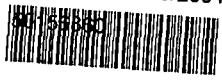
T / F / IHW 31547 CO RP

WWC COMM # 10489268
PROJ. MGR. M. Arthur



January 23, 2004

Dr. Ata-ur-Rhaman
Permits Section
Industrial and Hazardous Waste Division
Texas Commission on Environmental Quality
12100 Park 35 Circle MC 130
Austin, Texas 78753

Subject: Transmittal of Annual Report, Permit No. HW-50343-000, January 1 through December 31, 2003, EPA ID No. TD000820266, Houston Wood Preserving Works

Dear Dr. Rahman:

Pursuant to the requirements of Provisions III.B, 1.IV, C.5.g, and V.F. of Post-Closure Care Permit No. HW-50343-000, enclosed are two copies of the referenced report.

If you have any questions regarding the enclosed report, please call me at (281) 350-7197.

Sincerely,

Union Pacific Railroad Company

Geoffrey Reeder

Geoffrey B. Reeder, P.G.
Manager, Environmental Site Remediation

GBR/mnt
Enclosure

cc: Ray Risner, TCEQ-Austin
Marsha Hill, TCEQ Region 12 - Houston
Christopher Young, Environmental Resources Management

Geoffrey B. Reeder, P.G.
Manager, Environmental Site Remediation

UNION PACIFIC RAILROAD
24125 Aldine Westfield Road, Spring, Texas 77373
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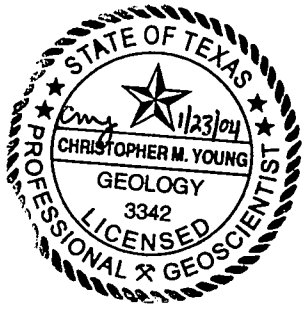
WWC COMM # 10489268
PROJ. MGR. M. Arthur

Annual Report, Permit No. HW-50343-000, January 1 through December 31, 2003



EPA ID No. TD000820266
Houston Wood Preserving Works
Union Pacific Railroad Company

January 23, 2004

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Annual Report, Permit No. HW-05343-000, January 1 through December 31, 2003

EPA ID No. TD000820266

Houston Wood Preserving Works

January 23, 2004

W.O. #422-102

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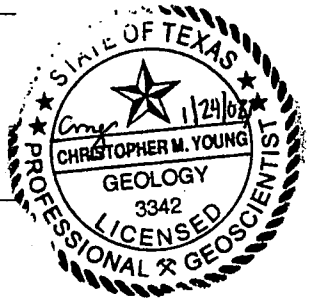

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1.0 *INTRODUCTION*

On June 20, 1994, the Texas Natural Resources Conservation Commission (TNRCC; known as the Texas Commission on Environmental Quality (TCEQ) as of September 1, 2002) issued RCRA Permit Number HW-50343-000 (the Permit) and TNRCC Compliance Plan Number CP-50343 to Southern Pacific Transportation Company (SPTCo). The Permit authorizes post-closure care for one former surface impoundment (TCEQ Permit Unit No. II.B.1) located at the former Houston Wood Preserving Works facility at 4910 Liberty Road, Houston, Texas (Figure 1-1). Union Pacific Railroad became responsible for the facility in 1997. This Annual Report for 2003 was prepared by Environmental Resources Management (ERM) on behalf of Union Pacific Railroad (UPRR) in accordance with the requirements of Provisions III.B.1, IV.C.5.g, and V.F. of the Permit.

1.1 *PERMIT REQUIREMENTS*

Provision III.B.1 of the Permit requires that the Annual Report include the following:

1. Information and records required by Title 30 Texas Administrative Code (TAC) Section 335.154, including:
   - U.S. EPA identification number, name, and address of the facility;
   - Calendar year covered by the report;
   - TCEQ (formerly TNRCC and Texas Water Commission) hazardous waste code and quantity of each hazardous waste received by the facility during the year;
   - Method of storage, processing, or disposal of each hazardous waste;
   - Most recent closure cost estimate under the regulations contained in 40 Code of Federal Regulations (CFR) §264.142 and 30 TAC §335.178 and, for disposal facilities, the most recent post-closure care estimate under 40 CFR §264.144;
   - For generators who treat, store, or dispose of hazardous waste on site, a description of efforts undertaken to reduce the volume and toxicity of waste generated;
   - For generators who treat, store, or dispose of hazardous waste on site, a description of changes in volume and toxicity of waste actually achieved in comparison with previous years; and
   - Certification signed by owner or operator of the facility or authorized representative.
2. Summary of ground water compliance monitoring activities;
3. Summary of inspections made and any remedial and/or maintenance activities conducted;

