FINAL REPORT AND CERTIFICATIONS

151825

SITE PREPARATION AND MATERIAL REMOVAL

ZIONSVILLE, INDIANA

VOLUME I OF III

Appendices A-G

PREPARED FOR

ECC TRUST
DEERFIELD, ILLINOIS

PREPARED BY

AWD TECHNOLOGIES, INC.
PITTSBURGH, PENNSYLVANIA

AWD PROJECT NUMBER 2396

JANUARY 1994

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1.0 SUMMARY OF CONSTRUCTION ACTIVITY

1.1 Partial Tank Relocation and Initial Site Grubbing

In order to perform the site survey, approximately half of the 53 tanks on site had to be relocated away from the remedial boundary line. Initial grubbing and fence removal were also required to facilitate the location of the remedial boundary and exclusion zone boundary.

1.2 Initial Site Survey

The initial site survey established the remedial boundary, the exclusion zone boundary, the support zone limits as well as the location of the construction and security fences and the drainage ditches. The initial survey also established the grade elevations in the support zone to be used in the cut and fill operations.

1.3 Debris Sampling

Samples were taken within the process building of porous materials to determine contamination levels of those materials. One sample of wood, styrofoam insulation, concrete block and fiberglass insulation were procured and analyzed per the design specifications. The analysis determined that the contamination levels of these materials were below hazardous levels. This information was submitted to The Indiana Department of Environmental Management (IDEM) and was used by IDEM to classify these materials as Special Waste. Complete analytical results are located in Appendix G.

Although the A-frame building was not suspect as hazardous, an asbestos survey of the building materials was performed in order to satisfy landfill disposal requirements. The results of this survey were negative and the material was accepted by the landfill as Special Waste. Complete analytical results are located in Appendix G.

The boiler housed within the process building was considered hazardous, but samples were taken (see Appendix G) of residue on the boiler burner chamber wall and the chamber end seal door and analyzed as required for landfill treatment and disposal requirements. Additionally, the burner end flange gasket material was analyzed for asbestos. Chamber wall and door seal

sample analysis revealed hazardous levels of lead contamination and the gasket material was confirmed as containing asbestos. Complete analytical results are located in Appendix G.

Three steel tanks had notations indicating the possible presence of polychlorinated biphenyls (PCBs). Wipe samples from the internal surfaces of these tanks were analyzed for PCBs. Tank T-21 sample results indicated AROCHLOR 1248 at 6 micrograms for the 100 square centimeter wipe sample. Tank T-16 results indicated AROCHLOR 1248 at 2.4 micrograms for the 100 square centimeter wipe sample. Tank T-33 test results indicated all PCB AROCHLORS below detectable limits. Complete results are located in Appendix G.

1.4 Support Zone Grade Surface Preparation

Approximately 1,400 lineal feet of existing fence was removed and discarded. Small shrubs and trees were removed from the support zone area and disposed of as Special Waste. Redistribution of soil within the support zone was accomplished to maintain the intent of west to east flow of surface runoff.

1.5 Construction Fence Installation

Approximately 1,400 lineal feet of high visibility construction fence was installed to establish a working perimeter around the site.

1.6 Support Zone Preparation

Upon completion of the soil grading in the support zone, geotextile fabric was placed and topped with an 8-inch thick compacted layer of No. 2 stone and a 4-inch thick compacted layer of No. 53 stone.

Diversion channels were excavated to the specified invert elevations and the concrete culvert pipe was placed at gate entrances.

Electric power was connected to the site with the exception of the 240 volt 3 phase. Three automatic security lights were installed on new poles within the support zone.

A concrete decontamination pad complete with precast manhole collection sump and splash shields was constructed to the design specifications, elevations and coordinates.

A wastewater storage pad consisting of the specified geomembrane and compacted stone was constructed to house the wastewater holding tanks and contain possible leakage or the total contents of one of the holding tanks in the event of a rupture.

Site support trailers and telephone service was supplied upon availability of completed support zone.

1.7 Miscellaneous Site Debris Removal and Drum Relocation

Miscellaneous debris from within the remedial boundary was marshalled to a central location adjacent to the process building and removed from the site and disposed of as Special Waste.

Approximately 20 randomly located drums were gathered from within the remedial boundary and placed on the existing concrete drum storage pad with the other remaining drums.

1.8 Structure Demolition

The remaining portion of the process building and the A-frame building were demolished to grade and materials were segregated and prepared for disposal.

1.9 Material Removal

Non-porous materials including process building siding, process building structural steel, 53 steel tanks and other miscellaneous non-porous site debris were cut into manageable pieces, pressure washed on the decontamination pad, loaded into rolloff boxes and transported to steel remelt facilities (Minski or Lusco).

Porous and clearing and grubbing materials were loaded into 13 rolloff boxes and transported to Waste Management's Danville, Indiana landfill for disposal as Special Waste. The process building boiler was demolished and loaded into two hazardous waste roll off boxes and transported to Chem Waste Management's Adam Center Disposal facility in Fort Wayne, Indiana for treatment and disposal.

1.10 Security Fence

Approximately 1,400 lineal feet of 10 feet high security fence and four gates were placed around the perimeter of the site outside the diversion channels. This fence was connected to the existing fence on the east side of the site.

1.11 Changes Affecting Final Site Conditions

The following is a list of changes to the final site conditions and the reasons for those changes:

- Due to changes in the cut and fill quantities in the support zone, the support zone was regraded as necessary to permit proper drainage.

- Due to the presence of large stones and rubble in the areas of the diversion channels, design profiles for these channels could not be constructed. Therefore, the channels were excavated as ditches to their final profiles. Material removed to create these ditches was placed north and east of the remedial boundary.

- Due to the soil instability, the section of the South Diversion Channel at the point where the South Support Zone Diversion Channel intersects was filled with No. 2 stone to maintain flow.

- Due to the discovery of soil contamination while constructing the South Support Zone Diversion Channel, work was halted in that area and the ditch left open and incomplete.

- For safety reasons, the security fence was placed to the west of the Parcel 45 North Diversion Channel and south of the South Diversion Channels.

- In order to facilitate the installation of the Wastewater Storage Pad, the location of the pad was moved 2 feet south of its designed location.

- To prevent unnecessary change to neighboring properties, the Access Road Upgrade Area was moved 14 feet northeast of its designed location.

- For pipeline integrity reasons, the 6-inch PVC valve was placed inside the manhole.

- Electrical 440 volt 3 wire electrical services was deleted from the scope of work

2.0 SUMMARY STATEMENT

AWD Technologies, Inc. has completed the Site Preparation and Material Removal in accordance with the plans and specifications as modified by Requests of Field Change, Field Work Orders, Design Changes and as directed by ECC's site representative.

Resident Superintendent

James R. Fife

Contractor Quality Control Manager

Scott Weishaar

3.0 FINAL CERTIFICATION OF COMPLETION

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

To: ECC Trust Date: _____

Attn: ECC Trust's Engineer

From: Saverio F. DeBartolo

This is to certify that I, Saverio F. DeBartolo am an authorized official of AWD Technologies, Inc. working in the capacity of Remedial Contractor Project Manager and have been properly authorized by said firm or corporation to sign the following statements pertaining to the subject contract:

> I know of my own personal knowledge, and do hereby certify, that the work of the Contract described above has been performed, and materials used and installed in every particular, in accordance with, and in conformity to, the Contract Drawings and Specifications.
>
> The Contract work is now complete in all parts and requirements, and ready for your final inspection.

By: _____

Title: Director of Remedial Services

For: _____

Distribution:
1. Resident Superintendent
2. CQC Manager

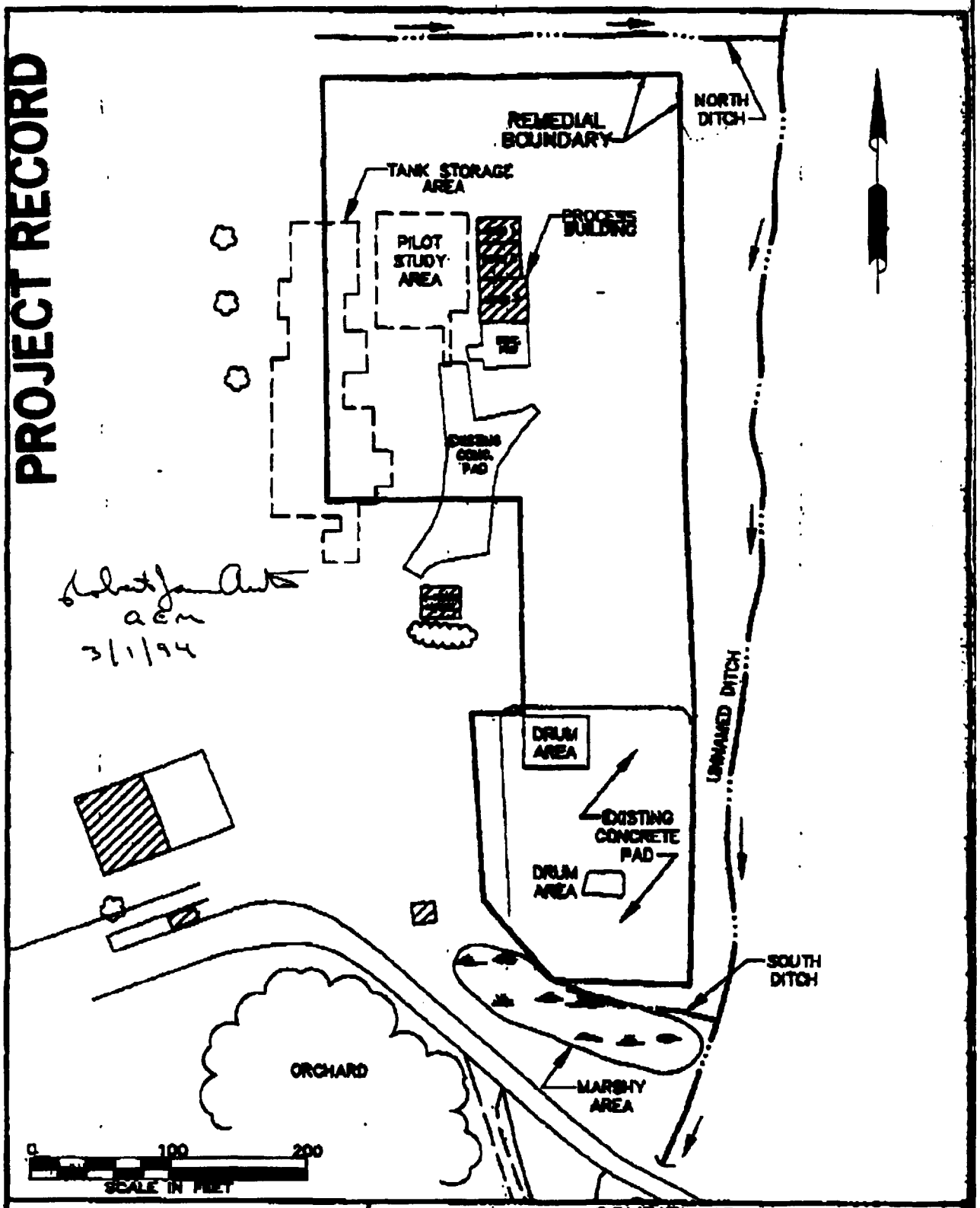
4.0 ENVIRONMENTAL CONDITIONS SURVEY REPORT

ENVIRO-CHEM SUPERFUND SITE
ZIONSVILLE, INDIANA

The report requirements are discussed in Section 4.2 of the Environmental Control and Maintenance Plan. On Tuesday, August 31, 1993, R. Autio (QEM) and Jim Fife (AWD) walked the Enviro-Chem Superfund site in Zionsville, Indiana and noted the following environmental conditions as shown on the Conditions Survey Layout (attached):

- The area to be used for the south portion of the Support Zone was marshy and wet.
- The existing south drainage ditch flowed from west to east along the south side of the concrete pad. The ditch was filled with cattails and brush.
- The existing north ditch flowed from west to east along the north side of the site. The ditch was free of vegetation.
- The unnamed ditch flowed from north to south along the east side of the site. The ditch channel was relatively clear of vegetation with trees and brush along the banks. Trash was noted in channel and along the banks.
- An orchard is present south of the site on the south side of the Northside Sanitary Landfill access road.

Resident Superintendent	Engineers Representative
James R. Fife	Robert Autio
AWD Technologies, Inc.	QEM
3/1/94 (Date)	3/1/94 (Date)


PROJECT RECORD
REMEDIAL BOUNDARY
NORTH DITCH
TANK STORAGE AREA
PILOT STUDY AREA
PROCESS BUILDING
EXISTING CONC. PAD
DRUM AREA
EXISTING CONCRETE PAD
DRUM AREA
UNNAMED DITCH
SOUTH DITCH
MARSHY AREA
ORCHARD
0
100
200
SCALE IN FEET
AWD TECHNOLOGIES, INC
CONDITIONS
SURVEY LAYOUT
ENVIRO-CHEM SUPERFUND SITE
ZIONSVILLE, IN
AS SHOWN
4-1

A

FINAL CERTIFICATION OF COMPLETION REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Definable Feature of Work:

ACCESS ROAD and SUPPORT ZONE SURFACES
- TECHNICAL SPECIFICATION SECT. 2500, 2200
- DRAWING C-2, C-3, C-8

Including major equipment, material, and/or services:

D-4 DOZER, TRACK LOADER, 20,000 LB VIBRATORY ROLLER
10 oz AND 16 oz NONWOVEN GEOTEXTILE PLACED OVER SUBGRADE WITH 2' OVERLAP. AN 8 in. LAYER OF IDOH #2 AGGREGATE PLACED OVER GEOTEXTILE AND COMPACTED WITH ROLLER THEN AN 4 in LAYER OF IDOH #53 AGGREGATE WAS PLACED AND COMPACTED. EDGES FEATHERED TOWARD DRAINAGE CHANNELS ACCORDING TO DRAWING C-8.

Was accepted/inspected on 12/01/93 **by** SCOTT WEISHAAR.

Accordingly, — **certifies all work is completed, with the exception of items listed in attached "punch list", in accordance with the project design documents, and all applicable inspections and construction tests have been satisfactorily completed.**

Scott A. Weishaar
Remedial CQC Manager

12/02/93
(Date)

Saverio F. DeBartolo
Remedial Contractor Project Manager

1/25/94
(Date)

PROJECT RECORD

FINAL CERTIFICATION OF COMPLETION REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Definable Feature of Work:

DECONTAMINATION PAD
- TECHNICAL SPECIFICATION SECT. 2090, 3300
- DRAWING C-5

Including major equipment, material, and/or services:

D-4 DOZER, TRACK LOADER, BACK-HOE
AGGREGATE SUBBASE CONSISTED OF 4 in of IDOH #4 AGGREGATE. A PRECAST CONCRETE SUMP WAS INSTALLED WITH A 6 in SCHEDULE 80 PVC OVERFLOW PIPE. NEENAH CAST IRON GRATES, LIDS AND FRAMES WERE INSTALLED, AS WELL AS PVC WATERSTOPS AND LINK-SEAL. PRESSURE TREATED LUMBER AND 16 oz NONWOVEN GEOTEXTILE WAS USED IN CONSTRUCTING SIDEWALL SPLASH GUARDS ACCORDING TO DRAWING C-5. CONCRETE USED WAS 5.5 BAG, N/A, GRAVEL TYPE III HIGH EARLY STRENGTH W/ SUPERPLASTICIZER

Was accepted/inspected on 12/01/93 **by** SCOTT WEISHAAR.

Accordingly, SCOTT WEISHAAR **certifies all work is completed, with the exception of items listed in attached "punch list", in accordance with the project design documents, and all applicable inspections and construction tests have been satisfactorily completed.**

Scott A. Weishaar
Scott A. Weishaar
Remedial CQC Manager

12/02/93
(Date)

Saverio DeBartolo
Saverio F. DeBartolo
Remedial Contractor Project Manager

1-25-94
(Date)

PROJECT RECORD

AWD TECHNOLOGIES

CALCULATION WORKSHEET

CLIENT	FILE NO	BY	PAGE
ENVIROCHEM	2396	SCOTT WEISHAAR	1 / 1
SUBJECT			DATE
FINAL CERT. PUNCH LIST			12/02/93

DECONTAMINATION PAD

1. SUMP OVERFLOW PIPE WAS TO BE SURROUNDED WITH A LINK-SEAL TO CONTROL LEAKAGE. TWO CRACKS DEVELOPED HORIZONTALLY ON THE EAST AND WEST SIDES OF THE SEAL. A POLYMER RESIN WAS APPLIED TO THESE CRACKS AS A LEAK CONTROL.

PROJECT RECORD

FINAL CERTIFICATION OF COMPLETION REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Definable Feature of Work:

WASTE WATER STORAGE PAD
- TECHNICAL SPECIFICATION SECT. 2091
- DRAWING C-6

Including major equipment, material, and/or services:

D-4 DOZER, BACK HOE
AND PLACED 10oz GEOTEXTILE ON PAD SUBGRADE. LEE TAYLOR PLACED 60mil HDPE GEOMEMBRANE. FUSION WELDING AND EXTRUSION WELDING, VACUUM TESTING, AIR PRESSURE TESTING, AND DESTRUCTIVE SEAM TESTING DONE ON LINER BY TAYLOR CONST. AND PLACE 10oz GEOTEXTILE OVER LINER. ONE ft. OF IDOH #53 STONE WAS PLACED OVER PAD AND PRE-FABRICATED HDPE SUMP.

Was accepted/inspected on 10/27/93 **by** SCOTT WEISHAAR.

Accordingly, _____ **certifies all work is completed, with the exception of items listed in attached "punch list", in accordance with the project design documents, and all applicable inspections and construction tests have been satisfactorily completed.**

Scott A. Weishaar
Scott A. Weishaar
Remedial CQC Manager

12/02/93
(Date)

Saverio F. DeBartolo
Saverio F. DeBartolo
Remedial Contractor Project Manager

1/25/94
(Date)

PROJECT RECORD

FINAL CERTIFICATION OF COMPLETION REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Definable Feature of Work:

DIVERSION CHANNELS
- TECHNICAL SPECIFICATION SECT. 2175, 2700, 2710
- DRAWING C-2, C-6, C-8

Including major equipment, material, and/or services:

TRACK HOE EXCAVATOR
DUE TO AN EXCESSIVE AMOUNT OF DEBRIS IN THE DITCH LOCATIONS, THE PROFILE ON DRAWING C-8 WAS UNOBTAINABLE. THE ELEVATIONS SHOWN ON DRAWING C-2 WERE MAINTAINED AND CULVERTS INSTALLED AT DESIGNATED LOCATIONS. RIP RAP WAS INSTALLED ACCORDING TO DRAWING C-2 AND T.S. 2700. HYDROSEEDING WAS DONE ON THE NORTH DITCH WITH SILT FENCE INSTALLED AT THE NORTH AND SOUTH T.O.S. IN ACCORDANCE WITH DRAWING C-2 AND C-7 AND T.S. 2700. STRAW BALES WERE PLACED 100' APART IN REMAINING DITCHES.

Was accepted/inspected on 12/01/93 **by** Scott Weishaar.

Accordingly, SCOTT WEISHAAR **certifies all work is completed, with the exception of items listed in attached "punch list", in accordance with the project design documents, and all applicable inspections and construction tests have been satisfactorily completed.**

Scott Weishaar
Scott A. Weishaar
Remedial CQC Manager

12/02/93
(Date)

Saverio DeBartolo
Saverio F. DeBartolo
Remedial Contractor Project Manager

1/25/94
(Date)

PROJECT RECORD

AWD TECHNOLOGIES

CALCULATION WORKSHEET

CLIENT	FILE NO	BY	PAGE
ENVIROCHEM	2396	SCOTT WEISHAAR	1 1
SUBJECT		CHECKED BY	DATE
FINAL CERT.	PUNCH LIST		11/30/93

DIVERSION CHANNELS

1. DUE TO EXCESSIVE AMOUNT OF DEBRIS IN THE DITCH LOCATIONS, THE PROFILE ON DRAWING C-8 WAS UNOBTAINABLE.

PROJECT RECORD

FINAL CERTIFICATION OF COMPLETION REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Definable Feature of Work:

FENCING
- TECHNICAL SPECIFICATION SECT. 2800
- DRAWING C-2, C-7

* SITE SECURITY FENCE, EXCLUSION ZONE FENCE, TEMPORARY CONST. FENCE

Including major equipment, material, and/or services:

ROCK DRILL DRILL RIG.
A HIGH VISUAL TEMPORARY CONSTRUCTION FENCE WAS PLACED AROUND THE EXTERIOR PERIMETER OF THE SZ. UPON COMPLETION OF A PERMANENT CHAIN LINK SITE SECURITY FENCE WITH LATCHES AND LOCKS, THE TEMPORARY CONSTRUCTION FENCE WAS REMOVED. A PORTABLE EXCLUSION ZONE FENCE WAS PLACED ONSITE UNTIL COMPLETION OF THE PROJECT TO SECURE THE SZ/EZ BOUNDARY. THE SITE SECURITY FENCE WAS RELOCATED FROM ITS ORIGINAL PLACEMENT ON DRAWING C-2.

Was accepted/inspected on 12/01/93 **by** SCOTT WEISHAAR.

Accordingly, — **certifies all work is completed, with the exception of items listed in attached "punch list", in accordance with the project design documents, and all applicable inspections and construction tests have been satisfactorily completed.**

Scott A. Weishaar
Remedial CQC Manager

12/02/93
(Date)

Saverio F. DeBartolo
Remedial Contractor Project Manager

1/25/94
(Date)

PROJECT RECORD

B

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 08/30/93

Weather: HOT, HUMID, 95°F VERY DUSTY

Work Performed: HEALTH & SAFETY MEETING WITH ALL ONSITE PERSONNEL. SITE SURVEY BEING DONE by MSE CORP. AWD DOING TANK RELOCATION. TANKS ARE BEING MOVED WITH TRACK LOADER TO AREA BY PROCESS BUILDING.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 08/30/93

Material/Equipment Delivered (Identify Supplier and Quantity):

936 TRACK LOADER - RESCO RENTALS - PENTANE & REGULATOR - DONLEY PPE - ARAMSCO

Results of Inspections (See Attached Inspection Report): LEL/O_2 WAS USED TO INSPECT TANKS BEFORE RELOCATION. ALL WERE NEGATIVE. JEFF CHAPMAN INSPECTED TRACK LOADER. EVERYTHING IS OK

Results of Testing (See Attached Testing Report): AIR MONITORING OF TANKS GAVE NO INDICATIONS OF CONTAMINANTS.

Verbal Instructions and/or Comments: NA

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): NA

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisshaar
Signature

08/30/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 08/31/93

Weather: 85 HUMID - RAINY IN AFTERNOON

Work Performed: THE DAY STARTED WITH A VISUAL SURVEY OF THE PROCESS BLDG BY S. WEISHAAR, J. CHAPMAN AND TIM HARRISON OF CH2M HILL TO DECIDE SAMPLE LOCATIONS. FOLLOWING THIS J. CHAPMAN USED THE TRACE LOADER TO DO SOME SITE GRADING FOR MSE TO CONTINUE SITE SURVEY IN OLD TANK AREA. IN AFTERNOON, T. CASTOR AND I DID POUROUS MATERIAL SAMPLING IN PROCESS BLDG. TIM HARRISON OF CH2M HILL WAS ALSO PRESENT TO INSPECT. UPON COMPLETION OF SAMPLING, WORK ONSITE ENDED

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 08/31/97

Material/Equipment Delivered (Identify Supplier and Quantity):

8x24 OFFICE TRAILER BY GE MODULURE

Results of Inspections (See Attached Inspection Report): VISUAL INSPECTION OF PROCESS BLDG SHOWED 4 POUROUS MATERIALS NEEDING SAMPLED

Results of Testing (See Attached Testing Report): AIR MONITORING WHILE INSIDE PROCESS BLDG GAVE NO READINGS OF HAZARD.

Verbal Instructions and/or Comments: CLEARED PATHWAYS IN EXCLUSION ZONE FOR WALKING. NO OPS. ALLOWED OFF THOSE PATHWAYS.

Remarks (Including Deficiencies/Corrective Actions): SITE DEBRIS IN EXCLUSION ZONE IS POSSIBLY UNSEEABLE IN PRESENT CONDITIONS.

PROJECT RECORD

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Wetshaar
Signature

08/31/97
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 09/01/93

Weather: LOW 80's CLOUDY, BREEZY

Work Performed: PREPARED SUPPORT FACILITY TRAILER. J. CHAPMAN AND TONY CASTOR SET UP DECON AREA FOR PERSONNEL IN EXCLUSION ZONE. J. FIFE AND I HAVE BEEN DOING REPORTS AND MOBILIZATION ACTIVITIES.

PROJECT RECORD

Date: 9/1/93

Material/Equipment Delivered (Identify Supplier and Quantity):

SAW [redacted] ORANGE EXCLUSION FENCING - AWD

Results of Inspections (See Attached Inspection Report): SAW [redacted] FENCING IN GOOD CONDITION

Results of Testing (See Attached Testing Report): - NA -

PROJECT RECORD

Verbal Instructions and/or Comments: PURCHASED LOCKS AND CHAINS TO SECURE EXCLUSION ZONE

Remarks (Including Deficiencies/Corrective Actions): STILL AWAITING CONFIRMATION OF WHICH PLANS ARE TO BE USED.

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Whitshan
Signature

9/1/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/2/93

Weather: WINDY 85° HUMID

Work Performed: STARTED PACKING OUT A-FRAME FIRST FLOOR WHEN CONFRONTED WITH DRUM FULL OF UNKNOWN CONTENT. DUE TO THIS, OPERATION WAS STOPPED FOLLOWING WAS A LONG DISCUSSION ABOUT HOW TO HANDLE DRUM. AN SCBA AND SARANEX WILL BE WORN TO DO WORK TOMORROW.

IN AFTERNOON A VISUAL SURVEY WAS DONE ON THE UPPER FLOOR OF THE A-FRAME.

J. CHAPMAN THEN TOOK TRACK LOADER OUT OF EZ TO CLEAR AND GRUB AROUND OUTSIDE OF FENCE AROUND EZ.

PROJECT RECORD

Date: 09/02/93

Material/Equipment Delivered (Identify Supplier and Quantity):

LADDER, HARNESS, ROPE - AWD (TIPPE)

JACKS TOOL RENTAL CLEANED PORT-O-LET

Results of Inspections (See Attached Inspection Report): ALL EQPT IN GOOD CONDITION.

Results of Testing (See Attached Testing Report): AIR MONITORING IN A-FRAME GAVE 0 READINGS ON OVM

PROJECT RECORD

Verbal Instructions and/or Comments: NO WORK IS ALLOWED IN A-FRAME UNTIL DRUM CONTENT IS FOUND OUT.

Remarks (Including Deficiencies/Corrective Actions): SCRA & SARANEK WILL BE WORK TOMORROW FOR A-FRAME. DRUM MUST BE OVERPACKED.

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisman
Signature

9/02/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/3/93

Weather: RAINY - 78° BREEZY

Work Performed: T. CASTOR ASSISTED SURVEYORS WITH STEAKING FENCE BOUNDARY. FOLLOWING THIS J. CHAPMAN AND I WENT TO GET AIR FOR SCBAs. T. CASTOR AND I DRESSED LEVEL B TO OVER-PACK DRUM WITH UNKNOWN CONTENT IN WEST ROOM OF A-FRAME BLDG.

PROJECT RECORD

Date: 9/3/93

Material/Equipment Delivered (Identify Supplier and Quantity):

BOTTLED WATER - HOOSIER WATER
AND BROUGHT IN SCBAs

Results of Inspections (See Attached Inspection Report): SCBAs IN GOOD WORKING CONDITION

Results of Testing (See Attached Testing Report): AIR MONITORING PERFORMED ON UNKNOWN CONTENT OF DRUM GAVE ZERO READING. MINIRAM ALSO GAVE NEGLIGIBLE READING (0.2).

Verbal Instructions and/or Comments: LEVEL B PPE WORN DURING OVERPACKING OF DRUM

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): SITE IS IN BAD PHYSICAL SHAPE DUE TO WEATHER.

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Wathan
Signature

09/03/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/28/93

Weather: 70's Cool BREEZY - CLEAR SKY

Work Performed: FINISHED OVERPACKING DRUM IN A-FRAME BLDG. THEN PROCEEDED TO PROCESS BLDG. TO COMPLETE SAMPLING. AFTER SENDING OFF SAMPLES, T. CASTOR AND R. LOGECAND CONTINUED PACKING OUT REMAINING CONTENTS IN A-FRAME WHILE J. CHAPMAN GRADED AREA FOR DECON PAD. A CONST. SECURITY FENCE WAS PLACED AROUND THE DECON AREA FOLLOWING GRADING.

PROJECT RECORD

Date: 9/7/93

Material/Equipment Delivered (Identify Supplier and Quantity):

LAB EQPT FROM HERITAGE.

Results of Inspections (See Attached Inspection Report):

Results of Testing (See Attached Testing Report): AIR MONITORING SHOWED NO SIGN OF CONTAMINANTS IN SOIL BEING GRADED

Verbal Instructions and/or Comments: NA

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): NA

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature

Date 9/7/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/8/93

Weather: Cool 70's Breezy Partly cloudy

Work Performed: T. Castor and R. Logeland finished packing out A-frame while J. Chapman continued grading Deron pad area.

Following the A-frame, Castor and Logeland attempted to set fence posts for const. boundary.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: ~~[illegible]~~ 9/8/93

Material/Equipment Delivered (Identify Supplier and Quantity):

NA

Results of Inspections (See Attached Inspection Report): LOADER HAD HYDRAULIC LEAK. MECHANIC FROM RESCO RENTALS CAME TO REPLACE HOSE.

Results of Testing (See Attached Testing Report): AIR MONITORING SHOWED NO SIGNS OF CONTAMINANTS WHILE DRIVING POSTS OR GRADING DECON AREA.

PROJECT RECORD

Verbal Instructions and/or Comments: GROUND TOO HARD TO SET POSTS. TRY AN AIR HAMMER TOMORROW

Remarks (Including Deficiencies/Corrective Actions): ~~[illegible]~~ PHONE DID NOT WORK AT ALL TODAY

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisham
Signature

9/8/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/09/93

Weather: SUNNY, COOL ~75° WINDY

Work Performed: SET OUTSIDE BOUNDARY FENCE AND POSTS ALONG WEST SIDE OF PROJECT. JEFF CHARMON COMPLETED GRADING OF DECON AREA AND PROCEEDED TO LAYDOWN AREA AND SUPPORT ZONE TO GRADE AND CLEAR DEBRIS. T. CASTOR DID INVENTORY ON REMAINING CHEMICALS IN A-FRAME.

PROJECT RECORD

Date: 9/9/93

Material/Equipment Delivered (Identify Supplier and Quantity):

AWD BROUGHT COMPRESSOR AND ROCK DRILL ONSITE

Results of Inspections (See Attached Inspection Report): BAD HOSE ON COMPRESSOR HAD TO REPLACE

Results of Testing (See Attached Testing Report): - NA -

PROJECT RECORD

Verbal Instructions and/or Comments: GROUND VERY HARD. FOUND DRAIN LINE IN SUPPORT ZONE THAT WAS FULL OF LIQUID.

Remarks (Including Deficiencies/Corrective Actions): BAD HOSE ON COMPRESSOR HAD TO REPLACE.

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisman
Signature

9/9/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/10/93

Weather: SUNNY WINDY 75°

Work Performed: FINISHED CONSTRUCTION OF FENCE. JEFF GRADED SUPPORT ZONE AND ASSISTED TONY CASTOR AND RICH LOGECAND IN RELOCATING DRUMS FROM A-FRAME. LAB PACKED REMAINING CHEMICALS in A-FRAME. PLACED "DANGER" TAPE AROUND SITE.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 9/10/93

Material/Equipment Delivered (Identify Supplier and Quantity):

D4 DOZER - BT TRUCKING ON BEHALF OF MACALLISTAR EQPT.

Results of Inspections (See Attached Inspection Report): RICH LOGELAND INSPECTED EQPT. IN GOOD CONDITION - NO LEAKS

Results of Testing (See Attached Testing Report): -NA -

PROJECT RECORD

Verbal Instructions and/or Comments: -NA -

Remarks (Including Deficiencies/Corrective Actions): ALL THREE HOSES BLEW ON COMPRESSOR TO ROCK DRILL / FINISHED TASK WITH POST SETTER

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weishaar
Signature

9/10/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 09/13/93

Weather: PARTLY CLOUDY - HIGH 70'S WINDY
MUDDY

Work Performed: R. LOGELAND USED DOZER TO GRADE SUPPORT ZONE AND DECON PAD. J. CHAPMAN USED TRACK LOADER TO CLEAR SUPPORT ZONE AND RELOCATE TANKS INTO REMEDIAL ZONE. WHEN GEOTEXTILE ARRIVED, ALL CREW INCLUDING ME, ASSISTED IN UNLOADING. AFTER COMPLETING UNLOAD, RICH AND JEFF WENT BACK TO DECON AREA TO CONTINUE GRADING. T. CASTOR AND I SET STAKES ALONG REMEDIAL BOUNDARY AND RAN "DANGER" TAPE ALONG BOUNDARY. TONY THEN PROCEEDED TO COVER GEOTEXTILE ROLLS WITH POLY SHEETING.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 9/12/93

Material/Equipment Delivered (Identify Supplier and Quantity):

GEOTEXTILE - BROCK TRUCKING LEXINGTON, KY 606 257 [illegible]

Results of Inspections (See Attached Inspection Report): INSPECTION OF GEOTEXTILE - ALL ROLLS S1000

Results of Testing (See Attached Testing Report): AIR MONITOR ALL TANKS - LEL/O2 - NO SIGNS OF EXPLOSION POTENTION

Verbal Instructions and/or Comments: PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions):

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weitzman
Signature

9/12/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2356

Date: 09/14/93

Weather: CLOUDY VERY WINDY HIGH 70'S

Work Performed: JEFF CHAPMAN AND RICH LOGELAND SPENT MAJORITY OF DAY GRADING SUPPORT ZONE. RICH AND TONY CASTOR MOVED REMAINING DRUMS INTO REMEDIAL ZONE. TONY AND I WENT INTO PROCESS BLDG. TO SAMPLE BOILER PLATE SEAL AND SIDE WALL INSULATION. FOLLOWING LUNCH, RICH AND JEFF CONTINUED GRADING. TONY AND I SET GRADE STAKES ALONG NORTH WEST BY ACCESS ROAD. ALSO MARKED GRADES ON DECON PAD CORNERS. TONY AND I SET FENCE TO NORTHWEST CORNER.

PROJECT RECORD

Date: 9/14/93

Material/Equipment Delivered (Identify Supplier and Quantity):

HOOSIER WATER - 1 BOTTLE WATER

TAYLOR OIL CO. - 138 GAL.

Results of Inspections (See Attached Inspection Report):

Results of Testing (See Attached Testing Report): USE OF MINIRAM WHILE SAMPLING BOILER

Verbal Instructions and/or Comments:

Remarks (Including Deficiencies/Corrective Actions):

PROJECT RECORD

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisman
Signature

9/14/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/15/93

Weather: COLD - 60 WINDY OVERCAST

Work Performed: SITE WALK - THEN SENT CREW HOME. FIFE AND I CHECKED GRADE STAKES. LEFT SITE TO DO FACILITY PAPERWORK AND EQPT PURCHASE.

PROJECT RECORD

Date: 9/15/93

Material/Equipment Delivered (Identify Supplier and Quantity):

- NA -

Results of Inspections (See Attached Inspection Report):

- NA -

Results of Testing (See Attached Testing Report):

- NA -

PROJECT RECORD

Verbal Instructions and/or Comments: NO FIELD OPS DUE TO SITE CONDITIONS

Remarks (Including Deficiencies/Corrective Actions):

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weitzman
Signature

9/15/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/16/93

Weather: Cool - 70° PARTLY CLOUDY

Work Performed: GRADE SUPPORT ZONE AND TAKE SAMPLE OF GEOTEXTILE FOR QC TEST. SENT TO GEO TECHNIQUES IN WASHINGTON, PA.

PROJECT RECORD

Date: 9/16/93

Material/Equipment Delivered (Identify Supplier and Quantity):

- NA -

Results of Inspections (See Attached Inspection Report): - NA -

Results of Testing (See Attached Testing Report): SENT SAMPLE OF GEOTEXTILE TO LAB FOR ANALYSIS

Verbal Instructions and/or Comments: LAB IN WASHINGTON, PA.

Remarks (Including Deficiencies/Corrective Actions):

PROJECT RECORD

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisman
Signature

9/16/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/17/93

Weather: COOL - 70° ~~[illegible]~~ MOSTLY SUNNY

Work Performed: CONTINUED GRADING OF SUPPORT ZONE

PROJECT RECORD

Date: 9/17/93

Material/Equipment Delivered (Identify Supplier and Quantity):

2-20' OSHA APPROVED LINK CHAINS, 2-22# SPUD BARS, SHARP SHOOTER SPADE, track CLEANER/SCRAPER - AGGREGATE SUPPLY

Results of Inspections (See Attached Inspection Report): Good

Results of Testing (See Attached Testing Report): -NA-

PROJECT RECORD

Verbal Instructions and/or Comments: - CLEAN TRACKS ON DOZER AND LOADER

Remarks (Including Deficiencies/Corrective Actions):

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: [illegible]

Date: 9/17/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/20/93

Weather: CLOUDY LOW 70s BREEZY

Work Performed: DESTRUCTED A-FRAME AND GRADED AREA WHERE IT STOOD. FOLLOWING THIS, JEFF ATTEMPTED TO GRADE LAYDOWN AREA NEAR EXISTING SWALE. IT WAS TO SOFT TO WORK, AND GOT THE LOADER STUCK. AFTER GETTING IT UNSTUCK, JEFF SWITCHED TO THE DOZER TO GRADE THE SUPPORT ZONE SOME MORE.

PROJECT RECORD

Date: 9/20/93

Material/Equipment Delivered (Identify Supplier and Quantity):

TAYLOR OIL - DIESEL FUEL AND 6 GAL. OF 15W40 OIL

Results of Inspections (See Attached Inspection Report): GOOD

Results of Testing (See Attached Testing Report): AIR MONITORING GOOD

Verbal Instructions and/or Comments: - NA -

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): [redacted] - NA -

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: Scott Weathers Date: 9/20/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/21/93

Weather: OVERCAST LOW 70's

Work Performed: SMOCK BEGAN CONSTRUCTION OF DECON PAD. AND BEGAN DIGGING TRENCH ON WEST SIDE OF SUPPORT FACILITY. THE CREW AND I DID GRADE SURVEY ON SUPPORT FACILITY FROM CROWN - NORTH.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 9/21/93

Material/Equipment Delivered (Identify Supplier and Quantity):

SMOCK BROUGHT EQPT ONSITE

Results of Inspections (See Attached Inspection Report): -NA-

Results of Testing (See Attached Testing Report): T. CASTOR MONITORED SMOCK AS THEY BEGAN WORK ON DECON PAD.

PROJECT RECORD

Verbal Instructions and/or Comments: -NA-

Remarks (Including Deficiencies/Corrective Actions): TIME SPENT ON SITE GRADING HAS BEEN EXCESSIVE BEYOND TIME NECESSARY

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisbaar
Signature

Date 9/21/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/28/93

Weather: BREEZY, OVERCAST, LOW 70'S

Work Performed: RICH GRADED SUPPORT ZONE FROM CROWN TO NORTH. JEFF GRADED ALONG WEST BOUNDARY. AFTER LUNCH, WE LAYED GEOTEXTILE AND SPREAD #53 STONE ONTOP OF IT. TONY DID AIR MONITORING AROUND SMOCK WHILE THEY CONTINUED DIGGING THEIR FOOTERS.

PROJECT RECORD

Date: 9/22/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARRIETTA USED NEAL INC AND MORRIS-SOUTHARD TO DELIVER #2 STONE

Results of Inspections (See Attached Inspection Report): STONE IS TO SPEC.

ALL STONE IS GOOD SIZE. [redacted]

Results of Testing (See Attached Testing Report): [redacted] ATTACHED IS GEOTEXTILE LAB RESULTS AND SUBMITTAL

Verbal Instructions and/or Comments: SLOPE WAS CHECKED FROM CROWN TO SOUTH AND WAS AT 2%

Remarks (Including Deficiencies/Corrective Actions): PROJECT RECORD

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Westbrook
Signature

9/22/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

CRITICAL ACTIVITY

BCC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date of Submittal: 09/22/93 **Submittal Number** SPMR-018-2
Approval or Disapproval By: 09/22/93
Previous Submittal Dates:
___/___/___ **Resubmittal Number** -A
___/___/___ **Resubmittal Number** -B
___/___/___ **Resubmittal Number** -C
___/___/___ **Resubmittal Number** -D

Title of Submittal: GEOTECHNICAL LABORATORY REPORT (GEOTEXTILE CONFORMANCE TEST RESULTS)
Manufacturer:
Address:

Supplier: GEOTECHNICS, INC.
Address: 801 EAST MAIDEN STREET
WASHINGTON, PA 15301

Specification Reference Number: SECTION 01410-TESTING LABORATORY SERVICES
Specification Reference Paragraph: 1.03.C.2
Specification Reference Drawing Number: N/A

Comments (additional space on back of this sheet)
(SEE ATTACHED)

Deviations (additional space on back of this sheet)

Certification Statement
By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers, and similar data and I have checked and coordinated each item with other applicable reviewed shop drawings and all contract requirements.

Items Included	Check with "X"
Plan/Narrative	
Shop Drawing(s)	
Catalog Cut/Mfgr Data	
Technical Data	
Test Report	X
Certification	
Specifications	
Other:	

James M. Ambrose
AWD Technologies, Inc.
Authorized Representative

CC: BOB AUTIO, REM
SCOTT WEISHAAR, CQC MANAGER, AWD
FILE

PROJECT RECORD

9/22/93

GEOTECHNICAL LABORATORY REPORT

ENVIRO-CHEM SUPERFUND SITE
AWD PROJECT # 2396

GEOTEXTILE SAMPLE TAKEN BY MR. SCOTT ~~WEISHAAR~~ WEISHAAR
ON THURSDAY, SEPTEMBER 16, 1993 (P.M.).

TESTING PERFORMED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS (SECTION 02280 - GEOTEXTILES, PARAGRAPH 2.01.C).
ALL CONFORMANCE TEST RESULTS EXCEED THE MINIMUM VALUES GIVEN IN PARAGRAPH 2.01.C.

GEOTEXTILE TO BE USED UNDER ACCESS ROADS, PARKING AREA, LAYDOWN AREA, AND OTHER AREAS AS REQUIRED BY THE TECHNICAL SPECIFICATIONS.

THIS CONFORMANCE TESTING ALSO WAS REQUIRED BY THE CONSTRUCTION QUALITY ASSURANCE PLAN (CQAP) SECTION 4.4.2.1 AND AWD'S APPROVED CONTRACTOR QUALITY CONTROL PLAN (CQCP).

PROJECT RECORD

geotechnics

CONFORMANCE TEST RESULTS

CLIENT: AWD
CLIENT PROJECT: 2396
PROJECT NO.: L93139-01

MATERIAL: NICOLON S1000
16 OZ NONWOVEN GEOTEXTILE
SAMPLE ID.: S-1

TEST	ASTM METHOD	UNITS	SPECIMEN NO. 1	2	3	4	5	6	7	8	9	10	AVE	STD
MASS/UNIT AREA	D-3776	oz/sy	18.60	18.86									18.73	0.13
MULLEN BURST	D-3786	psi	790	830	1100	905	950	750	900	900	870	940	893.5	91.7
GRAB STRENGTH	D-4632	MD-lbs	739.5	588.4	586.8	581.5	565.2	514.1	512.1	673.6	717.0	752.4	623.17	85.65
		CD-lbs	718.2	732.0	722.0	743.3	711.6	728.7	658.8	709.0	678.9	737.2	713.97	25.16
GRAB ELONGATION		MD-%	105	90	95	100	100	85	85	90	100	90	94.0	6.6
		CD-%	90	85	85	80	75	85	80	85	80	105	85.0	7.7
TRAP TEAR	D-4533	MD-lbs	174.5	191.0	165.8	184.9	207.0	213.1	170.0	167.9	193.8	207.8	187.58	16.84
		CD-lbs	259.4	234.4	276.2	272.9	254.7	290.7	280.0	224.5	241.6	194.4	252.88	28.02
PUNCTURE	D-4833	lbs	276.3	284.8	287.1	293.1	335.1	304.3	324.1	244.6	228.2	278.8	288.84	26.35
			292.8	279.7	305.8	287.5	310.8							
A.O.S.	D-4751	mm	<0.075	<0.075	<0.075	<0.075	<0.075						<0.075	
													1>#200 Sieve	
ABRASION RESIST.	D-3884	lbs	177.0	210.0	186.0	211.0	204.0						197.60	13.66

rsl:TEXTILE.WKZ

CHECKED BY: DJ DATE: 9-22-93

801 East Maiden Street • Washington, PA 15301 • 412-229-7337 • FAX 412-229-7288

PROJECT RECORD

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 4/23/93

Weather: BREEZY, RAIN, LOW 60's, HUMID

Work Performed: GRADED SUPPORT ZONE, LAYED GEOTEXTILE LINER AND #2 STONE

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 9/23/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA - NEAL INC & SOUTHARD TRUCKING CO.'S DELIVERED 840 TONS OF #2 STONE

Results of Inspections (See Attached Inspection Report): STONE IS TO SPEC SIZE.

Results of Testing (See Attached Testing Report):

Verbal Instructions and/or Comments: -NA-

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): -NA-

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Westbrook
Signature

9/23/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/24/93

Weather: HIGH 70'S PARTLY SUNNY

Work Performed: LAY GEOTEXTILE AND #2 STONE AND CONTINUE GRADING SUPPORT ZONE.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT

Date: 9/24/93

Material/Equipment Delivered (Identify Supplier and Quantity):

RESCO RENTS - INGERSOLL RAND DD-65 ROLLER

MARTIN MARIETTA - NEAL & SOUTHARD TRUCKING CO.'S #2 STONE

Results of Inspections (See Attached Inspection Report): JEFF CHAPMAN INSPECTED

EQPT CHECKED GOOD.

STONE TO SPEC.

Results of Testing (See Attached Testing Report): -NA-

Verbal Instructions and/or Comments: -NA-

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): -NA-

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature Scott Westfall Date 9/24/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/27/93

Weather: COLD - HIGH 50's LOW 60's RAIN
WINDY

Work Performed: CONTINUED GRADING SUPPORT ZONE AND PLACING # 53 STONE.
SMOCK CONTINUED BUILDING FRAMEWORK FOR DECON PAD AND THEN EXCAVATED SUMP HOLE.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 9/27/93

Material/Equipment Delivered (Identify Supplier and Quantity):

#53 STONE - 20 LOADS

Results of Inspections (See Attached Inspection Report): STONE IS TO SPEC. COMPACTION IS GOOD FOR WHAT CAN BE DONE

Results of Testing (See Attached Testing Report): AIR MONITORING OF SMOCK EXCAVATION OK.

PROJECT RECORD

Verbal Instructions and/or Comments: - NA -

Remarks (Including Deficiencies/Corrective Actions): WEATHER PLAYED GREAT FACTOR IN NOT COMPACTING ALL STONE TODAY

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisheim
Signature

9/27/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/28/93

Weather: MID 60'S CLOUDY WINDY

Work Performed: [redacted] EXCAVATED WEST SIDE TRENCH AFTER CONTINUED GRADING OF SUPPORT ZONE AND SPREADING #57 STONE.

PROJECT RECORD

Date: 9/28/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARIETTA #53 STONE / SMOCK HAD SUMP BOX DELIVERED

PSI ENERGY - 2 POWER POLES

Results of Inspections (See Attached Inspection Report): EVERYTHING IS TO SPEC.

Results of Testing (See Attached Testing Report):

PROJECT RECORD

Verbal Instructions and/or Comments: -NA-

Remarks (Including Deficiencies/Corrective Actions): -NA-

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisbrod
Signature

9/28/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/29/97

Weather: HIGH 50's, WINDY, CLOUDY,

Work Performed: EXCAVATED REMAINDER OF WEST TRENCH TO CREEK AND THEN EXCAVATE EAST TRENCH ALONG REMEDIAL BOUNDARY. ALSO HAD RICH GRADE LAYDOWN AREA. SMOCK COVERED SUMP.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 9/29/93

Material/Equipment Delivered (Identify Supplier and Quantity):

SMOCK HAD W2-W2 WIRE MESH DELIVERED & LOAD OF #4 STONE

Results of Inspections (See Attached Inspection Report): SMOCK WILL PRODUCE DOCUMENTATION OF SPEC.

Results of Testing (See Attached Testing Report): AIR MONITORING SHOWED NO SIGNS OF CONTAMINANTS.

PROJECT RECORD

Verbal Instructions and/or Comments: -NA-

Remarks (Including Deficiencies/Corrective Actions): EAST TRENCH WAS FULL OF CONSTRUCTION DEBRIS TO THE POINT GRADE COULD NOT BE OBTAINED.

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Wetshaw
Signature

Date 9/29/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 9/30/93

Weather: COOL High of 60 SUNNY BREEZY

Work Performed: EXCAVATED TRENCHES ALONG NORTH EAST AND SOUTH EAST. UPON COMPLETING THAT, RICH COMPLETED GRADING OF SZ SOUTH OF GATE TO TRENCH INTERSECTION. WE THEN LAYED GEOTEXTILE AND #2 STONE OVER AREA.

SMOCK CONTINUED BLDG. FORMS FOR CURBS ON DECON PAD.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 9/30/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA - 7 LOADS OF #2 STONE

GE CAPITAL MODULAR SPACE - 1-60' & 1-40' TRAILER

Results of Inspections (See Attached Inspection Report): STONE IS TO SPEC.

TRAILERS IN GOOD CONDITION

Results of Testing (See Attached Testing Report): AIR MONITORING - NO

SIGNS OF CONTAMINANTS.

PROJECT RECORD

Verbal Instructions and/or Comments: -NA-

Remarks (Including Deficiencies/Corrective Actions): -NA-

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] Date 9/30/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/01/93

Weather: WINDY, MID 60'S PARTLY CLOUDY

Work Performed: GRADED AND PLACED #2 STONE ON LAYDOWN AREA.

SMOCK POURED CURBS OF DECON PAD AND SET STEPS IN SUMP.

PROJECT RECORD

Date: 10/01/93

Material/Equipment Delivered (Identify Supplier and Quantity):

RESCO - VIBRATORY ROLLER SMOCK - IMI - CONCRETE

MARTIN MARRIETTA - #2 STONE

Results of Inspections (See Attached Inspection Report): CONCRETE - 28 -

5.5 BAG, N/A, TYPE III, HEAVY EARLY - IS SPEC

Results of Testing (See Attached Testing Report): SLUMP TESTS GAVE 3½" AND

2¼" AIR TEST WAS 1% TEMP 64°F - TESTING

BY MIDWEST TESTING

Verbal Instructions and/or Comments: - NA -

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): - NA -

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weishaar
Signature

10/01/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 6396

Date: 10/04/93

Weather: BREEZY, MOSTLY SUNNY, HIGH 70s

Work Performed: AWD CONTINUED GRADING LAYDOWN AREA AND THEN PUT #2 AND #53 STONE IN AREA. WHILE ROLLING THIS AREA, AWD ALSO BEGAN WORK ON ACCESS ROAD. THE RD. WAS GRADED, GEOTEXTILE WAS PLACED, AND #2 STONE WAS PUT ON AREA.

SMOCK INSTALLED 6IN. DIA. PIPE FROM DECON PAD TO MANHOLE (FOR SUMP). THEY SPENT THE REMAINDER OF THE DAY TAKING DOWN THE INSIDE FORM AROUND THE CURBS.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/04/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA - #530 STONE AND #2 STONE AND #8 STONE
SMOCK HAD #4 STONE DELIVERED AND ALSO — PVC CAP STRIPS — EXPANSION JOINTS.

Results of Inspections (See Attached Inspection Report): STONE IS TO SPEC. FOR ALL #53, #2, #4, & #8

Results of Testing (See Attached Testing Report): [redacted]

Verbal Instructions and/or Comments: SMOCK WILL HAVE TO USE A COHESIVE RESIN ON EAST CURB OF DECON PAD, DUE TO SOME MINOR CHIPPING ON THE KEY WAY.

Remarks (Including Deficiencies/Corrective Actions):

PROJECT RECORD

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: Scott Weisbrun Date: 10/04/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/05/93

Weather: CLEAR, SUNNY, BREEZ, LOW 70s

Work Performed: CONTINUED GRADING ACCESS ROAD AND PARKING AREA. COMPLETED LAYING GEOTEXTILE IN PARKING AREA AND CONTINUE PUTTING #2 STONE DOWN. ALSO PUT #53 ON AREA WHERE DECON TRAILER WILL BE AND BEGIN ON ACCESS ROAD.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/5/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA - #2 AND #53 STONE - IDOH SPEC.

INDEPENDENT CONCRETE PIPE 12", 18" & 30" PIPE, RESCO - TRACK HOE

Results of Inspections (See Attached Inspection Report): STONE IS TO SPEC.

AWAITING CERT ON PIPE.

EAST CURB KEYWAY IS REPAIRED AND LOOKS ACCEPTABLE

Results of Testing (See Attached Testing Report):

PROJECT RECORD

Verbal Instructions and/or Comments: SMOCK REPAIRED EAST

CURB KEYWAY WITH DURABOND

Remarks (Including Deficiencies/Corrective Actions): NOTED EXCESS

SEEPAGE OF DISCOLORED LIQUID IN SOUTH WEST DITCH

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] Date 10/05/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/06/93

Weather: SUNNY MID 70's BREEZY

Work Performed: CONTINUED GRADING AGGREGATE AND COMPACTING OF ACCESS ROAD. UPON ITS COMPLETION AND STARTED EXCAVATING DITCH FROM CROWN - NORTH ON WEST SIDE OF SZ. FOLLOWING THIS, AND LAID PIPE AT GATE AND ALSO CONNECTION PIPE FROM EAST TO WEST DITCHES.

SMOCK PLACED #4 STONE ON DECON PAD AND SET DRAIN IN SUMP.

PROJECT RECORD

Date: 10/06/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA - 5 LOADS #53 STONE

Results of Inspections (See Attached Inspection Report): STONE TO SPEC. (JDCH)

Results of Testing (See Attached Testing Report):

PROJECT RECORD

Verbal Instructions and/or Comments: -NA-

Remarks (Including Deficiencies/Corrective Actions): SMOCK HAD TO GRIND NORTH CURB TO LEVEL ITS CENTER.

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] Date 10/06/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/07/93

Weather: SUNNY - MID 70s BREEZY

Work Performed: CONTINUED EXCAVATION OF NW DITCH. THIS WAS EXTREMELY DIFFICULT DUE TO EXCESSIVE AMOUNT OF DEBRIS. JEFF THEN PROCEEDED TO EAST DITCH AND BROKE A HYDRAULIC LINE ON TRACK HOE. PIPE AT CONNECTION OF SZ TO LAYDOWN AREA WAS COVERED, GRADED AND COMPACTED. WEST DITCH FROM GATE - SOUTH WAS CLEANED WITH SHOVELS. RICH AND TONY BEGAN DRESSING EDGES OF STONE IN SZ.

SMOCK CONSTRUCTED FORMS FOR WEST HALF OF DECON PAD. ALSO CONTINUED STONE FOR BASE.

PROJECT RECORD

Date: 10/02/93

Material/Equipment Delivered (Identify Supplier and Quantity):

SMOCK - 1 LOAD #4 STONE

ELCONCO - 3 POWER POLES

Results of Inspections (See Attached Inspection Report): * STONE, [redacted]

EXCAVATION OF DITCHES - EXTREME AMOUNT OF DEBRIS.

Results of Testing (See Attached Testing Report): -NA -

PROJECT RECORD

Verbal Instructions and/or Comments: SMOCK TO POUR CONCRETE

TOMORROW IN WEST HALF OF DECON PAD

Remarks (Including Deficiencies/Corrective Actions): -NA -

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Westbrook
Signature

10/02/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/08/93

Weather: MID-UPPER 70 MOSTLY SUNNY BREEZY

Work Performed: - SMOCK PREPARED FORMS FOR PAD AND POURED 4 CORNERS.

-AWD GRADED AREA AROUND DECON PAD

RICH L. CONTINUED EXCAVATION OF EAST CNTRL. DITCH UNTIL HE EXPOSED CONTAMINANT. AT THE TIME OF REPORTING STRONG ODOR EMITTING FROM EXCAVATION, WORK WAS HAULTED.

PROJECT RECORD

Date: 10/08/93

Material/Equipment Delivered (Identify Supplier and Quantity):

SMOCK - IMI - 3 TRUCKS OF CONCRETE

Results of Inspections (See Attached Inspection Report): CONCRETE - 5.5 BAG N/A ENTRAINED, TYPE III HIGH EARLY

Results of Testing (See Attached Testing Report): 3 TRUCKS - 3 CYLINDERS FROM 1ST TRUCK, SLUMP FROM EACH, A/E FROM EACH

PROJECT RECORD

Verbal Instructions and/or Comments: WORK HAULTED ON EXCAVATION OF TRENCHES.

Remarks (Including Deficiencies/Corrective Actions): 3 CRACKS WERE FOUND IN THE DECON PAD CURBS (CNTR EAST, CNTR NORTH, CNTR WEST) FINISHER MUST CHIP CRACKS AND FILL WITH SEALER

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: [signature] Date: 10/08/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/11/93

Weather: LOW 50's MOSTLY SUNNY, BRISK

Work Performed: CONTINUED EXCAVATION OF NORTH DITCH AND CONNECTION TO UNNAMED DITCH. SET 12" RCP IN DITCH BEHIND DECON PAD. ALSO REMOVED FENCE ALONG NORTH SIDE OF PROPERTY AND BEGAN GRADING AREA TO DITCH.

SMOCK - REMOVED FORMS FROM FRIDAY'S POUR BEGAN REPAIR OF CRACKS IN CURBING. ALSO BEGAN CONSTRUCTION OF FORMS FOR NEXT POUR.

PROJECT RECORD

Date: 10/11/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA - 2 LOADS #2 STONE

Results of Inspections (See Attached Inspection Report): PIPE LAYED HAS GOOD SLOPE AND COVER. N. DITCH IS BEING FINISH GRADED.

Results of Testing (See Attached Testing Report): -NA-

PROJECT RECORD

Verbal Instructions and/or Comments: TOOK SAMPLE OF UNKNOWN CONTAMINANT IN EAST DITCH FOR VOLATILE ANALYSIS.

Remarks (Including Deficiencies/Corrective Actions): TRUSTEES / DOWIAK / JACKSON AGREE TO BACKFILL EAST CNTRL. DITCH AND BUILD BERM AROUND AREA.

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weathers
Signature

10/11/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/12/93

Weather: SUNNY, UPPER 50'S BREEZE

Work Performed: INSTALLED 30" RCP IN NORTH DITCH AND 12" RCP AT N.W. COR OF DIVERSION DITCH. PLACED #8 AND #2 STONE AROUND PIPE. ALSO DRESSED UP DITCH LINES DUE TO WALLS CAVING IN. LOGELAND BACKFILLED EAST CNTRL. DITCH AND DECONED TRACK HOE.

ELCONCO CONSTRUCTING ELECTRICAL SETUP.

SMOCK - FINISH CONSTRUCTING FORMS FOR TOMORROWS POUR. REPAIRED CURBS WITH CONSEAL.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/12/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA - # 8 AND # 2 STONE

Results of Inspections (See Attached Inspection Report): PIPE HAS FLOW THROUGH IT.

Results of Testing (See Attached Testing Report): -NA-

PROJECT RECORD

Verbal Instructions and/or Comments: -NA-

Remarks (Including Deficiencies/Corrective Actions): SENDING SOIL SAMPLE IN FOR VOLATILE ANALYSIS

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] Date 10/12/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/13/93

Weather: SUNNY HIGH 50s - LOW 60s STRONG BREEZE

Work Performed: CONTINUED GRADING AREA NORTH OF REMEDIAL ZONE. INSTALLED 18" RCP AT SOUTH END OF S2 FOR GATE. CONTINUED NORTH EAST DITCH BEHIND DECON PAD. BEGAN INITIAL GRADING OF WW STORAGE PAD.

SMOCK - POURED 4 SECTIONS OF DECON PAD PREPARED MIDDLE AND RAMPS TO BE POURED TOMORROW.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/13/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA STONE (#2) QUEST ENV. - PPE

ICI/READY MIX - 4 TRUCKS CONCRETE.

Results of Inspections (See Attached Inspection Report): DITCHES &

DECON PAD

Results of Testing (See Attached Testing Report): - AUTIO DID

HEADSPACE AROUND EAST CNTRL DITCH. GOT READINGS FROM

1 - 220 ppm w/ OVA

Verbal Instructions and/or Comments: -NA-

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): AUTIO TOOK

HEAD SPACE AROUND EAST CNTRL TRENCH

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Wesham
Signature

10/11/93
Date

Distribution: 1. **Resident Superintendent**
2. **Independent CQA Officer**

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/11/..

Weather: SUNNY LOW 60'S STRONG BREEZE

Work Performed: JEFF FINISH GRADED NE DITCH AND ATTEMPTED TO SLOPE SIDEWALLS. ALSO RELOCATED NORTH DEBRIS PILE AND GRADED AREA AROUND WW STORAGE PAD. PREPARED WW STORAGE PAD FOR GRADING. GRADED SZ ALONG NORTH WEST DITCH.

SMOOK COMPLETED POURING DECON PAD AND [redacted] VALVE IN SUMP M.H

AUTO RETRIEVED SOIL SAMPLES FROM SCRAP AREA (G... TO DETERMINE CONTAMINANT LEVEL

PROJECT RECORD

Date: 10/14/93

Material/Equipment Delivered (Identify Supplier and Quantity):

READY [illegible] CONCRETE - 18 YARDS [illegible]

Results of Inspections (See Attached Inspection Report): CONCRETE - 5.5 SIC NA [illegible]

TYPE I [illegible] w/ SUPERPLASTICIZER

Results of Testing (See Attached Testing Report): SLUMP, A/E & CYLINDER

FOR CONCRETE [redacted] MIDWEST TESTING INC UNDER MY

SUPERVISION

Verbal Instructions and/or Comments: - NA -

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): - NA -

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: [illegible] Date: 10/14/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/15/93

Weather: MID 60s MOSTLY SUNNY LIGHT BREEZE

PROJECT RECORD

Work Performed: AWD BEGAN EXCAVATING WW STORAGE PAD. EXCAVATED TRENCHES AROUND PAD'S PERIMETER AND COMPACTED THEM.

SMOCK REMOVED REMAINING FORMS FROM DECON PAD AND PREPARED FOR CAULKING ON MONDAY.

BOB AUTIO CONTINUED QEM'S SOIL SAMPLING AROUND EAST CNTRL AREA. THIS WAS BEING PERFORMED SOLELY BY QEM - NO AWD INVOLVEMENT. *NOTE* THERE IS NO PROVISION IN THE AWD HASP FOR ANY SAMPLING OF THIS KIND, DURING THIS PHASE.

I PICKED UP SAMPLE OF GEOMEMBRANE FROM TAYLOR CONST. TO BE SENT TO LAB FOR CONFORMANCE TESTING.

*START UP

Date: 10/15/93

Material/Equipment Delivered (Identify Supplier and Quantity):

BACK-HOE - C&E RENTAL, VIBRATOR/COMPACTOR - C&E RENTAL
BOTH REMOVED AT END OF DAY

Results of Inspections (See Attached Inspection Report): WW PAD UNDER WAY

Results of Testing (See Attached Testing Report): RECEIVED FAX COMMUNICATION FROM HERITAGE LAB - TENTATIVE RESULTS FOR LEAD ON ECC-04A1-TANK-01 IS 40 mg/kg - QC FAILED, SO SAMPLE HAS TO BE RE-ANALYZED.

Verbal Instructions and/or Comments: -NA-

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): -NA-

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] Date 10/15/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/18/93

Weather: MOSTLY CLOUDY LOW 60s BREEZE

Work Performed: AWD CONTINUED EXCAVATION OF WIN STORAGE PAD. COMPLETED EXCAVATION AND FINISH GRADING. ROLLED PAD WITH DD-22 ROLLER. COVERED PAD WITH VISQUEEN.

SMOCK - CAULKED DECON PAD

BOR AUTO - CONTINUED SOIL SAMPLING ON OWN ACCORD. AWD IN NO WAY INVOLVED.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/18/93

Material/Equipment Delivered (Identify Supplier and Quantity):

RESCO - DD22 ROLLER, JACK'S TOOL - BOBCAT W/ AUGER

IN. Oxygen - 30 Bottles O_2, 8 Bottles Acetylene

Results of Inspections (See Attached Inspection Report): WW STORAGE PAD IS TO GRADE

Results of Testing (See Attached Testing Report): NA

Verbal Instructions and/or Comments: NA

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): NA

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: [signature] Date: 10/18/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/19/93

Weather: OVERCAST, LOW 60'S, OCCASSIONAL RAIN
10-15 mph WIND

Work Performed: BEGAN TANK CUTTING ON CONCRETE PAD SOUTH OF PROCESS BLDG. ALSO DUG POST HOLES FOR DECON PAD SPLASH GUARDS. TANKS T-12 & T-

BOB AUTIO - CONTINUED SOIL SAMPLING UNASSISTED BY AWD.

PROJECT RECORD

Date: 10/19/93

Material/Equipment Delivered (Identify Supplier and Quantity):

RESCO - JCB BACKHOE

Results of Inspections (See Attached Inspection Report): DECON PAD - NORTH

CURB HAS SETTLING CRACKS

Results of Testing (See Attached Testing Report): - NA -

H&S TESTING PER TANK PRIOR TO, AND DURING CUTTING.

PROJECT RECORD

Verbal Instructions and/or Comments: - NA -

Remarks (Including Deficiencies/Corrective Actions): - NA

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: [signature] Date: 10/19/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/20/93

Weather: RAIN LOW 60S BREEZE

Work Performed: PREPARED TANK T-34 FOR CUTTING. DUE TO RAIN NO CUTTING WAS DONE. CONTINUED DIGGING POST HOLES FOR SPLASH GUARDS ON DECON PAD.

DAY CALLED EARLY DUE TO RAIN.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/20/93

Material/Equipment Delivered (Identify Supplier and Quantity):

NONE

Results of Inspections (See Attached Inspection Report): W.W STOR PAD STILL DRY FOR GEOMEMBRANE.

Results of Testing (See Attached Testing Report): OBTAINED SAMPLE OF BOILER DOOR MAT'L FOR REMOVAL.

Verbal Instructions and/or Comments: -NA-

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): NO MORE EXCAVATION SOUTH OF WW STOR PAD.

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] Date 10/20/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/21/93

Weather: WINDY MID 50'S CLEAR SKY

Work Performed: FINISHED DIGGING POST HOLES FOR SPLASH GUARDS AND SET POSTS. PUMPED RAIN WATER OFF WW PAD FOR PREP TO LINER. CONTINUED TANK CUTTING ON SOUTH CONCRETE PAD.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/21/93

Material/Equipment Delivered (Identify Supplier and Quantity):

Results of Inspections (See Attached Inspection Report): WW STORAGE PAD PREPPED FOR LINER.

Results of Testing (See Attached Testing Report): -NA-

Verbal Instructions and/or Comments: -NA- PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): Lead TEST PER TANK PRIOR TO CUTTING

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Wetzlaw
Signature

10/21/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/22/93

Weather: WINDY UPPER 50'S SUNNY

Work Performed: SMOOTHED CORNERS ON WW PAD FOR GEOMEMBRANE AND PLACED GEOTEXTILE. REGRADED NORTH AREA OF S.Z. JEFF MOVED TANKS FOR PREP TO CUTTING. RESET REMEDIAL BOUNDARY AND LOCATED ANGLE BREAKS IN EZ BOUNDARY FENCE.

BOB AUTIO CONTINUED SOIL SAMPLING. NOW UNDER AWD SUPERVISION

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/22/93

Material/Equipment Delivered (Identify Supplier and Quantity):

SMITTY STONE - 1 LOAD SMOOTH AGGREGATE 1 LOAD #53 STONE

RESCO - BOBCAT

Results of Inspections (See Attached Inspection Report): WW PAD READY FOR LINER

Results of Testing (See Attached Testing Report): PENETROMETER USED TO TEST COMPACTION OF WW PAD FLOOR - GOOD: RESULTS OF >4.5 ton/FT²

Verbal Instructions and/or Comments: - NA -

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): - NA -

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisbaum
Signature

10/22/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2996

Date: 10/25/93

Weather: MID 60s SUNNY BREEZE

Work Performed: TAYLOR CONSTRUCTION INSTALLED GEOMEMBRANE ON WW STORAGE PAD. AND PLACED GEOTEXTILE, SUMP AND #53 STONE. BACKFILLED TRENCHES AROUND PAD AND CONTINUED GRADING SZ AROUND DECON & WW PAD.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/23/93

Material/Equipment Delivered (Identify Supplier and Quantity):

LEBANON CONCRETE - 1½ yds CONCRETE FOR SPLASH GUARD POST HOLES.

Results of Inspections (See Attached Inspection Report): GEOMEMBRANE WENT IN SMOOTH AND TO SPEC.

Results of Testing (See Attached Testing Report): GEOMEMBRANE TESTED ALSO PENETROMETER USED ON FLOOR OF WW PAD FOR COMPACTION

Verbal Instructions and/or Comments:

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions):

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] Date 10/23/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/25/93

Weather: Cool Low 60s Cloudy Slight Breeze

Work Performed: Cut Tanks. Continued Construction of Splash Guards on Decon Pad. Finished Pouring Concrete for Splash Guard Posts. Placed Stone on WW Storage Pad and Graded Area Around Pad.

Fence Company Began Placing Exclusion Zone Fence from Trailers to South

PROJECT RECORD

DAILY QUALITY CONTROL REPORT

Date: 10/25/93

Material/Equipment Delivered (Identify Supplier and Quantity):

E-Z FENCING, 3 LOADS #53 STONE FROM MARTIN MARRIETTA, 1½ Yds CONCRETE - LEBANON CONCRETE

Results of Inspections (See Attached Inspection Report): WW PAD STONE 1' DEPTH. SPLASH GUARDS FOR DECON PAD UNDER CONST.

Results of Testing (See Attached Testing Report): - NA -

SENT GEOTEXTILE & GEOMEMBRANE SAMPLES TO GEOTECHNICS.

