0.7

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CLIENT: ASF
PROJECT #: 02169.17
SAMPLE #: 3717-002
STATION ID: TRIP BLANK 2
METHOD: 8260
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE:
EXTRACTION DATE: --------
ANALYSIS DATE: 12/20/94
DILUTION FACTOR: 1.0
UNITS: ug/L

VOLATILE ORGANICS ANALYSIS REPORT

COMPOUND	RESULT	EQL	CODE
Tetrachloroethene		10	U
Toluene		10	U
Chlorobenzene		10	U
Ethylbenzene		10	U
Styrene		10	U
Xylenes, total		10	U
1,2,3-Trichloropropane		10	U
trans-1,4-Dichloro-2-butene		20	U
1,2-Dibromo-3-chloropropane		10	U

Mark A. Mentz 1/20/94

Approval Signature

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CLIENT: ASF
SAMPLE #: 3717-008
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
STATION ID: MW-1A

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	<20	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	97	mg/L
Conductance, specific	1100	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	0.69	mg/L
Nitrogen, nitrate	0.52	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	240	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	0.60	mg/L
Total organic halides	8.0	ug/L
pH, laboratory	3.5 H(1)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	0.76	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	16	ug/L
Iron, dissolved	11000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	1200	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	61000	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

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CLIENT: ASF
SAMPLE #: 3717-008
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
STATION ID: MW-1A

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	70	ug/L

Patricia M. McCluskey 1/20/94
Approval Signature

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CLIENT: ASF
SAMPLE #: 3728-003
PROJECT #: 02169.17
WORK ORDER #: 3728
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/16/93
STATION ID: MW-4A

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	350	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	5.6	mg/L
Conductance, specific	2100	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	0.17	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	0.013	mg/L
Sulfate	870	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	7.0	mg/L
Total organic halides	<5.0	ug/L
pH, laboratory	6.4 H(1)	su
Antimony, dissolved	14	ug/L
Arsenic, dissolved	3.5	ug/L
Barium, dissolved	<50	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	66	ug/L
Copper, dissolved	4.4	ug/L
Iron, dissolved	39000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	7800	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	82	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	31000	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

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CLIENT: ASF
SAMPLE #: 3728-003
PROJECT #: 02169.17
WORK ORDER #: 3728
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/16/93
STATION ID: MW-4A

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	66	ug/L

1/20/94
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CLIENT: ASF
SAMPLE #: 3717-009
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
STATION ID: MW-13

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	76	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	50	mg/L
Conductance, specific	2000	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	0.36	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	1100	mg/L
Sulfide	2.0	mg/L
Total organic carbon as NPOC	8.2	mg/L
Total organic halides	8.6	ug/L
pH, laboratory	5.5 H(1)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	0.96	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	120	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	32000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	13000	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	160	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	37000	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

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CLIENT: ASF
SAMPLE #: 3717-009
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/15/93
STATION ID: MW-13

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	250	ug/L

Patricia M. McClintock 1/20/94
Approval Signature

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CLIENT: ASF
SAMPLE #: 3717-006
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/14/93
STATION ID: MW-14

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	210	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	28	mg/L
Conductance, specific	2200	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	0.31	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	1100	mg/L
Sulfide	1.9	mg/L
Total organic carbon as NPOC	3.3	mg/L
Total organic halides	7.4	ug/L
pH, laboratory	7.2 H(2)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	1700	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	620	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	39000	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

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CLIENT: ASF
SAMPLE #: 3717-006
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/14/93
STATION ID: MW-14

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	<20	ug/L

Patricia M. McCluntock 1/20/94
Approval Signature

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CLIENT: ASF
SAMPLE #: 3717-005
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/14/93
STATION ID: MW-19

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	<20	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	16	mg/L
Conductance, specific	170	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	0.14	mg/L
Nitrogen, nitrate	1.4	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	43	mg/L
Sulfide	1.6	mg/L
Total organic carbon as NPOC	1.9	mg/L
Total organic halides	<5.0	ug/L
pH, laboratory	6.2 H(2)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	<100	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	900	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	7600	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

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CLIENT: ASF
SAMPLE #: 3717-005
PROJECT #: 02169.17
WORK ORDER #: 3717
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/14/93
STATION ID: MW-19

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	<20	ug/L

Patricia M. McCluskey 1/20/94
Approval Signature

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CLIENT: ASF
SAMPLE #: 3746-001
PROJECT #: 02169.17
WORK ORDER #: 3746
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/17/93
STATION ID: MW-19P

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	530	mg/L
Alkalinity, carbonate as CaCO3	44	mg/L
Chloride	210	mg/L
Conductance, specific	1000	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	2.1	mg/L
Nitrogen, nitrate	0.23 H(35 hr)	mg/L
Nitrogen, nitrate + nitrite	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	330	mg/L
Sulfide	3.3	mg/L
Total organic carbon as NPOC	34	mg/L
Total organic halides	130	ug/L
pH, laboratory	9.0 H(3)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	12	ug/L
Barium, dissolved	<50	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	9.9	ug/L
Iron, dissolved	330	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	<5.0	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	200000	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

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CLIENT: ASF
SAMPLE #: 3746-001
PROJECT #: 02169.17
WORK ORDER #: 3746
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/17/93
STATION ID: MW-19P

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	<20	ug/L

Patricia M. McClintock 1/21/94
Approval Signature

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CLIENT: ASF
SAMPLE #: 3728-004
PROJECT #: 02169.17
WORK ORDER #: 3728
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/16/93
STATION ID: MW-20

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	330	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	22	mg/L
Conductance, specific	2100	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	0.48	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	870	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	5.1	mg/L
Total organic halides	<5.0	ug/L
pH, laboratory	6.5 H(1)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	<50	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	12000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	10000	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	99000	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
SAMPLE #: 3728-004
PROJECT #: 02169.17
WORK ORDER #: 3728
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/16/93
STATION ID: MW-20

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	<20	ug/L

[signature] 1/20/94
Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 MADISON, WI · 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
SAMPLE #: 3728-005
PROJECT #: 02169.17
WORK ORDER #: 3728
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/16/93
STATION ID: MW-21

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	360	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	52	mg/L
Conductance, specific	2700	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	0.49	mg/L
Nitrogen, nitrate	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	1300	mg/L
Sulfide	3.1	mg/L
Total organic carbon as NPOC	15	mg/L
Total organic halides	13	ug/L
pH, laboratory	6.4 H(1)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	4.5	ug/L
Barium, dissolved	<50	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	0.32	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	35000	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	13000	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	130000	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

RMT LABORATORIES · 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
SAMPLE #: 3728-005
PROJECT #: 02169.17
WORK ORDER #: 3728
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/16/93
STATION ID: MW-21

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Zinc, dissolved	32	ug/L

1/20/94

Approval Signature

RMT LABORATORIES 744 HEARTLAND TRAIL MADISON, WI 53717-1934 · P.O. BOX 8923 · MADISON, WI 53708-8923 · 608/831-4444 · 608/831-7530 FAX

CLIENT: ASF
SAMPLE #: 3746-002
PROJECT #: 02169.17
WORK ORDER #: 3746
WI DNR LAB ID: 113138520

REPORT DATE: 01/20/94
COLLECTION DATE: 12/17/93
STATION ID: MW-21P

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Alkalinity, bicarbonate as CaCO3	360	mg/L
Alkalinity, carbonate as CaCO3	<20	mg/L
Chloride	39	mg/L
Conductance, specific	1800	umhos/cm
Cyanide, total	<0.010	mg/L
Fluoride	3.3	mg/L
Nitrogen, nitrate	<0.050 H(37 hr)	mg/L
Nitrogen, nitrate + nitrite	<0.050	mg/L
Phenolics, total recoverable	<0.010	mg/L
Sulfate	460	mg/L
Sulfide	<1.0	mg/L
Total organic carbon as NPOC	1.8	mg/L
Total organic halides	11	ug/L
pH, laboratory	7.8 H(3)	su
Antimony, dissolved	<10	ug/L
Arsenic, dissolved	<3.0	ug/L
Barium, dissolved	120	ug/L
Beryllium, dissolved	<5.0	ug/L
Cadmium, dissolved	<0.30	ug/L
Chromium, dissolved	<2.0	ug/L
Cobalt, dissolved	<50	ug/L
Copper, dissolved	<3.0	ug/L
Iron, dissolved	<100	ug/L
Lead, dissolved	<3.0	ug/L
Manganese, dissolved	37	ug/L
Mercury, dissolved	<0.20	ug/L
Nickel, dissolved	<40	ug/L
Selenium, dissolved	<3.0	ug/L
Silver, dissolved	<1.0	ug/L
Sodium, dissolved	290000	ug/L
Thallium, dissolved	<3.0	ug/L
Tin, dissolved	<500	ug/L
Vanadium, dissolved	<50	ug/L

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY * P. O. BOX 2060 * ALLIANCE, OHIO 44601

(216) 823-6150 * FAX NO. (216) 821-4568

RECEIVED
AUG 12 1993
OFFICE OF RCRA
WASTE MANAGEMENT DIV
EPA, REGION V

August 05, 1993

CERTIFIED LETTER
RETURN RECEIPT REQUESTED

Chief RCRA Enforcement Branch, 5HR-12 **P 329 880 576**
U.S. EPA, Region V
230 S. Dearborn St.
Chicago, Illinois 60604
Attention: James Saric

Chief, SWERB Section V **P 329 880 575**
Office of Regional Counsel
U.S. EPA Region V, 5CS-TUB3
77 West Jackson Blvd.
Chicago, Illinois 60604
Attention: Richard Clarizio

Gentlemen:

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87 - 1284A (N.D. OHIO)

SUBJECT: Ground Water Assessment Plan
Ground Water Sampling and Analysis Plan
American Steel Foundries
Sebring Facility
OHD017497587

On April 13, 1992, American Steel Foundries submitted a Ground Water Assessment Plan and a Ground Water Sampling Plan in advance of the Consent Order agreement.

On July 8, 1993, the Ohio EPA submitted written comments requesting revisions to the subject plan. It was agreed between Mr. J.B.Palmer, Environmental Specialist, Ohio EPA, and Mr.T.C.Bradway, Environmental Manager, American Steel Foundries, that due to the physical size of the documents and the nature of the adjustments, that only the two corrected pages would be submitted as supplements to the original documents. This was done in the interest of conservation of natural resources and cost control.

We are at this time formally submitting the following supplements:

1. Revised page 3-2a April 1992 Ground Water Quality Assessment Plan;

2. Revised page 4-2 April 1992 Ground Water Sampling and Analysis Plan.

This submission is intended to meet the following requirement of the consent decree:

E. SEBRING FACILITY - Groundwater Requirements:

1. All sampling and analysis procedures performed under this Decree shall conform to procedures contained in U.S. EPA publication "Test Methods for Evaluation of Solid Waste, SW-846."

3. Within thirty (30) days after entry of this Consent Decree, Defendant shall submit to U.S. EPA, with a copy to Ohio EPA, a groundwater Quality Assessment Plan for the Sebring facility in accordance with 40 C.F.R. # 265.93 and Ohio Admin. Code # 3745-65-93. Within thirty (30) days of comments from the U.S. EPA identifying any deficiencies in the Groundwater Quality Assessment Plan, Defendant shall submit to U.S. EPA, with copy to Ohio EPA, a revised Plan that corrects any deficiencies identified by U.S. EPA. The defendant shall implement the U.S. EPA approved or modified Groundwater Quality Assessment Plan within 30 days of U.S. EPA approval of the Plan.

GENERAL

On July 26,1993 we were directed by Mr. James Saric from the U.S. EPA, Region V to change our certified letter routing in the Chief, RCRA Enforcement Branch from the attention of Ms. Kimberly Ogle to the attention of Mr. James Saric.

In accordance the terms and conditions of the Ohio Consent Order # 1993CV01107, signed July 12 1993, we will be forwarding an additional copy of all reports required under Civil Action No. C87-128A (N.D. Ohio) to the attention of Ohio EPA, Supervisor, Division of Solid and Infectious Waste Management, Northeast District Office, 2110 East Aurora Ave., Twinsburg, Ohio 44087-1969.

CERTIFICATION

"I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete to the best of my knowledge."

/TCB

Attachmwents

Yours very truly,

J. A. Difloure
PLANT MANAGER

UNITED STATES V. AMSTED IND., INC. CIVIL ACTION NO. C87-1284A (N.D.OHIO)

cc: CAR
DJM
VTH
ERH

Ohio EPA
Chief, Division of Solid and Hazardous Waste **P 329 880 574**
1800 WaterMark Drive
P.O. Box 1049
Columbus, Ohio 43266-0149

Ohio EPA
Division of Solid and Hazardous Waste **P 329 880 572**
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Ohio EPA
Supervisor, Division of Solid and Infectious Waste Management **P 329 880 573**
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward J. Brosius, ESQ.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Ave.
Chicago, Illinois 60601

P. C. Schillawski
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Mahoning County Health District
Chief, Solid Waste Program
2801 Market Street
Youngstown, Ohio 44507-1649
Attn: R.D.Setty

Since ASF 1902 LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY • P. O. BOX 2060 • ALLIANCE, OHIO 44601

(216) 823-6150 • FAX NO. (216) 821-4568

July 20, 1993

Mr. J. B. Palmer
Environmental Specialists
Division of Hazardous Waste Management
Ohio EPA
2110 East Aurora Road
Twinsburg, Ohio 44087-1959

Dear Sir:

GROUND WATER QUALITY ASSESSMENT PLAN
GROUND WATER SAMPLING AND ANALYSIS PLAN

This letter is to confirm our conversation of 8:30 AM, July 20, 1993. It is our understanding that due to the physical size of the subject documents and the nature of the adjustments, that American Steel Foundries will supply only corrected pages as supplements to the original submissions.

American Steel Foundries compliments the OEPA's progressive solution to this paperwork problem and recognizes your efforts to conserve natural resources and control costs. If you have any additional comments or concerns, please do not hesitate to call.

TCB:jlm

Very truly yours,

T. C. Bradway

T. C. BRADWAY
ENVIRONMENTAL MANAGER

cc: JAD
DJM
CAR/RSW
EJB

Amsted

OhioEPA
State of Ohio Environmental Protection Agency
Northeast District Office
2110 E. Aurora Road
Twinsburg, Ohio 44087-1969
(216) 425-9171
FAX (216) 487-0769

RECD 7/12/93

George V. Voinovich
Governor

July 8, 1993

CERTIFIED MAIL

RE: AMERICAN STEEL FOUNDRIES
MAHONING COUNTY
OHD 017 497 587

GROUNDWATER COMMENTS

Mr. Terry Bradway
American Steel Foundries, Inc.
1001 East Broadway
Alliance OH 44601-0060

Dear Mr. Bradway:

The Ohio Environmental Protection Agency has received and reviewed the following documents submitted by your facility:

1. April, 1992 Ground Water Quality Assessment Plan, received April 13, 1992.

2. April, 1992 Ground Water Sampling and Analysis Plan, received April 13, 1992.

The comments follow:

April, 1992 Ground Water Quality Assessment Plan, received April 13, 1992.

1. The Ground Water Quality Assessment did not include details of how American Steel Foundries plans to determine the rate and extent of migration of hazardous waste and hazardous waste constituents that may be present in the ground water. In order to be in accordance with OAC Rule 3745-65-93 (A) (2), the Ground Water Quality Assessment Plan developed by American Steel Foundries must be capable of determining the rate and extent of migration of hazardous waste or hazardous waste constituents in the ground water.

April, 1992 Ground Water Sampling and Analysis Plan, received April 13, 1992.

1. After development of the ground water monitoring wells, American Steel Foundries has stated that they will "pour the purge water on the ground". This method of purge water disposal is not acceptable. Purge water must be containerized until American Steel Foundries receives analytical results characterizing its quality. After characterization, American Steel Foundries shall dispose of the purge waters in accordance with all applicable regulations.

Printed on recycled paper

The facility shall submit documentation indicating that these comments have been addressed to the Ohio EPA's Northeast District Office by August 20, 1993.

Failure to list specific deficiencies in this communication does not relieve you from the responsibility of complying with all applicable regulations. Please be advised that present or past instances of non-compliance can continue as subjects of pending or future enforcement actions.

If you have any questions, please feel free to contact either Mr. Harry Courtright or me at (216) 963 1200.

Sincerely,

John B. Palmer
Environmental Specialist
Division of Hazardous Waste Management

JP.wk

cc: Harry Courtright, DHWM, NEDO
David Wertz, DHWM, NEDO
Chris Khourey, DDAGW, NEDO
Laurie Stevenson, DHWM, CO
David Stroh, DHWM, CO
Mark Navarre, Legal, CO
Lori Massey, AGO
Chief, RCRA Enforcement Branch, USEPA Region V

July 29, 1993

Mr. Terry Bradway
American Steel Foundries, Inc.
1001 East Broadway
Alliance, OH 44601-0060

Dear Terry,

In response to the July 8, 1993, Ohio EPA comments on the Groundwater Quality Assessment Plan and the Groundwater Sampling and Analysis Plan, RMT is submitting to you the responses for each comment. Please note that all new verbage is capitalized. Wording which is no longer needed has be red-lined.

Please call if you have any further questions.

Very truly yours,

Lynn Hall

Lynn Hall
Project Manager

Enclosure

2169.14:MSY:Bradway.1

RMT INC.®

RESIDUALS MANAGEMENT TECHNOLOGY, INC. — CHICAGO
999 PLAZA DRIVE, SUITE 100 · SCHAUMBURG, IL · 60173-5407
708/995-1500 · 708/995-1900 FAX

In order to be in accordance with the OAC Rule 3745-65-93 (A) (2), which requires that the assessment program be capable of determining the rate and extent of migration of hazardous waste or hazardous waste constituents in the groundwater, American Steel Foundries is providing the following addition to the Ground Water Quality Assessment Plan, Section 3.2, Monitoring Program.