4. Summary of annual cost estimate adjustments for facility closure and post-closure care; and

5. Certification of waste minimization in accordance with Permit Provision V.N., as follows:

   - Permittee has a program in place to reduce the volume and toxicity of all hazardous wastes generated by the facility operation to the degree determined to be economically practicable; and
   - The proposed method of treatment, storage, or disposal that is the most practical method currently available to the permittee, which minimizes the present and future threat to human health and the environment.

As provided in Provision II.B, the Permit authorizes and requires the permittee to perform post-closure care for a closed landfill consisting of one former surface impoundment, Notice of Registration (NOR) Facility No. 01. This impoundment has a total surface area of 0.5923 acre and a total capacity of 5,065 cubic yards. The waste was removed from the impoundment in 1984. Because this facility is clean-closed, hazardous and toxic waste is not received or disposed at the facility. Wastes are being generated as Investigation-Derived Wastes (IDW) associated with the periodic monitoring of Point of Compliance (POC) and Corrective Action Observation (CAO) wells, interim remedial activities, and implementation of investigation work plans approved under the Permit and Compliance Plan. A recovery system has not been installed for this facility; therefore, items 1 through 5, listed above are addressed as they relate to ground water monitoring and inspections of the impoundment.

1.2 *GEOLOGIC ZONE DESIGNATION*

For simplicity and organizational reasons, the nomenclature to designate strata has been modified from the designations in the Permit. The native cohesive and transmissive zones underlying the site have been re-designated alphabetically from shallowest to deepest. The shallowest or uppermost transmissive zone is referred to as the A-Transmissive Zone or A-TZ. The lithologic units that underlie the site are the fill material, the A-Cohesive Zone (A-CZ), the A-Transmissive Zone (A-TZ), the B-Cohesive Zone (B-CZ), the B-Transmissive Zone (B-TZ), the C-Cohesive Zone (C-CZ), the C-Transmissive Zone (C-TZ), and the D-Cohesive Zone (D-CZ).

2.0 *REPORT ITEMS*

This section includes the information and records required by Provision III.B.1 of the Permit and listed as numbers 1 through 5 in Section 1.1 of this report.

2.1 *INFORMATION AND RECORDS REQUIRED BY 30 TAC §335.154*

Although 30 TAC 335.154 was repealed in 1999 (proposed in the Texas Register on February 5, 1999; 24 Tex. Reg. 682; and adopted on May 14, 1999; 24 Tex. Reg. 3730), the requested information is provided in this report for consistency with previously submitted annual reports. The following sub-sections discuss facility identification, period covered, hazardous waste codes, waste storage information, post-closure care cost estimate revisions, waste minimization, and certification.

2.1.1 *Facility Identification*

This facility is identified by the following information:

EPA identification number:	TXD000820266
Facility name:	Union Pacific Railroad Houston Tie Plant
Facility address:	Union Pacific Railroad 4910 Liberty Road Houston, Texas 77020

2.1.2 *Calendar Year Covered by This Report*

The activity period covered by this report is designated in Provision III.B.1 of the Permit and encompasses January 1 through December 31, 2003.

2.1.3 *Hazardous Waste Codes and Quantities Received*

Based on a review of the NOR for the facility and waste generation activities for the facility during 2003, the following hazardous waste codes and quantities were generated at the facility in 2003:

TCEQ Waste Code	*Description*	*Annual Quantity Generated*
14791012	Non-hazardous Class-2 Petroleum-affected purge water generated as part of ground water monitoring and investigation.	52,500 lbs. (a)
14773012	Non-hazardous Class-2 Petroleum-affected soils generated as part of site investigation and corrective action.	45,000 lbs. (b)
0914101 H	Ground water generated from purging of various monitor wells for investigative purposes	220 lbs.