Verbal Instructions and/or Comments: - NA -

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): - NA -

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: [signature] Date: 10/25/93

Distribution:
1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 7396

Date: 10/26/93

Weather: LOW 60s MOSTLY SUNNY STRONG BREEZE

Work Performed: CONTINUED CUTTING TANKS ON SOUTH CONCRETE PAD. ALSO CONTINUED CONSTRUCTING DECON PAD SPLASH GUARDS. AND PLACED GEOTEXTILE AROUND WW PAD AND DECON PAD. PLACED #2 STONE ON LINER. SZ ALMOST COMPLETE.

CREW CONTINUED SETTING EXCLUSION ZONE FENCE FROM NW CORNER OF SCRAP AREA TO NORTH.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/26/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA - #2 STONE (12 LOADS)

RESCO · INGERSOLL RAND DD-65 VIBRATORY ROLLER

Results of Inspections (See Attached Inspection Report): FENCING OF EZ PROGRESSING

SZ NORTH END READY FOR #53 STONE

Results of Testing (See Attached Testing Report): - NA -

Verbal Instructions and/or Comments: PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): TANK T-11 CAUGHT ON

FIRE INTERNAL - WAS EXTINGUISHED WITH DRY CHEMICAL EXTINGUISHERS

AND WATER

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] Date 10/26/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/27/93

Weather: MID 50s CLOUDY WINDY

Work Performed: CONTINUED AND FINISHED SPLASH GUARDS FOR DECON PAD. PLACED #2 AND #53 AGGREGATE @ NORTH END OF SZ. MOVED CUT TANK PIECES AND CLEANED PAD. RELOCATED DRUMS TO CONCRETE PAD. POSITIONED 8,000 gal FRAC TANKS ON WW PAD

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/27/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA - #2 AND #53 STONE

2 - 8,000 GAL FRAC TANKS

Results of Inspections (See Attached Inspection Report): SZ ALMOST COMPLETE.

DECON PAD COMPLETE.

Results of Testing (See Attached Testing Report): - NA -

Verbal Instructions and/or Comments: PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions):

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

[signature] 10/27/93

Signature **Date**

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/28/93

Weather: WINDY, COLD - LOW 50s, OVERCAST

Work Performed: SET UP PRESSURE SPRAYER AND BEGAN WASHING TANK QUARTERS. BEGAN TANK CUTTING ON DECON PAD.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 10/28/93

Material/Equipment Delivered (Identify Supplier and Quantity):

TRANS-CHEM - 8000 gal H_2O FOR SPRAYER

HOOSIER WATER - POTABLE WATER - AWD - SPRAYER

Results of Inspections (See Attached Inspection Report): FINISHED SUPPORT ZONE DECON PAD FINISHED AND OPERABLE

Results of Testing (See Attached Testing Report): CONCRETE FOR DECON PAD MEETS ASTM STANDARDS

Verbal Instructions and/or Comments: ALL REMAINING TANKS TO BE CUT ON DECON PAD ONLY

Remarks (Including Deficiencies/Corrective Actions) PROJECT RECORD

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Wetzbaum
Signature

10/28/93
Date

Distribution: 1. **Resident Superintendent**
2. **Independent CQA Officer**

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/29/93

Weather: WINDY, COLD-LOW 20s, PARTLY CLOUDY

Work Performed: TANK DESTRUCTION AND PRESSURE WASHING ON DECON PAD. MOVED REMAINING TANKS TO STAGING AREA IN RZ BH DECON PAD. GRADED MOUND OF SOIL ALONG DIVERSION DITCH ON NORTH EAST.

PROJECT RECORD

START COPY

DAILY QUALITY CONTROL REPORT

Date: 10/29/93

Material/Equipment Delivered (Identify Supplier and Quantity):

RESCO - KOMATSU PC220 EXCAVATOR W/ GRAPPLE BUCKET

Results of Inspections (See Attached Inspection Report): TANK CUTTING

Results of Testing (See Attached Testing Report): - NA -

Verbal Instructions and/or Comments: ALL REMAINING TANKS WILL BE HANDLED ON DECON PAD ONLY

Remarks (Including Deficiencies/Corrective Actions):

PROJECT RECORD

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] **Date** 10/29/93

Distribution:
1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 10/01/93

Weather: LOW 50s MOSTLY SUNNY BRISK BREEZE

Work Performed: CUT TANKS AND PRESSURE WASHED PIECES ON DECON PAD. LOADED OUT PIECES INTO ROLL OFF BOXES.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 11/01/93

Material/Equipment Delivered (Identify Supplier and Quantity):

4 ROLLOFFS by LUSCO 3 SEMI TRAILERS (OPEN) WINSKI

Results of Inspections (See Attached Inspection Report): TANKS CUT AND SPRAYED.

Results of Testing (See Attached Testing Report):

Verbal Instructions and/or Comments:

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions):

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisbaum
Signature

11/01/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 7396

Date: 11/02/93

Weather: HIGH 40s OVERCAST W-E WIND

Work Performed: CONTINUED TANK DESTRUCTION CUT AND SPRAYED BEFORE PLACING PIECES IN ROLL-OFFS FOR TRANSPORTATION OFFSITE

PROJECT RECORD

DAILY QUALITY CONTROL REPORT

Date: 11/02/93

Material/Equipment Delivered (Identify Supplier and Quantity):

[redacted] - NA -

Results of Inspections (See Attached Inspection Report): TANK CUTTING AND SPRAY

Results of Testing (See Attached Testing Report): HASP AIR MONITORING ONLY

Verbal Instructions and/or Comments: - NA -

PROJECT RECORD

Remarks (Including Deficieacies/Corrective Actions): -NA-

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weathers
Signature

11/02/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/03/93

Weather: LOW 50, CLEAR WINDY

Work Performed: TANK DESTRUCTION CONTINUED. LOADED OUT SCRAP. PLACED AGGREGATE AROUND PROCESS BLDG. CONTINUED PICKING UP SITE MATERIALS AND STOCKPICING.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT

Date: 11/03/93

Material/Equipment Delivered (Identify Supplier and Quantity):

JACK'S TOOL RENTAL - BOBCAT

Results of Inspections (See Attached Inspection Report): TANK CUTTING / DECON CONTINUED.

Results of Testing (See Attached Testing Report): - NA -

PROJECT RECORD

Verbal Instructions and/or Comments: - NA -

Remarks (Including Deficiencies/Corrective Actions): - NA -

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: [illegible]

Date: 11/03/93

Distribution:
1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/04/93

Weather: Cool - Low 50s. Partly cloudy

Work Performed: Continued tank destruction and decon. Loaded out scrap for offsite disposal (metals only) Began dismantling process building. Used excavator to pick metal from bldg. and fell remainder onto concrete slab.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 11/04/93

Material/Equipment Delivered (Identify Supplier and Quantity):

ROLL OFF BOX BY OSCAR WINSKI CO.

Results of Inspections (See Attached Inspection Report): PBLDG DISMANTLE AND TANK DESTRUCTION

Results of Testing (See Attached Testing Report): [redacted] ASBESTOS TESTING OF A-FRAME DEBRIS PILE FOR APPROVAL FROM LANDFILL

Verbal Instructions and/or Comments: -NA-

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): -NA-

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisham
Signature

11/04/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/05/93

Weather: WINDY COLD HIGH 40s OVERCAST

Work Performed: CONTINUED BLDG. DISMANTLEMENT
SEPERATED METAL FOR SCRAP TO BE SENT OFF-
SITE BY WINSKY INC.
PICKUP OF SCRAP LAYING IN REMEDIAL
BOUNDARY FOR WASH.

PROJECT RECORD

Date: 11/05/93

Material/Equipment Delivered (Identify Supplier and Quantity):

Results of Inspections (See Attached Inspection Report): BLDG. DOWN. READY FOR DISPOSAL

Results of Testing (See Attached Testing Report): NA

Verbal Instructions and/or Comments: NA

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): NA

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: [illegible] Date: 11/05/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/08/93

Weather: [redacted] COOL 50s SUNNY BREEZE CLEAR

Work Performed: CONTINUED SITE DEBRIS CLEANUP AND BLDG DEBRIS SEPARATION - LOADED OUT SCRAP METAL/STEEL INTO ROLL-OFF. SET MONITORING WELL BARRACADES. REPAIRED REMEDIAL BOUNDARY TAPE AND HIGH VISUAL SECURITY FENCE. BUILT FOOTBRIDGE FOR CROSSING DIVERSION DITCH BEHIND DECON TRAILER.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT

Date: 11/08/93

Material/Equipment Delivered (Identify Supplier and Quantity):

C&E - BOBCAT 742 w/ AUGER.

METZGER LUMBER - LUMBER FOR FOOTBRIDGE.

Results of Inspections (See Attached Inspection Report): BRIDGE IS COMPLETE.

MONITOR WELL BARRACADES SET.

Results of Testing (See Attached Testing Report): -NA-

Verbal Instructions and/or Comments: -NA-

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): -NA-

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature

Date 11/08/93

Distribution:
1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/09/93

Weather: SUNNY CLEAR NO BREEZE 55°

Work Performed: SITE DEBRIS CLEANUP.
PUT CONCRETE IN MONITOR WELL
BARRACADES. CLEANED DECON PAD

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 11/09/93

Material/Equipment Delivered (Identify Supplier and Quantity):

STONY CREEK - 1 LOAD R.R RAP

Results of Inspections (See Attached Inspection Report): NA

Results of Testing (See Attached Testing Report): NA

Verbal Instructions and/or Comments: NA

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): NA

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisman
Signature

11/09/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/10/93

Weather: SUNNY CLEAR 55° LITE BREEZE

Work Performed: CUT TANK T-33. RIPPED END OFF T-21 & T-16. PLACED RIP RAP IN DIVERSION DITCH NORTH EAST OF DECON PAD-D ON WEST SIDE OF NORTH DITCH CULVERT. CREW CLEANED OUT TOOL/BREAK TRAILER FOR DEMOB.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 11/10/93

Material/Equipment Delivered (Identify Supplier and Quantity):

RESCO RENTS - EXCAVATOR BUCKET

Results of Inspections (See Attached Inspection Report): DITCH - RIPRAP PLACED

Results of Testing (See Attached Testing Report): PCB RESULTS ON TANKS RETURNED - T-16 & T-21 POSITIVE T-33 - NEGATIVE

Verbal Instructions and/or Comments: - NA -

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): - NA

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisbaar
Signature

11/10/93
Date

Distribution: 1. **Resident Superintendent**
2. **Independent CQA Officer**

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/11/93

Weather: OVERCAST - COOL Low 50s

Work Performed: CUT REMAINING 3 TANKS AND LOADED OUT FOR SCRAP. FINE GRADED SUPPORT ZONE. ADDED #53 STONE TO FINISH EDGES ON WEST SIDE.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 11/11/93

Material/Equipment Delivered (Identify Supplier and Quantity):

- MARTIN MARRIETTA - #53 STONE

Results of Inspections (See Attached Inspection Report): SUPPORT ZONE REGRADING

Results of Testing (See Attached Testing Report): TWO TANKS HAVE PCBs

Verbal Instructions and/or Comments: - NA

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): - NA -

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Westhaver
Signature

11/11/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/12/93

Weather: OVERCAST . 55°

Work Performed: INITIATED BOILER DESTRUCTION. CUT EXTERIOR SHELL AND PULLED OFF COIL PIPES. CONTINUED FINISH GRADE THE SITE SUPPORT ZONE WEST EDGE

PROJECT RECORD

DAILY QUALITY CONTROL REPORT

Date: 11/12/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARRIETTA - #53 STONE

Results of Inspections (See Attached Inspection Report): FINISH GRADING SZ

Results of Testing (See Attached Testing Report): - NA -

Verbal Instructions and/or Comments: - NA -

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions): - NA -

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] **Date** 11/12/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/15/93

Weather: RAIN LOW 50s MILD BREEZE

Work Performed: CONTINUED DESTRUCTION OF PROCESS BLD. BOILER. SEGREGATED/SEPERATED SITE DEBRIS FOR "LOADING OUT" CONTINUED FINISH GRADING SUPPORT ZONE.

HOOSIER FENCE BEGAN INSTALLATION OF SITE SECURITY FENCE AROUND NORTH END.

PROJECT RECORD

Date: 11/15/93

Material/Equipment Delivered (Identify Supplier and Quantity):

HOOSIER FENCE - SECURITY FENCE

Results of Inspections (See Attached Inspection Report): SECURITY FENCE INSTALLATION ACCORDING TO SPEC.

Results of Testing (See Attached Testing Report): - NA -

PROJECT RECORD

Verbal Instructions and/or Comments: - NA -

Remarks (Including Deficiencies/Corrective Actions): QEM AND BANKERTS STILL DEBATING FENCE LOCATION ON WEST SIDE

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: [signature] Date: 11/15/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/16/93

Weather: OVERCAST 30 LITE BREEZE

Work Performed: "LOADED OUT" SOUTH DEBRIS PILE AND A-FRAME DEBRIS PILE

DECOMISSIONED DECON PAD AND CLEANED SUMP.

HOOSIER FENCE CO INSTALLED POSTS FOR SUPPORT ZONE SECURITY FENCE.

PROJECT RECORD

Date: 11/16/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA - 3 LOADS #2 STONE ; 2 LOADS #53 STONE. RESCO . T-40 MANLIFT

Results of Inspections (See Attached Inspection Report): FENCE INSTALLATION AROUND SUPPORT ZONE

Results of Testing (See Attached Testing Report): — NA —

Verbal Instructions and/or Comments:

Remarks (Including Deficiencies/Corrective Actions) ~~PROJECT RECORD~~

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature **Date** 11/16/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/17/93

Weather: RAIN 40° BRISK

Work Performed: CONTINUED "LOADING OUT" ROLL OFFS W/ A-FRAME DEBRIS. FINALIZED SUPPORT ZONE AGGREGATE PLACEMENT AT SOUTH END AND WHERE DECON AND BREAK TRAILERS WERE. S Z IS DONE. DEMOBILIZED ONE OFFICE TRAILER AND CONSOLIDATED WITH GEN INTO FINAL TRAILER. WASTE MANAGEMENT PICKED UP ROLL-OFF AND LEFT EMPTY ONE ONSITE.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT

Date: 11/17/93

Material/Equipment Delivered (Identify Supplier and Quantity):

MARTIN MARIETTA - 4 LOADS #53 STONE

WASTE MANAGEMENT - ONE 30 YD. ROLL-OFF

Results of Inspections (See Attached Inspection Report): S.Z. IS COMPLETE.

ALL AGREGATE IS PLACED.

Results of Testing (See Attached Testing Report): - NA -

Verbal Instructions and/or Comments: SENT WAGONER AND LOREGAND

HOME EARLY DUE TO RAIN.

Remarks (Including Deficiencies/Corrective Actions): PROJECT RECORD

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] Date 11/17/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/18/93

Weather: SUNNY 50 CLEAR BREEZE

Work Performed: CONTINUED LOADING OUT ROLL-OFFS WITH PROCESS BLDG. DEBRIS AND ALSO LOADED OUT BOILER SCRAP INTO HAZ-WASTE ROLL-OFFS. ALL ROLL-OFFS FROM INSIDE EZ WERE DECONED PRIOR TO LEAVING SITE.

REMOVED TRANSFORMERS FROM PPOLE IN RZ. PLACED THEM ON DECON PAD. DECONED TO MANLIFT.

HOOSIER FENCE CONTINUED SETTING POSTS FOR SZ SECURITY FENCE AND BEGAN PLACING TOP BRACE.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT

Date: 11/18/93

Material/Equipment Delivered (Identify Supplier and Quantity):

ROLL-OFFS FROM WASTE MANAGEMENT / CHEM WASTE

Results of Inspections (See Attached Inspection Report): ACC FENCE POSTS ARE SET.

Results of Testing (See Attached Testing Report):

-NA-

Verbal Instructions and/or Comments: PSI WILL P/UP TRANSFORMERS FOR DISPOSAL

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions):

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature [signature] **Date** 11/18/93

Distribution:
1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/19/93

Weather: RAIN 40 BRISK

Work Performed: COMPLETED SITE DEBRIS LOAD OUT AND DECONED ROLL-OFFS THAT CAME OUT OF REMEDIAL ZONE. DECONED EQPT. ALSO DECONSTRUCTED EXCLUSION ZONE FENCE AND PREPPED IT FOR DEMOB.

HOOSIER FENCE CONTINUED CONSTRUCTION OF SUPPORT ZONE SECURITY FENCE.

PROJECT RECORD

Date: 11/19/93

Material/Equipment Delivered (Identify Supplier and Quantity):

WASTE MANAGEMENT - 1 40 yd ROLLOFF

Results of Inspections (See Attached Inspection Report): - NA -

Results of Testing (See Attached Testing Report): - NA -

PROJECT RECORD

Verbal Instructions and/or Comments: - NA -

Remarks (Including Deficiencies/Corrective Actions): - NA -

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature

Date 11/19/93

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/22/93

Weather: 50 CLEAR LITE BREEZE

Work Performed: DECONTAMINATION OF HEAVY EQPT. FOLLOWING THIS, STARTED CLEANING DECON PAD.

PROJECT RECORD

Date: 11/22/93

Material/Equipment Delivered (Identify Supplier and Quantity):

Results of Inspections (See Attached Inspection Report): FENCING ALMOST COMPLETE

Results of Testing (See Attached Testing Report): -NA-

PROJECT RECORD

Verbal Instructions and/or Comments: -NA-

Remarks (Including Deficiencies/Corrective Actions):

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Signature: [illegible] Date: 11/22/93

Distribution:
1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/23/93

Weather: 50 P. CLOUDY MILD BREEZE

Work Performed: DEMOBILIZATION. - LOADED EZ FENCING AND BLOCKS ON TRAILER. CLEANED DECON PAD AFTER DECON OF FINAL ROLL-OFF.

HOOSIER FENCE - INSTALLED GATES ON SZ FENCE.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 11/2[illegible]/93

Material/Equipment Delivered (Identify Supplier and Quantity):

Results of Inspections (See Attached Inspection Report): FENCE GATES INSTALLED

Results of Testing (See Attached Testing Report): RECEIVED APPROVAL FOR BOILER

Verbal Instructions and/or Comments:

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions):

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

[signature] 11/23/93

Signature **Date**

Distribution: 1. **Resident Superintendent**
2. **Independent CQA Officer**

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/24/93

Weather: OVERCAST, 50

Work Performed: DECOMMISSIONED DECON PAD AND CONTINUED SITE DEMOB. MOVED REMAINING DRUMS TO CONCRETE PAD.

HOOSIER FENCE - COMPLETE FENCE SET UP. ALL THAT REMAINS IS LOCK/LATCHES.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT

Date: 11/24/93

Material/Equipment Delivered (Identify Supplier and Quantity):

Results of Inspections (See Attached Inspection Report):

Results of Testing (See Attached Testing Report):

Verbal Instructions and/or Comments:

Remarks (Including Deficiencies/Corrective Actions):

PROJECT RECORD

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Weisbaum
Signature

11/24/93
Date

Distribution: 1. **Resident Superintendent**
2. **Independent CQA Officer**

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/29/93

Weather: OVERCAST 35° WINDY

Work Performed: DECON PAD SUMP REPAIR - PUT PRIMER COAT ON. PLACED STRAW BALES BY TRENCHES FOR EROSION.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT

Date: 11/29/93

Material/Equipment Delivered (Identify Supplier and Quantity):

RESCO REMOVED LOADER AND EXCAVATOR

Results of Inspections (See Attached Inspection Report):

Results of Testing (See Attached Testing Report):

Verbal Instructions and/or Comments:

PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions):

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

[signature] 11/29/93

Signature **Date**

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396

Date: 11/30/95

Weather: [redacted] MOSTLY CLOUDY 35°
BREEZE

Work Performed: PUMPED WW INTO TRUCK/TANK FOR OFFSITE DISPOSAL. PUMPED EXCESS RAIN WATER OFF WW STORAGE PAD & OUT OF DECON PAD SUMP. CONTINUED REPAIR OF DECON PAD SUMP. PLACED SILT FENCE ALONG TOE OF NORTH DITCH. PLACED STRAW BALES IN REMAINING DITCHES FOR EROSION CONTROL. DRAINED REMAINING CLEAN WATER INTO DITCH.

HOOSIER FENCE - INSTALLED FENCE GATE LOCKS/LATCHES.

PROJECT RECORD

DAILY QUALITY CONTROL REPORT
PAGE 2 OF 2

Date: 11/30/93

Material/Equipment Delivered (Identify Supplier and Quantity):

CLEAN HARBORS - REMOVED 27,500 gal WW FROM FRAC TANK. GE MOBILE REMOVED TRAILER.

Results of Inspections (See Attached Inspection Report): SILT FENCE INSTALLED FOR EROSION CONTROL

Results of Testing (See Attached Testing Report): SILT FENCE COMPLIES W/ T.S. 2700.2.01.A

Verbal Instructions and/or Comments: PROJECT RECORD

Remarks (Including Deficiencies/Corrective Actions):

CERTIFICATION: I certify that the above report is complete and correct and that I, or my authorized representative, have inspected all work performed this day by the prime contractor and each subcontractor and have determined that all materials, equipment, and workmanship are in strict compliance with the plans and specifications except as may be noted above.

Scott Wetzman
Signature

11/30/93
Date

Distribution: 1. Resident Superintendent
2. Independent CQA Officer

C

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 001

Date: 8-30-93

PROJECT RECORD

Day	S	(M)	T	W	TH	F	S

WEATHER	(Bright Sun)	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	(85 up)
WIND	(Still)	Moder	High	Report No.	
HUMIDITY	Dry	(Moder)	Humid	001	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies, Inc.	2	~~3~~ 2	
MSE SURVEYING	Ø	2	

Visitors

Time	Representing	Representing	Remarks
1:00 PM	DICK ETCHISON SMOCK ASSOC.		

Equipment at the Site: Track Loader

Construction Activities: Surveyor staking out fence lines and remedial boundary line. AWO began moving tanks that were staged in support zone. Tanks moved inside remedial boundary line so that support zone work can commence. Approximately 26 tanks moved. Also moved mulch pile near contractor parking area.

By: [signature] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 002

Date: 8-31-93

Day	S	M	(T)	W	TH	F	S

WEATHER	Bright Sun	Clear	(Overcast)	(Rain)	Snow
TEMP.	To 32	32-50	50-70	(70-85)	85 up
WIND	Still	(Moder)	High	Report No.	
HUMIDITY	Dry	(Moder)	Humid	002	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	2	2	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader

Construction Activities: Prepared for A-Frame demolition – discrepancies between May, 1993 and December, 1992 Technical Specifications. Performed sampling of Process Building and delivered to Heritage Laboratories for analysis.

S. Weishaar stepped on nail – went to emergency room – cleared to return to work.

By: J R Fife Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 003

Date: 9-1-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No. 003	
HUMIDITY	Dry	Moder	Humid		

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies, Inc.	2	~~3~~ 2	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader

Construction Activities: Reviewed drawings/specs. with Tim Harrison (CH2M HILL - US EPA oversight). Pickup supplies. Setup mini-decon area. Organize office.

By: [signature] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 004

Date: 9-2-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	004	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies, Inc.	2	2	

Visitors

Time	Representing	Representing	Remarks
7:30-8:00	John Mitchell / Smock Assoc.		

Equipment at the Site: Track Loader

Construction Activities: Pack-out A-Frame (Level "C"). Found potentially leaking drum of unknown contents. Inspect top floor of A-Frame House. Grade surface at southern end of support zone. Found 12" sewage line.

Unresolved burden of cost for handling potentially leaking drum. Unresolved Dec., 1992 documents vs. May, 1993 documents.

By: J R [signature] **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 005

Date: 9-3-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	005	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	2	2	
MSE Surveying	0	2	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader, SCBA, PPE

Construction Activities: Surveyor continues ~~grade~~ setting grades for grading. B. Autio, QEM informed me Heritage stopped by and they need additional material for wood and styrofoam samples. S. Weishaar and T. Castor enter A-Frame House in Level B PPE to handle potentially leaking drum. Job incomplete at end of day. Will continue next week.

By: J R [illegible] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 006

Date: 9-7-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	006	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	2	~~5~~ 4 3	R. Logeland started today.
MSE Surveying	0	2	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader, SCBA, PPE

Construction Activities: Continue Level B work in A-Frame to handle potentially leaking drum. Finished A-Frame overpack of drum at 9:15 am. Additional sampling in process bldg. per Heritage's request for more sample material. Gave samples to Heritage for analysis. Began grading for decon pad to subgrade elevations. Remaining pack out of A-Frame House contents performed. Fence placed around decon pad.

By: [signature] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 007

Date: 9-8-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	007	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc	2	3	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader, Auger

Construction Activities: Resumed grading of decon pad. Continued drum pack out of A-Frame House. Finished A-Frame pack out. Start setting construction fence posts but fail by hand methods. B. Autio, S. Weishaar sample decon pad area soils. Pickup auger for post holes. Auger returned to rental company - not successful in setting construction fence posts.

By: [signature] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 008

Date: 9-9-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	008	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies, Inc.	2	3	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader, Rock Hammer

Construction Activities: Pickup Rock hammer for fence post installation. Continue grading decon pad area. Concrete submittals to B. Autio / V. Oster. Asked them to expedite concrete subcontractor submittals. Received approval for 3 changes between Comments verbally (Monitoring well protective barriers, diversion channel alignment per May Documents, No aggregate around A-Frame House). Began fence post installation with rock hammer and compressor. Finished subgrade for decon pad. Rough grading of contractor laydown area.

By: [signature] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 009

Date: 9-10-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	009	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies, Inc.	2	~~4~~ 3	
MSE Surveying	0	2	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader

Construction Activities: Continued work on construction fence. Started clearing around A-Frame House. Started making boundaries and zone ~~lines~~ lines. Moved drummed material from A-frame to inside remedial boundary line.

By: [signature] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 010

Date: 9-13-93

Day	S	M	T	W	TH	F	S
		(M)					

WEATHER	Bright Sun	Clear	Overcast	(Rain)	Snow
TEMP.	To 32	32-50	50-70	(70-85)	85 up
WIND	Still	(Moder)	High	Report No.	
HUMIDITY	Dry	(Moder)	Humid	010	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	2	~~4~~ 3	
MSE Surveying	0	2	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader

Construction Activities: Start fence removal of existing fence. Prepare for geotextile placement. Mark remedial boundary with "Danger Tape". Relocate Tanks as needed to mark remedial boundary line. Continue site grading. 22 rolls geotextile arrives. Regrade decon pad per Saverio Debartolo. Cover geotextile.

By: [signature] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 011

Date: 9-14-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	011	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	2	3	

Visitors

Time	Representing	Representing	Remarks
8:00 am	J. Mitchell Smock Assoc.		

Equipment at the Site: Track Loader

Construction Activities: Rough grade NW area of support zone including redistribution of stockpile. Check grade stakes. Place northend corner fence. Reestablish subgrade and corner posts for decon pad.

By: J R [illegible] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 012

Date: 9-15-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	012	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies, Inc.	3	3	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader

Construction Activities: S. Weishaar and me check grade stakes for M. Dowiak to compare to designed elevations. Appears existing grades are higher than those shown on design drawings. Too wet to work today. J. Ambrose arrives to support construction submittals.

By: [signature] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 013

Date: 9-16-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	013	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	3	3	
MSE Surveying	0	2	

Visitors

Time	Representing	Representing	Remarks
7:00am	K. Vendl, U.S. EPA		

Equipment at the Site: Track Loader

Construction Activities: Continue regrading support zone area. Tour site with K. Vendl U.S. EPA. J. Ambrose and B. Autio, QEM discuss submittals. Fed Ex geotextile sample to geotechnical laboratory for conformance testing.

By: [signature] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 014

Date: 9-17-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No. 014	
HUMIDITY	Dry	Moder	Humid		

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies, Inc.	3	3	

Visitors

Time	Representing	Representing	Remarks
7:00 am	K. Vendl U.S.EPA		

Equipment at the Site: Track Loader

Construction Activities: Continue grading support zone - S. Weishaar checking grade stakes. T. Castor maintaining grade stakes.

By: [signature] **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 015

Date: 9-20-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	015	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	3	2	
MSE Surveying	0	2	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader

Construction Activities: Surveyor placing grade stakes with S. Weishaar. Continue fine grading of support zone. Phone Conference call w/ Trustees, QEM, ERM, AWD on job status. Start to establish grade at 2% with crown. Crown sloping south at 2% and north at 2%. Also slopes from ~~west to east~~ west to east.

By: J R [illegible] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 016

Date: 9-21-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	016	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies, Inc.	3	3	
Smock Associates	0	3	Decon Pad Sub.

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader

Construction Activities: Smock begins work on footings for decon pad. AWO sets baselines for grade checks. C. Trimber (EMAS) and Chem Waste Mgmt. onsite for non-haz waste "special waste"

By: [signature] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 017

Date: 9-22-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	017	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	3	3	
Smock Associates	0	3	Decon Pad Sub

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader

Construction Activities: Final grading at northend of support zone. S. Weishaar/T. Castor setting grade stakes at southend of support zone. Finished grading of site - ordered No. 2 stone. Placed 3 rolls of geotextile. 20 loads of stone placed.

Smock Assoc- performing formwork for decon pad.

By: [signature] Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 018

Date: 9-23-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	018	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	3	3	
Smock and Assoc.	0	3	Decon Pad Sub.

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader

Construction Activities: Continue regrading northend of support zone. Continued placing stone all day in support zone.

Smock and Associates continue forwork on concrete decon pad.

By: J R Fif Title: Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 019

Date: 9-24-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	019	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	3	3	
Smock and Associates	0	3	Decon Pad Sub

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader, Compactor Roller

Construction Activities: Reopen South Ditch. Continue stone placement checking depth of No. 2 Stone. Compactor Roller arrives onsite. Compact No. 2 stone with roller

Smock Assoc. continues formwork for decon pad.

By: [signature] **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 020

Date: 9-27-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	020	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies, Inc	2	3	
Smock and Assoc.	0	3	Decon Pad Sub

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader

Construction Activities: 30 Loads of No. 53 stone ordered and placed in support zone area.

Smock and Assoc. excavated pit for manhole placement
S. Weishaar checks soil with PID.

By: J R Tafe Title: Resident Superintendent

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2. ECC Trust's Engineer
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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 021

Date: 9-28-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	021	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	2	3	
Smock and Associates	0	3	Decon Pad Sub

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader, PC150 Excavator

Construction Activities: AWD continues placing and compacting stone in the support zone. Started excavating the southwest trench Diversion channel. Water encountered during diversion channel excavation. Scott Weishaar and T. Castor checked invert elevations. PSI placed power pole (2nd) in preparation for running power. Rubble "uncommon in nature" encountered during ditch diversion channel work. Smock & Assoc. placed manhole and levelled and prepared for pipe placement.

By: [signature] **Title:** Resident Superintendent

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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 022

Date: 9-29-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No. 022	
HUMIDITY	Dry	Moder	Humid		

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	2	3	
Smock & Associates	0	3	Decon Pad Sub

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader, Roller Compactor

Construction Activities: Continued excavation of Southwest Diversion Channel. Large debris including concrete rubble - large pieces encountered. Started South EAST Diversion channel at old A-Frame House location. Large rubble hampers progress. Start construction fence repairs. Start to regrade laydown area.

By: [signature] Title: Resident Superintendent

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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 023

Date: 9-30-93

Day	S	M	T	W	(TH)	F	S

WEATHER	Bright Sun	Clear	(Overcast)	Rain	Snow
TEMP.	To 32	32-50	(50-70)	70-85	85 up
WIND	Still	(Moder)	High	Report No.	
HUMIDITY	Dry	(Moder)	Humid	023	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	2	4	
Smack & Associates	0	3	DECON Pad Sub

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader

Construction Activities: Start Northeast Diversion Channel - west of concrete slab. Move debris pile to extreme southeast corner of work area. Receive 12' x 60' trailer. Start finish grade on south support zone area. S. Wershaw CQC on No. 53 cover stone. Discussed moving valve to inside manhole with AWD-Eph. design group. Finish NE diversion channel. Received 10' x 48' trailer. Finished SE ditch to intersect with SW ditch. 2 loads of stone placed in SE and SW ditches.

By: [signature] Title: Resident Superintendent

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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 024

Date: 10-01-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	024	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies Inc.	2	4	
Smock and Assoc.	0	4	Decon Pad Sub

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track ~~Excavator~~ Loader

Construction Activities: Smock and Assoc. start decon pad curb pouring concrete using crane and bucket. Midwest Testing took slump, air, and concrete cylinders. Proceeded with stone placement in the contractor laydown area including final grading and geotextile.

Smock completed decon pad pour of curb and started finishing it. Smock crew did work inside manhole.

By: [signature] Title: Resident Superintendent

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2. ECC Trust's Engineer
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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 025

Date: 10-04-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	025	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	4	4	
Smock and Assoc.	0	5	Decon Pad Sub

Visitors

Time	Representing	Representing	Remarks
7:10 am	John Harris AWD / CQC Audit		

Equipment at the Site: Track Loader, PC150 Removed Sat./Sun. by Resco

Construction Activities: Smock and Associates stripping formwork - very difficult. AWD spreading stone in access road upgrade area, including geotextile placement and proper compaction.

Smock Assoc. has keyway which needed patched on east curb wall. Smock to use Duratond to patch keyway with.

Bob Autio, OEM mentioned possible re-routing of Parcel 45 Diversion Channel outfall.

By: [signature] Title: Resident superintendent

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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 026

Date: 10/5/93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	026	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	4	4	
Smock & Assoc.	0	5	Decon Pad Sub.

Visitors

Time	Representing	Representing	Remarks
7:30 AM	J. Harris AWD / CQC Audit		

Equipment at the Site: Track Loader, Track Excavator

Construction Activities: Grading contractor parking area to prepare for stone placement. Spread #2 stone in access road upgrade area and contractor parking area.

Smock and Assoc. continues removing forms. Smock stone arrives for beneath slab.

Reinforced Concrete pipe delivered today also.

By: [signature] **Title:** Resident Superintendent

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Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 027

Date: 10-6-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	027	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	3	4	
Smock and Assoc.	0	3	Decon Pad Sub

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site:

Construction Activities: AWD began excavation of NW Diversion Channel Finished grading access road ~~an~~ upgrade area and contractor parking area. Placed maingate culvert pipe. Placed SW and SE Diversion channel connector culvert pipe.

Smock and Assoc. placed stone in the decon pad and started formwork for slab sections.

By: [signature] Title: Resident Superintendent

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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 028

Date: 10-7-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No. 028	
HUMIDITY	Dry	Moder	Humid		

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	3	4	
SME Surveying	0	2	
Smock and Associates	0	5	Decon Pad Sub

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader, Track Excavator, Roller Compactor

Construction Activities: Continued excavation of NW Diversion Channel. Final roll of parking area. Finished NW ditchwork. Started north portion of SE Diversion Channel. NW trench excavation - some of toughest material yet.

MSE Surveying reset fenceline.

Smock and Assoc. continued interior forms for decon pads

By: [signature] **Title:** Resident Superintendent

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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 029

Date: 10-8-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	029	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies, Inc.	3	4	
Smock and Assoc.	0	4	Decon Pad Sub.

Visitors

Time	Representing	Representing	Remarks
1100 AM	Tim Haggerty Midwest Testing		

Equipment at the Site: Track Loader, Track Excavator, Dozer

Construction Activities: S. Weisbaar notices cracks in N, W, E curb walls of decon pad. Notified QEM Co. Jackson onsite today + Monday).
Detect odor in SE Riverview Channel behind trailers! Stopped work.
Continued regrading north corner with dozer and loader.
Resolved cure and seal product in lieu of water curing as per Tech. Specs.

Smock and Assoc poured inside slab of decon pad at NW, NE, SW, and SE corners of slab.

By: J R [illegible] **Title:** Resident Superintendent

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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 030

Date: 10-11-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	030	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies, Inc.	3	4	Decon Pad Sub.
Smock and Assoc.	0	3	Decon Pad Sub.

Visitors ELCONCO

Time	Representing	Representing	Remarks

Equipment at the Site: TRACK Loader, TRACK EXCAVATOR, Roller Compactor Dozer

Construction Activities: - SMOCK STRIPPED & CLEANED SLAB FORMS
- ELCONCO STARTED ELECTRICAL PANEL WORK
- AWD Set RCP in North west Ditch And Regraded North END of Support Zone

By: [signature] Title: Resident Superintendent

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3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 031

Date: 10-12-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No. 031	
HUMIDITY	Dry	Moder	Humid		

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies, Inc. Smock and Assoc., MSE, ELCONCO	3	4 + 4 + 2 + 2	Survey - 500 Electrician 500 Decon Pad Sub.

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: TRACK LOADER, TRACK EXCAVATOR, Roller Compactor, Dozer

Construction Activities:

- AWO Removed North Ditch & Placed 12" x 30' RCP
- SMOCK Repaired Cracks AND Prepared Forms
- MSE Restarted WW Storage Pad
- ELCONCO Prepared Electrical PANEL

By: J R Fife **Title:** Resident Superintendent

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2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 032

Date: 10-13-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	32	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD TECHNOLOGIES, INC	2	4	Decon Pad
Smock Associates, Elcasco		4 2	Electrical Subs

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track Loader, Excavator Roller Compactor Dozer

Construction Activities:
- AWD Place RCP at South most entrance
- Smock Poured Four Concrete Sections
- 1

By: John W Harris For Jim Fife **Title:** Resident Superintendent

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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 033

Date: 10-14-93

Day	S	M	T	W	TH	F	S
					(TH)		

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	33	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	4 5	Decon Pad Subd

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Track loader, Excavator, Compactor, Dozer

Construction Activities: Concrete Pad completed by Smock
Trenching + grading in NE Trench + around decon pad

By: [signature] **Title:** Resident Superintendent

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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 034

Date: 10-15-98

Day	S	M	T	W	TH	F	S
						(F)	

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	34	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
Alt Technologies	2	4 2	- Concrete Subs

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Trackhoe, Excavator, Compactor, Dozer

Construction Activities: Began construction of wastewater storage pad
Concrete Sub removed forms + installed sump grating

By: [signature] **Title:** Resident Superintendent

Distribution:
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2. ECC Trust's Engineer
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Page 1 of 1 **Pages**

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 035

Date: 10-18-93

Day	S	M	T	W	TH	F	S
		(M)					

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	35	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	3 1	Concrete Sub

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Excavator, Trackloader, Compactor, Dozer

Construction Activities: Concrete Sub caulks joints in Concrete pad
- Resumed constructing Waste water Storage Pond
- Equipment delivered - Bobcat w/auger, Roller/Compactor, Backhoe
- Equipment returned - Excavator (PC150)

By: J R Fife **Title:** Resident Superintendent

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Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 036

Date: 10-12-93

Day	S	M	T	W	TH	F	S
			(T)				

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	36	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	4	

Visitors

Time	Representing	Representing	Remarks
0700-0900	IDEM		

Equipment at the Site: ~~Excavator~~, Trackloader, Compactor, Dozer-Backhoe, Bobcat w/Auger

Construction Activities: Resumed Tank cutting activities

By: [signature] **Title:** Resident Superintendent

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Page 1 of 1 **Pages**

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 037

Date: 10-20-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	37	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	4	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Trackloader Excavator Compactor Dozer Backhoe

Construction Activities: Began setup for construction of side wall barriers on decon pad + Tank cutting

1100 hrs - Sent crew home for the day due to heavy rain

By: [signature] **Title:** Resident Superintendent

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Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2326
REPORT NUMBER 038

Date: 10-21-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	038	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2 1	4	AWD H+S Rep

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Trackhoe, Excavator, Compactor, Dozer, Backhoe

Construction Activities: Began Constructing Splash Shields for decontamination
Overhead Phone lines installed
Resumed tank cutting

By: [signature] **Title:** Resident Superintendent

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Page 1 of 1 **Pages**

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2296
REPORT NUMBER 039

Date: 10-22-93

Day	S	M	T	W	TH	F	S
						F	

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	039	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWJ Technologies	3	4	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Trackloader, Excavator, Compactor Dozer Backhoe

Construction Activities: Continued Construction of waste water Storage Pond Upgrade. General Site Cleanup

By: [signature] **Title:** Resident Superintendent

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Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 040

Date: 10-23-93

Day	S	M	T	W	TH	F	(S)

WEATHER	Bright Sun	(Clear)	Overcast	Rain	Snow
TEMP.	To 32	32-50	(50-70)	70-85	85 up
WIND	(Still)	Moder	High	Report No.	
HUMIDITY	(Dry)	Moder	Humid	040	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
Allied Technologies	1	2	

Visitors

Time	Representing	Representing	Remarks
	Taylor Construction		Inst. pond Liner

Equipment at the Site: Trackloader, Excavator, Compactor, Dozer, Backhoe

Construction Activities: Taylor Const. installed liner for waste water storage pond. Geotextile + #57 Stone placed over liner. Concrete poured in fence post holes

By: [signature] **Title:** Resident Superintendent

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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 041

Date: 10-25-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	041	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies Inc	2	4	Grading/Aggregates wastewater storage pad Splash gaurds (posts)

10 HRS

Visitors

Time	Representing	Representing	Remarks
0900	Hoosier Fence		Fencing (Exclusion Boundary)

Equipment at the Site: Track loader, ~~[illegible]~~, Dozer, Bobcat, Backhoe

Construction Activities:

- AWD placed aggregate around wastewater storage pad
- AWD Initiated cutting of tanks for scrape
- Hoosier Fence place Exclusion Zone Boundary around southern end of site (From N end of Engineer's Trailer to southern existing fence tie in)

By: [signature] Title: Resident Superintendent (Acting)

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3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 042

Date: 10-26-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	042	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	4	Grading / Aggregates Decon Pad Splash Guard Tank cutting

10 Hrs

Visitors Mike Mustain Mike Sofied of Oscar Wienski

Time	Representing	Representing	Remarks
0700	Hoosier Fence		Exclusion Boundary Fence Work
8:45	Oscar Wienski		[redacted] Site Walk (Tanks)

Equipment at the Site: Track Loader, Dozer, Bobcat, Backhoe
Backhoe ~~Bo~~ switched out with delivery of Roller.

Construction Activities:
- Continued placement of geotextile around pads
- Continued Aggregate placement around wastewater storage and "Decon" Pads. Graded and Rolled
- Continued with rough carpentry on "Decon" Pad Splash Guards
- Continued with Tank cutting.

Subcontractor (Hoosier Fencing) placed Exclusion Zone Boundary Fence

By: John W. Harris **Title:** Resident Superintendent (Acting)

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2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2306
REPORT NUMBER 043

Date: 10-27-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No. 043	
HUMIDITY	Dry	Moder	Humid		

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWO Technologies	2	4	Grading/Aggregates "Decon" Guard

10 HRS

Visitors Jim SMITH & William ?

Time	Representing	Representing	Remarks
1330	IDEM		

Equipment at the Site: Front Loader, Dozer, ~~[illegible]~~ Rubber Roller

Construction Activities:
- Fence posts set in wastewater storage pad and South of pad.
- Splash guards on "Decon" pad finalized
- Drums (misc.) moved to concrete pad inside remed. action zone (SOUTHERN SECTION)
- Aggregates (#2 & 53) finished around pads (graded & rolled).

By: John W. Harris **Title:** Resident Superintendent (Acting)

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER ~~[illegible]~~ 2396
REPORT NUMBER 044

Date: 10-28-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No. 044	
HUMIDITY	Dry	Moder	Humid		

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AEVO Technologies	2	4	Tank Cutting Equipment Installation

10 hrs

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Trueflowder, Dozer, Roller

Construction Activities: ~~[illegible]~~ • Tank cutting was re started after "Decon" pad operations completely installed.
• Fire Tank south of wastewater storage pad filled with city water (Trans-chem Water Delivery).
• Fire Tank PLUMBING INSTALLED.

By: John W. Harris **Title:** Resident Superintendent (Acting)

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Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 045

Date: 10-23-93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No. 045	
HUMIDITY	Dry	Moder	Humid		

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	4	Tank cutting Sump stockpiling

8 Hrs

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Trackloader, Dozer, Excavator (EC 220)

Construction Activities: • Tank Cutting (3) completed – Excavator operational
• Tires stock piled South of old process Bldg.

By: [signature] **Title:** Resident Superintendent (Actg.)

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1. Independent CQA Officer
2. ECC Trust's Engineer
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PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 6396
REPORT NUMBER 046

Date: 11/1/93

Day	S	M	T	W	TH	F	S
		(M)					

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moderate	High	Report No. 046	
HUMIDITY	Dry	Moder	Humid		

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies		2	

Visitors

Time	Representing	Representing	Remarks
1200-500	SF Department - AWD		

Equipment at the Site: Trackloader, Dozer, Excavator, Roller

Construction Activities: - Resumed cutting + washing Tanks
- 1st Rolloff Box delivered for scrap

By: [signature] **Title:** Resident Superintendent

Distribution:
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2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2376
REPORT NUMBER 049

Date: 11-2/93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	047	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	3	4	

Visitors

Time	Representing	Representing	Remarks
0730-1500	G Beswick-AWD		

Equipment at the Site: Trackloader, Dozer Excavator, Roller

Construction Activities: Resumed Cutting + Washing tanks

By: J R Fife **Title:** Resident Superintendent

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3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 048

Date: 11/3/93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	048	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	3	4	

Visitors

Time	Representing	Representing	Remarks
1600	T. McKinley (PDC)		
1500	M Dominick - AWD		

Equipment at the Site: Trackloader, Excavator, Dozer, Roller

Construction Activities: Resumed cutting + washing tanks
Stone delivered + placed around process bldg.
Wipe samples taken from suspect PCB tanks

By: [signature] **Title:** Resident Superintendent

Distribution:
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2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 049

Date: 11/4/93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	049	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	4	

Visitors

Time	Representing	Representing	Remarks
0730 -	3 man Crew - Hoosier Fence		Exclusion Zone Fence
0830 -	T. French - Micro-Air		Asbestos Survey

Equipment at the Site: Truck, Excavator, Dozer, Roller

Construction Activities: Resumed cutting + washing tanks
Asbestos survey conducted
Began construction of Exclusion Zone fencing
Demolished Process Bldg
Began segregating rubble for disposal

By: [signature] **Title:** Resident Superintendent

Distribution:
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2. ECC Trust's Engineer
3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER ~~[illegible]~~ 050

Date: 11/5/93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	050	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	4	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Trackloader Excavator Dozer, Roller

Construction Activities: Began Segregating + loading Steel from [illegible]
Completed Removal of original existing fence around drum Storage area

By: [signature] **Title:** Resident Superintendant

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 051

Date: 1/5/97

Day	S	(M)	T	W	TH	F	S

WEATHER	(Bright Sun)	Clear	Overcast	Rain	Snow
TEMP.	To 32	(32-50)	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	051	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	4	

Visitors

Time	Representing	Representing	Remarks
1030	M. Petersen Chgo Hall		
1400	S. de Bartolo - AWD		

Equipment at the Site: Trackloader, Excavator, Dozer, Roller

Construction Activities: Resumed Segregation + load out of scrap/debris
Began installing protective barriers around monitor well casings

By: [signature] **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2376
REPORT NUMBER 052

Date: 11/9/93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	052	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks

Visitors

Time	Representing	Representing	Remarks
0705	M. Petershack – Ch2 MHM		
0905	M. Dunick, S. DeBartolo > AUD		

Equipment at the Site: Trackloader Excavator, Dozer, Roller

Construction Activities: General Site Cleanup • Stone delivered • Geotextile placed in Rip Rap area

By: [signature] **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2376
REPORT NUMBER 053

Date: 11/10/03

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	053	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
Allied Technologies	2	4	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Truck/loader, Excavator, Dozer, Roller

Construction Activities: Cut T33 + Placed Rip Rap
- Cleaned up site + clean pond
- Repaired spray shield

By: [signature] **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. BCC Treat's Engineer
3. Site File

Page 1 of 1 Pages

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2356
REPORT NUMBER 054

Date: 11/ /03

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	054	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	4	

Visitors

Time	Representing	Representing	Remarks
0730	M. Petershack - Ch2 M Hill		

Equipment at the Site: Excavator, Truckloader, Dozer Roller

Construction Activities: Finished cutting last 3 Tanks
- 10 loads of stone delivered
- Fine-graded Support Zone area

By: [signature] **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2096
REPORT NUMBER 055

Date: 11/12/93

Day	S	M	T	W	TH	F	S
						(F)	

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	055	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	✓	✓	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site: Excavator, Trackloader, Dozer, Roller

Construction Activities: Started dismantling the boiler
Decon Trailer removed from site

By: [signature] **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

Page 1 of 1 **Pages**

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 056

Date: 11/15/03

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	056	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	4	

Visitors

Time	Representing	Representing	Remarks
0800	4- Hoosier Fence 2- MSE		

Equipment at the Site: Excavator, Truck Loader, Dozer, Roller

Construction Activities: Continued dispositing the boiler
- Dewatering from Decon pad
- Cleaned out Decon pad sump
- Tool Trailer removed from site
- Began installing permanent outside fencing

By: [signature] **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 057

Date: 11 17 97

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	057	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	3	4	

Visitors

Time	Representing	Representing	Remarks
0830	2 - Hoosier Fence		

Equipment at the Site: Excavator, Trackloader, ~~Dozer~~, Roller, Manlift

Construction Activities: Pumped rainwater off decon pad.
- placed Geotextile in South Corner
- Prepared trailer #333 for demob
- Hoosier Fence installing fence posts (security fence)
- 2 ~~[illegible]~~ men sent home at 1200
- Trailer #333 Removed from site
- 1 Roll off box of Special waste Taken off site
- T. Dormer on site - will take over as Resident Superintendent until Site Closure

By: [signature] **Title:** Resident Superintendent

Distribution:
1. **Independent CQA Officer**
2. **ECC Trust's Engineer**
3. **Site File**

Page 1 of 1 **Pages**

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 058

Date: 11/18/93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	058	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	3	4	

Visitors

Time	Representing	Representing	Remarks
0800 1300	5 - Hoosier Fence		

Equipment at the Site: Excavator, Trackloader, Roller Manuff

Construction Activities: Hoosier Fence completes anchoring all posts for Security fence
- Removed + Staged Transformers - PSI Energy Rep on site to Consult + observe
- Telephone Pole Removed
- Decon Pad Sump Cleaned out
- Boiler Components loaded in RoB's + Staged until disposal approval
- Shipped 5 loads of special waste from outside remedial boundary + 3 loads from inside the remedial Boundary

By: John Donner **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 059

Date: 11/19/93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	059	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	3	4	

Visitors

Time	Representing	Representing	Remarks
0800	4 - Hoover Fence		

Equipment at the Site: Excavator, Tackloader

Construction Activities: Hoover fence Begin Tilling Chain link the N
Starting in N.E. Corner
• Last rolloff of waste loaded • 2 Rolloffs with Boiler debris is
staged outside the temporary fence until disposal is approved. • Walked
Remedial zone with Bob Auto. identified & removed all visual debris
• Began removing temporary Chain link fence
• Began Gross decon of heavy equipment

By: Thomas J Donner **Title:** Resident Superintendant

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2393
REPORT NUMBER 060

Date: 11/22/93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	060	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	1	R. Logeland off

Visitors

Time	Representing	Representing	Remarks
	2 - MSE Survey 4 - Housier Fence		

Equipment at the Site: Trackloader, Excavator

Construction Activities: Last load of special waste Taken off site
- MSE Completed Support zone ~~for final~~ Survey for final A[illegible]
- Housier fence resumed installing Chain link mesh
- Trackloader + Excavator deconned
- Flat Bed Trailer staged for loading exclusion zone fence mat[illegible]

By: Thomas J Donner **Title:** Resident Superintendant

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2093
REPORT NUMBER 061

Date: 11/23/97

Day	S	M	T	W	TH	F	S
			(T)				

WEATHER	Bright Sun	Clear	(Overcast)	Rain	Snow
TEMP.	To 32	32-50	(50-70)	70-85	85 up
WIND	(Still)	Moder	High	Report No.	
HUMIDITY	(Dry)	Moder	Humid	061	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	2	

Visitors

Time	Representing	Representing	Remarks
08:00	3- Hoosier Fence		

Equipment at the Site: Excavator, Truck, Loader

Construction Activities: Resumed dismantling Exclusion Zone fence
- Loaded fencing & material onto flatbed Trailer for shipment to Pgh
- Hoosier Fence resumed installing chain link fence - also installed gate
- Damaged roll off was deemed - Taken off site
- Began Cleaning up decon pad & sump
- Haz Waste disposal (Boiler) has been approved Draft of Manifest sent To B. Autio for review
- Arranged for Hydroseeding to be done Tomorrow

By: Thomas J Dormer **Title:** Resident Supervisor

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2393
REPORT NUMBER 062

Date: 11/24/93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	062	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	2	

Visitors

Time	Representing	Representing	Remarks
0730	3- Hoosier fence		
0930	2 - B George Hydroseed		
1330	2 - PSI Energy		

Equipment at the Site: Excavator, Track loader

Construction Activities: Hoosier fence resumes anchoring chain link to post + rail.
- North Trench Hydroseeded
- Support Lone areas cleared of debris & re-graded
- MW on S.E corner uncovered
- Decon pad Cleaned - 2 Drums of solid + liquid Transferred to Concrete pad
- Supplies + materials sent back to Indy office
- PSI Energy Picked up the 2 Transformers

By: Thomas J Dormer **Title:** Resident Supervisor

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 003

Date: 1/25/03

Day	S	(M)	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	(32-50)	50-70	70-85	85 up
WIND	(Still)	Moder	High	Report No.	
HUMIDITY	(Dry)	Moder	Humid	063	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	1	

Visitors

Time	Representing	Representing	Remarks

Equipment at the Site:

Construction Activities: Exclusion Zone Fencing Picked up + Taken to Pgh

- Polymer Coating Components delivered to site for crack repair in decon pad sump
- Crack in sump was chiseled open + primered
- Scheduled: Power Shut off, Phones Disconnected, Trailer Demobed, Toilet removed
  Roll offs with Boiler Components to be packed up + Decon water to be pumped off + disp
- Excavator + Trackloader Taken off site
- Hay bales purchased for Trenches

By: Thomas J Dormer **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

RESIDENT SUPERINTENDENT'S DAILY REPORT

ECC SITE
ZIONSVILLE, INDIANA
PROJECT NUMBER 2396
REPORT NUMBER 064

Date: 11/30/93

Day	S	M	T	W	TH	F	S

WEATHER	Bright Sun	Clear	Overcast	Rain	Snow
TEMP.	To 32	32-50	50-70	70-85	85 up
WIND	Still	Moder	High	Report No.	
HUMIDITY	Dry	Moder	Humid	064	

Average Field Force

Name of Contractor	Non-manual	Manual	Remarks
AWD Technologies	2	2	

Visitors

Time	Representing	Representing	Remarks
0800	3- Hoosier Fence		

Equipment at the Site:

Construction Activities: Hoosier fence completed installing gate slide bar locks & strung Barbed wire across SE trench
0830 - Clean Harbors on site to pump off Decon water. Can only take 5000 Gal. will take remaining water Tomorrow Morning

By: Thomas A Donner **Title:** Resident Superintendent

Distribution:
1. Independent CQA Officer
2. ECC Trust's Engineer
3. Site File

PROJECT RECORD

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PROJECT RECORD

ECC SUPERFUND SITE
SITE PREPARATION & MATERIAL REMOVAL
ZIONSVILLE, INDIANA

SUBMITTAL REGISTER
REGISTER NO. SPMR (REVISED 9/24/93)

DATE REC'D.	TRANSMITTAL NO.	SPECIFICATION IDENTIFICATION (ITEM NO.)	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF SUBMITTAL	TYPE OF SUBMITTAL: DRAWING	SAMPLE	GUARAN	MFG DATA	CERTIF	TESTRPT	OTHER	NO. COPIES REC'D.	ACTIONS: NO EXCEPTIONS TAKEN	MAKE CORRECTIONS NOTED	REVISE AND RESUBMIT	REJECTED	ACTION ELEMENT: TECH REVIEW BY	CONTRACTOR SCHEDULE DATES: SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	~~INDEPENDENT CQA OFFICER~~ ACTION DATES: SUBMITTED ~~TO~~ ~~INDEPENDENT CQA OFFICER~~	ACTION	DESIGN ENGINEER ACTION DATES: SUBMITTED TO DESIGN ENGINEER	ACTION	REMARKS
	SPMR-001	01390	ALL	Contractor Health and Safety Plan/Contingency and Emergency Response Plan							PLAN	3	X X X				ERM QEM BERNSTEIN	8/9/93	8/12/93	—	8/9/93	APPROVED 8/12/93	—	—	Pre-Approval as requested by Trustees
	SPMR-002	01392	ALL	LABORATORY QUALITY ASSURANCE PLAN							PLAN	3	X X X				ERM QEM BERNSTEIN	8/9/93	8/12/93	—	8/9/93	APPROVED 8/12/93	—	—	Pre-Approval as requested by Trustees
	SPMR-003	01397	ALL	CONTRACTOR SITE MANAGEMENT PLAN							PLAN	3	X X	 X			ERM QEM BERNSTEIN	8/9/93	8/12/93	—	8/9/93	MAKE CORRECTIONS	—	—	Pre-Approval as requested by Trustees
	SPMR-003-A	01397	ALL	CONTRACTOR SITE MANAGEMENT PLAN							PLAN	3	X X X				ERM QEM BERNSTEIN	8/17/93	8/18/93	—	8/17/93	APPROVED FOR SUBMITTAL TO AGENCIES	—	—	Pre-Approval as requested by Trustees
	SPMR 003-B	01397	ALL	CONTRACTOR SITE MANAGEMENT PLAN							PLAN	7		X			TRUSTEES(3) USEPA IDEM QEM CH2M HILL	8/19/93	8/26/93	—	8/19/93	APPROVED 8/23/93 & VENOL LETTER	—	—	FOR APPROVAL BY USEPA AND IDEM
	SPMR-004	01400	ALL	CONTRACTOR QUALITY CONTROL PLAN							PLAN	3	X X X				ERM QEM BERNSTEIN	8/9/93	8/12/93	—	8/9/93	APPROVED 8/12/93	—	—	Pre-Approval as requested by Trustees
	SPMR-005	01050	1.03.A	FIELD ENGINEERING AND SURVEYING SURVEYOR INFORMATION							X	2	X X				ERM QEM	8/24/93	8/26/93	—	8/24/93	APPROVED	—	—	
	SPMR-005-1	01050	1.03.B – 1.03.E	FIELD ENGINEERING AND SURVEYING SURVEYOR CERTIFICATES, NOTES, CALCULATIONS					X		X	2					ERM QEM	AT END OF JOB	—	—					WILL BE SUBMITTED AT END OF JOB
	SPMR-006	01310	1.02.A	PROGRESS SCHEDULES/REPORTS (INITAL SCHEDULE)							X	5	X X X				ERM USEPA QEM IDEM CH2M HILL	8/12/93	8/26/93	—	8/12/93	APPROVED	—	—	SUBMITTED AT PRE-CONSTRUCTION MEETING
	SPMR-007	01310	1.07.A	PROGRESS SCHEDULES/REPORTS (REVISIONS TO SCHEDULE)							X	2					ERM QEM	WEEKLY	WITHIN 1 WEEK AFTER SUBMITTAL	—					TO BE SUBMITTED AT WEEKLY PROGRESS MEETING

BY: J. R. FIFE TITLE: RESIDENT SUPERINTENDENT

DISTRIBUTION: 1. ECC TRUST'S ENGINEER 2. CONTRACTOR QC MANAGER 3. INDEPENDENT CQA OFFICER 4. DESIGN ENGINEER

PROJECT RECORD

ECC SUPERFUND SITE
SITE PREPARATION & MATERIAL REMOVAL
ZIONSVILLE, INDIANA

SUBMITTAL REGISTER

REGISTER NO. SPMR (REVISED 9/24/93)

DATE REC'D.	TRANSMITTAL NO.	SPECIFICATION IDENTIFICATION (ITEM NO.)	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF SUBMITTAL	TYPE OF SUBMITTAL: DRAWING	SAMPLE	GUARAN	MFG DATA	CERTIF	TEST RPT	OTHER	NO. COPIES REC'D.	ACTIONS: NO EXCEPTIONS TAKEN	MAKE CORRECTIONS NOTED	REVISE AND RESUBMIT	REJECTED	ACTION ELEMENT: TECH REVIEW BY	CONTRACTOR SCHEDULE DATES: SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	INDEPENDENT CQA OFFICER ACTION DATES: SUBMITTED ~~TO INDEPENDENT~~ CQA OFFICER	ACTION	DESIGN ENGINEER ACTION DATES: SUBMITTED TO DESIGN ENGINEER	ACTION	REMARKS
	SPMR-008	01310	1.02.A	PROGRESS SCHEDULES AND REPORTS (FINAL SCHEDULE)							X	2					ERM QEM	AT END OF JOB	—	—			—	—	WILL SUBMIT AT END OF JOB
	SPMR-009	01310	1.06.A	PROGRESS SCHEDULES AND REPORTS (MONTHLY PROGRESS REPORT)							X	2					ERM QEM	MONTHLY BY 4th DAY	8th DAY	—			—	—	WILL SUBMIT MONTHLY BY 4th DAY
	SPMR-010	01380	ALL	CONSTRUCTION PHOTOGRAPHS							X	2					ERM QEM	MONTHLY WITH PROGRESS REPORT	8th DAY	—			—	—	WILL SUBMIT WITH MONTHLY PROGRESS REPORT
	SPMR-011	01385	1.03.A, 1.03.B	APPROVALS AND PERMITS							X	2					ERM QEM	9/23/93	9/30/93	ASAP	9/23/93		—	—	
	SPMR-012	01385	1.03.C	APPROVALS AND PERMITS (IDEM SPECIAL WASTE APPLICATION)							X	1					IDEM (Greg Lucas)	9/22/93	ASAP	ASAP	9/22/93		—	—	MET WITH IDEM AND SUBMITTED APPLICATION 9/22/93
	SPMR-013	01390	1.04	HEALTH AND SAFEY (DOCUMENTATION)							X	2					ERM QEM	AS REQUIRED S. WEISHAAR	—	—	AS REQUIRED S. WEISHAAR		—	—	SUBMITTING AS REQUIRED TO QEM, ONSITE REP.
	SPMR-014	01392	ALL	ENVIRONMENTAL QUALITY ASSURANCE (DOCUMENTATION)							X	2					ERM QEM	AS REQUIRED	—	—	AS REQUIRED		—	—	SUBMIT TO QEM PER OCCURRENCE
	SPMR-015	01395	1.02.A	ENVIRONMENTAL CONTROL AND MAINTENANCE (ENVIRONMENTAL CONDITIONS SURVEY REPORT)							X	2					ERM QEM	9/27/93	10/4/93	—			—	—	IN ACCORDANCE WITH ENV. CONTROL AND MAINT PLAN
	SPMR-016	01396	ALL	AIR MONITORING (DOCUMENTATION)							X	2					ERM QEM	AS REQUIRED	—	—			—	—	SUBMIT AS PER AIR MONITORING PLAN
	SPMR-017	01400	1.04	CONTRACTOR QUALITY CONTROL (DOCUMENTATION)							X	2					ERM QEM	AS REQUIRED S. WEISHAAR	—	—	AS REQUIRED S. WEISHAAR				

BY: J.R FIFE TITLE: RESIDENT SUPERINTENDENT

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	SPMR-018-1	01410	1.03.B	TESTING LABORATORY SERVICES (GEOTECHNICAL LABORATORY)							X	2	X X				ERM QEM	9/17/93	ASAP	—	9/17/93	APPROVED 9/21/93	—	—	
	SPMR-018-2	01410	1.03.C	TESTING LABORATORY SERVICES (GEOTEXTILE LAB REPORT)						X		2	X X				ERM QEM	9/22/93	ASAP	ASAP	9/22/93	9/23/93	—	—	
	SPMR-018-3	01410	1.03.B	TESTING LABORATORY SERVICES (CONCRETE LABORATORY)							X	2					ERM QEM	9/27/93	10/4/93	—			—	—	
	SPMR-018-4	01410	1.03.C	TESTING LABORATORY SERVICES (CONCRETE LAB REPORTS)						X		2					ERM QEM	PER CONCRETE POUR	—	—			—	—	WILL SUBMIT PER CONCRETE POUR AS REQUIRED
	SPMR-018-5	01410	1.03.C	TESTING LABORATORY SERVICES (GEOMEMBRANE LAB REPORT)						X		2					ERM QEM	9/27/93	10/4/93	10/4/93			—	—	
	SPMR-019	01410	1.03.C	TESTING LABORATORY SERVICES (ANALYTICAL LAB REPORTS)						X		2					ERM QEM	PER OCCURRENCE	—	—					WILL SUBMIT PER OCCURRENCE
	SPMR-020	01510	1.03.A	UTILITIES (POTABLE WATER CERTIFICATES)					X			2					ERM QEM	10/4/93	10/11/93	10/15/93					WILL SUBMIT A CERTIFICATE WITH EACH NEW LOAD OF WATER
	SPMR-021	01525	1.03.A	PROJECT IDENTIFICATION AND SIGNS (DRAWINGS)	X							2					ERM QEM	10/1/93	10/8/93	10/15/93			—	—	
	SPMR-022	01700	ALL	PROJECT RECORD DOCUMENTS/ CONTRACT CLOSEOUT							X	2					ERM QEM	WITHIN 30 DAYS OF JOB COMPLETION	—	—			—	—	WILL SUBMIT WITHIN 30 DAYS OF JOB COMPLETION
	SPMR-023	02091	1.03	WASTEWATER STORAGE PAD (GEOMEMBRANE)		X		X	X			2					ERM QEM	9/27/93	10/1/93	10/4/93			—	—	

BY: J.R. FIFE TITLE: RESIDENT SUPERINTENDENT

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	SPMR-024	02175	1.04.A	CULVERTS			X	X	X			2					ERM QEM	10/4/93	10/11/93	10/15/93			—	—	
	SPMR-025	02180	1.04.A	MANHOLES (MANHOLE JOINT SEALANT)				X	X			2	X X				ERM QEM	9/10/93	ASAP	ASAP	9/10/93	APPROVED 9/13/93	—	—	
	SPMR-026	02280	1.03	GEOTEXTILES		X		X	X			2	X X				ERM QEM	8/25/93	ASAP	ASAP	8/25/93	APPROVED 8/30/93	—	—	
	SPMR-027	02700	1.03	EROSION CONTROL (SILT FENCE FABRIC)		X		X	X			2					ERM QEM	10/4/93	10/11/93	10/15/93			—	—	
	SPMR-028	02900	1.03.A	OFFSITE TRANSPORTATION AND DISPOSAL (INSURANCES, PERMITS)					X		X	2					ERM QEM	10/11/93	10/15/93	10/18/93			—	—	
	SPMR-029	02900	1.03.B 1.03.C	OFFSITE TRANSPORTATION AND DISPOSAL (WEIGHTICKETS, MANIFESTS)					X		X	2					ERM QEM	PER OCCURRENCE	—	—			—	—	PER OCCURRENCE
	SPMR-030	03200	1.05.A	CONCRETE REINFORCEMENT	X				X		X	2	X X				ERM QEM	9/9/93	9/9/93	ASAP	9/9/93	APPROVED 9/14/93	—	—	
	SPMR-031	03250	1.03	CONCRETE JOINT ACCESSORIES (WATERSTOPS)					X			2	X X				ERM QEM	9/7/93	9/9/93	ASAP	9/9/93	APPROVED CONF. CALL W/TRUSTEES 9/20/93	—	—	VERBAL APPROVAL GIVEN DURING CONF. CALL
	SPMR-032	01390	ALL	CONTRACTOR HEALTH AND SAFETY PLAN/CONTINGENCY ~~AND EMERGENCY PLAN~~							PLAN	2		X X			USEPA IDEM	8/12/93	8/26/93	—	8/12/93	APPROVED 8/23/93 K. VENOL LETTER	—	—	FOR APPROVAL BY USEPA AND IDEM
	SPMR-033	01392	ALL	LABORATORY QUALITY ASSURANCE PLAN							PLAN	2		X X			USEPA IDEM	8/12/93	8/26/93	—	8/12/93	APPROVED 8/23/93 K. VENOL LETTER	—	—	FOR APPROVAL BY USEPA AND IDEM

BY: J.R. FIFE TITLE: RESIDENT SUPERINTENDENT

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	SPMR-034	01400	ALL	CONTRACTOR QUALITY CONTROL PLAN							PLAN	2	X X				USEPA IDEM	8/12/93	8/26/93	—	8/12/93	APPROVED 8/23/93 K VENDL LETTER	—	—	FOR APPROVAL BY US EPA AND IDEM
	SPMR-035	NOT	USED	—																					
	SPMR-036	CONTRACT	ARTICLE 8.2	SCHEDULE OF VALUES							X	2					ERM QEM	8/13/93	—	—	8/13/93				
	SPMR-037	03300	ALL	CAST-IN-PLACE CONCRETE (CONCRETE MIX DESIGN)		Y	O	I	D																WE WILL USE CONCRETE MIX DESIGN AS PER TECH. SPECS.
	SPMR-038	02180	ALL	MANHOLE CAST IRON COMPONENTS NEENAH FOUNDRY ITEMS				X			X	2	X X				ERM QEM	9/9/93	9/9/93	ASAP	9/9/93	APPROVED CONF. CALL W/TRUSTEES 9/20/93	—	—	NEENAH ITEMS ARE EQUAL TO THOSE ITEMS IN TECH. SPECS.
	SPMR-039	03300	2.01.B	CAST-IN-PLACE CONCRETE (HIGH EARLY STRENGTH CEMENT, ASTM C-150, TYPE III)							X	2	X X				ERM QEM	9/20/93	9/21/93	ASAP	9/20/93	9/21/93	—	—	

PROJECT RECORD

BY: J R FIFE TITLE: RESIDENT SUPERINTENDENT

DISTRIBUTION: 1. ECC TRUST'S ENGINEER 2. CONTRACTOR QC MANAGER 3. INDEPENDENT CQA OFFICER 4. DESIGN ENGINEER

E

NICOLON CORPORATION

October 18, 1993

PROJECT RECORD

RE: NICOLON Style S1000
ORDER # 4063
QUANTITY: 2000 Sq.Yd.
SHIP DATE: October 18, 1993
PROJECT NAME : Old Northside Landfil
CUSTOMER ORDER #: HT-31805
JOB #: 8499
BILL OF LADING: 2245,2246

Ms. Colleen Murphy
SLT North America
200 S. Trade Ctr. Pkwy.
Conroe, TX 77385

Dear Ms. Colleen Murphy,

This is to certify that NICOLON S1000 is a 100% polypropylene nonwoven needle-punched fabric. NICOLON S1000 is resistant to degradation due to ultraviolet exposure and resists commonly encountered soil chemicals, insects, mildew and is non-biodegradable. Polypropylene is stable within a pH range of 2 to 13. NICOLON style S1000 conforms to the physical properties listed in the following table:

FABRIC PROPERTY	TEST METHOD	UNITS	M.A.R.V.
Grab Tensile	ASTM D4632	lbs.	
- MD			270
- XMD			270
Grab Elongation	ASTM D4632	%	
- MD			15
- XMD			15
Trap Tear	ASTM D4533	lbs.	
- MD			75
- XMD			75
Puncture	ASTM D4833	lbs.	110
Mullen Burst	ASTM D3786	PSI	430
AOS	ASTM D4751	US Std Sieve	70

Attached are actual test values of rolls in shipment.