THE EXTENT OF MIGRATION OF HAZARDOUS WASTE OR HAZARDOUS WASTE CONSTITUENTS WILL BE DETERMINED FROM THE MONITORING WELL NETWORK AS DESCRIBED IN THE GROUND WATER QUALITY ASSESSMENT PLAN WHICH DESCRIBES THE SAMPLING OF 12 GROUNDWATER MONITORING WELLS AND ANALYSIS OF WATER SAMPLES FOR APPENDIX IX CONSTITUENTS. IF THE FARTHEST DOWNGRADIENT WELLS SHOW IMPACTS, ADDITIONAL WELLS WILL BE INSTALLED TO DETERMINE THE HORIZONTAL EXTENT OF CONTAMINANT MIGRATION. IF THE DEEP WELLS (PIEZOMETERS) SHOW IMPACTS, DEEPER WELLS WILL BE INSTALLED TO DETERMINE THE VERTICAL EXTENT OF CONTAMINANT MIGRATION.

THE RATE OF MIGRATION OF HAZARDOUS WASTE OR HAZARDOUS WASTE CONSTITUENTS WILL BE DETERMINED BY CALCULATING GROUNDWATER FLOW RATES FROM HYDRAULIC CONDUCTIVITIES AND HYDRAULIC GRADIENT. HYDRAULIC CONDUCTIVITIES WILL BE CALCULATED USING DATA FROM IN-FIELD HYDRAULIC CONDUCTIVITY TESTS CONDUCTED ON THE MONITORING WELLS AS DESCRIBED IN THE GROUND WATER SAMPLING AND ANALYSIS PLAN. HORIZONTAL AND VERTICAL HYDRAULIC GRADIENTS WILL BE CALCULATED FROM WATER LEVEL MEASUREMENTS MADE DURING EACH QUARTERLY SAMPLING EVENT. IN THE EVENT THAT SAMPLING AND ANALYSIS REVEALS THAT HAZARDOUS WASTE OR HAZARDOUS WASTE CONSTITUENTS HAVE ENTERED THE GROUNDWATER, A GROUNDWATER MONITORING PLAN IN ACCORDANCE WITH 40 CFR 265.90 AND 265.91 AND OAC 3745-65-90 AND 91, WILL BE PREPARED AND SUBMITTED TO THE USEPA AND THE OEPA. THE GROUNDWATER MONITORING PLAN WILL INCLUDE CONTOUR MAPS OF THE WATER TABLE ELEVATION AND THE ELEVATION OF THE POTENTIOMETRIC SURFACE OF THE GROUNDWATER IN THE BEDROCK, ALONG WITH THE CALCULATED GROUNDWATER FLOW RATES AND ESTIMATED FOR RATE OF CONTAMINANT MIGRATION.

3. For a 2-inch well, multiply the result obtained in Step 2 by 0.163 gallon/foot, and multiply that by 5.

Purging for 2-inch wells will be accomplished by the following steps:

1. Place a plastic dropcloth around the well to minimize possible contamination of sampling equipment with soil.

2. Remove the calculated amount of water necessary to obtain a sample of fresh water from the formation. If the well bails dry, the sample will be collected as soon as there is a sufficient volume recharged to the well to fill all sample bottles.

3. Use a separate pre-cleaned bailer to remove water from each well. A Teflon®-coated, stainless-steel cable will be attached to the bailer; new polypropylene rope will also be attached to the cable.

4. Measure water removed in gallons, to ensure that sufficient volume is purged to remove stagnant water not representative of *in-situ* conditions from the well.

5. Bail in such a manner as to prevent excessive amounts of agitation.

6. Record observations of odor, color, and degree of turbidity.

7. ~~Pour purge water on the ground.~~ PURGE WATER WILL BE COLLECTED IN CONTAINERS PROVIDED BY AMERICAN STEEL FOUNDRIES. CONTAINERS WILL REMAIN INSIDE THE SECURED, FENCED LANDFILL UNTIL ANALYTICAL RESULTS ON THE WELL WATERS ARE RECEIVED. AFTER ANALYTICAL RESULTS ARE KNOWN, AMERICAN STEEL FOUNDRIES SHALL DISPOSE OF THE CONTAINERIZED WATER IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

4.1.3 Sample and Data Collection at Each Well

Samples will be collected immediately after purging. Procedures for the sampling of the monitoring wells are as follows:

1. Set up filtering equipment and prepare pH and specific conductance meters.

2. Label bottles by writing the well number, project name, date, the sampler's name, and the time of day in the sampler section.

3. Collect samples using the dedicated bailer and a bottom-emptying device to prevent excessive amounts of agitation and aeration.

4. Fill bottles for unfiltered samples first.

5. After filling bottles for unfiltered samples, collect a sample for filtering and performing field measurements.

The instruments used in the field and their calibration procedures are described below.

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY * P. O. BOX 2060 * ALLIANCE, OHIO 44601

(216) 823-6150 * FAX NO. (216) 821-4568

RECEIVED
MAY 10 1993
OFFICE OF RCRA
WASTE MANAGEMENT D
EPA REGION

May 4, 1993

Certified Letter
Return Receipt Requested

Chief, RCRA Enforcement Branch, 5HR-12 **P 738 585 619**
U.S. EPA, Region V
230 South Dearborn Street
Chicago, Illinois 60604
Attn: Kimberly Oogle

Chief, SWERB Section V
Office of Regional Counsel
U. S. EPA Regional V, 5CS-TUB3
230 South Dearborn Street
Chicago, Illinois 60604
Attn: Richard Clarizio

UNITED STATES V. AMSTED INDUSTRIES, INC.
CIVIL ACTION NO. C87-1284A (N.D. OHIO)

Progress Report #3

This submittal is intended to meet the Progress Report requirements of Section X of the Consent Decree. The numbering of each item conforms with the Consent Decree sequence.

The following have been completed since the last report:

We are current with all reporting requirements and are awaiting Ohio EPA approval of the following:

1. The Sebring Facility Ground Water Assessment Plan.
2. The EAF Dust Collector Closure Plan.
3. The Sebring Facility Closure Plan.

American Steel Foundries has contracted with "RMT Engineering & Environmental Management" to prepare a test plot plan for submittal to the OEPA incorporating the use of foundry material as an alternative to clay in the final cover design for the Sebring Landfill Facility.

Test Results and Sampling Summary

Since the January report, we have been conducting selective scrap experiments at our electric arc furnace to see if levels of lead and cadmium in our dust can be reduced.

RE: **UNITED STATES V. AMSTED IND., INC. CIVIL ACTION # C87-1284A (N. D. OHIO)**

In the most recent experiments, lead and cadmium were below regulatory limits. We are continuing to experiment in an effort to reduce hazardous waste generation at this facility.

Attachment "A" shows the electric arc furnace dust composite sample reports that have been received since the last reporting period.

Please note that on Progress Report #2, the EAF dust sample dated February 23, 1993 had a selenium result at 1.0 mg/l. It is not normal for us to experience selenium in our dust, and we suspected a lab error and asked to have the sample be redone. On the second analysis of the same sample, dated March 18, 1993, the selenium was reported at .4 mg/l.

In accordance with our bi-annual waste stream analysis program, we have started our re-sampling of all waste streams.

Analytical reports received from Browning Ferris Ind., our current solid waste handler, are for the following waste streams: See Attachment "B".

1. Spent Refractory
2. Spent Foundry Sand
3. Floor Sweepings
4. Broken Core Butts
5. Broken Fluorescent Light Bulbs
6. Dewatered Sludge

ACTIONS NOT COMPLETED AS REQUIRED

As of the time of the submittal of this Progress Report, all required actions have been completed and there are currently no anticipated problems.

CERTIFICATION

I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portions(s) of this submission or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete, to the best of my knowledge.

Yours very truly,

J. A. Difloure
Plant Manager

TCB/sdw

Enclosure

cc: DJM
JAD

RE: UNITED STATES V. AMSTED IND., INC. CIVIL ACTION #C87-1284-A N.D. OHIO)

Ohio EPA
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P. O. Box 1049
Columbus, Ohio 43265-0149

Ohio EPA
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward Brosius, Esq.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Avenue
Chicago, Illinois 60601

American Steel Foundries
10 South Riverside Plaza - 10th Floor
Chicago, Illinois 60606
Attn: C. A. Ruud

P. C. Schillawski
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114 - 1304

Edward R. Hanson
Project Manager
American Steel Foundries
Manufacturing Research Engineering Center
3761 Canal Street
East Chicago, Indiana 46312

ATTACHMENT "A"

WADSWORTH/ALERT Laboratories
Division of Enseco Incorporated

Corporate and Laboratory:
4101 Shuffel Drive, NW
North Canton, OH 44720
216-497-9396
FAX 216-497-0772

ANALYTICAL REPORT

TERRY BRADWAY

AMERICAN STEEL FOUNDRIES

ENSECO-WADSWORTH/ALERT LABORATORIES

Alesia M. Danford
Project Manager

Mark P. Nebiolo
Laboratory Manager

April 23, 1993

Laboratories:
Pittsburgh, PA
412-826-5477

Tampa, FL
813-621-0784

SAMPLE SUMMARY

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

WO #	LABORATORY ID	SAMPLE IDENTIFICATION
C6464	A3D080052-001	033193A EAF DUST COLLECTOR 3-31-93 2 WK COMP

AMERICAN STEEL FOUNDRIES

033193A EAF DUST COLLECTOR 3-31-93 2 WK COMP

WO #: C6464
LAB #: A3D080052-001
MATRIX: SOLID

DATE RECEIVED: 4/08/93
TCLP EXTRACTION DATE: 4/12/93
FINAL PH:7.2

- - - - - - - - - - - - - **TCLP TOXICITY CHARACTERISTIC METALS** - - - - - - - - - - - - -

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
- - TCLP METALS - -						
Silver	ND	0.10	mg/L	SW846 6010	4/12- 4/14/93	3102068
Arsenic	ND	0.50	mg/L	SW846 6010	4/12- 4/14/93	3102068
Barium	ND	1.0	mg/L	SW846 6010	4/12- 4/14/93	3102068
Cadmium	**0.46**	**0.10**	**mg/L**	**SW846 6010**	**4/12- 4/14/93**	**3102068**
Chromium	**0.59**	**0.10**	**mg/L**	**SW846 6010**	**4/12- 4/14/93**	**3102068**
Lead	ND	0.10	mg/L	SW846 6010	4/12- 4/14/93	3102068
Selenium	ND	0.30	mg/L	SW846 6010	4/12- 4/14/93	3102068
Mercury	ND	0.020	mg/L	SW846 7471	4/12- 4/13/93	3102068

NOTE:

AS RECEIVED

ND NOT DETECTED AT THE STATED REPORTING LIMIT

CLIENT CODE _____

QUOTE / SAR NUMBER _____

Chain-of Custody Record

WADSWORTH/ALERT LABORATORIES

4101 SHUFFEL DRIVE N.W. / NORTH CANTON, OHIO 44720

(216) 497-9396

№ 18376

PROJ. NO.	PROJECT NAME/LOCATION: AMERICAN STEEL FOUNDRIES					NO. OF CONTAINERS	PARAMETER: TCLP METALS ONLY						REMARKS
SAMPLERS: (Signature) T.C. BRADWAY													
STA. NO.	DATE	TIME	COMP.	GRAB.	STATION LOCATION								
33193A	3/31/93	2:00 PM	X		EAF DUST COLLECTOR	1	X						

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
T.C. Bradway	4/8/93 2:55pm				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Kathy Graves	4-8-93 9:00pm		

Distribution Original Accompanies Shipment. Copy returned with Report.

ATTACHMENT "A"

WADSWORTH/ALERT Laboratories
Division of Enseco Incorporated

Corporate and Laboratory:
4101 Shuffel Drive, NW
North Canton, OH 44720

216-497-9396
FAX 216-497-0772

ANALYTICAL REPORT

REVISED

TERRY BRADWAY

AMERICAN STEEL FOUNDRIES

ENSECO-WADSWORTH/ALERT LABORATORIES

Alesia M. Danford
Project Manager

Mark P. Nebiolo
Laboratory Manager

March 18, 1993

Laboratories:

Pittsburgh, PA
412-826-5477

Tampa, FL
813-621-0784

SAMPLE SUMMARY

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

WO #	LABORATORY ID	SAMPLE IDENTIFICATION
B7605	A3B120039-001	EAF DUST COLLECTOR 2-4-93 12:00

AMERICAN STEEL FOUNDRIES

EAF DUST COLLECTOR 2-4-93 12:00

WO #: B7605
LAB #: A3B120039-001
MATRIX: SOLID

DATE RECEIVED: 2/12/93
TCLP EXTRACTION DATE: 2/16/93
FINAL PH:6.8

- - - - - - - - - - - - - TCLP TOXICITY CHARACTERISTIC METALS - - - - - - - - - - - - -

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
- - TCLP METALS - -						
Silver	ND	0.1	mg/L	SW846 6010	2/16- 2/18/93	3047031
Arsenic	ND	0.5	mg/L	SW846 6010	2/16- 2/18/93	3047031
Barium	ND	1.0	mg/L	SW846 6010	2/16- 2/18/93	3047031
Cadmium	**2.7**	**0.1**	**mg/L**	**SW846 6010**	**2/19- 2/21/93**	**3050005**
Chromium	ND	0.1	mg/L	SW846 6010	2/16- 2/18/93	3047031
Lead	**0.3**	**0.1**	**mg/L**	**SW846 6010**	**2/16- 2/18/93**	**3047031**
Selenium	**0.4**	**0.3**	**mg/L**	**SW846 6010**	**2/16- 3/15/93**	**3047031**
Mercury	ND	0.02	mg/L	SW846 7471	2/16- 2/17/93	3047031

NOTE:
AS RECEIVED
ND (NONE DETECTED)

CLIENT CODE _____

QUOTE / SAR NUMBER _____

Chain-of Custody Record

WADSWORTH/ALERT LABORATORIES

4101 SHUFFEL DRIVE N.W./NORTH CANTON, OHIO 44720

(216) 497-9396

№ 18375

PROJ. NO.	PROJECT NAME/LOCATION
	AMERICAN STEEL FOUNDRIES

SAMPLERS: *(Signature)* T.C. [illegible]

STA. NO.	DATE	TIME	COMP.	GRAB.	STATION LOCATION	NO. OF CONTAINERS	PARAMETER: TCLP (ONLY METALS)						REMARKS
020493	8/4/93	12:00	X		EAF DUST COLLECTOR	1	X						

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
T.C. [illegible]	2/12/93 7:30 AM	J M Kennedy			
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
J M Kennedy					
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks	
		[illegible]	2/12/93 8:30		

Distribution Original Accompanies Shipment. Copy returned with Report.

FLOOR SWEEPINGS
ATTACHMENT "B"

BFI® Waste Systems™
BROWNING-FERRIS INDUSTRIES

WCD No. AA 73899

OH 1855 219 1940212 1 2 0 2 1 4 3
BFI WASTE CODE

WASTE EVALUATION REQUEST

BFI to complete this area.
BFI Initiator ALCASANTA
Location 1043 ST RT225
Company Number 219 Date 2-2-93
Telephone Number (216) 947-2548
Action Requested: ☒ New Waste Approval
☐ Up-Date Approval ☐ Priority
☐ Other

Previous Laboratory Number
Management Method Requested: ☒ Landfill ☐ Hauling
☐ Other
Disposal Site Requested WILLOWCREEK / CARBON
Company Number 219 P.O. Number
Analyses Requested: ☐ TCLP ☒ RCI
☐ Other
Analyses To Follow: ☐ TCLP ☐ Other
ATTACHED

WASTE CHARACTERIZATION DATA

Special Waste

IMPORTANT: THIS FORM IS TO BE COMPLETED BY A REPRESENTATIVE OF THE WASTE GENERATOR. PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS FORM. THIS FORM IS TO BE USED ONLY ONE TIME, AND MUST BE TYPEWRITTEN OR LEGIBLY PRINTED IN INK, AND SIGNED.

1. GENERATOR INFORMATION

a) Generator's Name: AMERICAN STEEL FOUNDRIES
b) Generating Facility Address: 1001 E. BROADWAY
City: ALLIANCE State: OH Zip: 44601
c) Company Representative: W.D HEESTAND JR
Title: SAFETY & ENVIRONMENTAL SUPVR.
d) Emergency Contact: AS ABOVE
Title

e) Local Registration No.
Generator's EPA Id. No. OHD981090418
f) Telephone No. (216) 823-6150
After Hours No. (216) 823-6150
Emergency No. (216) 823-6150.

2. GENERAL WASTE STREAM INFORMATION

a) Description of The Waste: FLOOR SWEEPINGS FROM STEEL FOUNDRY OPERATION
b) Process Generating Waste: SWEEP FLOOR FROM STEEL FOUNDRY OPERATION
c) Is this a treatment residue of a waste which was previously a restricted characteristically hazardous waste? ☐ Yes ☒ No
d) Is this a "Hazardous Waste" as defined by State or local Regulations? ☐ Yes ☒ No
If yes, enter the Waste Identification Number if one has been assigned:
e) Is this a "Special Waste", an "Industrial Process Waste", or a "Polution Control Waste" as defined by State or local Regulations?
☒ Yes ☐ No If yes, enter Waste Identification Number: NA
f) Recommended personal protection equipment and special handling procedures: NONE
g) Anticipated Volume: 10 ☐ Gallons ☒ Tons ☐ Cubic Yards ☐ Other
Per: ☐ Day ☒ Week ☐ Month ☐ Year ☐ One Time, or ☐ Other
To be transported in: ☒ Bulk ☐ Drums (type/size) ☐ Other
h) Is a representative sample included? ☒ Yes ☐ No – If yes, complete the RSC found on the reverse side.