TCEQ Waste Code	Description	Annual Quantity Generated
0917406 H	Plastic and used personal protective equipment generated as a result of monitor well and/or soil sampling	20 lbs.
14804062	Non-hazardous Class 2- plastic and used personal protective equipment generated as a result of monitor well and/or soil sampling.	135 lbs.

Note: (a) The quantity generated is estimated from an assumed volume of purse water and an assumed weight of 7.5 lbs/gallon. Exact quantities are not available because this material was generated during investigation activities and is currently stored in large quantities tanks (7,408 gallon) pending off-site disposal.

(b) Weight of soil estimated using a density of 2000 lbs/cubic yard.

With the exception of Waste Code 0917406 H, these waste were generated in 2003 and will be disposed in 2004.

2.1.4 *Method of Storage, Processing, or Disposal of Hazardous Wastes*

The hazardous waste generated at the facility during the 2003 reporting period was identified in Section 2.1.3. These wastes were stored temporarily in the Container Storage Area (NOR Unit No. 004) pending off-site disposal. The Container Storage Area is a less than 90-day storage facility for hazardous waste and stores other non-hazardous wastes. The Annual Waste Summary for 2003 is presented in Appendix A.

2.1.5 *Post-Closure Care Cost Estimate*

The regulated unit was clean-closed in 1984. A revised post-closure care cost estimate for 2003 prepared in accordance with 40 CFR §264.144 is addressed in Section 2.4 of this Annual Report. The total estimated cost for post-closure care for 2004 is $29,040.

2.1.6 *Reduction of Volume and Toxicity of Waste Generated*

Waste minimization typically applies to operating facilities. As stated above, the only wastes generated at this facility are a result of the specific investigation or post-closure care activities directed by the TCEQ under the Permit and Compliance Plan. These IDW are directly related to the scope and schedule of activities as they are conducted under the RCRA Facility Investigation (RFI) and Extent of Contamination (EOC) Work Plans, as approved by the TCEQ under the Permit and Compliance Plan.

No hazardous wastes were treated or disposed on site during 2003. The only hazardous waste stored on site was a limited quantity of plastic and used personal protective equipment generated during site investigation and monitoring. The remaining waste was non-hazardous. Investigative techniques

such as low-flow ground water sampling and direct-push technologies are utilized when possible during installation and sampling of soil borings, monitor wells and piezometers in order to reduce the volume of soil cuttings and purge water generated for off-site disposal.

2.1.7 *Description of the Change in Volume and Toxicity Achieved*

This requirement is not applicable to the facility because the waste generated is related to the implementation of the RFI and EOC Work Plan.

2.1.8 *Certification*

A certification signed by the owner or operator of the facility or his authorized representative, as required, is included as Appendix B.

2.2 *SUMMARY OF GROUND WATER COMPLIANCE MONITORING ACTIVITIES*

Existing CAO and POC wells were monitored and sampled on a semiannual basis in March and September 2003 to evaluate the extent of affected ground water in the A-TZ and B-TZ. A map showing the location of CAO and POC wells is presented as Figure 2-1. The schedule for ground water monitoring was changed from quarterly to semiannual beginning in July 1995, as provided by Provision VI.C.3 of the Compliance Plan. Ground water monitoring results for the March 2003 monitoring event were presented in the first semiannual report, dated July 18, 2003. During the first semiannual event, a comprehensive ground water monitoring evaluation (ME) was also conducted by TCEQ Region 12 during this event. Ten wells completed in the A-TZ and two wells and three piezometers completed in the B-TZ were sampled during each event in 2003. Ground water monitoring results for the September 2003 monitoring event are included in the *Second Semiannual Monitoring Report, Second Semiannual Event,* which was submitted under separate cover.

The CAO and POC wells and piezometers are summarized below:

- A-TZ POC wells: MW-01A, MW-02, MW-07, MW-10A, and MW-11A;
- A-TZ CAO wells: MW-04, MW-05, MW-07, MW-08, and MW-09;
- B-TZ POC wells: MW-10B, MW-11B, and P-10; and
- B-TZ CAO wells: P-11 and P-12.