Sincerely,

Marshall O. Gaddy

Marshall O. Gaddy
Quality Control Manager

Sworn and subscribed to before me this 18th day of October, 1993.

Vicki Benfield

Notary Public Signature

My Commission Expires Aug. 8, 1997

Nicolon Corporation, P.O. Box 1979 - Cleveland Road, Cornelia, Georgia 30531 (706) 778-9794 FAX. (706) 778-2048

PAGE 1 15:45:59 18 OCT 1993

ROLL.NO	STYLE.	GRAB... TENSILE MACH DIR	GRAB... TENSILE XMACH DIR	GRAB. ELONG MACH DIR	GRAB. ELONG XMACH DIR	TRAP TEAR MACH DIR	TRAP. TEAR XMACH DIR	PUNC TURE	BURST	AOS
026343	S1000	351	369	81	89	120	131	176	613	100
026344	S1000	351	369	81	89	120	131	176	613	100

2 Rows Processed

PROJECT RECORD

NICOLON CORPORATION

CONSPEC
Marketing & Manufacturing Co., Inc.

636 South 66th Terrace
Kansas City, Kansas 66111
Telephone (913) 287-1700
Toll-Free (800) 348-7351

October 12, 1993

AWD Technologies
Penn Center West
Building 3
Suite 300
Pittsburgh, PA 15276

Reference: Enviro-Chem Site
Decontamination Pad
Zionsville, IN

To Whom It May Concern:

As the formulator & manufacturer of Unikote Cure & Seal, Conspec Marketing & Manufacturing Co., Inc. certifies that Unikote Cure & Seal is a styrene acrylate membrane forming curing & sealing compound. After application and solvent evaporation material will represent solid thermoplastic resi. film that is not soluble in water and can not be affected by water or affect water in any way.

Respectfully,

CONSPEC MARKETING & MANUFACTURING CO., INC.

Elizabeth B. Maday

Elizabeth B. Maday
President

adt

#1022

PROJECT RECORD

American Concrete Institute
Construction Specifications Institute
Tilt-Up Concrete Association
American Society for Concrete Construction
Specialty Tools and Fastners Distributors Association

MARTIN MARIETTA AGGREGATES

CENTRAL DIVISION
DISTRICT OFFICE
6340 CASTLEPLACE DRIVE
INDIANAPOLIS, INDIANA 46250
TELEPHONE (317) 842-0744

September 25, 1993

AWD Tech.

Our material meets INDOT specifications.

#53 stone

Bob Cheek

Bob Cheek
Sales Rep.

PROJECT RECORD

#2 Stone
IDOH Gradation

Bob Cheek (cw)

Bob Cheek

MARTIN MARIETTA

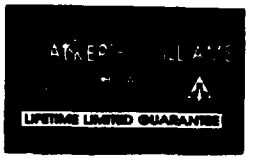
PROJECT RECORD

AWD TECHNOLOGIES

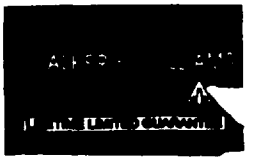
CALCULATION WORKSHEET

CLIENT	FILE NO	BY	PAGE
SUBJECT LUMBER CERTS		CHECKED BY	DATE

ITEM- 1327674 2X4-12' 82
0 87100 01672 8



ITEM- 1327844 2X6-16' 81
0 87100 01730 5



ITEM- 6X6-14' 82
0 87100 02500 3

ITEM- 2X6-10' 81
0 87100 01724 4

ITEM- 1327623
0 87100 01668 1

PROJECT RECORD

INDEPENDENT CONCRETE PIPE CORPORATION

MANUFACTURERS OF

REINFORCED CONCRETE CULVERT, SEWER PIPE, MANHOLES AND BOX CULVERTS

(For Over 70 Years)

Date 10/5/93

CONTRACTOR: AWD

PROJECT RECORD

RE: ENVIRO-CHEM

To Whom It May Concern:

This letter is to certify that the material furnished to the above referenced job will conform to the following specifications.

1. R.C.P. V	ASTM C-76
2. JOINTS	ASTM C-443
3.	ASTM
4.	ASTM
5.	ASTM

Independent Concrete Pipe Corportation

Mike Megal

MIKE MEGAL
PLANT SUPERINTENDENT, INDPLS.

State: IN
City: INDIANAPOLIS
County: MARION

Subscribed and sworn to before me this 6th day of October, 1993.

Notary Public Paul R. Wissler My commission expires 6/7/97
Paul R. Wissler

MAIN OFFICE & PLANT
2050 SOUTH HARDING STREET
P.O. BOX 21007
PHONE 317-262-4920
FAX 317-262-4926
INDIANAPOLIS, IN 46221

MISHAWAKA PLANT
401 SO. BEIGER STREET
MISHAWAKA, INDIANA 46544
PHONE 219-256-5401
FAX 219-256-2704

MAXWELL PLANT
8 JUNCTION ST
MAXWELL, IN 46154
PHONE 317-326-2600
FAX 317-326-4185

January 19, 1994

Mr. Jim Fife
AWD Technologies
Penn Center West
Building 111, Suite 300
Pittsburg, PA 15276

RE: Enviro-Chem Wastewater Pad Liner and Sump

Dear Mr. Fife:

This letter and the enclosed test reports are to serve as certification that the above project was installed and tested in accordance with the project specifications.

The project was completed October 23, 1993. If you have any questions please call.

Sincerely,

Lee Taylor, President
Taylor Construction Services, Inc.

PROJECT RECORD

103 EAST LINCOLN STREET, P.O. BOX 27 DANVILLE, INDIANA 46122 (317) 745-2202

X SEE PRINT INSIDE FOLDER FOR AS BUILT

TAYLOR CONSTRUCTION SERVICES, INC.
CERTIFICATE OF ACCEPTANCE
OF SOIL SUBGRADE SURFACE

PROJECT NAME: ENVIROCHEM

PROJECT NUMBER: 2396-008

OWNER: ENVIROCHEM TRUSTEES

LOCATION: 985 S. US 421 ZIONSVILLE TN

I, the undersigned, a duly appointed representative of Taylor Construction Services (TCS), have visually observed the soil subgrade surface describe below, and found it to be an acceptable surface on which to install geomembrane.

This certificate is based on observations of the surface of the subgrade only. No subterranean inspections or tests have been performed by Taylor Construction Services, and TCS makes no representations or warranties regarding conditions which may exist below the surface of the subgrade. Taylor Construction Services accepts no responsibility for conformance of the subgrade to this project's specifications.

Area Being Accepted: WASTE WATER STORAGE PAD

TAYLOR CONSTRUCTION REPRESENTATIVE:

PROJECT RECORD

Date: 10-23-93

Signature: Terry L Holden

Name: TERRY L HOLDEN

Title: CQC TECH

OWNERS REPRESENTATIVE:

Date: 10/23/93

Signature: Scott Weishaar

Name: SCOTT WEISHAAR

Title: QUALITY CONTROL MANAGER

Company: AWD TECHNOLOGIES

TCS TAYLOR CONSTRUCTION SERVICES

NON-DESTRUCTIVE TESTING FORM

PROJECT NAME: ENVIROCHEM PROJECT NUMBER: 2396-008 MATERIAL DESCRIPTION: 60MIL HDPE

DATE/ TIME	SEAM NO.	TESTER INITIAL	AIR TESTING PRESSURE START	PRESSURE END	PRESSURE +/-	TIME START	TIME END	P/F	VBOX P/F	LOCATION/COMMENTS
10-23-93	1	TLH	32	31	-1	08:48	08:53	P		NORTH SIDE 1ST SHEET
	2	TLH	32	32	—	9:05	9:10	P		

PROJECT RECORD

TSC TAYLOR CONSTRUCTION SERVICES

PANEL PLACEMENT FORM

PROJECT NAME: ENVIROCHEM PROJECT NUMBER: 2396-008 MATERIAL DESCRIPTION: 60 MIL HDPE

DATE/ TIME	PANEL NUMBER	ROLL NUMBER	PANEL LENGTH	PANEL WIDTH	COMMENTS/ PANEL LOCATION
	1S	01	55'	9'	NORTH SIDE OF [illegible]
	2S	01	55'	15'	CENTER
	3S	01	55'	9'	SOUTH SIDE

PROJECT RECORD

TCS TAYLOR CONSTRUCTION SERVICES

DESTRUCTIVE TEST LOG

PROJECT NAME: _____ PROJECT NUMBER: _____ MATERIAL DESCRIPTION: _____

DATE	SAMPLE I.D.	SEAM NO.	MACH NO.	SEAMER INITIALS	PEEL VALUES LBS./INCH						PASS/ FAIL	DATE TO LAB PKG.SLIP NO.	LAB PASS/ FAIL	LOCATION/ COMMENTS
10-23-93	S-1	2S-3S	1510	WM	150	142	147				P	ENVIROCHEM		

PROJECT RECORD

TCS TAYLOR CONSTRUCTION SERVICES

PANEL SEAMING FORM

PROJECT NAME: PROJECT NUMBER: MATERIAL DESCRIPTION:

DATE/ TIME	SEAM NUMBER	PANEL NUMBERS	SEAM LENGTH	SEAMER INITIALS	MACHINE NUMBER	TEMP SETTING	WEATHER	AMBIENT TEMP	DES TEST P/F	COMMENTS
10-23-93 08:40	1	1s-2s	60'	JWM	1510	700°	CLEAR	45°	P	
10-23-93 09:05	2	2s-3s	60'	JWM	1510	700°	?	45°	P	

PROJECT RECORD

TCS TAYLOR CONSTRUCTION SERVICES

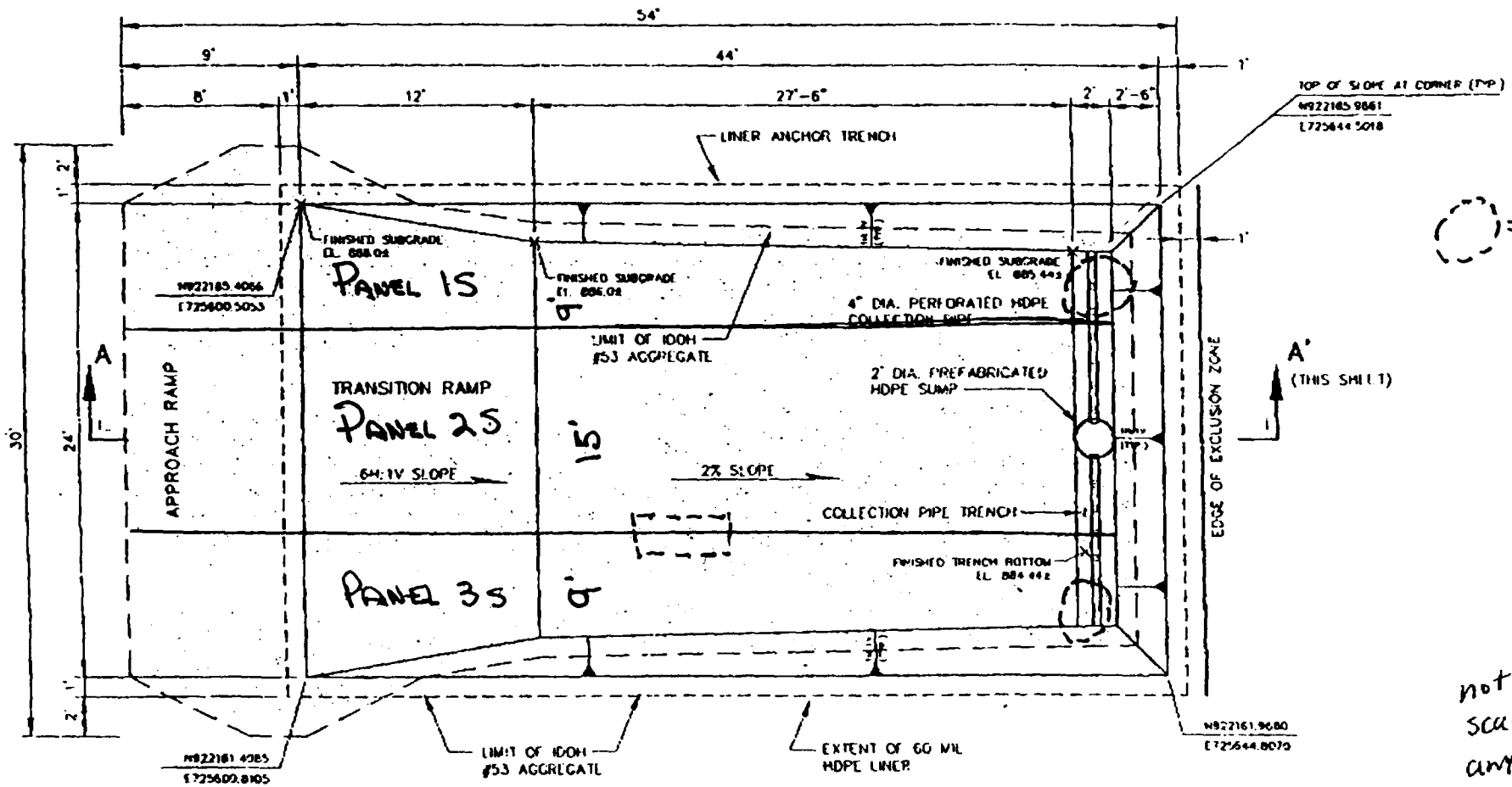
REPAIR REPORT

PAGE___OF___

PROJECT NAME: PROJECT NUMBER: MATERIAL DESCRIPTION:

FIELD SEAM#	PANEL NO.	REPAIR DATE	REPAIR CREW	MACHINE NUMBER	TEST DATE	TEST CREW	TEST P/F	LOCATION/COMMENTS
2	2s-3s	10-23-93	RP TLH JWM	10889531	10-23-93	TLH	P	14'5" [illegible] FROM WEST END OF ANCHOR TRENCH - 6'-8' FROM SOUTH TRENCH. DESTRUCTIVE TEST PATCH
1	1s	10-23-93	RP TLH JWM	10889531	?	?	P→	50"x 24" TO REMOVE CORNER
3	3s	10-23-93	?	?	?	?	P→	SAME AS ABOVE

PROJECT RECORD



= PATCH

not to scale anymore

NOTE

MAXIMUM CAPACITY OF A WASTEWATER STORAGE TANKER TRUCK = 8,000 GALLONS.

(13) (C-3) WASTEWATER STORAGE PAD PLAN

SCALE: 1" = 5'

0 5 10

SCALE IN FEET

SURVEY CONTROL INFORMATION

VERTICAL AND HORIZONTAL CONTROL STATIONS FOR CONSTRUCTION LAYOUT HAVE BEEN LOCATED BY SCHNEIDER ENG. CORP.

HORIZONTAL DATUM IS BASED ON INDIANA STATE PLANE COORDINATE SYSTEM, WEST ZONE - 1927 AND VERTICAL DATUM IS NGVD - 1929.

VERTICAL

TBM #2 RAILROAD SPIKE IN NORTHWEST SIDE OF UTILITY POLE AT THE SOUTHEAST CORNER OF TAYLOR ROAD AND U.S. 421 [illegible]

HORIZONTAL

CP1010 1/2 IN REBAR OF U.S. 421 AND 715 F TAYLOR ROAD (AS MEA U.S. 421) NORTHING 9.

CP1011 5/8 IN REBAR OF U.S. 421 AND 155 I COUNTY ROAD 100 SOU CENTERLINE OF U.S. 4 EASTING 725,268.66

Taylor Construction Services, Inc.
103 E. Lincoln Street
Danville, Indiana 46122

" AS BUILT " 10-23-93

PROJECT RECORD

INDEPENDENT

Mr. Contractor:

An asset to you—speed, ease and cheapness of laying.

A Thought for the Engineer:

Strength, durability and permanency.

Independent Reinforced Concrete Pipe is peculiarly adapatable to unusual laying conditions. It permits speed to be made in installation and affords cheap installation costs. At the same time it permits a permanent sewer to be constructed. *Can it do more?*

Independent Reinforced Concrete Pipe is a profit builder for the contractor and gives a permanent and durable sewer to the community.

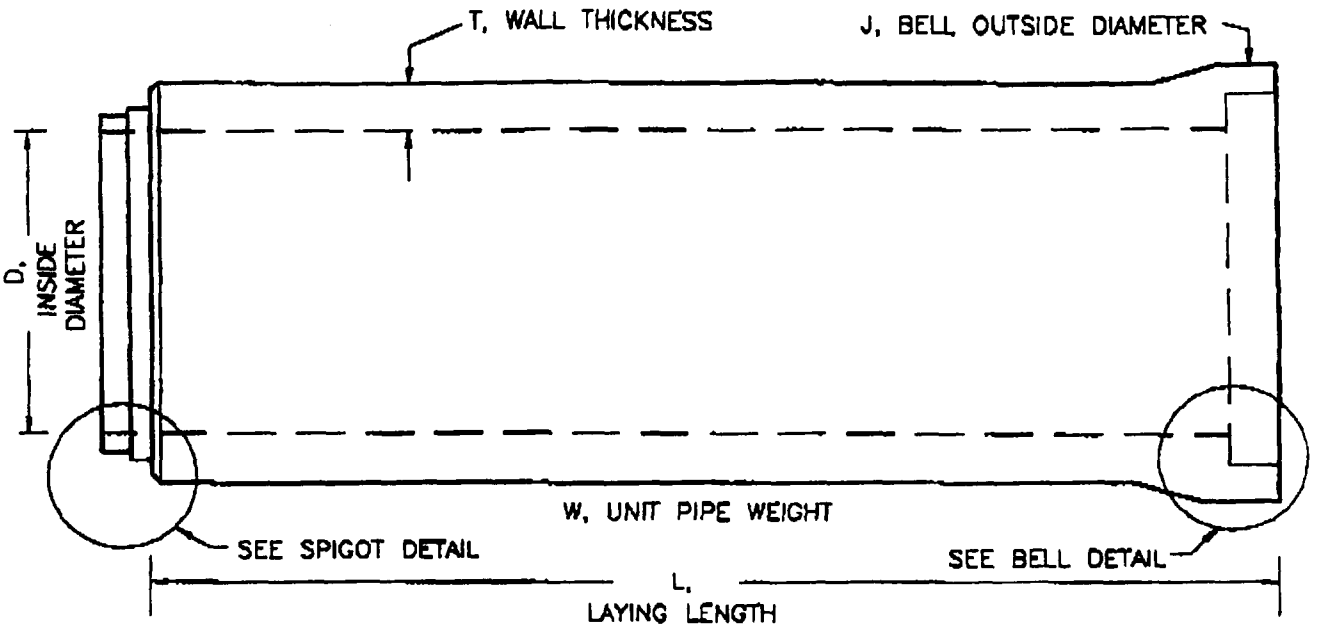
Address:
Independent Concrete Pipe Co.
Indianapolis, Ind.
Sales Agencies in Principal Cities
Phone, Wire or Write for Prices
Our Engineering Dept. at Your Disposal

CONCRETE PIPE

Appearing July 23, 1925 Issue Engineering News Record

PROJECT RECORD

CLASS V R.C.P.



NOTES: ALL REINFORCED CONCRETE PIPE MATERIALS, MANUFACTURE, AND TESTING PROCEEDURES SHALL BE IN ACCORDANCE TO CURRENT A.S.T.M. C-76, C-655, OR DIRECT DESIGN STANDARDS.

ALL PIPE TO BE USED ON SANITARY SEWER APPLICATION PROJECTS WILL BE VACUUM OR HYDROSTATICALLY TESTED TO THE I.C.P.C. CRITERIA.

D (IN.)	T (IN.)	L (FT.)	J (IN.)	W (LB./FT.)
12	c+ 2 7/8	8	20 1/4	148
18	c+ 3 5/8	8	28	246
30	c 4 1/4	8	42 1/2	476

SEE SHEET PD-8 FOR STEEL DESIGN AND D-LOAD FOR PIPE TO BE FURNISHED

ENVIRO-CHEM PROJECT

INDEPENDENT CONCRETE PIPE CORPOPRATION
INDIANAPOLIS - MISHAWAKA - MAXWELL
INDIANAPOLIS PLANT
2050 SOUTH HARDING STREET
P.O. BOX 21007
INDIANAPOLIS, IN 46221
PHONE 317-262-4920
FAX 317-262-4926

TITLE: TYPICAL PIPE DETAIL SINGLE OFFSET SPIGOT FOR PROFILE GASKET OR MASTIC JOINT SPECIAL PROJECT/DESIGN

DATE: 3/1/91
SCALE: N.T.S.
NUMBER: PD-11

PROJECT RECORD

CLASS V R.C.P.

REINFORCED CONCRETE PIPE REINFORCEMENT

REINFORCING STEEL SHALL BE HIGH STRENGTH WIRE WITH A MINIMUM TENSILE YEILD OF 80,000 P.S.I. AREA AND PLACEMENT SHALL BE IN ACCORDANCE TO A.S.T.M. C-76 AND C-655 AND AS SHOWN BELOW.

DIA. (IN.)	D-LOAD .01" (#/LN.FT./DIA.FT.)	INSIDE AREA (IN.^{2}/LN.FT.)	OUTSIDE AREA (IN.^{2}/LN.FT.)
12	3000	0.07	---
18	3000	0.10	---
30	3000	0.18	0.11

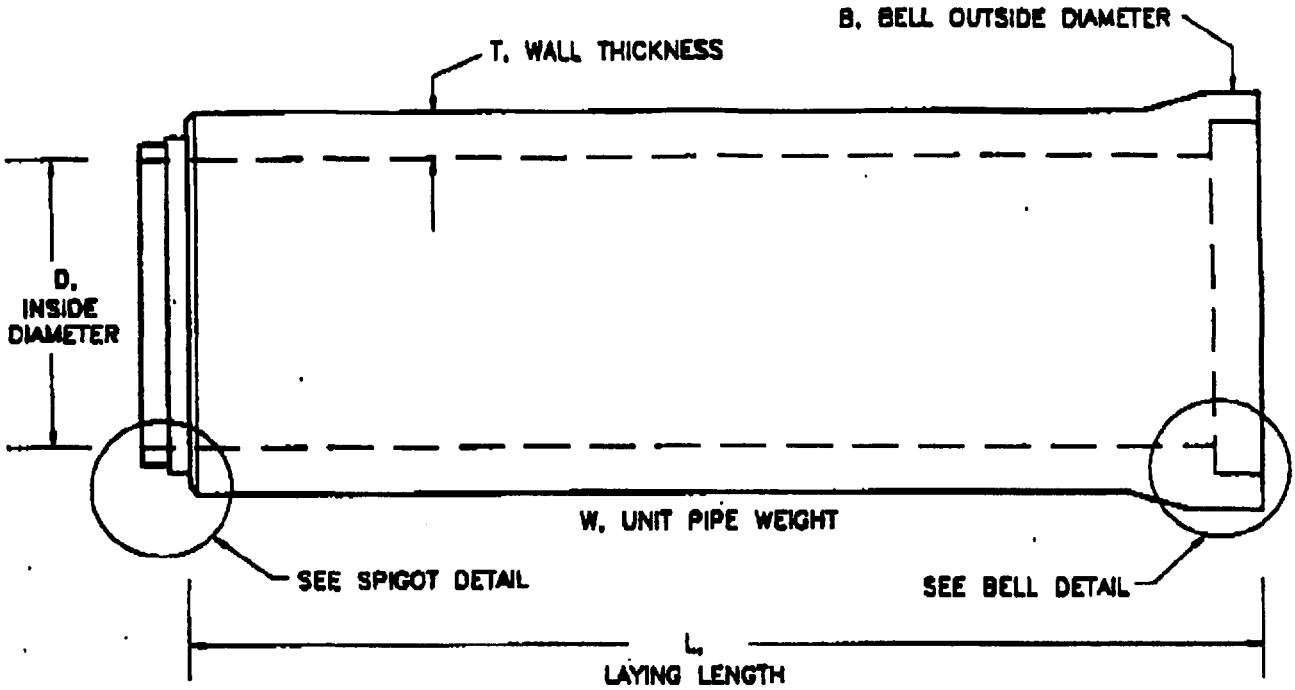
ENVIRO-CHEM PROJECT

INDEPENDENT CONCRETE PIPE CORPOPRATION
INDIANAPOLIS - MISHAWAKA - MAXWELL
INDIANAPOLIS PLANT
2050 SOUTH HARDING STREET
P.O. BOX 21007
INDIANAPOLIS, IN 46221
PHONE 317-262-4920
FAX 317-262-4926

TITLE: SPECIFIC PIPE DETAILS STEEL DESIGN

DATE: 3/1/91
SCALE: N.T.S.
NUMBER: PD-8

PROJECT RECORD



NOTES:

ALL REINFORCED CONCRETE PIPE MATERIALS, MANUFACTURE, AND TESTING PROCEEDURES SHALL BE IN ACCORDANCE TO CURRENT A.S.T.M. C-76, C-655 STANDARDS OR AS SPECIFIED.

ALL PIPE TO BE USED ON SANITARY SEWER APPLICATION PROJECTS WILL BE VACUUM OR HYDROSTATICALLY TESTED TO THE I.C.P.C. CRITERIA.

	D (IN.)	T (IN.)	L (FT.)	B (IN.)	W (LB./FT.)
	12	B 2	8	20 1/4	99
*		C 2 7/8			148
	15	B 2 1/4	8	23 7/8	144
		C 3			178
	18	B 2 1/2	8	28	168
*		C 3 5/8			246
	21	C 3 3/4	8	31 5/8	304
	24	C 3 3/4	8	35 1/2	366
	27	C 4	8	39	420
*	30	C 4 1/4	8	42 1/2	478
	33	C	8		552
	36	C 4 3/4	8	50 1/4	633

"ENDENT CONCRETE PIPE CORPORATION
Indianapolis Plant
2050 S. Harding St.
P.O. Box 21007
Indianapolis, IN 46221
317-282-4920

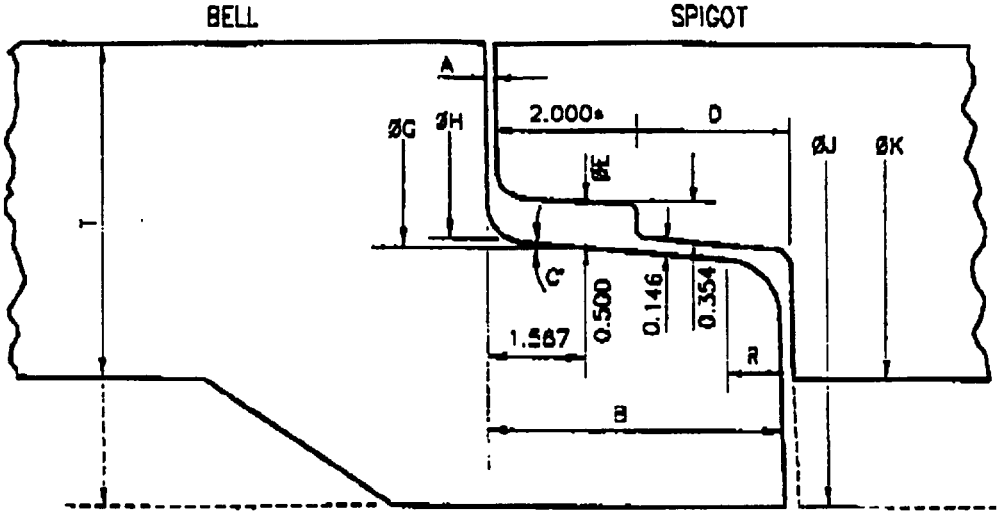
TITLE

TYPICAL PIPE DETAIL
SINGLE OFFSET SPIGOT
FOR PROFILE GASKET OR
MASTIC JOINT
12"-36" DIAMETER

DRAWN
DATE
REVISIONS
NUMBER

PROJECT RECORD

* DIMENSION IS 2.157 FOR 54" Ø AND LARGER



NOTE: SMOOTH WALL JOINT FOR 48" Ø AND LARGER (ØJ = ØK).

DIA.	WALL T	SPIGOT ØK	SPIGOT A	SPIGOT D	SPIGOT ØE	SPIGOT R	BELL ØH	BELL ØJ	BELL B	BELL ØG	BELL C
12	B 2	16.0	.125	1.500	14.338	.750	15.226	20 1/4	3 5/8	15.335	2
*	C+2 7/8	17 3/4	.125	1.500	14.335	.750	15.226	20 1/4	3 5/8	15.335	2
15	B 2 1/4	19 1/2	.157	1.468	17.831	.750	18.722	23 7/8	3 5/8	18.831	2
	C 3	21	.157	1.468	17.831	.750	18.722	23 7/8	3 5/8	18.831	2
18	B 2 1/2	23.0	.157	1.468	21.211	.750	22.102	28.000	3 5/8	22.211	2
*	C+3 5/8	25 1/4	.157	1.468	21.211	.750	22.102	28 000	3 5/8	22.211	2
21	C+3 3/4	28 1/8	.125	1.718	24.711	.875	25.602	31 5/8	3 7/8	28.711	2
24	C 3 3/4	31 1/2	.157	1.718	28.086	.875	28.977	35 1/2	3 7/8	29.086	2
27	C 4	35.0	.157	1.843	31.576	1.000	32.467	39.000	4.000	32.576	2
* 30	C 4 1/4	38 1/2	.157	1.843	35.086	.875	35.977	42 1/2	4.000	36.086	2
33	C 4 1/2	42.0	.157	1.888	38.589	1.250	39.480	46 1/4	4 1/8	39.589	2
36	C 4 3/4	45 1/2	.125	2.000	42.047	1.000	42.938	50 1/4	4 1/8	43.047	2
42	B 4 1/2	51.0	.157	1.843	46.390	.875	46.281	57 1/4	4.000	46.390	2
48	B 5	58.0	.157	1.843	51.890	.875	52.781	58.000	4.000	52.890	2
54	B 5 1/2	65.0	.000	2.843	57.818	.875	58.709	66.000	5.000	58.818	2
60	B 6	72.0	.000	2.843	64.318	.875	65.209	72.000	5.000	65.318	2
66	B 6 1/2	78.0	.000	2.843	70.484	1.250	71.375	79.000	5.000	71.484	2
72	B 7	86.0	.000	2.843	76.984	1.250	77.875	88.000	5.000	77.984	2

DIMENSIONS MAY BE REVISED WITHOUT NOTICE.

INDEPENDENT CONCRETE PIPE CORPOPRATION
INDIANAPOLIS - MISHAWAKA - MAXWELL
INDIANAPOLIS PLANT
2650 SOUTH HARDING STREET
P.O. BOX 21007
INDIANAPOLIS, IN 46221
PHONE 317-262-4920
FAX 317-262-4926

TITLE: TYPICAL JOINT DETAIL SINGLE OFFSET SPIGOT FOR PROFILE GASKET 12"-72" DIAMETER

DATE: 11/14/91
SCALE: N.T.S.
NUMBER: JD-1

PROJECT RECORD

INVENTORY

NSC

GEOMEMBRANE CERTIFICATION

Customer: Taylor Construction Services

Project: Danville, IN

Order Number: 168-12

Ship Date: 12-31-91

Number of Rolls Shipped: 1

Nominal Thickness: 60 mil

We hereby certify that the resin and polyethylene geomembrane for the above identified shipment, meets or exceeds National Seal Company's specifications, attached, and NSF Standard 54 specifications for HDPE geomembrane. The tests listed below in the resin specifications have been performed on each batch of resin. The tests listed below in the geomembrane specifications have been performed at least every 50,000 square feet of geomembrane.

RESIN SPECIFICATIONS

Melt Flow Index	1.0 Maximum
Density	0.94 Minimum
Carbon Black Content	2.0 to 3.0

GEOMEMBRANE SPECIFICATIONS

Thickness	60 mil Minimum
Stress at Yield	2200 psi Minimum
Stress at Break	3800 psi Minimum
Strain at Yield	13% Minimum
Strain at Break	700% Minimum
Carbon Black Dispersion	A1 or A2

Jane Allen

Jane Allen
Quality Control Manager

1-10-92
Date

PROJECT RECORD

INVENTORY

NSC

January 9, 1992

POLYETHYLENE RESIN CERTIFICATE OF ANALYSIS

Customer: Taylor Construction Services

Resin Type: G36-24-149

Project: Danville, IN

Order Number: 168-12

The polyethylene resin referenced above was tested for melt flow index, density and carbon black content. Melt flow index was determined according to ASTM D 1238. Density was determined according to ASTM D 1505. Carbon black content was determined according to ASTM D 1603. The average test results are reported below.

Resin Blend Number	915C
Melt Flow Index (g/10 min)	0.27
Density (g/cm^3)	0.948
Carbon Black Content (percent)	2.28

Jane Allen

Jane Allen
Quality Control Manager

PROJECT RECORD

INVENTORY

NSC

January 9, 1992

GEOMEMBRANE CERTIFICATE OF ANALYSIS

Customer: Taylor Construction Services — Number of Rolls Shipped:1

Project: Danville, IN — Number of Rolls Tested:1

Order Number: 168-12 — Nominal Thickness:60 mil

The geomembrane referenced above was tested for thickness, tensile properties, carbon black dispersion and dimensional stability. Thickness was tested according to ASTM D 751. Tensile properties were tested according to ASTM D 638 using a type IV dumbbell specimen, a strain rate of two inches per minute and grip movement for strain determinations. Carbon black dispersion slides were prepared according to ASTM D 3015 and rated according to the ASTM D 2663 classification chart when viewed under 100X magnification. Dimensional stability was determined according to ASTM D 1204 at 100°C for one hour. The raw polymeric material is first quality polyethylene resin containing no more than 2% clean recycled polymer by weight. The average test results are reported below.

Roll Number		S6L-915C-L2006-B1
Thickness (mils)		61.7
Stress at Yield (psi)	MD	2290
	TD	2390
Stress at Break (psi)	MD	5100
	TD	5210
Strain at Yield (percent)	MD	18.1
	TD	16.6
Strain at Break (percent)	MD	918
	TD	1020
Carbon Black Dispersion		A1
Dimensional Stability	MD	-0.6
	TD	0.0

Jane Allen

Jane Allen
Quality Control Manager

PROJECT RECORD

Master-Halco, Inc.

6755 E. 34TH STREET, INDIANAPOLIS, IN 46226 • TELEPHONE: (317) 545-1303

FEBRUARY 18, 1994

THE HOOSIER COMPANY, INC.
HIGHWAY SAFETY DIVISION
ATTN: JAMES RIVELLI
5421 WEST 86TH STREET
INDIANAPOLIS, IN 46268

PROJECT RECORD

RE: MATERIAL FOR 73-5905 (AWD TECH/ZIONSVILLE LAND FILL)

JIM:

MASTER-HALCO, INC. IS A NATIONWIDE MANUFACTURER AND DISTRIBUTOR OF FENCING PRODUCTS. THE MATERIALS SUPPLIED FOR THE ABOVE NAMED PROJECT WILL CONFORM TO THE FOLLOWING SPECIFICATIONS:

1. CHAINLINK FENCE FABRIC - RR-F-191/1D TYPE 1 2" MESH, 9 GUAGE (.148) WIRE, 1.2 OZ OF ZINK PER SQUARE FOOT.

2. FENCE POST AND RAILS - RR-F-191/3D CLASS 1 GRADE A, SCHEDULE 40, 1.8 OZ OF ZINC PER SQUARE FOOT.

3. FENCE FITTINGS AND ACCESSORIES - RR-F-191/4D ALL GALVANIZED PRESSED STEEL FITTINGS WITH 1.2 OZ OF ZINC PER SQUARE FOOT.

IF YOU HAVE ANY ADDITIONAL QUESTIONS, PLEASE DO NOT HESITATE TO GIVE ME A CALL.

SINCERELY,

Brad Knepper

BRAD KNEPPER
MASTER-HALCO, INC.

NUTEC SUPPLY

"CONSTRUCTION PRODUCTS FOR THE 21ST CENTURY"

NUTEC Nonwoven Silt Fence

Sediment loading can be controlled in creeks, streams, lakes, roadways and storm sewer inlets. With new federal N.P.D.E.S. regulations in place, retaining sediment on site is now more critical than ever. Nutec offers prefabricated silt fences for several different applications. Nutec silt fences meet Task Force 25 requirements.

Since straw bales must be trenched in to perform correctly, silt fences have become a less expensive and more effective method for controlling silt migration. Nutec nonwoven silt fences can be used as a perimeter control, velocity control in swales and storm sewer inlet protectors.

Nutec has addressed the four most critical elements in any silt fence.

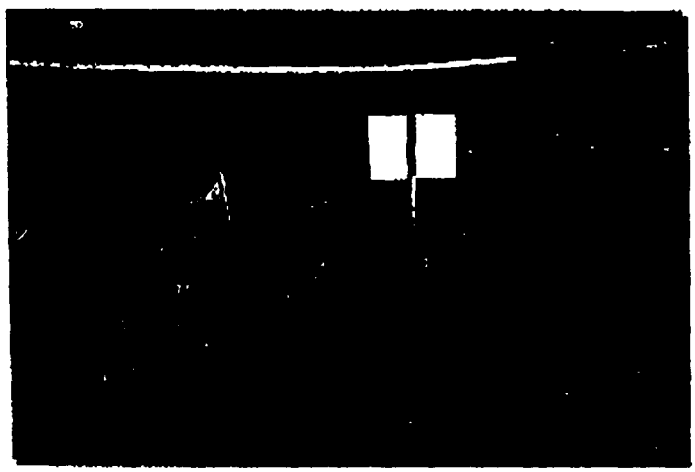
1. **Geotextile Selection**
   Nutec only uses polypropylene, continuous filament, needle punched, nonwoven geotextiles. Nonwoven geotextiles have proven to be superior to wovens in permeability and water flow rates. Instead of impounding water for days or weeks to drop out silts, we feel that it is better to filter the water and retain only the silt.

2. **Staking System**
   Nutec only uses 2" x 2" hardwood stakes on our prefabricated silt fences. They perform better than 1½" x 1½" stakes in a wider range of soil types. They are available in 36" and 48" heights. At Nutec, we place our stakes on 5' centers, instead of 8' or 10' centers. This gives our silt fence better support in more demanding sites.

3. **Fastening System**
   Nutec uses a 24" lath and 1½" staples to affix the geotextile to the stake. This "sandwich" effect distributes point loading that may occur during a storm event. Geotextiles that are attached with only staples often rip, around the staple, and detach from the stake.

4. **Reinforcement** (optional)
   When dealing with concentrated flows or large watersheds, geogrid reinforcement may be required. Nutec uses polypropylene, biaxial geogrids for reinforcement. The geogrid is also "sandwiched" between the stake and the lath. The geogrid is sewn to the geotextile along the top with a single stitch of a polythread.

NUTEC Silt Fence flows better



NUTEC Silt Fence holds more silt

NUTEC Silt Fence cleans more water

800-969-6883
6439 East 30th St. • Indianapolis, IN • 46219 • (317) 546-6340 • FAX (317) 546-6344

PROJECT RECORD

Specifications

3NW

Silt fence shall consist of three (3) parts:

1. 36" wide Geotextile fabric shall be a nonwoven, continuous filament, needle-punched filter fabric machine produced from 100% polypropylene. Geotextile should be designed specifically to retain sediment and remain highly permeable to water. Desired characteristics include small pore size, high U.V. resistance, high permittivity, and a high percent of open area.
2. Stake shall be 2" x 2" x 36" hardwood sharpened to a point on the end. Stakes shall be placed on 5' centers.
3. Wood laths shall be 1/2" " x 2" x 24" and will serve to prevent the Geotextile fabric from tearing away from the stakes.

Assembly

Geotextile shall be attached to wood stakes with wood laths and 1 1/2" staples. The bottom 12" of fabric shall be left unsecured to allow for entrenchment. 3NW Silt Fence shall be manufactured by Nutec Supply or engineer approved equivalent.

Geotextile

Fabric should meet or exceed the following physical, mechanical, and hydraulic specifications.

Structure	Nonwoven	
Polymer	Polypropylene	
Weight	4.5 oz/sys	(ASTM D1777)
U.V. Resistance	> 85%	(ASTM D4355)
Permittivity	3.0 Sec-1	(ASTM D4491)
Water Flow Rate	225 GPM/Sq. Ft.	(ASTM D4491)
Trapezoidal Tear	50 lbs.	(ASTM D4632)
Grab Tensile/Elongation	125 lbs/50%	(ASTM D4632)
AOS (U.S. Sieve)	80-40	(ASTM D4751)
Puncture Resistance	60 lbs.	(ASTM D4833)

3NWR (Reinforced)

Silt fence shall consist of four (4) parts:

1. 36" wide Geotextile fabric shall be a nonwoven, continuous filament, needle-punched, filter fabric machine produced from 100% polypropylene. Geotextile should be designed specifically to retain sediment and remain highly permeable to water. Desired characteristics include small pore size, high U.V. resistance, high permittivity, and a high percent of open area.
2. Stake shall be 2" x 2" x 36" hardwood sharpened to a point on the end. Stakes shall be placed on 5' centers.
3. Wood laths shall be 1/2" x 2" x 24" and will serve to prevent the Geotextile and Geogrid from tearing away from the stakes.
4. Reinforcement shall be 24" wide Polypropylene Geogrid or engineer approved equal.

Assembly

Geogrid reinforcement shall be sewn to the Geotextile across the top with a polyester/cotton thread. Geogrid and Geotextile shall be attached to wood stakes with wood laths and 1 1/2" staples. The bottom 12" of fabric shall be left unsecured to allow for entrenchment. 3NWR Silt Fence shall be manufactured by Nutec Supply or engineer approved equivalent.

Geotextile

Fabric should meet or exceed the following physical, mechanical, and hydraulic specifications.

Structure	Nonwoven	
Polymer	Polypropylene	
Weight	4.5 oz/sys	(ASTM D1777)
U.V. Resistance	> 85%	(ASTM D4355)
Permittivity	3.0 Sec-1	(ASTM D4491)
Water Flow Rate	225 GPM/Sq. Ft.	(ASTM D4491)
Trapezoidal Tear	50 lbs.	(ASTM D4632)
Grab Tensile/Elongation	125 lbs/50%	(ASTM D4632)
AOS (U.S. Sieve)	80-40	(ASTM D4751)
Puncture Resistance	60 lbs.	(ASTM D4833)

Standard Packaging

Style	Roll Length	Geotextile Width	Stake Length	Lath Length	Stake Spacing	Roll Weight
3NW	3' X 50'	36"	36"	24"	5'	27
3NWR	3' X 50'	36"	36"	24"	5'	57
4NW	4' X 50'	48"	48"	36"	5'	37
4NWR	4' X 50'	48"	48"	36"	5'	77

Geogrid

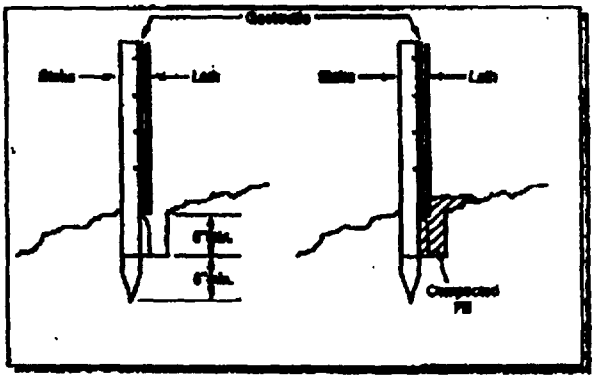
Reinforcement should meet or exceed the following physical and mechanical specifications.

Polymer	Polypropylene	
Weight	0.71 lbs/Sq. Ft.	(ASTM D1777)
Grab Tensile (MD/TD)	980/1170 lbs/Ft.	(ASTM D4595)
% Elongation (MD/TD)	25%/15%	(ASTM D4632)
Junction Strength	890/1080 lbs/Ft.	(GRI-GG2)
Junction Efficiency	90%	(GRI-GG2)

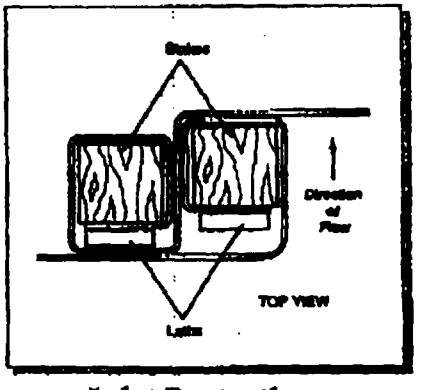
Installation

1. Dig 6" deep trench along proposed fence line (a trenching machine is needed on long runs.)
2. Pound stake in trench 6" - 8" or until secure. Be sure to stretch fabric taut when pounding stakes. (Note: stake must be on the down-hill or downstream side of fence.)
3. Drape loose end of geotextile into trench.
4. Backfill and compact soil on both sides.

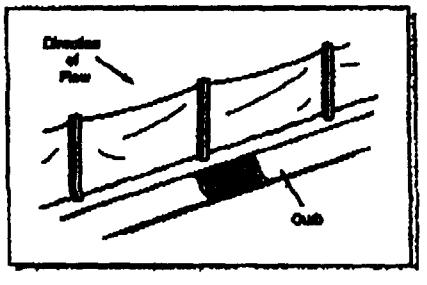
Toe-In Methods



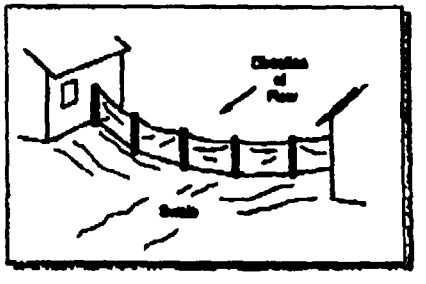
Roll Junctions



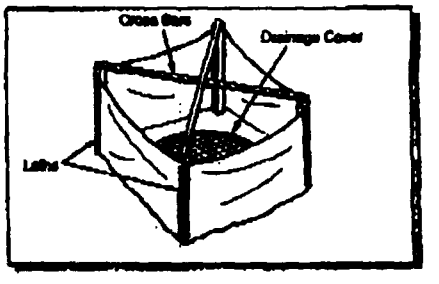
Perimeter Control



Flow Control



Inlet Protection



PROJECT RECORD

PROJECT RECORD

NUTEC SUPPLY

"CONSTRUCTION PRODUCTS FOR THE 21ST CENTURY"

INDIANA DEPARTMENT OF TRANSPORTATION
NON-WOVEN SILT FENCE
CERTIFICATION

This letter is to certify that Nutec 3NW meets the following criteria.

STAKES.....1.5" x 1.5" x 36" Hardwood

LATHES.....5" x 1.5" x 24" Hardwood

GEOTEXTILES

Structure	Non-Woven	
Weight	4.5 oz/sys	(ASTM D3776)
U.V. Resistance	> 85%	(ASTM D4355)
Permittivity	3.0 Sec-1	(ASTM D4491)
Water Flow Rate	225 GPM/Sq.Ft	(ASTM D4491)
Trapezoidal Tear	50 Lbs	(ASTM D4632)
Grab Tensil/Elongation	125 Lbs	(ASTM D4632)
AOS (U.S. Sieve)	80-40	(ASTM D4751)
Puncture Resistance	60 Lbs	(ASTM D4833)

Physical Specification:

Length	50 LF/Roll
Height	36 Inches
Weight	27 Lbs/Roll

The Geotextile is attached to wood stakes with wood laths and 1.5" staples.

This also certifies that 800 L.F. was supplied to the contractor, AWD TECHNOLOGIES for Contract #_____ for_____.

I understand that State and/or Federal Funds and/or services are involved in the work which this material will be used and that any misrepresentation on my part constitutes fraud.

Date

Company Name

STATE OF INDIANA

COUNTY OF MARION

Signature of Company Official

Personally before a Notary Public and for the above said State and County did appear J. Eric Spangler and sign the above Certificate.

Notary Public

Commission Expires

800-969-6883
6439 EAST 30TH ST. • INDIANAPOLIS, IN • 46219 • (317) 546-6340 • FAX (317) 546-6344

Mar. 1 '94 16:23 0000 Instg Prints East TEL 317-356-2663 P. 2

INDEPENDENT CONCRETE PIPE CORPORATION

MANUFACTURERS OF

REINFORCED CONCRETE CULVERT, SEWER PIPE, MANHOLES AND BOX CULVERTS

(For Over 70 Years)

Date: 2/25/94

Contractor: SMOCK AND ASSOC.

PROJECT RECORD

RE: ENVIRO-CHEM

To Whom It May Concern:

This letter is to certify that the material furnished to the above referenced job will conform to the following specifications:

1.	72" MANHOLE	ASTM C-478 (AASHTO M-199)
2.		ASTM
3.		ASTM
4.		ASTM
5.		ASTM

INDEPENDENT CONCRETE PIPE CORPORATION

Mike Megel

MIKE MEGEL PLANT SUPERINTENDENT

State: IN.
City: INDIANAPOLIS
County: MARION

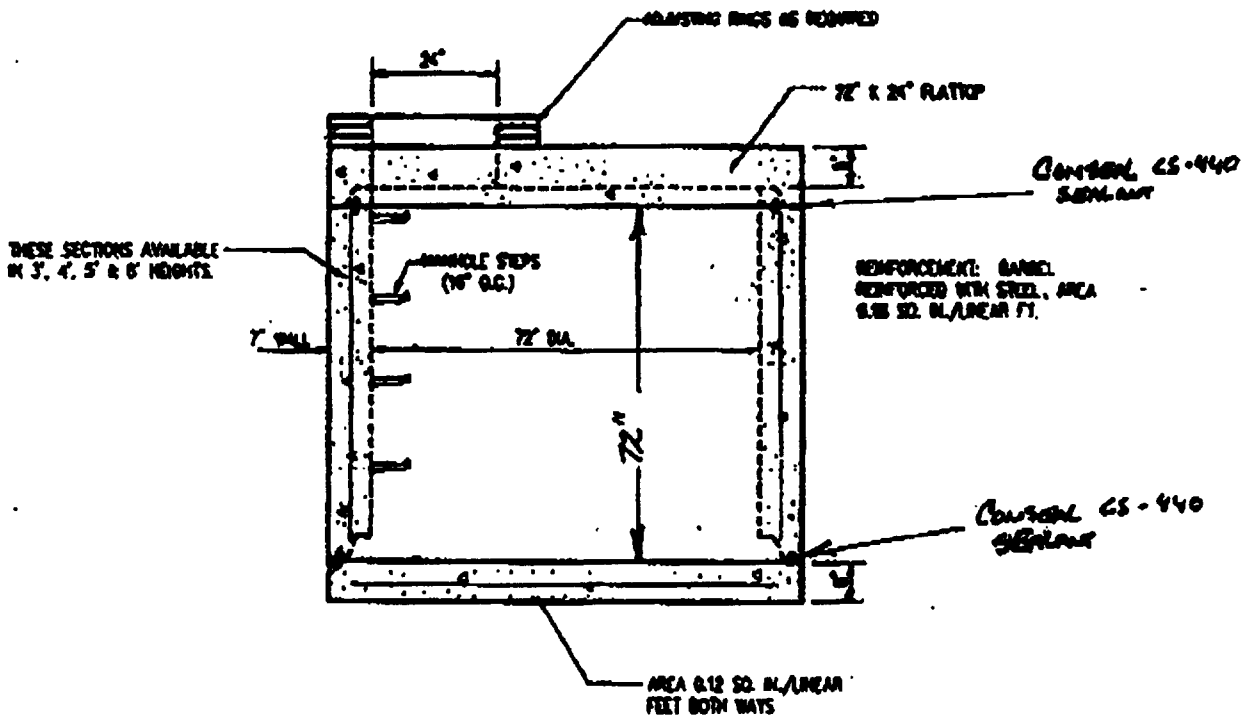
Subscribed and sworn before me this 28th day of February, 19 94.

Notary Public Paul R Wheeler My commission expires 6-7-1997.

MAIN OFFICE & PLANT
2550 SOUTH HARDING STREET
P.O. BOX 21007
PHONE 317-[illegible]-4920
FAX 317-[illegible]-4936
INDIANAPOLIS, IN 46221

MISHAWAKA PLANT
401 SO. BEIDLER STREET
MISHAWAKA, INDIANA 46544
PHONE 219-[illegible]-5491
FAX 219-[illegible]-2704

MAXWELL PLANT
9 JUNCTION ST.
MAXWELL, IN 46164
PHONE 317-[illegible]
FAX 317-[illegible]-4135



PROJECT RECORD

MANHOLE DETAIL
ENVIRO-CHEM SUPER FUND SITE

KENNETH SMOCK ASSOCIATES, INC.
2910 W. MINNESOTA STREET
INDIANAPOLIS, IN 46241
(317) 248-8371
FOR APPROVAL
9-8-93 R.P.E.

NOTES: 1. MANHOLE CONFORMS TO ASTM C-478.
2. TONGUE AND GROOVE JOINT WITH MASTIC, BUTYL ROPE OR GASKETED PER ASTM C-443 AS REQUIRED.

INDEPENDENT CONCRETE PIPE CORPORATION
INDIANAPOLIS - MINNAWAKA - MAXWELL

INDIANAPOLIS PLANT
2050 SOUTH HARDING STREET
P.O. BOX 21007
INDIANAPOLIS, IN 46221
PHONE 317-282-4820
FAX 317-[illegible]

TITLE: 72" MANHOLE TYPICAL DETAIL

DATE: 6/3/91
SCALE: N.T.S.
NUMBER: [illegible]

[illegible] Duty Trench Frames with Grated or Solid Covers

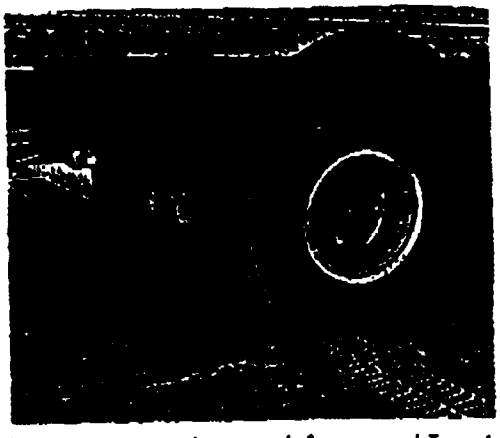
MATERIALS: All frames and grates are furnished standard in Gray Iron, Class 35, for heavy duty use. For extra heavy duty use, see page 170 for Airport Trenches.

IN STOCK

Standard Cover Dimensions

Catalog No.	Dimensions in inches A	B	[illegible]	Weight per lineal foot (without frame) Type A	Type C	Type D	Type E	Type P	Frame**
[illegible]	8	1½	[illegible]	19	22	19	22	25	12
[illegible]	10	1½	[illegible]	24	27	29	27	31	12
[illegible]	12	1½	[illegible]	28	31	40	36	37	12
[illegible]	14	1½	[illegible]	33	35	52	47	45	12
[illegible]	17	1½	[illegible]	39	52	55	49	—	12
[illegible]	20	1½	[illegible]	54	67	70	70	—	12
[illegible]	23	1½	[illegible]	60	77	85	—	—	12
[illegible]	26	1½	[illegible]	71	100	86	—	—	12
[illegible]	30	2	[illegible]	100	120	100	—	—	17
[illegible]	33	2	[illegible]	110	140	150	—	—	17
[illegible]	36	2	[illegible]	120	130	185	—	—	17
[illegible]	39	2	[illegible]	130	200	180	—	—	17
[illegible]	45	2	[illegible]	150	245	210	—	—	17
[illegible]	51	2	[illegible]	190	—	215	—	—	17

*¼" Annular spacing **Weight per foot — includes both sides.



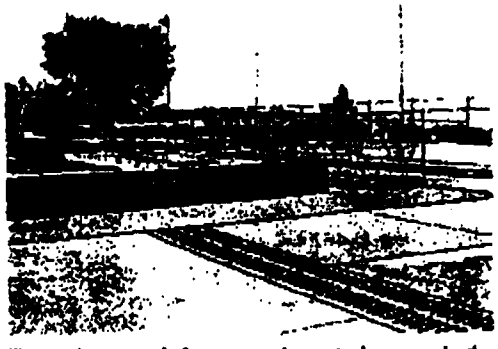
Illustrating heavy duty trench frames and Type A grates to drain loading ramp. Designs in this series are being used successfully in subway construction, intersecting elevated highways and underpasses, airport hangar doors, ramps and other special purposes.

[illegible] Duty Trench Frames with Grated or Solid Covers

Standard Cover Dimensions

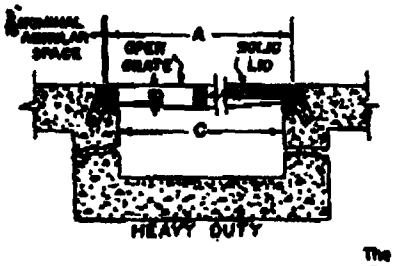
Catalog No.	Dimensions in inches A	B	[illegible]	Weight per lineal foot (without frame) Type A	Type C	Type D	Type E	Type P	Frame**
[illegible]	8	1½	[illegible]	12	15	22	17	—	12
[illegible]	10	1½	[illegible]	14	18	28	27	—	12
[illegible]	12	1½	[illegible]	13	23	34	23	—	12
[illegible]	14	1½	[illegible]	16	22	27	28	—	12
[illegible]	17	1½	[illegible]	29	29	37	38	—	12
[illegible]	20	1½	[illegible]	41	42	42	42	—	12
[illegible]	23	1½	[illegible]	51	51	55	51	—	12
[illegible]	26	1½	[illegible]	44	58	65	63	—	12
[illegible]	29	1½	[illegible]	71	79	74	74	—	12
[illegible]	32	1½	[illegible]	52	90	86	87	—	12
[illegible]	35	1½	[illegible]	120	—	100	105	—	12
[illegible]	38	1½	[illegible]	95	120	110	118	—	12
[illegible]	44	1½	[illegible]	115	155	120	118	—	12
[illegible]	50	1½	[illegible]	135	145	105	110	—	12

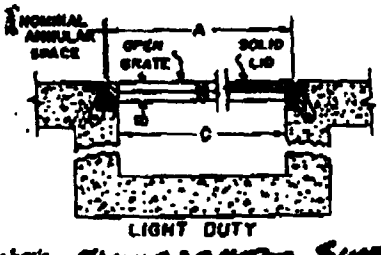
**Weight per foot — includes both sides.



Illustrating trench frames with grated covers in the deck area around a municipal pool.

PROJECT RECORD





The above schematic drawings identify basic dimensions only and do not apply to all cover designs. Bar and rib depths, plate thicknesses, and seating widths, may vary on different sizes and styles. If your project has design restrictions, ask for approval drawings.

UNIVERSAL SYNTHETIC FUND SITE
ZIONSVILLE, IN

KENNETH SMOCK ASSOCIATES, INC.
2910 W. MINNESOTA STREET
INDIANAPOLIS, IN 46241
(317) 248-8371

FOR APPROVAL

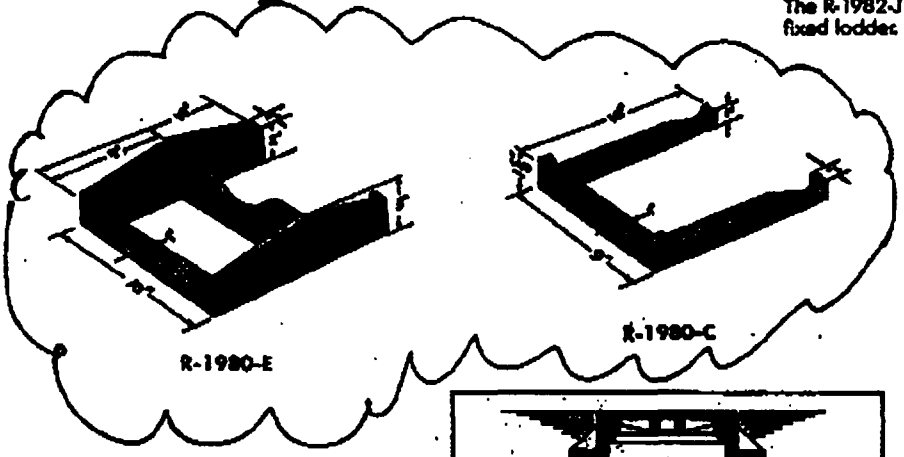
NEENAH FOUNDRY COMPANY

R-1980 — 1-2 Series Cast Iron Manhole Steps

Cast iron manhole steps shown in this series are designed for use in conical shaped sanitary sewer manholes equipped with standard cast iron frames and covers.

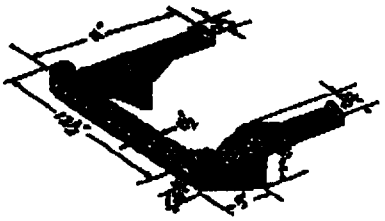
The R-1982-J and the R-1982-W steps can be used as a fixed ladder.

IN STOCK

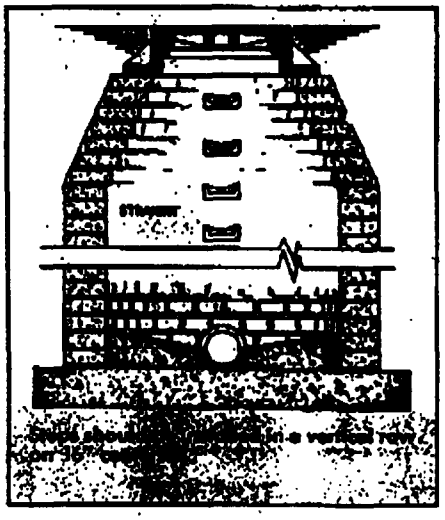


R-1980-E

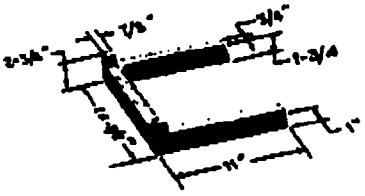
R-1980-C



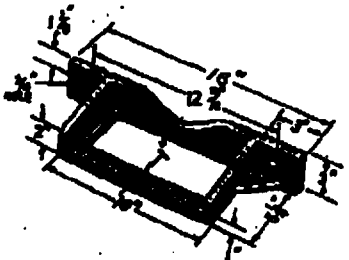
R-1980-I
For Circular Walls



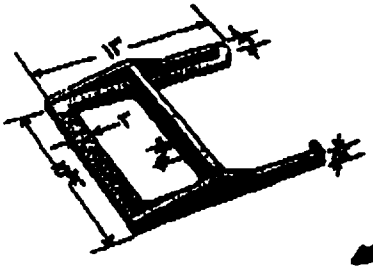
Steps should be installed in a vertical row on 16" centers.



R-1980-J
Heavy Construction

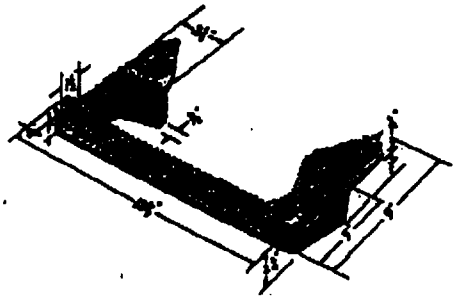


R-1980-T
For Bolting



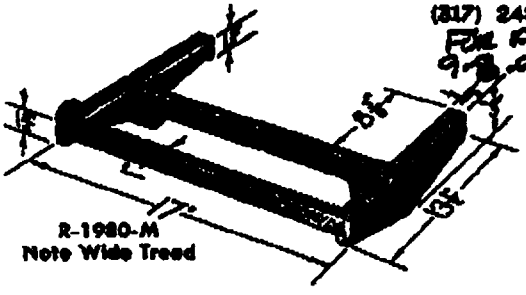
R-1980-O
For Brick or Concrete

Cast iron manhole steps are manufactured from high tensile iron which has a minimum tensile strength of 35,000 lb. per square inch. Actual load tests on castings have shown a generous safety factor. Cast iron steps remain permanently in service because of their inherent corrosion resistant qualities. Cast iron steps are easily installed in concrete, brick or block manholes. The tread is scored to meet safety requirements.

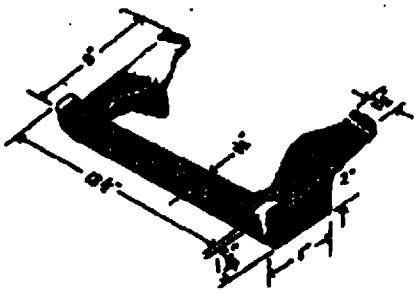


R-1981-IP
For Precast Manhole

ENVIRO-CHEM SUPERFUND SITE
ZIONSVILLE, IN
KENNETH SMOCK ASSOCIATES, INC.
2910 W. MINNESOTA STREET
INDIANAPOLIS, IN 46241
(317) 248-8371
FOR APPROVAL
9-8-93 [illegible]



R-1980-M
Note Wide Tread



R-1981-I
For Precast Manhole

PROJECT RECORD

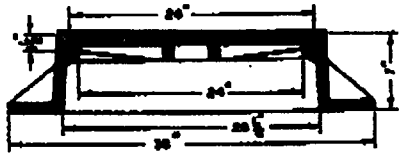
NEENAH FOUNDRY COMPANY

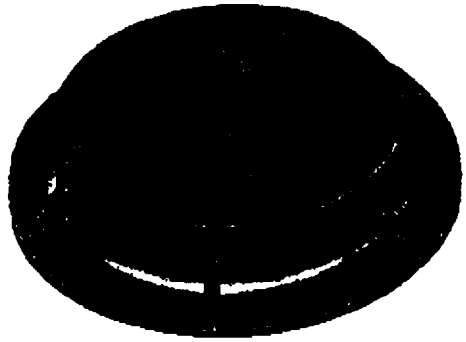
R-1642 Manhole Frame, Solid Lid

Heavy Duty

Total Weight 380 Pounds

IN STOCK



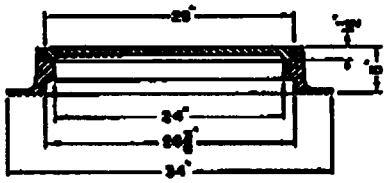


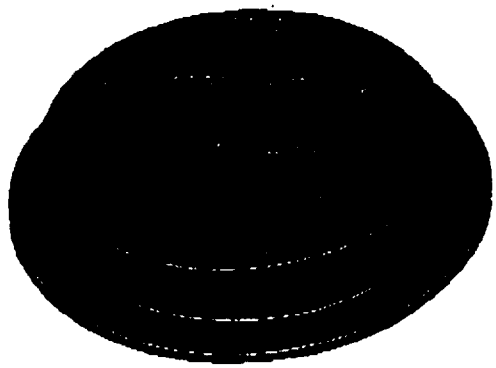
R-1642-1S Manhole Frame, Solid Lid

Heavy Duty

Total Weight 325 Pounds

If application requires flange at top for slab-type installation, order as R-1642-1S.

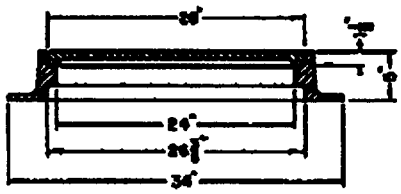


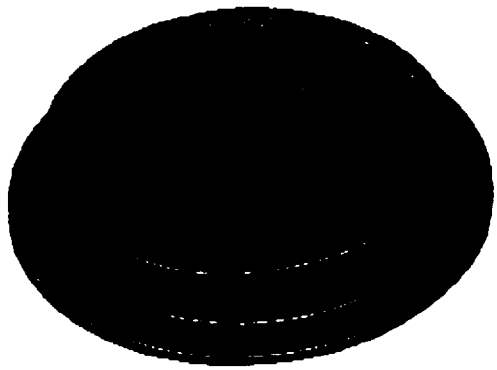


R-1642-A Manhole Frame, Solid Lid

Heavy Duty

Total Weight 325 Pounds



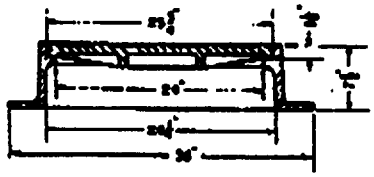


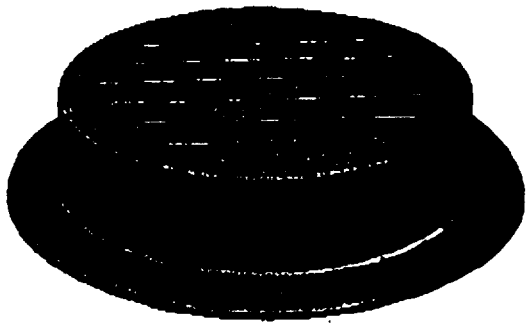
R-1643 Manhole Frame, Solid Lid

Heavy Duty

Total Weight 375 Pounds

ENVIRO-CHEM SUPERFUND SITE
Zionsville, In.
KENNETH SMOCK ASSOCIATES, INC.
2950 W. MINNESOTA STREET
INDIANAPOLIS, IN 46241
(317) 248-8371
9-8-93 [illegible]





PROJECT RECORD

PROJECT RECORD

March 1, 1994

Attn: Dick Etchison
KENNETH SMOCK & ASSOCIATES
2910 West Minnesota
Indianapolis, IN 46241

RE: ENVIROCHEM SUPERFUND SITE-AWD TECHNOLOGIES

Dear Dick:

This letter confirms that the concrete mix design submitted and delivered to the above-referenced project complies with the specifications listed on the mix design dated September 20, 1993.

If there are any questions, please do not hesitate to call me at 921-3184.

Sincerely,

READY MIXED CONCRETE CO.