3. WASTE PROPERTIES @ 72°F

a) Physical State:
☒ Solid ☐ Semi-solid
☐ Powder ☐ Liquid
☐ Combination
b) Odor:
Describe
☒ None ☐ Mild ☐ Strong
c) Flash Point, °F:
☐ ≤72 ☐ 73-100 ☐ 101-140
☐ 141-200 ☐ ≥201 ☐ N/A ☒ N/D

d) Layers:
☒ Single Phase ☐ Bi-layered ☐ Multi-layered
e) Density Range: ND to
☐ N/D ☐ lbs./gal. ☐ g./cc.
☐ lbs./yd.³ ☐ Other
f) Color(s):
Describe BLACK WITH GRAYS
g) pH:
☐ ≤2.0 ☐ 2.1-5.0 ☐ 5.1-9.0
☐ 9.1-12.4 ☐ ≥12.5 ☐ N/A ☒ N/D

1993 BFI Corporate Special Waste Approvals

4. REACTIVITY

Note if the waste exhibits any of the following reactive properties: ☐ Water Reactive ☐ Alkaline Reactive ☐ Pyrophoric ☐ Thermally Sensitive ☐ Acid Reactive ☐ Autopolymerizable ☐ Explosive ☐ Shock Sensitive ☒ None of the above

OH ,855;219 ,940212 ,202143
BFI WASTE CODE

5. THIS WASTE CONTAINS

Note if the waste contains any of the following:

- ☐ Free Liquids
- ☐ Free Cyanide
- ☐ Free Sulfide
- ☐ Free Ammonia
- ☐ Dioxins
- ☐ Organic Solvents
- ☐ Used Oils
- ☐ Virgin Oils
- ☐ Etiological Agents
- ☐ Pathogens
- ☐ OSHA Substances
- ☐ Biological Materials
- ☐ Radioactive Materials
- ☐ PCBs not regulated by TSCA 40 CFR 761
- ☒ None of the above

If any of the above are checked "Yes", specify type (if applicable) and include its concentration as part of the waste composition, Section 6.

6. COMPLETE WASTE COMPOSITION

Concentration ranges are suggested, but total must equal 100%. Units must be identified and are to be in parts per million (ppm) and/or percentages (%). Attach additional pages if necessary.

Components	Range Min. / Max.	Components	Range Min. / Max.
SAND	70 %		
INSULATED SLEEVES	2 %		
SCRAP STEEL	13 %		
STEEL GRANULES	15 %		

7. TRANSPORTATION INFORMATION

If the waste is a DOT Hazardous Material, complete the following:

Proper USDOT Shipping Name: N/A

USDOT Hazard Class: _____ UN or NA Number: _____ CERCLA Reportable Quantity _____

8. SUPPLEMENTAL INFORMATION

☒ None ☐ MSD Sheets ☐ Analytical Data ☐ Memo/Letter ☐ Waste Composition

☐ Other - describe _____ No. of Pages _____

9. GENERATOR'S CERTIFICATION

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine, that no deliberate or willful omissions of composition or properties exists, that all known or suspected hazards have been disclosed, and that the waste is not designated a Hazardous Waste by the USEPA or contains PCBs regulated by TSCA 40 CFR 761.

GENERATOR'S AUTHORIZED SIGNATORY:

DATE	PRINT NAME	SIGNATURE	TITLE	INITIALS
2-02 93	T.C. Bradway	T.C. Bradway	FACILITIES ENGINEER	TCB

REPRESENTATIVE SAMPLE CERTIFICATE

This Section is to be completed by the person obtaining the sample of the above described waste, preferably a representative of the generator. **DO NOT** COLLECT OR SUBMIT SAMPLES THAT ARE RADIOACTIVE, SHOCK SENSITIVE, EXPLOSIVE, OR PYROPHORIC.

I certify that the sample identified below that is being forwarded to BFI for evaluation is representative of the waste described above. I also understand that, should the waste material described herein not be acceptable for management by BFI Waste Systems, the sample(s) may be returned to the generator.

Collector's Name: T.C. Bradway

Signature: T.C. Bradway

Company: AMERICAN STEEL FOUNDRIES

Title: FACILITIES ENGINEER

Telephone Number: (216) 823-6150 EXT 206

(Peel Off Label)

wcd Rev: 9/91

CORPORATE WASTE
APPROVAL GROUP

BROWNING-FERRIS INDUSTRIES

DATE	: 02/12/93
BFI Location	: WILLOWCREEK
BFI Initiator	: CASANTA, A.
Generator	: AMERICAN STEEL FOUNDRIES
Generator Location	: ALLIANCE, OH
Waste Description	: FLOOR SWEEPINGS
BFI Lab Number	: 202143

PRETREATMENT & DISPOSAL RECOMMENDATION

Safety Precautions : Avoid Skin & Eye Contact

RECOMMENDED:
Direct Landfill Burial: Amount of Original Waste 100% by vol.

Sanitary.. BFI Mahoning & Willowcreek
** See attached analysis
Comments:

See the attached Chains (2) of Custody and analytical data from the BFI Houston Laboratory as received by the BFI Corporate Waste Approval Group.

The above is a recommendation of BFI Corporate Waste Approval Group. It must be understood that management of the waste for treatment and/or disposal at the designated facility must be in compliance with the facility's permit and applicable federal, state, and local regulations. The waste treatment and/or disposal recommendation is based upon a review of the information provided by the generator. This recommendation is contingent upon the receipt at the treatment and/or disposal facility of a waste material essentially equivalent in chemical composition and physical properties to that as defined above. This waste stream has been assigned BFI Waste Code: OH/855;219/940212/202143

CORPORATE WASTE APPROVAL GROUP

Diana L. Lasco
Technical Representative

HOUSTON LABORATORY

BROWNING-FERRIS INDUSTRIES

DATE	:	02/05/93
BFI Location	:	BFI WILLOWCREEK
BFI Initiator	:	CASANTA, A
Generator	:	AMERICAN STEEL FOUNDRIES
Generator Location	:	ALLIANCE, OH
Waste Description	:	(AA73899) FLOOR SWEEPINGS Solid ,# phases/layers: 1 , Color: GRAY Odor: ---
BFI Lab Number	:	97010

REACTIVITY REPORT

Radioactivity, exposure dose.
Results: < 0.05 mR/hr.

Characteristic of Ignitability as per 40 CFR 261.21.
Results: NEGATIVE

Characteristic of Corrosivity as per 40 CFR 261.22.
Results: NOT APPLICABLE

pH, 5% slurry by weight.
Results: 9.4

Characteristic of Reactivity as per 40 CFR 261.23.
Results: SULFIDE <5 ppm ; CYANIDE <2 ppm

Reaction when exposed to air as per 40 CFR 261.23.
Results: NONE DETECTED

Reaction when mixed with water as per 40 CFR 261.23.
Results: NONE DETECTED; 99% INS

Reaction when mixed with a 10% wt. solution of HCL.
Results: NONE DETECTED; 99% INS

Reaction when mixed with a 10% solution of NaOH.
Results: NONE DETECTED; 99% INS

Density
Results: 2746.2 (lb./cu.yd.)

FEB 9 1993
BFI Corporate Special Waste Approvals

BFI HOUSTON LAB GROUP

David C Pangrazio

DAVID PANGRAZIO
QA/QC MANAGER

NAME	SPECIMEN I.D. NUMBER	ACCESSION NO.
WCD#AA73899 FLOOR SWEEPINGS	93516210	93 516210

COLLECTION DATE	COLLECTION TIME	RECEIVED
02/02/93	10:00	02/03/93

CLIENT I.D. NUMBER	LOCATION	REPORTED
AMERICAN STEEL	6210 00000	02/11/93

TEST	RESULT NORMAL	RESULT ABNORMAL	REFERENCE OR THERAPEUTIC RANGE		UNITS
TCLP EXTRACTION PROC	FINAL pH=5.23				
TCLP METALS & BIAS %					
ARSENIC	<0.20		0.0	5.0	MG/L
Spike recovery	99				%
BARIUM	<0.50		0.0	100.0	MG/L
Spike recovery	81				%
CADMIUM	<0.03		0.0	1.0	MG/L
Spike recovery	106				%
CHROMIUM	<0.30		0.0	5.0	MG/L
Spike recovery	99				%
SELENIUM	<0.02		0.0	1.0	MG/L
Spike recovery	87				%
MERCURY	<0.0002		0.0	0.2	MG/L
Spike recovery	97				%
LEAD	<0.20		0.0	5.0	MG/L
Spike recovery	100				%
SILVER	<0.05		0.0	5.0	MG/L
Spike recovery	87				%
TCLP SUPPL.METALS					
NICKEL	0.37				MG/L
Spike recovery	99				%
COPPER	<0.30				MG/L
Spike recovery	104				%
TCLP REVIEW					

TCLP PREPARATION FOLLOWS METHOD 1311 SW-846
AS REVISED NOVEMBER 24,1992 (57FR55114)
REVIEWED BY ALBERT F. VICINIE III,LAB SUPERVISOR

--- DIRECTORS ---
Patrick K. Jagnes Ph.D.
Anthony Nasrallah Ph.D.

BFI WASTE SYSTEMS
WILLOWCREEK LANDFILL DISTRICT
1043 STATE ROUTE 225
AIWATER OH 44201

DEYOR Laboratories
7655 Market Street, Suite 2500
Youngstown, Ohio 44512
(216) 758-5788
(800) 365-3396

ANALYTICAL TESTING COSTS: [illegible]

CUST. AUTHORIZATION: 1400.00 ARC

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

W.C.D.# AA73964 AA73900 AA73899 AA7390

CUSTOMER: AMERICAN STEEL FOUNDRY

P.O.# : 018-00621

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: Devour Contact: Rusty

Location: Bdma OK Phone: 758-5788

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
AA73964	Spent Foundry SAND			TCLP - METALS	
AA73900	REFRACTORY BRICK			TCLP - METALS	
AA73899	FLOOR SWEEPINGS			TCLP METALS	
AA73901	BROKEN CORE BUTTS			TCLP METALS	

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By: T.C. Broadway	Date/Time: 02/02/93 10:00AM	Company: American Steel Foundries
Sample(s) Submitted By: T.C. Broadway	Date/Time: 02/02/93 11:30AM	Company: American Steel Foundries
Sample(s) Couriered by: [illegible]	Date/Time: 2/3/93 5:50PM	Company: Ship Ticket No. BFI
Sample(s) Received by: Dennis Brady	Date/Time: 2/3/93 1752	Company: DeVor

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

97010

FEB 04 1993

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: BFI Houston Laboratory Contact:

Location: 5630 Cuhn Road Houston Phone: 713-460-9988

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
AN73899	floor sweepings	1pt	SW	RCI	N

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By:	Date/Time:	Company:
Sample(s) Submitted By: Al Casanova	Date/Time: 2-3-93	Company: BFI-Willowcreek
Sample(s) Couriered by: Federal Express	Date/Time: 2-3-93	Company: Airbill Ship Ticket No. # 4322971951
Sample(s) Received by: Angie Valdez	Date/Time: 10 AM 02-04-93	Company: BFI LAB

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

ATTACHMENT "B"

A1

WCD No. AA 73964

OH 1855 1219 1940212 2 0 2 1 4 2
BFI WASTE CODE

WASTE EVALUATION REQUEST

BFI to complete this area.
BFI Initiator AL CASANTA
Location 1043 St. Rt 225
Company Number 219 Date 2-2-93
Telephone Number (216) 947-2548
Action Requested: ☒ New Waste Approval
☐ Up-Date Approval ☐ Priority
☐ Other

Previous Laboratory Number
Management Method Requested: ☒ Landfill ☐ Hauling
☐ Other
Disposal Site Requested WILLOWCREEK/CARBON
Company Number 219 P.O. Number
Analyses Requested: ☐ TCLP ☒ RCI
☐ Other
Analyses To Follow: ☒ TCLP ☐ Other
~~ATTACHED~~

WASTE CHARACTERIZATION DATA

Special Waste

IMPORTANT: THIS FORM IS TO BE COMPLETED BY A REPRESENTATIVE OF THE WASTE GENERATOR. PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS FORM. THIS FORM IS TO BE USED ONLY ONE TIME, AND MUST BE TYPEWRITTEN OR LEGIBLY PRINTED IN INK, AND SIGNED.

1. GENERATOR INFORMATION

a) Generator's Name: American Steel Foundries
b) Generating Facility Address: 1601 E. Broadway
City: Alliance State: OH Zip: 44601
c) Company Representative: T.C. Bradley
Title: Facilities Eng.
d) Emergency Contact: Same
Title

e) Local Registration No.
Generator's EPA Id. No. OHD981996418
f) Telephone No. (216) 823-6150
After Hours No. ( ) " "
Emergency No. ( ) " "

2. GENERAL WASTE STREAM INFORMATION

a) Description of The Waste: SPENT FOUNDRY SAND
b) Process Generating Waste: MOLDING OPERATION FOR STEEL FOUNDRY
c) Is this a treatment residue of a waste which was previously a restricted characteristically hazardous waste? ☐ Yes ☒ No
d) Is this a "Hazardous Waste" as defined by State or local Regulations? ☐ Yes ☒ No
If yes, enter the Waste Identification Number if one has been assigned:
e) Is this a "Special Waste", an "Industrial Process Waste", or a "Pollution Control Waste" as defined by State or local Regulations?
☒ Yes ☐ No If yes, enter Waste Identification Number: NA
f) Recommended personal protection equipment and special handling procedures: NONE
g) Anticipated Volume: 58 ☐ Gallons ☒ Tons ☐ Cubic Yards ☐ Other
Per: ☐ Day ☒ Week ☐ Month ☐ Year ☐ One Time, or ☐ Other
To be transported in: ☒ Bulk ☐ Drums (type/size) ☐ Other
h) Is a representative sample included? ☒ Yes ☐ No – If yes, complete the RSC found on the reverse side.

3. WASTE PROPERTIES @ 72°F

a) Physical State:
☒ Solid ☐ Semi-solid
☐ Powder ☐ Liquid
☐ Combination
b) Odor:
Describe
☒ None ☐ Mild ☐ Strong
c) Flash Point, °F:
☐ ≤72 ☐ 73-100 ☐ 101-140
☐ 141-200 ☐ ≥201 ☐ N/A ☒ N/D

d) Layers:
☒ Single Phase ☐ Bi-layered ☐ Multi-layered
e) Density Range: ND to
☐ N/D ☐ lbs./gal. ☐ g./cc.
☐ lbs./yd.³ ☐ Other
f) Color(s):
Describe TAN, BROWNS & BLACK
g) pH:
☐ ≤2.0 ☐ 2.1-5.0 ☐ 5.1-9.0
☐ 9.1-12.4 ☐ ≥12.5 ☒ N/A ☐ N/D

12 13 OH 18 15

4. REACTIVITY

Note if the waste exhibits any of the following reactive properties: ☐ Water Reactive ☐ Alkaline Reactive ☐ Pyrophoric ☐ Thermally Sensitive ☐ Acid Reactive ☐ Autopolymerizable ☐ Explosive ☐ Shock Sensitive ☒ None of the above

OH ,855,219 , 940212 , 202142
BFI WASTE CODE

5. THIS WASTE CONTAINS

Note if the waste contains any of the following:

- ☐ Free Liquids
- ☐ Free Cyanide
- ☐ Free Sulfide
- ☐ Free Ammonia
- ☐ Dioxins
- ☐ Organic Solvents
- ☐ Used Oils
- ☐ Virgin Oils
- ☐ Etiological Agents
- ☐ Pathogens
- ☐ OSHA Substances
- ☐ Biological Materials
- ☐ Radioactive Materials
- ☐ PCBs not regulated by TSCA 40 CFR 761
- ☒ None of the above

If any of the above are checked "Yes", specify type (if applicable) and include its concentration as part of the waste composition, Section 6.

6. COMPLETE WASTE COMPOSITION

Concentration ranges are suggested, but total must equal 100%. Units must be identified and are to be in parts per million (ppm) and/or percentages (%). Attach additional pages if necessary.

Components	Range Min. / Max.	Components	Range Min. / Max.
SILICA	94 %		
CLAY	6 %		

7. TRANSPORTATION INFORMATION

If the waste is a DOT Hazardous Material, complete the following:

Proper USDOT Shipping Name: N/A

USDOT Hazard Class: _____ UN or NA Number: _____ CERCLA Reportable Quantity _____

8. SUPPLEMENTAL INFORMATION

☒ None ☐ MSD Sheets ☐ Analytical Data ☐ Memo/Letter ☐ Waste Composition

☐ Other – describe _____ No. of Pages _____

9. GENERATOR'S CERTIFICATION

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine, that no deliberate or willful omissions of composition or properties exists, that all known or suspected hazards have been disclosed, and that the waste is not designated a Hazardous Waste by the USEPA or contains PCBs regulated by TSCA 40 CFR 761.