In addition, MW-03, which represents the A-TZ beneath the impoundment, was also sampled.

For the purposes of this report, the ground water analytical data for each semi-annual sampling event are listed in Tables 2-1 through 2-4. The results are tabulated separately for the A-TZ and B-TZ. For each sampling event, detected concentrations of analytes in excess of the Ground Water Protection Standard are indicated by boxes.

Table 2-5 lists the total depth, casing reference elevation, the measured depth to water, and the calculated water level elevation relative to Mean Sea Level for each monitor well and piezometer. For both water-bearing zones, the monitor wells and piezometers provide a general indication that the potentiometric surfaces have relatively low gradients. Data gathered as part of the RFI indicates that the horizontal hydraulic gradient is typically 0.002 ft/ft in both the A-TZ and the B-TZ.

2.3 *SUMMARY OF INSPECTIONS AND REMEDIAL/MAINTENANCE ACTIVITIES*

In a letter dated January 10, 1995, the TCEQ acknowledged fulfillment of the requirement of Compliance Plan Provision XI.B by approving the Operation and Maintenance (O&M) Plan, dated August 19, 1994, and the addendum to the O&M Plan, dated December 8, 1994. Under this O&M Plan, inspections of the former surface impoundment and monitor wells are conducted on a monthly basis. O&M Plan Amendment 2, dated May 20, 1995 and Amendment 3 dated June 23, 1995 were submitted to the TCEQ on May 21, 1995 and August 8, 1995, respectively. In a letter dated October 13, 1995, the TCEQ-approved the second and third amendments to the O&M Plan. O&M Plan Amendment 3 establishes a weekly inspection schedule for the former surface impoundment and a quarterly inspection schedule for the monitor wells.

Inspection of the integrity of the well casings was conducted during March, June, September, and December 2003. No integrity issues were identified concerning monitor wells in 2003.

Inspections related to the former surface impoundment and container storage areas for IDW were performed weekly. The former surface impoundment was mowed the week of June 6, 2003 and September 22, 2003. No additional issues were identified regarding the former surface impoundment.

2.4 *SUMMARY OF ANNUAL COST ESTIMATE FOR POST-CLOSURE CARE*

An adjusted annual cost estimate for post-closure care in 2003 is presented in Appendix C. The post-closure care cost estimate includes ground water monitoring, inspection, and operation and maintenance costs averaged on an annual basis. Ground water monitoring includes semiannual sampling and analysis for existing monitor wells and piezometers. Inspection and maintenance activities include monthly inspection for monitor well integrity, weekly inspections of the closed surface impoundment and the container storage areas, and minor repairs and upgrades. Cost for replacement of existing monitor wells is not included.

The annual cost estimate for post-closure care has been adjusted from 2003 dollars in accordance with 40 CFR §264.144 using the Implicit Price Deflator obtained from the U.S. Department of Commerce. The Implicit Price Deflator

results in an inflation factor of 1.0171. The total estimated post-closure care cost for 2004 is $29,040.

2.5 *CERTIFICATION OF WASTE MINIMIZATION*

The volume and toxicity of IDW are directly controlled by the activities required by the Permit and Compliance Plan. The scope and schedule of activities proposed in the RFI and EOC Work Plans, as approved by the TCEQ, were designed to reduce the volume and toxicity of the IDW generated by the facility investigations to the degree determined to be economically practicable and in accordance with the requirements of the Permit and Compliance Plan. Waste minimization has occurred and will continue through the use of low-flow ground water sampling and direct push investigation techniques, where practical, as outlined in the Work Plans. Relative to the method of treatment, storage, or disposal utilized at the facility, waste is temporarily stored and disposed of using methods designed to reduce the present and future potential threat to human health and the environment.