Jim Phillips
jd

Jim Phillips

JP/jd

1100
BURDSAL
PARKWAY
INDIANAPOLIS
INDIANA
46208
(317) 924-9171

EST. 1931

F

CLIENT: AWD
CLIENT PROJECT: 2396
PROJECT NO.: L93139-01

MATERIAL: NICOLON S1000
16 OZ NONWOVEN GEOTEXTILE
SAMPLE ID.: S-1

PROJECT RECORD

TEST	ASTM METHOD	UNITS	SPECIMEN NO. 1	2	3	4	5	6	7	8	9	10	AVE	STD
MASS/UNIT AREA	D-3776	oz/sy	18.60	18.86									**18.73**	0.13
MULLEN BURST	D-3786	psi	790	830	1100	905	950	750	900	900	870	940	**893.5**	91.7
GRAB STRENGTH	D-4632	MD-lbs	739.5	589.4	586.9	581.5	565.2	514.1	512.1	673.6	717.0	752.4	**623.17**	85.65
		CD-lbs	718.2	732.0	722.0	743.3	711.6	728.7	658.8	709.0	678.9	737.2	**713.97**	25.16
GRAB ELONGATION		MD-%	105	90	95	100	100	85	85	90	100	90	**94.0**	6.6
		CD-%	90	85	85	80	75	85	80	85	80	105	**85.0**	7.7
TRAP TEAR	D-4533	MD-lbs	174.5	191.0	165.8	184.9	207.0	213.1	170.0	167.9	193.8	207.8	**187.58**	16.84
		CD-lbs	259.4	234.4	276.2	272.9	254.7	290.7	280.0	224.5	241.6	194.4	**252.88**	28.02
PUNCTURE	D-4833	lbs	276.3	284.8	287.1	293.1	335.1	304.3	324.1	244.6	228.2	278.8	**288.84**	26.35
			292.6	279.7	305.8	287.5	310.6							
A.O.S.	D-4751	mm	<0.075	<0.075	<0.075	<0.075	<0.075						**<0.075**	
													(>#200 Sieve)	
ABRASION RESIST.	D-3884	lbs-Baseline	191	218	230	215	215						**213.8**	12.67
		lbs-Abraded	177	210	186	211	204						**197.6**	13.66
												RETAINED STRENGTH:	**0.92**	%

rsl:TEXTILE.WKZ

CHECKED BY: RAJ DATE: 11-5-93 (REV)

801 East Maiden Street • Washington, PA 15301 • 412-229-7337 • FAX 412-229-7288

CLIENT: AWD
CLIENT PROJECT: 2396
PROJECT NO.: L93139-03

MATERIAL: NICOLON S1000
NONWOVEN GEOTEXTILE
SAMPLE ID.: S-2

PROJECT RECORD

TEST	ASTM METHOD	UNITS	SPECIMEN NO. 1	2	3	4	5	6	7	8	9	10	AVE	STD
MASS/UNIT AREA	D-3776	oz/sy	11.59	11.30									**11.45**	0.14
MULLEN BURST	D-3786	psi	570	480	455	470	575	515	560	480	555	520	**518.0**	42.7
GRAB STRENGTH	D-4632	MD-lbs	317.2	437.1	470.4	417.5	312.8	315.2	355.5	345.4	432.6	425.2	**382.89**	56.59
		CD-lbs	489.5	354.7	449.8	429.9	363.8	333.9	402.1	402.0	348.9	441.9	**401.65**	48.44
GRAB ELONGATION		MD-%	105	90	95	100	100	85	85	90	100	90	**94.0**	6.6
		CD-%	90	85	85	80	75	85	80	85	80	105	**85.0**	7.7
TRAP TEAR	D-4533	MD-lbs	143.6	104.2	102.6	158.5	130.3	152.5	152.6	128.2	152.6	104.4	**132.95**	21.24
		CD-lbs	144.7	133.8	159.3	161.7	135.2	154.1	121.9	110.9	130.7	125.8	**137.81**	15.94
PUNCTURE	D-4833	lbs	192.1	227.7	223.6	182.0	212.3	191.9	189.1	187.0	169.1	182.2	**191.04**	17.45
			179.3	186.7	163.3	181.9	197.4							
A.O.S.	D-4751	mm	0.097	0.089	0.099	0.097	0.098						**<0.075**	
													(>#200 Sieve)	
ABRASION RESIST.	D-3884	lbs-Baseline	134	162	116	120	161						**138.6**	19.63
		lbs-Abraded	115	146	128	117	119						**125.0**	11.40
												RETAINED STRENGTH:	**0.90**	%

rsl:139GT2.WKZ

CHECKED BY: RAH DATE: 11-6-93

801 East Maiden Street • Washington, PA 15301 • 412-229-7337 • FAX 412-229-7288

PEEL AND SHEAR TEST RESULTS
DESTRUCTIVE SEAM TESTING
ASTM D 4437-84 AND NSF 54,1991

geotechnics

CLIENT: AWD
CLIENT PROJECT 2396
PROJECT NO.: L93139-03
MATERIAL: 60 MIL HDPE
SAMPLE NO.: UNKNOWN
SEAM TYPE: D-FUSION

DATE TESTED: 10-26-93
CHECKED BY: SJL DATE: 10-29-93

PEEL ADHESION

REPLICATE No.	PEAK LOAD (lbs/in)	EPA BREAK CLASSIFICATION CODE	PEEL INCURSION (%)
1	117.6	FTB-SE1	<10
2	117.4	FTB-SE1	<10
3	119.3	FTB-SE1	<10
4	125.9	FTB-SE1	<10
5	109.8	FTB-SE1	<10
AVERAGE	**118.0**		
STD. DEV.	5.14		

PROJECT RECORD

BONDED SEAM (SHEAR) STRENGTH

REPLICATE No.	PEAK LOAD (lbs/in)	EPA BREAK CLASSIFICATION CODE
1	157.4	FTB
2	157.5	FTB
3	158.1	FTB
4	153.6	FTB
5	156.1	FTB
AVERAGE	**156.5**	
STD. DEV.	1.61	

orig - J. Dife
PC - J. Ambrose

801 East Maiden Street • Washington, PA 15301 • 412-229-7337 • FAX 412-229-7288

CONFORMANCE TEST RESULTS

geotechnics

CLIENT: AWD
CLIENT PROJECT: 2396
PROJECT NO.: L93139-02

MATERIAL: 60 MIL HDPE SMOOTH GEOMEMBRANE

SAMPLE I.D. GM-1

TEST	ASTM METHOD	UNITS	SPECIMEN NO. 1	2	3	4	5	AVE	STD
THICKNESS	NSF 54	mils	60.3	63.8	61.9	61.2	65.4		
			62.5	64.9	63.1	65.4	63.1		
			64.2	62.7	63.2	63.1	63.2		
			63.7	62.6	61.6	62.6	62.5		
			61.2	62.4	62.7	61.5	62.5	62.85	1.23
								MIN = 60.3	
DENSITY	D-1505	g/cm^3	0.947	0.946	0.947			0.947	0.00
CARBON BLACK CONTENT	D-1603	%	2.40	2.39				2.40	0.00
CARBON BLACK DISPERSION	D-2663 NSF 54	RATING	A-2	A-1	A-1	A-1	A-1	A-1	
MELT INDEX	D-1238(E)	g/10 min	0.193	0.196	0.195			0.195	0.00
ENSILE PROPERTIES	D-638 TYPE IV								
TRENGTH AT YIELD	M.D.	ppi	161.2	158.0	166.0	153.2	156.8	159.04	4.32
	C.D.	ppi	159.2	156.8	156.4	166.8	158.8	159.60	3.76
STRAIN AT YIELD	M.D.	%	18	17	17	18	18	17.8	0.6
	C.D.	%	17	18	18	18	18	18.0	0.4
TRENGTH AT BREAK	M.D.	ppi	322.0	284.0	277.6	292.4	270.0	289.20	17.98
	C.D.	ppi	287.2	299.2	254.4	268.0	279.2	277.60	15.44
STRAIN AT BREAK	M.D.	%	764	692	676	700	676	701.6	32.6
	C.D.	%	780	796	688	700	772	747.2	44.3

139HDPE

CHECKED BY: SK DATE: 10-18-95

PROJECT RECORD

MT MIDWEST TESTING INC.

"Testing and Inspection Services for the Construction Industry"

REPORT OF TESTS OF 6" X 12" CONCRETE CYLINDERS

nt AWD Technologies

ıtractor

ıect Enviro-Chem, Boone County, IN — Report No 3345.29

ation Of Placement Decon Pad

ate Made	10/1/93	Cement Brand	Type
ylinder Group No		Fine Agg Source	
ɔ. of Cyls in Set	4	Coarse Agg Source	
ɔecified Strength		Type of Mixing	Transit
me Sampled	7:05 A.M.	Batch Size	6.0 Cu. Yds.
'eather & Temp	53	Batch Weights-SSD or Scale:	
ɜmperature of Concrete	68	Cement	
ɔncrete Furnished By	IMI	Fine Agg	
ruck No. 341	Ticket No 1168328	Coarse Agg.	
eld Cure		Water	
ump 3.25"	Air Content N/A	Admixture	
ype of Mix	5.5 Bag, N/A, Gravel Type II *		
yl. Made By	Tim Hagerty		
formation Reported By	Tim Hagerty		

PROJECT RECORD

eld Sample No.						
aboratory No.	3345A	3345B	3345C	3345D		
ge to be Tested. Days	7	14	28	Hold		
ate Received	10/4/93	10/4/93	10/4/93	10/4/93		
ate Tested	10/8/93	10/15/93	10/29/93	Hold		
ge When Tested. Days	7	14	28	Hold		
ondition	Good	Good	Good	Good		
/eight. Lbs						
ype of Break	1					
otal Load. Lbs.	115500					
nit Load. PSI	4085					
pecified Strength						

ɔe of Break: 1-Cone; 2-Cone Shear; 3-Shear; 4-Split

marks:
* Hi Early

Respectfully submitted.
Midwest Testing. Inc.

BY Jerry Libby

2251 North Dequincy. Suite E • Indianapolis IN 46218 • (317) 547-4460

MT MIDWEST TESTING INC.

"Testing and Inspection Services for the Construction Industry"

REPORT OF TESTS OF 6" X 12" CONCRETE CYLINDERS

nt AWD Technologies

ntractor Kenneth Smock & Associates, Inc.

ject Enviro-Chem, Boone County, IN Report No. 3363.29

ation Of Placement East and West Sides and Center Slab Section

ate Made	10/14/93	Cement Brand	Type
ylinder Group No.		Fine Agg. Source	
o. of Cyls. in Set	3	Coarse Agg. Source	
pecified Strength	3500 P.S.I.	Type of Mixing	Transit
me Sampled	8:25 A.M.	Batch Size	
eather & Temp.	47	Batch Weights-SSD or Scale:	
emperature of Concrete	60	Cement	
oncrete Furnished By	Ready Mixed Concrete	Fine Agg.	
uck No. 68	Ticket No. 1170066	Coarse Agg.	
eld Cure	1-Day	Water	
ump 7.0"	Air Content 1.4%	Admixture	Super Plasticizer
ype of Mix	5.5 Bag, Gravel, Type III		
yl. Made By	Jerry Libby		
formation Reported By	Jerry Libby		

eld Sample No.						
aboratory No.	3363A	3363B	3363C			
ge to be Tested, Days	7	28	28			
ate Received	10/15/93	10/15/93	10/15/93			
ate Tested	10/21/93	11/11/93	11/11/93			
ge When Tested, Days	7	28	28			
ondition	Good	Good	Good			
eight, Lbs.						
ype of Break	1	1	1			
otal Load, Lbs.	127000	134500	138000			
nit Load, PSI	4492	4757	4881			
pecified Strength		3500	3500			

e of Break: 1-Cone; 2-Cone Shear; 3-Shear; 4-Split

marks:

NOV 1993 RECEIVED

PROJECT RECORD

Respectfully submitted,
Midwest Testing, Inc.

BY Tim Hagerty

North Dequincy, Suite E • Indianapolis, IN 46218 • (317) 547-4460

MT MIDWEST TESTING INC.

"Testing and Inspection Services for the Construction Industry"

REPORT OF TESTS OF 6" X 12" CONCRETE CYLINDERS

nt AWD Technologies

tractor

ect Enviro-Chem, Boone County, IN Report No. 3363.29

ation Of Placement East and West Sides and Center Slab Section

ate Made	10/14/93	Cement Brand	Type
linder Group No		Fine Agg. Source	
. of Cyls. in Set	3	Coarse Agg. Source	
ecified Strength	3500	Type of Mixing	Transit
ne Sampled	8:25 A.M.	Batch Size	
eather & Temp	47	Batch Weights-SSD or Scale:	
mperature of Concrete	60	Cement	
ncrete Furnished By	Ready Mixed Concrete	Fine Agg.	
uck No. 68	Ticket No. 1170066	Coarse Agg.	
eld Cure	1-Day	Water	
ump 7.0"	Air Content 1.4%	Admixture	Super Plasticizer
pe of Mix	5.5 Bag, Gravel, Type III		
l. Made By	Jerry Libby		
ormation Reported By	Jerry libby		

eld Sample No.						
boratory No.	3363A	3363B	3363C			
e to be Tested, Days	7	28	28			
ate Received	10/15/93	10/15/93	10/15/93			
ate Tested	10/21/93	11/11/93	11/11/93			
e When Tested, Days	7	28	28			
ndition	Good	Good	Good			
eight, Lbs.						
pe of Break	1					
tal Load, Lbs.	127000					
it Load, PSI	4492					
ecified Strength		3500	3500			

e of Break: 1-Cone; 2-Cone Shear; 3-Shear; 4-Split

arks:

PROJECT RECORD

Respectfully submitted,
Midwest Testing, Inc.

BY Tim Hagerty

2251 North Dequincy, Suite E • Indianapolis, IN 46218 • (317) 547-4460

MT MIDWEST TESTING INC.

"Testing and Inspection Services for the Construction Industry"

REPORT OF TESTS OF 6" X 12" CONCRETE CYLINDERS

nt AWD Technologies

tractor

ect Enviro-Chem, Boone County, IN Report No. 3358.29

ation Of Placement Decon Pad

ate Made	10/8/93	Cement Brand	Type
linder Group No.		Fine Agg Source	
. of Cyls. in Set	3	Coarse Agg Source	
ecified Strength		Type of Mixing	Transit
me Sampled	2:10 P.M.	Batch Size	9.0 Cu. Yds.
eather & Temp	Partly Cloudy 81	Batch Weights-SSD or Scale:	
mperature of Concrete	78	Cement	
oncrete Furnished By	IMI	Fine Agg	
uck No. 228	Ticket No. 11169465	Coarse Agg	
eld Cure	5-Day	Water	
ump 7.5"	Air Content 1.0%	Admixture	A.E.A.
pe of Mix	5.5 Bag, N/A, Gravel Type III*		Super Plasticizer
l. Made By	Tim Hagerty		
ormation Reported By	Tim Hagerty		

eld Sample No.						
boratory No.	3358A	3358B	3358C			
ge to be Tested, Days	7	14	28			
ate Received	10/13/93	10/13/93	10/13/93			
ate Tested	10/15/93	10/22/93	11/5/93			
ge When Tested, Days	7	14	28			
ondition	Good	Good	Good			
eight, Lbs.						
pe of Break	2	1				
tal Load, Lbs.	79000	136000				
it Load, PSI	2794	4810				
ecified Strength						

e of Break: 1-Cone; 2-Cone Shear; 3-Shear; 4-Split

PROJECT RECORD

arks: * High Early Super Plasticizer
2nd Load #67, Trk. #1169484 S-7" AE 1.5%
3rd Load #229, Trk. #1169494 S-6" AE 1.0%
4th Load #68, Trk. #1169502 S-6" AE 2.0%
5th Load #61, Trk. #4169519 S-7" AE 1.2%

Respectfully submitted,
Midwest Testing, Inc.

BY Tim Hagerty

2251 North Dequincy, Suite E • Indianapolis, IN 46218 • (317) 547-4460

MT MIDWEST TESTING INC

"Testing and Inspection Services for the Construction Industry"

REPORT OF TESTS OF 6" X 12" CONCRETE CYLINDERS

nt AWD Technologies

tractor

ect Enviro-Chem, Boone County, IN Report No. 3358.29

ation Of Placement Decon Pad

ite Made	10/8/93	Cement Brand	Type
linder Group No.		Fine Agg. Source	
. of Cyls. in Set	3	Coarse Agg. Source	
ecified Strength		Type of Mixing	Transit
ne Sampled	2:10 P.M.	Batch Size	9.0 Cu. Yds.
eather & Temp.	Partly Cloudy 81	Batch Weights-SSD or Scale:	
mperature of Concrete	78	Cement	
ncrete Furnished By	IMI	Fine Agg.	
uck No. 228	Ticket No. 11169465	Coarse Agg.	
eld Cure	5-Day	Water	
ump 7.5"	Air Content 1.0%	Admixture	A.E.A.
pe of Mix	5.5 Bag, N/A, Gravel Type III *		Super Plasticizer
l. Made By	Tim Hagerty		
ormation Reported By	Tim Hagerty		

eld Sample No.					
boratory No.	3358A	3358B	3358C		
e to be Tested, Days	7	14	28		
ite Received	10/15/93	10/15/93	10/15/93		
ite Tested	10/15/93	10/22/93	11/5/93		
e When Tested, Days	7	14	28		
ndition	Good	Good	Good		
eight, Lbs.					
pe of Break	2	1	1		
tal Load, Lbs.	79000	136000	140500		
it Load, PSI	2794	4810	4969		
ecified Strength					

e of Break: 1-Cone; 2-Cone Shear; 3-Shear; 4-Split

PROJECT RECORD

arks: * High Early Super Plasticizer
2nd Load #67, Tck. #1169484 S-7" AE 1.5%
3rd Load #229, Tck. #1169494 S-6" AE 1.0%
4th Load #68, Tck. #1169502 S-6" AE 2.0%
5th Load #61, Tck. #4169519 S-7" AE 1.2%

Respectfully submitted,
Midwest Testing, Inc.

BY Tim Hagerty

2251 North Dequincy, Suite E • Indianapolis, IN 46218 • (317) 547-4460

MT MIDWEST TESTING INC.

"Testing and Inspection Services for the Construction Industry"

REPORT OF TESTS OF 6" X 12" CONCRETE CYLINDERS

nt AWD Technologies

tractor

ect Enviro-Chem, Boone County, IN Report No. 3360.29

ation Of Placement Slab Sections: North End Center, Center *

ate Made	10/13/93	Cement Brand	Type
linder Group No.		Fine Agg. Source	
. of Cyls. in Set	3	Coarse Agg. Source	
ecified Strength	3500 P.S.I.	Type of Mixing	Transit
me Sampled	8:40 A.M.	Batch Size	8.0 Cu. Yds.
eather & Temp.	46	Batch Weights-SSD or Scale:	
mperature of Concrete	61	Cement	
oncrete Furnished By	Ready Mixed Concrete	Fine Agg.	
uck No.	67 Ticket No. 1169896	Coarse Agg.	
eld Cure	1-Day	Water	
ump	6.0" Air Content 1.5%	Admixture	
pe of Mix	3500 H.E./NA		
l. Made By	Jerry Libby		
ormation Reported By	Jerry Libby		

eld Sample No.						
boratory No.	3360A	3360B	3360C			
e to be Tested, Days	7	14	28			
ate Received	10/14/93	10/14/93	10/14/93			
ate Tested	10/20/93	10/27/93	11/10/93			
e When Tested, Days	7	14	28			
ondition	Good	Good	Good			
eight, Lbs.						
pe of Break	1	1	1			
tal Load, Lbs.	130000	138500	143000			
it Load, PSI	4598	4898	5058			
ecified Strength						

e of Break: 1-Cone; 2-Cone Shear; 3-Shear; 4-Split

PROJECT RECORD

narks: * East and West Sections, South End Center

Respectfully submitted,
Midwest Testing, Inc.

BY Tim Hagerty

2251 North Dequincy, Suite E • Indianapolis, IN 46218 • (317) 547-4460

RECEIVED OCT 1993

MT MIDWEST TESTING INC.

"Testing and Inspection Services for the Construction Industry"

REPORT OF TESTS OF 6" X 12" CONCRETE CYLINDERS

nt AWD Technologies

tractor

ect Enviro-Chem, Boone County, IN Report No. 3360.29

ation Of Placement Slab Sections: North End Center, Center, East and West Sections, *

ate Made	10/13/93	Cement Brand	Type
ylinder Group No.		Fine Agg. Source	
o. of Cyls. in Set	3	Coarse Agg. Source	
pecified Strength	3500	Type of Mixing	Transit
me Sampled	8:40 A.M.	Batch Size	8.0 Cu. Yds.
eather & Temp.	46	Batch Weights-SSD or Scale:	
emperature of Concrete	61	Cement	
oncrete Furnished By	Ready Mixed Concrete	Fine Agg.	
ruck No. 67	Ticket No. 1169896	Coarse Agg.	
ield Cure	1-Day	Water	
lump 6.0"	Air Content 1.5%	Admixture	
ype of Mix	3500 H.E./N.A.		
yl. Made By	Jerry Libby		
nformation Reported By	Jerry libby		

ield Sample No.						
aboratory No.	3360A	3360B	3360C			
ge to be Tested, Days	7	14	28			
ate Received	10/14/93	10/14/93	10/14/93			
ate Tested	10/20/93	10/27/93	11/10/93			
ge When Tested, Days	7	14	28			
ondition	Good	Good	Good			
eight, Lbs.						
ype of Break	1					
otal Load, Lbs.	130000					
nit Load, PSI	4598					
pecified Strength						

pe of Break: 1-Cone; 2-Cone Shear; 3-Shear; 4-Split

PROJECT RECORD

emarks: * South End Center

Respectfully submitted,
Midwest Testing, Inc.

BY Tim Hagerty

2251 North Dequincy, Suite E • Indianapolis, IN 46218 • (317) 547-4460

QUALITY ANALYTICAL LABS, INC.

Project #: 932161
Date : 11/29/93

Clean Harbors (Midwest)
Environmental Services Co.
11800 S. Stony Island Ave.
Chicago, IL 60617

ATTN: Cne' Doran

Sampling Date: 11/16/93
Analyses Date: 11/22-24/93

Identification: One sample taken by T. Crippen identified as:

PROJECT I.D.: BC333031
PROJ./P.O. #IN5122

Results follow:

Sample ID: U09077

TCLP METALS
Method: SW-846 6010 & 7470

Parameter	PQL (mg/L)	Analysis (mg/L)
Arsenic	0.10	U
Cadmium	0.01	U
Chromium	0.02	U
Lead	0.10	U
Selenium	0.20	U
Silver	0.02	U
Barium	0.01	0.15
Mercury	0.0005	U

PROJECT RECORD

Sample ID: U09077 (cont'd)

TCLP VOLATILES
Method: SW-846 8240 (modified to capillary).

Parameter	PQL (mg/L)	Analysis (mg/L)
Benzene	0.050	U
Carbon tetrachloride	0.050	U
Chlorobenzene	0.050	U
Chloroform	0.050	U
1,2-Dichloroethane	0.050	U
1,1-Dichloroethylene	0.050	U
Methyl ethyl ketone	2.5	U
Tetrachloroethylene	0.050	U
Trichloroethylene	0.050	U
Vinyl chloride	0.050	U

TCLP SEMI-VOLATILES
Method: SW-846 8270

Parameter	PQL (ug/L)	Analysis (ug/L)
Pyridine	50.	U
1,4-Dichlorobenzene	50.	U
2-Methylphenol	50.	U
3 & 4-Methylphenol	50.	U
Hexachloroethane	50.	U
Nitrobenzene	50.	U
Hexachlorobutadiene	50.	U
2,4,6-Trichlorophenol	50.	U
2,4,5-Trichlorophenol	50.	U
2,4-Dinitrotoluene	50.	U
Hexachlorobenzene	50.	U
Pentachlorophenol	250.	U

Respectfully submitted,

Paulius T. Alekna

Paulius (Paul) T. Alekna
Lab Director
Quality Analytical Labs, Inc.

PROJECT RECORD

sy:CL932161

G

micro air inc.

7132 LAKEVIEW PARKWAY W. DRIVE • INDIANAPOLIS, IN 46268
(317) 293-1533 • 800-486-1533

Indoor Air Quality
Ventilation Design
Asbestos Surveys
Bulk Analysis
Air Monitoring
Industrial Hygiene
Epidemiology
Microbiology
Radon Testing

November 9, 1993

MR. JAMES FIFE
AWD TECHNOLOGIES, INC.
RESIDENCE INN
3553 FOUNDERS ROAD
INDIANAPOLIS, IN 46268

RE: ENVIRO-CHEM SITE
Asbestos Bulk Sample Results
PO Number: 2396

Dear Mr. Fife:

Enclosed are the results of the analysis performed on the bulk samples brought to Micro Air, Inc. If you have any questions concerning this report, please do not hesitate to contact us.

Received From: AWD TECH
Date Received: 11/05/93

SAMPLE ID	LAB ID	ASBESTOS	COLOR/HOMOGENEOUS	SAMPLE COMPOSITION	
#1	57021	(+)	GRAY/BLK/BROWN/NO	CHRYSOTILE ASBESTOS	50%
				FIBROUS GLASS	20%
BOILER SEAL				BINDER	30%

Method of Analysis: Polarized Light Microscopy with Dispersion Staining, EPA 600/M4-82-020. This report should not be used to imply product or service endorsement by NVLAP or any agency of the U.S. Government. This report relates only to items tested.

Date of Analysis: November 9, 1993

Analyst: Deanna L. Hufnagel, Laboratory Technician

Reviewed By: Ann S Gaither

Ann S. Gaither
Laboratory Manager

PROJECT RECORD

micro air inc.

7132 LAKEVIEW PARKWAY W. DRIVE • INDIANAPOLIS, IN 46268
(317) 293-1533 • 800-486-1533

Indoor Air Quality
Ventilation Design
Asbestos Surveys
Bulk Analysis
Air Monitoring
Industrial Hygiene
Epidemiology
Microbiology
Radon Testing

November 5, 1993

Mr. Jim Fife
AWD Technologies, Inc.
Penn Center West
Building 111, Suite 300
Pittsburgh, PA 15276

RE: Asbestos Sampling, Enviro-Chem Site
Micro Air Job # 20-2298-D

Dear Mr. Fife:

On November 3rd, Micro Air, Inc. performed bulk sampling of demolition debris from an A-frame structure located on the property of the Enviro-Chem Site.

The old A-frame structure has been demolished and the pile of debris consisted of dirt, wood, metal, insulation, and general construction debris. Bulk samples were collected from building materials that were suspected to contain asbestos. The following materials were sampled from the debris: (1) Roof Shingles, (2) Ceiling Tile, (3) Tan/Pink Insulation, (4) White Insulation, (5) Gypsum Wallboard, (6) Olive Floor Tile, (7) White Floor Tile.

Samples from tank insulation were collected by Mr. Scott Weishaar from a restricted work area. The samples collected by Mr. Weishaar were non-suspect foam materials and therefore they were not analyzed for asbestos.

Only the floor tile tested positive for asbestos content. Resilient floor coverings are considered Category I, non-friable asbestos-containing materials. They are not regulated materials unless they are likely to become friable during the course of renovation or demolition. Since the structure has already been demolished and the tile has not become friable and is not likely to become friable during any other demolition activities, the material can be disposed of as regular solid waste.

Thank you for the opportunity to provide our asbestos related services. If you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,

Tim French
Building Inspector

Certificate #: 192008032
Expiration Date: 5/18/93

PROJECT RECORD

micro air inc.

7132 LAKEVIEW PARKWAY W. DRIVE • INDIANAPOLIS, IN 46268
(317) 293-1533 • 800-486-1533

Indoor Air Quality
Ventilation Design
Asbestos Surveys
Bulk Analysis
Air Monitoring
Industrial Hygiene
Epidemiology
Microbiology
Radon Testing

November 8, 1993

MR. JAMES R. FIFE
AWD TECHNOLOGIES, INC.
PENN CENTER WEST
BUILDING III SUITE 300
PITTSBURGH, PA 15276

RE: ENVIRO-CHEM SITE
Asbestos Bulk Sample Results - Job Number 2298

Dear Mr. Fife:

Enclosed are the results of the analysis performed on the bulk samples taken by Micro Air, Inc. at the site referenced above. If you have any questions concerning this report, please do not hesitate to contact us.

Received From: AWD TECHNOLOGIES
Date Received: 11/04/93

SAMPLE ID	LAB ID	ASBESTOS	COLOR/HOMOGENEOUS	SAMPLE COMPOSITION	
1	56949	(-)	GRAY/BLACK/NO	CELLULOSE	40%
ROOF SHINGLE				BINDER	60%
DEMOLISHED A-FRAME STRUCTURE					
2	56950	(-)	WHITE/YES	CELLULOSE	15%
GYPSUM WALLBOARD				BINDER	85%
DEMOLISHED A-FRAME STRUCTURE					
3	56951	(-)	TAN/PINK/YES	CELLULOSE	<1%
TAN/PINK INSULATION				FIBROUS GLASS	95%
DEMOLISHED A-FRAME STRUCTURE				BINDER	5%
4	56952	(-)	TAN/WHITE/NO	CELLULOSE	80%
CEILING TILE				FIBROUS GLASS	10%
DEMOLISHED A-FRAME STRUCTURE				BINDER	10%

PROJECT RECORD

ASBESTOS BULK SAMPLE RESULTS FOR
ENVIRO-CHEM SITE

SAMPLE ID	LAB ID	ASBESTOS	COLOR/HOMOGENEOUS	SAMPLE COMPOSITION	
5	56953	(+)	LT.GREEN/YES	CHRYSOTILE ASBESTOS	8%
FLOOR TILE, OLIVE				BINDER	92%
DEMOLISHED A-FRAME STRUCTURE					
6	56954	(+)	WHITE/YES	CHRYSOTILE ASBESTOS	10%
FLOOR TILE, WHITE				BINDER	90%
DEMOLISHED A-FRAME STRUCTURE					
7	56955	(-)	WHITE/YES	FIBROUS GLASS	2%
WHITE INSULATION				SYNTHETICS/HAIR	88%
DEMOLISHED A-FRAME STRUCTURE				BINDER	10%

Method of Analysis: Polarized Light Microscopy with Dispersion Staining, EPA 600/M4-82-020. This report should not be used to imply product or service endorsement by NVLAP or any agency of the U.S. Government. This report relates only to items tested.

Date of Analysis: November 5, 1993

Analyst: Ann S. Gaither, Laboratory Manager

Reviewed By: Ann S Gaither

Ann S. Gaither
Laboratory Manager

PROJECT RECORD

TO ENSURE PROPER HANDLING OF SAMPLES PLEASE COMPLETE THIS ENTIRE FORM

HERITAGE LABORATORIES, INC.

I - № 14515

7901 West Morris Street
Indianapolis, Indiana 46231 (317) 243-0811 Fax (317) 486-5095

Co. Name: AWD TECHNOLOGIES

Project Name: ENVIRO-CHEM

Quote No.:

PO No.: 2396

ENVIRONMENTAL PROGRAM:

CWA NPDES_____ IWP _____ SLUDGE_____

RCRA MW_____ SW _____ DISPOSAL_____

SDWA_____ CERCLA/SUPERFUND_____ OTHER _____

Sampled by: SCOTT WEISHAAR

Analyses Requested (Note special detection limits or methods)

Report To:

Co: ~~[illegible]~~ AWD TECH

Add: RESIDENCE INN
3555 FOUNDERS RD
INDPLS IN 46268

Attn: JIM FIFE

Phone: 872-0462

Accelerated Turnaround Requested _____ (Subject to Additional Charge)

Result Request by: ____/____/____ (Mo Day Yr) (Date must be Accepted and Approved by Lab)

PROJECT RECORD

Sample ID:	Date:	Time:	Comp	Grab	Sample Description:	Sample Type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Other	No. of Containers	ASBESTOS	Remarks:	EMS Sample No.
#1	9/14/93	10:15 am		X	ECC-04A1-PBM-05 BOILER PIPE		1	1		
#2	9/14/93	11:15		X	ECC-04A1-PBM-06 INSULATION		1	1		

Relinquished by: (Signature)	Date /Time	Received by: (Signature)	Relinquished by: (Signature)	Date /Time	Received by: (Signature)
Scott Weishaar	9/14/93 11:40 AM	James R Fife		/	
Relinquished by: (Signature)	Date /Time	Received by: (Signature)	Relinquished by: (Signature)	Date /Time	Received by: (Signature)
	/			/	
Relinquished by: (Signature)	Date /Time	Received for Lab by: (Signature)	Date / Time	Remarks	
James R Fife	9/14/93 5:30pm	S. A. Skee	9/14/93 5:30pm		

Distribution: White original to be retained by client, Yellow copy to accompany sample to laboratory, Pink copy to also be retained by client.

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	14-SEP-93	2471	A289924
	Complete	PO Number	
	22-SEP-93	92005 *	
	Printed	Sampled	
	22-SEP-93	14-SEP-93 10:15	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

SAMPLE ID: ONE
DESCRIPTION: ECC-04A1-PBM-05

ASBESTOS (POLARIZED LIGHT MICROSCOPY) NVLAP 18-A01

Analysis Date: 20-SEP-93 Vendor: MICRO AIR, INC. Test: G616.0.0

Parameter	Result	Det. Limit	Units
ASBESTOS	NEG		

CELLULOSE 3%
FIBROUS GLASS 75%
BINDER 22%

Sample Comments

NEG Negative

Sample chain of custody number 14515.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

As indicated, some testing was performed at the following locations:
MICRO AIR, INC.
7132 LAKEVIEW PKWY W. DR., INDIANAPOLIS, IN 46268

PROJECT RECORD

Quality Assurance Officer: _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	14-SEP-93	2471	A289925
	Complete	PO Number	
	22-SEP-93	92005 *	
	Printed	Sampled	
	22-SEP-93	14-SEP-93 10:15	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

SAMPLE ID: TWO
DESCRIPTION: ECC-04A1-PBM-06 Colin Barnett

ASBESTOS (POLARIZED LIGHT MICROSCOPY) NVLAP 18-A01

Analysis Date: 20-SEP-93 Vendor: MICRO AIR, INC. Test: G616.0.0

Parameter	Result	Det. Limit	Units
ASBESTOS	NEG		

CELLULOSE <1%
FIBROUS GLASS 70%
BINDER 30%

Sample Comments

NEG Negative

Sample chain of custody number 14515.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

As indicated, some testing was performed at the following locations:
MICRO AIR, INC.
7132 LAKEVIEW PKWY W. DR., INDIANAPOLIS, IN 46268

PROJECT RECORD

Quality Assurance Officer: _____

TO ENSURE PROPER HANDLING OF SA[illegible]ES PLEASE COMPLETE THIS ENTIRE FORM

HERITAGE LABORATORIES, INC.

I - № 14513

7901 West Morris Street
Indianapolis, Indiana 46231 (317) 243-0811 Fax (317) 486-5095

Co. Name: AWD TECHNOLOGIES
Project Name: ENVIRO - CHEM
Quote No.: Z117222 PO No.: 2396

ENVIRONMENTAL PROGRAM:
CWA NPDES_____ IWP_____ SLUDGE_____
RCRA MW_____ SW_____ DISPOSAL_____
SDWA_____ CERCLA/SUPERFUND_____ OTHER_____

Sampled by: SCOTT WEISHAAR

Analyses Requested (Note special detection limits or methods)

Report To:
Co: ~~JIM FIFE~~ AWD TECHNOLOGIES
Add: RESIDENCE INN
3553 FOUNDERS RD ~~Ste 113~~
INDPLS IN 46268
Attn: JIM FIFE
Phone: 317 - 872 - 0462

Accelerated Turnaround Requested YES
(Subject to Additional Charge)

Result Request by: 09 / 07 / 93
Mo Day Yr
(Date must be Accepted and Approved by Lab.)

Sample ID:	Date:	Time:	Comp	Grab	Sample Description:	Sample Type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Other	No. of Containers	RCRA TCLP - CLP SOW OLM01.0 METHOD	CHROMIUM - SW-846 METHOD 7195	TIN - SW-846 METHOD 6010						Remarks:	EMS Sample No.
#1	08/31/93	1:00	✓		ECC-04A1-PBM-01	CONCRETE	1	1	1	1							
#2	08/31/93	1:40	✓		ECC-04A1-PBM-02	FIBERGLASS	1	1	1	1							
#3	08/31/93	2:00	✓		ECC-04A1-PBM-03	STYROFOAM	1	1	1	1							
#4	08/31/93	2:15	✓		ECC-04A1-PBM-04	WOOD	1	1	1	1							

PROJECT RECORD

Relinquished by: (Signature)	Date /Time	Received by: (Signature)	Relinquished by: (Signature)	Date /Time	Received by: (Signature)
Scott Weishaar	08/31/93 4:30pm	[signature]		/	
Relinquished by (Signature)	Date /Time	Received by (Signature)	Relinquished by: (Signature)	Date /Time	Received by (Signature)
[signature]	8/31/93 / 5:45			/	
Relinquished by (Signature)	Date /Time	Received for Lab by (Signature)	Date / Time	Remarks	
	/	Steve Asker	8/31/93 5:45		

Distribution: White original to be retained by client. Yellow copy to accompany sample to laboratory. Pink copy to also be retained by client

TO ENSURE PROPER HANDLING OF SAMPLES PLEASE COMPLETE THIS ENTIRE FORM

HERITAGE LABORATORIES, INC.

I - № 14514

7901 West Morris Street
Indianapolis, Indiana 46231 (317) 243-0811 Fax (317) 486-5095

Co. Name: AWD TECHNOLOGIES
Project Name: ENVIRO - CHEM
Quote No.: Z 117222 PO No.: 2396

ENVIRONMENTAL PROGRAM:
CWA NPDES_____ IWP _____ SLUDGE_____
RCRA MW_____ SW _____ DISPOSAL_____
SDWA_____ CERCLA/SUPERFUND_____ OTHER _____

Sampled by: SCOTT WEISHAAR

Analyses Requested (Note special detection limits or methods)

Report To:
Co: AWD TECHNOLOGIES
Add: RESIDENCE INN
3553 FOUNDERS Rd.
INDPLS IN 46268
Attn: JAMES FIFE
Phone: 317 - 872 - 0462

Accelerated Turnaround Requested YES
(Subject to Additional Charge)

Result Request by: 09 / 14 / 93
Mo Day Yr
(Date must be Accepted and Approved by Lab)

Sample ID:	Date:	Time:	Comp	Grab	Sample Description:	Sample Type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Other	No. of Containers	RCRA TCLP METHOD CLP SOW OLM01.0	CHROMIUM VI SW-846 METHOD 7195	TIN SW-846 METHOD 6010							Remarks:	EMS Sample No.
02	9/07/93	10:15	✓		ECC-04A1-PAM-02	FIBERGLASS	15	15	15	15								
03	9/07/93	10:30	✓		ECC-04A1-PAM-03	STYROFOAM	15	15	15	15								
04	9/07/93	11:00	✓		ECC-04A1-PAM-04	WOOD	1	1	1	1								

PROJECT RECORD

Relinquished by: (Signature)	Date /Time	Received by: (Signature)	Relinquished by: (Signature)	Date /Time	Received by: (Signature)
Scott Weishaar	9/07/93 / 12:15pm	James R Fife		/	
Relinquished by: (Signature)	Date /Time	Received by: (Signature)	Relinquished by: (Signature)	Date /Time	Received by: (Signature)
James R Fife	9/7/93 / 1:04P	Gayle Scott		/	
Relinquished by: (Signature)	Date Time	Received for Lab by: (Signature)	Date / Time	Remarks	
	/		/		

Distribution: White original to be retained by client. Yellow copy to accompany sample to laboratory. Pink copy to also be retained by client

AWD TECHNOLOGIES

Memorandum

PGH-93-EJV-1072

TO: Mark Dowiak

DATE: September 21, 1993

FROM: Evan Verbanic EV

COPIES: J. Fife
H. Roffman
File

SUBJECT: Data Validation - ECC - Zionsville
Sample Numbers ECC-04A1 - PBM-01 through 04
AWD Project Number 2396-001
(Field Construction Support)

The above referenced analytical data, prepared in accordance with SW-846 Test Method 1311: Toxicity Characteristic Leaching Procedure, were reviewed for accuracy and thoroughness with regard to the following:

- Specified detection limits were reviewed to ensure that all were below set regulatory limits.
- The selection of extracting solutions were reviewed to ensure that appropriate extraction fluids were used.
- Surrogate recovery results were reviewed to identify percent recoveries below acceptable levels.
- Results of laboratory blank were reviewed. Since no contamination was detected, no action was taken.
- Quality assurance procedures were reviewed for appropriateness and completeness, specifically with respect to relative percent differences of laboratory duplicate samples.

On the basis of this review, all reported data were found acceptable for their intended use.

In addition, detected sample concentrations were checked against the TCLP Maximum Allowable Limits for those compounds for which limits exist. All positive detected values were found to be below the RCRA Maximum Allowable Limits.

EJV/slk

PROJECT RECORD

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	31-AUG-93	2471	A288829
	Complete: 17-SEP-93	PO Number: 92005 *	
	Printed: 12-OCT-93	Sampled: 31-AUG-93 13:00	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

SAMPLE I.D.: ECC-04A1-PBM-01
DESCRIPTION: CONCRETE
LOCATION: ECC -ZIONSVILLE

PROJECT RECORD

ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

Analyst: G. WILSON Analysis Date: 03-SEP-93 Test: P108.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	25.0		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
LIQUID PORTION	NA		mL
EXTRACTED SAMPLE	25.0		Grams
PHASE ONE VOLUME (REP 0)	227.5		mL
PHASE TWO VOLUME (REP 1)	NA		mL

CLP VOLATILE ORGANICS OLM01

Analyst: G. WILSON Analysis Date: 07-SEP-93 08:32 Instrument: GC/MS VOA Test: 0902.2.0
Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311 P108.1.0

Parameter	Result	Det. Limit	Units
CHLOROMETHANE	BDL	100	ug/L
BROMOMETHANE	BDL	100	ug/L
VINYL CHLORIDE	BDL	100	ug/L
CHLOROETHANE	BDL	100	ug/L
METHYLENE CHLORIDE	BDL	100	ug/L
ACETONE	BDL	100	ug/L
CARBON DISULFIDE	BDL	100	ug/L
1,1-DICHLOROETHENE	BDL	100	ug/L
1,1-DICHLOROETHANE	BDL	100	ug/L
1,2-DICHLOROETHENE (TOTAL)	BDL	100	ug/L
CHLOROFORM	BDL	100	ug/L
1,2-DICHLOROETHANE	BDL	100	ug/L
2-BUTANONE	BDL	100	ug/L
1,1,1-TRICHLOROETHANE	BDL	100	ug/L
CARBON TETRACHLORIDE	BDL	100	ug/L
BROMODICHLOROMETHANE	BDL	100	ug/L
1,2-DICHLOROPROPANE	BDL	100	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	100	ug/L
TRICHLOROETHENE	BDL	100	ug/L
DIBROMOCHLOROMETHANE	BDL	100	ug/L
1,1,2-TRICHLOROETHANE	BDL	100	ug/L
BENZENE	BDL	100	ug/L

 (continued on next page)

HERITAGE LABORATORIES, INC. Lab Sample ID: A288829

Parameter	Result	Det. Limit	Units
TRANS-1,3-DICHLOROPROPENE	BDL	100	ug/L
BROMOFORM	BDL	100	ug/L
4-METHYL-2-PENTANONE	BDL	100	ug/L
2-HEXANONE	BDL	100	ug/L
TETRACHLOROETHENE	BDL	100	ug/L
TOLUENE	BDL	100	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	100	ug/L
CHLOROBENZENE	BDL	100	ug/L
ETHYLBENZENE	BDL	100	ug/L
STYRENE	BDL	100	ug/L
XYLENE (TOTAL)	BDL	100	ug/L
SURROGATE RECOVERY			
DICHLOROETHANE-D4	97		% Rec
TOLUENE-D8	88		% Rec
BROMOFLUOROBENZENE	92		% Rec

1:10 DILUTION.

TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Analyst: B. HAHN Analysis Date: 02-SEP-93 Test: P107.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	100		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
EXTRACTED SAMPLE	100		Grams
SOLIDS	100		Percent
9.5 MM SIEVE TEST			Passed
INITIAL PH	10.21		Std. Units
ADJUSTED PH	1.96		Std. Units
BUFFER SOLUTION PH	4.92		Std. Units
FINAL PH	6.92		Std. Units
VOLUME BUFFERED SOLUTION	2000		mL
VOLUME EXTRACT FILTERED	2000		mL
LIQUID FRACTION	NA		mL
TOTAL VOLUME FILTRATE	2000		mL
AMBIENT TEMPERATURE	23		Degrees C
INITIAL TIME	8034.4		HRS
FINAL TIME	8050.9		HRS
PHASE 0 VOLUME (REP 0)	NA		mL
PHASE 0 WEIGHT	NA		Grams
PHASE 0 DENSITY	NA		g/mL
PHASE 1 VOLUME (REP 1)	NA		mL
PHASE 1 WEIGHT	NA		Grams
PHASE 1 DENSITY	NA		g/mL

CLP SEMI-VOLATILE EXTRACTION OLM01

Analyst: C. KING Analysis Date: 09-SEP-93 Test: P901.2.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288829

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst: A. BRADBURN Analysis Date: 14-SEP-93 19:05 Instrument: GC/MS SVOA Test: 0901.2.0

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01 P901.2.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
PHENOL	EST 5	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
1,3-DICHLOROBENZENE	BDL	10	ug/L
1,4-DICHLOROBENZENE	BDL	10	ug/L
1,2-DICHLOROBENZENE	BDL	10	ug/L
2-METHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
4-METHYLPHENOL	BDL	10	ug/L
N-NITROSO-DI-N-PROPYLAMINE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
NITROBENZENE	BDL	10	ug/L
ISOPHORONE	16	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
NAPHTHALENE	BDL	10	ug/L
4-CHLOROANILINE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-METHYLNAPHTHALENE	BDL	10	ug/L
'EXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
,4,6-TRICHLOROPHENOL	BDL	10	ug/L
2,4,5-TRICHLOROPHENOL	BDL	25	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
2-NITROANILINE	BDL	25	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
3-NITROANILINE	BDL	25	ug/L
ACENAPHTHENE	BDL	10	ug/L
2,4-DINITROPHENOL	BDL	25	ug/L
4-NITROPHENOL	BDL	25	ug/L
DIBENZOFURAN	BDL	10	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
4-CHLOROPHENYLPHENYLETHER	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
4-NITROANILINE	BDL	25	ug/L
4,6-DINITRO-2-METHYLPHENOL	BDL	25	ug/L
N-NITROSO-DIPHENYLAMINE	BDL	10	ug/L
4-BROMOPHENYLPHENYLETHER	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
PENTACHLOROPHENOL	BDL	25	ug/L
PHENANTHRENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
CARBAZOLE	BDL	10	ug/L
I-N-BUTYLPHTHALATE	BDL	10	ug/L
FLOURANTHENE	BDL	10	ug/L
PYRENE	BDL	10	ug/L
BENZYLBUTYLPHTHALATE	BDL	10	ug/L

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288829

Parameter	Result	Det. Limit	Units
3,3'-DICHLOROBENZIDINE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
PYRIDINE	BDL	50	ug/L
3-METHYLPHENOL (M-CRESOL)	BDL	10	ug/L
SURROGATE RECOVERY			
2-FLUOROPHENOL	74		% Rec
PHENOL-D5	80		% Rec
NITROBENZENE-D5	83		% Rec
2-CHLOROPHENOL-D4	87		% Rec
2-FLUOROBIPHENYL	87		% Rec
2,4,6-TRIBROMOPHENOL	92		% Rec
TERPHENYL-D14	86		% Rec
1,2-DICHLOROBENZENE-D4	70		% Rec
ALSO DETECTED			
UNKNOWN	EST 14 RT=6.69		ug/L
-METHYLETHYL ESTER PROPANOIC ACID	EST 20 RT=6.77		ug/L
UNKNOWN ACID	EST 11 RT=7.2		ug/L
UNKNOWN	EST 5 RT=7.53		ug/L
2-METHYL-1-METHYLETHYL ESTER PROPANOIC ACID	EST 10 RT=7.59		ug/L
UNKNOWN	EST 21 RT=7.68		ug/L
UNKNOWN	EST 6 RT=7.84		ug/L
UNKNOWN ACID	EST 52 RT=8.54		ug/L
UNKNOWN	EST 7 RT=9.53		ug/L
UNKNOWN	EST 29 RT=9.94		ug/L
UNKNOWN	EST 10 RT=11.24		ug/L
UNKNOWN ACID	EST 19 RT=11.47		ug/L
UNKNOWN	EST 6 RT=14.04		ug/L
2-(2-BUTOXYETHOXY)ETHANOL	EST 53 RT=14.74		ug/L
NONANOIC ACID	EST 15 RT=15.74		ug/L
UNKNOWN	EST 6 RT=19.3		ug/L
UNKNOWN	EST 5 RT=19.4		ug/L
UNKNOWN	EST 5 RT=19.97		ug/L
HEXANEDIOIC ACID, DIOCTYL ESTER	EST 4 RT=26.95		ug/L
BENZOIC ACID	EST 12 RT=14.4		ug/L

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01

Analyst: S. CARDWELL Analysis Date: 04-SEP-93 Test: P930.4.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

PROJECT RECORD

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01

Analyst: E. MERRILL Analysis Date: 09-SEP-93 Test: P930.4.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01

Analyst: S. CARDWELL Analysis Date: 04-SEP-93 Test: P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01

Analyst: C. COFFEY Analysis Date: 09-SEP-93 Test: P930.6.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01

Analyst: R. BYERS Analysis Date: 09-SEP-93 Test: P931.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	100		mL
FINAL VOLUME	100		mL

ANTIMONY ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M902.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.030	mg/L

ARSENIC GFAA (CLP) ILM01

Analyst: A. ROBERTSON Analysis Date: 07-SEP-93 Instrument: GFAA Test: M903.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.0020	mg/L

BARIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M904.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
BARIUM	0.69	0.010	mg/L

BERYLLIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M905.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0050	mg/L

PROJECT RECORD

 (continued on next page)

CADMIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M908.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

HEXAVALENT CHROMIUM SW846-7196A

Analyst: S. PFEFFER Analysis Date: 07-SEP-93 Test: M110.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
HEXAVALENT CHROMIUM	BDL	0.01	mg/L

ANALYSIS FROM TCLP LEACHATE.

CHROMIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M910.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CHROMIUM	0.022	0.010	mg/L

LEAD GFAA (CLP) ILM01

Analyst: J. WALLACE Analysis Date: 10-SEP-93 Instrument: GFAA Test: M916.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.0030	mg/L

MANGANESE ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M919.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.29	0.010	mg/L

MERCURY CVAA (CLP) ILM01

Analyst: G. MAPP Analysis Date: 10-SEP-93 Instrument: CVAA Test: M920.2.0
Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P931.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00050	mg/L

NICKEL ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M922.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
NICKEL	0.011	0.010	mg/L

TIN ICP SW846-6010A

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M135.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
TIN	BDL	0.050	mg/L

PROJECT RECORD

SILVER ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M930.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SELENIUM GFAA (CLP) ILM01

Analyst: M. BAUER Analysis Date: 13-SEP-93 Instrument: GFAA Test: M928.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0050	mg/L

VANADIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M938.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
VANADIUM	0.011	0.010	mg/L

ZINC ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M939.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ZINC	0.47	0.020	mg/L

EUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD)

Analyst: B. HAHN Analysis Date: 02-SEP-93 Test: P105.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	100		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
EXTRACTED SAMPLE	100		Grams
SOLIDS	100		Percent
9.5 MM SIEVE TEST			Passed
INITIAL PH	10.02		Std. Units
FINAL PH	9.23		Std. Units
INITIAL DI ADDED	1600		mL
FINAL DI ADDED	2000		mL
TOTAL ACID ADDED	NA		mL
VOLUME LIQUID (ADD BACK)	NA		mL
TOTAL VOLUME FILTRATE	2000		mL
INITIAL TIME	12582.7		Hours
FINAL TIME	12606.7		Hours

CYANIDE DISTILLATION (CLP) ILM01

Analyst: J. STOAKES Analysis Date: 07-SEP-93 Test: P901.4.0
Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD) P105.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	500		mL
FINAL VOLUME	250		mL

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288829

CYANIDE, TOTAL (AUTOMATED) (CLP) ILM01

Analyst: J. WILDER Analysis Date: 07-SEP-93 Instrument: AUTO-ANALYZER Test: G901.4.0

Prep: CYANIDE DISTILLATION (CLP) ILM01 P901.4.0

Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD) P105.1.0

Parameter	Result	Det. Limit	Units
CYANIDE	BDL	0.005	mg/L

Sample Comments

THIS IS A MODIFIED REPORT. REPORT RE-ISSUED TO INCLUDE PYRIDINE AND 3-METHYLPHENOL. (BOTH NON-DETECTED IN SEMIVOLATILE ANALYSIS) CCB 10/12/93

BDL Below Detection Limit
EST Estimated Value
NA Not Applicable
RT Retention Time

Sample chain of custody number 14513.

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PROJECT RECORD

Quality Assurance Officer: G A Burch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	27-SEP-93	2471	A291101
	Complete: 12-OCT-93	PO Number: 92005 *	
	Printed: 13-OCT-93	Sampled: 31-AUG-93	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

DESCRIPTION: ECC-04A1-PBM-01
LOCATION: ECC - ZIONSVILLE

PROJECT RECORD

TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

Analyst: L. WILSON Analysis Date: 28-SEP-93 Test: P116.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		Grams
FINAL VOLUME	100		mL

SULFIDE SW846-9030A

Analyst: L. WILSON Analysis Date: 28-SEP-93 Test: G110.4.0

Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1 P116.2.0

Parameter	Result	Det. Limit	Units
SULFIDE	BDL	10	mg/kg

PCB SONICATION EXTRACTION SW846-3550

Analyst: J. ISENBERG Analysis Date: 27-SEP-93 Test: P231.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10.15		Grams
FINAL VOLUME	100		mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst: L. WILLIAMS Analysis Date: 28-SEP-93 Instrument: GC/ECD Test: O301.2.0

Prep: PCB SONICATION EXTRACTION SW846-3550 P231.1.0

Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	1.0	mg/kg
PCB AROCHLOR 1221	BDL	5.0	mg/kg
PCB AROCHLOR 1232	BDL	1.0	mg/kg
PCB AROCHLOR 1242	BDL	1.0	mg/kg
PCB AROCHLOR 1248	BDL	1.0	mg/kg
PCB AROCHLOR 1254	BDL	1.0	mg/kg
PCB AROCHLOR 1260	BDL	1.0	mg/kg
PCB AROCHLOR 1262	BDL	1.0	mg/kg

Sample Comments

BDL *Below Detection Limit*

Sample Comments

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PROJECT RECORD

Quality Assurance Officer: _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	31-AUG-93	2471	A288830
	Complete	PO Number	
	17-SEP-93	92005 *	
	Printed	Sampled	
	12-OCT-93	31-AUG-93 13:40	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Descript **PROJECT RECORD**

SAMPLE I.D.: ECC-04A1-PBM-02
DESCRIPTION: FIBERGLASS
LOCATION: ECC -ZIONSVILLE

ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

Analyst: G. WILSON Analysis Date: 03-SEP-93 Test: P108.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	7.5		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
LIQUID PORTION	NA		mL
XTRACTED SAMPLE	7.5		Grams
HASE ONE VOLUME (REP 0)	147.2		mL
PHASE TWO VOLUME (REP 1)	NA		mL

CLP VOLATILE ORGANICS OLM01

Analyst: G. WILSON Analysis Date: 07-SEP-93 09:19 Instrument: GC/MS VOA Test: 0902.2.0
Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311 P108.1.0

Parameter	Result	Det. Limit	Units
CHLOROMETHANE	BDL	100	ug/L
BROMOMETHANE	BDL	100	ug/L
VINYL CHLORIDE	BDL	100	ug/L
CHLOROETHANE	BDL	100	ug/L
METHYLENE CHLORIDE	BDL	100	ug/L
ACETONE	BDL	100	ug/L
CARBON DISULFIDE	BDL	100	ug/L
1,1-DICHLOROETHENE	BDL	100	ug/L
1,1-DICHLOROETHANE	BDL	100	ug/L
1,2-DICHLOROETHENE (TOTAL)	BDL	100	ug/L
CHLOROFORM	BDL	100	ug/L
1,2-DICHLOROETHANE	BDL	100	ug/L
2-BUTANONE	BDL	100	ug/L
1,1,1-TRICHLOROETHANE	BDL	100	ug/L
CARBON TETRACHLORIDE	BDL	100	ug/L
BROMODICHLOROMETHANE	BDL	100	ug/L
1,2-DICHLOROPROPANE	BDL	100	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	100	ug/L
RICHLOROETHENE	BDL	100	ug/L
DIBROMOCHLOROMETHANE	BDL	100	ug/L
1,1,2-TRICHLOROETHANE	BDL	100	ug/L
BENZENE	BDL	100	ug/L

Parameter	Result	Det. Limit	Units
TRANS-1,3-DICHLOROPROPENE	BDL	100	ug/L
BROMOFORM	BDL	100	ug/L
4-METHYL-2-PENTANONE	BDL	100	ug/L
2-HEXANONE	BDL	100	ug/L
TETRACHLOROETHENE	BDL	100	ug/L
TOLUENE	BDL	100	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	100	ug/L
CHLOROBENZENE	BDL	100	ug/L
ETHYLBENZENE	BDL	100	ug/L
STYRENE	BDL	100	ug/L
XYLENE (TOTAL)	BDL	100	ug/L
SURROGATE RECOVERY			
DICHLOROETHANE-D4	113		% Rec
TOLUENE-D8	100		% Rec
BROMOFLUOROBENZENE	105		% Rec

1:10 DILUTION.

TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Analyst: B. HAHN Analysis Date: 08-SEP-93 Test: P107.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	100		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
EXTRACTED SAMPLE	100		Grams
SOLIDS	100		Percent
.5 MM SIEVE TEST			Passed
INITIAL PH	3.77		Std. Units
ADJUSTED PH	NA		Std. Units
BUFFER SOLUTION PH	4.95		Std. Units
FINAL PH	4.86		Std. Units
VOLUME BUFFERED SOLUTION	2000		mL
VOLUME EXTRACT FILTERED	2000		mL
LIQUID FRACTION	NA		mL
TOTAL VOLUME FILTRATE	2000		mL
AMBIENT TEMPERATURE	22		Degrees C
INITIAL TIME	8086.6		HRS
FINAL TIME	8102.9		HRS
PHASE 0 VOLUME (REP 0)	NA		mL
PHASE 0 WEIGHT	NA		Grams
PHASE 0 DENSITY	NA		g/mL
PHASE 1 VOLUME (REP 1)	NA		mL
PHASE 1 WEIGHT	NA		Grams
PHASE 1 DENSITY	NA		g/mL

CLP SEMI-VOLATILE EXTRACTION OLM01

Analyst: C. KING Analysis Date: 09-SEP-93 Test: P901.2.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288830

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst: A. BRADBURN Analysis Date: 14-SEP-93 15:43 Instrument: GC/MS SVOA Test: 0901.2.0

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01 P901.2.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
PHENOL	12	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
1,3-DICHLOROBENZENE	BDL	10	ug/L
1,4-DICHLOROBENZENE	BDL	10	ug/L
1,2-DICHLOROBENZENE	BDL	10	ug/L
2-METHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
4-METHYLPHENOL	BDL	10	ug/L
N-NITROSO-DI-N-PROPYLAMINE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
NITROBENZENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
NAPHTHALENE	BDL	10	ug/L
4-CHLOROANILINE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-METHYLNAPHTHALENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
2,4,6-TRICHLOROPHENOL	BDL	10	ug/L
2,4,5-TRICHLOROPHENOL	BDL	25	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
2-NITROANILINE	BDL	25	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
3-NITROANILINE	BDL	25	ug/L
ACENAPHTHENE	BDL	10	ug/L
2,4-DINITROPHENOL	BDL	25	ug/L
4-NITROPHENOL	BDL	25	ug/L
DIBENZOFURAN	BDL	10	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
4-CHLOROPHENYLPHENYLETHER	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
4-NITROANILINE	BDL	25	ug/L
4,6-DINITRO-2-METHYLPHENOL	BDL	25	ug/L
N-NITROSO-DIPHENYLAMINE	BDL	10	ug/L
4-BROMOPHENYLPHENYLETHER	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
PENTACHLOROPHENOL	BDL	25	ug/L
PHENANTHRENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
CARBAZOLE	BDL	10	ug/L
DI-N-BUTYLPHTHALATE	BDL	10	ug/L
FLOURANTHENE	BDL	10	ug/L
PYRENE	BDL	10	ug/L
BENZYLBUTYLPHTHALATE	13	10	ug/L

PROJECT RECORD

Parameter	Result	Det. Limit	Units
3,3'-DICHLOROBENZIDINE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
PYRIDINE	BDL	50	ug/L
3-METHYLPHENOL (M-CRESOL)	BDL	10	ug/L
SURROGATE RECOVERY			

2-FLUOROPHENOL	76		% Rec
PHENOL-D5	79		% Rec
NITROBENZENE-D5	91		% Rec
2-CHLOROPHENOL-D4	83		% Rec
2-FLUOROBIPHENYL	97		% Rec
2,4,6-TRIBROMOPHENOL	95		% Rec
TERPHENYL-D14	135		% Rec
1,2-DICHLOROBENZENE-D4	65		% Rec

ALSO DETECTED			

UNKNOWN	EST 83 RT=7.09		ug/L
UNKNOWN	EST 116 RT=9.1		ug/L
UNKNOWN	EST 96 RT=11.7		ug/L
UNKNOWN	EST 120 RT=16.66		ug/L
UNKNOWN	EST 40 RT=16.73		ug/L
4-HYDROXY-BENZALDEHYDE	EST 150 RT=17.16		ug/L
UNKNOWN ACID	EST 56 RT=18.03		ug/L
4-METHYL-1,2-BENZENEDICARBOXYLIC ACID	EST 46 RT=18.25		ug/L
UNKNOWN	EST 79 RT=19.27		ug/L
UNKNOWN	EST 41 RT=19.34		ug/L
UNKNOWN	EST 78 RT=19.54		ug/L
UNKNOWN	EST 120 RT=19.84		ug/L
UNKNOWN	EST 45 RT=19.96		ug/L
UNKNOWN	EST 38 RT=20.08		ug/L
UNKNOWN	EST 44 RT=20.28		ug/L
UNKNOWN	EST 66 RT=20.37		ug/L
NONANEDIOIC ACID	EST 160 RT=20.51		ug/L
UNKNOWN	EST 37 RT=23.76		ug/L
1,8-NAPHTHALIC ANHYDRIDE	EST 36 RT=24.58		ug/L

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst: A. BRADBURN Analysis Date: 15-SEP-93 14:05 Instrument: GC/MS SVOA Test: 0901.2.1

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01 P901.2.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
PHENOL	BDL	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
1,3-DICHLOROBENZENE	BDL	10	ug/L
1,4-DICHLOROBENZENE	BDL	10	ug/L
1,2-DICHLOROBENZENE	BDL	10	ug/L

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288830

Parameter	Result	Det. Limit	Units
2-METHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
4-METHYLPHENOL	BDL	10	ug/L
N-NITROSO-DI-N-PROPYLAMINE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
NITROBENZENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
NAPHTHALENE	BDL	10	ug/L
4-CHLOROANILINE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-METHYLNAPHTHALENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
2,4,6-TRICHLOROPHENOL	BDL	10	ug/L
2,4,5-TRICHLOROPHENOL	BDL	25	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
2-NITROANILINE	BDL	25	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
3-NITROANILINE	BDL	25	ug/L
ACENAPHTHENE	BDL	10	ug/L
2,4-DINITROPHENOL	BDL	25	ug/L
4-NITROPHENOL	BDL	25	ug/L
DIBENZOFURAN	BDL	10	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
4-CHLOROPHENYLPHENYLETHER	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
4-NITROANILINE	BDL	25	ug/L
4,6-DINITRO-2-METHYLPHENOL	BDL	25	ug/L
N-NITROSO-DIPHENYLAMINE	BDL	10	ug/L
4-BROMOPHENYLPHENYLETHER	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
PENTACHLOROPHENOL	BDL	25	ug/L
PHENANTHRENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
CARBAZOLE	BDL	10	ug/L
DI-N-BUTYLPHTHALATE	BDL	10	ug/L
FLOURANTHENE	BDL	10	ug/L
PYRENE	BDL	10	ug/L
BENZYLBUTYLPHTHALATE	14	10	ug/L
3,3'-DICHLOROBENZIDINE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L

PROJECT RECORD

 (continued on next page)

HERITAGE LABORATORIES, INC. Lab Sample ID: A288830

Parameter	Result	Det. Limit	Units
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
SURROGATE RECOVERY	BDL		
----------	BDL		
2-FLUOROPHENOL	10		% Rec
PHENOL-D5	44		% Rec
NITROBENZENE-D5	54		% Rec
2-CHLOROPHENOL-D4	43		% Rec
2-FLUOROBIPHENYL	80		% Rec
2,4,6-TRIBROMOPHENOL	107		% Rec
TERPHENYL-D14	137		% Rec
1,2-DICHLOROBENZENE-D4	54		% Rec

TICS ARE NOT QUANTIFIED ON RE-ANALYSIS.

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Analyst: E. MERRILL Analysis Date: 09-SEP-93 Test: P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Analyst: C. COFFEY Analysis Date: 09-SEP-93 Test: P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Analyst: R. BYERS Analysis Date: 09-SEP-93 Test: P931.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	100		mL
FINAL VOLUME	100		mL

ANTIMONY ICP (CLP) ILM01
Analyst: N. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M902.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ANTIMONY	0.047	0.030	mg/L

ARSENIC GFAA (CLP) ILM01
Analyst: A. ROBERTSON Analysis Date: 10-SEP-93 Instrument: GFAA Test: M903.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.020	mg/L

1:4 DILUTION

PROJECT RECORD

BARIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M904.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
BARIUM	0.90	0.010	mg/L

BERYLLIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 13-SEP-93 08:00 Instrument: ICP Test: M905.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0050	mg/L

CADMIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M908.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CADMIUM	0.21	0.0050	mg/L

HEXAVALENT CHROMIUM SW846-7196A

Analyst: S. PFEFFER Analysis Date: 15-SEP-93 Test: M110.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
HEXAVALENT CHROMIUM	BDL	0.05	mg/L

1:5 dilution due to color interference.

HROMIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M910.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CHROMIUM	0.048	0.010	mg/L

LEAD GFAA (CLP) ILM01

Analyst: J. WALLACE Analysis Date: 10-SEP-93 Instrument: GFAA Test: M916.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
LEAD	0.36	0.12	mg/L

1:40 DILUTION

MANGANESE ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M919.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
MANGANESE	2.2	0.010	mg/L

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288830

MERCURY CVAA (CLP) ILM01

Analyst: G. MAPP Analysis Date: 10-SEP-93 Instrument: CVAA Test: M920.2.0
Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P931.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00050	mg/L

NICKEL ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M922.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
NICKEL	0.14	0.010	mg/L

TIN ICP SW846-6010A

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M135.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
TIN	BDL	0.050	mg/L

SILVER ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M930.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SELENIUM GFAA (CLP) ILM01

Analyst: M. BAUER Analysis Date: 13-SEP-93 Instrument: GFAA Test: M928.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.010	mg/L

1:2 DILUTION

VANADIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M938.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.010	mg/L

ZINC ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M939.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ZINC	40.	0.020	mg/L

NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD)

Analyst: S. HAHN Analysis Date: 08-SEP-93 Test: P105.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	100		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
EXTRACTED SAMPLE	[illegible]		Grams
SOLIDS	100		Percent

PROJECT RECORD

 (continued on next page)

HERITAGE LABORATORIES, INC. Lab Sample ID: A288830

Parameter	Result	Det. Limit	Units
9.5 MM SIEVE TEST			Passed
INITIAL PH	3.99		Std. Units
FINAL PH	4.34		Std. Units
INITIAL DI ADDED	1600		mL
FINAL DI ADDED	2000		mL
TOTAL ACID ADDED	NA		mL
VOLUME LIQUID (ADD BACK)	NA		mL
TOTAL VOLUME FILTRATE	2000		mL
INITIAL TIME	10104.4		Hours
FINAL TIME	10128.3		Hours

CYANIDE DISTILLATION (CLP) ILM01

Analyst: J. STOAKES Analysis Date: 10-SEP-93 Test: P901.4.0

Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD) P105.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	500		mL
FINAL VOLUME	250		mL

CYANIDE, TOTAL (AUTOMATED) (CLP) ILM01

Analyst: J. WILDER Analysis Date: 10-SEP-93 Instrument: AUTO-ANALYZER Test: G901.4.0

Prep: CYANIDE DISTILLATION (CLP) ILM01 P901.4.0

Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD) P105.1.0

Parameter	Result	Det. Limit	Units
CYANIDE	BDL	0.005	mg/L

Sample Comments

ADDITIONAL SAMPLE WAS RECEIVED INTO THE LABORATORY ON 09/07/93. IT WAS SAMPLED ON 09/07/93 AT 10:15AM. DCE
THIS IS A MODIFIED REPORT. REPORT RE-ISSUED TO INCLUDE PYRIDINE AND 3-METHYLPHENOL. (BOTH NON-DETECTED IN SEMIVOLATILE ANALYSIS) CCB 10/12/93

BDL Below Detection Limit
EST Estimated Value
NA Not Applicable
RT Retention Time

Sample chain of custody number 14513.