GENERATOR'S AUTHORIZED SIGNATORY:

DATE	PRINT NAME	SIGNATURE	TITLE	INITIALS
2-2-93	T.C. BRADWAY	T.C. Bradway	FACILITIES ENGINEER	TCB

REPRESENTATIVE SAMPLE CERTIFICATE

This Section is to be completed by the person obtaining the sample of the above described waste, preferably a representative of the generator. **DO NOT** COLLECT OR SUBMIT SAMPLES THAT ARE RADIOACTIVE, SHOCK SENSITIVE, EXPLOSIVE, OR PYROPHORIC.

I certify that the sample identified below that is being forwarded to BFI for evaluation is representative of the waste described above. I also understand that, should the waste material described herein not be acceptable for management by BFI Waste Systems, the sample(s) may be returned to the generator.

Collector's Name: T.C. BRADWAY

(Peel Off Label)

Signature: T.C. Bradway

Company: AMERICAN STEEL FOUNDRIES

Title: FACILITIES ENGINEER

Telephone Number: (216) 823-6650 EXT. 206

wcd Rev: 9/91

CORPORATE WASTE
APPROVAL GROUP

BROWNING-FERRIS INDUSTRIES

DATE	: 02/12/93
BFI Location	: WILLOWCREEK
BFI Initiator	: CASANTA, A.
Generator	: AMERICAN STEEL FOUNDRIES
Generator Location	: ALLIANCE, OH
Waste Description	: SPENT FOUNDRY SAND
BFI Lab Number	: 202142

PRETREATMENT & DISPOSAL RECOMMENDATION

Safety Precautions : Avoid Skin & Eye Contact

RECOMMENDED:
Direct Landfill Burial: Amount of Original Waste 100% by vol.

Sanitary.. BFI Mahoning & Willowcreek
** See attached analysis
Comments:

See the attached Chains (2) of Custody and analytical data from the BFI Houston Laboratory and DeYor Laboratories as received by the BFI Corporate Waste Approval Group.

The above is a recommendation of BFI Corporate Waste Approval Group. It must be understood that management of the waste for treatment and/or disposal at the designated facility must be in compliance with the facility's permit and applicable federal, state, and local regulations. The waste treatment and/or disposal recommendation is based upon a review of the information provided by the generator. This recommendation is contingent upon the receipt at the treatment and/or disposal facility of a waste material essentially equivalent in chemical composition and physical properties to that as defined above. This waste stream has been assigned BFI Waste Code: OH/855;219/940212/202142

CORPORATE WASTE APPROVAL GROUP

Diana L. Lasco
Technical Representative

HOUSTON LABORATORY

BROWNING-FERRIS INDUSTRIES

DATE	: 02/05/93
BFI Location	: BFI WILLOWCREEK
BFI Initiator	: CASANTA, A
Generator	: AMERICAN STEEL FOUNDRIES
Generator Location	: ALLIANCE, OH
Waste Description	: (AA73964) SPENT FOUNDRY SAND Solid ,# phases/layers: 1 , Color: BLACK Odor: ---
BFI Lab Number	: 97007

REACTIVITY REPORT

Radioactivity, exposure dose.
Results: < 0.05 mR/hr.

Characteristic of Ignitability as per 40 CFR 261.21.
Results: NEGATIVE

Characteristic of Corrosivity as per 40 CFR 261.22.
Results: NOT APPLICABLE

pH, 5% slurry by weight.
Results: 9.6

Characteristic of Reactivity as per 40 CFR 261.23.
Results: SULFIDE <5 ppm ; CYANIDE <2 ppm

Reaction when exposed to air as per 40 CFR 261.23.
Results: NONE DETECTED

Reaction when mixed with water as per 40 CFR 261.23.
Results: NONE DETECTED; 99% INS

Reaction when mixed with a 10% wt. solution of HCL.
Results: NONE DETECTED; 99% INS

Reaction when mixed with a 10% solution of NaOH.
Results: NONE DETECTED; 99% INS

Density
Results: 2881.0 (lb./cu.yd.)

BFI HOUSTON LAB GROUP

David Pangrazio

DAVID PANGRAZIO
QA/QC MANAGER

NAME	SPECIMEN I.D. NUMBER	ACCESSION NO.
WCD#AA73964 SPENT FOUNDRY SAND	93516208	93 516208

COLLECTION DATE	COLLECTION TIME	RECEIVED
02/02/93	10:00	02/03/93

CLIENT I.D. NUMBER	LOCATION	REPORTED
AMERICAN STEEL	6208 00000	02/11/93

TEST	RESULT NORMAL	RESULT ABNORMAL	REFERENCE OR THERAPEUTIC RANGE		UNITS
TCLP EXTRACTION PROC	FINAL pH=5.26				
TCLP METALS & BIAS %					
ARSENIC	<0.20		0.0	5.0	MG/L
Spike recovery	83				%
BARIUM	<0.50		0.0	100.0	MG/L
Spike recovery	81				%
CADMIUM	<0.03		0.0	1.0	MG/L
Spike recovery	106				%
CHROMIUM	<0.30		0.0	5.0	MG/L
Spike recovery	98				%
SELENIUM	<0.02		0.0	1.0	MG/L
Spike recovery	82				%
MERCURY	<0.0002		0.0	0.2	MG/L
Spike recovery	99				%
LEAD	<0.20		0.0	5.0	MG/L
Spike recovery	99				%
SILVER	<0.05		0.0	5.0	MG/L
Spike recovery	94				%
TCLP SUPPL.METALS					
NICKEL	<0.20				MG/L
Spike recovery	107				%
COPPER	<0.30				MG/L
Spike recovery	102				%
TCLP REVIEW					

TCLP PREPARATION FOLLOWS METHOD 1311 SW-846
AS REVISED NOVEMBER 24,1992 (57FR55114)
REVIEWED BY ALBERT F. VICINIE III,LAB SUPERVISOR

--- DIRECTORS ---
Patrick K. Jaynes Ph.D.
Anthony Nasrallah Ph.D.

DEYOR Laboratories
7655 Market Street, Suite 2500
Youngstown, Ohio 44512
(216) 758-5788
(800) 365-3396

BFI WASTE SYSTEMS
WILLOWCREEK LANDFILL DISTRICT
1043 STATE ROUTE 225
ATWATER OH 44201

APPROXIMATE TESTING COSTS: [illegible]

CUST. AUTHORIZATION: 1400.00

ARC

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

W.C.D.# AA73964 AA7392 AA73900 AA73899

CUSTOMER : AMERICAN STEEL FOUNDRY

P.O.# : 019-00621C

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: Deyour Contact: Rusty

Location: Bdma Ok Phone: 758-5788

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
AA73964	Spent foundry SAND			TCLP - METALS	
AA73900	REFRACTORY - BRICK			TCLP - METALS	
AA73899	FLOOR SWEEPINGS			TCLP METALS	
AA73901	BROKEN CORE BUTTS			TCLP METALS	

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By:	Date/Time:	Company:
T.C. BRADWAY	02/02/93 10:00AM	AMERICAN STEEL FOUNDRIES
Sample(s) Submitted By: T.C. BRADWAY	Date/Time: 02/02/93 11:30AM	Company: AMERICAN STEEL FOUNDRIES
Sample(s) Couriered by: [illegible]	Date/Time: 2/3/93 6:50AM	Company: Ship Ticket No. BFI
Sample(s) Received by: Dennis Brady	Date/Time: 2/3/93 1752	Company: DeYOR

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

97007

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

FEB 04 1993

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: BFI Houston Laboratory Contact:

Location: 5630 Cuhn Road Houston Phone: 713-460-9988

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
AA73964	spent foundry sand	1 pt.	SW	RCI	N

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By:	Date/Time:	Company:
Sample(s) Submitted By: Al Casanova	Date/Time: 2-3-93	Company: IOH-Willowcreek
Sample(s) Couriered by: Federal Express	Date/Time: 2-3-93	Company: Airbill Ship Ticket No. # 4322971951
Sample(s) Received by: Angie Valdez	Date/Time: 10 AM 02-04-93	Company: BFI LAB

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

FEB 9 1993 Approved Special Waste Approvals

ANALYTICAL TESTING COSTS: [illegible]

CUST. AUTHORIZATION: 1400.00 ARC

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

W.C.D.# AA73964 AA73900 ~~AA73899~~ AA7390

CUSTOMER : AMERICAN STEEL FOUNDRY

P.O.# : 018-00621C

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: Deyor Contact: Rusty

Location: Belen OK Phone: 758-5788

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
AA73964	Spent Foundry SAND			TCLP - METALS	
AA73900	REFRACTORY BRICK			TCLP - METALS	
AA73899	FLOOR SWEEPINGS			TCLP METALS	
AA73901	BROKEN CORE BUTTS			TCLP METALS	

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By: T.C. BROADWAY	Date/Time: 02/02/93 10:00AM	Company: AMERICAN STEEL FOUNDRIES
Sample(s) Submitted By: T.C. BROADWAY	Date/Time: 02/02/93 11:30AM	Company: AMERICAN STEEL FOUNDRIES
Sample(s) Couriered by: [illegible]	Date/Time: 2/3/93 6:50A	Company: Ship Ticket No. BFI
Sample(s) Received by: Dennis Brady	Date/Time: 2/3/93 1752	Company: DeYor

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

BFI Waste Systems™

BROWNING-FERRIS INDUSTRIES

ATTACHMENT "B"

WCD No. AA 73900

OH 855;219, 940212 202144

BFI WASTE CODE

WASTE EVALUATION REQUEST

BFI to complete this area.

BFI Initiator AL CASANTA

Location 1043 St. Rt 225

Company Number 219 Date 22-93

Telephone Number (216) 947-2548

Action Requested: ☒ New Waste Approval

☐ Up-Date Approval ☐ Priority

☐ Other

Previous Laboratory Number

Management Method Requested: ☒ Landfill ☐ Hauling

☐ Other

Disposal Site Requested WILLOWCREEK/CARBON

Company Number 219 P.O. Number

Analyses Requested: ☐ TCLP ~~☐ RCI~~ X

☐ Other

Analyses To Follow: ☒ TCLP ☐ Other

~~ATTACHED~~

WASTE CHARACTERIZATION DATA

Special Waste

IMPORTANT: THIS FORM IS TO BE COMPLETED BY A REPRESENTATIVE OF THE WASTE GENERATOR. PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS FORM. THIS FORM IS TO BE USED ONLY ONE TIME, AND MUST BE TYPEWRITTEN OR LEGIBLY PRINTED IN INK, AND SIGNED.

1. GENERATOR INFORMATION

a) Generator's Name: AMERICAN STEEL FOUNDRIES

b) Generating Facility Address: 1001 E. BROADWAY

City: ALLIANCE State: OH Zip: 44601

c) Company Representative: T.C. BROADWAY

Title: FACILITIES ENGINEER

d) Emergency Contact: AS ABOVE

Title

e) Local Registration No.

Generator's EPA Id. No. OHD 981090418

f) Telephone No. (216) 823-6150

After Hours No. (216) 823-6150

Emergency No. (216) 823-6150

2. GENERAL WASTE STREAM INFORMATION

a) Description of The Waste: SPENT REFRACTORY FROM FURNACE AND LADLES

b) Process Generating Waste: MELTING STEEL OPERATION FOR STEEL CASTING SIC 3325

c) Is this a treatment residue of a waste which was previously a restricted characteristically hazardous waste? ☐ Yes ☒ No

d) Is this a "Hazardous Waste" as defined by State or local Regulations? ☐ Yes ☒ No

If yes, enter the Waste Identification Number if one has been assigned:

e) Is this a "Special Waste", an "Industrial Process Waste", or a "Polution Control Waste" as defined by State or local Regulations?

☒ Yes ☐ No If yes, enter Waste Identification Number: NA

f) Recommended personal protection equipment and special handling procedures: NONE

g) Anticipated Volume: 30 ☐ Gallons ☒ Tons ☐ Cubic Yards ☐ Other

Per: ☐ Day ☒ Week ☐ Month ☐ Year ☐ One Time, or ☐ Other

To be transported in: ☒ Bulk ☐ Drums (type/size) ☐ Other

h) Is a representative sample included? ☒ Yes ☐ No – If yes, complete the RSC found on the reverse side.

3. WASTE PROPERTIES @ 72°F

a) Physical State:

☒ Solid ☐ Semi-solid

☐ Powder ☐ Liquid

☐ Combination

b) Odor:

Describe

☒ None ☐ Mild ☐ Strong

c) Flash Point, °F:

☐ ≤72 ☐ 73-100 ☐ 101-140

☐ 141-200 ☐ ≥201 ☐ N/A ☒ N/D

d) Layers:

☒ Single Phase ☐ Bi-layered ☐ Multi-layered

e) Density Range: N D to

☐ N/D ☐ lbs./gal. ☐ g./cc.

☐ lbs./yd.³ ☐ Other

f) Color(s):

Describe TAN, BROWNS & BLACK

g) pH:

☐ ≤2.0 ☐ 2.1-5.0 ☐ 5.1-9.0

☐ 9.1-12.4 ☐ ≥12.5 ☐ N/A ☒ N/D

4. REACTIVITY

Note if the waste exhibits any of the following reactive properties: ☐ Water Reactive ☐ Alkaline Reactive ☐ Pyrophoric ☐ Thermally Sensitive ☐ Acid Reactive ☐ Autopolymerizable ☐ Explosive ☐ Shock Sensitive ☒ None of the above

OH ,1855;219 ,940212 ,202144
BFI WASTE CODE

5. THIS WASTE CONTAINS

Note if the waste contains any of the following:

- ☐ Free Liquids
- ☐ Free Cyanide
- ☐ Free Sulfide
- ☐ Free Ammonia
- ☐ Dioxins
- ☐ Organic Solvents
- ☐ Used Oils
- ☐ Virgin Oils
- ☐ Etiological Agents
- ☐ Pathogens
- ☐ OSHA Substances
- ☐ Biological Materials
- ☐ Radioactive Materials
- ☐ PCBs not regulated by TSCA 40 CFR 761
- ☒ None of the above

If any of the above are checked "Yes", specify type (if applicable) and include its concentration as part of the waste composition, Section 6.

6. COMPLETE WASTE COMPOSITION

Concentration ranges are suggested, but total must equal 100%. Units must be identified and are to be in parts per million (ppm) and/or percentages (%). Attach additional pages if necessary.

Components	Range Min. / Max.	Components	Range Min. / Max.
REFRACTORY BRICK	98 %		
SLAG	1.5 %		
SILICA	.5 %		

7. TRANSPORTATION INFORMATION

If the waste is a DOT Hazardous Material, complete the following:

Proper USDOT Shipping Name: N/A

USDOT Hazard Class: _____ UN or NA Number: _____ CERCLA Reportable Quantity _____

8. SUPPLEMENTAL INFORMATION

☒ None ☐ MSD Sheets ☐ Analytical Data ☐ Memo/Letter ☐ Waste Composition

☐ Other - describe _____ No. of Pages _____

9. GENERATOR'S CERTIFICATION

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine, that no deliberate or willful omissions of composition or properties exists, that all known or suspected hazards have been disclosed, and that the waste is not designated a Hazardous Waste by the USEPA or contains PCBs regulated by TSCA 40 CFR 761.

GENERATOR'S AUTHORIZED SIGNATORY:

DATE	PRINT NAME	SIGNATURE	TITLE	INITIALS
2-2-93	T.C. BARDWAY	T.C. Bardway	FACILITIES ENGINEER	TCB

REPRESENTATIVE SAMPLE CERTIFICATE

This Section is to be completed by the person obtaining the sample of the above described waste, preferably a representative of the generator. **DO NOT** COLLECT OR SUBMIT SAMPLES THAT ARE RADIOACTIVE, SHOCK SENSITIVE, EXPLOSIVE, OR PYROPHORIC.

I certify that the sample identified below that is being forwarded to BFI for evaluation is representative of the waste described above. I also understand that, should the waste material described herein not be acceptable for management by BFI Waste Systems, the sample(s) may be returned to the generator.

Collector's Name: T.C. BARDWAY (Peel Off Label)

Signature: T.C. Bardway

Company: AMERICAN STEEL FOUNDRIES

Title: FACILITIES ENGINEER

Telephone Number: (216) 823-6150 EXT 206

wcd Rev: 9/91

CORPORATE WASTE
APPROVAL GROUP

BROWNING-FERRIS INDUSTRIES

DATE	: 02/12/93
BFI Location	: WILLOWCREEK
BFI Initiator	: CASANTA, A.
Generator	: AMERICAN STEEL FOUNDRIES
Generator Location	: ALLIANCE, OH
Waste Description	: REFRACTORY
BFI Lab Number	: 202144

PRETREATMENT & DISPOSAL RECOMMENDATION

Safety Precautions : Avoid Skin & Eye Contact

RECOMMENDED:

Direct Landfill Burial: Amount of Original Waste 100% by vol.

Sanitary.. BFI Mahoning & Willowcreek

** See attached analysis

Comments:

See the attached Chains (2) of Custody and analytical data from the BFI Houston Laboratory and DeYor Laboratories as received by the BFI Corporate Waste Approval Group.

The above is a recommendation of BFI Corporate Waste Approval Group. It must be understood that management of the waste for treatment and/or disposal at the designated facility must be in compliance with the facility's permit and applicable federal, state, and local regulations. The waste treatment and/or disposal recommendation is based upon a review of the information provided by the generator. This recommendation is contingent upon the receipt at the treatment and/or disposal facility of a waste material essentially equivalent in chemical composition and physical properties to that as defined above. This waste stream has been assigned BFI Waste Code: OH/855;219/940212/202144

CORPORATE WASTE APPROVAL GROUP

Diana L. Lasco

Diana L. Lasco
Technical Representative

HOUSTON LABORATORY

BROWNING-FERRIS INDUSTRIES

DATE	: 02/05/93
BFI Location	: BFI WILLOWCREEK
BFI Initiator	: CASANTA, A
Generator	: AMERICAN STEEL FOUNDRIES
Generator Location	: ALLIANCE, OH
Waste Description	: (AA73900) SPENT REFRACTORY Solid ,# phases/layers: 1 , Color: GRAY Odor: ---
BFI Lab Number	: 97006

REACTIVITY REPORT

Radioactivity, exposure dose.
Results: < 0.05 mR/hr.