Tables

January 23, 2004
W.O. #422-102

Environmental Resources Management
15810 Park Ten Place-, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

TABLE 2-1

Summary of Analytical Results for the A-Transmissive Zone (A-TZ)
First Semiannual Event 2003

Houston Wood Preserving Works
Houston, Texas

Analyte	PQL (GWPS)	Monitor Well ID:	MW-01A	MW-01AD (a)	MW-02	MW-03	MW-04	MW-05 (b)	MW-07	MW-08 (b)	MW-09 (b)	MW-10A (b)	MW-11A (b)
		Sample Date:	3/12/03	3/12/03	3/12/03	3/12/03	3/18/03	3/19/03	3/12/03	3/18/03	3/18/03	3/18/03	3/19/03
Volatile Organic Constituents													
Benzene	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		Sample Date:	3/12/03	3/12/03	3/12/03	3/12/03	3/11/03	3/11/03	3/12/03	3/11/03	3/11/03	3/11/03	3/11/03
Semivolatile Organic Constituents													
Acenaphthene	0.010		0.0745	0.0594	0.02033	0.1021	ND	ND	0.00028 J	ND	ND	ND	0.02286
Acenaphthylene	0.010		0.00247	0.0019	0.00096	0.0094	ND	ND	ND	ND	ND	ND	0.00056
Anthracene	0.010		0.00177	0.00133	0.00122	0.00179	0.00067	0.0003 J	0.00061	0.00015 J	0.00042 J	0.0002 J	0.00124
Benzo(a)anthracene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	0.010		0.01984	0.01359	0.01403	0.02265	ND	ND	ND	ND	ND	ND	0.00477
Di-n-butyl phthalate	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	0.050		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	0.010		0.00103	0.00101	0.00109	0.00107	0.00094	0.00093	0.00102	0.00092	0.00094	ND	0.00092
Fluoranthene	0.010		0.00540	0.0046	0.00095	0.00868	ND	ND	ND	ND	ND	ND	0.00271
Fluorene	0.010		0.00782	0.00235	0.0148	0.04378	ND	ND	ND	ND	ND	ND	0.00738
2-Methylnaphthalene	0.010		0.00017 J	ND	0.00120	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	0.010		0.00136	0.00034 J	0.01186	ND	ND	ND	ND	ND	ND	ND	0.00136
Nitrobenzene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	0.050		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	0.010		0.00027 J	ND	0.00164	ND	ND	ND	ND	ND	ND	ND	0.00028 J
Phenol	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	0.010		0.002	0.00135	0.00048 J	0.00337	ND	ND	0.00012	ND	ND	ND	0.00103

NOTES:

All values reported in mg/L.

ND = Not detected at the Method Detection Limit (MDL), which can be found in the laboratory reports in Appendix C and is less than or equal to the GWPS in all instances.

PQL = *Practical Quantitation Limit,* as defined on Table I of the Compliance Plan and determined by the analytical methods of EPA SW-846 *Test Methods for Determining Solid Wastes*. The PQL is the Ground Water Protection Standard (GWPS).

☐ indicates value reported above the GWPS.

J = Estimated value between the reporting limit and MDL.

(a) MW-01AD is a duplicate of MW-01A.

(b) Monitor wells were resampled for volatile organic constituents due to laboratory temperature issues with original sample.

TABLE 2-2

Summary of Analytical Results for the B-Transmissive Zone (B-TZ)
First Semiannual Event 2003