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PROJECT RECORD

Quality Assurance Officer: G O Busch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	27-SEP-93	2471	A291099
	Complete 13-OCT-93	PO Number 92005 *	
	Printed 13-OCT-93	Sampled 07-SEP-93	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

DESCRIPTION: ECC-04A1-PBM-02
LOCATION: ECC - ZIONSVILLE

TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

Analyst: L. WILSON Analysis Date: 28-SEP-93 Test: P116.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		Grams
FINAL VOLUME	100		mL

SULFIDE SW846-9030A

Analyst: L. WILSON Analysis Date: 28-SEP-93 Test: G110.4.0
Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1 P116.2.0

Parameter	Result	Det. Limit	Units
SULFIDE	BDL	10	mg/kg

PCB SONICATION EXTRACTION SW846-3550

Analyst: J. ISENBERG Analysis Date: 27-SEP-93 Test: P231.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	9.86		Grams
FINAL VOLUME	100		mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst: L. WILLIAMS Analysis Date: 28-SEP-93 Instrument: GC/ECD Test: D301.2.0
Prep: PCB SONICATION EXTRACTION SW846-3550 P231.1.0

Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	1.0	mg/kg
PCB AROCHLOR 1221	BDL	5.0	mg/kg
PCB AROCHLOR 1232	BDL	1.0	mg/kg
PCB AROCHLOR 1242	BDL	1.0	mg/kg
PCB AROCHLOR 1248	BDL	1.0	mg/kg
PCB AROCHLOR 1254	BDL	1.0	mg/kg
PCB AROCHLOR 1260	BDL	1.0	mg/kg
PCB AROCHLOR 1262	BDL	1.0	mg/kg

Sample Comments

BDL Below Detection Limit

PROJECT RECORD

Sample Comments

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PROJECT RECORD

Quality Assurance Officer: _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	31-AUG-93	2471	A288944
	Complete: 17-SEP-93	PO Number: 92005 *	
	Printed: 12-OCT-93	Sampled: 31-AUG-93 14:40	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

SAMPLE I.D.: ECC-04A1-PBM-03
DESCRIPTION: STYROFOAM
LOCATION: ECC -ZIONSVILLE

PROJECT RECORD

ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

Analyst: G. WILSON Analysis Date: 03-SEP-93 Test: P108.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	8.9		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
LIQUID PORTION	NA		mL
EXTRACTED SAMPLE	8.9		Grams
PHASE ONE VOLUME (REP 0)	171.4		mL
PHASE TWO VOLUME (REP 1)	NA		mL

CLP VOLATILE ORGANICS OLM01

Analyst: G. WILSON Analysis Date: 07-SEP-93 10:08 Instrument: GC/MS VOA Test: 0902.2.0
Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311 P108.1.0

Parameter	Result	Det. Limit	Units
CHLOROMETHANE	200	100	ug/L
BROMOMETHANE	BDL	100	ug/L
VINYL CHLORIDE	BDL	100	ug/L
CHLOROETHANE	BDL	100	ug/L
METHYLENE CHLORIDE	BDL	100	ug/L
ACETONE	BDL	100	ug/L
CARBON DISULFIDE	BDL	100	ug/L
1,1-DICHLOROETHENE	BDL	100	ug/L
1,1-DICHLOROETHANE	BDL	100	ug/L
1,2-DICHLOROETHENE (TOTAL)	BDL	100	ug/L
CHLOROFORM	BDL	100	ug/L
1,2-DICHLOROETHANE	BDL	100	ug/L
2-BUTANONE	BDL	100	ug/L
1,1,1-TRICHLOROETHANE	BDL	100	ug/L
CARBON TETRACHLORIDE	BDL	100	ug/L
BROMODICHLOROMETHANE	BDL	100	ug/L
1,2-DICHLOROPROPANE	BDL	100	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	100	ug/L
TRICHLOROETHENE	BDL	100	ug/L
DIBROMOCHLOROMETHANE	BDL	100	ug/L
1,1,2-TRICHLOROETHANE	BDL	100	ug/L
BENZENE	BDL	100	ug/L

Parameter	Result	Det. Limit	Units
TRANS-1,3-DICHLOROPROPENE	BDL	100	ug/L
BROMOFORM	BDL	100	ug/L
4-METHYL-2-PENTANONE	BDL	100	ug/L
2-HEXANONE	BDL	100	ug/L
TETRACHLOROETHENE	BDL	100	ug/L
TOLUENE	BDL	100	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	100	ug/L
CHLOROBENZENE	BDL	100	ug/L
ETHYLBENZENE	BDL	100	ug/L
STYRENE	BDL	100	ug/L
XYLENE (TOTAL)	BDL	100	ug/L
SURROGATE RECOVERY			
DICHLOROETHANE-D4	114		% Rec
TOLUENE-D8	95		% Rec
BROMOFLUOROBENZENE	102		% Rec

1:10 DILUTION.

TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Analyst: B. HAHN Analysis Date: 08-SEP-93 Test: P107.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	100		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
EXTRACTED SAMPLE	100		Grams
SOLIDS	100		Percent
.5 MM SIEVE TEST			Passed
INITIAL PH	7.30		Std. Units
ADJUSTED PH	1.41		Std. Units
BUFFER SOLUTION PH	4.95		Std. Units
FINAL PH	5.15		Std. Units
VOLUME BUFFERED SOLUTION	2000		mL
VOLUME EXTRACT FILTERED	2000		mL
LIQUID FRACTION	NA		mL
TOTAL VOLUME FILTRATE	2000		mL
AMBIENT TEMPERATURE	22		Degrees C
INITIAL TIME	8086.6		HRS
FINAL TIME	8102.9		HRS
PHASE 0 VOLUME (REP 0)	NA		mL
PHASE 0 WEIGHT	NA		Grams
PHASE 0 DENSITY	NA		g/mL
PHASE 1 VOLUME (REP 1)	NA		mL
PHASE 1 WEIGHT	NA		Grams
PHASE 1 DENSITY	NA		g/mL

CLP SEMI-VOLATILE EXTRACTION OLM01

Analyst: C. KING Analysis Date: 09-SEP-93 Test: P901.2.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288944

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst: A. BRADBURN Analysis Date: 14-SEP-93 16:33 Instrument: GC/MS SVOA Test: 0901.2.0

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01 P901.2.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
PHENOL	EST 6	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
1,3-DICHLOROBENZENE	BDL	10	ug/L
1,4-DICHLOROBENZENE	BDL	10	ug/L
1,2-DICHLOROBENZENE	BDL	10	ug/L
2-METHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
4-METHYLPHENOL	BDL	10	ug/L
N-NITROSO-DI-N-PROPYLAMINE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
NITROBENZENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
NAPHTHALENE	BDL	10	ug/L
4-CHLOROANILINE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-METHYLNAPHTHALENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
,4,6-TRICHLOROPHENOL	BDL	10	ug/L
2,4,5-TRICHLOROPHENOL	BDL	25	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
2-NITROANILINE	BDL	25	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
3-NITROANILINE	BDL	25	ug/L
ACENAPHTHENE	BDL	10	ug/L
2,4-DINITROPHENOL	BDL	25	ug/L
4-NITROPHENOL	BDL	25	ug/L
DIBENZOFURAN	BDL	10	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
4-CHLOROPHENYLPHENYLETHER	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
4-NITROANILINE	BDL	25	ug/L
4,6-DINITRO-2-METHYLPHENOL	BDL	25	ug/L
N-NITROSO-DIPHENYLAMINE	BDL	10	ug/L
4-BROMOPHENYLPHENYLETHER	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
PENTACHLOROPHENOL	BDL	25	ug/L
PHENANTHRENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
CARBAZOLE	BDL	10	ug/L
I-N-BUTYLPHTHALATE	BDL	10	ug/L
LOURANTHENE	BDL	10	ug/L
PYRENE	BDL	10	ug/L
BENZYLBUTYLPHTHALATE	BDL	10	ug/L

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288944

Parameter	Result	Det. Limit	Units
3,3'-DICHLOROBENZIDINE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
PYRIDINE	BDL	50	ug/L
3-METHYLPHENOL (M-CRESOL)	BDL	10	ug/L
SURROGATE RECOVERY			

2-FLUOROPHENOL	81		% Rec
PHENOL-D5	85		% Rec
NITROBENZENE-D5	91		% Rec
2-CHLOROPHENOL-D4	90		% Rec
2-FLUOROBIPHENYL	101		% Rec
2,4,6-TRIBROMOPHENOL	98		% Rec
TERPHENYL-D14	102		% Rec
1,2-DICHLOROBENZENE-D4	66		% Rec

ALSO DETECTED			

3-HYDROXY-2-BUTANONE	EST 33 RT=6.65		ug/L
UNKNOWN	EST 14 RT=6.83		ug/L
UNKNOWN	EST 31 RT=6.9		ug/L
UNKNOWN	EST 85 RT=7.09		ug/L
UNKNOWN ACID	EST 43 RT=7.82		ug/L
UNKNOWN	EST 13 RT=8.11		ug/L
UNKNOWN ACID	EST 13 RT=8.45		ug/L
UNKNOWN	EST 13 RT=8.68		ug/L
UNKNOWN	EST 21 RT=8.84		ug/L
UNKNOWN ACID	EST 28 RT=11.49		ug/L
ACETOPHENONE	EST 26 RT=13.01		ug/L
METHYL ESTER 3-FURANCARBOXYLIC ACID	EST 48 RT=13.23		ug/L
UNKNOWN	EST 19 RT=17.99		ug/L
NONANOIC ACID	EST 16 RT=15.79		ug/L
UNKNOWN	EST 15 RT=18.02		ug/L
UNKNOWN	EST 12 RT=18.11		ug/L
UNKNOWN	EST 20 RT=18.41		ug/L
UNKNOWN	EST 24 RT=19.24		ug/L
UNKNOWN	EST 11 RT=21.52		ug/L
BENZOIC ACID	EST 290 RT=14.76		ug/L

PROJECT RECORD

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst: A. BRADBURN Analysis Date: 15-SEP-93 13:14 Instrument: GC/MS SVOA Test: 0901.2.1

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01 P901.2.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
PHENOL	EST 5	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
1,3-DICHLOROBENZENE	BDL	10	ug/L
1,4-DICHLOROBENZENE	BDL	10	ug/L

 (continued on next page)

HERITAGE LABORATORIES, INC. Lab Sample ID: A288944

Parameter	Result	Det. Limit	Units
1,2-DICHLOROBENZENE	BDL	10	ug/L
-METHYLPHENOL	BDL	10	ug/L
IS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
4-METHYLPHENOL	BDL	10	ug/L
N-NITROSO-DI-N-PROPYLAMINE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
NITROBENZENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
NAPHTHALENE	BDL	10	ug/L
4-CHLOROANILINE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-METHYLNAPHTHALENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
2,4,6-TRICHLOROPHENOL	BDL	10	ug/L
2,4,5-TRICHLOROPHENOL	BDL	25	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
2-NITROANILINE	BDL	25	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
3-NITROANILINE	BDL	25	ug/L
CENAPHTHENE	BDL	10	ug/L
,4-DINITROPHENOL	BDL	25	ug/L
4-NITROPHENOL	BDL	25	ug/L
DIBENZOFURAN	BDL	10	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
4-CHLOROPHENYLPHENYLETHER	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
4-NITROANILINE	BDL	25	ug/L
4,6-DINITRO-2-METHYLPHENOL	BDL	25	ug/L
N-NITROSO-DIPHENYLAMINE	BDL	10	ug/L
4-BROMOPHENYLPHENYLETHER	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
PENTACHLOROPHENOL	BDL	25	ug/L
PHENANTHRENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
CARBAZOLE	BDL	10	ug/L
DI-N-BUTYLPHTHALATE	BDL	10	ug/L
FLOURANTHENE	BDL	10	ug/L
PYRENE	BDL	10	ug/L
BENZYLBUTYLPHTHALATE	BDL	10	ug/L
3,3'-DICHLOROBENZIDINE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
ENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L

PROJECT RECORD

Parameter	Result	Det. Limit	Units
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
ENZO(G,H,I)PERYLENE	BDL	10	ug/L
URROGATE RECOVERY	BDL		
2-FLUOROPHENOL	10		% Rec
PHENOL-D5	44		% Rec
NITROBENZENE-D5	54		% Rec
2-CHLOROPHENOL-D4	43		% Rec
2-FLUOROBIPHENYL	80		% Rec
2,4,6-TRIBROMOPHENOL	107		% Rec
TERPHENYL-D14	137		% Rec
1,2-DICHLOROBENZENE-D4	54		% Rec

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Analyst: E. MERRILL Analysis Date: 09-SEP-93 Test: P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Analyst: C. COFFEY Analysis Date: 09-SEP-93 Test: P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

ERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Analyst: R. BYERS Analysis Date: 09-SEP-93 Test: P931.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	100		mL
FINAL VOLUME	100		mL

ANTIMONY ICP (CLP) ILM01
Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M902.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.030	mg/L

ARSENIC GFAA (CLP) ILM01
Analyst: A. ROBERTSON Analysis Date: 10-SEP-93 Instrument: GFAA Test: M903.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.020	mg/L

1:4 DILUTION

BARIUM ICP (CLP) ILM01
Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M904.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
BARIUM	1.3	0.010	mg/L

PROJECT RECORD

BERYLLIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 13-SEP-93 08:00 Instrument: ICP Test: M905.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0050	mg/L

CADMIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M908.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CADMIUM	0.027	0.0050	mg/L

HEXAVALENT CHROMIUM SW846-7196A

Analyst: S. PFEFFER Analysis Date: 15-SEP-93 Test: M110.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
HEXAVALENT CHROMIUM	BDL	0.01	mg/L

Observed low spike recovery. Spike analyzed twice.

CHROMIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M910.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CHROMIUM	BDL	0.010	mg/L

LEAD GFAA (CLP) ILM01

Analyst: J. WALLACE Analysis Date: 10-SEP-93 Instrument: GFAA Test: M916.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
LEAD	0.032	0.0060	mg/L

1:2 DILUTION

MANGANESE ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M919.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.56	0.010	mg/L

MERCURY CVAA (CLP) ILM01

Analyst: G. MAPP Analysis Date: 10-SEP-93 Instrument: CVAA Test: M920.2.0
Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P931.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00050	mg/L

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288944

NICKEL ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M922.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
NICKEL	0.031	0.010	mg/L

TIN ICP SW846-6010A

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M135.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
TIN	BDL	0.050	mg/L

SILVER ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M930.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SELENIUM GFAA (CLP) ILM01

Analyst: M. BAUER Analysis Date: 13-SEP-93 Instrument: GFAA Test: M928.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0050	mg/L

VANADIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M938.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.010	mg/L

ZINC ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M939.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ZINC	4.4	0.020	mg/L

NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD)

Analyst: B. HAHN Analysis Date: 08-SEP-93 Test: P105.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	100		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
EXTRACTED SAMPLE	100		Grams
SOLIDS	100		Percent
9.5 MM SIEVE TEST			Passed
INITIAL PH	6.21		Std. Units
FINAL PH	6.24		Std. Units
INITIAL DI ADDED	1600		mL
FINAL DI ADDED	2000		mL
TOTAL ACID ADDED	NA		mL
VOLUME LIQUID (ADD BACK)	NA		mL
TOTAL VOLUME FILTRATE	2000		mL
INITIAL TIME	10104.4		Hours

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288944

Parameter	Result	Det. Limit	Units
FINAL TIME	10128.3		Hours

YANIDE DISTILLATION (CLP) ILM01
Analyst: J. STOAKES Analysis Date: 10-SEP-93 Test: P901.4.0
Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD) P105.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	500		mL
FINAL VOLUME	250		mL

CYANIDE, TOTAL (AUTOMATED) (CLP) ILM01
Analyst: J. WILDER Analysis Date: 10-SEP-93 Instrument: AUTO-ANALYZER Test: G901.4.0
Prep: CYANIDE DISTILLATION (CLP) ILM01 P901.4.0
Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD) P105.1.0

Parameter	Result	Det. Limit	Units
CYANIDE	BDL	0.005	mg/L

Sample Comments

ADDITIONAL SAMPLE WAS RECEIVED INTO THE LABORATORY ON 09/07/93. IT WAS SAMPLED ON 09/07/93 AT 10:30AM. DCE
THIS IS A MODIFIED REPORT. REPORT RE-ISSUED TO INCLUDE PYRIDINE AND 3-METHYLPHENOL. (BOTH NON-DETECTED IN SEMIVOLATILE ANALYSIS) CCB 10/12/93

BDL Below Detection Limit
EST Estimated Value
NA Not Applicable
RT Retention Time

ample chain of custody number 14513.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

PROJECT RECORD

Quality Assurance Officer: G A Busch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	27-SEP-93	2471	A291098
	Complete: 12-OCT-93	PO Number: 92005 *	
	Printed: 13-OCT-93	Sampled: 07-SEP-93	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

DESCRIPTION: ECC-04A1-PBM-03
LOCATION: ECC - ZIONSVILLE

PROJECT RECORD

TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

Analyst: L. WILSON Analysis Date: 28-SEP-93 Test: P116.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		Grams
FINAL VOLUME	100		mL

SULFIDE SW846-9030A

Analyst: L. WILSON Analysis Date: 28-SEP-93 Test: G110.4.0

Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1 P116.2.0

Parameter	Result	Det. Limit	Units
SULFIDE	BDL	10	mg/kg

PCB SONICATION EXTRACTION SW846-3550

Analyst: J. ISENBERG Analysis Date: 27-SEP-93 Test: P231.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	9.76		Grams
FINAL VOLUME	100		mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst: L. WILLIAMS Analysis Date: 28-SEP-93 Instrument: GC/ECD Test: O301.2.0

Prep: PCB SONICATION EXTRACTION SW846-3550 P231.1.0

Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	1.0	mg/kg
PCB AROCHLOR 1221	BDL	5.0	mg/kg
PCB AROCHLOR 1232	BDL	1.0	mg/kg
PCB AROCHLOR 1242	BDL	1.0	mg/kg
PCB AROCHLOR 1248	BDL	1.0	mg/kg
PCB AROCHLOR 1254	BDL	1.0	mg/kg
PCB AROCHLOR 1260	BDL	1.0	mg/kg
PCB AROCHLOR 1262	BDL	1.0	mg/kg

Sample Comments

SAMPLE WAS ORIGINALLY RECEIVED INTO THE LABORATORY ON 08/31/93.

BDL Below Detection Limit

Sample Comments

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

PROJECT RECORD

Quality Assurance Officer: _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	31-AUG-93	2471	A288945
	Complete	PO Number	
	17-SEP-93	92005 *	
	Printed	Sampled	
	12-OCT-93	31-AUG-93 14:15	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Descriptio **PROJECT RECORD**

SAMPLE I.D.: ECC-04A1-PBM-04
DESCRIPTION: WOOD
LOCATION: ECC -ZIONSVILLE

ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

Analyst: G. WILSON Analysis Date: 03-SEP-93 Test: P108.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	25.0		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
LIQUID PORTION	NA		mL
XTRACTED SAMPLE	25.0		Grams
HASE ONE VOLUME (REP 0)	423.5		mL
PHASE TWO VOLUME (REP 1)	NA		mL

CLP VOLATILE ORGANICS OLM01

Analyst: G. WILSON Analysis Date: 07-SEP-93 10:56 Instrument: GC/MS VOA Test: 0902.2.0
Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311 P108.1.0

Parameter	Result	Det. Limit	Units
CHLOROMETHANE	BDL	100	ug/L
BROMOMETHANE	BDL	100	ug/L
VINYL CHLORIDE	BDL	100	ug/L
CHLOROETHANE	BDL	100	ug/L
METHYLENE CHLORIDE	BDL	100	ug/L
ACETONE	BDL	100	ug/L
CARBON DISULFIDE	BDL	100	ug/L
1,1-DICHLOROETHENE	BDL	100	ug/L
1,1-DICHLOROETHANE	BDL	100	ug/L
1,2-DICHLOROETHENE (TOTAL)	BDL	100	ug/L
CHLOROFORM	BDL	100	ug/L
1,2-DICHLOROETHANE	BDL	100	ug/L
2-BUTANONE	BDL	100	ug/L
1,1,1-TRICHLOROETHANE	BDL	100	ug/L
CARBON TETRACHLORIDE	BDL	100	ug/L
BROMODICHLOROMETHANE	BDL	100	ug/L
1,2-DICHLOROPROPANE	BDL	100	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	100	ug/L
RICHLOROETHENE	BDL	100	ug/L
DIBROMOCHLOROMETHANE	BDL	100	ug/L
1,1,2-TRICHLOROETHANE	BDL	100	ug/L
BENZENE	BDL	100	ug/L

 (continued on next page)

HERITAGE LABORATORIES, INC. Lab Sample ID: A288945

Parameter	Result	Det. Limit	Units
TRANS-1,3-DICHLOROPROPENE	BDL	100	ug/L
BROMOFORM	BDL	100	ug/L
4-METHYL-2-PENTANONE	BDL	100	ug/L
2-HEXANONE	BDL	100	ug/L
TETRACHLOROETHENE	BDL	100	ug/L
TOLUENE	BDL	100	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	100	ug/L
CHLOROBENZENE	BDL	100	ug/L
ETHYLBENZENE	BDL	100	ug/L
STYRENE	BDL	100	ug/L
XYLENE (TOTAL)	BDL	100	ug/L
SURROGATE RECOVERY			
DICHLOROETHANE-D4	109		% Rec
TOLUENE-D8	97		% Rec
BROMOFLUOROBENZENE	101		% Rec

1:10 DILUTION.

TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Analyst: S. CARDWELL Analysis Date: 03-SEP-93 Test: P107.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	100		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
EXTRACTED SAMPLE	100		Grams
SOLIDS	100		Percent
.5 MM SIEVE TEST			Passed
INITIAL PH	3.91		Std. Units
ADJUSTED PH	NA		Std. Units
BUFFER SOLUTION PH	4.93		Std. Units
FINAL PH	4.88		Std. Units
VOLUME BUFFERED SOLUTION	2000		mL
VOLUME EXTRACT FILTERED	2000		mL
LIQUID FRACTION	0		mL
TOTAL VOLUME FILTRATE	2000		mL
AMBIENT TEMPERATURE	23		Degrees C
INITIAL TIME	8050.9		HRS
FINAL TIME	8068.9		HRS
PHASE 0 VOLUME (REP 0)	NA		mL
PHASE 0 WEIGHT	NA		Grams
PHASE 0 DENSITY	NA		g/mL
PHASE 1 VOLUME (REP 1)	NA		mL
PHASE 1 WEIGHT	NA		Grams
PHASE 1 DENSITY	NA		g/mL

CLP SEMI-VOLATILE EXTRACTION OLM01

Analyst: C. KING Analysis Date: 09-SEP-93 Test: P901.2.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288945

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst: A. BRADBURN Analysis Date: 14-SEP-93 17:24 Instrument: GC/MS SVOA Test: 0901.2.0

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01 P901.2.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
PHENOL	BDL	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
1,3-DICHLOROBENZENE	BDL	10	ug/L
1,4-DICHLOROBENZENE	BDL	10	ug/L
1,2-DICHLOROBENZENE	BDL	10	ug/L
2-METHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
4-METHYLPHENOL	BDL	10	ug/L
N-NITROSO-DI-N-PROPYLAMINE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
NITROBENZENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
NAPHTHALENE	BDL	10	ug/L
4-CHLOROANILINE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-METHYLNAPHTHALENE	BDL	10	ug/L
'EXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
,4,6-TRICHLOROPHENOL	BDL	10	ug/L
2,4,5-TRICHLOROPHENOL	BDL	25	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
2-NITROANILINE	BDL	25	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
3-NITROANILINE	BDL	25	ug/L
ACENAPHTHENE	BDL	10	ug/L
2,4-DINITROPHENOL	BDL	25	ug/L
4-NITROPHENOL	BDL	25	ug/L
DIBENZOFURAN	BDL	10	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
4-CHLOROPHENYLPHENYLETHER	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
4-NITROANILINE	BDL	25	ug/L
4,6-DINITRO-2-METHYLPHENOL	BDL	25	ug/L
N-NITROSO-DIPHENYLAMINE	BDL	10	ug/L
4-BROMOPHENYLPHENYLETHER	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
PENTACHLOROPHENOL	BDL	25	ug/L
PHENANTHRENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
CARBAZOLE	BDL	10	ug/L
I-N-BUTYLPHTHALATE	BDL	10	ug/L
LOURANTHENE	BDL	10	ug/L
PYRENE	BDL	10	ug/L
BENZYLBUTYLPHTHALATE	BDL	10	ug/L

PROJECT RECORD

Parameter	Result	Det. Limit	Units
3,3'-DICHLOROBENZIDINE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
PYRIDINE	BDL	50	ug/L
3-METHYLPHENOL (M-CRESOL)	BDL	10	ug/L
SURROGATE RECOVERY			

2-FLUOROPHENOL	76		% Rec
PHENOL-D5	48		% Rec
NITROBENZENE-D5	55		% Rec
2-CHLOROPHENOL-D4	70		% Rec
2-FLUOROBIPHENYL	89		% Rec
2,4,6-TRIBROMOPHENOL	95		% Rec
TERPHENYL-D14	64		% Rec
1,2-DICHLOROBENZENE-D4	67		% Rec

ALSO DETECTED			

1-METHYLETHYL ESTER PROPANOIC ACID	EST 67 RT=6.92		ug/L
2-METHYLPROPANOIC ACID	EST 10 RT=7.3		ug/L
BUTANOIC ACID	EST 31 RT=7.74		ug/L
BUTENOIC ACID	EST 11 RT=7.87		ug/L
1-METHYLETHYL ESTER BUTANOIC ACID	EST 8 RT=8.46		ug/L
UNKNOWN ACID	EST 20 RT=8.54		ug/L
UNKNOWN ACID	EST 12 RT=8.74		ug/L
UNKNOWN	EST 7 RT=10.51		ug/L
UNKNOWN KETONE	EST 11 RT=11.53		ug/L
UNKNOWN	EST 10 RT=13.2		ug/L
UNKNOWN	EST 13 RT=16.67		ug/L
UNKNOWN	EST 12 RT=16.88		ug/L
UNKNOWN	EST 7 RT=17.27		ug/L
UNKNOWN	EST 62 RT=17.45		ug/L
4-HYDROXY-3-METHOXY-BENZALDEHYDE	EST 8 RT=17.65		ug/L
2,5-DIMETHOXY-3,6-DI..2,5-CYCLOHEXADIENE-1,4-DIO	EST 10 RT=17.99		ug/L
UNKNOWN	EST 10 RT=18.07		ug/L
UNKNOWN	EST 7 RT=19.68		ug/L
UNKNOWN	EST 9 RT=19.76		ug/L
8-HYDROXY-6-METHOXY-3-METHYL-1H-2-BENZOPYRAN-1-O	EST 13 RT=22.52		ug/L
UNKNOWN	EST 10 RT=22.88		ug/L

PROJECT RECORD

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst: A. BRADBURN Analysis Date: 15-SEP-93 14:55 Instrument: GC/MS SVOA Test: 0901.2.1

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01 P901.2.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
PHENOL	BDL	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
1,3-DICHLOROBENZENE	BDL	10	ug/L

HERITAGE LABORATORIES, INC. Lab Sample ID: A288945

Parameter	Result	Det. Limit	Units
1,4-DICHLOROBENZENE	BDL	10	ug/L
1,2-DICHLOROBENZENE	BDL	10	ug/L
-METHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
4-METHYLPHENOL	BDL	10	ug/L
N-NITROSO-DI-N-PROPYLAMINE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
NITROBENZENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
NAPHTHALENE	BDL	10	ug/L
4-CHLOROANILINE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-METHYLNAPHTHALENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
2,4,6-TRICHLOROPHENOL	BDL	10	ug/L
2,4,5-TRICHLOROPHENOL	BDL	25	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
2-NITROANILINE	BDL	25	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
-NITROANILINE	BDL	25	ug/L
ACENAPHTHENE	BDL	10	ug/L
2,4-DINITROPHENOL	BDL	25	ug/L
4-NITROPHENOL	BDL	25	ug/L
DIBENZOFURAN	BDL	10	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
4-CHLOROPHENYLPHENYLETHER	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
4-NITROANILINE	BDL	25	ug/L
4,6-DINITRO-2-METHYLPHENOL	BDL	25	ug/L
N-NITROSO-DIPHENYLAMINE	BDL	10	ug/L
4-BROMOPHENYLPHENYLETHER	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
PENTACHLOROPHENOL	BDL	25	ug/L
PHENANTHRENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
CARBAZOLE	BDL	10	ug/L
DI-N-BUTYLPHTHALATE	BDL	10	ug/L
FLOURANTHENE	BDL	10	ug/L
PYRENE	BDL	10	ug/L
BENZYLBUTYLPHTHALATE	BDL	10	ug/L
3,3'-DICHLOROBENZIDINE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L

PROJECT RECORD

Parameter	Result	Det. Limit	Units
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
SURROGATE RECOVERY	BDL		

2-FLUOROPHENOL	23		% Rec
PHENOL-D5	50		% Rec
NITROBENZENE-D5	58		% Rec
2-CHLOROPHENOL-D4	51		% Rec
2-FLUOROBIPHENYL	87		% Rec
2,4,6-TRIBROMOPHENOL	86		% Rec
TERPHENYL-D14	68		% Rec
1,2-DICHLOROBENZENE-D4	61		% Rec

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Analyst: S. CARDWELL Analysis Date: 04-SEP-93 Test: P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Analyst: E. MERRILL Analysis Date: 09-SEP-93 Test: P930.4.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

FAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Analyst: S. CARDWELL Analysis Date: 04-SEP-93 Test: P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Analyst: C. COFFEY Analysis Date: 09-SEP-93 Test: P930.6.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL WEIGHT OR VOLUME	50		mL

MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Analyst: R. BYERS Analysis Date: 09-SEP-93 Test: P931.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	100		mL
FINAL VOLUME	100		mL

ANTIMONY ICP (CLP) ILM01
Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M902.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ANTIMONY	BDL	0.030	mg/L

PROJECT RECORD

ARSENIC GFAA (CLP) ILM01

Analyst: A. ROBERTSON Analysis Date: 07-SEP-93 Instrument: GFAA Test: M903.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.029	0.0020	mg/L

BARIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M904.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
BARIUM	3.9	0.010	mg/L

BERYLLIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M905.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
BERYLLIUM	BDL	0.0050	mg/L

CADMIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M908.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

HEXAVALENT CHROMIUM SW846-7196A

Analyst: S. PFEFFER Analysis Date: 07-SEP-93 Test: M110.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
HEXAVALENT CHROMIUM	BDL	0.05	mg/L

1:5 dilution due to color interference.

CHROMIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M910.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CHROMIUM	0.011	0.010	mg/L

LEAD GFAA (CLP) ILM01

Analyst: J. WALLACE Analysis Date: 10-SEP-93 Instrument: GFAA Test: M916.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
LEAD	0.0072	0.0060	mg/L

1:2 DILUTION

PROJECT RECORD

MANGANESE ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M919.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
MANGANESE	0.53	0.010	mg/L

MERCURY CVAA (CLP) ILM01

Analyst: G. MAPP Analysis Date: 10-SEP-93 Instrument: CVAA Test: M920.2.0
Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P931.6.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00050	mg/L

NICKEL ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M922.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
NICKEL	BDL	0.010	mg/L

TIN ICP SW846-6010A

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M135.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
TIN	BDL	0.050	mg/L

ILVER ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 10-SEP-93 08:00 Instrument: ICP Test: M930.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L

SELENIUM GFAA (CLP) ILM01

Analyst: M. BAUER Analysis Date: 13-SEP-93 Instrument: GFAA Test: M928.2.0
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.6.1
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.0050	mg/L

VANADIUM ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M938.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
VANADIUM	BDL	0.010	mg/L

ZINC ICP (CLP) ILM01

Analyst: M. JAO Analysis Date: 07-SEP-93 08:00 Instrument: ICP Test: M939.3.0
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01 P930.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INC	3.9	0.020	mg/L

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A288945

NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD)
Analyst: B. HAHN Analysis Date: 08-SEP-93 Test: P105.1.0

Parameter	Result	Det. Limit	Units
OTAL SAMPLE WEIGHT	100		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
EXTRACTED SAMPLE	100		Grams
SOLIDS	100		Percent
9.5 MM SIEVE TEST			Passed
INITIAL PH	4.86		Std. Units
FINAL PH	4.46		Std. Units
INITIAL DI ADDED	1600		mL
FINAL DI ADDED	2000		mL
TOTAL ACID ADDED	NA		mL
VOLUME LIQUID (ADD BACK)	NA		mL
TOTAL VOLUME FILTRATE	2000		mL
INITIAL TIME	10104.4		Hours
FINAL TIME	10128.3		Hours

CYANIDE DISTILLATION (CLP) ILM01
Analyst: J. STOAKES Analysis Date: 10-SEP-93 Test: P901.4.0
Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD) P105.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	500		mL
FINAL VOLUME	250		mL

CYANIDE, TOTAL (AUTOMATED) (CLP) ILM01
Analyst: J. WILDER Analysis Date: 10-SEP-93 Instrument: AUTO-ANALYZER Test: G901.4.0
Prep: CYANIDE DISTILLATION (CLP) ILM01 P901.4.0
Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD) P105.1.0

Parameter	Result	Det. Limit	Units
CYANIDE	BDL	0.005	mg/L

Sample Comments

ADDITIONAL SAMPLE RECEIVED INTO THE LABORATORY ON 09/07/93. IT WAS SAMPLED ON 09/07/93 AT 11:00AM. DCE
THIS IS A MODIFIED REPORT. REPORT RE-ISSUED TO INCLUDE PYRIDINE AND 3-METHYLPHENOL. (BOTH NON-DETECTED IN SEMIVOLTILE ANALYSIS) CCB 10/12/93

BDL Below Detection Limit
EST Estimated Value
NA Not Applicable
RT Retention Time

Sample chain of custody number 14513.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

PROJECT RECORD

Quality Assurance Officer: G A Busch

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	27-SEP-93	2471	A291100
	Complete	PO Number	
	12-OCT-93	92005 *	
	Printed	Sampled	
	13-OCT-93	31-AUG-93	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

DESCRIPTION: ECC-04A1-PBM-04
LOCATION: ECC - ZIONSVILLE

TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

Analyst: L. WILSON Analysis Date: 28-SEP-93 Test: P116.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		Grams
FINAL VOLUME	100		mL

SULFIDE SW846-9030A

Analyst: L. WILSON Analysis Date: 28-SEP-93 Test: G110.4.0
Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1 P116.2.0

Parameter	Result	Det. Limit	Units
SULFIDE	BDL	10	mg/kg

PCB SONICATION EXTRACTION SW846-3550

Analyst: J. ISENBERG Analysis Date: 27-SEP-93 Test: P231.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10.01		Grams
FINAL VOLUME	100		mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst: L. WILLIAMS Analysis Date: 28-SEP-93 Instrument: GC/ECD Test: O301.2.0
Prep: PCB SONICATION EXTRACTION SW846-3550 P231.1.0

Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	1.0	mg/kg
PCB AROCHLOR 1221	BDL	5.0	mg/kg
PCB AROCHLOR 1232	BDL	1.0	mg/kg
PCB AROCHLOR 1242	BDL	1.0	mg/kg
PCB AROCHLOR 1248	BDL	1.0	mg/kg
PCB AROCHLOR 1254	BDL	1.0	mg/kg
PCB AROCHLOR 1260	BDL	1.0	mg/kg
PCB AROCHLOR 1262	BDL	1.0	mg/kg

Sample Comments

BDL *Below Detection Limit*

PROJECT RECORD

Sample Comments

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

PROJECT RECORD

Quality Assurance Officer: _____

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	31-AUG-93	A288829
	Complete 17-SEP-93	PO Number 92005 *
	Printed 23-SEP-93	Sampled 31-AUG-93 13:00

Sample Description

SAMPLE I.D.: ECC-04A1-PBM-01
DESCRIPTION: CONCRETE
LOCATION: ECC -ZIONSVILLE

PROJECT RECORD

CLP VOLATILE ORGANICS OLM01

Analyst : G. WILSON — Analysis Date: 07-SEP-93 — Instrument: GC/MS VOA — Test: 0902.2.0
Reviewer: A. BRADBURN — Review Date: 08-SEP-93 — File ID: >0530C — Run: R196156

Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q777094	A288621	1,1-DICHLOROETHENE	0	50	48	ug/L	96	
SPI01	Q777094	A288621	TRICHLOROETHENE	0	50	47	ug/L	94	
SPI01	Q777094	A288621	BENZENE	0	50	51	ug/L	102	
SPI01	Q777094	A288621	TOLUENE	0	50	47	ug/L	94	
SPI01	Q777094	A288621	CHLOROBENZENE	0	50	50	ug/L	100	
DPS01	Q777095	A288621	1,1-DICHLOROETHENE	0	50	51	ug/L	102	6.1
DPS01	Q777095	A288621	TRICHLOROETHENE	0	50	47	ug/L	94	0
DPS01	Q777095	A288621	BENZENE	0	50	50	ug/L	100	2
DPS01	Q777095	A288621	TOLUENE	0	50	46	ug/L	92	2.2
S01	Q777095	A288621	CHLOROBENZENE	0	50	50	ug/L	100	0
.V	Q777112		See Attached Report x0520c.ind						
BLA01	Q777113		See Attached Report x0521c.ind						
SAMPLE	A288829		See Certificate of Analysis						

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst : A. BRADBURN — Analysis Date: 14-SEP-93 — Instrument: GC/MS SVOA — Test: 0901.2.0
Reviewer: S. BROTHERTON — Review Date: 17-SEP-93 — File ID: >4475F — Run: R196847

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DPS02	Q777406	A288829	PHENOL	5	200	130	ug/L	62.5	8.3
DPS02	Q777406	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	0
DPS02	Q777406	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	54	ug/L	54	35.1
DPS02	Q777406	A288829	1,2,4-TRICHLOROBENZENE	0	100	69	ug/L	69	14.8
DPS02	Q777406	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	0
DPS02	Q777406	A288829	ACENAPHTHENE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	4-NITROPHENOL	0	200	120	ug/L	60	15.4
DPS02	Q777406	A288829	2,4-DINITROTOLUENE	0	100	62	ug/L	62	22.9
DPS02	Q777406	A288829	PENTACHLOROPHENOL	0	200	160	ug/L	80	17.1
DPS02	Q777406	A288829	PYRENE	0	100	73	ug/L	73	27.2
SPI02	Q777405	A288829	PHENOL	5	200	120	ug/L	57.5	
SPI02	Q777405	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	
SPI02	Q777405	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	76	ug/L	76	
PI02	Q777405	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	77	ug/L	77	
I02	Q777405	A288829	1,2,4-TRICHLOROBENZENE	0	100	80	ug/L	80	
PI02	Q777405	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	
SPI02	Q777405	A288829	ACENAPHTHENE	0	100	76	ug/L	76	
SPI02	Q777405	A288829	4-NITROPHENOL	0	200	140	ug/L	70	

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q777405	A288829	2,4-DINITROTOLUENE	0	100	78	ug/L	78	
SPI02	Q777405	A288829	PENTACHLOROPHENOL	0	200	190	ug/L	95	
SPI02	Q777405	A288829	PYRENE	0	100	96	ug/L	96	
CCV	Q782234		See Attached Report g4465f.ind						
BLA02	Q782235		See Attached Report g4470f.ind						
SAMPLE	A288829		See Certificate of Analysis						

ANTIMONY ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 07-SEP-93 Instrument: ICP Test: M902.3.0
Reviewer: S. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	ANTIMONY	0.400		0.400	mg/L	100	
DUP02	Q773991	A288829	ANTIMONY	0		BDL	mg/L		
SPI02	Q773989	A288829	ANTIMONY	0	0.500	0.496	mg/L	99	
CDL01	Q776642	PERKIN ELM	ANTIMONY	0.120		0.125	mg/L	104	
CCV	Q776492	INORGANIC	ANTIMONY	1.00		1.04	mg/L	104	
BLA01	Q776486	NA	ANTIMONY			< 0.012	mg/L		
LCS	Q773987	SPEX	ANTIMONY	5.00		4.90	mg/L	98	
BLA02	Q773988	NA	ANTIMONY			< 0.012	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q776377	INORGANIC	ANTIMONY	1.00		1.02	mg/L	102	
BLA01	Q776371	NA	ANTIMONY			< 0.012	mg/L		
CDL01	Q776706	PERKIN ELM	ANTIMONY	0.120		0.134	mg/L	112	

ARSENIC GFAA (CLP) ILM01

Analyst : A. ROBERTSON Analysis Date: 07-SEP-93 Instrument: GFAA Test: M903.2.0
Reviewer: B. O'NEAL Review Date: 08-SEP-93 File ID: 026936 Run: R196195

Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q777328		ARSENIC	.01		.0103	mg/L	103	
DUP02	Q773986	A288829	ARSENIC	.002		< .002	mg/L		0
SPI02	Q773984	A288829	ARSENIC	0	.04	.0343	mg/L	85.8	
CCV	Q777330		ARSENIC	.02		.0187	mg/L	93.5	
BLA01	Q777331		ARSENIC			< .0008	mg/L		
CDL01	Q777332		ARSENIC	.01		.0096	mg/L	96	
LCS	Q773982		ARSENIC	.02		.0196	mg/L	98	
BLA02	Q773983		ARSENIC			< .0008	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CDL01	Q777339		ARSENIC	.01		.0091	mg/L	91	
CCV	Q777340		ARSENIC	.02		.0183	mg/L	91.5	
BLA01	Q777341		ARSENIC			< .0008	mg/L		

BARIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 07-SEP-93 Instrument: ICP Test: M904.3.0
Reviewer: S. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776663	PERKIN ELM	BARIUM	2.00		2.02	mg/L	101	
DUP02	Q773991	A288829	BARIUM	0.689		0.731	mg/L		6
SPI02	Q773989	A288829	BARIUM	0.689	2.00	2.52	mg/L	92	
CDL01	Q776641	INORGANIC	BARIUM	10		10.1	mg/L	101	
ICS-A	Q776640	PERKIN ELM	BARIUM	[illegible]		0.478	mg/L	96	
CCV	Q776492	INORGANIC	BARIUM	[illegible]		5.16	mg/L	103	

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q776486	NA	BARIUM			< 0.004	mg/L		
"S	Q773987	SPEX	BARIUM	20.0		16.1	mg/L	81	
A02	Q773988	NA	BARIUM			< 0.004	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q776377	INORGANIC	BARIUM	5.00		4.99	mg/L	100	
BLA01	Q776371	NA	BARIUM			< 0.004	mg/L		
ICS-A	Q776705	PERKIN ELM	BARIUM	0.500		0.475	mg/L	95	

BERYLLIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 07-SEP-93 Instrument: ICP Test: M905.3.0
Reviewer: S. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	BERYLLIUM	0.400		0.403	mg/L	101	
DUP02	Q773991	A288829	BERYLLIUM	0		BDL	mg/L		
SPI02	Q773989	A288829	BERYLLIUM	0	0.050	0.0435	mg/L	87	
CDL01	Q776641	INORGANIC	BERYLLIUM	10		10.1	mg/L	101	
ICS-A	Q776640	PERKIN ELM	BERYLLIUM	0.500		0.476	mg/L	95	
CCV	Q776492	INORGANIC	BERYLLIUM	5.00		5.15	mg/L	103	
BLA01	Q776486	NA	BERYLLIUM			< 0.002	mg/L		
LCS	Q773987	SPEX	BERYLLIUM	0.500		0.406	mg/L	81	
BLA02	Q773988	NA	BERYLLIUM			< 0.002	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q776377	INORGANIC	BERYLLIUM	5.00		5.02	mg/L	100	
BLA01	Q776371	NA	BERYLLIUM			< 0.002	mg/L		
CDL01	Q776706	PERKIN ELM	BERYLLIUM	0.010		0.00711	mg/L	71	
S-A	Q776705	PERKIN ELM	BERYLLIUM	0.500		0.472	mg/L	94	

CADMIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 07-SEP-93 Instrument: ICP Test: M908.3.0
Reviewer: S. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	CADMIUM	0.400		0.417	mg/L	104	
DUP02	Q773991	A288829	CADMIUM	0		BDL	mg/L		
SPI02	Q773989	A288829	CADMIUM	0	0.050	0.0433	mg/L	87	
CDL01	Q776641	INORGANIC	CADMIUM	10		10.3	mg/L	103	
ICS-A	Q776640	PERKIN ELM	CADMIUM	1.00		0.919	mg/L	92	
CCV	Q776492	INORGANIC	CADMIUM	5.00		5.26	mg/L	105	
BLA01	Q776486	NA	CADMIUM			< 0.002	mg/L		
LCS	Q773987	SPEX	CADMIUM	0.500		0.407	mg/L	81	
BLA02	Q773988	NA	CADMIUM			< 0.002	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q776377	INORGANIC	CADMIUM	5.00		5.08	mg/L	102	
BLA01	Q776371	NA	CADMIUM			< 0.002	mg/L		
CDL01	Q776706	PERKIN ELM	CADMIUM	0.010		0.0107	mg/L	107	
ICS-A	Q776705	PERKIN ELM	CADMIUM	1.00		0.925	mg/L	93	

PROJECT RECORD

HEXAVALENT CHROMIUM SW846-7196A

Analyst : S. PFEFFER Analysis Date: 07-SEP-93 Test: M110.6.0
Reviewer: B. SHRAKE Review Date: 07-SEP-93 File ID: 2151-2152 Run: R196027
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776132		HEXAVALENT CHROMIUM	.178		.165	mg/L	92.7	
ICV01	Q776139		HEXAVALENT CHROMIUM	.178		.154	mg/L	86.5	
SPI01	Q776136	A288829	HEXAVALENT CHROMIUM	0	.2	.202	mg/L	101	
DUP01	Q776137	A288945	HEXAVALENT CHROMIUM	.05		< .05	mg/L		0
BLA01	Q776130		HEXAVALENT CHROMIUM			-.003	mg/L		
CDL01	Q776131		HEXAVALENT CHROMIUM	.05		.051	mg/L	102	
CCV	Q776135		HEXAVALENT CHROMIUM	.2		.204	mg/L	102	
SAMPLE	A288829		See Certificate of Analysis						
BLA01	Q776138		HEXAVALENT CHROMIUM			0	mg/L		
CCV	Q776140		HEXAVALENT CHROMIUM	.2		.209	mg/L	104.5	

CHROMIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M910.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	CHROMIUM	0.400		0.401	mg/L	100	
SPI01	Q779599	A289027	CHROMIUM	0	0.200	0.211	mg/L	106	
DUP01	Q779600	A289027	CHROMIUM	0		BDL	mg/L		
DUP02	Q776735	A288944	CHROMIUM	0		BDL	mg/L		
SPI02	Q776733	A288944	CHROMIUM	0	0.200	0.197	mg/L	99	
CDL01	Q779673	INORGANIC	CHROMIUM	10		9.98	mg/L	100	
ICS-A	Q779674	PERKIN ELM	CHROMIUM	0.500		0.437	mg/L	87	
ICV	Q779641	INORGANIC	CHROMIUM	5.00		4.93	mg/L	99	
BLA01	Q779642	NA	CHROMIUM			< 0.004	mg/L		
LCS	Q776731	SPEX	CHROMIUM	2.00		1.83	mg/L	92	
BLA02	Q776732	NA	CHROMIUM			< 0.004	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q779670	INORGANIC	CHROMIUM	5.00		4.96	mg/L	99	
BLA01	Q779668	NA	CHROMIUM			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	CHROMIUM	0.020		0.0197	mg/L	99	
ICS-A	Q779615	PERKIN ELM	CHROMIUM	0.500		0.452	mg/L	90	

LEAD GFAA (CLP) ILM01

Analyst : J. WALLACE Analysis Date: 10-SEP-93 Instrument: GFAA Test: M916.2.0
Reviewer: S. O'NEAL Review Date: 13-SEP-93 File ID: 026950 Run: R196571
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780015		LEAD	.01		.0106	mg/L	106	
DUP01	Q780070	A287207	LEAD	.005		< .005	mg/L		0
DUP02	Q776569	A288944	LEAD	.032		< .032	mg/L		0
SPI02	Q776567	A288944	LEAD	.032	.02	.052	mg/L	100	
CDL01	Q780028		LEAD	.003		.0033	mg/L	110	
CCV	Q780029		LEAD	.02		.0203	mg/L	101.5	
BLA01	Q780030		LEAD			< .0012	mg/L		
LCS	Q776565		LEAD	.02		.022	mg/L	110	
BLA02	Q776566		LEAD			< .0012	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CDL01	Q780035		LEAD	.003		.0028	mg/L	93.3	
CCV	Q780036		LEAD	.02		.0207	mg/L	103.5	
BLA01	Q780037		LEAD			< .0012	mg/L		

PROJECT RECORD

MANGANESE ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M919.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	MANGANESE	0.400		0.403	mg/L	101	
SPI01	Q779599	A289027	MANGANESE	0	0.500	0.543	mg/L	109	
DUP01	Q779600	A289027	MANGANESE	0		BDL	mg/L		
DUP02	Q776735	A288944	MANGANESE	0.565		0.552	mg/L		2
SPI02	Q776733	A288944	MANGANESE	0.565	0.500	1.00	mg/L	87	
CDL01	Q779673	INORGANIC	MANGANESE	10		9.96	mg/L	100	
ICS-A	Q779674	PERKIN ELM	MANGANESE	0.500		0.456	mg/L	91	
CCV	Q779641	INORGANIC	MANGANESE	5.00		4.91	mg/L	98	
BLA01	Q779642	NA	MANGANESE			< 0.004	mg/L		
LCS	Q776731	SPEX	MANGANESE	5.00		4.50	mg/L	90	
BLA02	Q776732	NA	MANGANESE			< 0.004	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q779670	INORGANIC	MANGANESE	5.00		4.94	mg/L	99	
BLA01	Q779668	NA	MANGANESE			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	MANGANESE	0.030		0.0310	mg/L	103	
ICS-A	Q779615	PERKIN ELM	MANGANESE	0.500		0.470	mg/L	94	

MERCURY CVAA (CLP) ILM01

Analyst : G. MAPP Analysis Date: 10-SEP-93 Instrument: CVAA Test: M920.2.0
Reviewer: R. BYERS Review Date: 13-SEP-93 File ID: 026958 Run: R196597

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
V01	Q780253		MERCURY	.002		.00195	mg/L	97.5	
DUP02	Q776579	A288830	MERCURY	.0005		< .0005	mg/L		0
SPI02	Q776577	A288830	MERCURY	0	.001	.00111	mg/L	111	
CCV	Q780339		MERCURY	.003		.00268	mg/L	89.3	
BLA01	Q780340		MERCURY			< .0002	mg/L		
LCS	Q776575		MERCURY	.003		.00292	mg/L	97.3	
BLA02	Q776576		MERCURY			< .0002	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q780341		MERCURY	.003		.00268	mg/L	89.3	
BLA01	Q780342		MERCURY			< .00026	mg/L		

NICKEL ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 07-SEP-93 Instrument: ICP Test: M922.3.0
Reviewer: S. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	NICKEL	0.400		0.417	mg/L	104	
DUP02	Q773991	A288829	NICKEL	0.0112		0.0117	mg/L		4
SPI02	Q773989	A288829	NICKEL	0.0112	0.500	0.514	mg/L	101	
CDL01	Q776641	INORGANIC	NICKEL	10		10.2	mg/L	102	
ICS-A	Q776640	PERKIN ELM	NICKEL	1.00		0.896	mg/L	90	
CCV	Q776492	INORGANIC	NICKEL	5.00		5.26	mg/L	105	
BLA01	Q776486	NA	NICKEL			< 0.004	mg/L		
LCS	Q773987	SPEX	NICKEL	5		4	mg/L	80	
BLA02	Q773988	NA	NICKEL			< 0.004	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q776377	INORGANIC	NICKEL	5.00		5.05	mg/L	101	
BLA01	Q776371	NA	NICKEL			< 0.004	mg/L		

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CDL01	Q776706	PERKIN ELM	NICKEL	0.080		0.0853	mg/L	107	
ICS-A	Q776705	PERKIN ELM	NICKEL	1.00		0.911	mg/L	91	

TIN ICP SW846-6010A

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M135.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DUP01	Q779600	A289027	TIN	0		BDL	mg/L		
DUP02	Q776735	A288944	TIN	0		BDL	mg/L		
SPI02	Q776733	A288944	TIN	0	2.00	1.92	mg/L	96	
CCV	Q779641	INORGANIC	TIN	5.00		4.87	mg/L	97	
BLA01	Q779642	NA	TIN			< 0.02	mg/L		
LCS	Q776731	SPEX	TIN	2.00		1.90	mg/L	95	
BLA02	Q776732	NA	TIN			< 0.02	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q779670	INORGANIC	TIN	5.00		4.89	mg/L	98	
BLA01	Q779668	NA	TIN			< 0.02	mg/L		

SILVER ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M930.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779576	PERKIN ELM	SILVER	2.00		1.97	mg/L	99	
I01	Q779599	A289027	SILVER	0	0.050	0.0605	mg/L	121	
P01	Q779600	A289027	SILVER	0		BDL	mg/L		
DUP02	Q776735	A288944	SILVER	0		BDL	mg/L		
SPI02	Q776733	A288944	SILVER	0	0.050	0.0547	mg/L	109	
CDL01	Q779673	INORGANIC	SILVER	2		2.00	mg/L	100	
ICS-A	Q779674	PERKIN ELM	SILVER	1.00		0.933	mg/L	93	
CCV	Q779641	INORGANIC	SILVER	1.00		0.990	mg/L	99	
BLA01	Q779642	NA	SILVER			< 0.004	mg/L		
LCS	Q776731	SPEX	SILVER	0.500		0.436	mg/L	87	
BLA02	Q776732	NA	SILVER			< 0.004	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q779670	INORGANIC	SILVER	1.00		0.993	mg/L	99	
BLA01	Q779668	NA	SILVER			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	SILVER	0.020		0.0201	mg/L	101	
ICS-A	Q779615	PERKIN ELM	SILVER	1.00		0.947	mg/L	95	

SELENIUM GFAA (CLP) ILM01

Analyst : M. BAUER Analysis Date: 13-SEP-93 Instrument: GFAA Test: M928.2.0
Reviewer: S. O'NEAL Review Date: 14-SEP-93 File ID: 026964 Run: R196623
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780567		SELENIUM	.01		.0106	mg/L	106	
DUP02	Q776569	A288944	SELENIUM	.005		< .005	mg/L		0
SPI02	Q776567	A288944	SELENIUM	0	.01	.0076	mg/L	76	
CDL01	Q780575		SELENIUM	.005		.0058	mg/L	116	
CCV	Q780576		SELENIUM	.02		.0197	mg/L	98.5	
BLA01	Q780577		SELENIUM			< .002	mg/L		
LCS	Q776565		SELENIUM			.0204	mg/L	102	
BLA02	Q776566		SELENIUM			< .002	mg/L		

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SAMPLE	A288829		See Certificate of Analysis						
'L01	Q780578		SELENIUM	.005		.0051	mg/L	102	
V	Q780579		SELENIUM	.02		.02	mg/L	100	
BLA01	Q780580		SELENIUM			< .002	mg/L		

VANADIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 07-SEP-93 Instrument: ICP Test: M938.3.0
Reviewer: S. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	VANADIUM	0.400		0.404	mg/L	101	
DUP02	Q773991	A288829	VANADIUM	0.0113		0.0128	mg/L		12
SPI02	Q773989	A288829	VANADIUM	0.0113	0.500	0.465	mg/L	91	
CDL01	Q776641	INORGANIC	VANADIUM	10		10.2	mg/L	102	
ICS-A	Q776640	PERKIN ELM	VANADIUM	0.500		0.462	mg/L	92	
CCV	Q776492	INORGANIC	VANADIUM	5.00		5.30	mg/L	106	
BLA01	Q776486	NA	VANADIUM			< 0.004	mg/L		
LCS	Q773987	SPEX	VANADIUM	5.00		4.02	mg/L	80	
BLA02	Q773988	NA	VANADIUM			< 0.004	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q776377	INORGANIC	VANADIUM	5.00		5.08	mg/L	102	
BLA01	Q776371	NA	VANADIUM			< 0.004	mg/L		
CDL01	Q776706	PERKIN ELM	VANADIUM	0.100		0.101	mg/L	101	
ICS-A	Q776705	PERKIN ELM	VANADIUM	0.500		0.469	mg/L	94	

ZINC ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 07-SEP-93 Instrument: ICP Test: M939.3.0
Reviewer: S. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	ZINC	0.400		0.428	mg/L	107	
DUP02	Q773991	A288829	ZINC	0.467		0.482	mg/L		3
SPI02	Q773989	A288829	ZINC	0.467	0.500	0.926	mg/L	92	
CDL01	Q776641	INORGANIC	ZINC	10		10.1	mg/L	101	
ICS-A	Q776640	PERKIN ELM	ZINC	1.00		0.963	mg/L	96	
CCV	Q776492	INORGANIC	ZINC	5		5.51	mg/L	110	
BLA01	Q776486	NA	ZINC			< 0.008	mg/L		
LCS	Q773987	SPEX	ZINC	5		3.99	mg/L	80	
BLA02	Q773988	NA	ZINC			.0301	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CCV	Q776377	INORGANIC	ZINC	5.00		5.18	mg/L	104	
BLA01	Q776371	NA	ZINC			< 0.008	mg/L		
CDL01	Q776706	PERKIN ELM	ZINC	0.040		0.0735	mg/L	184	
ICS-A	Q776705	PERKIN ELM	ZINC	1.00		0.993	mg/L	99	

CYANIDE, TOTAL (AUTOMATED) (CLP) ILM01

Analyst : J. WILDER Analysis Date: 07-SEP-93 Instrument: AUTO-ANALYZER Test: G901.4.0
Reviewer: B. SHRAKE Review Date: 08-SEP-93 File ID: 1034 Run: R196118

Prep: CYANIDE DISTILLATION (CLP) ILM01
Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD)

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
V01	Q776758		CYANIDE	.205		.168	mg/L	82	
CV01	Q776796		CYANIDE	.205		.17	mg/L	82.9	
DUP01	Q776791	L101282	CYANIDE	.1		< .1	mg/kg		0
DPS02	Q776775	A288849	CYANIDE	0	2.5	2.2	mg/kg	88	2.3

PROJECT RECORD

EMS HERITAGE LABORATORIES, INC. Lab Sample ID: A288829

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q776776	A288849	CYANIDE	0	2.5	2.15	mg/kg	86	
'P02	Q776760	A288829	CYANIDE	.005		< .005	mg/L		0
,L01	Q776757		CYANIDE	.01		.011	mg/L	110	
BLA01	Q776759		CYANIDE			.002	mg/L		
LCS	Q776761		CYANIDE	.3		.244	mg/L	81.3	
BLA02	Q776762		CYANIDE			.003	mg/L		
SAMPLE	A288829		See Certificate of Analysis						
CDL01	Q776763		CYANIDE	.005		.007	mg/L	140	
CCV	Q776764		CYANIDE	.1		.111	mg/L	111	
BLA01	Q776765		CYANIDE			.002	mg/L		
BLA02	Q776766		CYANIDE			.004	mg/L		
LCS	Q776767		CYANIDE	.3		.255	mg/L	85	

Notes

BDL Below Detection Limit
< Less Than Lower Detection Limit

PROJECT RECORD

Quality Assurance Officer: CBBoyle

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	27-SEP-93	A291101
	Complete 12-OCT-93	PO Number 92005 *
	Printed 13-OCT-93	Sampled 31-AUG-93

Sample Description

DESCRIPTION: ECC-04A1-PBM-01
LOCATION: ECC - ZIONSVILLE

SULFIDE SW846-9030A

Analyst : L. WILSON — Analysis Date: 28-SEP-93 — Test: G110.4.0
Reviewer: B. SHRAKE — Review Date: 28-SEP-93 — File ID: 1480-1482 — Run: R198019

Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DUP02	Q791042	D117815	SULFIDE	10		< 10	mg/kg		0
BLA01	Q791040		SULFIDE			.259	mg/L		
LCS	Q791044		SULFIDE	72.8		85.5	mg/L	117.4	
SAMPLE	A291101		See Certificate of Analysis						
LCS	Q791045		SULFIDE	72.8		81.7	mg/L	112.2	

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst : L. WILLIAMS — Analysis Date: 28-SEP-93 — Instrument: GC/ECD — Test: 03D1.2.0
Reviewer: L. JULIAN — Review Date: 28-SEP-93 — File ID: 4412 — Run: R197982

Prep: PCB SONICATION EXTRACTION SW846-3550

Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV01	Q790741		PCB AROCHLOR 1248	.45		.415	mg/L	92.2	
ICV01	Q790741		PCB AROCHLOR 1260	.45		.493	mg/L	109.6	
DPS02	Q783695	A290125	PCB AROCHLOR 1260	0	8.81	9.3	mg/kg	105.6	8.8
SPI02	Q783694	A290125	PCB AROCHLOR 1260	0	8.97	8.67	mg/kg	96.7	
CCV	Q790744		PCB AROCHLOR 1248	.5		.499	mg/L	99.8	
CCV	Q790744		PCB AROCHLOR 1260	.5		.523	mg/L	104.6	
BLA02	Q783692	EMS	PCB AROCHLOR 1016			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1221			< 2	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1232			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1242			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1248			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1254			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1260			< .4	mg/kg		
LCS	Q783693		PCB AROCHLOR 1260	8.99		7.2	mg/kg	80.1	
SAMPLE	A291101		See Certificate of Analysis						

Notes

< *Less Than Lower Detection Limit*

PROJECT RECORD

Quality Assurance Officer: CBBoyle

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QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	31-AUG-93	A288830
	Complete 17-SEP-93	PO Number 92005 *
	Printed 23-SEP-93	Sampled 31-AUG-93 13:40

Sample Description

SAMPLE I.D.: ECC-04A1-PBM-02
DESCRIPTION: FIBERGLASS
LOCATION: ECC -ZIONSVILLE

PROJECT RECORD

CLP VOLATILE ORGANICS OLM01

Analyst : G. WILSON — Analysis Date: 07-SEP-93 — Instrument: GC/MS VOA — Test: 0902.2.0
Reviewer: A. BRADBURN — Review Date: 08-SEP-93 — File ID: >0531C — Run: R196156

Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q777094	A288621	1,1-DICHLOROETHENE	0	50	48	ug/L	96	
SPI01	Q777094	A288621	TRICHLOROETHENE	0	50	47	ug/L	94	
SPI01	Q777094	A288621	BENZENE	0	50	51	ug/L	102	
SPI01	Q777094	A288621	TOLUENE	0	50	47	ug/L	94	
SPI01	Q777094	A288621	CHLOROBENZENE	0	50	50	ug/L	100	
DPS01	Q777095	A288621	1,1-DICHLOROETHENE	0	50	51	ug/L	102	6.1
DPS01	Q777095	A288621	TRICHLOROETHENE	0	50	47	ug/L	94	0
DPS01	Q777095	A288621	BENZENE	0	50	50	ug/L	100	2
DPS01	Q777095	A288621	TOLUENE	0	50	46	ug/L	92	2.2
S01	Q777095	A288621	CHLOROBENZENE	0	50	50	ug/L	100	0
/	Q777112		See Attached Report x0520c.ind						
BLA01	Q777113		See Attached Report x0521c.ind						
SAMPLE	A288830		See Certificate of Analysis						

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst : A. BRADBURN — Analysis Date: 14-SEP-93 — Instrument: GC/MS SVOA — Test: 0901.2.0
Reviewer: S. BROTHERTON — Review Date: 17-SEP-93 — File ID: >4471F — Run: R196847

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DPS02	Q777406	A288829	PHENOL	5	200	130	ug/L	62.5	8.3
DPS02	Q777406	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	0
DPS02	Q777406	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	54	ug/L	54	35.1
DPS02	Q777406	A288829	1,2,4-TRICHLOROBENZENE	0	100	69	ug/L	69	14.8
DPS02	Q777406	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	0
DPS02	Q777406	A288829	ACENAPHTHENE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	4-NITROPHENOL	0	200	120	ug/L	60	15.4
DPS02	Q777406	A288829	2,4-DINITROTOLUENE	0	100	62	ug/L	62	22.9
DPS02	Q777406	A288829	PENTACHLOROPHENOL	0	200	160	ug/L	80	17.1
DPS02	Q777406	A288829	PYRENE	0	100	73	ug/L	73	27.2
SPI02	Q777405	A288829	PHENOL	5	200	120	ug/L	57.5	
SPI02	Q777405	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	
SPI02	Q777405	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	76	ug/L	76	
[illegible]I02	Q777405	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	77	ug/L	77	
[illegible]02	Q777405	A288829	1,2,4-TRICHLOROBENZENE	0	100	80	ug/L	80	
[illegible]I02	Q777405	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	
SPI02	Q777405	A288829	ACENAPHTHENE	0	100	76	ug/L	76	
SPI02	Q777405	A288829	4-NITROPHENOL	0	200	140	ug/L	70	

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q777405	A288829	2,4-DINITROTOLUENE	0	100	78	ug/L	78	
102	Q777405	A288829	PENTACHLOROPHENOL	0	200	190	ug/L	95	
I02	Q777405	A288829	PYRENE	0	100	96	ug/L	96	
CCV	Q782234		See Attached Report g4465f.ind						
BLA02	Q782235		See Attached Report g4470f.ind						
SAMPLE	A288830		See Certificate of Analysis						

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst : A. BRADBURN Analysis Date: 15-SEP-93 Instrument: GC/MS SVOA Test: 0901.2.1
Reviewer: S. BROTHERTON Review Date: 17-SEP-93 File ID: >4484F Run: R197020

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q777405	A288829	PHENOL	5	200	120	ug/L	57.5	
SPI02	Q777405	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	
SPI02	Q777405	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	76	ug/L	76	
SPI02	Q777405	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	77	ug/L	77	
SPI02	Q777405	A288829	1,2,4-TRICHLOROBENZENE	0	100	80	ug/L	80	
SPI02	Q777405	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	
SPI02	Q777405	A288829	ACENAPHTHENE	0	100	76	ug/L	76	
SPI02	Q777405	A288829	4-NITROPHENOL	0	200	140	ug/L	70	
SPI02	Q777405	A288829	2,4-DINITROTOLUENE	0	100	78	ug/L	78	
SPI02	Q777405	A288829	PENTACHLOROPHENOL	0	200	190	ug/L	95	
SPI02	Q777405	A288829	PYRENE	0	100	96	ug/L	96	
DPS02	Q777406	A288829	PHENOL	5	200	130	ug/L	62.5	8.3
DPS02	Q777406	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	0
DPS02	Q777406	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	66	ug/L	66	14.1
302	Q777406	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	54	ug/L	54	35.1
S02	Q777406	A288829	1,2,4-TRICHLOROBENZENE	0	100	69	ug/L	69	14.8
DPS02	Q777406	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	0
DPS02	Q777406	A288829	ACENAPHTHENE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	4-NITROPHENOL	0	200	120	ug/L	60	15.4
DPS02	Q777406	A288829	2,4-DINITROTOLUENE	0	100	62	ug/L	62	22.9
DPS02	Q777406	A288829	PENTACHLOROPHENOL	0	200	160	ug/L	80	17.1
DPS02	Q777406	A288829	PYRENE	0	100	73	ug/L	73	27.2
CCV	Q783407		See Attached Report g4480f.ind						
BLA02	Q782235		See Attached Report g4470f.ind						
SAMPLE	A288830		See Certificate of Analysis						

ANTIMONY ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M902.3.0
Reviewer: S. EMDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	ANTIMONY	0.400		0.398	mg/L	100	
DUP01	Q779600	A289027	ANTIMONY	0		BDL	mg/L		
DUP02	Q776735	A288944	ANTIMONY	0		BDL	mg/L		
SPI02	Q776733	A288944	ANTIMONY	0	0.500	0.533	mg/L	107	
CDL01	Q779675	PERKIN ELM	ANTIMONY	0.120		0.132	mg/L	110	
CCV	Q779641	INORGANIC	ANTIMONY	1.00		0.971	mg/L	97	
BLA01	Q779642	NA	ANTIMONY			< 0.012	mg/L		
S	Q776731	SPEX	ANTIMONY	5.00		4.94	mg/L	99	
A02	Q776732	NA	ANTIMONY			< 0.012	mg/L		
AMPLE	A288830		See Certificate of Analysis						
CCV	Q779670	INORGANIC	ANTIMONY	1.00		0.971	mg/L	97	
BLA01	Q779668	NA	ANTIMONY			< 0.012	mg/L		

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CDL01	Q779616	PERKIN ELM	ANTIMONY	0.120		0.127	mg/L	106	

ARSENIC GFAA (CLP) ILM01

Analyst : A. ROBERTSON Analysis Date: 10-SEP-93 Instrument: GFAA Test: M903.2.0
Reviewer: S. O'NEAL Review Date: 13-SEP-93 File ID: 026951 Run: R196572

Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780020		ARSENIC	.01		.0099	mg/L	99	
DUP02	Q776569	A288944	ARSENIC	.02		< .02	mg/L		0
SPI02	Q776567	A288944	ARSENIC	0	.04	.0312	mg/L	78	
CDL01	Q780047		ARSENIC	.01		.0109	mg/L	109	
CCV	Q780048		ARSENIC	.02		.0201	mg/L	100.5	
BLA01	Q780049		ARSENIC			< .002	mg/L		
LCS	Q776565		ARSENIC	.02		.0187	mg/L	93.5	
BLA02	Q776566		ARSENIC			< .002	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CDL01	Q780054		ARSENIC	.01		.0096	mg/L	96	
CCV	Q780055		ARSENIC	.02		.0202	mg/L	101	
BLA01	Q780056		ARSENIC			< .002	mg/L		

BARIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M904.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
[illegible]01	Q779576	PERKIN ELM	BARIUM	2.00		1.98	mg/L	99	
[illegible]01	Q779599	A289027	BARIUM	0	2.00	2.14	mg/L	107	
DUP01	Q779600	A289027	BARIUM	0		BDL	mg/L		
DUP02	Q776735	A288944	BARIUM	1.28		1.28	mg/L		0
SPI02	Q776733	A288944	BARIUM	1.28	2.00	3.16	mg/L	94	
CDL01	Q779673	INORGANIC	BARIUM	10		10.0	mg/L	100	
ICS-A	Q779674	PERKIN ELM	BARIUM	0.500		0.474	mg/L	95	
CCV	Q779641	INORGANIC	BARIUM	5.00		4.95	mg/L	99	
BLA01	Q779642	NA	BARIUM			< 0.004	mg/L		
LCS	Q776731	SPEX	BARIUM	20.0		18.3	mg/L	92	
BLA02	Q776732	NA	BARIUM			.0135	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q779670	INORGANIC	BARIUM	5.00		4.98	mg/L	100	
BLA01	Q779668	NA	BARIUM			< 0.004	mg/L		
ICS-A	Q779615	PERKIN ELM	BARIUM	0.500		0.476	mg/L	95	

BERYLLIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 13-SEP-93 Instrument: ICP Test: M905.3.0
Reviewer: S. ENDERSEN Review Date: 14-SEP-93 File ID: Run: R196609

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780384	PERKIN ELM	BERYLLIUM	0.400		0.402	mg/L	101	
DUP02	Q776735	A288944	BERYLLIUM	0		BDL	mg/L		
SPI02	Q776733	A288944	BERYLLIUM	0	0.050	0.0434	mg/L	87	
[illegible]L01	Q780372	INORGANIC	BERYLLIUM	10		10.0	mg/L	100	
[illegible]-A	Q780362	PERKIN ELM	BERYLLIUM	0.500		0.474	mg/L	95	
[illegible]V	Q780518	INORGANIC	BERYLLIUM	5.00		5.02	mg/L	100	
BLA01	Q780516	NA	BERYLLIUM			< 0.002	mg/L		
LCS	Q776731	SPEX	BERYLLIUM			0.469	mg/L	94	

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA02	Q776732	NA	BERYLLIUM			< 0.002	mg/L		
MPLE	A288830		See Certificate of Analysis						
/	Q780431	INORGANIC	BERYLLIUM	5.00		5.10	mg/L	102	
BLA01	Q780424	NA	BERYLLIUM			< 0.002	mg/L		
ICS-A	Q780525	PERKIN ELM	BERYLLIUM	0.500		0.476	mg/L	95	

CADMIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M908.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	CADMIUM	0.400		0.414	mg/L	104	
SPI01	Q779599	A289027	CADMIUM	0	0.050	0.0559	mg/L	112	
DUP01	Q779600	A289027	CADMIUM	0		BDL	mg/L		
DUP02	Q776735	A288944	CADMIUM	0.0234		0.0249	mg/L		6
SPI02	Q776733	A288944	CADMIUM	0.0234	0.050	0.0702	mg/L	94	
CDL01	Q779673	INORGANIC	CADMIUM	10		10.0	mg/L	100	
ICS-A	Q779674	PERKIN ELM	CADMIUM	1.00		0.893	mg/L	89	
CCV	Q779641	INORGANIC	CADMIUM	5.00		4.96	mg/L	99	
BLA01	Q779642	NA	CADMIUM			< 0.002	mg/L		
LCS	Q776731	SPEX	CADMIUM	0.500		0.474	mg/L	95	
BLA02	Q776732	NA	CADMIUM			< 0.002	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q779670	INORGANIC	CADMIUM	5.00		4.98	mg/L	100	
BLA01	Q779668	NA	CADMIUM			.00511	mg/L		
CDL01	Q779616	PERKIN ELM	CADMIUM	0.010		0.0136	mg/L	136	
ICS-A	Q779615	PERKIN ELM	CADMIUM	1.00		0.927	mg/L	93	

HEXAVALENT CHROMIUM SW846-7196A

Analyst : S. PFEFFER Analysis Date: 15-SEP-93 Test: M110.6.0
Reviewer: B. SHRAKE Review Date: 16-SEP-93 File ID: 2162, 2163 Run: R196865
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q782321		HEXAVALENT CHROMIUM	.178		.155	mg/L	87.1	
DUP01	Q782322	A288830	HEXAVALENT CHROMIUM	.05		< .05	mg/L		0
SPI01	Q782323	A288944	HEXAVALENT CHROMIUM	0	.2	.122	mg/L	61	
DPS01	Q782324	A288944	HEXAVALENT CHROMIUM	0	.2	.124	mg/L	62	1.6
BLA01	Q782319		HEXAVALENT CHROMIUM			-.002	mg/L		
CDL01	Q782320		HEXAVALENT CHROMIUM	.05		.05	mg/L	100	
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q782328		HEXAVALENT CHROMIUM	.2		.207	mg/L	103.5	

CHROMIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M910.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	CHROMIUM	0.400		0.401	mg/L	100	
SPI01	Q779599	A289027	CHROMIUM	0	0.200	0.211	mg/L	106	
DUP01	Q779600	A289027	CHROMIUM	0		BDL	mg/L		
DUP02	Q776735	A288944	CHROMIUM	0		BDL	mg/L		
SPI02	Q776733	A288944	CHROMIUM	0	0.200	0.197	mg/L	99	
CDL01	Q779673	INORGANIC	CHROMIUM	10		9.98	mg/L	100	
ICS-A	Q779674	PERKIN ELM	CHROMIUM	0.500		0.437	mg/L	87	
CCV	Q779641	INORGANIC	CHROMIUM	5.00		4.93	mg/L	99	

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q779642	NA	CHROMIUM			< 0.004	mg/L		
LCS	Q776731	SPEX	CHROMIUM	2.00		1.83	mg/L	92	
BLA02	Q776732	NA	CHROMIUM			< 0.004	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q779670	INORGANIC	CHROMIUM	5.00		4.96	mg/L	99	
BLA01	Q779668	NA	CHROMIUM			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	CHROMIUM	0.020		0.0197	mg/L	99	
ICS-A	Q779615	PERKIN ELM	CHROMIUM	0.500		0.452	mg/L	90	

LEAD GFAA (CLP) ILM01

Analyst : J. WALLACE Analysis Date: 10-SEP-93 Instrument: GFAA Test: M916.2.0
Reviewer: S. O'NEAL Review Date: 13-SEP-93 File ID: 026950 Run: R196571

Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780015		LEAD	.01		.0106	mg/L	106	
DUP01	Q780070	A287207	LEAD	.005		< .005	mg/L		0
DUP02	Q776569	A288944	LEAD	.032		< .032	mg/L		0
SPI02	Q776567	A288944	LEAD	.032	.02	.052	mg/L	100	
CDL01	Q780028		LEAD	.003		.0033	mg/L	110	
CCV	Q780029		LEAD	.02		.0203	mg/L	101.5	
BLA01	Q780030		LEAD			< .0012	mg/L		
LCS	Q776565		LEAD	.02		.022	mg/L	110	
BLA02	Q776566		LEAD			< .0012	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CDL01	Q780035		LEAD	.003		.0028	mg/L	93.3	
CCV	Q780036		LEAD	.02		.0207	mg/L	103.5	
BLA01	Q780037		LEAD			< .0012	mg/L		

MANGANESE ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M919.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	MANGANESE	0.400		0.403	mg/L	101	
SPI01	Q779599	A289027	MANGANESE	0	0.500	0.543	mg/L	109	
DUP01	Q779600	A289027	MANGANESE	0		BDL	mg/L		
DUP02	Q776735	A288944	MANGANESE	0.565		0.552	mg/L		2
SPI02	Q776733	A288944	MANGANESE	0.565	0.500	1.00	mg/L	87	
CDL01	Q779673	INORGANIC	MANGANESE	10		9.96	mg/L	100	
ICS-A	Q779674	PERKIN ELM	MANGANESE	0.500		0.456	mg/L	91	
CCV	Q779641	INORGANIC	MANGANESE	5.00		4.91	mg/L	98	
BLA01	Q779642	NA	MANGANESE			< 0.004	mg/L		
LCS	Q776731	SPEX	MANGANESE	5.00		4.50	mg/L	90	
BLA02	Q776732	NA	MANGANESE			< 0.004	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q779670	INORGANIC	MANGANESE	5.00		4.94	mg/L	99	
BLA01	Q779668	NA	MANGANESE			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	MANGANESE	0.030		0.0310	mg/L	103	
ICS-A	Q779615	PERKIN ELM	MANGANESE	0.500		0.470	mg/L	94	

PROJECT RECORD

MERCURY CVAA (CLP) ILM01

Analyst : G. MAPP Analysis Date: 10-SEP-93 Instrument: CVAA Test: M920.2.0
Reviewer: R. BYERS Review Date: 13-SEP-93 File ID: 026958 Run: R196597

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780253		MERCURY	.002		.00195	mg/L	97.5	
DUP02	Q776579	A288830	MERCURY	.0005		< .0005	mg/L		0
SPI02	Q776577	A288830	MERCURY	0	.001	.00111	mg/L	111	
CCV	Q780339		MERCURY	.003		.00268	mg/L	89.3	
BLA01	Q780340		MERCURY			< .0002	mg/L		
LCS	Q776575		MERCURY	.003		.00292	mg/L	97.3	
BLA02	Q776576		MERCURY			< .0002	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q780341		MERCURY	.003		.00268	mg/L	89.3	
BLA01	Q780342		MERCURY			< .00026	mg/L		

NICKEL ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M922.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	NICKEL	0.400		0.408	mg/L	102	
SPI01	Q779599	A289027	NICKEL	0	0.500	0.532	mg/L	106	
DUP01	Q779600	A289027	NICKEL	0		BDL	mg/L		
DUP02	Q776735	A288944	NICKEL	0.0289		0.0284	mg/L		2
SPI02	Q776733	A288944	NICKEL	0.0289	0.500	0.491	mg/L	92	
.01	Q779673	INORGANIC	NICKEL	10		9.96	mg/L	100	
S-A	Q779674	PERKIN ELM	NICKEL	1.00		0.868	mg/L	87	
CCV	Q779641	INORGANIC	NICKEL	5.00		4.89	mg/L	98	
BLA01	Q779642	NA	NICKEL			< 0.004	mg/L		
LCS	Q776731	SPEX	NICKEL	5.00		4.50	mg/L	90	
BLA02	Q776732	NA	NICKEL			< 0.004	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q779670	INORGANIC	NICKEL	5.00		4.92	mg/L	98	
BLA01	Q779668	NA	NICKEL			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	NICKEL	0.080		0.0867	mg/L	108	
ICS-A	Q779615	PERKIN ELM	NICKEL	1.00		0.897	mg/L	90	

TIN ICP SW846-6010A

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M135.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DUP01	Q779600	A289027	TIN	0		BDL	mg/L		
DUP02	Q776735	A288944	TIN	0		BDL	mg/L		
SPI02	Q776733	A288944	TIN	0	2.00	1.92	mg/L	96	
CCV	Q779641	INORGANIC	TIN	5.00		4.87	mg/L	97	
BLA01	Q779642	NA	TIN			< 0.02	mg/L		
LCS	Q776731	SPEX	TIN	2.00		1.90	mg/L	95	
BLA02	Q776732	NA	TIN			< 0.02	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q779670	INORGANIC	TIN	5.00		4.89	mg/L	98	
BLA01	Q779668	NA	TIN			< 0.02	mg/L		

PROJECT RECORD

SILVER ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M930.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779576	PERKIN ELM	SILVER	2.00		1.97	mg/L	99	
SPI01	Q779599	A289027	SILVER	0	0.050	0.0605	mg/L	121	
DUP01	Q779600	A289027	SILVER	0		BDL	mg/L		
DUP02	Q776735	A288944	SILVER	0		BDL	mg/L		
SPI02	Q776733	A288944	SILVER	0	0.050	0.0547	mg/L	109	
CDL01	Q779673	INORGANIC	SILVER	2		2.00	mg/L	100	
ICS-A	Q779674	PERKIN ELM	SILVER	1.00		0.933	mg/L	93	
CCV	Q779641	INORGANIC	SILVER	1.00		0.990	mg/L	99	
BLA01	Q779642	NA	SILVER			< 0.004	mg/L		
LCS	Q776731	SPEX	SILVER	0.500		0.436	mg/L	87	
BLA02	Q776732	NA	SILVER			< 0.004	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q779670	INORGANIC	SILVER	1.00		0.993	mg/L	99	
BLA01	Q779668	NA	SILVER			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	SILVER	0.020		0.0201	mg/L	101	
ICS-A	Q779615	PERKIN ELM	SILVER	1.00		0.947	mg/L	95	

SELENIUM GFAA (CLP) ILM01

Analyst : M. BAUER Analysis Date: 13-SEP-93 Instrument: GFAA Test: M928.2.0
Reviewer: S. O'NEAL Review Date: 14-SEP-93 File ID: 026964 Run: R196623
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
V01	Q780567		SELENIUM	.01		.0106	mg/L	106	
DUP02	Q776569	A288944	SELENIUM	.005		< .005	mg/L		0
SPI02	Q776567	A288944	SELENIUM	0	.01	.0076	mg/L	76	
CDL01	Q780578		SELENIUM	.005		.0051	mg/L	102	
CCV	Q780579		SELENIUM	.02		.02	mg/L	100	
BLA01	Q780580		SELENIUM			< .002	mg/L		
LCS	Q776565		SELENIUM	.02		.0204	mg/L	102	
BLA02	Q776566		SELENIUM			< .002	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CDL01	Q780581		SELENIUM	.005		.006	mg/L	120	
CCV	Q780582		SELENIUM	.02		.0211	mg/L	105.5	
BLA01	Q780583		SELENIUM			< .002	mg/L		

VANADIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M938.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	VANADIUM	0.400		0.397	mg/L	99	
SPI01	Q779599	A289027	VANADIUM	0	0.500	0.540	mg/L	108	
DUP01	Q779600	A289027	VANADIUM	0		BDL	mg/L		
DUP02	Q776735	A288944	VANADIUM	0		BDL	mg/L		
SPI02	Q776733	A288944	VANADIUM	0	0.500	0.482	mg/L	96	
CDL01	Q779673	INORGANIC	VANADIUM	10		10.0	mg/L	100	
ICS-A	Q779674	PERKIN ELM	VANADIUM	0.500		0.452	mg/L	90	
CCV	Q779641	INORGANIC	VANADIUM	5.00		4.98	mg/L	100	
BLA01	Q779642	NA	VANADIUM			< 0.004	mg/L		
LCS	Q776731	SPEX	VANAD[illegible]	[illegible]		4.56	mg/L	91	

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA02	Q776732	NA	VANADIUM			< 0.004	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q779670	INORGANIC	VANADIUM	5.00		5.01	mg/L	100	
BLA01	Q779668	NA	VANADIUM			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	VANADIUM	0.100		0.102	mg/L	102	
ICS-A	Q779615	PERKIN ELM	VANADIUM	0.500		0.465	mg/L	93	

ZINC ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M939.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	ZINC	0.400		0.424	mg/L	106	
SPI01	Q779599	A289027	ZINC	0	0.500	0.563	mg/L	113	
DUP01	Q779600	A289027	ZINC	0		BDL	mg/L		
DUP02	Q776735	A288944	ZINC	4.44		4.30	mg/L		3
CDL01	Q779673	INORGANIC	ZINC	10		9.93	mg/L	99	
ICS-A	Q779674	PERKIN ELM	ZINC	1.00		0.960	mg/L	96	
CCV	Q779641	INORGANIC	ZINC	5.00		5.00	mg/L	100	
BLA01	Q779642	NA	ZINC			< 0.008	mg/L		
LCS	Q776731	SPEX	ZINC	5.00		4.60	mg/L	92	
BLA02	Q776732	NA	ZINC			.0357	mg/L		
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q779670	INORGANIC	ZINC	5.00		5.05	mg/L	101	
BLA01	Q779668	NA	ZINC			< 0.008	mg/L		
CDL01	Q779616	PERKIN ELM	ZINC	0.040		0.0496	mg/L	124	
ICS-A	Q779615	PERKIN ELM	ZINC	1.00		0.968	mg/L	97	

CYANIDE, TOTAL (AUTOMATED) (CLP) ILM01

Analyst : J. WILDER Analysis Date: 10-SEP-93 Instrument: AUTO-ANALYZER Test: G901.4.0
Reviewer: B. SHRAKE Review Date: 14-SEP-93 File ID: 1036 Run: R196627

Prep: CYANIDE DISTILLATION (CLP) ILM01
Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD)

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780624		CYANIDE	.205		.183	mg/L	89.3	
ICV01	Q780665		CYANIDE	.205		.18	mg/L	87.8	
ICV01	Q780687		CYANIDE	.205		.168	mg/L	82	
ICV01	Q780689		CYANIDE	.205		.172	mg/L	83.9	
DUP02	Q780649	A288830	CYANIDE	.005		< .005	mg/L		0
SPI02	Q780650	A288944	CYANIDE	0	.06	.062	mg/L	103.3	
CDL01	Q780623		CYANIDE	.01		.01	mg/L	100	
CCV	Q780643		CYANIDE	.1		.115	mg/L	115	
BLA01	Q780644		CYANIDE			0	mg/L		
BLA02	Q780651		CYANIDE			0	mg/L		
LCS	Q780652		CYANIDE	.3		.31	mg/L	103.3	
SAMPLE	A288830		See Certificate of Analysis						
CCV	Q780655		CYANIDE	.1		.112	mg/L	112	
BLA01	Q780656		CYANIDE			0	mg/L		
BLA02	Q780668		CYANIDE			0	mg/L		
LCS	Q780658		CYANIDE	.3		.296	mg/L	98.7	

Notes

BDL *Below Detection Limit*
Less Than Lower Detection Limit

PROJECT RECORD

Quality Assurance Officer: CBBoyle

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	27-SEP-93	A291099
	Complete 13-OCT-93	PO Number 92005 *
	Printed 13-OCT-93	Sampled 07-SEP-93

Sample Description

DESCRIPTION: ECC-04A1-PBM-02
LOCATION: ECC - ZIONSVILLE

SULFIDE SW846-9030A

Analyst : L. WILSON — Analysis Date: 28-SEP-93 — Test: G110.4.0
Reviewer: B. SHRAKE — Review Date: 28-SEP-93 — File ID: 1480-1482 — Run: R198019

Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DUP02	Q791042	D117815	SULFIDE	10		< 10	mg/kg		0
BLA01	Q791040		SULFIDE			.259	mg/L		
LCS	Q791044		SULFIDE	72.8		85.5	mg/L	117.4	
SAMPLE	A291099		See Certificate of Analysis						
LCS	Q791045		SULFIDE	72.8		81.7	mg/L	112.2	

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst : L. WILLIAMS — Analysis Date: 28-SEP-93 — Instrument: GC/ECD — Test: C301.2.0
Reviewer: L. JULIAN — Review Date: 28-SEP-93 — File ID: 4412 — Run: R197982

Prep: PCB SONICATION EXTRACTION SW846-3550

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q790741		PCB AROCHLOR 1248	.45		.415	mg/L	92.2	
ICV01	Q790741		PCB AROCHLOR 1260	.45		.493	mg/L	109.6	
DPS02	Q783695	A290125	PCB AROCHLOR 1260	0	8.81	9.3	mg/kg	105.6	8.8
SPI02	Q783694	A290125	PCB AROCHLOR 1260	0	8.97	8.67	mg/kg	96.7	
CCV	Q790744		PCB AROCHLOR 1248	.5		.499	mg/L	99.8	
CCV	Q790744		PCB AROCHLOR 1260	.5		.523	mg/L	104.6	
BLA02	Q783692	EMS	PCB AROCHLOR 1016			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1221			< 2	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1232			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1242			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1248			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1254			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1260			< .4	mg/kg		
LCS	Q783693		PCB AROCHLOR 1260	8.99		7.2	mg/kg	80.1	
SAMPLE	A291099		See Certificate of Analysis						

Notes

< *Less Than Lower Detection Limit*

PROJECT RECORD

Quality Assurance Officer: CBBayle

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	31-AUG-93	A288944
	Complete 17-SEP-93	PO Number 92005 *
	Printed 23-SEP-93	Sampled 31-AUG-93 14:40

Sample Description

SAMPLE I.D.: ECC-04A1-PBM-03
DESCRIPTION: STYROFOAM
LOCATION: ECC -ZIONSVILLE

PROJECT RECORD

CLP VOLATILE ORGANICS OLM01

Analyst : G. WILSON — Analysis Date: 07-SEP-93 — Instrument: GC/MS VOA — Test: 0902.2.0
Reviewer: A. BRADBURN — Review Date: 08-SEP-93 — File ID: >0532C — Run: R196156

Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q777094	A288621	1,1-DICHLOROETHENE	0	50	48	ug/L	96	
SPI01	Q777094	A288621	TRICHLOROETHENE	0	50	47	ug/L	94	
SPI01	Q777094	A288621	BENZENE	0	50	51	ug/L	102	
SPI01	Q777094	A288621	TOLUENE	0	50	47	ug/L	94	
SPI01	Q777094	A288621	CHLOROBENZENE	0	50	50	ug/L	100	
DPS01	Q777095	A288621	1,1-DICHLOROETHENE	0	50	51	ug/L	102	6.1
DPS01	Q777095	A288621	TRICHLOROETHENE	0	50	47	ug/L	94	0
DPS01	Q777095	A288621	BENZENE	0	50	50	ug/L	100	2
DPS01	Q777095	A288621	TOLUENE	0	50	46	ug/L	92	2.2
[illegible]01	Q777095	A288621	CHLOROBENZENE	0	50	50	ug/L	100	0
[illegible]V	Q777112		See Attached Report x0520c.ind						
BLA01	Q777113		See Attached Report x0521c.ind						
SAMPLE	A288944		See Certificate of Analysis						

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst : A. BRADBURN — Analysis Date: 14-SEP-93 — Instrument: GC/MS SVOA — Test: 0901.2.0
Reviewer: S. BROTHERTON — Review Date: 17-SEP-93 — File ID: >4472F — Run: R196847

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DPS02	Q777406	A288829	PHENOL	5	200	130	ug/L	62.5	8.3
DPS02	Q777406	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	0
DPS02	Q777406	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	54	ug/L	54	35.1
DPS02	Q777406	A288829	1,2,4-TRICHLOROBENZENE	0	100	69	ug/L	69	14.8
DPS02	Q777406	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	0
DPS02	Q777406	A288829	ACENAPHTHENE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	4-NITROPHENOL	0	200	120	ug/L	60	15.4
DPS02	Q777406	A288829	2,4-DINITROTOLUENE	0	100	62	ug/L	62	22.9
DPS02	Q777406	A288829	PENTACHLOROPHENOL	0	200	160	ug/L	80	17.1
DPS02	Q777406	A288829	PYRENE	0	100	73	ug/L	73	27.2
SPI02	Q777405	A288829	PHENOL	5	200	120	ug/L	57.5	
SPI02	Q777405	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	
SPI02	Q777405	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	76	ug/L	76	
[illegible]I02	Q777405	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	77	ug/L	77	
[illegible]02	Q777405	A288829	1,2,4-TRICHLOROBENZENE	0	100	80	ug/L	80	
SPI02	Q777405	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	
SPI02	Q777405	A288829	ACENAPHTHENE	0	100	76	ug/L	76	
SPI02	Q777405	A288829	4-NITROPHENOL	0	200	140	ug/L	70	

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q777405	A288829	2,4-DINITROTOLUENE	0	100	78	ug/L	78	
SPI02	Q777405	A288829	PENTACHLOROPHENOL	0	200	190	ug/L	95	
SPI02	Q777405	A288829	PYRENE	0	100	96	ug/L	96	
CCV	Q782234		See Attached Report g4465f.ind						
BLA02	Q782235		See Attached Report g4470f.ind						
SAMPLE	A288944		See Certificate of Analysis						

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst : A. BRADBURN Analysis Date: 15-SEP-93 Instrument: GC/MS SVOA Test: 0901.2.1
Reviewer: S. BROTHERTON Review Date: 17-SEP-93 File ID: >4483F Run: R197020

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q777405	A288829	PHENOL	5	200	120	ug/L	57.5	
SPI02	Q777405	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	
SPI02	Q777405	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	76	ug/L	76	
SPI02	Q777405	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	77	ug/L	77	
SPI02	Q777405	A288829	1,2,4-TRICHLOROBENZENE	0	100	80	ug/L	80	
SPI02	Q777405	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	
SPI02	Q777405	A288829	ACENAPHTHENE	0	100	76	ug/L	76	
SPI02	Q777405	A288829	4-NITROPHENOL	0	200	140	ug/L	70	
SPI02	Q777405	A288829	2,4-DINITROTOLUENE	0	100	78	ug/L	78	
SPI02	Q777405	A288829	PENTACHLOROPHENOL	0	200	190	ug/L	95	
SPI02	Q777405	A288829	PYRENE	0	100	96	ug/L	96	
DPS02	Q777406	A288829	PHENOL	5	200	130	ug/L	62.5	8.3
DPS02	Q777406	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	0
DPS02	Q777406	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	66	ug/L	66	14.1
S02	Q777406	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	54	ug/L	54	35.1
S02	Q777406	A288829	1,2,4-TRICHLOROBENZENE	0	100	69	ug/L	69	14.8
DPS02	Q777406	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	0
DPS02	Q777406	A288829	ACENAPHTHENE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	4-NITROPHENOL	0	200	120	ug/L	60	15.4
DPS02	Q777406	A288829	2,4-DINITROTOLUENE	0	100	62	ug/L	62	22.9
DPS02	Q777406	A288829	PENTACHLOROPHENOL	0	200	160	ug/L	80	17.1
DPS02	Q777406	A288829	PYRENE	0	100	73	ug/L	73	27.2
CCV	Q783407		See Attached Report g4480f.ind						
BLA02	Q782235		See Attached Report g4470f.ind						
SAMPLE	A288944		See Certificate of Analysis						

ANTIMONY ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M902.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	ANTIMONY	0.400		0.398	mg/L	100	
DUP01	Q779600	A289027	ANTIMONY	0		BDL	mg/L		
DUP02	Q776735	A288944	ANTIMONY	0		BDL	mg/L		
SPI02	Q776733	A288944	ANTIMONY	0	0.500	0.533	mg/L	107	
CDL01	Q779675	PERKIN ELM	ANTIMONY	0.120		0.132	mg/L	110	
CCV	Q779641	INORGANIC	ANTIMONY	1.00		0.971	mg/L	97	
BLA01	Q779642	NA	ANTIMONY			< 0.012	mg/L		
LCS	Q776731	SPEX	ANTIMONY	5.00		4.94	mg/L	99	
A02	Q776732	NA	ANTIMONY			< 0.012	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q779670	INORGANIC	ANTIMONY	1.00		0.971	mg/L	97	
BLA01	Q779668	NA	ANTIMONY			< 0.012	mg/L		

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CDL01	Q779616	PERKIN ELM	ANTIMONY	0.120		0.127	mg/L	106	

ARSENIC GFAA (CLP) ILM01

Analyst : A. ROBERTSON Analysis Date: 10-SEP-93 Instrument: GFAA Test: M903.2.0
Reviewer: S. O'NEAL Review Date: 13-SEP-93 File ID: 026951 Run: R196572
Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780020		ARSENIC	.01		.0099	mg/L	99	
DUP02	Q776569	A288944	ARSENIC	.02		< .02	mg/L		0
SPI02	Q776567	A288944	ARSENIC	0	.04	.0312	mg/L	78	
CDL01	Q780038		ARSENIC	.01		.0104	mg/L	104	
CCV	Q780039		ARSENIC	.02		.0195	mg/L	97.5	
BLA01	Q780040		ARSENIC			< .002	mg/L		
LCS	Q776565		ARSENIC	.02		.0187	mg/L	93.5	
BLA02	Q776566		ARSENIC			< .002	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CDL01	Q780047		ARSENIC	.01		.0109	mg/L	109	
CCV	Q780048		ARSENIC	.02		.0201	mg/L	100.5	
BLA01	Q780049		ARSENIC			< .002	mg/L		

BARIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M904.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
V01	Q779576	PERKIN ELM	BARIUM	2.00		1.98	mg/L	99	
I01	Q779599	A289027	BARIUM	0	2.00	2.14	mg/L	107	
DUP01	Q779600	A289027	BARIUM	0		BDL	mg/L		
DUP02	Q776735	A288944	BARIUM	1.28		1.28	mg/L		0
SPI02	Q776733	A288944	BARIUM	1.28	2.00	3.16	mg/L	94	
CDL01	Q779673	INORGANIC	BARIUM	10		10.0	mg/L	100	
ICS-A	Q779674	PERKIN ELM	BARIUM	0.500		0.474	mg/L	95	
CCV	Q779641	INORGANIC	BARIUM	5.00		4.95	mg/L	99	
BLA01	Q779642	NA	BARIUM			< 0.004	mg/L		
LCS	Q776731	SPEX	BARIUM	20.0		18.3	mg/L	92	
BLA02	Q776732	NA	BARIUM			.0135	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q779670	INORGANIC	BARIUM	5.00		4.98	mg/L	100	
BLA01	Q779668	NA	BARIUM			< 0.004	mg/L		
ICS-A	Q779615	PERKIN ELM	BARIUM	0.500		0.476	mg/L	95	

BERYLLIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 13-SEP-93 Instrument: ICP Test: M905.3.0
Reviewer: S. ENDERSEN Review Date: 14-SEP-93 File ID: Run: R196609
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780384	PERKIN ELM	BERYLLIUM	0.400		0.402	mg/L	101	
DUP02	Q776735	A288944	BERYLLIUM	0		BDL	mg/L		
SPI02	Q776733	A288944	BERYLLIUM	0	0.050	0.0434	mg/L	87	
CDL01	Q780372	INORGANIC	BERYLLIUM	10		10.0	mg/L	100	
S-A	Q780362	PERKIN ELM	BERYLLIUM	0.500		0.474	mg/L	95	
CCV	Q780518	INORGANIC	BERYLLIUM	5.00		5.02	mg/L	100	
BLA01	Q780516	NA	BERYLLIUM			< 0.002	mg/L		
LCS	Q776731	SPEX	BERYLLI[illegible]	[illegible]		0.469	mg/L	94	

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA02	Q776732	NA	BERYLLIUM			< 0.002	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
ICV	Q780431	INORGANIC	BERYLLIUM	5.00		5.10	mg/L	102	
BLA01	Q780424	NA	BERYLLIUM			< 0.002	mg/L		
ICS-A	Q780525	PERKIN ELM	BERYLLIUM	0.500		0.476	mg/L	95	

CADMIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M908.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	CADMIUM	0.400		0.414	mg/L	104	
SPI01	Q779599	A289027	CADMIUM	0	0.050	0.0559	mg/L	112	
DUP01	Q779600	A289027	CADMIUM	0		BDL	mg/L		
DUP02	Q776735	A288944	CADMIUM	0.0234		0.0249	mg/L		6
SPI02	Q776733	A288944	CADMIUM	0.0234	0.050	0.0702	mg/L	94	
CDL01	Q779673	INORGANIC	CADMIUM	10		10.0	mg/L	100	
ICS-A	Q779674	PERKIN ELM	CADMIUM	1.00		0.893	mg/L	89	
CCV	Q779641	INORGANIC	CADMIUM	5.00		4.96	mg/L	99	
BLA01	Q779642	NA	CADMIUM			< 0.002	mg/L		
LCS	Q776731	SPEX	CADMIUM	0.500		0.474	mg/L	95	
BLA02	Q776732	NA	CADMIUM			< 0.002	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q779670	INORGANIC	CADMIUM	5.00		4.98	mg/L	100	
BLA01	Q779668	NA	CADMIUM			.00511	mg/L		
CDL01	Q779616	PERKIN ELM	CADMIUM	0.010		0.0136	mg/L	136	
ICS-A	Q779615	PERKIN ELM	CADMIUM	1.00		0.927	mg/L	93	

HEXAVALENT CHROMIUM SW846-7196A

Analyst : S. PFEFFER Analysis Date: 15-SEP-93 Test: M110.6.0
Reviewer: B. SHRAKE Review Date: 16-SEP-93 File ID: 2162, 2163 Run: R196865

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q782321		HEXAVALENT CHROMIUM	.178		.155	mg/L	87.1	
DUP01	Q782322	A288830	HEXAVALENT CHROMIUM	.05		< .05	mg/L		0
SPI01	Q782323	A288944	HEXAVALENT CHROMIUM	0	.2	.122	mg/L	61	
DPSQ1	Q782324	A288944	HEXAVALENT CHROMIUM	0	.2	.124	mg/L	62	1.6
BLA01	Q782319		HEXAVALENT CHROMIUM			-.002	mg/L		
CDL01	Q782320		HEXAVALENT CHROMIUM	.05		.05	mg/L	100	
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q782328		HEXAVALENT CHROMIUM	.2		.207	mg/L	103.5	

CHROMIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M910.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	CHROMIUM	0.400		0.401	mg/L	100	
SPI01	Q779599	A289027	CHROMIUM	0	0.200	0.211	mg/L	106	
DUP01	Q779600	A289027	CHROMIUM	0		BDL	mg/L		
DUP02	Q776735	A288944	CHROMIUM	0		BDL	mg/L		
SPI02	Q776733	A288944	CHROMIUM	0	0.200	0.197	mg/L	99	
CDL01	Q779673	INORGANIC	CHROMIUM	10		9.98	mg/L	100	
ICS-A	Q779674	PERKIN ELM	CHROMIUM	0.500		0.437	mg/L	87	
CCV	Q779641	INORGANIC	CHROMIUM	5.00		4.93	mg/L	99	

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA01	Q779642	NA	CHROMIUM			< 0.004	mg/L		
LCS	Q776731	SPEX	CHROMIUM	2.00		1.83	mg/L	92	
BLA02	Q776732	NA	CHROMIUM			< 0.004	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q779670	INORGANIC	CHROMIUM	5.00		4.96	mg/L	99	
BLA01	Q779668	NA	CHROMIUM			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	CHROMIUM	0.020		0.0197	mg/L	99	
ICS-A	Q779615	PERKIN ELM	CHROMIUM	0.500		0.452	mg/L	90	

LEAD GFAA (CLP) ILM01

Analyst : J. WALLACE Analysis Date: 10-SEP-93 Instrument: GFAA Test: M916.2.0
Reviewer: S. O'NEAL Review Date: 13-SEP-93 File ID: 026950 Run: R196571

Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780015		LEAD	.01		.0106	mg/L	106	
DUP01	Q780070	A287207	LEAD	.005		< .005	mg/L		0
DUP02	Q776569	A288944	LEAD	.032		< .032	mg/L		0
SPI02	Q776567	A288944	LEAD	.032	.02	.052	mg/L	100	
CCV	Q780017		LEAD	.02		.0214	mg/L	107	
BLA01	Q780018		LEAD			< .0012	mg/L		
CDL01	Q780019		LEAD	.003		.0034	mg/L	113.3	
LCS	Q776565		LEAD	.02		.022	mg/L	110	
BLA02	Q776566		LEAD			< .0012	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CDL01	Q780025		LEAD	.003		.0033	mg/L	110	
CCV	Q780026		LEAD	.02		.0219	mg/L	109.5	
BLA01	Q780027		LEAD			< .0012	mg/L		

MANGANESE ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M919.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	MANGANESE	0.400		0.403	mg/L	101	
SPI01	Q779599	A289027	MANGANESE	0	0.500	0.543	mg/L	109	
DUP01	Q779600	A289027	MANGANESE	0		BDL	mg/L		
DUP02	Q776735	A288944	MANGANESE	0.565		0.552	mg/L		2
SPI02	Q776733	A288944	MANGANESE	0.565	0.500	1.00	mg/L	87	
CDL01	Q779673	INORGANIC	MANGANESE	10		9.96	mg/L	100	
ICS-A	Q779674	PERKIN ELM	MANGANESE	0.500		0.456	mg/L	91	
CCV	Q779641	INORGANIC	MANGANESE	5.00		4.91	mg/L	98	
BLA01	Q779642	NA	MANGANESE			< 0.004	mg/L		
LCS	Q776731	SPEX	MANGANESE	5.00		4.50	mg/L	90	
BLA02	Q776732	NA	MANGANESE			< 0.004	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q779670	INORGANIC	MANGANESE	5.00		4.94	mg/L	99	
BLA01	Q779668	NA	MANGANESE			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	MANGANESE	0.030		0.0310	mg/L	103	
ICS-A	Q779615	PERKIN ELM	MANGANESE	0.500		0.470	mg/L	94	

PROJECT RECORD

MERCURY CVAA (CLP) ILM01

Analyst : G. MAPP Analysis Date: 10-SEP-93 Instrument: CVAA Test: M920.2.0
Reviewer: R. BYERS Review Date: 13-SEP-93 File ID: 026958 Run: R196597

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780253		MERCURY	.002		.00195	mg/L	97.5	
DUP02	Q776579	A288830	MERCURY	.0005		< .0005	mg/L		0
SPI02	Q776577	A288830	MERCURY	0	.001	.00111	mg/L	111	
CCV	Q780339		MERCURY	.003		.00268	mg/L	89.3	
BLA01	Q780340		MERCURY			< .0002	mg/L		
LCS	Q776575		MERCURY	.003		.00292	mg/L	97.3	
BLA02	Q776576		MERCURY			< .0002	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q780341		MERCURY	.003		.00268	mg/L	89.3	
BLA01	Q780342		MERCURY			< .00026	mg/L		

NICKEL ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M922.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	NICKEL	0.400		0.408	mg/L	102	
SPI01	Q779599	A289027	NICKEL	0	0.500	0.532	mg/L	106	
DUP01	Q779600	A289027	NICKEL	0		BDL	mg/L		
DUP02	Q776735	A288944	NICKEL	0.0289		0.0284	mg/L		2
SPI02	Q776733	A288944	NICKEL	0.0289	0.500	0.491	mg/L	92	
[illegible]01	Q779673	INORGANIC	NICKEL	10		9.96	mg/L	100	
[illegible]S-A	Q779674	PERKIN ELM	NICKEL	1.00		0.868	mg/L	87	
CCV	Q779641	INORGANIC	NICKEL	5.00		4.89	mg/L	98	
BLA01	Q779642	NA	NICKEL			< 0.004	mg/L		
LCS	Q776731	SPEX	NICKEL	5.00		4.50	mg/L	90	
BLA02	Q776732	NA	NICKEL			< 0.004	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q779670	INORGANIC	NICKEL	5.00		4.92	mg/L	98	
BLA01	Q779668	NA	NICKEL			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	NICKEL	0.080		0.0867	mg/L	108	
ICS-A	Q779615	PERKIN ELM	NICKEL	1.00		0.897	mg/L	90	

TIN ICP SW846-6010A

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M135.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DUP01	Q779600	A289027	TIN	0		BDL	mg/L		
DUP02	Q776735	A288944	TIN	0		BDL	mg/L		
SPI02	Q776733	A288944	TIN	0	2.00	1.92	mg/L	96	
CCV	Q779641	INORGANIC	TIN	5.00		4.87	mg/L	97	
BLA01	Q779642	NA	TIN			< 0.02	mg/L		
LCS	Q776731	SPEX	TIN	2.00		1.90	mg/L	95	
BLA02	Q776732	NA	TIN			< 0.02	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
[illegible]	Q779670	INORGANIC	TIN	5.00		4.89	mg/L	98	
BLA01	Q779668	NA	TIN			< 0.02	mg/L		

SILVER ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M930.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779576	PERKIN ELM	SILVER	2.00		1.97	mg/L	99	
SPI01	Q779599	A289027	SILVER	0	0.050	0.0605	mg/L	121	
DUP01	Q779600	A289027	SILVER	0		BDL	mg/L		
DUP02	Q776735	A288944	SILVER	0		BDL	mg/L		
SPI02	Q776733	A288944	SILVER	0	0.050	0.0547	mg/L	109	
CDL01	Q779673	INORGANIC	SILVER	2		2.00	mg/L	100	
ICS-A	Q779674	PERKIN ELM	SILVER	1.00		0.933	mg/L	93	
CCV	Q779641	INORGANIC	SILVER	1.00		0.990	mg/L	99	
BLA01	Q779642	NA	SILVER			< 0.004	mg/L		
LCS	Q776731	SPEX	SILVER	0.500		0.436	mg/L	87	
BLA02	Q776732	NA	SILVER			< 0.004	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q779670	INORGANIC	SILVER	1.00		0.993	mg/L	99	
BLA01	Q779668	NA	SILVER			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	SILVER	0.020		0.0201	mg/L	101	
ICS-A	Q779615	PERKIN ELM	SILVER	1.00		0.947	mg/L	95	

SELENIUM GFAA (CLP) ILM01

Analyst : M. BAUER Analysis Date: 13-SEP-93 Instrument: GFAA Test: M928.2.0
Reviewer: S. O'NEAL Review Date: 14-SEP-93 File ID: 026064 Run: R196623

Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
V01	Q780567		SELENIUM	.01		.0106	mg/L	106	
DUP02	Q776569	A288944	SELENIUM	.005		< .005	mg/L		0
SPI02	Q776567	A288944	SELENIUM	0	.01	.0076	mg/L	76	
CDL01	Q780572		SELENIUM	.005		.0053	mg/L	106	
CCV	Q780573		SELENIUM	.02		.0195	mg/L	97.5	
BLA01	Q780574		SELENIUM			< .002	mg/L		
LCS	Q776565		SELENIUM	.02		.0204	mg/L	102	
BLA02	Q776566		SELENIUM			< .002	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CDL01	Q780575		SELENIUM	.005		.0058	mg/L	116	
CCV	Q780576		SELENIUM	.02		.0197	mg/L	98.5	
BLA01	Q780577		SELENIUM			< .002	mg/L		

VANADIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M938.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	VANADIUM	0.400		0.397	mg/L	99	
SPI01	Q779599	A289027	VANADIUM	0	0.500	0.540	mg/L	108	
DUP01	Q779600	A289027	VANADIUM	0		BDL	mg/L		
DUP02	Q776735	A288944	VANADIUM	0		BDL	mg/L		
SPI02	Q776733	A288944	VANADIUM	0	0.500	0.482	mg/L	96	
CDL01	Q779673	INORGANIC	VANADIUM	10		10.0	mg/L	100	
ICS-A	Q779674	PERKIN ELM	VANADIUM	0.500		0.452	mg/L	90	
CCV	Q779641	INORGANIC	VANADIUM	5.00		4.98	mg/L	100	
BLA01	Q779642	NA	VANADIUM			< 0.004	mg/L		
LCS	Q776731	SPEX	VANADIUM	5.00		4.56	mg/L	91	

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
BLA02	Q776732	NA	VANADIUM			< 0.004	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q779670	INORGANIC	VANADIUM	5.00		5.01	mg/L	100	
BLA01	Q779668	NA	VANADIUM			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	VANADIUM	0.100		0.102	mg/L	102	
ICS-A	Q779615	PERKIN ELM	VANADIUM	0.500		0.465	mg/L	93	

ZINC ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M939.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	ZINC	0.400		0.424	mg/L	106	
SPI01	Q779599	A289027	ZINC	0	0.500	0.563	mg/L	113	
DUP01	Q779600	A289027	ZINC	0		BDL	mg/L		
DUP02	Q776735	A288944	ZINC	4.44		4.30	mg/L		3
CDL01	Q779673	INORGANIC	ZINC	10		9.93	mg/L	99	
ICS-A	Q779674	PERKIN ELM	ZINC	1.00		0.960	mg/L	96	
CCV	Q779641	INORGANIC	ZINC	5.00		5.00	mg/L	100	
BLA01	Q779642	NA	ZINC			< 0.008	mg/L		
LCS	Q776731	SPEX	ZINC	5.00		4.60	mg/L	92	
BLA02	Q776732	NA	ZINC			.0357	mg/L		
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q779670	INORGANIC	ZINC	5.00		5.05	mg/L	101	
BLA01	Q779668	NA	ZINC			< 0.008	mg/L		
CDL01	Q779616	PERKIN ELM	ZINC	0.040		0.0496	mg/L	124	
ICS-A	Q779615	PERKIN ELM	ZINC	1.00		0.968	mg/L	97	

CYANIDE, TOTAL (AUTOMATED) (CLP) ILM01

Analyst : J. WILDER Analysis Date: 10-SEP-93 Instrument: AUTO-ANALYZER Test: G901.4.0
Reviewer: B. SHRAKE Review Date: 14-SEP-93 File ID: 1036 Run: R196627

Prep: CYANIDE DISTILLATION (CLP) ILM01
Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD)

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780624		CYANIDE	.205		.183	mg/L	89.3	
ICV01	Q780665		CYANIDE	.205		.18	mg/L	87.8	
ICV01	Q780687		CYANIDE	.205		.168	mg/L	82	
ICV01	Q780689		CYANIDE	.205		.172	mg/L	83.9	
DUP02	Q780649	A288830	CYANIDE	.005		< .005	mg/L		0
SPI02	Q780650	A288944	CYANIDE	0	.06	.062	mg/L	103.3	
CDL01	Q780623		CYANIDE	.01		.01	mg/L	100	
CCV	Q780643		CYANIDE	.1		.115	mg/L	115	
BLA01	Q780644		CYANIDE			0	mg/L		
BLA02	Q780651		CYANIDE			0	mg/L		
LCS	Q780652		CYANIDE	.3		.31	mg/L	103.3	
SAMPLE	A288944		See Certificate of Analysis						
CCV	Q780655		CYANIDE	.1		.112	mg/L	112	
BLA01	Q780656		CYANIDE			0	mg/L		
BLA02	Q780668		CYANIDE			0	mg/L		
LCS	Q780658		CYANIDE	.3		.296	mg/L	98.7	

Notes

DL Below Detection Limit
Less Than Lower Detection Limit

PROJECT RECORD

Quality Assurance Officer: CBBoyle

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	27-SEP-93	A291098
	Complete 12-OCT-93	PO Number 92005 *
	Printed 13-OCT-93	Sampled 07-SEP-93

Sample Description

DESCRIPTION: ECC-04A1-PBM-03
LOCATION: ECC - ZIONSVILLE

SULFIDE SW846-9030A

Analyst : L. WILSON — Analysis Date: 28-SEP-93 — Test: G110.4.0
Reviewer: B. BHRAKE — Review Date: 28-SEP-93 — File ID: 1480-1482 — Run: R198019

Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DUP02	Q791042	D117815	SULFIDE	10		< 10	mg/kg		0
BLA01	Q791040		SULFIDE			.259	mg/L		
LCS	Q791044		SULFIDE	72.8		85.5	mg/L	117.4	
SAMPLE	A291098		See Certificate of Analysis						
LCS	Q791045		SULFIDE	72.8		81.7	mg/L	112.2	

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst : L. WILLIAMS — Analysis Date: 28-SEP-93 — Instrument: GC/ECD — Test: 0301.2.0
Reviewer: L. JULIAN — Review Date: 28-SEP-93 — File ID: 4412 — Run: R197982

Prep: PCB SONICATION EXTRACTION SW846-3550

Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
V01	Q790741		PCB AROCHLOR 1248	.45		.415	mg/L	92.2	
ICV01	Q790741		PCB AROCHLOR 1260	.45		.493	mg/L	109.6	
DPS02	Q783695	A290125	PCB AROCHLOR 1260	0	8.81	9.3	mg/kg	105.6	8.8
SPI02	Q783694	A290125	PCB AROCHLOR 1260	0	8.97	8.67	mg/kg	96.7	
CCV	Q790744		PCB AROCHLOR 1248	.5		.499	mg/L	99.8	
CCV	Q790744		PCB AROCHLOR 1260	.5		.523	mg/L	104.6	
BLA02	Q783692	EMS	PCB AROCHLOR 1016			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1221			< 2	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1232			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1242			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1248			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1254			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1260			< .4	mg/kg		
LCS	Q783693		PCB AROCHLOR 1260	8.99		7.2	mg/kg	80.1	
SAMPLE	A291098		See Certificate of Analysis						

Notes

< *Less Than Lower Detection Limit*

PROJECT RECORD

Quality Assurance Officer: CBBoyle

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	31-AUG-93	A288945
	Complete 17-SEP-93	PO Number 92005 *
	Printed 23-SEP-93	Sampled 31-AUG-93 14:15

Sample Description

SAMPLE I.D.: ECC-04A1-PBM-04
DESCRIPTION: WOOD
LOCATION: ECC -ZIONSVILLE

PROJECT RECORD

CLP VOLATILE ORGANICS OLM01

Analyst : G. WILSON — Analysis Date: 07-SEP-93 — Instrument: GC/MS VOA — Test: 0902.2.0
Reviewer: A. BRADBURN — Review Date: 08-SEP-93 — File ID: >0533C — Run: R196156

Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q777094	A288621	1,1-DICHLOROETHENE	0	50	48	ug/L	96	
SPI01	Q777094	A288621	TRICHLOROETHENE	0	50	47	ug/L	94	
SPI01	Q777094	A288621	BENZENE	0	50	51	ug/L	102	
SPI01	Q777094	A288621	TOLUENE	0	50	47	ug/L	94	
SPI01	Q777094	A288621	CHLOROBENZENE	0	50	50	ug/L	100	
DPS01	Q777095	A288621	1,1-DICHLOROETHENE	0	50	51	ug/L	102	6.1
DPS01	Q777095	A288621	TRICHLOROETHENE	0	50	47	ug/L	94	0
DPS01	Q777095	A288621	BENZENE	0	50	50	ug/L	100	2
DPS01	Q777095	A288621	TOLUENE	0	50	46	ug/L	92	2.2
S01	Q777095	A288621	CHLOROBENZENE	0	50	50	ug/L	100	0
CV	Q777112		See Attached Report x0520c.ind						
BLA01	Q777113		See Attached Report x0521c.ind						
SAMPLE	A288945		See Certificate of Analysis						

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst : A. BRADBURN — Analysis Date: 14-SEP-93 — Instrument: GC/MS SVOA — Test: 0901.2.0
Reviewer: S. BROTHERTON — Review Date: 17-SEP-93 — File ID: >4473F — Run: R196847

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DPS02	Q777406	A288829	PHENOL	5	200	130	ug/L	62.5	8.3
DPS02	Q777406	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	0
DPS02	Q777406	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	54	ug/L	54	35.1
DPS02	Q777406	A288829	1,2,4-TRICHLOROBENZENE	0	100	69	ug/L	69	14.8
DPS02	Q777406	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	0
DPS02	Q777406	A288829	ACENAPHTHENE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	4-NITROPHENOL	0	200	120	ug/L	60	15.4
DPS02	Q777406	A288829	2,4-DINITROTOLUENE	0	100	62	ug/L	62	22.9
DPS02	Q777406	A288829	PENTACHLOROPHENOL	0	200	160	ug/L	80	17.1
DPS02	Q777406	A288829	PYRENE	0	100	73	ug/L	73	27.2
SPI02	Q777405	A288829	PHENOL	5	200	120	ug/L	57.5	
SPI02	Q777405	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	
SPI02	Q777405	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	76	ug/L	76	
SPI02	Q777405	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	77	ug/L	77	
I02	Q777405	A288829	1,2,4-TRICHLOROBENZENE	0	100	80	ug/L	80	
SPI02	Q777405	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	
SPI02	Q777405	A288829	ACENAPHTHENE	0	100	76	ug/L	76	
SPI02	Q777405	A288829	4-NITROPHENOL	0	200	140	ug/L	70	

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q777405	A288829	2,4-DINITROTOLUENE	0	100	78	ug/L	78	
SPI02	Q777405	A288829	PENTACHLOROPHENOL	0	200	190	ug/L	95	
SPI02	Q777405	A288829	PYRENE	0	100	96	ug/L	96	
CCV	Q782234		See Attached Report g4465f.ind						
BLA02	Q782235		See Attached Report g4470f.ind						
SAMPLE	A288945		See Certificate of Analysis						

CLP SEMI-VOLATILE ORGANICS OLM01

Analyst : A. BRADBURN Analysis Date: 15-SEP-93 Instrument: GC/MS SVOA Test: 0901.2.1
Reviewer: S. BROTHERTON Review Date: 17-SEP-93 File ID: >4485F Run: R197020

Prep: CLP SEMI-VOLATILE EXTRACTION OLM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q777405	A288829	PHENOL	5	200	120	ug/L	57.5	
SPI02	Q777405	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	
SPI02	Q777405	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	76	ug/L	76	
SPI02	Q777405	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	77	ug/L	77	
SPI02	Q777405	A288829	1,2,4-TRICHLOROBENZENE	0	100	80	ug/L	80	
SPI02	Q777405	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	
SPI02	Q777405	A288829	ACENAPHTHENE	0	100	76	ug/L	76	
SPI02	Q777405	A288829	4-NITROPHENOL	0	200	140	ug/L	70	
SPI02	Q777405	A288829	2,4-DINITROTOLUENE	0	100	78	ug/L	78	
SPI02	Q777405	A288829	PENTACHLOROPHENOL	0	200	190	ug/L	95	
SPI02	Q777405	A288829	PYRENE	0	100	96	ug/L	96	
DPS02	Q777406	A288829	PHENOL	5	200	130	ug/L	62.5	8.3
DPS02	Q777406	A288829	2-CHLOROPHENOL	0	200	140	ug/L	70	0
DPS02	Q777406	A288829	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	N-NITROSO-DI-N-PROPYLAMINE	0	100	54	ug/L	54	35.1
DPS02	Q777406	A288829	1,2,4-TRICHLOROBENZENE	0	100	69	ug/L	69	14.8
DPS02	Q777406	A288829	4-CHLORO-3-METHYLPHENOL	0	200	110	ug/L	55	0
DPS02	Q777406	A288829	ACENAPHTHENE	0	100	66	ug/L	66	14.1
DPS02	Q777406	A288829	4-NITROPHENOL	0	200	120	ug/L	60	15.4
DPS02	Q777406	A288829	2,4-DINITROTOLUENE	0	100	62	ug/L	62	22.9
DPS02	Q777406	A288829	PENTACHLOROPHENOL	0	200	160	ug/L	80	17.1
DPS02	Q777406	A288829	PYRENE	0	100	73	ug/L	73	27.2
CCV	Q783407		See Attached Report g4480f.ind						
BLA02	Q782235		See Attached Report g4470f.ind						
SAMPLE	A288945		See Certificate of Analysis						

ANTIMONY ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 07-SEP-93 Instrument: ICP Test: M902.3.0
Reviewer: S. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	ANTIMONY	0.400		0.400	mg/L	100	
DUP02	Q773991	A288829	ANTIMONY	0		BDL	mg/L		
SPI02	Q773989	A288829	ANTIMONY	0	0.500	0.496	mg/L	99	
CDL01	Q776642	PERKIN ELM	ANTIMONY	0.120		0.125	mg/L	104	
CCV	Q776492	INORGANIC	ANTIMONY	1.00		1.04	mg/L	104	
BLA01	Q776486	NA	ANTIMONY			< 0.012	mg/L		
LCS	Q773987	SPEX	ANTIMONY	5.00		4.90	mg/L	98	
BLA02	Q773988	NA	ANTIMONY			< 0.012	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CCV	Q776377	INORGANIC	ANTIMONY	1.00		1.02	mg/L	102	
BLA01	Q776371	NA	ANTIMONY			< 0.012	mg/L		
CDL01	Q776706	PERKIN ELM	ANTIMONY	0.120		0.134	mg/L	112	

PROJECT RECORD

ARSENIC GFAA (CLP) ILM01

Analyst : A. ROBERTSON Analysis Date: 07-SEP-93 Instrument: GFAA Test: M903.2.0
Reviewer: S. O'NEAL Review Date: 08-SEP-93 File ID: 026936 Run: R196195

Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q777328		ARSENIC	.01		.0103	mg/L	103	
DUP02	Q773986	A288829	ARSENIC	.002		< .002	mg/L		0
SPI02	Q773984	A288829	ARSENIC	0	.04	.0343	mg/L	85.8	
CDL01	Q777339		ARSENIC	.01		.0091	mg/L	91	
CCV	Q777340		ARSENIC	.02		.0183	mg/L	91.5	
BLA01	Q777341		ARSENIC			< .0008	mg/L		
LCS	Q773982		ARSENIC	.02		.0196	mg/L	98	
BLA02	Q773983		ARSENIC			< .0008	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CDL01	Q777342		ARSENIC	.01		.0093	mg/L	93	
CCV	Q777343		ARSENIC	.02		.0181	mg/L	90.5	
BLA01	Q777344		ARSENIC			< .0008	mg/L		

BARIUM ICP (CLP) ILM01

Analyst : M. JAD Analysis Date: 07-SEP-93 Instrument: ICP Test: M904.3.0
Reviewer: B. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776663	PERKIN ELM	BARIUM	2.00		2.02	mg/L	101	
DUP02	Q773991	A288829	BARIUM	0.689		0.731	mg/L		6
SPI02	Q773989	A288829	BARIUM	0.689	2.00	2.52	mg/L	92	
L01	Q776641	INORGANIC	BARIUM	10		10.1	mg/L	101	
S-A	Q776640	PERKIN ELM	BARIUM	0.500		0.478	mg/L	96	
CCV	Q776492	INORGANIC	BARIUM	5.00		5.16	mg/L	103	
BLA01	Q776486	NA	BARIUM			< 0.004	mg/L		
LCS	Q773987	SPEX	BARIUM	20.0		16.1	mg/L	81	
BLA02	Q773988	NA	BARIUM			< 0.004	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CCV	Q776377	INORGANIC	BARIUM	5.00		4.99	mg/L	100	
BLA01	Q776371	NA	BARIUM			< 0.004	mg/L		
ICS-A	Q776705	PERKIN ELM	BARIUM	0.500		0.475	mg/L	95	

BERYLLIUM ICP (CLP) ILM01

Analyst : M. JAD Analysis Date: 07-SEP-93 Instrument: ICP Test: M905.3.0
Reviewer: B. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	BERYLLIUM	0.400		0.403	mg/L	101	
DUP02	Q773991	A288829	BERYLLIUM	0		BDL	mg/L		
SPI02	Q773989	A288829	BERYLLIUM	0	0.050	0.0435	mg/L	87	
CDL01	Q776641	INORGANIC	BERYLLIUM	10		10.1	mg/L	101	
ICS-A	Q776640	PERKIN ELM	BERYLLIUM	0.500		0.476	mg/L	95	
CCV	Q776492	INORGANIC	BERYLLIUM	5.00		5.15	mg/L	103	
BLA01	Q776486	NA	BERYLLIUM			< 0.002	mg/L		
LCS	Q773987	SPEX	BERYLLIUM	0.500		0.406	mg/L	81	
BLA02	Q773988	NA	BERYLLIUM			< 0.002	mg/L		
MPLE	A288945		See Certificate of Analysis						
CCV	Q776377	INORGANIC	BERYLLIUM	5.00		5.02	mg/L	100	
BLA01	Q776371	NA	BERYLLIUM			< 0.002	mg/L		
CDL01	Q776706	PERKIN ELM	BERYLLIUM	0.010		0.00711	mg/L	71	

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICS-A	Q776705	PERKIN ELM	BERYLLIUM	0.500		0.472	mg/L	94	

CADMIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 07-SEP-93 Instrument: ICP Test: M908.3.0
Reviewer: S. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	CADMIUM	0.400		0.417	mg/L	104	
DUP02	Q773991	A288829	CADMIUM	0		BDL	mg/L		
SPI02	Q773989	A288829	CADMIUM	0	0.050	0.0433	mg/L	87	
CDL01	Q776641	INORGANIC	CADMIUM	10		10.3	mg/L	103	
ICS-A	Q776640	PERKIN ELM	CADMIUM	1.00		0.919	mg/L	92	
CCV	Q776492	INORGANIC	CADMIUM	5.00		5.26	mg/L	105	
BLA01	Q776486	NA	CADMIUM			< 0.002	mg/L		
LCS	Q773987	SPEX	CADMIUM	0.500		0.407	mg/L	81	
BLA02	Q773988	NA	CADMIUM			< 0.002	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CCV	Q776377	INORGANIC	CADMIUM	5.00		5.08	mg/L	102	
BLA01	Q776371	NA	CADMIUM			< 0.002	mg/L		
CDL01	Q776706	PERKIN ELM	CADMIUM	0.010		0.0107	mg/L	107	
ICS-A	Q776705	PERKIN ELM	CADMIUM	1.00		0.925	mg/L	93	

HEXAVALENT CHROMIUM SW846-7196A

Analyst : B. PFEFFER Analysis Date: 07-SEP-93 Test: M110.6.0
Reviewer: B. SHRAKE Review Date: 07-SEP-93 File ID: 2151-2152 Run: R196027
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776132		HEXAVALENT CHROMIUM	.178		.165	mg/L	92.7	
ICV01	Q776139		HEXAVALENT CHROMIUM	.178		.154	mg/L	86.5	
DUP01	Q776137	A288945	HEXAVALENT CHROMIUM	.05		< .05	mg/L		0
SPI01	Q776136	A288829	HEXAVALENT CHROMIUM	0	.2	.202	mg/L	101	
BLA01	Q776130		HEXAVALENT CHROMIUM			-.003	mg/L		
CDL01	Q776131		HEXAVALENT CHROMIUM	.05		.051	mg/L	102	
CCV	Q776135		HEXAVALENT CHROMIUM	.2		.204	mg/L	102	
SAMPLE	A288945		See Certificate of Analysis						
BLA01	Q776138		HEXAVALENT CHROMIUM			0	mg/L		
CCV	Q776140		HEXAVALENT CHROMIUM	.2		.209	mg/L	104.5	

CHROMIUM ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M910.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508
Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	CHROMIUM	0.400		0.401	mg/L	100	
SPI01	Q779599	A289027	CHROMIUM	0	0.200	0.211	mg/L	106	
DUP01	Q779600	A289027	CHROMIUM	0		BDL	mg/L		
DUP02	Q776735	A288944	CHROMIUM	0		BDL	mg/L		
SPI02	Q776733	A288944	CHROMIUM	0	0.200	0.197	mg/L	99	
CDL01	Q779673	INORGANIC	CHROMIUM	10		9.98	mg/L	100	
ICS-A	Q779674	PERKIN ELM	CHROMIUM	0.500		0.437	mg/L	87	
CCV	Q779641	INORGANIC	CHROMIUM	5.00		4.93	mg/L	99	
BLA01	Q779642	NA	CHROMIUM			< 0.004	mg/L		
LCS	Q776731	SPEX	CHROMIUM	2.00		1.83	mg/L	92	
BLA02	Q776732	NA	CHROMIUM			< 0.004	mg/L		
SAMPLE	A288945		See Certificate of Analysis						

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q779670	INORGANIC	CHROMIUM	5.00		4.96	mg/L	99	
A01	Q779668	NA	CHROMIUM			< 0.004	mg/L		
L01	Q779616	PERKIN ELM	CHROMIUM	0.020		0.0197	mg/L	99	
ICS-A	Q779615	PERKIN ELM	CHROMIUM	0.500		0.452	mg/L	90	

LEAD GFAA (CLP) ILM01

Analyst : J. WALLACE Analysis Date: 10-SEP-93 Instrument: GFAA Test: M916.2.0
Reviewer: S. O'NEAL Review Date: 13-SEP-93 File ID: 026950 Run: R196571

Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780015		LEAD	.01		.0106	mg/L	106	
DUP01	Q780070	A287207	LEAD	.005		< .005	mg/L		0
DUP02	Q776569	A288944	LEAD	.032		< .032	mg/L		0
SPI02	Q776567	A288944	LEAD	.032	.02	.052	mg/L	100	
CDL01	Q780028		LEAD	.003		.0033	mg/L	110	
CCV	Q780029		LEAD	.02		.0203	mg/L	101.5	
BLA01	Q780030		LEAD			< .0012	mg/L		
LCS	Q776565		LEAD	.02		.022	mg/L	110	
BLA02	Q776566		LEAD			< .0012	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CDL01	Q780035		LEAD	.003		.0028	mg/L	93.3	
CCV	Q780036		LEAD	.02		.0207	mg/L	103.5	
BLA01	Q780037		LEAD			< .0012	mg/L		

MANGANESE ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 10-SEP-93 Instrument: ICP Test: M919.3.0
Reviewer: S. ENDERSEN Review Date: 13-SEP-93 File ID: Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q779575	PERKIN ELM	MANGANESE	0.400		0.403	mg/L	101	
SPI01	Q779599	A289027	MANGANESE	0	0.500	0.543	mg/L	109	
DUP01	Q779600	A289027	MANGANESE	0		BDL	mg/L		
DUP02	Q776735	A288944	MANGANESE	0.565		0.552	mg/L		2
SPI02	Q776733	A288944	MANGANESE	0.565	0.500	1.00	mg/L	87	
CDL01	Q779673	INORGANIC	MANGANESE	10		9.96	mg/L	100	
ICS-A	Q779674	PERKIN ELM	MANGANESE	0.500		0.456	mg/L	91	
CCV	Q779641	INORGANIC	MANGANESE	5.00		4.91	mg/L	98	
BLA01	Q779642	NA	MANGANESE			< 0.004	mg/L		
LCS	Q776731	SPEX	MANGANESE	5.00		4.50	mg/L	90	
BLA02	Q776732	NA	MANGANESE			< 0.004	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CCV	Q779670	INORGANIC	MANGANESE	5.00		4.94	mg/L	99	
BLA01	Q779668	NA	MANGANESE			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	MANGANESE	0.030		0.0310	mg/L	103	
ICS-A	Q779615	PERKIN ELM	MANGANESE	0.500		0.470	mg/L	94	

MERCURY CVAA (CLP) ILM01

Analyst : G. HAPP Analysis Date: 10-SEP-93 Instrument: CVAA Test: M920.2.0
Reviewer: R. BYERS Review Date: 13-SEP-93 File ID: 026958 Run: R196597

Prep: MERCURY CVAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CV01	Q780253		MERCURY	.002		.00195	mg/L	97.5	
DUP02	Q776579	A288830	MERCURY	.0005		< .0005	mg/L		0
SPI02	Q776577	A288830	MERCURY	0	.001	.00111	mg/L	111	

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q780339		MERCURY	.003		.00268	mg/L	89.3	
A01	Q780340		MERCURY			< .0002	mg/L		
S	Q776575		MERCURY	.003		.00292	mg/L	97.3	
BLA02	Q776576		MERCURY			< .0002	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CCV	Q780341		MERCURY	.003		.00268	mg/L	89.3	
BLA01	Q780342		MERCURY			< .00026	mg/L		

NICKEL ICP (CLP) ILM01

Analyst : M. JAO — Analysis Date: 07-SEP-93 — Instrument: ICP — Test: M922.3.0

Reviewer: S. ENDERSEN — Review Date: 08-SEP-93 — File ID: — Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	NICKEL	0.400		0.417	mg/L	104	
DUP02	Q773991	A288829	NICKEL	0.0112		0.0117	mg/L		4
SPI02	Q773989	A288829	NICKEL	0.0112	0.500	0.514	mg/L	101	
CDL01	Q776641	INORGANIC	NICKEL	10		10.2	mg/L	102	
ICS-A	Q776640	PERKIN ELM	NICKEL	1.00		0.896	mg/L	90	
CCV	Q776492	INORGANIC	NICKEL	5.00		5.26	mg/L	105	
BLA01	Q776486	NA	NICKEL			< 0.004	mg/L		
LCS	Q773987	SPEX	NICKEL	5		4	mg/L	80	
BLA02	Q773988	NA	NICKEL			< 0.004	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CCV	Q776377	INORGANIC	NICKEL	5.00		5.05	mg/L	101	
BLA01	Q776371	NA	NICKEL			< 0.004	mg/L		
CDL01	Q776706	PERKIN ELM	NICKEL	0.080		0.0853	mg/L	107	
S-A	Q776705	PERKIN ELM	NICKEL	1.00		0.911	mg/L	91	

TIN ICP SW846-6010A

Analyst : M. JAO — Analysis Date: 10-SEP-93 — Instrument: ICP — Test: M135.3.0

Reviewer: S. ENDERSEN — Review Date: 13-SEP-93 — File ID: — Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DUP01	Q779600	A289027	TIN	0		BDL	mg/L		
DUP02	Q776735	A288944	TIN	0		BDL	mg/L		
SPI02	Q776733	A288944	TIN	0	2.00	1.92	mg/L	96	
CCV	Q779641	INORGANIC	TIN	5.00		4.87	mg/L	97	
BLA01	Q779642	NA	TIN			< 0.02	mg/L		
LCS	Q776731	SPEX	TIN	2.00		1.90	mg/L	95	
BLA02	Q776732	NA	TIN			< 0.02	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CCV	Q779670	INORGANIC	TIN	5.00		4.89	mg/L	98	
BLA01	Q779668	NA	TIN			< 0.02	mg/L		

SILVER ICP (CLP) ILM01

Analyst : M. JAO — Analysis Date: 10-SEP-93 — Instrument: ICP — Test: M930.3.0

Reviewer: S. ENDERSEN — Review Date: 13-SEP-93 — File ID: — Run: R196508

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CV01	Q779576	PERKIN ELM	SILVER	2.00		1.97	mg/L	99	
I01	Q779599	A289027	SILVER	0	0.050	0.0605	mg/L	121	
UP01	Q779600	A289027	SILVER	0		BDL	mg/L		
DUP02	Q776735	A288944	SILVER	0		BDL	mg/L		
SPI02	Q776733	A288944	SILVER	0	0.050	0.0547	mg/L	109	

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CDL01	Q779673	INORGANIC	SILVER	2		2.00	mg/L	100	
ICS-A	Q779674	PERKIN ELM	SILVER	1.00		0.933	mg/L	93	
CCV	Q779641	INORGANIC	SILVER	1.00		0.990	mg/L	99	
BLA01	Q779642	NA	SILVER			< 0.004	mg/L		
LCS	Q776731	SPEX	SILVER	0.500		0.436	mg/L	87	
BLA02	Q776732	NA	SILVER			< 0.004	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CCV	Q779670	INORGANIC	SILVER	1.00		0.993	mg/L	99	
BLA01	Q779668	NA	SILVER			< 0.004	mg/L		
CDL01	Q779616	PERKIN ELM	SILVER	0.020		0.0201	mg/L	101	
ICS-A	Q779615	PERKIN ELM	SILVER	1.00		0.947	mg/L	95	

SELENIUM GFAA (CLP) ILM01

Analyst : M. BAUER — Analysis Date: 13-SEP-93 — Instrument: GFAA — Test: M928.2.0

Reviewer: S. O'NEAL — Review Date: 14-SEP-93 — File ID: 026964 — Run: R196623

Prep: GFAA ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780567		SELENIUM	.01		.0106	mg/L	106	
DUP02	Q776569	A288944	SELENIUM	.005		< .005	mg/L		0
SPI02	Q776567	A288944	SELENIUM	0	.01	.0076	mg/L	76	
CDL01	Q780575		SELENIUM	.005		.0058	mg/L	116	
CCV	Q780576		SELENIUM	.02		.0197	mg/L	98.5	
BLA01	Q780577		SELENIUM			< .002	mg/L		
LCS	Q776565		SELENIUM	.02		.0204	mg/L	102	
BLA02	Q776566		SELENIUM			< .002	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
.01	Q780578		SELENIUM	.005		.0051	mg/L	102	
CCV	Q780579		SELENIUM	.02		.02	mg/L	100	
BLA01	Q780580		SELENIUM			< .002	mg/L		

VANADIUM ICP (CLP) ILM01

Analyst : M. JAO — Analysis Date: 07-SEP-93 — Instrument: ICP — Test: M938.3.0

Reviewer: S. ENDERSEN — Review Date: 08-SEP-93 — File ID: — Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	VANADIUM	0.400		0.404	mg/L	101	
DUP02	Q773991	A288829	VANADIUM	0.0113		0.0128	mg/L		12
SPI02	Q773989	A288829	VANADIUM	0.0113	0.500	0.465	mg/L	91	
CDL01	Q776641	INORGANIC	VANADIUM	10		10.2	mg/L	102	
ICS-A	Q776640	PERKIN ELM	VANADIUM	0.500		0.462	mg/L	92	
CCV	Q776492	INORGANIC	VANADIUM	5.00		5.30	mg/L	106	
BLA01	Q776486	NA	VANADIUM			< 0.004	mg/L		
LCS	Q773987	SPEX	VANADIUM	5.00		4.02	mg/L	80	
BLA02	Q773988	NA	VANADIUM			< 0.004	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CCV	Q776377	INORGANIC	VANADIUM	5.00		5.08	mg/L	102	
BLA01	Q776371	NA	VANADIUM			< 0.004	mg/L		
CDL01	Q776706	PERKIN ELM	VANADIUM	0.100		0.101	mg/L	101	
ICS-A	Q776705	PERKIN ELM	VANADIUM	0.500		0.469	mg/L	94	

PROJECT RECORD

ZINC ICP (CLP) ILM01

Analyst : M. JAO Analysis Date: 07-SEP-93 Instrument: ICP Test: M939.3.0
Reviewer: S. ENDERSEN Review Date: 08-SEP-93 File ID: Run: R196048