Characteristic of Ignitability as per 40 CFR 261.21.
Results: NEGATIVE

Characteristic of Corrosivity as per 40 CFR 261.22.
Results: NOT APPLICABLE

pH, 5% slurry by weight.
Results: 8.6

Characteristic of Reactivity as per 40 CFR 261.23.
Results: SULFIDE <5 ppm ; CYANIDE <2 ppm

Reaction when exposed to air as per 40 CFR 261.23.
Results: NONE DETECTED

Reaction when mixed with water as per 40 CFR 261.23.
Results: NONE DETECTED; 99% INS

Reaction when mixed with a 10% wt. solution of HCL.
Results: NONE DETECTED; 99% INS

Reaction when mixed with a 10% solution of NaOH.
Results: NONE DETECTED; 99% INS

Density
Results: 2375.6 (lb./cu.yd.)

FEB 9 1993

BFI HOUSTON LAB GROUP

David Pangrazio

DAVID PANGRAZIO
QA/QC MANAGER

NAME	SPECIMEN I.D. NUMBER	ACCESSION NO.
WCD#AA73900 REFRACTORY BRICK	93516209	93 516209

COLLECTION DATE	COLLECTION TIME	RECEIVED
02/02/93	10:00	02/03/93

CLIENT I.D. NUMBER	LOCATION	REPORTED
AMERICAN STEEL 6209	00000	02/11/93

TEST	RESULT NORMAL	RESULT ABNORMAL	REFERENCE OR THERAPEUTIC RANGE		UNITS
TCLP EXTRACTION PROC	FINAL pH=8.30				
TCLP METALS & BIAS %					
ARSENIC	<0.20		0.0	5.0	MG/L
Spike recovery	101				%
BARIUM	<0.50		0.0	100.0	MG/L
Spike recovery	85				%
CADMIUM	<0.03		0.0	1.0	MG/L
Spike recovery	106				%
CHROMIUM	<0.30		0.0	5.0	MG/L
Spike recovery	99				%
SELENIUM	<0.02		0.0	1.0	MG/L
Spike recovery	91				%
MERCURY	<0.0002		0.0	0.2	MG/L
Spike recovery	101				%
LEAD	<0.20		0.0	5.0	MG/L
Spike recovery	100				%
SILVER	<0.05		0.0	5.0	MG/L
Spike recovery	83				%
TCLP SUPPL.METALS					
NICKEL	<0.20				MG/L
Spike recovery	106				%
COPPER	<0.30				MG/L
Spike recovery	103				%
TCLP REVIEW					

TCLP PREPARATION FOLLOWS METHOD 1311 SW-846
AS REVISED NOVEMBER 24,1992 (57FR55114)
REVIEWED BY ALBERT F. VICINIE III,LAB SUPERVISOR

--- DIRECTORS ---
Patrick K. Jaynes Ph.D.
Anthony Nasrallah Ph.D.

DEYOR Laboratories
7655 Market Street, Suite 2500
Youngstown, Ohio 44512
(216) 758-5788
(800) 365-3396

BFI WASTE SYSTEMS
WILLOWCREEK LANDFILL DISTRICT
1043 STATE ROUTE 225
ATWATER OH 44201

APPROXIMATE TESTING COSTS: BFI To Pay

CUST. AUTHORIZATION: 1400.00

ARC

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

GENERATOR: American Steel

W.C.D.# AA73964 / AA73900 / AA73899 / AA7390

CUSTOMER: AMERICAN STEEL FOUNDRY

P.O.# : 019-00621c

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: Deyour

Contact: Rusty

Location: Bdma OH

Phone: 758-5788

	WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
516208	AA73964	Spent Foundry SAND			TCLP -METALS	
516209	AA73900	REFRACTORY BRICK			TCLP -METALS	
516210	AA73899	FLOOR SWEEPINGS			TCLP METALS	
516211	AA73901	BROKEN CORE BUTTS			TCLP METALS	

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By: T.C. Brannan	Date/Time: 02/02/93 10:00AM	Company: American Steel Foundries
Sample(s) Submitted By: T.C. Brannan	Date/Time: 02/02/93 11:30AM	Company: American Steel Foundries
Sample(s) Couriered by: [illegible]	Date/Time: 2/3/93 5:50pm	Company: Ship Ticket No. BFI
Sample(s) Received by: Dennis Brady	Date/Time: 2/3/93 1752	Company: DeYor

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

APPROXIMATE TESTING COSTS: [illegible]

CUST. AUTHORIZATION: 1400.00

ARC

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

W.C.D.# AA73964 AA73900 AA73899 AA7390[illegible]

CUSTOMER : AMERICAN STEEL FOUNDRY

P.O.# : 019-006212

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: Deyour Contact: Rusty

Location: Bdma Ok Phone: 758-5788

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
AA73964	Spent Foundry SAND			TCLP - METALS	
AA73900	REFRACTORY BRICK			TCLP - METALS	
AA73899	FLOOR SWEEPINGS			TCLP METALS	
AA73901	BROKEN CORE BUTTS			TCLP METALS	

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By: T.C. BRADWAY	Date/Time: 02/02/93 10:00AM	Company: AMERICAN STEEL FOUNDRIES
Sample(s) Submitted By: T.C. BRADWAY	Date/Time: 02/02/93 11:30AM	Company: AMERICAN STEEL FOUNDRIES
Sample(s) Couriered by: [illegible]	Date/Time: 2/3/93 6:50AM	Company: Ship Ticket No. BFI
Sample(s) Received by: Dennis Brady	Date/Time: 2/3/93 1752	Company: DeYOR

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

97006

HOUSTON LABORATORY

BROWNING-FERRIS INDUSTRIES

RECEIVED FEB 04 1993

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: BFI Houston Laboratory Contact:

Location: 5030 Cuhn Road, Houston Phone: 713-460-9988

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
AA 73900	spent refractory fpt.		SW	RCI	N

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By:	Date/Time:	Company:
Sample(s) Submitted By: Al Casanova	Date/Time: 2-3-93	Company: BFI-Willowbrook
Sample(s) Couriered by: Federal Express	Date/Time: 2-3-93	Company: Airbill Ship Ticket No# 4322977951
Sample(s) Received by: Angel Valdez	Date/Time: 10 AM 02-04-93	Company: BFI LAB

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

FEB 9 1993 BFI Corporate Special Waste Approvals

BROKEN CORE BUTTS
ATTACHMENT "B"

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

WCD No. AA 73901

OH 855;219 940212 202145
BFI WASTE CODE

WASTE EVALUATION REQUEST

BFI to complete this area.
BFI Initiator AL CASANTA
Location 1043 St. Rt 225
Company Number 219 Date 2-2-93
Telephone Number (216) 947-2548
Action Requested: ☒ New Waste Approval
☐ Up-Date Approval ☐ Priority
☐ Other

Previous Laboratory Number
Management Method Requested: ☒ Landfill ☐ Hauling
☐ Other
Disposal Site Requested WILLOWCREEK / CARBON
Company Number 219 P.O. Number
Analyses Requested: ☐ TCLP ☒ RCI
☐ Other
Analyses To Follow: ☒ TCLP ☐ Other
ATTACHED

WASTE CHARACTERIZATION DATA

Special Waste

IMPORTANT: THIS FORM IS TO BE COMPLETED BY A REPRESENTATIVE OF THE WASTE GENERATOR. PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS FORM. THIS FORM IS TO BE USED ONLY ONE TIME, AND MUST BE TYPEWRITTEN OR LEGIBLY PRINTED IN INK, AND SIGNED.

1. GENERATOR INFORMATION

a) Generator's Name: AMERICAN STEEL FOUNDRIES
b) Generating Facility Address: 1001 E BROADWAY
City: ALLIANCE State: OH Zip: 44601
c) Company Representative: TERRY C. BRADWAY
Title: FACILITIES ENGINEER
d) Emergency Contact: SAME AS ABOVE
Title

e) Local Registration No. N/A
Generator's EPA Id. No. OHD 981090418
f) Telephone No. (216) 823-6150
After Hours No. (216) 823-6150
Emergency No. (216) 823-6150

2. GENERAL WASTE STREAM INFORMATION

a) Description of The Waste: BROKEN CORE BUTTS
b) Process Generating Waste: CORE MANUFACTURING FOR STEEL FOUNDRY
c) Is this a treatment residue of a waste which was previously a restricted characteristically hazardous waste? ☐ Yes ☒ No
d) Is this a "Hazardous Waste" as defined by State or local Regulations? ☐ Yes ☒ No
If yes, enter the Waste Identification Number if one has been assigned:
e) Is this a "Special Waste", an "Industrial Process Waste", or a "Polution Control Waste" as defined by State or local Regulations?
☒ Yes ☐ No If yes, enter Waste Identification Number: NA
f) Recommended personal protection equipment and special handling procedures: NONE
g) Anticipated Volume: ~~25~~ 10 TCB ☐ Gallons ☒ Tons ☐ Cubic Yards ☐ Other
Per: ☐ Day ☒ Week ☐ Month ☐ Year ☐ One Time, or ☐ Other
To be transported in: ☒ Bulk ☐ Drums (type/size) ☐ Other
h) Is a representative sample included? ☒ Yes ☐ No – If yes, complete the RSC found on the reverse side.

3. WASTE PROPERTIES @ 72°F

a) Physical State:
☒ Solid ☐ Semi-solid
☐ Powder ☐ Liquid
☐ Combination
b) Odor:
Describe
☒ None ☐ Mild ☐ Strong
c) Flash Point, °F:
☐ ≤72 ☐ 73-100 ☐ 101-140
☐ 141-200 ☐ ≥201 ☐ N/A ☒ N/D

d) Layers:
☒ Single Phase ☐ Bi-layered ☐ Multi-layered
e) Density Range: ND to
☐ N/D ☐ lbs./gal. ☐ g./cc.
☐ lbs./yd.³ ☐ Other
f) Color(s):
Describe BLACK, WHITE, GRAY & TAN
g) pH:
☐ ≤2.0 ☐ 2.1-5.0 ☐ 5.1-9.0
☐ 9.1-12.4 ☐ ≥12.5 ☐ N/A ☒ N/D

FEB 4 1993 BFI Corporate Special Waste Approval

4. REACTIVITY

Note if the waste exhibits any of the following reactive properties:
☐ Water Reactive ☐ Alkaline Reactive ☐ Pyrophoric ☐ Thermally Sensitive
☐ Acid Reactive ☐ Autopolymerizable ☐ Explosive ☐ Shock Sensitive ☒ None of the above

OH ,855;219 ,940212 ,202145
BFI WASTE CODE

5. THIS WASTE CONTAINS

Note if the waste contains any of the following:

- ☐ Free Liquids
- ☐ Free Cyanide
- ☐ Free Sulfide
- ☐ Free Ammonia
- ☐ Dioxins
- ☐ Organic Solvents
- ☐ Used Oils
- ☐ Virgin Oils
- ☐ Etiological Agents
- ☐ Pathogens
- ☐ OSHA Substances
- ☐ Biological Materials
- ☐ Radioactive Materials
- ☐ PCBs not regulated by TSCA 40 CFR 761
- ☒ None of the above

If any of the above are checked "Yes", specify type (if applicable) and include its concentration as part of the waste composition, Section 6.

6. COMPLETE WASTE COMPOSITION

Concentration ranges are suggested, but total must equal 100%. Units must be identified and are to be in parts per million (ppm) and/or percentages (%). Attach additional pages if necessary.

Components	Range Min. / Max.	Components	Range Min. / Max.
SAND	99 %		
BINDERS	1 %		

7. TRANSPORTATION INFORMATION

If the waste is a DOT Hazardous Material, complete the following:

Proper USDOT Shipping Name: NONE

USDOT Hazard Class: _____ UN or NA Number: _____ CERCLA Reportable Quantity _____

8. SUPPLEMENTAL INFORMATION

☐ None ☒ MSD Sheets ☐ Analytical Data ☐ Memo/Letter ☐ Waste Composition

☐ Other – describe _____ No. of Pages _____

9. GENERATOR'S CERTIFICATION

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine, that no deliberate or willful omissions of composition or properties exists, that all known or suspected hazards have been disclosed, and that the waste is not designated a Hazardous Waste by the USEPA or contains PCBs regulated by TSCA 40 CFR 761.

GENERATOR'S AUTHORIZED SIGNATORY:

DATE	PRINT NAME	SIGNATURE	TITLE	INITIALS
2-2-93	T.C. BROADWAY	T.C. Broadway	FACILITIES ENGINEER	TCB

REPRESENTATIVE SAMPLE CERTIFICATE

This Section is to be completed by the person obtaining the sample of the above described waste, preferably a representative of the generator. **DO NOT** COLLECT OR SUBMIT SAMPLES THAT ARE RADIOACTIVE, SHOCK SENSITIVE, EXPLOSIVE, OR PYROPHORIC.

I certify that the sample identified below that is being forwarded to BFI for evaluation is representative of the waste described above. I also understand that, should the waste material described herein not be acceptable for management by BFI Waste Systems, the sample(s) may be returned to the generator.

Collector's Name: T.C. BROADWAY

(Peel Off Label)

Signature: T.C. Broadway

Company: AMERICAN STEEL FOUNDRIES

Title: FACILITIES ENGINEER

Telephone Number: (216) 823-6150 EXT 206

BFI

wcd Rev: 9/91

CORPORATE WASTE
APPROVAL GROUP

BROWNING-FERRIS INDUSTRIES

DATE	: 02/12/93
BFI Location	: WILLOWCREEK
BFI Initiator	: CASANTA, A.
Generator	: AMERICAN STEEL FOUNDRIES
Generator Location	: ALLIANCE, OH
Waste Description	: BROKEN CORE BUTTS
BFI Lab Number	: 202145

PRETREATMENT & DISPOSAL RECOMMENDATION

Safety Precautions : Avoid Skin & Eye Contact

RECOMMENDED:
Direct Landfill Burial: Amount of Original Waste 100% by vol.

Sanitary.. BFI Mahoning & Willowcreek
** See attached analysis
Comments:

See the attached Chains (2) of Custody and analytical data from the BFI Houston Laboratory and DeYor Laboratories as received by the BFI Corporate Waste Approval Group.

The above is a recommendation of BFI Corporate Waste Approval Group. It must be understood that management of the waste for treatment and/or disposal at the designated facility must be in compliance with the facility's permit and applicable federal, state, and local regulations. The waste treatment and/or disposal recommendation is based upon a review of the information provided by the generator. This recommendation is contingent upon the receipt at the treatment and/or disposal facility of a waste material essentially equivalent in chemical composition and physical properties to that as defined above. This waste stream has been assigned BFI Waste Code: OH/855;219/940212/202145

CORPORATE WASTE APPROVAL GROUP

Diana L. Lasco
Technical Representative

HOUSTON LABORATORY

BROWNING-FERRIS INDUSTRIES

DATE	: 02/05/93
BFI Location	: BFI WILLOWCREEK
BFI Initiator	: CASANTA, A
Generator	: AMERICAN STEEL FOUNDRIES
Generator Location	: ALLIANCE, OH
Waste Description	: (AA73901) BROKEN CORE BUTTS Solid ,# phases/layers: 1 , Color: GRAY Odor: ---
BFI Lab Number	: 97009

REACTIVITY REPORT

Radioactivity, exposure dose.
Results: < 0.05 mR/hr.

Characteristic of Ignitability as per 40 CFR 261.21.
Results: NEGATIVE

Characteristic of Corrosivity as per 40 CFR 261.22.
Results: NOT APPLICABLE

pH, 5% slurry by weight.
Results: 10.6

Characteristic of Reactivity as per 40 CFR 261.23.
Results: SULFIDE <5 ppm ; CYANIDE <2 ppm

Reaction when exposed to air as per 40 CFR 261.23.
Results: NONE DETECTED

Reaction when mixed with water as per 40 CFR 261.23.
Results: NONE DETECTED; 99% INS

Reaction when mixed with a 10% wt. solution of HCL.
Results: GASES LIBERATED; 98% INS

Reaction when mixed with a 10% solution of NaOH.
Results: NONE DETECTED; 99% INS

Density
Results: 2493.5 (lb./cu.yd.)

FEB 9 1993

BFI HOUSTON LAB GROUP

David C Pangrazio

DAVID PANGRAZIO
QA/QC MANAGER

NAME	SPECIMEN I.D. NUMBER	ACCESSION NO.
WCD#AA73901 BROKEN CORE BUTTS	93516211	93 516211

COLLECTION DATE	COLLECTION TIME	RECEIVED
02/02/93	10:00	02/03/93

CLIENT I.D. NUMBER LOCATION		REPORTED
AMERICAN STEEL	6211 00000	02/11/93

TEST	RESULT NORMAL	RESULT ABNORMAL	REFERENCE OR THERAPEUTIC RANGE		UNITS
TCLP EXTRACTION PROC	FINAL pH=5.25				
TCLP METALS & BIAS %					
ARSENIC	<0.20		0.0	5.0	MG/L
Spike recovery	101				%
BARIUM	<0.50		0.0	100.0	MG/L
Spike recovery	94				%
CADMIUM	<0.03		0.0	1.0	MG/L
Spike recovery	108				%
CHROMIUM	<0.30		0.0	5.0	MG/L
Spike recovery	103				%
SELENIUM	<0.02		0.0	1.0	MG/L
Spike recovery	89				%
MERCURY	<0.0002		0.0	0.2	MG/L
Spike recovery	102				%
LEAD	<0.20		0.0	5.0	MG/L
Spike recovery	99				%
SILVER	<0.05		0.0	5.0	MG/L
Spike recovery	70				%
TCLP SUPPL.METALS					
NICKEL	0.35				MG/L
Spike recovery	99				%
COPPER	<0.30				MG/L
Spike recovery	103				%
TCLP REVIEW					

TCLP PREPARATION FOLLOWS METHOD 1311 SW-846
AS REVISED NOVEMBER 24,1992 (57FR55114)
REVIEWED BY ALBERT F. VICINIE III,LAB SUPERVISOR

--- DIRECTORS ---
Patrick K. Jaynes Ph.D.
Anthony Nasrallah Ph.D.

DEYOR Laboratories
7655 Market Street, Suite 2500
Youngstown, Ohio 44512
(216) 758-5788
(800) 365-3396

BFI WASTE SYSTEMS
WILLOWCREEK LANDFILL DISTRICT
1043 STATE ROUTE 225
AIWATER OH 44201

ANALYTICAL TESTING COSTS: [illegible]

CUST. AUTHORIZATION: 1400.00

ARC

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

W.C.D.# AA73964 / AA73900 / AA73899 / AA7390

CUSTOMER : AMERICAN STEEL FOUNDRY

P.O.# : 019-00621

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: Deyor

Contact: Rusty

Location: Bdma OK

Phone: 758-5788

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
AA73964	SpentFoundry SAND			TCLP -METALS	
AA73900	REFRACTORY-BRICK			TCLP-METALS	
AA73899	FLOORSWEEPINGS			TCLP METALS	
AA73901	BROKENCORE BUTTS			TCLP METALS	

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By: T.C.BROADWAY	Date/Time: 02/02/93 10:00AM	Company: AMERICAN STEEL FOUNDRIES
Sample(s) Submitted By: T.C.BROADWAY	Date/Time: 02/02/93 11:30AM	Company: AMERICAN STEEL FOUNDRIES
Sample(s) Couriered by: [illegible]	Date/Time: 2/3/93 6:50A	Company: Ship Ticket No. BFI
Sample(s) Received by: Dennis Brady	Date/Time: 2/3/93 1752	Company: DeYOR

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

97009

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

FEB 04 1993

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: BFI Houston Laboratory Contact:

Location: 5630 Cochran Rd, Houston Phone: 713-460-9988

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
AA73901	Broken Core Butts	1pt	SW	RCE	N

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By:	Date/Time:	Company:
Sample(s) Submitted By: Al Casanta	Date/Time: 2-3-93	Company: BFI-Willowbrook
Sample(s) Couriered by: Federal Express	Date/Time: 2-3-93	Company: Airbill Ship Ticket No. # 4322971951
Sample(s) Received by: Angie Valdez	Date/Time: 10 AM 02-04-93	Company: BFI LAB

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

ATTACHMENT "B" Canton

AH

WCD No. AA 79444

OH 855;219 ,9503232 0,3177
BFI WASTE CODE

WASTE EVALUATION REQUEST

BFI to complete this area.
BFI Initiator: A. Geranta
Location: 1043 GT GT 45 MTW 36
Company Number: 219 Date: 3/1/93
Telephone Number: (216) 647-2548
Action Requested: ☒ New Waste Approval
☐ Up-Date Approval ☐ Priority
☐ Other

Previous Laboratory Number
Management Method Requested: ☒ Landfill ☐ Hauling
☐ Other
Disposal Site Requested: Willowcreek / Carbon Limestone
Company Number: 219/855 P.O. Number
Analyses Requested: ☐ TCLP ☒ RCI
☐ Other
Analyses To Follow: ☐ TCLP ☐ Other

WASTE CHARACTERIZATION DATA

Special Waste

IMPORTANT: THIS FORM IS TO BE COMPLETED BY A REPRESENTATIVE OF THE WASTE GENERATOR. PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS FORM. THIS FORM IS TO BE USED ONLY ONE TIME, AND MUST BE TYPEWRITTEN OR LEGIBLY PRINTED IN INK, AND SIGNED.

1. GENERATOR INFORMATION

a) Generator's Name: AMERICAN STEEL FOUNDRIES
b) Generating Facility Address: 1001 E. BROADWAY
City: ALLIANCE State: OH Zip: 44601
c) Company Representative: T.C. BROADWAY
Title: ENVIRONMENTAL MANAGER
d) Emergency Contact: AS ABOVE
Title

e) Local Registration No.
Generator's EPA Id. No. OHD981090413
f) Telephone No. (216) 823-6150
After Hours No. (216) 823-6150
Emergency No. (216) 823-6150

2. GENERAL WASTE STREAM INFORMATION

a) Description of The Waste: BROKEN FLUORESCENT LIGHT BULBS
b) Process Generating Waste: ELECTRICAL DEPARTMENT (MAINTENANCE)
c) Is this a treatment residue of a waste which was previously a restricted characteristically hazardous waste? ☐ Yes ☒ No
d) Is this a "Hazardous Waste" as defined by State or local Regulations? ☐ Yes ☒ No
If yes, enter the Waste Identification Number if one has been assigned:
e) Is this a "Special Waste", an "Industrial Process Waste", or a "Polution Control Waste" as defined by State or local Regulations?
☒ Yes ☐ No If yes, enter Waste Identification Number: N A
f) Recommended personal protection equipment and special handling procedures: NONE
g) Anticipated Volume: 1 CYD ☐ Gallons ☐ Tons ☒ Cubic Yards ☐ Other
Per: ☐ Day ☐ Week ☐ Month ☒ Year ☐ One Time, or ☐ Other
To be transported in: ☒ Bulk ☐ Drums (type/size) ☐ Other
h) Is a representative sample included? ☒ Yes ☐ No – If yes, complete the RSC found on the reverse side.

3. WASTE PROPERTIES @ 72°F

a) Physical State:
☒ Solid ☐ Semi-solid
☐ Powder ☐ Liquid
☐ Combination
b) Odor:
Describe NONE
☒ None ☐ Mild ☐ Strong
c) Flash Point, °F:
☐ ≤72 ☐ 73-100 ☐ 101-140
☐ 141-200 ☐ ≥201 ☒ N/A ☐ N/D

d) Layers:
☒ Single Phase ☐ Bi-layered ☐ Multi-layered
e) Density Range: to
☒ N/D ☐ lbs./gal. ☐ g./cc.
☐ lbs./yd.³ ☐ Other
f) Color(s):
Describe WHITE
g) pH:
☐ ≤2.0 ☐ 2.1-5.0 ☐ 5.1-9.0
☐ 9.1-12.4 ☐ ≥12.5 ☐ N/A ☒ N/D

4. REACTIVITY

Note if the waste exhibits any of the following reactive properties: ☐ Water Reactive ☐ Alkaline Reactive ☐ Pyrophoric ☐ Thermally Sensitive ☐ Acid Reactive ☐ Autopolymerizable ☐ Explosive ☐ Shock Sensitive ☒ None of the above

OH 855;219 ,950323 ,203177
BFI WASTE CODE

5. THIS WASTE CONTAINS

Note if the waste contains any of the following:

- ☐ Free Liquids
- ☐ Free Cyanide
- ☐ Free Sulfide
- ☐ Free Ammonia
- ☐ Dioxins
- ☐ Organic Solvents
- ☐ Used Oils
- ☐ Virgin Oils
- ☐ Etiological Agents
- ☐ Pathogens
- ☐ OSHA Substances
- ☐ Biological Materials
- ☐ Radioactive Materials
- ☐ PCBs not regulated by TSCA 40 CFR 761
- ☒ None of the above

If any of the above are checked "Yes", specify type (if applicable) and include its concentration as part of the waste composition, Section 6.

6. COMPLETE WASTE COMPOSITION

Concentration ranges are suggested, but total must equal 100%. Units must be identified and are to be in parts per million (ppm) and/or percentages (%). Attach additional pages if necessary.

Components	Range Min. / Max.	Components	Range Min. / Max.
CRUSHED FLUORESCENT LAMPS	100 %		

7. TRANSPORTATION INFORMATION

If the waste is a DOT Hazardous Material, complete the following:

Proper USDOT Shipping Name: NONE

USDOT Hazard Class: _____ UN or NA Number: _____ CERCLA Reportable Quantity _____

8. SUPPLEMENTAL INFORMATION

TCB ☒ None ☐ MSD Sheets ☒ Analytical Data ☐ Memo/Letter ☐ Waste Composition

☐ Other – describe _____ No. of Pages _____

9. GENERATOR'S CERTIFICATION

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine, that no deliberate or willful omissions of composition or properties exists, that all known or suspected hazards have been disclosed, and that the waste is not designated a Hazardous Waste by the USEPA or contains PCBs regulated by TSCA 40 CFR 761.

GENERATOR'S AUTHORIZED SIGNATORY:

DATE	PRINT NAME	SIGNATURE	TITLE	INITIALS
3-11-93	T.C. BRADWAY	T.C. Bradway	ENVIRONMENTAL MANAGER	TCB

REPRESENTATIVE SAMPLE CERTIFICATE

This Section is to be completed by the person obtaining the sample of the above described waste, preferably a representative of the generator. **DO NOT** COLLECT OR SUBMIT SAMPLES THAT ARE RADIOACTIVE, SHOCK SENSITIVE, EXPLOSIVE, OR PYROPHORIC.

I certify that the sample identified below that is being forwarded to BFI for evaluation is representative of the waste described above. I also understand that, should the waste material described herein not be acceptable for management by BFI Waste Systems, the sample(s) may be returned to the generator.

Collector's Name: T.C. BRADWAY

(Peel Off Label)

Signature: T.C. Bradway

Company: AMERICAN STEEL FOUNDRIES

Title: ENVIRONMENTAL MANAGER

Telephone Number: (216) 823-6150 EXT 206

wcd Rev: 9/91

HOUSTON LABORATORY

BROWNING-FERRIS INDUSTRIES

DATE	: 03/17/93
BFI Location	: BFI WILLOWCREEK
BFI Initiator	: CASANTA, A
Generator	: AMERICAN STEEL FOUNDRIES
Generator Location	: ALLIANCE, OH
Waste Description	: (AA79444) BROKEN FLUORESCENT LIGHT BULBS Solid ,# phases/layers: 1 , Color: WHITE Odor: ---
BFI Lab Number	: 97736

REACTIVITY REPORT

Radioactivity, exposure dose.
Results: < 0.05 mR/hr.

Characteristic of Ignitability as per 40 CFR 261.21.
Results: NEGATIVE

Characteristic of Corrosivity as per 40 CFR 261.22.
Results: NOT APPLICABLE

pH, 5% slurry by weight.
Results: 8.7

Characteristic of Reactivity as per 40 CFR 261.23.
Results: SULFIDE <5 ppm ; CYANIDE <2 ppm

Reaction when exposed to air as per 40 CFR 261.23.
Results: NONE DETECTED

Reaction when mixed with water as per 40 CFR 261.23.
Results: NONE DETECTED; 99% INS

Reaction when mixed with a 10% wt. solution of HCL.
Results: NONE DETECTED; 99% INS

Reaction when mixed with a 10% solution of NaOH.
Results: NONE DETECTED; 99% INS

Density
Results: 1331.0 (lb./cu.yd.)

MAR 22 1993
BFI Corporate
Special Waste
Approvals

BFI HOUSTON LAB GROUP

David Pangrazio

DAVID PANGRAZIO
QA/QC MANAGER

CORPORATE WASTE
APPROVAL GROUP

BROWNING-FERRIS INDUSTRIES

DATE	: 03/23/93
BFI Location	: WILLOWCREEK
BFI Initiator	: CASANTA, A.
Generator	: AMERICAN STEEL FOUNDRIES
Generator Location	: ALLIANCE, OH.
Waste Description	: FLUORESCENT BULBS
BFI Lab Number	: 203177

PRETREATMENT & DISPOSAL RECOMMENDATION

Safety Precautions : Avoid Skin & Eye Contact

RECOMMENDED:

Direct Landfill Burial: Amount of Original Waste 100% by vol.

Sanitary.. BFI Mahoning & Willowcreek

** See attached analysis

Comments:

The waste has the potential to cause dusting problems. See the attached Chains of Custody and analytical data from the BFI Houston Laboratory and Wadsworth/Alert Laboratories as received by the BFI Corporate Waste Approval Group.

The above is a recommendation of BFI Corporate Waste Approval Group. It must be understood that management of the waste for treatment and/or disposal at the designated facility must be in compliance with the facility's permit and applicable federal, state, and local regulations. The waste treatment and/or disposal recommendation is based upon a review of the information provided by the generator. This recommendation is contingent upon the receipt at the treatment and/or disposal facility of a waste material essentially equivalent in chemical composition and physical properties to that as defined above. This waste stream has been assigned BFI Waste Code: OH/855;219/950323/203177

CORPORATE WASTE APPROVAL GROUP

Diana L. Lasco
Technical Representative

WADSWORTH/ Laboratories
Division of Enseco Incorporated

Corporate and Laboratory:
4101 Shuttle Drive, NW
North Canton, OH 44720

216 497 9396
FAX 216 497 0772

ANALYTICAL REPORT

WILLIAM HEESTAND

AMERICAN STEEL FOUNDRIES

ENSECO-WADSWORTH/ALERT LABORATORIES

Alesia M. Danford
Project Manager

Mark P. Nebiolo
Laboratory Manager

February 5, 1993

MAR 15 1993
BFI Corporate
Special Waste
Approvals

Laboratories:
Pittsburgh, PA
412-826-5477

Tampa, FL
813-621-1794

SAMPLE SUMMARY

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

WO #	LABORATORY ID	SAMPLE IDENTIFICATION
B4901	A3A290022-001	012093 EAF COLLECTOR DUST BOX 1-20-93 9:00AM
B4902	A3A290022-002	012593FL MAINTENANCE 1-25-93 12:30PM

AMERICAN STEEL FOUNDRIES

012593FL MAINTENANCE 1-25-93 12:30PM

WO #: B4902
LAB #: A3A290022-002
MATRIX: SOLID

DATE RECEIVED: 1/29/93
TCLP EXTRACTION DATE: 2/02/93
FINAL PH:5.0

- - - - - - - - - - - - - TCLP TOXICITY CHARACTERISTIC METALS - - - - - - - - - - - - -

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

PARAMETER	RESULT	REPORTING LIMIT	UNIT	METHOD	PREPARATION - ANALYSIS DATE	QC BATCH
- - TCLP METALS - -						
Silver	ND	0.1	mg/L	SW846 6010	2/02- 2/03/93	3033053
Arsenic	ND	0.5	mg/L	SW846 6010	2/02- 2/03/93	3033053
Barium	ND	1.0	mg/L	SW846 6010	2/02- 2/03/93	3033053
Cadmium	ND	0.1	mg/L	SW846 6010	2/02- 2/03/93	3033053
Chromium	ND	0.1	mg/L	SW846 6010	2/02- 2/03/93	3033053
Lead	0.1	0.1	mg/L	SW846 6010	2/02- 2/03/93	3033053
Selenium	ND	0.3	mg/L	SW846 6010	2/02- 2/03/93	3033053
Mercury	0.09	0.02	mg/L	SW846 7471	2/02- 2/03/93	3033053

NOTE:
AS RECEIVED
ND (NONE DETECTED)

MAR 15 1993
BFI Corporate
Special Waste
Approvals

CLIENT CODE _____

QUOTE / SAR NUMBER _____

Chain-of Custody Record

WADSWORTH/ALERT LABORATORIES

4101 SHUFFEL DRIVE N.W./NORTH CANTON, OHIO 44720
(216) 497-9396

№ 18371

PROJ. NO.

PROJECT NAME/LOCATION: AMERICAN STEEL FOUNDRIES

SAMPLERS: (Signature) T.C. Bradway

STA. NO.	DATE	TIME	COMP.	GRAB.	STATION LOCATION	NO. OF CONTAINERS	PARAMETER: TCLP METALS (ONLY)						REMARKS
012093	1/20/93	9:00 AM	X		EAF COLLECTOR DUST BOX	1	X						HWK COMPOSITE FINISHED 9:00 AM 1-20-93
012593FL	1/25/93	12:30 AM		X	MAINTENANCE	1	X						BROKEN FLUORESCENT LIGHT BULBS

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
T.C. Bradway	1/29/93 7:36 AM	J M Kesinnd			
J M Kesinnd	1-29-93 8:38				

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		[signature]	1-29-93 8:38	

Distribution Original Accompanies Shipment. Copy returned with Report.