Prep: FAA OR ICP ACID DIGESTION OF AQUEOUS SAMPLES (CLP) ILM01
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q776664	PERKIN ELM	ZINC	0.400		0.428	mg/L	107	
DUP02	Q773991	A288829	ZINC	0.467		0.482	mg/L		3
SPI02	Q773989	A288829	ZINC	0.467	0.500	0.926	mg/L	92	
CDL01	Q776641	INORGANIC	ZINC	10		10.1	mg/L	101	
ICS-A	Q776640	PERKIN ELM	ZINC	1.00		0.963	mg/L	96	
CCV	Q776492	INORGANIC	ZINC	5		5.51	mg/L	110	
BLA01	Q776486	NA	ZINC			< 0.008	mg/L		
LCS	Q773987	SPEX	ZINC	5		3.99	mg/L	80	
BLA02	Q773988	NA	ZINC			.0301	mg/L		
SAMPLE	A288945		See Certificate of Analysis						
CCV	Q776377	INORGANIC	ZINC	5.00		5.18	mg/L	104	
BLA01	Q776371	NA	ZINC			< 0.008	mg/L		
CDL01	Q776706	PERKIN ELM	ZINC	0.040		0.0735	mg/L	184	
ICS-A	Q776705	PERKIN ELM	ZINC	1.00		0.993	mg/L	99	

CYANIDE, TOTAL (AUTOMATED) (CLP) ILM01

Analyst : J. WILDER Analysis Date: 10-SEP-93 Instrument: AUTO-ANALYZER Test: G901.4.0
Reviewer: B. BHRAKE Review Date: 14-SEP-93 File ID: 1036 Run: R196627

Prep: CYANIDE DISTILLATION (CLP) ILM01
Prep: NEUTRAL WATER LEACHING METHOD (SW846-1310 MODIFIED) SW846-1310(MOD)

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q780624		CYANIDE	.205		.183	mg/L	89.3	
V01	Q780665		CYANIDE	.205		.18	mg/L	87.8	
V01	Q780687		CYANIDE	.205		.168	mg/L	82	
ICV01	Q780689		CYANIDE	.205		.172	mg/L	83.9	
DUP02	Q780649	A288830	CYANIDE	.005		< .005	mg/L		0
SPI02	Q780650	A288944	CYANIDE	0	.06	.062	mg/L	103.3	
CDL01	Q780623		CYANIDE	.01		.01	mg/L	100	
CCV	Q780643		CYANIDE	.1		.115	mg/L	115	
BLA01	Q780644		CYANIDE			0	mg/L		
BLA02	Q780651		CYANIDE			0	mg/L		
LCS	Q780652		CYANIDE	.3		.31	mg/L	103.3	
SAMPLE	A288945		See Certificate of Analysis						
CCV	Q780655		CYANIDE	.1		.112	mg/L	112	
BLA01	Q780656		CYANIDE			0	mg/L		
BLA02	Q780668		CYANIDE			0	mg/L		
LCS	Q780658		CYANIDE	.3		.296	mg/L	98.7	

Notes

BDL Below Detection Limit
< Less Than Lower Detection Limit

PROJECT RECORD

Quality Assurance Officer: CBBoyle

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	27-SEP-93	A291100
	Complete 12-OCT-93	PO Number 92005 *
	Printed 13-OCT-93	Sampled 31-AUG-93

Sample Description

DESCRIPTION: ECC-04A1-PBM-04
LOCATION: ECC - ZIONSVILLE

SULFIDE SW846-9030A

Analyst : L. WILSON — Analysis Date: 28-SEP-93 — Test: G110.4.0
Reviewer: B. SHRAKE — Review Date: 28-SEP-93 — File ID: 1480-1482 — Run: R198019

Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DUP02	Q791042	D117815	SULFIDE	10		< 10	mg/kg		0
BLA01	Q791040		SULFIDE			.259	mg/L		
LCS	Q791044		SULFIDE	72.8		85.5	mg/L	117.4	
SAMPLE	A291100		See Certificate of Analysis						
LCS	Q791045		SULFIDE	72.8		81.7	mg/L	112.2	

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst : L. WILLIAMS — Analysis Date: 28-SEP-93 — Instrument: GC/ECD — Test: 0301.2.0
Reviewer: L. JULIAN — Review Date: 28-SEP-93 — File ID: 4412 — Run: R197982

Prep: PCB SONICATION EXTRACTION SW846-3550

Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CV01	Q790741		PCB AROCHLOR 1248	.45		.415	mg/L	92.2	
ICV01	Q790741		PCB AROCHLOR 1260	.45		.493	mg/L	109.6	
DPS02	Q783695	A290125	PCB AROCHLOR 1260	0	8.81	9.3	mg/kg	105.6	8.8
SPI02	Q783694	A290125	PCB AROCHLOR 1260	0	8.97	8.67	mg/kg	96.7	
CCV	Q790744		PCB AROCHLOR 1248	.5		.499	mg/L	99.8	
CCV	Q790744		PCB AROCHLOR 1260	.5		.523	mg/L	104.6	
BLA02	Q783692	EMS	PCB AROCHLOR 1016			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1221			< 2	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1232			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1242			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1248			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1254			< .4	mg/kg		
BLA02	Q783692	EMS	PCB AROCHLOR 1260			< .4	mg/kg		
LCS	Q783693		PCB AROCHLOR 1260	8.99		7.2	mg/kg	80.1	
SAMPLE	A291100		See Certificate of Analysis						

Notes

< *Less Than Lower Detection Limit*

PROJECT RECORD

Quality Assurance Officer: CBBoyle

EMS Heritage Laboratories, Indianapolis
SW846-8240 Volatile Continuing Calibration Check

File ID : >0520C Inj Time : 930906 23:50 ID File : CLPVOL::A2

nalyst : GREG Calibration File : CLPCAL::A2

Mass Spec ID : GCMS#3 Last Calibration File Update : 930427 13:10

Calibration
Data Files: 20 uG/L->7572C 50 uG/L->7580C
100 uG/L->7574C 150 uG/L->7575C 200 uG/L->7576C

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Acrolein	.03791	.01888	50.21			(Conc=300.00)
Acrylonitrile	.25747	.62481	142.67			(Conc=300.00)
Chloromethane	.46473	.40592	12.66		**	
Bromomethane	1.23062	1.26069	2.44			
Vinyl Chloride	.78656	.80304	2.09	*		
Dichlorodifluoromethane	.97248	1.28853	32.50			
Chloroethane	.50889	.53228	4.60			
Methylene Chloride	1.26465	1.31577	4.04			
Acetone	.52412	.58713	12.02			
Carbon Disulfide	2.19291	2.43929	11.24			
Trichlorofluoromethane	4.26114	2.87052	32.63			
1,1-Dichloroethene	1.06881	1.18689	11.05	*		
1,1-Dichloroethane	2.49933	2.27337	9.04		**	
[Tetrahydrofuran]	.30373	.33048	8.81			(Conc=125.00)
1,2-Dichloroethene (total)	1.27695	1.33692	4.70			(Conc=100.00)
Diethyl Ether	.73197	.68455	6.48			
Chloroform	4.57810	4.05677	11.39	*		
Trichloro-trifluoroethane	2.64979	2.51515	5.08			
1,2-Dichloroethane-d4	3.85703	2.84090	26.34			
2-Butanone	.67453	.67970	.77			
1,2-Dichloroethane	3.99280	3.17448	20.49			
Methyl-t-butyl ether	1.17331	1.02719	12.45			
1,1,1-Trichloroethane	1.32047	1.10075	16.64			
Carbon Tetrachloride	1.52478	1.24633	18.26			
Vinyl Acetate	.50081	.38326	23.47			
Bromodichloromethane	1.36202	1.11881	17.86			
1,2-Dichloropropane	.35661	.34312	3.78	*		
cis-1,3-Dichloropropene	.82416	.75236	8.71			
Trichloroethene	.54845	.59785	9.01			
Diisopropyl Ether	.88798	.87647	1.30			
2-Chloroethyl Vinyl Ether	.24179	.20548	15.02			
Dibromochloromethane	1.34716	1.22380	9.16			

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

PROJECT RECORD

EMS Heritage Laboratories, Indianapolis
SW846-8240 Volatile Continuing Calibration Check

File ID : >0520C Inj Time : 930906 23:50 ID File : CLPVOL::A2

nalyst : GREG Calibration File : CLPCAL::A2

Mass Spec ID : GCMS#3 Last Calibration File Update : 930427 13:10

Calibration
Data Files: 20 uG/L->7572C 50 uG/L->7580C
100 uG/L->7574C 150 uG/L->7575C 200 uG/L->7576C

Minimum $\overline{RF}$ for SPCC is .30 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
1,1,2-Trichloroethane	.47195	.44690	5.31			
Benzene	.80018	.86332	7.89	*		
trans-1,3-Dichloropropene	.79098	.68887	12.91			
Bromoform	1.09178	.98358	9.91		**	
4-Methyl-2-Pentanone	.49437	.49291	.29			
2-Hexanone	.39601	.40190	1.49			
Tetrachloroethene	.57476	.58821	2.34			
1,1,2,2-Tetrachloroethane	.86359	.83697	3.08		**	
Toluene-d8	1.22415	1.13252	7.49			
Toluene	.66882	.73481	9.87	*		
Chlorobenzene	1.03491	1.03995	.49		**	
Ethylbenzene	.45467	.48089	5.77	*		
Bromofluorobenzene	1.24872	1.07446	13.95			
Styrene	.98172	1.00350	2.22			
m-Xylene	.57225	.65621	14.67			
o,p-Xylene	.56307	.58818	4.46			(Conc=100.00)
m-Dichlorobenzene	1.26062	1.21119	3.92			
o,p-Dichlorobenzene	1.17866	1.22315	3.77			(Conc=100.00)

PROJECT RECORD

RF - Response Factor from daily standard file at 50.00 ug/L
RF - Average Response Factor from Initial Calibration Form VI
%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

HERITAGE LABORATORIES, INC
VOLATILES ANALYSIS- WATER METHOD BLANK
ANALYSIS METHOD: OLM01

SS SPEC FILE: >0521C
ALYSIS DATE/TIME: 9/7/93 00:58

COMPOUND NAME	RESULT	LIMIT	UNITS
CHLOROMETHANE	BDL	10	UG/L
BROMOMETHANE	BDL	10	UG/L
VINYL CHLORIDE	BDL	10	UG/L
CHLOROETHANE	BDL	10	UG/L
METHYLENE CHLORIDE	BDL	10	UG/L
ACETONE	BDL	10	UG/L
CARBON DISULFIDE	BDL	10	UG/L
1,1-DICHLOROETHENE	BDL	10	UG/L
1,1-DICHLOROETHANE	BDL	10	UG/L
1,2-DICHLOROETHENE (TOTAL)	BDL	10	UG/L
CHLOROFORM	BDL	10	UG/L
1,2-DICHLOROETHANE	BDL	10	UG/L
2-BUTANONE	BDL	10	UG/L
1,1,1-TRICHLOROETHANE	BDL	10	UG/L
CARBON TETRACHLORIDE	BDL	10	UG/L
BROMODICHLOROMETHANE	BDL	10	UG/L
1,2-DICHLOROPROPANE	BDL	10	UG/L
CIS-1,3-DICHLOROPROPENE	BDL	10	UG/L
TRICHLOROETHENE	BDL	10	UG/L
DIBROMOCHLOROMETHANE	BDL	10	UG/L
1,1,2-TRICHLOROETHANE	BDL	10	UG/L
NZENE	BDL	10	UG/L
ANS-1,3-DICHLOROPROPENE	BDL	10	UG/L
ROMOFORM	BDL	10	UG/L
4-METHYL-2-PENTANONE	BDL	10	UG/L
2-HEXANONE	BDL	10	UG/L
TETRACHLOROETHENE	BDL	10	UG/L
TOLUENE	BDL	10	UG/L
1,1,2,2-TETRACHLOROETHANE	BDL	10	UG/L
CHLOROBENZENE	BDL	10	UG/L
ETHYLBENZENE	BDL	10	UG/L
STYRENE	BDL	10	UG/L
XYLENE (TOTAL)	BDL	10	UG/L

SURROGATE RECOVERY

DICHLOROETHANE-D4	105	% RECOVERY
TOLUENE-D8	100	% RECOVERY
BROMOFLUOROBENZENE	101	% RECOVERY

PROJECT RECORD

Heritage Laboratory, Indianapolis
Semi-volatile Continuing Calibration Report

Operator ID: Date Acquired: 14 Sep 93 10:29 am
ta File: C:\F091493\4465F.D GCMS#6
sc. 50 ug/mL
method: CALPEST.M Title: CLP BNA Calibration
Last Calibration Update: Wed Sep 15 11:24:47 1993

C = CCC Max Dev = 25% P = SPCC Min RF = 0.05
S = Surrogate I = ISTD M = Matrix Spike Compound
cal20 = 4448F.D cal50 = 4444F.D cal80 = 4447F.D
cal120 = 4446F.D cal160 = 4445F.D

PK#		Compound	AvgRRF	CCRRF	%Dev
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0
2		N-nitroso-dimethylamine	0.576	0.615	6.7
3		Pyridine	0.904	1.010	11.7
4		2-Picoline	1.096	1.175	7.2
5	S	2-Fluorophenol	0.990	1.141	15.3
6		Aniline	1.632	1.838	12.6
7	S	Phenol-d5	1.235	1.397	13.2
8	MC	Phenol	1.297	1.450	11.8#
9		bis(2-Chloroethyl)ether	1.153	1.327	15.1
10	S	2-Chlorophenol-d4	1.072	1.170	9.1
11	MC	2-Chlorophenol	1.173	1.328	13.3#
12		1,3-Dichlorobenzene	1.292	1.445	11.8
13	MC	1,4-Dichlorobenzene	1.323	1.477	11.6#
14	S	1,2-Dichlorobenzene-d4	1.373	1.535	11.9
15		1,2-Dichlorobenzene	1.259	1.423	13.1
16		Benzyl alcohol	0.664	0.755	13.8
17		2-Methylphenol	0.870	0.996	14.4
18		bis(2-chloroisopropyl)ether	1.935	2.194	13.4
19	MP	n-Nitroso-di-n-propylamine	0.789	0.875	10.9
20		4-Methylphenol	0.910	1.061	16.5
21		Hexachloroethane	0.566	0.634	12.0
22	I	Naphthalene-d8	1.000	1.000	0.0
23	S	Nitrobenzene-d5	0.334	0.370	10.8
24		Nitrobenzene	0.344	0.389	12.9
25		Isophorone	0.659	0.706	7.1
26	C	2-Nitrophenol	0.234	0.250	6.7#
27		2,4-Dimethylphenol	0.321	0.351	9.4
28		bis(2-Chloroethoxy)methane	0.414	0.475	14.7
29	C	2,4-Dichlorophenol	0.312	0.332	6.5#
30		Benzoic acid	0.230	0.235	2.3
31	M	1,2,4-Trichlorobenzene	0.302	0.311	3.1
32		Naphthalene	0.902	1.019	13.0
33		4-Chloroaniline	0.385	0.490	27.1#
34		Toluenediamine	0.000	0.001	113.5#
35	C	Hexachlorobutadiene	0.171	0.168	1.8#
36	MC	4-Chloro-3-methylphenol	0.288	0.309	7.2#
37		2-Methylnaphthalene	0.597	0.658	10.2
38	I	Acenaphthene-d10	1.000	1.000	0.0
39	P	Hexachlorocyclopentadiene	0.306	0.277	9.7
40		1,2,4,5-Tetrachlorobenzene	0.528	0.502	4.8
41	C	2,4,6-Trichlorophenol	0.377	0.368	2.4#
42		2,4,5-Trichlorophenol	0.387	0.379	2.0
43	S	2-Fluorobiphenyl	1.126	1.147	1.9

PROJECT RECOR

Heritage Laboratory, Indianapolis
Semi-volatile Continuing Calibration Report

Operator ID: Date Acquired: 14 Sep 93 10:29 am
ta File: C:\F091493\4465F.D GCMS#6
sc. 50 ug/mL
Method: CALPEST.M Title: CLP BNA Calibration
Last Calibration Update: Wed Sep 15 11:24:47 1993

C = CCC Max Dev = 25% P = SPCC Min RF = 0.05
S = Surrogate I = ISTD M = Matrix Spike Compound
cal20 = 4448F.D cal50 = 4444F.D cal80 = 4447F.D
cal120 = 4446F.D cal160 = 4445F.D

PK#		Compound	AvgRRF	CCRRF	%Dev
44		2-Chloronaphthalene	1.090	1.196	9.7
45		2-Nitroaniline	0.366	0.398	8.9
46		Dimethylphthalate	1.251	1.332	6.4
47		1,3-Dinitrobenzene	0.260	0.241	7.3
48		2,6-Dinitrotoluene	0.371	0.376	1.3
49		Acenaphthylene	1.752	1.934	10.4
50		3-Nitroaniline	0.417	0.440	5.4
51	MC	Acenaphthene	1.044	1.167	11.8#
52	P	2,4-Dinitrophenol	0.214	0.193	9.9
53	MP	4-Nitrophenol	0.148	0.144	2.5
54		Dibenzofuran	1.511	1.579	4.5
55	M	2,4-Dinitrotoluene	0.500	0.491	1.6
56		2,3,4,6-Tetrachlorophenol	0.324	0.283	12.6
57		Diethylphthalate	1.303	1.376	5.6
58		Fluorene	1.081	1.189	10.0
59		4-Chlorophenyl-phenylether	0.570	0.585	2.5
60		4-Nitroaniline	0.412	0.412	0.2
61	I	Phenanthrene-d10	1.000	1.000	0.0
62		4,6-Dinitro-2-methylphenol	0.172	0.167	2.9
63	C	n-Nitrosodiphenylamine	0.456	0.479	5.1#
64	S	2,4,6-Tribromophenol	0.135	0.134	0.2
65		alpha-BHC	0.132	0.145	10.2
66		4-Bromophenyl-phenylether	0.202	0.204	1.0
67		Hexachlorobenzene	0.254	0.260	2.3
68		beta-BHC	0.103	0.110	7.2
69	MC	Pentachlorophenol	0.170	0.165	3.3#
70		gamma-BHC	0.112	0.120	7.6
71		Phenanthrene	0.952	1.065	11.8
72		Anthracene	0.912	1.061	16.3
73		delta-BHC	0.090	0.096	6.9
74		Carbazole	0.763	0.881	15.5
75		Heptachlor	0.115	0.121	5.3
76		Di-n-butylphthalate	1.240	1.451	17.0
77		Aldrin	0.081	0.083	3.4
78		Heptachlor epoxide	0.035	0.043	21.5
79	C	Fluoranthene	1.093	1.182	8.1#
80	I	Chrysene-d12	1.000	1.000	0.0
81		Benzidine	0.419	0.477	13.8
82	M	Pyrene	1.120	1.129	0.8
83		alpha-Endosulfan	0.028	0.028	1.5
84		p,p'-DDE	0.221	0.225	2.1
85	S	Terphenyl-d14	0.780	0.801	2.7
86		Dieldrin	0.144	0.170	17.6

PROJECT RECORD

Heritage Laboratory, Indianapolis
Semi-volatile Continuing Calibration Report

Operator ID: Date Acquired: 14 Sep 93 10:29 am
ta File: C:\F091493\4465F.D GCMS#6
sc. 50 ug/mL
Method: CALPEST.M Title: CLP BNA Calibration
Last Calibration Update: Wed Sep 15 11:24:47 1993

C = CCC Max Dev = 25% P = SPCC Min RF = 0.05
S = Surrogate I = ISTD M = Matrix Spike Compound
cal20 = 4448F.D cal50 = 4444F.D cal80 = 4447F.D
cal120 = 4446F.D cal160 = 4445F.D

PK#		Compound	AvgRRF	CCRRF	%Dev
87		Endrin	0.009	0.009	0.3
88		Endrin aldehyde	0.004	0.008	130.7#
89		beta-Endosulfan	0.040	0.040	0.7
90		p,p'-DDD	0.401	0.382	4.8
91		Butylbenzylphthalate	0.588	0.640	8.8
92		Endosulfan sulfate	0.084	0.080	4.6
93		p,p'-DDT	0.335	0.327	2.1
94		Benzo[a]anthracene	1.096	1.106	1.0
95		3,3'-Dichlorobenzidine	0.329	0.370	12.4
96		Chrysene	1.031	1.089	5.6
97		bis(2-Ethylhexyl)phthalate	0.789	0.895	13.4
98	I	Perylene-d12	1.000	1.000	0.0
99	C	Di-n-octylphthalate	1.352	1.301	3.8#
100		Benzo[b]fluoranthene	1.109	1.026	7.5
101		Benzo[k]fluoranthene	1.076	0.987	8.2
2	C	Benzo[a]pyrene	1.063	1.082	1.8#
103		Indeno[1,2,3-cd]pyrene	1.018	1.185	16.4
104		Dibenz[a,h]anthracene	0.832	0.936	12.5
105		Benzo[g,h,i]perylene	0.837	0.990	18.4

(#) = Out of Range SPCC's out = 0 CCC's out = 14
4480F.D CALPEST.M Wed Sep 15 16:17:20 1993 RPT1

PROJECT RECORD

HERITAGE LABORATORIES, INC
SEMI-VOLATILES ANALYSIS- WATER METHOD BLANK
ANALYSIS METHOD: OLM01

MASS SPEC FILE: >4470F SVL# 645-685

ANALYSIS DATE/TIME: 9/14/93 14:52

PREP DATE: 9/9/93

CAS No.	Compound	Result	Units	Detection limit
108-95-2	Phenol	BDL	uG/L	10
111-44-4	bis(2-Chloroethyl)ether	BDL	uG/L	10
95-57-8	2-Chlorophenol	BDL	uG/L	10
541-57-1	1,3-Dichlorobenzene	BDL	uG/L	10
106-46-7	1,4-Dichlorobenzene	BDL	uG/L	10
95-50-1	1,2-Dichlorobenzene	BDL	uG/L	10
95-48-7	2-Methylphenol	BDL	uG/L	10
108-60-1	bis(2-Chloroisopropyl)ether	BDL	uG/L	10
106-44-5	4-Methylphenol	BDL	uG/L	10
621-64-7	n-Nitroso-di-n-propylamine	BDL	uG/L	10
67-72-1	Hexachloroethane	BDL	uG/L	10
98-95-3	Nitrobenzene	BDL	uG/L	10
78-59-1	Isophorone	BDL	uG/L	10
88-75-5	2-Nitrophenol	BDL	uG/L	10
105-67-9	2,4-Dimethylphenol	BDL	uG/L	10
11-91-1	bis(2-Chloroethoxy)methane	BDL	uG/L	10
120-83-2	2,4-Dichlorophenol	BDL	uG/L	10
120-82-1	1,2,4-Trichlorobenzene	BDL	uG/L	10
91-20-3	Naphthalene	BDL	uG/L	10
106-47-8	4-Chloroaniline	BDL	uG/L	10
87-68-3	Hexachlorobutadiene	BDL	uG/L	10
59-50-7	4-Chloro-3-methylphenol	BDL	uG/L	10
91-57-6	2-Methylnaphthalene	BDL	uG/L	10
77-47-4	Hexachlorocyclopentadiene	BDL	uG/L	10
88-06-2	2,4,6-Trichlorophenol	BDL	uG/L	10
95-95-4	2,4,5-Trichlorophenol	BDL	uG/L	10
91-58-7	2-Chloronaphthalene	BDL	uG/L	10
88-74-4	2-Nitroaniline	BDL	uG/L	25
131-11-3	Dimethylphthalate	BDL	uG/L	10
208-96-8	Acenaphthylene	BDL	uG/L	10
606-20-2	2,6-Dinitrotoluene	BDL	uG/L	10
99-09-2	3-Nitroaniline	BDL	uG/L	25
83-32-9	Acenaphthene	BDL	uG/L	10
51-28-5	2,4-Dinitrophenol	BDL	uG/L	25
100-02-7	4-Nitrophenol	BDL	uG/L	25
132-64-9	Dibenzofuran	BDL	uG/L	10
121-14-2	2,4-Dinitrotoluene	BDL	uG/L	10
84-66-2	Diethylphthalate	BDL	uG/L	10
7005-72-3	4-Chlorophenyl-phenylether	BDL	uG/L	10
86-73-7	Fluorene	BDL	uG/L	10
100-01-6	4-Nitroaniline	BDL	uG/L	25

PROJECT RECORD

MASS SPEC FILE:

CAS	Compound	Result	Units	Detection Limit
534-52-1	4,6-Dinitro-2-methylphenol	BDL	uG/L	25
83-30-6	n-Nitrosodiphenylamine (1)	BDL	uG/L	10
101-55-3	4-Bromophenyl-phenylether	BDL	uG/L	10
118-74-1	Hexachlorobenzene	BDL	uG/L	10
87-86-5	Pentachlorophenol	BDL	uG/L	25
85-01-8	Phenanthrene	BDL	uG/L	10
120-12-7	Anthracene	BDL	uG/L	10
86-74-8	Carbazole	BDL	uG/L	10
84-74-2	Di-n-butylphthalate	BDL	uG/L	10
206-44-0	Fluoranthene	BDL	uG/L	10
129-00-0	Pyrene	BDL	uG/L	10
85-68-7	Butylbenzylphthalate	BDL	uG/L	10
91-94-1	3,3'-Dichlorobenzidine	BDL	uG/L	10
56-55-3	Benzo(a)anthracene	BDL	uG/L	10
218-01-9	Chrysene	BDL	uG/L	10
117-81-7	Bis(2-Ethylhexyl)phthalate	BDL	uG/L	10
117-84-0	Di-n-octylphthalate	BDL	uG/L	10
205-99-2	Benzo(b)fluoranthene	BDL	uG/L	10
207-08-9	Benzo(k)fluoranthene	BDL	uG/L	10
50-32-8	Benzo(a)pyrene	BDL	uG/L	10
193-39-5	Indeno(1,2,3-cd)pyrene	BDL	uG/L	10
53-70-3	Dibenz(a,h)anthracene	BDL	uG/L	10

SURROGATE LIST

2-Fluorophenol..... 73 % Recovery
Phenol..... 78 % Recovery
Nitrobenzene-d5..... 80 % Recovery
2-Chlorophenol-d4..... 80 % Recovery
2-Fluorobiphenyl..... 91 % Recovery
2,4,6-tribomophenol..... 75 % Recovery
Terphenyl-d14..... 81 % Recovery
1,2-Dichlorobenzene-d4... 65 % Recovery

ALSO DETECTED	EST. CONC.	R.T.
2-Ethoxy-2-methyl-butane	16	4.95
4-Hydroxy-4-methyl-2-pentanone	6	8.39

PROJECT RECORD

Heritage Laboratory, Indianapolis
Semi-volatile Continuing Calibration Report

Operator ID: Date Acquired: 15 Sep 93 9:34 am
ta File: C:\F091593\4480F.D GCMS#6
sc. 50 ug/mL
thod: CALPEST.M Title: CLP BNA Calibration
Last Calibration Update: Wed Sep 15 11:24:47 1993

C = CCC Max Dev = 25% P = SPCC Min RF = 0.05
S = Surrogate I = ISTD M = Matrix Spike Compound
cal20 = 4448F.D cal50 = 4444F.D cal80 = 4447F.D
cal120 = 4446F.D cal160 = 4445F.D

PK#		Compound	AvgRRF	CCRRF	%Dev
1	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0
2		N-nitroso-dimethylamine	0.576	0.561	2.7
3		Pyridine	0.904	1.004	11.1
4		2-Picoline	1.096	1.145	4.5
5	S	2-Fluorophenol	0.990	1.108	11.9
6		Aniline	1.632	1.704	4.4
7	S	Phenol-d5	1.235	1.310	6.1
8	MC	Phenol	1.297	1.516	16.9#
9		bis(2-Chloroethyl)ether	1.153	1.357	17.7
10	S	2-Chlorophenol-d4	1.072	1.128	5.3
11	MC	2-Chlorophenol	1.173	1.284	9.5#
12		1,3-Dichlorobenzene	1.292	1.454	12.5
13	MC	1,4-Dichlorobenzene	1.323	1.474	11.4#
14	S	1,2-Dichlorobenzene-d4	1.373	1.530	11.5
15		1,2-Dichlorobenzene	1.259	1.428	13.4
16		Benzyl alcohol	0.664	0.727	9.6
17		2-Methylphenol	0.870	0.939	7.9
18		bis(2-chloroisopropyl)ether	1.935	1.995	3.1
19	MP	n-Nitroso-di-n-propylamine	0.789	0.756	4.1
20		4-Methylphenol	0.910	0.975	7.1
21		Hexachloroethane	0.566	0.642	13.4
22	I	Naphthalene-d8	1.000	1.000	0.0
23	S	Nitrobenzene-d5	0.334	0.327	2.1
24		Nitrobenzene	0.344	0.358	3.8
25		Isophorone	0.659	0.643	2.5
26	C	2-Nitrophenol	0.234	0.213	9.3#
27		2,4-Dimethylphenol	0.321	0.313	2.4
28		bis(2-Chloroethoxy)methane	0.414	0.457	10.3
29	C	2,4-Dichlorophenol	0.312	0.283	9.1#
30		Benzoic acid	0.230	0.171	25.4#
31	M	1,2,4-Trichlorobenzene	0.302	0.296	2.0
32		Naphthalene	0.902	1.015	12.6
33		4-Chloroaniline	0.385	0.400	3.8
34		Toluenediamine	0.000	0.001	146.4#
35	C	Hexachlorobutadiene	0.171	0.155	9.0#
36	MC	4-Chloro-3-methylphenol	0.288	0.269	6.8#
37		2-Methylnaphthalene	0.597	0.589	1.4
38	I	Acenaphthene-d10	1.000	1.000	0.0
39	P	Hexachlorocyclopentadiene	0.306	0.280	8.5
40		1,2,4,5-Tetrachlorobenzene	0.528	0.540	2.4
41	C	2,4,6-Trichlorophenol	0.377	0.367	2.6#
42		2,4,5-Trichlorophenol	0.387	0.346	10.7
43	S	2-Fluorobiphenyl	1.126	1.233	9.5

PROJECT RECORD

Heritage Laboratory, Indianapolis
Semi-volatile Continuing Calibration Report

Operator ID: Date Acquired: 15 Sep 93 9:34 am
ta File: C:\F091593\4480F.D GCMS#6
sc. 50 ug/mL
Method: CALPEST.M Title: CLP BNA Calibration
Last Calibration Update: Wed Sep 15 11:24:47 1993

C = CCC Max Dev = 25% P = SPCC Min RF = 0.05
S = Surrogate I = ISTD M = Matrix Spike Compound
cal20 = 4448F.D cal50 = 4444F.D cal80 = 4447F.D
cal120 = 4446F.D cal160 = 4445F.D

PK#		Compound	AvgRRF	CCRRF	%Dev
44		2-Chloronaphthalene	1.090	1.271	16.6
45		2-Nitroaniline	0.366	0.350	4.3
46		Dimethylphthalate	1.251	1.290	3.1
47		1,3-Dinitrobenzene	0.260	0.205	21.2
48		2,6-Dinitrotoluene	0.371	0.352	5.2
49		Acenaphthylene	1.752	1.896	8.2
50		3-Nitroaniline	0.417	0.416	0.3
51	MC	Acenaphthene	1.044	1.164	11.5#
52	P	2,4-Dinitrophenol	0.214	0.135	36.8#
53	MP	4-Nitrophenol	0.148	0.122	17.6
54		Dibenzofuran	1.511	1.669	10.4
55	M	2,4-Dinitrotoluene	0.500	0.449	10.2
56		2,3,4,6-Tetrachlorophenol	0.324	0.294	9.2
57		Diethylphthalate	1.303	1.489	14.3
58		Fluorene	1.081	1.311	21.2
59		4-Chlorophenyl-phenylether	0.570	0.642	12.7
60		4-Nitroaniline	0.412	0.396	3.9
61	I	Phenanthrene-d10	1.000	1.000	0.0
62		4,6-Dinitro-2-methylphenol	0.172	0.128	25.5#
63	C	n-Nitrosodiphenylamine	0.456	0.498	9.2#
64	S	2,4,6-Tribromophenol	0.135	0.132	1.9
65		alpha-BHC	0.132	0.144	9.1
66		4-Bromophenyl-phenylether	0.202	0.219	8.5
67		Hexachlorobenzene	0.254	0.258	1.7
68		beta-BHC	0.103	0.112	9.1
69	MC	Pentachlorophenol	0.170	0.152	10.9#
70		gamma-BHC	0.112	0.119	6.3
71		Phenanthrene	0.952	1.064	11.8
72		Anthracene	0.912	1.080	18.5
73		delta-BHC	0.090	0.101	12.4
74		Carbazole	0.763	0.947	24.0
75		Heptachlor	0.115	0.126	9.0
76		Di-n-butylphthalate	1.240	1.466	18.2
77		Aldrin	0.081	0.088	9.6
78		Heptachlor epoxide	0.035	0.044	25.0
79	C	Fluoranthene	1.093	1.180	8.0#
80	I	Chrysene-d12	1.000	1.000	0.0
81		Benzidine	0.419	0.340	18.8
82	M	Pyrene	1.120	1.172	4.6
83		alpha-Endosulfan	0.028	0.030	6.9
84		p,p'-DDE	0.221	0.217	1.9
85	S	Terphenyl-d14	0.780	0.795	1.9
86		Dieldrin	0.144	0.159	9.8

PROJECT RECORD

Heritage Laboratory, Indianapolis
Semi-volatile Continuing Calibration Report

Operator ID: Date Acquired: 15 Sep 93 9:34 am
ta File: C:\F091593\4480F.D GCMS#6
sc. 50 ug/mL
Method: CALPEST.M Title: CLP BNA Calibration
Last Calibration Update: Wed Sep 15 11:24:47 1993

C = CCC Max Dev = 25% P = SPCC Min RF = 0.05
S = Surrogate I = ISTD M = Matrix Spike Compound
cal20 = 4448F.D cal50 = 4444F.D cal80 = 4447F.D
cal120 = 4446F.D cal160 = 4445F.D

PK#		Compound	AvgRRF	CCRRF	%Dev
87		Endrin	0.009	0.010	9.2
88		Endrin aldehyde	0.004	0.003	7.9
89		beta-Endosulfan	0.040	0.041	1.6
90		p,p'-DDD	0.401	0.391	2.5
91		Butylbenzylphthalate	0.588	0.627	6.6
92		Endosulfan sulfate	0.084	0.085	1.3
93		p,p'-DDT	0.335	0.318	5.0
94		Benzo[a]anthracene	1.096	1.106	0.9
95		3,3'-Dichlorobenzidine	0.329	0.356	8.2
96		Chrysene	1.031	1.065	3.3
97		bis(2-Ethylhexyl)phthalate	0.789	0.871	10.3
98	I	Perylene-d12	1.000	1.000	0.0
99	C	Di-n-octylphthalate	1.352	1.427	5.5#
100		Benzo[b]fluoranthene	1.109	1.062	4.3
101		Benzo[k]fluoranthene	1.076	1.097	2.0
102	C	Benzo[a]pyrene	1.063	1.092	2.7#
103		Indeno[1,2,3-cd]pyrene	1.018	1.154	13.3
104		Dibenz[a,h]anthracene	0.832	0.940	13.0
105		Benzo[g,h,i]perylene	0.837	0.970	15.9

(#) = Out of Range SPCC's out = 0 CCC's out = 14
4480F.D CALPEST.M Thu Sep 16 10:27:38 1993 RPT1

PROJECT RECORD

TO ENSURE PROPER HANDLING OF SA[illegible]ES PLEASE COMPLETE THIS ENTIRE FORM

HERITAGE LABORATORIES, INC.

I - № 12568

7901 West Morris Street
Indianapolis, Indiana 46231 (317) 243-0811 Fax (317) 486-5095

Co. Name: AWD TECHNOLOGIES

Project Name: ENVIRO CHEM

Quote No.:

PO No.: 2396

ENVIRONMENTAL PROGRAM:

CWA NPDES_____ IWP _____ SLUDGE_____

RCRA MW_____ SW _____ DISPOSAL_____

SDWA_____ CERCLA/SUPERFUND X OTHER _____

Sampled by: Scott Weishaar / RICH LOGELAND

Analyses Requested (Note special detection limits or methods): PCB's EPA 608-8080

Report To:
Co: ~~JIM FIFE~~ AWD
Add: RESIDENCE INN
3553 FOUNDERS RD
INDPLS. IN 46268
Attn: J. M FIFE
Phone: 317-872-0462

Accelerated Turnaround Requested YES
(Subject to Additional Charge)

Result Request by: 11 / 06 / 93
Mo Day Yr
(Date must be Accepted and Approved by Lab.)

PROJECT RECORD

Sample ID:	Date:	Time:	Comp	Grab	Sample Description:	Sample Type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Other	No. of Containers	PCB's EPA 608-8080	Remarks:	EMS Sample No.
T-33	11/03	4:40		X	TANK SWIPE - INSIDE	STEEL	2	2		
T-21	11/03	4:50		X	TANK SWIPE - INSIDE	STEEL	2	2		
T-16	11/03	4:55		X	TANK SWIPE - INSIDE	STEEL	1	1		

Relinquished by: (Signature)	Date /Time	Received by: (Signature)	Relinquished by (Signature)	Date /Time	Received by: (Signature)
Scott Weishaar	11/03/93 / 5:15 pm	[signature]	[signature]	11/4/93 / 1025 Am	
Relinquished by (Signature)	Date /Time	Received by (Signature)	Relinquished by: (Signature)	Date /Time	Received by (Signature)
	/			/	
Relinquished by (Signature)	Date Time	Received for Lab by (Signature)	Date / Time	Remarks	
	/	[signature]	11/4/93 1025 Am		

Distribution White original to be retained by client Yellow copy to accompany sample to laboratory. Pink copy to also be retained by client

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	04-NOV-93	2471	A295849
	Complete	PO Number	
	12-NOV-93	2396	
	Printed	Sampled	
	16-NOV-93	03-NOV-93 16:40	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

DESCRIPTION: T-33
LOCATION: ECC - ZIONSVILLE

PCB SONICATION EXTRACTION SW846-3550

Analyst: M. KEEZER Analysis Date: 05-NOV-93 Test: P231.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME			
FINAL VOLUME	70		mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst: R. MCKAIN Analysis Date: 10-NOV-93 Instrument: GC/ECD Test: 0301.2.0
Prep: PCB SONICATION EXTRACTION SW846-3550 P231.1.0

Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	1	ug
PCB AROCHLOR 1221	BDL	5	ug
PCB AROCHLOR 1232	BDL	1	ug
PCB AROCHLOR 1242	BDL	1	ug
PCB AROCHLOR 1248	BDL	1	ug
PCB AROCHLOR 1254	BDL	1	ug
PCB AROCHLOR 1260	BDL	1	ug
PCB AROCHLOR 1262	BDL	1	ug

swipe sample

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 12568.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

PROJECT RECORD

Quality Assurance Officer: _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	04-NOV-93	2471	A295850
	Complete	PO Number	
	12-NOV-93	2396	
	Printed	Sampled	
	16-NOV-93	03-NOV-93 16:40	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

DESCRIPTION: T-33 (DUPLICATE)
LOCATION: ECC - ZIONSVILLE

PCB SONICATION EXTRACTION SW846-3550

Analyst: M. KEEZER Analysis Date: 05-NOV-93 Test: P231.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME			
FINAL VOLUME	70		mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst: R. MCKAIN Analysis Date: 10-NOV-93 Instrument: GC/ECD Test: 0301.2.0
Prep: PCB SONICATION EXTRACTION SW846-3550 P231.1.0

Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	1	ug
PCB AROCHLOR 1221	BDL	5	ug
PCB AROCHLOR 1232	BDL	1	ug
PCB AROCHLOR 1242	BDL	1	ug
PCB AROCHLOR 1248	BDL	1	ug
PCB AROCHLOR 1254	BDL	1	ug
PCB AROCHLOR 1260	BDL	1	ug
PCB AROCHLOR 1262	BDL	1	ug

swipe sample

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 12568.

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PROJECT RECORD

Quality Assurance Officer: _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	04-NOV-93	2471	A295851
	Complete	PO Number	
	12-NOV-93	2396	
	Printed	Sampled	
	16-NOV-93	03-NOV-93 16:50	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

DESCRIPTION: T-21
LOCATION: ECC - ZIONSVILLE

PCB SONICATION EXTRACTION SW846-3550

Analyst: M. KEEZER Analysis Date: 05-NOV-93 Test: P231.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME			
FINAL VOLUME	70		mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst: R. MCKAIN Analysis Date: 10-NOV-93 Instrument: GC/ECD Test: D301.2.0
Prep: PCB SONICATION EXTRACTION SW846-3550 P231.1.0

Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	1	ug
PCB AROCHLOR 1221	BDL	5	ug
PCB AROCHLOR 1232	BDL	1	ug
PCB AROCHLOR 1242	BDL	1	ug
PCB AROCHLOR 1248	BDL	1	ug
PCB AROCHLOR 1254	BDL	1	ug
PCB AROCHLOR 1260	BDL	1	ug
PCB AROCHLOR 1262	BDL	1	ug

swipe sample

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 12568.

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PROJECT RECORD

Quality Assurance Officer: _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	04-NOV-93	2471	A295852
	Complete	PO Number	
	12-NOV-93	2396	
	Printed	Sampled	
	16-NOV-93	03-NOV-93 16:50	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

DESCRIPTION: T-21 (DUPLICATE)
LOCATION: ECC - ZIONSVILLE

PCB SONICATION EXTRACTION SW846-3550

Analyst: M. KEEZER Analysis Date: 05-NOV-93 Test: P231.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME			
FINAL VOLUME	70		mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst: R. MCKAIN Analysis Date: 10-NOV-93 Instrument: GC/ECD Test: 0301.2.0
Prep: PCB SONICATION EXTRACTION SW846-3550 P231.1.0

Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	1	ug
PCB AROCHLOR 1221	BDL	5	ug
PCB AROCHLOR 1232	BDL	1	ug
PCB AROCHLOR 1242	BDL	1	ug
PCB AROCHLOR 1248	6.0	1	ug
PCB AROCHLOR 1254	BDL	1	ug
PCB AROCHLOR 1260	BDL	1	ug
PCB AROCHLOR 1262	BDL	1	ug

swipe sample

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 12568.

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PROJECT RECORD

Quality Assurance Officer: _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	04-NOV-93	2471	A295853
	Complete	PO Number	
	12-NOV-93	2396	
	Printed	Sampled	
	16-NOV-93	03-NOV-93 16:55	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

DESCRIPTION: T-16
LOCATION: ECC - ZIONSVILLE

PCB SONICATION EXTRACTION SW846-3550

Analyst: M. KEEZER Analysis Date: 05-NOV-93 Test: P231.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME			
FINAL VOLUME	70		mL

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst: R. MCKAIN Analysis Date: 10-NOV-93 Instrument: GC/ECD Test: 0301.2.0
Prep: PCB SONICATION EXTRACTION SW846-3550 P231.1.0

Parameter	Result	Det. Limit	Units
PCB AROCHLOR 1016	BDL	1	ug
PCB AROCHLOR 1221	BDL	5	ug
PCB AROCHLOR 1232	BDL	1	ug
PCB AROCHLOR 1242	BDL	1	ug
PCB AROCHLOR 1248	2.4	1	ug
PCB AROCHLOR 1254	BDL	1	ug
PCB AROCHLOR 1260	BDL	1	ug
PCB AROCHLOR 1262	BDL	1	ug

swipe sample

Sample Comments

BDL Below Detection Limit

Sample chain of custody number 12568.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

PROJECT RECORD

Quality Assurance Officer: _____

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	04-NOV-93	A295849
	Complete 12-NOV-93	PO Number 2396
	Printed 15-NOV-93	Sampled 03-NOV-93 16:40

Sample Description

DESCRIPTION: T-33
LOCATION: ECC - ZIONSVILLE

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst : R. MCKAIN Analysis Date: 10-NOV-93 Instrument: GC/ECD Test: 0301.2.0
Reviewer: A. GOZDECKI Review Date: 10-NOV-93 File ID: 4569 Run: R201807

Prep: PCB SONICATION EXTRACTION SW846-3550

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q821493		PCB AROCHLOR 1248	.45		.39	mg/L	86.7	
ICV01	Q821493		PCB AROCHLOR 1260	.45		.346	mg/L	76.9	
SPI01	Q821494	A295849	PCB AROCHLOR 1248	0	35	37	ug	105.7	
DPS01	Q821495	A295849	PCB AROCHLOR 1248	0	35	35	ug	100	5.5
BLA02	Q818819	EMS	PCB AROCHLOR 1016			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1221			< 2	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1232			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1242			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1248			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1254			< .4	ug		
A02	Q818819	EMS	PCB AROCHLOR 1260			< .4	ug		
S	Q818820		PCB AROCHLOR 1260	18		19	ug	105.6	
SAMPLE	A295849		See Certificate of Analysis						
CCV	Q821500		PCB AROCHLOR 1248	.5		.555	mg/L	111	
CCV	Q821500		PCB AROCHLOR 1260	.5		.552	mg/L	110.4	

Notes

< *Less Than Lower Detection Limit*

PROJECT RECORD

Quality Assurance Officer: CBBoyle

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	04-NOV-93	A295850
	Complete 12-NOV-93	PO Number 2396
	Printed 15-NOV-93	Sampled 03-NOV-93 16:40

Sample Description

DESCRIPTION: T-33 (DUPLICATE)
LOCATION: ECC - ZIONSVILLE

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst : R. MCKAIN Analysis Date: 10-NOV-93 Instrument: GC/ECD Test: 0301.2.0
Reviewer: A. GOZDECKI Review Date: 10-NOV-93 File ID: 4569 Run: R201807

Prep: PCB SONICATION EXTRACTION SW846-3550

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q821493		PCB AROCHLOR 1248	.45		.39	mg/L	86.7	
ICV01	Q821493		PCB AROCHLOR 1260	.45		.346	mg/L	76.9	
SPI01	Q821494	A295849	PCB AROCHLOR 1248	0	35	37	ug	105.7	
DPS01	Q821495	A295849	PCB AROCHLOR 1248	0	35	35	ug	100	5.5
BLA02	Q818819	EMS	PCB AROCHLOR 1016			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1221			< 2	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1232			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1242			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1248			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1254			< .4	ug		
A02	Q818819	EMS	PCB AROCHLOR 1260			< .4	ug		
S	Q818820		PCB AROCHLOR 1260	18		19	ug	105.6	
SAMPLE	A295850		See Certificate of Analysis						
CCV	Q821500		PCB AROCHLOR 1248	.5		.555	mg/L	111	
CCV	Q821500		PCB AROCHLOR 1260	.5		.552	mg/L	110.4	

Notes

< *Less Than Lower Detection Limit*

PROJECT RECORD

Quality Assurance Officer: CBBoy

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	04-NOV-93	A295851
	Complete 12-NOV-93	PO Number 2396
	Printed 15-NOV-93	Sampled 03-NOV-93 16:50

Sample Description

DESCRIPTION: T-21
LOCATION: ECC - ZIONSVILLE

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst : R. MCKAIN Analysis Date: 10-NOV-93 Instrument: GC/ECD Test: Q301.2.0
Reviewer: A. GOZDECKI Review Date: 10-NOV-93 File ID: 4569 Run: R201807

Prep: PCB SONICATION EXTRACTION SW846-3550

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q821493		PCB AROCHLOR 1248	.45		.39	mg/L	86.7	
ICV01	Q821493		PCB AROCHLOR 1260	.45		.346	mg/L	76.9	
SPI01	Q821494	A295849	PCB AROCHLOR 1248	0	35	37	ug	105.7	
DPS01	Q821495	A295849	PCB AROCHLOR 1248	0	35	35	ug	100	5.5
BLA02	Q818819	EMS	PCB AROCHLOR 1016			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1221			< 2	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1232			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1242			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1248			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1254			< .4	ug		
A02	Q818819	EMS	PCB AROCHLOR 1260			< .4	ug		
S	Q818820		PCB AROCHLOR 1260	18		19	ug	105.6	
SAMPLE	A295851		See Certificate of Analysis						
CCV	Q821500		PCB AROCHLOR 1248	.5		.555	mg/L	111	
CCV	Q821500		PCB AROCHLOR 1260	.5		.552	mg/L	110.4	

Notes

< *Less Than Lower Detection Limit*

PROJECT RECORD

Quality Assurance Officer: CBBoyle

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	04-NOV-93	A295852
	Complete 12-NOV-93	PO Number 2396
	Printed 15-NOV-93	Sampled 03-NOV-93 16:50

Sample Description

DESCRIPTION: T-21 (DUPLICATE)
LOCATION: ECC - ZIONSVILLE

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst : R. MCKAIN Analysis Date: 10-NOV-93 Instrument: GC/ECD Test: 0301.2.0
Reviewer: A. GOZDECKI Review Date: 10-NOV-93 File ID: 4569 Run: R201807

Prep: PCB SONICATION EXTRACTION SW846-3550

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q821493		PCB AROCHLOR 1248	.45		.39	mg/L	86.7	
ICV01	Q821493		PCB AROCHLOR 1260	.45		.346	mg/L	76.9	
SPI01	Q821494	A295849	PCB AROCHLOR 1248	0	35	37	ug	105.7	
DPS01	Q821495	A295849	PCB AROCHLOR 1248	0	35	35	ug	100	5.5
BLA02	Q818819	EMS	PCB AROCHLOR 1016			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1221			< 2	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1232			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1242			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1248			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1254			< .4	ug		
A02	Q818819	EMS	PCB AROCHLOR 1260			< .4	ug		
S	Q818820		PCB AROCHLOR 1260	18		19	ug	105.6	
SAMPLE	A295852		See Certificate of Analysis						
CCV	Q821500		PCB AROCHLOR 1248	.5		.555	mg/L	111	
CCV	Q821500		PCB AROCHLOR 1260	.5		.552	mg/L	110.4	

Notes

< *Less Than Lower Detection Limit*

PROJECT RECORD

Quality Assurance Officer: CBBayle

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	04-NOV-93	A295853
	Complete 12-NOV-93	PO Number 2396
	Printed 15-NOV-93	Sampled 03-NOV-93 16:55

Sample Description

DESCRIPTION: T-16
LOCATION: ECC - ZIONSVILLE

POLYCHLORINATED BIPHENYLS (PCBS) SW846-8080

Analyst : R. MCKAIN Analysis Date: 10-NOV-93 Instrument: GC/ECD Test: 0301.2.0
Reviewer: A. GOZDECKI Review Date: 10-NOV-93 File ID: 4569 Run: R201807

Prep: PCB SONICATION EXTRACTION SW846-3550

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q821493		PCB AROCHLOR 1248	.45		.39	mg/L	86.7	
ICV01	Q821493		PCB AROCHLOR 1260	.45		.346	mg/L	76.9	
S	Q821494	A295849	PCB AROCHLOR 1248	0	35	37	ug	105.7	
DPSU1	Q821495	A295849	PCB AROCHLOR 1248	0	35	35	ug	100	5.5
BLA02	Q818819	EMS	PCB AROCHLOR 1016			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1221			< 2	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1232			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1242			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1248			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1254			< .4	ug		
BLA02	Q818819	EMS	PCB AROCHLOR 1260			< .4	ug		
S	Q818820		PCB AROCHLOR 1260	18		19	ug	105.6	
SAMPLE	A295853		See Certificate of Analysis						
CCV	Q821500		PCB AROCHLOR 1248	.5		.555	mg/L	111	
CCV	Q821500		PCB AROCHLOR 1260	.5		.552	mg/L	110.4	

Notes

< *Less Than Lower Detection Limit*

PROJECT RECORD

Quality Assurance Officer: CBBoyle

Last Page 1

TO ENSURE PROPER HANDLING OF SAMPLES PLEASE COMPLETE THIS ENTIRE FORM

HERITAGE LABORATORIES, INC.

I - № 14519

7901 West Morris Street
Indianapolis, Indiana 46231 (317) 243-0811 Fax (317) 486-5095

Co. Name: AWD TECHNOLOGIES
Project Name: ENVIRO - CHEM
Quote No.:
PO No.: 2596 - 010

ENVIRONMENTAL PROGRAM:
CWA NPDES_____ IWP _____ SLUDGE_____
RCRA MW_____ SW _____ DISPOSAL_____
SDWA_____ CERCLA/SUPERFUND X OTHER _____

Sampled by: SCOTT WEISHAAR / TONY CASTOR

Analyses Requested (Note special detection limits or methods)

Report To:
Co: AWD TECH
Add: RESIDENCE INN
3553 FOUNDERS RD
INDPLS. IN 46268
Attn: JAMES FIFE
Phone: 317 - 872 - 0462

Accelerated Turnaround Requested _____ (Subject to Additional Charge)

Result Request by: ____/____/____ Mo Day Yr (Date must be Accepted and Approved by Lab)

Sample ID:	Date:	Time:	Comp	Grab	Sample Description:	Sample Type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Other	No. of Containers	TCLP METALS	VOA	SVOA	TOTAL CN	REACTIVE SULFIDES	pH				Remarks:	EMS Sample No.
1	10/20/93	0830		X	ECC-04A1-PBM-07	CERAMIC ASH	1	1	1	1	1	1	1					
2	10/20	0845		X	ECC-04A1-PBM-08	BONER ASH	1	1	1	1	1	1	1					

PROJECT RECORD

Relinquished by: (Signature)	Date /Time	Received by: (Signature)	Relinquished by: (Signature)	Date /Time	Received by: (Signature)
Scott Weishaar	10/20/93 0930	J R Fife	J R Fife	10/21/93 11:00	
Relinquished by: (Signature)	Date /Time	Received by: (Signature)	Relinquished by: (Signature)	Date /Time	Received by: (Signature)
	/			/	
Relinquished by: (Signature)	Date /Time	Received for Lab by: (Signature)	Date / Time	Remarks	
	/	S. Ashton	10/21/93 11:00		

Distribution: White original to be retained by client. Yellow copy to accompany sample to laboratory. Pink copy to also be retained by client

AWD TECHNOLOGIES

Memorandum

PGH-93-TMJ-1223

TO: **Mark J. Dowiak** **DATE:** **November 5, 1993**

FROM: **Thomas M. Jackman** TJ **COPIES:** **James R. Fife**
Haia K. Roffman
File

SUBJECT: **Data Validation - ECC, Zionsville Site**
Sample Numbers - ECC-4A1-PBM-07 and ECC-4A1-PBM-08
AWD Project Number 2396.013
(Field Construction Support)

The above referenced analytical data, prepared in accordance with SW-846 Test Method 1311: Toxicity Characteristic Leaching Procedure (TCLP), were reviewed for accuracy and adherence to prescribed analytical protocols for the following parameters:

- Contract required detection limits
- Surrogate spike recoveries
- Standard addition (MSA) results for metals
- Spiked sample recoveries
- Continuing calibration verification percent differences (%Ds)
- Calibration response factors
- Laboratory blanks

All quality control parameters associated with the two ECC samples in this data set were reviewed according to U.S. EPA data validation guidelines. All reviewed parameters meet quality control requirements and are acceptable for their intended use.

The TCLP results were also compared to TCLP Maximum Allowable Limits for those compound for which limits exist (see Data Summaries). A comparison of the TCLP results to allowable limits shows that all positive detected results are below the RCRA Maximum Allowable Limits, with the exception of lead in sample ECC-04A1-PBM-08. The lead result in this sample was 13 mg/L and the TCLP limit is 5 mg/L.

TMJ/drp

PROJECT RECORD

DATA SUMMARY
ENVIROCHEM TCLP RESULTS
VOLATILE AND SEMIVOLATILE ORGANICS

SAMPLE NO.	ECC-04A1-PBM-07	ECC-04A1-PBM-08	RCRA TCLP LIMITS
UNITS	MG/L	MG/L	MG/L
VOLATILES			
BENZENE	0.05 U	0.05 U	0.5
CARBON TETRACHLORIDE	0.05 U	0.05 U	0.5
CHLLROBENZENE	0.05 U	0.05 U	100
CHLOROFORM	0.05 U	0.05 U	6
1,2-DICHLOROETHANE	0.05 U	0.05 U	0.5
1,1-DICHLOROETHYLENE	0.05 U	0.05 U	0.7
METHYL ETHYL KETONE	0.1 U	0.1 U	200
TETRACHLOROETHYLENE	0.05 U	0.05 U	0.7
TRICHLOROETHYLENE	0.05 U	0.05 U	0.5
VINYL CHLORIDE	0.1 U	0.1 U	0.2
SEMIVOLATILES			
1,4-DICHLOROBENZENE	0.05 U	0.05 U	7.5
2,4-DINITROTOLUENE	0.05 U	0.05 U	0.13
HEXACHLOROBENZENE	0.05 U	0.05 U	0.13
HEXACHLOROBUTADIENE	0.05 U	0.05 U	0.5
HEXACHLOROETHANE	0.05 U	0.05 U	3
NITROBENZENE	0.05 U	0.05 U	2
PYRIDINE	0.25 U	0.25 U	5
2-METHYL PHENOL	0.05 U	0.05 U	200
3-METHYL PHENOL	0.05 U	0.05 U	200
4-METHYL PHENOL	0.05 U	0.05 U	200
PENTACHLOROPHENOL	0.25 U	0.25 U	100
2,4,5-TRICHLOROPHENOL	0.05 U	0.05 U	400
2,4,6-TRICHLOROPHENOL	0.05 U	0.05 U	2

U = NOT DETECTED

PROJECT RECORD

DATA SUMMARY
ENVIROCHEM TCLP RESULTS
METALS AND INORGANIC PARAMETERS

SAMPLE NO.	ECC-04A1-PBM-07	ECC-04A1-PBM-08	RCRA TCLP LIMITS
UNITS	MG/L	MG/L	MG/L
ARSENIC	0.10 U	0.10 U	5
BARIUM	1.1	1.9	100
CADMIUM	0.0078	0.48	1
CHROMIUM	0.012	0.011	5
COPPER	0.020 U	1.8	25
LEAD	0.050 U	13	5
NICKEL	0.022	0.58	20
SELENIUM	0.10 U	0.10 U	1
SILVER	0.010 U	0.014	5
ZINC	3.4	140	250
MERCURY	0.0050 U	0.0050 U	0.2
CYANIDE	0.25 U	0.41	
SULFIDE	1.0 U	1.0 U	
PERCENT SOLIDS (%)	97	81	
pH (STD UNITS)	7.8	4.1	

U = NOT DETECTED

PROJECT RECORD

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	21-OCT-93	2471	A293882
	Complete	PO Number	
	11-NOV-93	92005 *	
	Printed	Sampled	
	11-NOV-93	20-OCT-93 08:30	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

SAMPLE DESCRIPTION: ECC-04A1-PBM-07
LOCATION: ENVIROCHEM

TOTAL SOLIDS EPA 160.3

Analyst: B. PRIDEMORE Analysis Date: 25-OCT-93 Test: G401.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	97	0.001	Percent

PH (S/S/S) SW846-9045A

Analyst: C. LADD Analysis Date: 22-OCT-93 Test: G624.0.0

Parameter	Result	Det. Limit	Units
H	7.8	0.10	Std. Units

CYANIDE DISTILLATION SW846-9010A

Analyst: J. STOAKES Analysis Date: 25-OCT-93 Test: P101.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		Grams
FINAL VOLUME	250		mL

CYANIDE, TOTAL (AUTOMATED) SW846-9012

Analyst: B. PENCE Analysis Date: 25-OCT-93 Instrument: AUTO-ANALYZER Test: G101.4.0

Prep: CYANIDE DISTILLATION SW846-9010A P101.4.0

Parameter	Result	Det. Limit	Units
CYANIDE	BDL	0.25	mg/kg

TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

Analyst: L. WILSON Analysis Date: 04-NOV-93 Test: P116.2.1

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		Grams
FINAL VOLUME	100		mL

SULFIDE SW846-9030A

Analyst: L. WILSON Analysis Date: 04-NOV-93 Test: G110.4.1

Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1 P116.2.1

Parameter	Result	Det. Limit	Units
SULFIDE	BDL	10.0	mg/kg

PROJECT RECORD

 (continued on next page)

HERITAGE LABORATORIES, INC. Lab Sample ID: A293882

TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Analyst: C. COFFEY Analysis Date: 25-OCT-93 Test: P107.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	100		Grams
LIQUID FRACTION (GRAMS)	0		Grams
EXTRACTED SAMPLE	100		Grams
SOLIDS	100		Percent
9.5 MM SIEVE TEST			Passed
INITIAL PH	8.50		Std. Units
ADJUSTED PH	1.85		Std. Units
BUFFER SOLUTION PH	4.95		Std. Units
FINAL PH	5.09		Std. Units
VOLUME BUFFERED SOLUTION	2000		mL
VOLUME EXTRACT FILTERED	2000		mL
LIQUID FRACTION	0		mL
TOTAL VOLUME FILTRATE	2000		mL
AMBIENT TEMPERATURE	23		Degrees C
INITIAL TIME	08325.1		HRS
FINAL TIME	08341.5		HRS
PHASE 0 VOLUME (REP 0)	NA		mL
PHASE 0 WEIGHT	NA		Grams
PHASE 0 DENSITY	NA		g/mL
PHASE 1 VOLUME (REP 1)	NA		mL
PHASE 1 WEIGHT	NA		Grams
PHASE 1 DENSITY	NA		g/mL

FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A

Analyst: R. BYERS Analysis Date: 27-OCT-93 Test: P130.8.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	100		mL
FINAL WEIGHT OR VOLUME	100		mL

ARSENIC ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M603.7.0

Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.10	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	0.0105		Conc
SAMPLE + ADD 1	2.153		Conc
DILUTION	1		

BARIUM ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M604.7.0

Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
BARIUM	1.1	0.010	mg/L
ADDITION 1	2.0		mg/L
SAMPLE	1.087		Conc
SAMPLE + ADD 1	3.063		Conc
DILUTION	1		

PROJECT RECORD

CADMIUM ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M608.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CADMIUM	0.0078	0.0050	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	0.0078		Conc
SAMPLE + ADD 1	1.905		Conc
DILUTION	1		

CHROMIUM ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M610.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CHROMIUM	0.012	0.010	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	0.0123		Conc
SAMPLE + ADD 1	1.968		Conc
DILUTION	1		

COPPER ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M612.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.020	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	0.0075		Conc
SAMPLE + ADD 1	2.031		Conc
DILUTION	1		

LEAD ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M616.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.050	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	0.0372		Conc
SAMPLE + ADD 1	1.927		Conc
DILUTION	1		

NICKEL ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M622.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
NICKEL	0.022	0.010	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	0.0221		Conc
SAMPLE + ADD 1	1.915		Conc
DILUTION	1		

PROJECT RECORD

SELENIUM ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M628.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.10	mg/L
ADDITION 1	2.000		mg/L
SAMPLE	0.0748		Conc
SAMPLE + ADD 1	2.296		Conc
DILUTION	1		

SILVER ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M630.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SILVER	BDL	0.010	mg/L
ADDITION 1	0.400		mg/L
SAMPLE	0.0018		Conc
SAMPLE + ADD 1	0.3892		Conc
DILUTION	1		

ZINC ICP (1 POINT MSA) SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 05-NOV-93 Instrument: ICP Test: M639.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ZINC	4.2	0.20	mg/L
ADDITION 1	2.000		mg/L
SAMPLE	0.4175		Conc
SAMPLE + ADD 1	2.439		Conc
DILUTION	10		

MERCURY CVAA ACID DIGESTION (LEACHATE) SW846-7470

Analyst: G. MAPP Analysis Date: 26-OCT-93 Test: P131.9.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		mL
FINAL VOLUME	100		mL

MERCURY CVAA (1 POINT MSA) SW846-7470

Analyst: G. MAPP Analysis Date: 27-OCT-93 Instrument: CVAA Test: M620.6.0
Prep: MERCURY CVAA ACID DIGESTION (LEACHATE) SW846-7470 P131.9.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.0050	mg/L
ADDITION 1	0.0010		mg/L
SAMPLE	0.000		Conc
SAMPLE + ADD 1	0.00103		Conc
DILUTION	1		

GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510A

Analyst: J. KOCH Analysis Date: 27-OCT-93 Test: P233.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	1.0		mL

PROJECT RECORD

 (continued on next page)

TCLP SEMIVOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8270A

Analyst: G. BARRETT Analysis Date: 27-OCT-93 19:23 Instrument: GC/MS SVOA Test: 0514.3.0
Prep: GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510A P233.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
1,4-DICHLOROBENZENE	BDL	50	ug/L
2,4-DINITROTOLUENE	BDL	50	ug/L
HEXACHLOROBENZENE	BDL	50	ug/L
HEXACHLOROBUTADIENE	BDL	50	ug/L
HEXACHLOROETHANE	BDL	50	ug/L
NITROBENZENE	BDL	50	ug/L
PYRIDINE	BDL	250	ug/L
2-METHYL PHENOL	BDL	50	ug/L
3-METHYL PHENOL	BDL	50	ug/L
4-METHYLPHENOL	BDL	50	ug/L
PENTACHLOROPHENOL	BDL	250	ug/L
2,4,5-TRICHLOROPHENOL	BDL	50	ug/L
2,4,6-TRICHLOROPHENOL	BDL	50	ug/L
SURROGATE RECOVERY			
2-FLUOROPHENOL	60		% Rec
PHENOL-D5	42		% Rec
NITROBENZENE-D5	87		% Rec
2-FLUOROBIPHENYL	94		% Rec
2,4,6-TRIBROMOPHENOL	95		% Rec
TERPHENYL-D14	92		% Rec

PROJECT RECORD

ERO HEADSPACE EXTRACTION (TCLP) SW846-1311

Analyst: J. KOCH Analysis Date: 25-OCT-93 Test: P108.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	25.0		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
LIQUID PORTION	NA		mL
EXTRACTED SAMPLE	25.0		Grams
PHASE ONE VOLUME (REP 0)	426.1		mL
PHASE TWO VOLUME (REP 1)	NA		mL

TCLP VOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8240A

Analyst: R. SHAMP Analysis Date: 27-OCT-93 11:30 Instrument: GC/MS VOA Test: 0513.3.0
Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311 P108.1.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	50	ug/L
CARBON TETRACHLORIDE	BDL	50	ug/L
CHLOROBENZENE	BDL	50	ug/L
CHLOROFORM	BDL	50	ug/L
1,2-DICHLOROETHANE	BDL	50	ug/L
1,1-DICHLOROETHYLENE	BDL	50	ug/L
METHYL ETHYL KETONE	BDL	100	ug/L
TETRACHLOROETHYLENE	BDL	50	ug/L
TRICHLOROETHYLENE	BDL	50	ug/L
VINYL CHLORIDE	BDL	100	ug/L
URROGATE RECOVERY			
DICHLOROETHANE-D4	123		% Rec
TOLUENE-D8	101		% Rec

HERITAGE LABORATORIES, INC. Lab Sample ID: A293882

Parameter	Result	Det. Limit	Units
BROMOFLUOROBENZENE	94		% Rec

[1]:10 DILUTION.

Sample Comments

SAMPLE WILL BE RE-CHECKED FOR SELENIUM, ZINC AND SULFIDE BECAUSE OF POSSIBLE QC QUESTIONS.