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

97736

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: BFI Houston Laboratory Contact: Angie

Location: 5630 Cuhn Road Houston TX Phone: 713-460-9988

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
97736 AA79444	Broken fluorescent				
	Light Bulbs	1qt	SW	RCI	N

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By:	Date/Time:	Company:
Sample(s) Submitted By: Al Casanta	Date/Time: 3-12-93	Company: BFI-Willowbrook
Sample(s) Couriered by: Federal Express	Date/Time: 3-12-93	Company: Airbill Ship Ticket No. # 4322973554
Sample(s) Received by: Lisa Reaves	Date/Time: 3-15-93 3:30 pm	Company: BFI Houston Lab

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

BFI Waste Systems™
BROWNING-FERRIS INDUSTRIES

OK NB ATTACHMENT "B"

3-30

WCD No. AA 79443

3 OH 219 940326 203178
BFI WASTE CODE

WASTE EVALUATION REQUEST

BFI to complete this area.
BFI Initiator Al Casanta
Location 1043 ST RT 225
Company Number 219 Date 3/12/93
Telephone Number (216) 947-2548
Action Requested: ☒ New Waste Approval
☐ Up-Date Approval ☐ Priority
☐ Other

Previous Laboratory Number
Management Method Requested: ☒ Landfill ☐ Hauling
☐ Other
Disposal Site Requested Willowcreek / Carbon/Limestone
Company Number 219/855 P.O. Number
Analyses Requested: ☐ TCLP ☒ RCI
☐ Other
Analyses To Follow: ☒ TCLP ☐ Other to follow

WASTE CHARACTERIZATION DATA

Special Waste

IMPORTANT: THIS FORM IS TO BE COMPLETED BY A REPRESENTATIVE OF THE WASTE GENERATOR. PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS FORM. THIS FORM IS TO BE USED ONLY ONE TIME, AND MUST BE TYPEWRITTEN OR LEGIBLY PRINTED IN INK AND SIGNED

1. GENERATOR INFORMATION

a) Generator's Name: AMERICAN STEEL FOUNDRIES
b) Generating Facility Address: 1001 E. BROADWAY
City: ALLIANCE State: OHIO Zip: 44601
c) Company Representative: T.C. BRADWAY
Title: ENVIRONMENTAL MANAGER
d) Emergency Contact: AS ABOVE
Title

e) Local Registration No.
Generator's EPA Id. No. OHD981090418
f) Telephone No. (216) 823-6150 EXT 206
After Hours No. (216) 823-6150
Emergency No. (216) 823-6150

2. GENERAL WASTE STREAM INFORMATION

a) Description of The Waste: DEWATERED CLARIFIER SLUDGE WITH SAND, CLAY AND BENTONITE
b) Process Generating Waste: SAND WASHER SYSTEM CLARIFIER FOR STEEL CASTING MOLDING
c) Is this a treatment residue of a waste which was previously a restricted characteristically hazardous waste? ☐ Yes ☒ No
d) Is this a "Hazardous Waste" as defined by State or local Regulations? ☐ Yes ☒ No
If yes, enter the Waste Identification Number if one has been assigned:
e) Is this a "Special Waste", an "Industrial Process Waste", or a "Polution Control Waste" as defined by State or local Regulations?
☐ Yes ☒ No If yes, enter Waste Identification Number:
f) Recommended personal protection equipment and special handling procedures: NONE
g) Anticipated Volume: 200 ☐ Gallons ☒ Tons ☐ Cubic Yards ☐ Other
Per: ☐ Day ☒ Week ☐ Month ☐ Year ☐ One Time, or ☐ Other
To be transported in: ☒ Bulk ☐ Drums (type/size) ☐ Other
h) Is a representative sample included? ☒ Yes ☐ No – If yes, complete the RSC found on the reverse side.

3. WASTE PROPERTIES @ 72°F

a) Physical State:
☒ Solid ☐ Semi-solid
☐ Powder ☐ Liquid
☐ Combination
b) Odor
Describe
☒ None ☐ Mild ☐ Strong
c) Flash Point, °F:
☐ ≤72 ☐ 73-100 ☐ 101-140
☐ 141-200 ☐ ≥201 ☒ N/A ☐ N/D

d) Layers:
☒ Single Phase ☐ Bi-layered ☐ Multi-layered
e) Density Range: to
☒ N/D ☐ lbs./gal. ☐ g./cc.
☐ lbs./yd³ ☐ Other
f) Color(s):
Describe BLACK
g) pH:
☐ ≤2.0 ☐ 2.1-5.0 ☐ 5.1-9.0
☐ 9.1-12.4 ☐ ≥12.5 ☐ N/A ☒ N/D

4. REACTIVITY

Note if the waste exhibits any of the following reactive properties:
☐ Water Reactive ☐ Alkaline Reactive ☐ Pyrophoric ☐ Thermally Sensitive
☐ Acid Reactive ☐ Autopolymerizable ☐ Explosive ☐ Shock Sensitive ☒ None of the above

BFI WASTE CODE

5. THIS WASTE CONTAINS

Note if the waste contains any of the following:

- ☐ Free Liquids
- ☐ Free Cyanide
- ☐ Free Sulfide
- ☐ Free Ammonia
- ☐ Dioxins
- ☐ Organic Solvents
- ☐ Used Oils
- ☐ Virgin Oils
- ☐ Etiological Agents
- ☐ Pathogens
- ☐ OSHA Substances
- ☐ Biological Materials
- ☐ Radioactive Materials
- ☐ PCBs not regulated by TSCA 40 CFR 761
- ☒ None of the above

If any of the above are checked "Yes", specify type (if applicable) and include its concentration as part of the waste composition, Section 6.

6. COMPLETE WASTE COMPOSITION

Concentration ranges are suggested, but total must equal 100%. Units must be identified and are to be in parts per million (ppm) and/or percentages (%). Attach additional pages if necessary.

Components	Range Min. / Max.	Components	Range Min. / Max.
SAND	50		
CLAY	40		
BENTONITE	10		

7. TRANSPORTATION INFORMATION

If the waste is a DOT Hazardous Material, complete the following:

Proper USDOT Shipping Name: None

USDOT Hazard Class: _____ UN or NA Number: _____ CERCLA Reportable Quantity _____

8. SUPPLEMENTAL INFORMATION

☐ None ☒ MSD Sheets ☐ Analytical Data ☐ Memo/Letter ☐ Waste Composition

☐ Other – describe _____ No. of Pages _____

9. GENERATOR'S CERTIFICATION

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine, that no deliberate or willful omissions of composition or properties exists, that all known or suspected hazards have been disclosed, and that the waste is not designated a Hazardous Waste by the USEPA or contains PCBs regulated by TSCA 40 CFR 761.

GENERATOR'S AUTHORIZED SIGNATORY:

DATE	PRINT NAME	SIGNATURE	TITLE	INITIALS
3-11-93	T.C. Bradway	T.C. Bradway	Environmental Manager	TCB

REPRESENTATIVE SAMPLE CERTIFICATE

This Section is to be completed by the person obtaining the sample of the above described waste, preferably a representative of the generator. DO NOT COLLECT OR SUBMIT SAMPLES THAT ARE RADIOACTIVE, SHOCK SENSITIVE, EXPLOSIVE, OR PYROPHORIC.

I certify that the sample identified below that is being forwarded to BFI for evaluation is representative of the waste described above. I also understand that, should the waste material described herein not be acceptable for management by BFI Waste Systems, the sample(s) may be returned to the generator.

Collector's Name: T.C. Bradway (Peel Off Label)

Signature: T.C. Bradway

Company: American Steel Bundrie

Title: Environmental Manager

Telephone Number: (216) 923-6150 Ext. 206

wcd Rev. 9/91

CORPORATE WASTE
APPROVAL GROUP

BROWNING-FERRIS INDUSTRIES

DATE	: 03/26/93
BFI Location	: WILLOWCREEK
BFI Initiator	: CASANTA, A.
Generator	: AMERICAN STEEL FOUNDRIES
Generator Location	: ALLIANCE, OH.
Waste Description	: DEWATERED CLARIFIER SLUDGE
BFI Lab Number	: 203178

PRETREATMENT & DISPOSAL RECOMMENDATION

Safety Precautions : Avoid Skin & Eye Contact

RECOMMENDED:
Direct Landfill Burial: Amount of Original Waste 100% by vol.

Sanitary.. BFI Mahoning & Willowcreek
** See attached analysis
Comments:

See the attached Chain of Custody and analytical data from the BFI Houston Laboratory and DeYor Labortories as received by the BFI Corporate Waste Approval Group.

The Material Safety Data Sheets received are currently on file with the BFI Corporate Waste Approval Group.

The above is a recommendation of BFI Corporate Waste Approval Group. It must be understood that management of the waste for treatment and/or disposal at the designated facility must be in compliance with the facility's permit and applicable federal, state, and local regulations. The waste treatment and/or disposal recommendation is based upon a review of the information provided by the generator. This recommendation is contingent upon the receipt at the treatment and/or disposal facility of a waste material essentially equivalent in chemical composition and physical properties to that as defined above. This waste stream has been assigned BFI Waste Code: OH/855:219/940326/203178

CORPORATE WASTE APPROVAL GROUP

Diana L. Lasco
Technical Representative

HOUSTON LABORATORY

BROWNING-FERRIS INDUSTRIES

DATE	: 03/17/93
BFI Location	: BFI WILLOWCREEK
BFI Initiator	: CASANTA, A
Generator	: AMERICAN STEEL FOUNDRIES
Generator Location	: ALLIANCE, OH
Waste Description	: (AA79443) DEWATERED CLARIFIER SLUDGE
	Solid ,# phases/layers: 1 ,
	Color: BLACK Odor: ---
BFI Lab Number	: 97735 263108

REACTIVITY REPORT

Radioactivity, exposure dose.
Results: < 0.05 mR/hr.

Characteristic of Ignitability as per 40 CFR 261.21.
Results: NEGATIVE

Characteristic of Corrosivity as per 40 CFR 261.22.
Results: NOT APPLICABLE

pH, 5% slurry by weight.
Results: 10.6

Characteristic of Reactivity as per 40 CFR 261.23.
Results: SULFIDE <5 ppm ; CYANIDE <2 ppm

Reaction when exposed to air as per 40 CFR 261.23.
Results: NONE DETECTED

Reaction when mixed with water as per 40 CFR 261.23.
Results: NONE DETECTED; 99% INS

Reaction when mixed with a 10% wt. solution of HCL.
Results: NONE DETECTED; 99% INS

Reaction when mixed with a 10% solution of NaOH.
Results: NONE DETECTED; 99% INS

Density
Results: 2190.2 (lb./cu.yd.)

MAR 22 1993
BFI Corporate Special Waste Approvals

BFI HOUSTON LAB GROUP

David Pangrazio

DAVID PANGRAZIO
QA/QC MANAGER

WCD#AA79463 CLARIFIER SLUDGE

RECEIVED MAR 25 1993

..MERICAN STEEL

SPECIMEN I.D. NUMBER	ACCESSION NO.
93535573	93 535573

COLLECTION DATE	COLLECTION TIME	RECEIVED
03/11/93	12:00	03/15/93

CLIENT I.D. NUMBER	LOCATION	REPORTED
5573	00000	03/22/93

TEST	RESULT NORMAL	RESULT ABNORMAL	REFERENCE OR THERAPEUTIC RANGE		UNITS
TCLP EXTRACTION PROC	FINAL PH=4.99				
ZERO HEADSPACE EXTRT	3/17/93				
TCLP METALS & BIAS %					
ARSENIC	<0.20		0.0	5.0	MG/L
Spike recovery	88				%
BARIUM	1.10		0.0	100.0	MG/L
Spike recovery	97				%
CADMIUM	<0.03		0.0	1.0	MG/L
Spike recovery	101				%
CHROMIUM	<0.30		0.0	5.0	MG/L
Spike recovery	85				%
SELENIUM	<0.02		0.0	1.0	MG/L
Spike recovery	100				%
MERCURY	<0.0002		0.0	0.2	MG/L
Spike recovery	108				%
LEAD	<0.20		0.0	5.0	MG/L
Spike recovery	101				%
SILVER	<0.05		0.0	5.0	MG/L
Spike recovery	82				%
TCLP SUPPL.METALS					
NICKEL	<0.20				MG/L
Spike recovery	97				%
COPPER	0.11				MG/L
Spike recovery	92				%
TCLP VOA'S & BIAS %					
METHOD NUMBER	8240				
VINYL CHLORIDE	<0.002		0.0	0.2	MG/L
Spike recovery	102				%
1,1-DICHLOROETHYLENE	<0.002		0.0	0.7	MG/L
Spike recovery	106				%
METHYL ETHYL KETONE	<1.0		0.0	200	MG/L
Spike recovery	90				%
CHLOROFORM	<0.002		0.0	6.0	MG/L
Spike recovery	112				%
CARBON TETRACHLORIDE	<0.002		0.0	0.5	MG/L
Spike recovery	102				%
BENZENE	<0.002		0.0	0.5	MG/L
Spike recovery	110				%

--- DIRECTORS ---
Patrick K. Jaynes Ph.D.
Anthony Nasrallah Ph.D.

DeYor Laboratories
7655 Market Street, Suite 2500
Youngstown, Ohio 44512
(216) 758-5788
(800) 365-3396

BFI-CARBON LIMESTONE LANDFILL
ATTN:ROSANA MARINCHICK
P.O. BOX 5240
POLAND OH 44514

WCD#AA79443 CLARIFIER SLUDGE

SPECIMEN I.D. NUMBER: 93535573

ACCESSION NO.: 93 535573

COLLECTION DATE: 03/11/93

COLLECTION TIME: 12:00

RECEIVED: 03/15/93

REPORTED: 03/22/93

CLIENT I.D. NUMBER LOCATION

.MERICAN STEEL 5573 00000

TEST	RESULT NORMAL	RESULT ABNORMAL	REFERENCE OR THERAPEUTIC RANGE		UNITS
1,2-DICHLOROETHANE	<0.002		0.0	0.5	MG/L
Spike recovery	98				%
TRICHLOROETHYLENE	<0.002		0.0	0.5	MG/L
Spike recovery	116				%
TETRACHLOROETHYLENE	<0.002		0.0	0.7	MG/L
Spike recovery	112				%
CHLOROBENZENE	<0.002		0.0	100.0	MG/L
Spike recovery	106				%
1,4-DICHLOROBENZENE	<0.002		0.0	7.5	MG/L
Spike recovery	114				%
TCLP BNA'S & BIAS %					
METHOD NUMBER	8270				
PYRIDINE	<0.10		0.0	5.0	MG/L
Spike recovery	28				%
o-CRESOL	<0.10		0.0	200	MG/L
Spike recovery	53				%
m-CRESOL	<0.10		0	200	MG/L
Spike recovery	44				%
p-CRESOL	<0.10		0.0	200	MG/L
Spike recovery	44				%
2,4-DINITROTOLUENE	<0.10		0.0	0.13	MG/L
Spike recovery	63				%
HEXACHLOROBUTADIENE	<0.10		0.0	0.50	MG/L
Spike recovery	56				%
HEXACHLOROETHANE	<0.10		0.0	3.0	MG/L
Spike recovery	34				%
NITROBENZENE	<0.10		0.0	2.0	MG/L
Spike recovery	77				%
PENTACHLOROPHENOL	<0.10		0.0	100.	MG/L
Spike recovery	30				%
2,4,5-TRICHLOROPHEN	<0.10		0.0	400.	MG/L
Spike recovery	100				%
2,4,6-TRICHLOROPHEN	<0.10		0.0	2.0	MG/L
Spike recovery	78				%
HEXACHLOROBENZENE	<0.10		0.0	0.13	MG/L
Spike recovery	80				%
TCLP REVIEW					

--- DIRECTORS ---
Patrick K. Jaynes Ph.D.
Anthony Nasrallah Ph.D.

BFI-CARBON LIMESTONE LANDFILL
ATTN:ROSANA MARINCHICK
P.O. BOX 5240
POLAND OH 44514

DeYor Laboratories
7655 Market Street, Suite 2500
Youngstown, Ohio 44512
(216) 758-5788
(800) 365-3396

NAME	SPECIMEN I.D. NUMBER	ACCESSION NO.
WCD#AA79443 CLARIFIER SLUDGE	93535573	93 535573

COLLECTION DATE	COLLECTION TIME	RECEIVED
03/11/93	12:00	03/15/93

CLIENT I.D. NUMBER	LOCATION	REPORTED
AMERICAN STEEL 5573	00000	03/22/93

TEST	RESULT (NORMAL / ABNORMAL)	REFERENCE OR THERAPEUTIC RANGE	UNITS
	TCLP PREPARATION FOLLOWS METHOD 1311 SW-846 AS REVISED NOVEMBER 24,1992 (57FR55114) REVIEWED BY ALBERT F. VICINIE III,LAB SUPERVISOR		

--- DIRECTORS ---
Patrick K. Jaynes Ph.D.
Anthony Nasrallah Ph.D.

BFI-CARBON LIMESTONE LANDFILL
ATTN:ROSANA MARINCHICK
P.O. BOX 5240
POLAND OH 44514

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7655 Market Street, Suite 2500
Youngstown, Ohio 44512
(216) 758-5788
(800) 365-3396

97735

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: BFI Houston Laboratory Contact: Angie
Location: 5630 Guhn Road, Houston Phone: 713-460-9988

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
7735 400AA79443	dewatered clarified sludge	1 qt	SW	RCI	N

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By:	Date/Time:	Company:
Sample(s) Submitted By: Al Casanta	Date/Time: 3-12-93	Company: BFI-Willowcreek
Sample(s) Couriered by: Federal Express	Date/Time: 3-12-93	Company: Airbill. Ship Ticket No. # 4322973504
Sample(s) Received by: Lisa Reaves	Date/Time: 3-15-93 3:30 pm	Company: BFI Houston Lab

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

APPROXIMATE TESTING COSTS: [illegible]

CUST. AUTHORIZATION: WRC

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

W.C.D.# : AA 79443
CUSTOMER : BFI Canton
P.O.# : 855-8732.

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: Deyor Lab Contact: Rusty

Location: Boardman Oh. Phone: 758-5788

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
	[illegible]	[illegible]			
AA 79443	Clarifier Sludge.	1 qt	SO	Metals - Vol - Semi Vol	[illegible]

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By: T.C. Bradway	Date/Time: 3/11/93 12:00 noon	Company: ASF
Sample(s) Submitted By: T.C. Bradway	Date/Time:	Company: ASF
Sample(s) Couriered by: J. Cavanta	Date/Time: 3/15/93 3/15/93	Company: Ship Ticket No. BFI
Sample(s) Received by: Christine A.C. Grabert	Date/Time: 3-15-93 9:25 AM	Company:

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: BFI Houston Laboratory Contact: Angie
Location: 5630 Cuhn Road, Houston Phone: 713-460-0988

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
400AA79443	dewatered	1 qt	SW	RCI	N
	Clarified Sludge				

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By:	Date/Time:	Company:
Sample(s) Submitted By: Fil Casanta	Date/Time: 3-12-93	Company: BFI-Willowcreek
Sample(s) Courtered by: Federal Express	Date/Time: 3-12-93	Company: Airbill Ship Ticket No. # 4322973504
Sample(s) Received by:	Date/Time:	Company:

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

APPROXIMATE TESTING COSTS: $1,100.00 BFI

CUST. AUTHORIZATION: CCRC

HOUSTON LABORATORY
BROWNING-FERRIS INDUSTRIES

GENERATOR: American Steel

W.C.D.# : AA 79443

CUSTOMER : BFI Canton

P.O.# :

SAMPLE ANALYSIS REQUEST / CHAIN OF CUSTODY
SPECIAL WASTE

Assigned to Laboratory: Devor Lab Contact: Rusty

Location: Boardman Oh. Phone: 758-5788

WCD or BFI Lab No.	Waste Description	Volume/ Container	Matrix	Analyses Requested	Rush Y/N
AA 79443	Clarifier Sludge.	1 qt	SO	Metals - Vol - Semi Vol	N

Matrix Codes: SO = soil; MP = multi-phase; OR = organic/oil; SW = solid; SS = semi-solid

Remarks:

Safety Precautions: Normal Laboratory Hygiene [ ] Avoid skin/ eye contact [ ] Avoid breathing vapors/dust [ ]

Special Handling/Storage:

Sample(s) Taken By: T.C. Bradway	Date/Time: 3/11/93 12:00 noon	Company:
Sample(s) Submitted By: T.C. Bradway	Date/Time:	Company:
Sample(s) Couriered by:	Date/Time:	Company: Ship Ticket No.
Sample(s) Received by:	Date/Time:	Company:

Receiving laboratory's comments:

Note: This form must be completed and returned with the analytical data report.

Since 1902 ASF LEADERSHIP AND SERVICE

American Steel Foundries

1001 EAST BROADWAY • ALLIANCE, OHIO 44601 • (216) 823-6150
FAX NO. (216) 821-4568

D. J. MARLBOROUGH
PLANT MANAGER

RECEIVED
DEC 22 1992
OFFICE OF RCRA
Waste Management Division
U.S. EPA, REGION V

December 16, 1992

To: Chief, RCRA Enforcement Branch, 5HR-12
U. S. EPA, Region V
230 South Dearborn Street
Chicago, Illinois 60604
Attn: Kimberly Oogle

Return Receipt Requested

Chief, SWERB Section V
Office of Regional Counsel
U. S. EPA Region V, 5CS-TUB3
230 South Dearborn Street
Chicago, Illinois 60604
Attn: Richard Clarizio

UNITED STATES V. AMSTED INDUSTRIES, INC.
Civil Action No. C87-1284A (N.D. Ohio)

This submittal is intended to meet the compliance requirements of the above cited Consent Decree, specifically those actions which are requested fifteen (15) days after the Consent Decree. Amsted's Counsel received notice of entry of the Consent Decree on December 4, 1992. Listed below is our response to each applicable item in the Consent Decree. Each item is numbered as found in the Consent Decree for reference.

F. SEBRING FACILITY - General Operating Requirements

2. Please find attached the annual reports for calendar years 1987, 1988, 1989 and 1990 according to the reporting requirements of 40 CFR 265.75 and OAC 3745-65-75. This requirement is complete.

I certify that the information contained in or accompanying this submission or document is true, accurate, and complete to the best of my knowledge. As to those identified portion(s) of this submissions or document for which I cannot personally verify its truth and accuracy, I certify as the company official having supervisory responsibility for the person(s) who, acting under my instructions, made the verification, that this information is true, accurate, and complete, to the best of my knowledge.

Very truly yours,

D. J. Marlborough
PLANT MANAGER

Certification # P 134 874 110

UNITED STATES V. AMSTED INDUSTRIES, INC.
Civil Action No. C87 - 1284A (N. D. Ohio)

CAR/sdw

Attachments

cc: Ohio EPA
Chief, Division of Solid and Hazardous Waste
1800 WaterMark Drive
P. O. Box 1049
Columbus, Ohio 43265-0149

Ohio EPA
Division of Solid and Hazardous Waste
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087-1969

Edward Brosius, Esq.
Amsted Industries, Inc.
44th Floor - Boulevard Towers South
205 N. Michigan Avenue
Chicago, Illinois 60601

American Steel Foundries
10 South Riverside Plaza - 10th Floor
Chicago, Illinois 60606
Attn: C. A. Ruud

P. C. Schillawski
Squire Sanders & Dempsey
4900 Society Center
127 Public Square
Cleveland, Ohio 44114-1304

Edward R. Hanson
MREC
American Steel Foundries
3761 Canal Street
East Chicago, Indiana 46312

OHIO ENVIRONMENTAL PROTECTION AGENCY

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1990

The information requested herein is required by Rules 3745-54-75 and 3745-65-75 as applicable of the Ohio Administrative Code

REFER TO THE SPECIFIC INSTRUCTIONS CONTAINED IN THIS BOOKLET BEFORE COMPLETING THIS FORM.

Please print/type with elite type (12 characters per inch)

LABEL BELOW IS FOR REFERENCE ONLY; SECTIONS I. THROUGH VII. MUST BE COMPLETED.

I. FACILITY'S EPA I.D. NUMBER

F OHD017497587 1

II. NAME OF FACILITY

AMERICAN STEEL FOUNDRIES - SEBRING

III. FACILITY MAILING ADDRESS

3 1001 EAST BROADWAY STREET

Street or P.O. Box

4 ALLIANCE — OH — 44601

City or Town — State — Zip Code

IV. LOCATION OF FACILITY

5 LAKE PARK AND HEACOCK ROADS — 50

County Code

6 SMITH TOWNSHIP — OH

City or Town — State — Zip Code N/A — Primary SIC Code N/A

V. FACILITY CONTACT

2 HEESTAND, JR. WILLIAM D. — 216-823-6150

Name (last and first) — Phone No. (area code & no.)

VI. COST ESTIMATES FOR FACILITY

A. Cost Estimate for Facility Closure *

$ ___,___,___ .00

* B. Cost Estimate for Post Closure Monitoring and Maintenance (disposal facilities only)

$ ___,___,___ .00

* These numbers are presently being calculated. This report will be amended when costs are available.

CERTIFICATION

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

[signature] 12/3/91

Print/Type Name — Title — Signature of Authorized Representative — Date Signed

EPA 9020

OHIO ENVIRONMENTAL PROTECTION AGENCY

FACILITY ANNUAL HAZARDOUS WASTE REPORT (cont.)

For the calendar year ending December 31, 199

G ERATOR INFORMATION
(specify generator from which all wastes on this page were received)

VIII. FACILITY'S EPA I.D. NO.

G | O | H | D | 0 | 1 | 7 | 4 | 9 | 7 | 5 | 8 | 7 | 2

IX. GENERATOR'S EPA I.D.NO.

O H D 9 8 1 0 9 0 4 1 8

X. GENERATOR NAME

A M E R I C A N S T E E L F O U N D R I E S

XI. GENERATOR'S ADDRESS

1 0 0 1 E A S T B R O A D W A Y S T R E E T

Street or P.O. Box

A L L I A N C E

City or Town

O H

State

4 4 6 0 1

Zip Code

XII. WASTE IDENTIFICATION

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD (enter code)	C. USEPA HAZARDOUS WASTE NUMBER (see instructions)	D. AMOUNT OF WASTE	E. UNIT OF MEASURE
1					
2					
3					
4					
5					
6					
7					
8					

X COMMENTS (enter information by section number)

SE ION XII. No TSDF Activities occurred during 1990.

RECEIVED

9 1990

N.E.D.O.

OHIO ENVIRONMENTAL PROTECTION AGENCY

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 1989

The information requested herein is required by Rules 3745-54-75 and 3745-65-75 as applicable of the Ohio Administrative Code

REFER TO THE SPECIFIC INSTRUCTIONS CONTAINED IN THIS BOOKLET BEFORE COMPLETING THIS FORM.

Please print/type with elite type (12 characters per inch)

LABEL BELOW IS FOR REFERENCE ONLY; SECTIONS I. THROUGH VII. MUST BE COMPLETED.

I. FACILITY'S EPA I.D. NUMBER

F | O H D 0 1 7 4 9 7 5 8 7 | 1

II. NAME OF FACILITY

A M E R I C A N S T E E L F O U N D R I E S - S E B R I N G

III. FACILITY MAILING ADDRESS

3 | 1 0 0 1 E A S T B R O A D W A Y S T R E E T

Street or P.O. Box

4 | A L L I A N C E | O H | 4 4 6 0 1

City or Town | State | Zip Code

IV. LOCATION OF FACILITY

5 | L A K E P A R K A N D H E A C O C K R O A D S | 5 0

County Code

6 | S M I T H T O W N S H I P | O H | | |

City or Town | State | Zip Code N/A | Primary SIC Code N/A

V. FACILITY CONTACT

2 | H E E S T A N D , J R . W I L L I A M D . | 2 1 6 - 8 2 3 - 6 1 5 0

Name (last and first) | Phone No. (area code & no.)

VI. COST ESTIMATES FOR FACILITY

A. Cost Estimate for Facility Closure *

$ | | | . | | | . | | | .00

16 18 19 21 22 24

* B. Cost Estimate for Post Closure Monitoring and Maintenance (disposal facilities only)

$ | | | . | | | . | | | .00

25 27 28 30 31

CERTIFICATION

* These numbers are presently being calculated. This report will be amended when costs are available.

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

12/3/91

Print/Type Name | Title | Signature of Authorized Representative | Date Signed

EPA 9020

OHIO ENVIRONMENTAL PROTECTION AGENCY

FACILITY ANNUAL HAZARDOUS WASTE REPORT (cont.)

For the calendar year ending December 31, 198

VIII. FACILITY'S EPA I.D. NO.

G | O H D 1 0 1 7 4 9 7 5 8 7 | 2

IX. GENERATOR'S EPA I.D.NO.

O H D 9 8 1 0 9 0 4 1 8

X. GENERATOR NAME

AMERICAN STEEL FOUNDRIES

XI. GENERATOR'S ADDRESS

1001 EAST BROADWAY STREET

Street or P.O. Box

ALLIANCE | OH | 44601

City or Town | State | Zip Code

XII. WASTE IDENTIFICATION

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD (enter code)	C. USEPA HAZARDOUS WASTE NUMBER (see instructions)	D. AMOUNT OF WASTE	E. UNIT OF MEASURE
1					
2					
3					
4					
5					
6					
7					
8					

28 29 30 — 33 34 — 37 38 — 41 42 — 45 46 54 55

COMMENTS (enter information by section number)

SECTION XII. No TSDF Activities occurred during 1989.

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1990

N.E.D.O.

OHIO ENVIRONMENTAL PROTECTION AGENCY

FACILITY ANNUAL HAZARDOUS WASTE REPORT

For the calendar year ending December 31, 198

The information requested herein is required by Rules 3745-54-75 and 3745-65-75 as applicable of the Ohio Administrative Code

REFER TO THE SPECIFIC INSTRUCTIONS CONTAINED IN THIS BOOKLET BEFORE COMPLETING THIS FORM.

Please print/type with elite type (12 characters per inch)

LABEL BELOW IS FOR REFERENCE ONLY; SECTIONS I. THROUGH VII. MUST BE COMPLETED.

I. FACILITY'S EPA I.D. NUMBER

F | O H D 0 1 7 4 9 7 5 8 7 | 1

II. NAME OF FACILITY

AMERICAN STEEL FOUNDRIES - SEBRING

III. FACILITY MAILING ADDRESS

3 | 1010 EAST BROADWAY STREET

Street or P.O. Box

4 | ALLIANCE | OH | 44601

City or Town | State | Zip Code

IV. LOCATION OF FACILITY

5 | LAKE PARK AND HEACOCK ROADS | 50

County Code

6 | SMITH TOWNSHIP | OH | N/A | N/A

City or Town | State | Zip Code | Primary SIC Code

V. FACILITY CONTACT

2 | HEESTAND, JR. WILLIAM D. | 216-823-6150

Name (last and first) | Phone No. (area code & no.)

VI. COST ESTIMATES FOR FACILITY

A. Cost Estimate for Facility Closure *

$ _____ .00

B. Cost Estimate for Post Closure Monitoring and Maintenance (disposal facilities only) *

$ _____ .00

* These numbers are presently being calculated. This report will be amended when costs are available.

CERTIFICATION

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

Signature of Authorized Representative: [signature] Date Signed: 12/3/91

Print/Type Name | Title

EPA 9020

OHIO ENVIRONMENTAL PROTECTION AGENCY

FACILITY ANNUAL HAZARDOUS WASTE REPORT (cont.)

For the calendar year ending December 31, 198

G. GENERATOR INFORMATION
(specify generator from which all wastes on this page were received)

VIII. FACILITY'S EPA I.D. NO.

G | O H D 0 1 7 4 9 7 5 8 7 | 2

IX. GENERATOR'S EPA I.D.NO.

O H D 9 8 1 0 9 0 4 1 8

X. GENERATOR NAME

AMERICAN STEEL FOUNDRIES

XI. GENERATOR'S ADDRESS

1001 EAST BROADWAY STREET

Street or P.O. Box

ALLIANCE | OH | 44601

City or Town | State | Zip Code

XII. WASTE IDENTIFICATION

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD (enter code)	C. USEPA HAZARDOUS WASTE NUMBER (see instructions)	D. AMOUNT OF WASTE	E. UNIT OF MEASURE
1					
2					
3					
4					
5					
6					
7					
8					

26 29 30 — 33 34 — 37 38 — 41 42 — 45 46 54 55

X. COMMENTS (enter information by section number)

Section XII. No TSDF activities occurred during 1988.

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1990

OHIO ENVIRONMENTAL PROTECTION AGENCY

FACILITY ANNUAL HAZARDOUS WASTE REPORT 1987

For the calendar year ending December 31, 1987

The information requested herein is required by Rules 3745-54-75 and 3745-65-75 as applicable of the Ohio Administrative Code

REFER TO THE SPECIFIC INSTRUCTIONS CONTAINED IN THIS BOOKLET BEFORE COMPLETING THIS FORM.

Please print/type with elite type (12 characters per inch)

LABEL BELOW IS FOR REFERENCE ONLY; SECTIONS I. THROUGH VII. MUST BE COMPLETED.

I. FACILITY'S EPA I.D. NUMBER

F | OHD017497587 | 1

II. NAME OF FACILITY

AMERICAN STEEL FOUNDRIES - SEBRING

III. FACILITY MAILING ADDRESS

3 | 1001 EAST BROADWAY STREET

Street or P.O. Box

4 | ALLIANCE | OH | 44601

ity or Town | State | Zip Code

IV. LOCATION OF FACILITY

5 | LAKE PARK AND HEACOCK ROADS | 50

County Code

6 | SMITH TOWNSHIP | OH | | |

City or Town | State | Zip Code N/A | Primary SIC Code N/A

V. FACILITY CONTACT

2 | HEESTAND, JR. WILLIAM D. | 216-823-6150

Name (last and first) | Phone No. (area code & no.)

VI. COST ESTIMATES FOR FACILITY

A. Cost Estimate for Facility Closure *

$ | | | . | | | . | | | .00

B. Cost Estimate for Post Closure Monitoring and Maintenance (disposal facilities only)

$ | | | . | | | . | | | .00

CERTIFICATION

* These numbers are presently being calculated. This report will be amended when costs are available.

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

12/3/91

Print/Type Name | Title | Signature of Authorized Representative | Date Signed

EPA 9020

OHIO ENVIRONMENTAL PROTECTION AGENCY

FACILITY ANNUAL HAZARDOUS WASTE REPORT (cont.) 1987

For the calendar year ending December 31, 1989

GENERATOR INFORMATION

(specify generator from which all wastes on this page were received)

VIII. FACILITY'S EPA I.D. NO.

G OHD017497587 2

IX. GENERATOR'S EPA I.D.NO.

OHD981090418

X. GENERATOR NAME

AMERICAN STEEL FOUNDRIES

XI. GENERATOR'S ADDRESS

1001 EAST BROADWAY STREET

Street or P.O. Box

ALLIANCE OH 44601

City or Town State Zip Code

XII. WASTE IDENTIFICATION

LINE	A. DESCRIPTION OF WASTE	B. HANDLING METHOD (enter code)	C. USEPA HAZARDOUS WASTE NUMBER (see instructions)	D. AMOUNT OF WASTE	E. UNIT OF MEASURE
1	EAF DUST EP TOXIC	D80	D006 D008	222984	P
2					
3					
4					
5					
6					
7					
8					

XIII. COMMENTS (enter information by section number)

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Page 2 of 2