BDL Below Detection Limit
NA Not Applicable

Sample chain of custody number 14519.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

PROJECT RECORD

Quality Assurance Officer: _____

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	21-OCT-93	2471	A293883
	Complete: 11-NOV-93	PO Number: 92005 *	
	Printed: 11-NOV-93	Sampled: 20-OCT-93 08:45	

Report To	Bill To
JIM FIFE AWD TECHNOLOGIES, INC. 3553 FOUNDERS RD C/O RESIDENCE INN INDIANAPOLIS, IN 46268	ACCOUNTS PAYABLE AWD TECHNOLOGIES, INC. BUILDING 3, SUITE 300 PENN CENTER WEST PITTSBURGH, PA 15276

Sample Description

SAMPLE DESCRIPTION: ECC-04A1-PBM-08
LOCATION: ENVIROCHEM

TOTAL SOLIDS EPA 160.3

Analyst: B. PRIDEMORE Analysis Date: 25-OCT-93 Test: G401.7.0

Parameter	Result	Det. Limit	Units
SOLIDS	81	0.001	Percent

PH (S/S/S) SW846-9045A

Analyst: C. LADD Analysis Date: 22-OCT-93 Test: G624.0.0

Parameter	Result	Det. Limit	Units
PH	4.1	0.10	Std. Units

CYANIDE DISTILLATION SW846-9010A

Analyst: J. STOAKES Analysis Date: 25-OCT-93 Test: P101.4.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		Grams
FINAL VOLUME	250		mL

CYANIDE, TOTAL (AUTOMATED) SW846-9012

Analyst: B. PENCE Analysis Date: 25-OCT-93 Instrument: AUTO-ANALYZER Test: G101.4.0

Prep: CYANIDE DISTILLATION SW846-9010A P101.4.0

Parameter	Result	Det. Limit	Units
CYANIDE	0.41	0.25	mg/kg

TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

Analyst: L. WILSON Analysis Date: 04-NOV-93 Test: P116.2.1

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		Grams
FINAL VOLUME	100		mL

SULFIDE SW846-9030A

Analyst: L. WILSON Analysis Date: 04-NOV-93 Test: G110.4.1

Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1 P116.2.1

Parameter	Result	Det. Limit	Units
SULFIDE	BDL	10	mg/kg

PROJECT RECORD

HERITAGE LABORATORIES, INC. Lab Sample ID: A293883

TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Analyst: C. COFFEY Analysis Date: 25-OCT-93 Test: P107.1.0

Parameter	Result	Det. Limit	Units
OTAL SAMPLE WEIGHT	100		Grams
LIQUID FRACTION (GRAMS)	0		Grams
EXTRACTED SAMPLE	100		Grams
SOLIDS	100		Percent
9.5 MM SIEVE TEST			Passed
INITIAL PH	4.56		Std. Units
ADJUSTED PH	NA		Std. Units
BUFFER SOLUTION PH	4.95		Std. Units
FINAL PH	4.76		Std. Units
VOLUME BUFFERED SOLUTION	2000		mL
VOLUME EXTRACT FILTERED	2000		mL
LIQUID FRACTION	0		mL
TOTAL VOLUME FILTRATE	2000		mL
AMBIENT TEMPERATURE	23		Degrees C
INITIAL TIME	08325.1		HRS
FINAL TIME	08341.5		HRS
PHASE 0 VOLUME (REP 0)	NA		mL
PHASE 0 WEIGHT	NA		Grams
PHASE 0 DENSITY	NA		g/mL
PHASE 1 VOLUME (REP 1)	NA		mL
PHASE 1 WEIGHT	NA		Grams
PHASE 1 DENSITY	NA		g/mL

FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A

Analyst: R. BYERS Analysis Date: 27-OCT-93 Test: P130.8.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	100		mL
FINAL WEIGHT OR VOLUME	100		mL

ARSENIC ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M603.7.0

Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ARSENIC	BDL	0.10	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	0.0284		Conc
SAMPLE + ADD 1	2.125		Conc
DILUTION	1		

BARIUM ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M604.7.0

Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
BARIUM	1.9	0.010	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	1.871		Conc
SAMPLE + ADD 1	3.789		Conc
DILUTION	1		

PROJECT RECORD

CADMIUM ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M608.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CADMIUM	0.48	0.0050	mg/L
ADDITION 1	2.0		mg/L
SAMPLE	0.4763		Conc
SAMPLE + ADD 1	2.277		Conc
DILUTION	1		

CHROMIUM ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M610.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
CHROMIUM	0.011	0.010	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	0.0106		Conc
SAMPLE + ADD 1	1.883		Conc
DILUTION	1		

COPPER ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M612.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
COPPER	1.8	0.020	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	1.771		Conc
SAMPLE + ADD 1	3.743		Conc
DILUTION	1		

LEAD ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M616.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
LEAD	13	0.050	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	12.86		Conc
SAMPLE + ADD 1	14.62		Conc
DILUTION	1		

NICKEL ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M622.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
NICKEL	0.58	0.010	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	0.584		Conc
SAMPLE + ADD 1	2.389		Conc
DILUTION	1		

PROJECT RECORD

SELENIUM ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M628.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SELENIUM	BDL	0.10	mg/L
ADDITION 1	2.00		mg/L
SAMPLE	0.0922		Conc
SAMPLE + ADD 1	2.376		Conc
DILUTION	1		

SILVER ICP (1 POINT MSA) SW846-6010A

Analyst: A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M630.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
SILVER	0.014	0.010	mg/L
ADDITION 1	0.400		mg/L
SAMPLE	0.0141		Conc
SAMPLE + ADD 1	0.3984		Conc
DILUTION	1		

ZINC ICP (1 POINT MSA) SW846-6010A

Analyst: A. STOCKBURGER Analysis Date: 05-NOV-93 Instrument: ICP Test: M639.7.0
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A P130.8.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
ZINC	170	0.20	mg/L
DDITION 1	2.000		mg/L
AMPLE	16.93		Conc
SAMPLE + ADD 1	18.95		Conc
DILUTION	10		

MERCURY CVAA ACID DIGESTION (LEACHATE) SW846-7470

Analyst: G. MAPP Analysis Date: 26-OCT-93 Test: P131.9.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		mL
FINAL VOLUME	100		mL

MERCURY CVAA (1 POINT MSA) SW846-7470

Analyst: G. MAPP Analysis Date: 27-OCT-93 Instrument: CVAA Test: M620.6.0
Prep: MERCURY CVAA ACID DIGESTION (LEACHATE) SW846-7470 P131.9.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.0050	mg/L
ADDITION 1	0.0010		mg/L
SAMPLE	0.000		Conc
SAMPLE + ADD 1	0.00106		Conc
DILUTION	1		

GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510A

Analyst: J. KOCH Analysis Date: 27-OCT-93 Test: P233.4.0
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	200		mL
FINAL VOLUME	1.0		mL

PROJECT RECORD

TCLP SEMIVOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8270A

Analyst: G. BARRETT Analysis Date: 27-OCT-93 20:13 Instrument: GC/MS SVOA Test: 0514.3.0

Prep: GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510A P233.4.0

Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311 P107.1.0

Parameter	Result	Det. Limit	Units
1,4-DICHLOROBENZENE	BDL	50	ug/L
2,4-DINITROTOLUENE	BDL	50	ug/L
HEXACHLOROBENZENE	BDL	50	ug/L
HEXACHLOROBUTADIENE	BDL	50	ug/L
HEXACHLOROETHANE	BDL	50	ug/L
NITROBENZENE	BDL	50	ug/L
PYRIDINE	BDL	250	ug/L
2-METHYL PHENOL	BDL	50	ug/L
3-METHYL PHENOL	BDL	50	ug/L
4-METHYLPHENOL	BDL	50	ug/L
PENTACHLOROPHENOL	BDL	250	ug/L
2,4,5-TRICHLOROPHENOL	BDL	50	ug/L
2,4,6-TRICHLOROPHENOL	BDL	50	ug/L
SURROGATE RECOVERY			
2-FLUOROPHENOL	57		% Rec
PHENOL-D5	43		% Rec
NITROBENZENE-D5	90		% Rec
2-FLUOROBIPHENYL	92		% Rec
2,4,6-TRIBROMOPHENOL	104		% Rec
TERPHENYL-D14	95		% Rec

PROJECT RECORD

ERO HEADSPACE EXTRACTION (TCLP) SW846-1311

Analyst: J. KOCH Analysis Date: 25-OCT-93 Test: P108.1.0

Parameter	Result	Det. Limit	Units
TOTAL SAMPLE WEIGHT	25.0		Grams
LIQUID FRACTION (GRAMS)	NA		Grams
LIQUID PORTION	NA		mL
EXTRACTED SAMPLE	25.0		Grams
PHASE ONE VOLUME (REP 0)	434.5		mL
PHASE TWO VOLUME (REP 1)	NA		mL

TCLP VOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8240A

Analyst: R. SHAMP Analysis Date: 27-OCT-93 12:17 Instrument: GC/MS VOA Test: 0513.3.0

Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311 P108.1.0

Parameter	Result	Det. Limit	Units
BENZENE	BDL	50	ug/L
CARBON TETRACHLORIDE	BDL	50	ug/L
CHLOROBENZENE	BDL	50	ug/L
CHLOROFORM	BDL	50	ug/L
1,2-DICHLOROETHANE	BDL	50	ug/L
1,1-DICHLOROETHYLENE	BDL	50	ug/L
METHYL ETHYL KETONE	BDL	100	ug/L
TETRACHLOROETHYLENE	BDL	50	ug/L
TRICHLOROETHYLENE	BDL	50	ug/L
VINYL CHLORIDE	BDL	100	ug/L
URROGATE RECOVERY			
DICHLOROETHANE-D4	118		% Rec
TOLUENE-D8	106		% Rec

 (continued on next page)

HERITAGE LABORATORIES, INC. Lab Sample ID: A293883

Parameter	Result	Det. Limit	Units
BROMOFLUOROBENZENE	94		% Rec
:10 DILUTION.			

Sample Comments

SAMPLE WILL BE RE-CHECKED FOR SELENIUM, ZINC AND SULFIDE BECAUSE OF POSSIBLE QC QUESTIONS.

BDL Below Detection Limit
NA Not Applicable

Sample chain of custody number 14519.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

PROJECT RECORD

Quality Assurance Officer: _____

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	21-OCT-93	A293882
	Complete 11-NOV-93	PO Number 92005 *
	Printed 16-NOV-93	Sampled 20-OCT-93 08:30

Sample Description

SAMPLE DESCRIPTION: ECC-04A1-PBM-07
LOCATION: ENVIROCHEM

TOTAL SOLIDS EPA 160.3

Analyst : B. PRIDEMORE — Analysis Date: 25-OCT-93 — Test: G401.7.0
Reviewer: P. ANDERSON — Review Date: 27-OCT-93 — File ID: 3538-3540 — Run: R200545

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DUP01	Q811640	A293882	SOLIDS	97		97	Percent		0
LCS01	Q811639		SOLIDS	9.6045		9.604	Percent	100	
SAMPLE	A293882		See Certificate of Analysis						
LCS01	Q811643		SOLIDS	12.6553		12.6552	Percent	100	

PH (S/S/S) SW846-9045A

Analyst : C. LADD — Analysis Date: 22-OCT-93 — Test: G624.0.0
Reviewer: S. CARDWELL — Review Date: 25-OCT-93 — File ID: — Run: R200221

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q809522		PH	4		4.04	Std. Units	101	
DUP01	Q809524	A293982	PH	7.6		7.6	Std. Units		0
V	Q809523		PH	7		7.04	Std. Units	100.6	
MPLE	A293882		See Certificate of Analysis						
CCV	Q809525		PH	7		7.04	Std. Units	100.6	

CYANIDE, TOTAL (AUTOMATED) SW846-9012

Analyst : B. PENCE — Analysis Date: 25-OCT-93 — Instrument: AUTO-ANALYZER — Test: G101.4.0
Reviewer: B. SHRAKE — Review Date: 26-OCT-93 — File ID: 1056 — Run: R200398

Prep: CYANIDE DISTILLATION SW846-9010A

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q810722		CYANIDE	.212		.208	mg/L	98.1	
ICV01	Q810724		CYANIDE	.212		.207	mg/L	97.6	
ICV01	Q810746		CYANIDE	.212		.202	mg/L	95.3	
SPI02	Q810737	A293818	CYANIDE	0	2.5	.577	mg/kg	23.1	
DPS02	Q810739	A293728	CYANIDE	0	.1	.087	mg/L	87	3.4
DUP02	Q810736	A293882	CYANIDE	.25		< .25	mg/kg		0
CDL01	Q810721		CYANIDE	.01		.011	mg/L	110	
CCV	Q810732		CYANIDE	.1		.108	mg/L	108	
BLA01	Q810733		CYANIDE			.003	mg/L		
BLA02	Q810726		CYANIDE			.003	mg/L		
LCS	Q810727		CYANIDE	.3		.259	mg/L	86.3	
SAMPLE	A293882		See Certificate of Analysis						
CCV	Q810734		CYANIDE	.1		.101	mg/L	101	
BLA01	Q810735		CYANIDE			.003	mg/L		
BLA02	Q810728		CYANIDE			.003	mg/L		
LCS	Q810731		CYANIDE	.3		.284	mg/L	94.7	

Comments

310737 SAMPLE EXHIBITS LOW SPIKE RECOVERY. THE SAMPLE AND SPIKE WERE
810737 DUPLICATED AND THE SAME LOW RECOVERY WAS OBTAINED.

PROJECT RECORD

SULFIDE SW846-9030A

Analyst : L. WILSON Analysis Date: 04-NOV-93 Test: G110.4.1
Reviewer: B. SHRAKE Review Date: 05-NOV-93 File ID: 1531-1533 Run: R201341
Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q818051	A295696	SULFIDE	0	34.4	32.4	mg/L	94.2	
DUP01	Q818050	A295695	SULFIDE	0		BDL	mg/L		
DUP02	Q818052	H119257	SULFIDE	0		BDL	mg/kg		
BLA01	Q818048		SULFIDE			.0389	mg/L		
LCS01	Q818049		SULFIDE	68.8		68.5	mg/L	99.6	
SAMPLE	A293882		See Certificate of Analysis						
LCS	Q818053		SULFIDE	68.8		58.8	mg/L	85.5	

ARSENIC ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M603.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815970		ARSENIC	.4		.429	mg/L	107.3	
DUP02	Q809850	A293883	ARSENIC	0		BDL	mg/L		0
CCV	Q815974		ARSENIC	5		5.14	mg/L	102.8	
BLA01	Q815975		ARSENIC			< .04	mg/L		
LCS	Q809846		ARSENIC	20		18.9	mg/L	94.5	
BLA02	Q809847		ARSENIC			< .04	mg/L		
SAMPLE	A293882		See Certificate of Analysis						
CCV	Q815976		ARSENIC	5		5.21	mg/L	104.2	
BLA01	Q815977		ARSENIC			< .04	mg/L		

BARIUM ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M604.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815923		BARIUM	2		2.03	mg/L	101.5	
DUP02	Q809850	A293883	BARIUM	1.87		1.86	mg/L		.5
CCV	Q815941		BARIUM	5		4.91	mg/L	98.2	
BLA01	Q815942		BARIUM			< .004	mg/L		
LCS	Q809846		BARIUM	20		18.8	mg/L	94	
BLA02	Q809847		BARIUM			< .004	mg/L		
SAMPLE	A293882		See Certificate of Analysis						
CCV	Q815943		BARIUM	5		4.97	mg/L	99.4	
BLA01	Q815944		BARIUM			< .004	mg/L		

CADMIUM ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M608.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815945		CADMIUM	.4		.422	mg/L	105.5	
DUP02	Q809850	A293883	CADMIUM	.476		.475	mg/L		.2
CV	Q815948		CADMIUM	5		4.92	mg/L	98.4	
A01	Q815949		CADMIUM			< .002	mg/L		
CS	Q809846		CADMIUM	.5		.456	mg/L	91.2	
BLA02	Q809847		CADMIUM			< .002	mg/L		
SAMPLE	A293882		See Certificate of Analysis						

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q815950		CADMIUM	5		5.03	mg/L	100.6	
A01	Q815951		CADMIUM			< .002	mg/L		

CHROMIUM ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M610.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815952		CHROMIUM	.4		.408	mg/L	102	
DUP02	Q809850	A293883	CHROMIUM	.0106		.0088	mg/L		18.6
CCV	Q815955		CHROMIUM	5		4.99	mg/L	99.8	
BLA01	Q815956		CHROMIUM			.0044	mg/L		
LCS	Q809846		CHROMIUM	2		1.86	mg/L	93	
BLA02	Q809847		CHROMIUM			< .004	mg/L		
SAMPLE	A293882		See Certificate of Analysis						
CCV	Q815957		CHROMIUM	5		5.09	mg/L	101.8	
BLA01	Q815958		CHROMIUM			< .004	mg/L		

COPPER ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M612.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815986		COPPER	.4		.408	mg/L	102	
DUP02	Q809850	A293883	COPPER	1.77		1.74	mg/L		1.7
V	Q816005		COPPER	5		4.96	mg/L	99.2	
A01	Q816006		COPPER			.0124	mg/L		
LCS	Q809846		COPPER	2.5		2.29	mg/L	91.6	
BLA02	Q809847		COPPER			< .008	mg/L		
SAMPLE	A293882		See Certificate of Analysis						
CCV	Q816007		COPPER	5		5.01	mg/L	100.2	
BLA01	Q816008		COPPER			< .008	mg/L		

LEAD ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M616.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815963		LEAD	.4		.402	mg/L	100.5	
DUP02	Q809850	A293883	LEAD	12.9		12.8	mg/L		.8
CCV	Q815966		LEAD	5		4.99	mg/L	99.8	
BLA01	Q815967		LEAD			< .02	mg/L		
LCS	Q809846		LEAD	5		4.54	mg/L	90.8	
BLA02	Q809847		LEAD			< .02	mg/L		
SAMPLE	A293882		See Certificate of Analysis						
CCV	Q815968		LEAD	5		5.07	mg/L	101.4	
BLA01	Q815969		LEAD			< .02	mg/L		

PROJECT RECORD

NICKEL ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M622.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q816009		NICKEL	.4		.417	mg/L	104.3	
DUP02	Q809850	A293883	NICKEL	.584		.579	mg/L		.9
CCV	Q816010		NICKEL	5		4.97	mg/L	99.4	
BLA01	Q816028		NICKEL			< .004	mg/L		
LCS	Q809846		NICKEL	5		4.53	mg/L	90.6	
BLA02	Q809847		NICKEL			< .004	mg/L		
SAMPLE	A293882		See Certificate of Analysis						
CCV	Q816029		NICKEL	5		5	mg/L	100	
BLA01	Q816030		NICKEL			.0041	mg/L		

SELENIUM ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M628.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815978		SELENIUM	.4		.466	mg/L	116.5	
DUP02	Q809850	A293883	SELENIUM	0		BDL	mg/L		0
CCV	Q815981		SELENIUM	5		5.15	mg/L	103	
BLA01	Q815982		SELENIUM			.0725	mg/L		
LCS	Q809846		SELENIUM	20		18.9	mg/L	94.5	
BLA02	Q809847		SELENIUM			.0726	mg/L		
MPLE	A293882		See Certificate of Analysis						
CV	Q815983		SELENIUM	5		5.34	mg/L	106.8	
BLA01	Q815984		SELENIUM			.0725	mg/L		

SILVER ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M630.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815916		SILVER	2		1.91	mg/L	95.5	
DUP02	Q809850	A293883	SILVER	.0141		.0116	mg/L		19.5
CCV	Q815919		SILVER	1		.993	mg/L	99.3	
BLA01	Q815920		SILVER			< .004	mg/L		
LCS	Q809846		SILVER	.5		.444	mg/L	88.8	
BLA02	Q809847		SILVER			< .004	mg/L		
SAMPLE	A293882		See Certificate of Analysis						
CCV	Q815921		SILVER	1		1	mg/L	100	
BLA01	Q815922		SILVER			< .004	mg/L		

ZINC ICP (1 POINT MSA) SW846-6010A

Analyst : A. STOCKBURGER Analysis Date: 05-NOV-93 Instrument: ICP Test: M639.7.0
Reviewer: D. CZERNY Review Date: 05-NOV-93 File ID: 026280 Run: R201329
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q817894		ZINC	.4		.421	mg/L	105.3	
DUP02	Q809850	A293883	ZINC	138		137	mg/L		.7
CCV	Q817895		ZINC	5		5.05	mg/L	101	
BLA01	Q817896		ZINC				mg/L		

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LCS	Q809846		ZINC	5		4.47	mg/L	89.4	
A02	Q809847		ZINC			< .008	mg/L		
.MPLE	A293882		See Certificate of Analysis						
CCV	Q817899		ZINC	5		5.01	mg/L	100.2	
BLA01	Q817900		ZINC			.03	mg/L		

MERCURY CVAA (1 POINT MSA) SW846-7470

Analyst : G. MAPP Analysis Date: 27-OCT-93 Instrument: CVAA Test: M620.6.0
Reviewer: S. O'NEAL Review Date: 28-OCT-93 File ID: 026996 Run: R200680

Prep: MERCURY CVAA ACID DIGESTION (LEACHATE) SW846-7470
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q812803		MERCURY	.002		.0019	mg/L	95	
DUP02	Q807864	A293883	MERCURY	.005		< .005	mg/L		0
CCV	Q812820		MERCURY	.003		.0034	mg/L	113.3	
BLA01	Q812821		MERCURY			< .0002	mg/L		
LCS	Q807860		MERCURY	.003		.00292	mg/L	97.3	
BLA02	Q807861		MERCURY			< .0002	mg/L		
SAMPLE	A293882		See Certificate of Analysis						
CCV	Q812822		MERCURY	.003		.00337	mg/L	112.3	
BLA01	Q812823		MERCURY			< .0002	mg/L		

TCLP SEMIVOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8270A

Analyst : G. BARRETT Analysis Date: 27-OCT-93 Instrument: GC/MS SVOA Test: O514.3.0
Reviewer: A. BRADBURN Review Date: 28-OCT-93 File ID: >4873F Run: R200662

Prep: GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q807744	L101328	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	500	320	ug/L	64	
SPI02	Q807744	L101328	2,4-DINITROTOLUENE	0	500	380	ug/L	76	
SPI02	Q807744	L101328	HEXACHLOROBENZENE	0	500	420	ug/L	84	
SPI02	Q807744	L101328	HEXACHLOROBUTADIENE	0	500	370	ug/L	74	
SPI02	Q807744	L101328	HEXACHLOROETHANE	0	500	330	ug/L	66	
SPI02	Q807744	L101328	NITROBENZENE	0	500	380	ug/L	76	
SPI02	Q807744	L101328	PYRIDINE	0	500	260	ug/L	52	
SPI02	Q807744	L101328	2-METHYLPHENOL (O-CRESOL)	0	500	340	ug/L	68	
SPI02	Q807744	L101328	4-METHYLPHENOL (P-CRESOL)	0	500	280	ug/L	56	
SPI02	Q807744	L101328	PENTACHLOROPHENOL	0	500	400	ug/L	80	
SPI02	Q807744	L101328	2,4,5-TRICHLOROPHENOL	0	500	420	ug/L	84	
SPI02	Q807744	L101328	2,4,6-TRICHLOROPHENOL	0	500	400	ug/L	80	
CCV	Q812610		See Attached Report g4862f.ind						
BLA02	Q812612		See Attached Report g4872f.ind						
SAMPLE	A293882		See Certificate of Analysis						

Comments

Q807744 Note: MSD not performed.
Q807744 NOTE: LCS NOT REQUIRED BECAUSE MS/MSD PASSED METHOD CRITERIA.

TCLP VOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8240A

Analyst : R. SHAMP Analysis Date: 27-OCT-93 Instrument: GC/MS VOA Test: O513.3.0
Reviewer: A. BRADBURN Review Date: 28-OCT-93 File ID: >2866D Run: R200634

Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q813219	A293982	BENZENE	0	50	49	ug/L	98	
SPI01	Q813219	A293982	CARBON TETRACHLORIDE	0	50	49	ug/L	98	
SPI01	Q813219	A293982	CHLOROBENZENE	0	50	49	ug/L	98	
SPI01	Q813219	A293982	CHLOROFORM	0	50	53	ug/L	106	
SPI01	Q813219	A293982	1,2-DICHLOROETHANE	0	50	56	ug/L	112	

PROJECT RECORD

EMS HERITAGE LABORATORIES, INC. Lab Sample ID: A293882

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q813219	A293982	METHYL ETHYL KETONE	0	50	61	ug/L	122	
SPI01	Q813219	A293982	VINYL CHLORIDE	0	50	47	ug/L	94	
S01	Q813220	A293982	BENZENE	0	50	52	ug/L	104	5.9
DPS01	Q813220	A293982	CARBON TETRACHLORIDE	0	50	48	ug/L	96	2.1
DPS01	Q813220	A293982	CHLOROBENZENE	0	50	52	ug/L	104	5.9
DPS01	Q813220	A293982	CHLOROFORM	0	50	53	ug/L	106	0
DPS01	Q813220	A293982	1,2-DICHLOROETHANE	0	50	58	ug/L	116	3.5
DPS01	Q813220	A293982	METHYL ETHYL KETONE	0	50	65	ug/L	130	6.3
DPS01	Q813220	A293982	VINYL CHLORIDE	0	50	47	ug/L	94	0
CCV	Q812448		See Attached Report g2860d.ind						
BLA01	Q812449		See Attached Report g2861d.ind						
SAMPLE	A293882		See Certificate of Analysis						

Notes

< *Less Than Lower Detection Limit*
BDL *Below Detection Limit*

PROJECT RECORD

Quality Assurance Officer: CBBoyle

QUALITY ASSURANCE REPORT

Service Location	Received	Lab ID
HERITAGE LABORATORIES, INC. 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8305	21-OCT-93	A293883
	Complete 11-NOV-93	PO Number 92005 *
	Printed 16-NOV-93	Sampled 20-OCT-93 08:45

Sample Description

SAMPLE DESCRIPTION: ECC-04A1-PBM-08
LOCATION: ENVIROCHEM

TOTAL SOLIDS EPA 160.3

Analyst : B. PRIDEMORE — Analysis Date: 25-OCT-93 — Test: G401.7.0
Reviewer: P. ANDERSON — Review Date: 27-OCT-93 — File ID: 3538-3540 — Run: R200545

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
DUP01	Q811640	A293882	SOLIDS	97		97	Percent		0
LCS01	Q811639		SOLIDS	9.6045		9.604	Percent	100	
SAMPLE	A293883		See Certificate of Analysis						
LCS01	Q811643		SOLIDS	12.6553		12.6552	Percent	100	

PH (S/S/S) SW846-9045A

Analyst : C. LADD — Analysis Date: 22-OCT-93 — Test: G624.0.0
Reviewer: S. CARDWELL — Review Date: 25-OCT-93 — File ID: — Run: R200221

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q809522		PH	4		4.04	Std. Units	101	
DUP01	Q809524	A293982	PH	7.6		7.6	Std. Units		0
~V	Q809523		PH	7		7.04	Std. Units	100.6	
JMPLE	A293883		See Certificate of Analysis						
CCV	Q809525		PH	7		7.04	Std. Units	100.6	

CYANIDE, TOTAL (AUTOMATED) SW846-9012

Analyst : B. PENCE — Analysis Date: 25-OCT-93 — Instrument: AUTO-ANALYZER — Test: G101.4.0
Reviewer: B. SHRAKE — Review Date: 26-OCT-93 — File ID: 1056 — Run: R200398

Prep: CYANIDE DISTILLATION SW846-9010A

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q810722		CYANIDE	.212		.208	mg/L	98.1	
ICV01	Q810724		CYANIDE	.212		.207	mg/L	97.6	
ICV01	Q810746		CYANIDE	.212		.202	mg/L	95.3	
SPI02	Q810737	A293818	CYANIDE	0	2.5	.577	mg/kg	23.1	
DPS02	Q810739	A293728	CYANIDE	0	.1	.087	mg/L	87	3.4
DUP02	Q810736	A293882	CYANIDE	.25		< .25	mg/kg		0
CDL01	Q810721		CYANIDE	.01		.011	mg/L	110	
CCV	Q810734		CYANIDE	.1		.101	mg/L	101	
BLA01	Q810735		CYANIDE			.003	mg/L		
BLA02	Q810726		CYANIDE			.003	mg/L		
LCS	Q810727		CYANIDE	.3		.259	mg/L	86.3	
SAMPLE	A293883		See Certificate of Analysis						
CCV	Q810740		CYANIDE	.1		.111	mg/L	111	
BLA01	Q810741		CYANIDE			.003	mg/L		
BLA02	Q810728		CYANIDE			.003	mg/L		
LCS	Q810731		CYANIDE	.3		.284	mg/L	94.7	

Comments

310737 SAMPLE EXHIBITS LOW SPIKE RECOVERY. THE SAMPLE AND SPIKE WERE
810737 DUPLICATED AND THE SAME LOW RECOVERY WAS OBTAINED.

PROJECT RECORD

SULFIDE SW846-9030A

Analyst : L. WILSON Analysis Date: 04-NOV-93 Test: G110.4.1
Reviewer: B. SHRAKE Review Date: 05-NOV-93 File ID: 1531-1533 Run: R201341
Prep: TOTAL AVAILABLE SULFIDE EXTRACTION SW 7.3.4.1

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q818051	A295696	SULFIDE	0	34.4	32.4	mg/L	94.2	
DUP01	Q818050	A295695	SULFIDE	0		BDL	mg/L		
DUP02	Q818052	H119257	SULFIDE	0		BDL	mg/kg		
BLA01	Q818048		SULFIDE			.0389	mg/L		
LCS01	Q818049		SULFIDE	68.8		68.5	mg/L	99.6	
SAMPLE	A293883		See Certificate of Analysis						
LCS	Q818053		SULFIDE	68.8		58.8	mg/L	85.5	

ARSENIC ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M603.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: D26280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815970		ARSENIC	.4		.429	mg/L	107.3	
DUP02	Q809850	A293883	ARSENIC	0		BDL	mg/L		0
CCV	Q815971		ARSENIC	5		5.2	mg/L	104	
BLA01	Q815972		ARSENIC			< .04	mg/L		
LCS	Q809846		ARSENIC	20		18.9	mg/L	94.5	
BLA02	Q809847		ARSENIC			< .04	mg/L		
SAMPLE	A293883		See Certificate of Analysis						
CCV	Q815974		ARSENIC	5		5.14	mg/L	102.8	
BLA01	Q815975		ARSENIC			< .04	mg/L		

BARIUM ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M604.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: D26280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815923		BARIUM	2		2.03	mg/L	101.5	
DUP02	Q809850	A293883	BARIUM	1.87		1.86	mg/L		.5
CCV	Q815924		BARIUM	5		5.03	mg/L	100.6	
BLA01	Q815925		BARIUM			< .004	mg/L		
LCS	Q809846		BARIUM	20		18.8	mg/L	94	
BLA02	Q809847		BARIUM			< .004	mg/L		
SAMPLE	A293883		See Certificate of Analysis						
CCV	Q815941		BARIUM	5		4.91	mg/L	98.2	
BLA01	Q815942		BARIUM			< .004	mg/L		

CADMIUM ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M608.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: D26280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815945		CADMIUM	.4		.422	mg/L	105.5	
DUP02	Q809850	A293883	CADMIUM	.476		.475	mg/L		.2
CCV	Q815946		CADMIUM	5		4.96	mg/L	99.2	
A01	Q815947		CADMIUM			< .002	mg/L		
LCS	Q809846		CADMIUM	.5		.456	mg/L	91.2	
BLA02	Q809847		CADMIUM			< .002	mg/L		
SAMPLE	A293883		See Certificate of Analysis						

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CCV	Q815948		CADMIUM	5		4.92	mg/L	98.4	
401	Q815949		CADMIUM			< .002	mg/L		

CHROMIUM ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M610.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075

Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815952		CHROMIUM	.4		.408	mg/L	102	
DUP02	Q809850	A293883	CHROMIUM	.0106		.0088	mg/L		18.6
CCV	Q815953		CHROMIUM	5		5.04	mg/L	100.8	
BLA01	Q815954		CHROMIUM			< .004	mg/L		
LCS	Q809846		CHROMIUM	2		1.86	mg/L	93	
BLA02	Q809847		CHROMIUM			< .004	mg/L		
SAMPLE	A293883		See Certificate of Analysis						
CCV	Q815955		CHROMIUM	5		4.99	mg/L	99.8	
BLA01	Q815956		CHROMIUM			.0044	mg/L		

COPPER ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M612.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075

Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815986		COPPER	.4		.408	mg/L	102	
DUP02	Q809850	A293883	COPPER	1.77		1.74	mg/L		1.7
V	Q815987		COPPER	5		5.05	mg/L	101	
LA01	Q815988		COPPER			< .008	mg/L		
LCS	Q809846		COPPER	2.5		2.29	mg/L	91.6	
BLA02	Q809847		COPPER			< .008	mg/L		
SAMPLE	A293883		See Certificate of Analysis						
CCV	Q816005		COPPER	5		4.96	mg/L	99.2	
BLA01	Q816006		COPPER			.0124	mg/L		

LEAD ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M616.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075

Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815963		LEAD	.4		.402	mg/L	100.5	
DUP02	Q809850	A293883	LEAD	12.9		12.8	mg/L		.8
CCV	Q815964		LEAD	5		5.02	mg/L	100.4	
BLA01	Q815965		LEAD			< .02	mg/L		
LCS	Q809846		LEAD	5		4.54	mg/L	90.8	
BLA02	Q809847		LEAD			< .02	mg/L		
SAMPLE	A293883		See Certificate of Analysis						
CCV	Q815966		LEAD	5		4.99	mg/L	99.8	
BLA01	Q815967		LEAD			< .02	mg/L		

PROJECT RECORD

NICKEL ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M622.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q816009		NICKEL	.4		.417	mg/L	104.3	
DUP02	Q809850	A293883	NICKEL	.584		.579	mg/L		.9
CCV	Q816010		NICKEL	5		4.97	mg/L	99.4	
BLA01	Q816011		NICKEL			< .004	mg/L		
LCS	Q809846		NICKEL	5		4.53	mg/L	90.6	
BLA02	Q809847		NICKEL			< .004	mg/L		
SAMPLE	A293883		See Certificate of Analysis						
BLA01	Q816028		NICKEL			< .004	mg/L		
CCV	Q816029		NICKEL	5		5	mg/L	100	

SELENIUM ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M628.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815978		SELENIUM	.4		.466	mg/L	116.5	
DUP02	Q809850	A293883	SELENIUM	0		BDL	mg/L		0
CCV	Q815979		SELENIUM	5		5.39	mg/L	107.8	
BLA01	Q815980		SELENIUM			.0725	mg/L		
LCS	Q809846		SELENIUM	20		18.9	mg/L	94.5	
BLA02	Q809847		SELENIUM			.0726	mg/L		
MPLE	A293883		See Certificate of Analysis						
CCV	Q815981		SELENIUM	5		5.15	mg/L	103	
BLA01	Q815982		SELENIUM			.0725	mg/L		

SILVER ICP (1 POINT MSA) SW846-6010A

Analyst : A. HILSCHER Analysis Date: 28-OCT-93 Instrument: ICP Test: M630.7.0
Reviewer: S. ENDERSEN Review Date: 03-NOV-93 File ID: 026280 Run: R201075
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q815916		SILVER	2		1.91	mg/L	95.5	
DUP02	Q809850	A293883	SILVER	.0141		.0116	mg/L		19.5
CCV	Q815917		SILVER	1		1.01	mg/L	101	
BLA01	Q815918		SILVER			< .004	mg/L		
LCS	Q809846		SILVER	.5		.444	mg/L	88.8	
BLA02	Q809847		SILVER			< .004	mg/L		
SAMPLE	A293883		See Certificate of Analysis						
CCV	Q815919		SILVER	1		.993	mg/L	99.3	
BLA01	Q815920		SILVER			< .004	mg/L		

ZINC ICP (1 POINT MSA) SW846-6010A

Analyst : A. STOCKBURGER Analysis Date: 05-NOV-93 Instrument: ICP Test: M639.7.0
Reviewer: D. CZERNY Review Date: 05-NOV-93 File ID: 026280 Run: R201329
Prep: FAA OR ICP ACID DIGESTION (LEACHATE) SW846-3010A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

C Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
CV01	Q817894		ZINC	.4		.421	mg/L	105.3	
DUP02	Q809850	A293883	ZINC	138		137	mg/L		.7
CCV	Q817895		ZINC	5		5.05	mg/L	101	
BLA01	Q817896		ZINC			.015	mg/L		

PROJECT RECORD

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
LCS	Q809846		ZINC	5		4.47	mg/L	89.4	
A02	Q809847		ZINC			< .008	mg/L		
MPLE	A293883		See Certificate of Analysis						
CCV	Q817899		ZINC	5		5.01	mg/L	100.2	
BLA01	Q817900		ZINC			.03	mg/L		

MERCURY CVAA (1 POINT MSA) SW846-7470

Analyst : G. MAPP Analysis Date: 27-OCT-93 Instrument: CVAA Test: M620.6.0
Reviewer: S. O'NEAL Review Date: 28-OCT-93 File ID: 026996 Run: R200680

Prep: MERCURY CVAA ACID DIGESTION (LEACHATE) SW846-7470
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
ICV01	Q812803		MERCURY	.002		.0019	mg/L	95	
DUP02	Q807864	A293883	MERCURY	.005		< .005	mg/L		0
CCV	Q812820		MERCURY	.003		.0034	mg/L	113.3	
BLA01	Q812821		MERCURY			< .0002	mg/L		
LCS	Q807860		MERCURY	.003		.00292	mg/L	97.3	
BLA02	Q807861		MERCURY			< .0002	mg/L		
SAMPLE	A293883		See Certificate of Analysis						
CCV	Q812822		MERCURY	.003		.00337	mg/L	112.3	
BLA01	Q812823		MERCURY			< .0002	mg/L		

TCLP SEMIVOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8270A

Analyst : G. BARRETT Analysis Date: 27-OCT-93 Instrument: GC/MS SVOA Test: Q514.3.0
Reviewer: A. BRADBURN Review Date: 28-OCT-93 File ID: >4874F Run: R200662

Prep: GC/MS SEPARATORY FUNNEL LIQUID-LIQUID EXTRACTION SW846-3510A
Prep: TOX CHAR LEACHING PROCEDURE (TCLP W/ ORGANICS) SW846-1311

Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI02	Q807744	L101328	1,4-DICHLOROBENZENE (P-DICHLOROBENZE	0	500	320	ug/L	64	
SPI02	Q807744	L101328	2,4-DINITROTOLUENE	0	500	380	ug/L	76	
SPI02	Q807744	L101328	HEXACHLOROBENZENE	0	500	420	ug/L	84	
SPI02	Q807744	L101328	HEXACHLOROBUTADIENE	0	500	370	ug/L	74	
SPI02	Q807744	L101328	HEXACHLOROETHANE	0	500	330	ug/L	66	
SPI02	Q807744	L101328	NITROBENZENE	0	500	380	ug/L	76	
SPI02	Q807744	L101328	PYRIDINE	0	500	260	ug/L	52	
SPI02	Q807744	L101328	2-METHYLPHENOL (O-CRESOL)	0	500	340	ug/L	68	
SPI02	Q807744	L101328	4-METHYLPHENOL (P-CRESOL)	0	500	280	ug/L	56	
SPI02	Q807744	L101328	PENTACHLOROPHENOL	0	500	400	ug/L	80	
SPI02	Q807744	L101328	2,4,5-TRICHLOROPHENOL	0	500	420	ug/L	84	
SPI02	Q807744	L101328	2,4,6-TRICHLOROPHENOL	0	500	400	ug/L	80	
CCV	Q812610		See Attached Report g4862f.ind						
BLA02	Q812612		See Attached Report g4872f.ind						
SAMPLE	A293883		See Certificate of Analysis						

Comments

Q807744 Note: MSD not performed.
Q807744 NOTE: LCS NOT REQUIRED BECAUSE MS/MSD PASSED METHOD CRITERIA.

TCLP VOLATILE ORGANICS (TOXICITY CHARACTERISTIC) SW846-8240A

Analyst : R. SHAMP Analysis Date: 27-OCT-93 Instrument: GC/MS VOA Test: Q513.3.0
Reviewer: A. BRADBURN Review Date: 28-OCT-93 File ID: >2867D Run: R200634

Prep: ZERO HEADSPACE EXTRACTION (TCLP) SW846-1311

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q813219	A293982	BENZENE	0	50	49	ug/L	98	
SPI01	Q813219	A293982	CARBON TETRACHLORIDE	0	50	49	ug/L	98	
SPI01	Q813219	A293982	CHLOROBENZENE	0	50	49	ug/L	98	
SPI01	Q813219	A293982	CHLOROFORM	0	50	53	ug/L	106	
SPI01	Q813219	A293982	1,2-DICHLOROETHANE	0	50	56	ug/L	112	

PROJECT RECORD

EMS HERITAGE LABORATORIES, INC. Lab Sample ID: A293883

QC Type	Identifier	Source	Parameter	True/Sampl	Spike Val	Observed	Units	% Rec	RPD
SPI01	Q813219	A293982	METHYL ETHYL KETONE	0	50	61	ug/L	122	
^I01	Q813219	A293982	VINYL CHLORIDE	0	50	47	ug/L	94	
S01	Q813220	A293982	BENZENE	0	50	52	ug/L	104	5.9
DPS01	Q813220	A293982	CARBON TETRACHLORIDE	0	50	48	ug/L	96	2.1
DPS01	Q813220	A293982	CHLOROBENZENE	0	50	52	ug/L	104	5.9
DPS01	Q813220	A293982	CHLOROFORM	0	50	53	ug/L	106	0
DPS01	Q813220	A293982	1,2-DICHLOROETHANE	0	50	58	ug/L	116	3.5
DPS01	Q813220	A293982	METHYL ETHYL KETONE	0	50	65	ug/L	130	6.3
DPS01	Q813220	A293982	VINYL CHLORIDE	0	50	47	ug/L	94	0
CCV	Q812448		See Attached Report g2860d.ind						
BLA01	Q812449		See Attached Report g2861d.ind						
SAMPLE	A293883		See Certificate of Analysis						

Notes

< *Less Than Lower Detection Limit*
BDL *Below Detection Limit*

PROJECT RECORD

Quality Assurance Officer: CBBoyle

Heritage Laboratory, Indianapolis
Semi-volatile Continuing Calibration Report

Operator ID: Date Acquired: 27 Oct 93 10:07 am
ta File: C:\F102793\4862F.D 5970 - MS Misc. 50 ug/mL
ethod: CALPEST.M Title: CLP BNA Calibration
Last Calibration Update: Wed Oct 27 11:09:20 1993

C = CCC Max Dev = 30% P = SPCC Min RF = 0.05
S = Surrogate I = ISTD M = Matrix Spike Compound

cal20 = 4704F.D cal50 = 4705F.D cal80 = 4706F.D
cal120 = 4707F.D cal160 = 4708F.D

PK#		Compound	AvgRRF	CCRRF	%Dev
1	I	1,4-Dichlorobenzene-d4	1.00000	1.00000	0.0
2		N-nitroso-dimethylamine	0.75700	0.65240	13.8
3		Pyridine	1.06719	0.93900	12.0
4		2-Picoline	1.19457	1.08163	9.5
5	S	2-Fluorophenol	1.08462	1.06732	1.6
6		Aniline	1.56467	1.58961	1.6
7	S	Phenol-d5	1.27351	1.22553	3.8
8	MC	Phenol	1.42717	1.50482	5.4
9		bis(2-Chloroethyl)ether	1.22093	1.20057	1.7
10	S	2-Chlorophenol-d4	1.11249	1.17265	5.4
11	MC	2-Chlorophenol	1.25915	1.31515	4.4
12		1,3-Dichlorobenzene	1.36008	1.47271	8.3
13	MC	1,4-Dichlorobenzene	1.39413	1.51271	8.5
14	S	1,2-Dichlorobenzene-d4	1.38122	1.49709	8.4
15		1,2-Dichlorobenzene	1.30713	1.38737	6.1
16		Benzyl alcohol	0.66785	0.68644	2.8
17		2-Methylphenol	0.91351	0.95654	4.7
18		bis(2-chloroisopropyl)ether	1.64097	2.07920	26.7
19	MP	n-Nitroso-di-n-propylamine	0.83178	0.90979	9.4
20		4-Methylphenol	0.90586	0.99956	10.3
21		Hexachloroethane	0.58928	0.62210	5.6
22	I	Naphthalene-d8	1.00000	1.00000	0.0
23	S	Nitrobenzene-d5	0.38418	0.37985	1.1
24		Nitrobenzene	0.39886	0.40426	1.4
25		Isophorone	0.73974	0.71572	3.2
26	C	2-Nitrophenol	0.22969	0.23913	4.1
27		2,4-Dimethylphenol	0.36662	0.37270	1.7
28		bis(2-Chloroethoxy)methane	0.44794	0.47164	5.3
29	C	2,4-Dichlorophenol	0.33378	0.35733	7.1
30		Benzoic acid	0.24480	0.20346	16.9
31	M	1,2,4-Trichlorobenzene	0.32643	0.36892	13.0
32		Naphthalene	0.98577	1.08264	9.8
33		4-Chloroaniline	0.28344	0.44180	55.9
34		Toluenediamine	0.00034	0.00010	69.0
35	C	Hexachlorobutadiene	0.21913	0.22701	3.6
36	MC	4-Chloro-3-methylphenol	0.32207	0.30413	5.6
37		2-Methylnaphthalene	0.63052	0.67066	6.4
38	I	Acenaphthene-d10	1.00000	1.00000	0.0
39	P	Hexachlorocyclopentadiene	0.32342	0.19775	38.9
40		1,2,4,5-Tetrachlorobenzene	0.59466	0.69444	16.8
41	C	2,4,6-Trichlorophenol	0.42489	0.45954	8.2
42		2,4,5-Trichlorophenol	0.45923	0.44993	2.0
43	S	2-Fluorobiphenyl	1.19843	1.30238	8.7

PROJECT RECORD

Heritage Laboratory, Indianapolis
Semi-volatile Continuing Calibration Report

Operator ID: Date Acquired: 27 Oct 93 10:07 am
ta File: C:\F102793\4862F.D 5970 - MS Misc. 50 ug/mL
thod: CALPEST.M Title: CLP BNA Calibration
Last Calibration Update: Wed Oct 27 11:09:20 1993

C = CCC Max Dev = 30% P = SPCC Min RF = 0.05
S = Surrogate I = ISTD M = Matrix Spike Compound

cal20 = 4704F.D cal50 = 4705F.D cal80 = 4706F.D
cal120 = 4707F.D cal160 = 4708F.D

PK#		Compound	AvgRRF	CCRRF	%Dev
44		2-Chloronaphthalene	1.14226	1.33348	16.7
45		2-Nitroaniline	0.37723	0.42898	13.7
46		Dimethylphthalate	1.35335	1.43892	6.3
47		1,3-Dinitrobenzene	0.22726	0.22985	1.1
48		2,6-Dinitrotoluene	0.35795	0.37766	5.5
49		Acenaphthylene	1.81910	2.24966	23.7
50		3-Nitroaniline	0.36874	0.38168	3.5
51	MC	Acenaphthene	1.10084	1.22710	11.5
52	P	2,4-Dinitrophenol	0.15714	0.16040	2.1
53	MP	4-Nitrophenol	0.19657	0.15244	22.5
54		Dibenzofuran	1.50118	1.66526	10.9
55	M	2,4-Dinitrotoluene	0.44701	0.48319	8.1
56		2,3,4,6-Tetrachlorophenol	0.35274	0.32900	6.7
57		Diethylphthalate	1.42231	1.56086	9.7
58		Fluorene	1.08292	1.21568	12.3
59		4-Chlorophenyl-phenylether	0.58419	0.64586	10.6
60		4-Nitroaniline	0.38347	0.43664	13.9
61	I	Phenanthrene-d10	1.00000	1.00000	0.0
62		4,6-Dinitro-2-methylphenol	0.14242	0.14954	5.0
63	C	n-Nitrosodiphenylamine	0.46548	0.50813	9.2
64	S	2,4,6-Tribromophenol	0.13880	0.10794	22.2
65		alpha-BHC	0.14586	0.14564	0.2
66		4-Bromophenyl-phenylether	0.21673	0.21471	0.9
67		Hexachlorobenzene	0.26111	0.23400	10.4
68		beta-BHC	0.11129	0.10623	4.5
69	MC	Pentachlorophenol	0.16464	0.14259	13.4
70		gamma-BHC	0.12314	0.11921	3.2
71		Phenanthrene	0.94907	1.10646	16.6
72		Anthracene	0.90543	1.11246	22.9
73		delta-BHC	0.10172	0.10710	5.3
74		Carbazole	0.72898	0.87465	20.0
75		Heptachlor	0.10616	0.09968	6.1
76		Di-n-butylphthalate	1.26938	1.49537	17.8
77		Aldrin	0.07318	0.06807	7.0
78		Heptachlor epoxide	0.04134	0.04475	8.3
79	C	Fluoranthene	0.95856	1.15788	20.8
80	I	Chrysene-d12	1.00000	1.00000	0.0
81		Benzidine	0.41779	0.30874	26.1
82	M	Pyrene	1.23815	1.40785	13.7
83		alpha-Endosulfan	0.03728	0.03176	14.8
84		p,p'-DDE	0.24714	0.22869	7.5
85	S	Terphenyl-d14	0.84202	0.90106	7.0
86		Dieldrin	0.19405	0.21438	10.5

PROJECT RECOR

Heritage Laboratory, Indianapolis
Semi-volatile Continuing Calibration Report

Operator ID: Date Acquired: 27 Oct 93 10:07 am
Data File: C:\F102793\4862F.D 5970 - MS Misc. 50 ug/mL
Method: CALPEST.M Title: CLP BNA Calibration
Last Calibration Update: Wed Oct 27 11:09:20 1993

C = CCC Max Dev = 30% P = SPCC Min RF = 0.05
S = Surrogate I = ISTD M = Matrix Spike Compound

cal20 = 4704F.D cal50 = 4705F.D cal80 = 4706F.D
cal120 = 4707F.D cal160 = 4708F.D

PK#		Compound	AvgRRF	CCRRF	%Dev
87		Endrin	0.01210	0.01282	5.9
88		Endrin aldehyde	0.00096	0.00093	3.3
89		beta-Endosulfan	0.04781	0.04742	0.8
90		p,p'-DDD	0.41252	0.43437	5.3
91		Butylbenzylphthalate	0.69996	0.77738	11.1
92		Endosulfan sulfate	0.08342	0.07629	8.5
93		p,p'-DDT	0.30368	0.30526	0.5
94		Benzo[a]anthracene	1.09235	1.14881	5.2
95		3,3'-Dichlorobenzidine	0.25629	0.36761	43.4
96		Chrysene	1.03289	1.14348	10.7
97		bis(2-Ethylhexyl)phthalate	0.89670	1.01753	13.5
98	I	Perylene-d12	1.00000	1.00000	0.0
99	C	Di-n-octylphthalate	1.79208	2.20134	22.8
100		Benzo[b]fluoranthene	1.19326	1.31048	9.8
101		Benzo[k]fluoranthene	1.14950	1.27758	11.1
102	C	Benzo[a]pyrene	1.09904	1.20437	9.6
103		Indeno[1,2,3-cd]pyrene	1.04422	1.10028	5.4
104		Dibenz[a,h]anthracene	0.84199	0.91507	8.7
105		Benzo[g,h,i]perylene	0.86203	0.90638	5.1

(#) = Out of Range (Advisory for non-CCC)

PROJECT RECORD

HERITAGE LABORATORIES, INC
SEMI-VOLATILES ANALYSIS-WATER METHOD BLANK
ANALYSIS METHOD: SW846-8270

MASS SPEC FILE: >4872F SVL# 676-749

ANALYSIS DATE/TIME: 10/27/93 18:34

PREP DATE: 10/27/93

TARGET COMPOUND LIST	RESULT	UNITS	DET. LIMIT
Acenaphthene	BDL	uG/L	50
Acenapthylene	BDL	uG/L	50
Anthracene	BDL	uG/L	50
Benz(a)anthracene	BDL	uG/L	50
Benzo(a)pyrene	BDL	uG/L	50
Benzo(b)fluoranthene	BDL	uG/L	50
Benzo(ghi)perylene	BDL	uG/L	50
Benzo(k)fluoranthene	BDL	uG/L	50
Benzyl Alcohol	BDL	uG/L	50
Benzylbutylphthalate	BDL	uG/L	50
Bis(2-chloroethoxy)methane	BDL	uG/L	50
Bis(2-chloroethyl)ether	BDL	uG/L	50
Bis(2-chloroisopropyl)ether	BDL	uG/L	50
Bis(2-ethylhexyl)phthalate	BDL	uG/L	50
4-Bromophenylphenylether	BDL	uG/L	50
Carbazole	BDL	uG/L	50
4-Chloroaniline	BDL	uG/L	50
2-Chloronaphthalene	BDL	uG/L	50
4-Chlorophenylphenylether	BDL	uG/L	50
Chrysene	BDL	uG/L	50
Dibenz(a,h)anthracene	BDL	uG/L	50
Dibenzofuran	BDL	uG/L	50
1,2-Dichlorobenzene	BDL	uG/L	50
1,3-Dichlorobenzene	BDL	uG/L	50
1,4-Dichlorobenzene	BDL	uG/L	50
3,3' -Dichlorobenzidine	BDL	uG/L	100
Diethylphthalate	BDL	uG/L	50
Dimethylphthalate	BDL	uG/L	50
Di-n-butylphthalate	BDL	uG/L	50
Dinitrobenzenes	BDL	uG/L	250
2,4-Dinitrotoluene	BDL	uG/L	50
2,6-Dinitrotoluene	BDL	uG/L	50
Di-n-octylphthalate	BDL	uG/L	50
Fluoranthene	BDL	uG/L	50
Fluorene	BDL	uG/L	50
Hexachlorobenzene	BDL	uG/L	50
Hexachlorobutadiene	BDL	uG/L	50
Hexachlorocyclopentadiene	BDL	uG/L	50
Hexachloroethane	BDL	uG/L	50
Indeno(1,2,3-cd)pyrene	BDL	uG/L	50
Isophorone	BDL	uG/L	50
2-Methylnaphthalene	BDL	uG/L	50
Naphthalene	BDL	uG/L	50

PROJECT RECORD

MASS SPEC FILE: >4872F

2-Nitroaniline.....	BDL	uG/L	250
3-Nitroaniline.....	BDL	uG/L	250
4-Nitroaniline.....	BDL	uG/L	250
Nitrobenzene.....	BDL	uG/L	50
N-Nitroso-diphenylamine.....	BDL	uG/L	50
N-Nitroso-di-n-propylamine.....	BDL	uG/L	50
Phenanthrene.....	BDL	uG/L	50
2-Picoline.....	BDL	uG/L	250
Pyrene.....	BDL	uG/L	50
Pyridine.....	BDL	uG/L	250
Tetrachlorobenzenes.....	BDL	uG/L	50
Toluenediamine.....	BDL	uG/L	250
1,2,4-Trichlorobenzene.....	BDL	uG/L	50
Benzoic Acid.....	BDL	uG/L	250
4-Chloro-3-methylphenol.....	BDL	uG/L	50
2-Chlorophenol.....	BDL	uG/L	50
2,4-Dichlorophenol.....	BDL	uG/L	50
2,4-Dimethylphenol.....	BDL	uG/L	50
4,6-Dinitro-2-methylphenol.....	BDL	uG/L	250
2,4-Dinitrophenol.....	BDL	uG/L	50
2-Methylphenol.....	BDL	uG/L	50
4-Methylphenol.....	BDL	uG/L	50
2-Nitrophenol.....	BDL	uG/L	50
4-Nitrophenol.....	BDL	uG/L	250
Pentachlorophenol.....	BDL	uG/L	250
Phenol.....	BDL	uG/L	50
Tetrachlorophenol.....	BDL	uG/L	50
2,4,5-Trichlorophenol.....	BDL	uG/L	250
2,4,6-Trichlorophenol.....	BDL	uG/L	50

SURROGATE LIST			spike conc
2-Fluorophenol.....	64	% Rec	100
Phenol-d5.....	53	% Rec	100
Nitrobenzene-d5.....	95	% Rec	50
2-Fluorobiphenyl.....	93	% Rec	50
2,4,6-Tribromophenol.....	92	% Rec	100
Terphenyl-d14.....	92	% Rec	50

ALSO DETECTED	CONC.	R.T.
1-Methylethyl Propanoic Acid...	(9)	5.03
1-Methylethyl Butanoic Acid....	(20)	7.72

( ) = ESTIMATED CONCENTRATION

PROJECT RECORD

EMS-Heritage Laboratories, Indianapolis
Volatile Continuing Calibration Check

le ID : >2860D::D2 Inj Time : 931027 06:16 ID File : VOL624::SC

Analyst : REGI Calibration File : CAL502::D3

Mass Spec ID : GCMS#4 Last Calibration File Update : 921208 08:28

Calibration
Data Files: 20 uG/L->9019D 50 uG/L->9020D 100 uG/L->9021D
150 uG/L->9022D 200 uG/L->9023D

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Chloromethane	.65576	.47570	27.46		**	
Bromomethane	1.05641	1.03293	2.22			
Dichlorodifluoromethane	1.44521	1.27281	11.93			
Vinyl Chloride	.77261	.62985	18.48	*		
Methylene chloride	1.56069	1.34088	14.08			
Chloroethane	.57828	.45716	20.94			
Acrolein	.00131	.00177	35.92			(Conc=600.00)
Acetone	.19067	.25178	32.05			
Carbon disulfide	2.31534	2.21121	4.50			
Acrylonitrile	.11052	.03704	66.49			(Conc=600.00)
Fluorotrichloromethane	3.84158	3.18918	16.98			
1,1-Dichloroethene	2.09974	1.92381	8.38	*		
1,1-Dichloroethane	2.44503	2.00350	18.06		**	
Tetrahydrofuran	.14507	.10251	29.34			(Conc=125.00)
1,2-Dichloroethene (total)	4.17010	3.43526	17.62			
Diethyl ether	.65564	.57806	11.83			
Chloroform	3.68867	3.15495	14.47	*		
Trichlorotrifluoroethane	2.64838	2.88313	8.86			
D4 DICHLOROETHANE	2.22835	1.84372	17.26			
1,2-Dichloroethane	.58701	.63497	8.17			
Methyl Ethyl Ketone	.29352	.26218	10.67			
Methyl-tert-butyl ether	.68489	.61241	10.58			
1,1,1-Trichloroethane	.91729	.93553	1.99			
Carbon tetrachloride	1.01668	1.09915	8.11			
Ethyl Acetate	.19742	.23876	20.93			
Vinyl acetate	.24907	.24991	.34			
Bromodichloromethane	.90707	.86162	5.01			
1,2-Dichloropropane	.32425	.28593	11.82	*		
cis-1,3-Dichloropropene	.64556	.59528	7.79			
Trichloroethene	.56460	.59932	6.15			
Benzene	.80724	.69992	13.29			
Chlorodibromomethane	.86710	.93963	8.36			

RF - Response Factor from daily standard file at 50.00 PPB
RF - Average Response Factor from Initial Calibration Form VI
%Diff - % Difference from original average or curve
CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

PROJECT RECORD

EMS-Heritage Laboratories, Indianapolis
Volatile Continuing Calibration Check

le ID : >2860D::D2 Inj Time : 931027 06:16 ID File : VOL624::SC

Analyst : REGI Calibration File : CAL502::D3

Mass Spec ID : GCMS#4 Last Calibration File Update : 921208 08:28

Calibration
Data Files: 20 uG/L->9019D 50 uG/L->9020D 100 uG/L->9021D
150 uG/L->9022D 200 uG/L->9023D

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
1,1,2-Trichloroethane	.30959	.30060	2.90			
trans-1,3-Dichloropropene	.60432	.56149	7.09			
Diisopropyl Ether	1.30774	1.01393	22.47			
2-Chloroethylvinylether	.13932	.13707	1.62			
Bromoform	.85657	1.08776	26.99		**	
Methylisobutylketone	.18873	.27705	46.80			
D8 TOLUENE	1.22185	.99890	18.25			
1,1,2,2-Tetrachloroethane	.41069	.34295	16.49		**	
Tetrachloroethene	.94500	1.27886	35.33			
2-Hexanone	.16921	.19928	17.78			
Toluene	1.22697	1.01440	17.32	*		
Chlorobenzene	.99456	.94946	4.53		**	
Ethyl benzene	1.71364	1.48744	13.20	*		
Styrene	.92791	.85052	8.34			
m-Xylene	1.48311	1.28861	13.11			
o,p-Xylene	1.44085	1.27850	11.27			(Conc=100.00)
BROMOFLUOROBENZENE	1.20475	1.24979	3.74			
m-Dichlorobenzene	1.32379	1.49552	12.97			
o,p-Dichlorobenzene	1.21443	1.32653	9.23			(Conc=100.00)

RF - Response Factor from daily standard file at 50.00 PPB
RF - Average Response Factor from Initial Calibration Form VI
%Diff - % Difference from original average or curve
CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

PROJECT RECORD

HERITAGE LABORATORIES, INC
VOLATILES ANALYSIS-MEDIUM SOIL METHOD BLANK
ANALYSIS METHOD: SW846-8240

MASS SPEC FILE: >2861D
ANALYSIS DATE/TIME: 10/27/93 7:15

TARGET COMPOUND LIST	RESULT	UNITS	DET. LIMIT
Acetone	BDL	mG/KG	1.2
Acrolein	BDL	mG/KG	3.1
Acrylonitrile	BDL	mG/KG	4.3
Benzene	BDL	mG/KG	0.31
Bromodichloromethane	BDL	mG/KG	0.31
Bromoform	BDL	mG/KG	0.31
Bromomethane	BDL	mG/KG	0.63
Carbon disulfide	BDL	mG/KG	0.31
Carbon tetrachloride	BDL	mG/KG	0.31
Chlorobenzene	BDL	mG/KG	0.31
Chloroethane	BDL	mG/KG	0.63
Chloroform	BDL	mG/KG	0.31
Chloromethane	BDL	mG/KG	0.63
Dibromochloromethane	BDL	mG/KG	0.31
cis-1,3-Dichloropropene	BDL	mG/KG	0.31
Dichlorodifluoromethane	BDL	mG/KG	0.31
1,1-Dichloroethane	BDL	mG/KG	0.31
1,2-Dichloroethane	BDL	mG/KG	0.31
1,1-Dichloroethene	BDL	mG/KG	0.31
1,2-Dichloropropane	BDL	mG/KG	0.31
Ethylbenzene	BDL	mG/KG	0.31
Fluorotrichloromethane	BDL	mG/KG	0.31
2-Hexanone	BDL	mG/KG	0.63
Methylene chloride	BDL	mG/KG	0.31
Methyl ethyl ketone	BDL	mG/KG	0.63
4-Methyl-2-pentanone	BDL	mG/KG	0.63
Styrene	BDL	mG/KG	0.31
1,1,2,2-Tetrachloroethane	BDL	mG/KG	0.31
Tetrachloroethene	BDL	mG/KG	0.31
Tetrahydrofuran	BDL	mG/KG	1.6
Toluene	BDL	mG/KG	0.31
1,2-Dichloroethene (total)	BDL	mG/KG	0.31
trans-1,3-Dichloropropene	BDL	mG/KG	0.31
1,1,1-Trichloroethane	BDL	mG/KG	0.31
1,1,2-Trichloroethane	BDL	mG/KG	0.31
Trichloroethene	BDL	mG/KG	0.31
Vinyl acetate	BDL	mG/KG	0.63
Vinyl chloride	BDL	mG/KG	0.63
Xylenes (total)	BDL	mG/KG	0.31

SURROGATE LIST			spike conc
Dichloroethane-d4	119	% Rec	3.1
Toluene-d8	102	% Rec	3.1
Bromofluorobenzene	101	% Rec	3.1

( ) = ESTIMATED CONCENTRATION

PROJECT RECORD

233-6358

From Jim Fife (AWD)
TO Jim Smith (IDEM)

Subject: Process Bldg NON-METALIC MATERIALS SAMPLING
ENVIROCHEM site
AWD Project 2396

AWD will Preform the sampling of the Process Building MATERIALS with sampling Personnel Dressed in Level C Protective Clothing.

AWD will Procure Concrete Block samples using a Large chipping hammer to Remove Pieces - SUFFICIANTLY sized for analysis. The sample will consist of a Composit of Block Pieces Removed From the AREAS of the WALLS THAT APPEAR VISABLY STAINED. one chip will be obtained From each Block wall.

AWD will Procure composit samples of miscellaneous DeBris By Physically Breaking off Pieces To Form the composit samples.

All samples will Be Packed in Laboratory supplied containers with appropriate chain of custody Forms attached.

Resident site manager
317 876-8829

PROJECT RECORD

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
105 SOUTH MERIDIAN
P.O. BOX 6015
INDIANAPOLIS, INDIANA 46206-6015

TO: Jim Fife	TELEFAX #: 317/876-8829
COMPANY/DIVISION: AWD Tech. Inc.	TELEPHONE #:

FROM: Jim Smith	TELEPHONE #: 317/233-6429
COMMISSION & SECTION: OER/Superfund	NUMBER OF PAGES (INCLUDING COVER PAGE): 2

DATE: 8/31/93
COMMENTS:
Review & approval Sampling Process Bldg.

IDEM LOCATION	FAX NUMBER	CONFIRM NUMBER
CHESAPEAKE BUILDING		
Stores and Mail (Basement)	(317)232-5539	(317)232-8568
OSHWM File Room (9th Floor)	(317)232-3403	(317)232-3399
Enforcement (3rd Floor)	(317)233-5968	(317)233-5529
IDEM Commissioner (OEA, Comm. Use Only)	(317)232-8564	(317)232-8162
Water Management (6th Floor)	(317)232-8637	(317)232-8683
Water Management (4th Floor)	(317)232-8406	(317)232-8476
Air Management-Asbestos (4th Floor)	(317)233-3257	(317)233-3861
Legal Counsel (5th Floor)	(317)233-5517	(317)232-8753
IGCN-Room N1255		
Environmental Response/MIS	(317)233-6358	(317)233-6352
JACKSON SQUARE		
Air Management (3rd Floor)	(317)233-5685	(317)232-8467
Drinking Water Branch (6th Floor)	(317)233-4165	(317)233-4222
Air Management (4th Floor)	(317)233-5967	(317)232-8384
NORTHWEST REGIONAL OFFICE (GARY, IN)	(219)881-6745	(219)881-6712

PROJECT RECORD

From Jim Fife (AWD)
To Jim Smith (IDEM

PROJECT RECORD

Subject: Process Bldg Non-Metalic Materials Sampling
Enviro Chem Site
AWD Project 2396

AWD will perform the sampling of the Process Building materials with sampling personnel dressed in Level C Protective Clothing.

AWD will procure concrete block samples using a large chipping hammer to remove pieces - sufficiantly sized for analysis. The sample will consist of a composit of block pieces removed from the areas of the walls that appear visably stained. One chip will be obtained from each block wall.

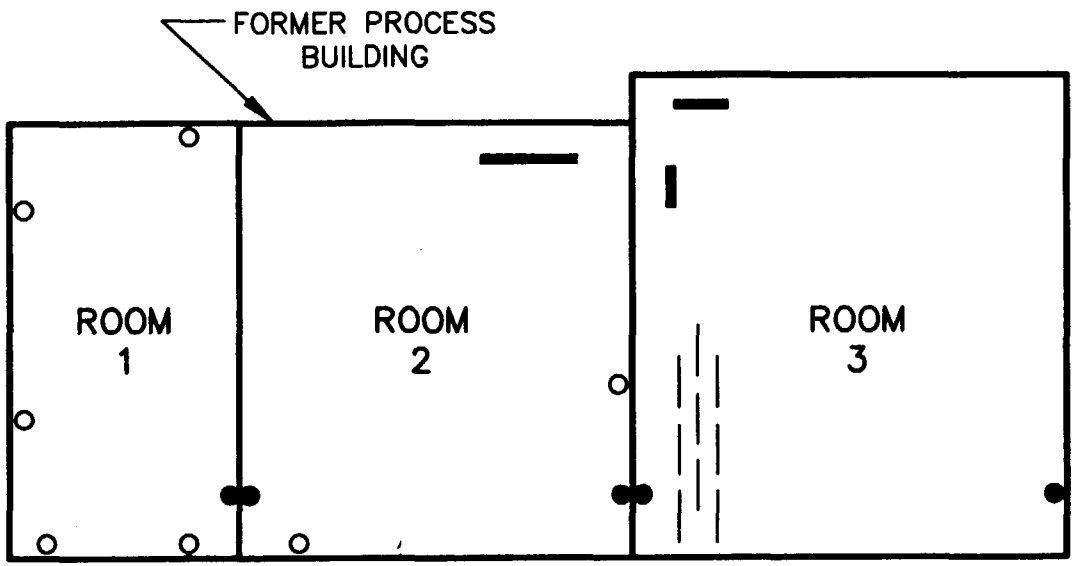
AWD will procure composit samples of miscellenaous debris by physically breaking off pieces to form the composit samples.

All samples will be placed in laboratory supplied containers with appropriate chain of custody forms attached.

Resident site manager
317 876-8829

Reviewed & Approved
Jim Smith
IDEM/OER
ECC Project Manager
8/31/93 9:29am

FILE: \SHARED\ECC\SAM-LOC



LEGEND

- ● CONCRETE SAMPLE LOCATION – 4 FT. ABOVE GROUND
- ○ INSULATION SAMPLE LOCATION – 3–4 FT. ABOVE GROUND
- —— STYROFOAM SAMPLE LOCATION – LYING FREELY ON GROUND
- ▬ WOOD SAMPLE LOCATION – LYING FREELY ON GROUND

PROJECT RECORD

0 0 1 2 4 9 4 G W

AWD TECHNOLOGIES, INC

AWD TECHNOLOGIES

FORMER PROCESS BUILDING
SAMPLING LOCATION PLAN

ENVIRO-CHEM SUPERFUND SITE — ZIONSVILLE, IN

CLIENT: ENVIRONMENTAL CONSERVATION AND CHEMICAL CORPORATION TRUST

JOB NUMBER: 2396

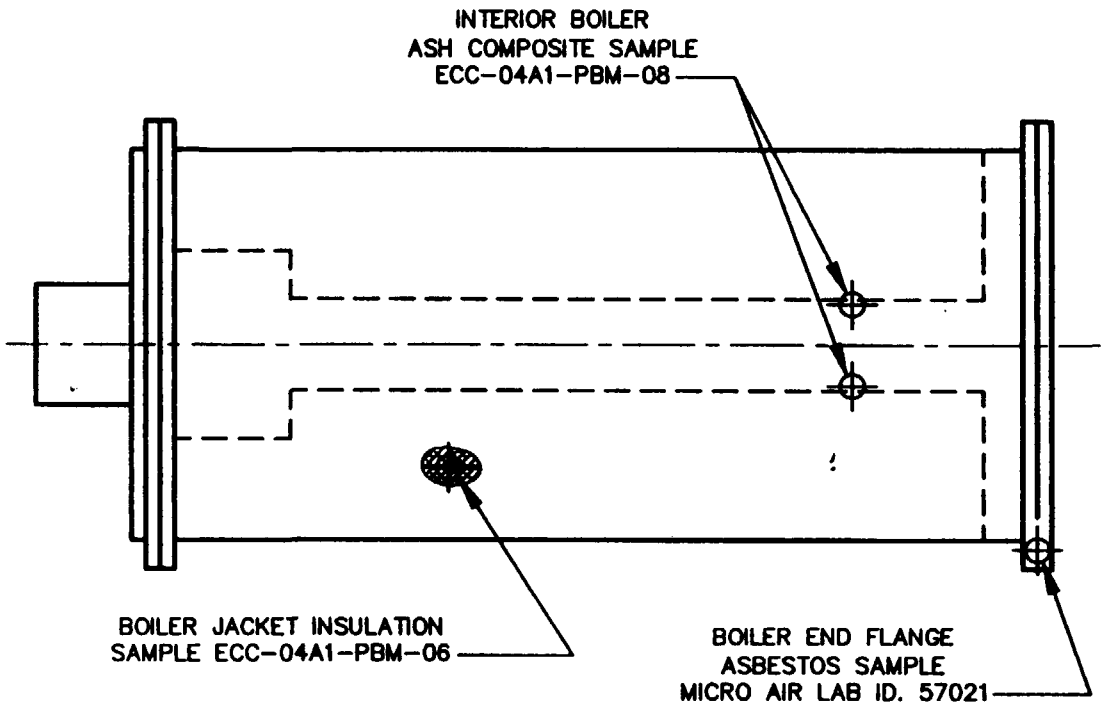
SCALE: NOT TO SCALE

G-8

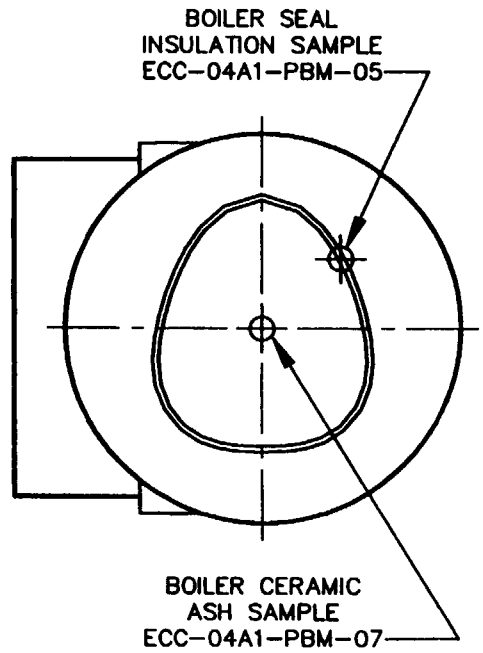
REV 0

FILE: \ECC\FIGG-9.DWG

PROJECT RECORD



BOILER SIDE VIEW



BOILER END SEAL DOOR

0020394RTH

AWD TECHNOLOGIES, INC

AWD TECHNOLOGIES

BOILER SAMPLE LOCATION PLAN

ENVIRO-CHEM SUPERFUND SITE — ZIONSVILLE, IN

CLIENT: ENVIRONMENTAL CONSERVATION AND CHEMICAL CORPORATION TRUST — JOB NUMBER: 2396

SCALE: NONE — FIGURE NUMBER G – 9 — REV 0