Houston Wood Preserving Works
Houston, Texas

Analyte	PQL (GWPS)	Monitor Well ID: / Sample Date:	MW-10B (a) 3/18/03	MW-11B 3/12/03	P-10 3/10/03	P-11 3/10/03	P-12 (a) 3/18/03
Volatile Organic Constituents							
Benzene	0.005		0.00136 J	ND	ND	ND	ND
Chlorobenzene	0.005		ND	ND	ND	ND	ND
1,2-Dichloroethane	0.005		ND	ND	ND	ND	ND
Methylene chloride	0.010		ND	ND	ND	ND	ND
Ethylbenzene	0.005		0.00128 J	ND	ND	ND	ND
Toluene	0.005		ND	ND	ND	ND	ND
Xylene (total)	0.005		ND	0.00351 J	ND	ND	ND
		Sample Date:	3/11/03	3/12/03	3/10/03	3/10/03	3/11/03
Semivolatile Organic Constituents							
Acenaphthene	0.010		0.01436	0.0595	ND	ND	ND
Acenaphthylene	0.010		0.00075	0.0028	ND	ND	ND
Anthracene	0.010		0.00087	0.00079	ND	ND	ND
Benzo(a)anthracene	0.010		ND	ND	ND	ND	ND
Benzo(a)pyrene	0.010		ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	0.010		ND	ND	ND	ND	ND
2-Chloronaphthalene	0.010		ND	ND	ND	ND	ND
Chrysene	0.010		ND	ND	ND	ND	ND
Dibenzofuran	0.010		0.0026	0.00461	ND	ND	ND
Di-n-butyl phthalate	0.010		0.00027 J	ND	0.00074	0.00049 J	ND
2,4-Dimethylphenol	0.010		ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	0.050		ND	ND	ND	ND	ND
2,4-Dinitrotoluene	0.010		ND	ND	ND	ND	ND
2,6-Dinitrotoluene	0.010		ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	0.010		ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	0.010		ND	0.00129	0.00106	ND	ND
Fluoranthene	0.010		0.00102	0.00277	ND	ND	ND
Fluorene	0.010		0.00113	0.00233	ND	ND	ND
2-Methylnaphthalene	0.010		ND	ND	ND	ND	ND
Naphthalene	0.010		ND	0.00327 J	ND	ND	ND
Nitrobenzene	0.010		ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	0.010		ND	ND	ND	ND	ND
Pentachlorophenol	0.050		ND	ND	ND	ND	ND
Phenanthrene	0.010		ND	ND	ND	ND	ND
Phenol	0.010		ND	0.0001 J	ND	ND	ND
Pyrene	0.010		0.00039 J	0.00137	0.00011 J	ND	0.00745

NOTES:

All values reported in mg/L.

ND = Not detected at the Method Detection Limit (MDL), which can be found in the laboratory reports in Appendix C and is less than or equal to PQL = *Practical Quantitation Limit*, as defined on Table I of the Compliance Plan and determined by the analytical methods of EPA SW-846 *Test Methods for* the Ground Water Protection Standard (GWPS).

☐ indicates value reported above the GWPS.

J = Estimated value between the reporting limit and MDL.

(a) MW-01AD is a duplicate of MW-01A.

(b) Monitor wells were resampled for volatile organic constituents due to laboratory temperature issues with original sample.

TABLE 2-3

Summary of Analytical Results for the A-Transmissive Zone (A-TZ)
Second Semiannual Event 2003

Houston Wood Preserving Works
Houston, Texas

Analyte	PQL (GWPS)	Monitor Well ID: / Sample Date:	MW-01A 9/24/03	MW-02 9/24/03	MW-03 9/24/03	MW-04 9/24/03	MW-05 9/24/03	MW-07 9/24/03	MW-08 9/24/03	MW-09 9/24/03	MW-10A 9/23/03	MW-10AD (a) 9/23/03	MW-11A 9/24/03
Volatile Organic Constituents													
Benzene	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatile Organic Constituents													
Acenaphthene	0.010		0.1896	0.02056	0.1508	ND	0.001630	0.001589	ND	ND	ND	0.000194 J	0.135
Acenaphthylene	0.010		0.001912	0.000468 J	0.001295	ND	ND	ND	ND	ND	ND	ND	0.001214
Anthracene	0.010		0.01044	0.00173	0.005617	0.000572	0.000430 J	0.001110	ND	0.000584	ND	ND	0.006599
Benzo(a)anthracene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	0.010		0.1009	0.01456	0.07789	ND	ND	ND	ND	ND	ND	ND	0.01991
Di-n-butyl phthalate	0.010		0.000242 J	0.000283 J	0.000394 J	ND	0.000202 J	0.000291 J	0.000215 J	0.000251 J	0.000284 J	0.000231 J	0.000209 J
2,4-Dimethylphenol	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	0.050		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	0.010		ND	0.000291 J	ND	ND	ND	ND	ND	ND	0.000372 J	ND	ND
Fluoranthene	0.010		0.01464	0.001469	0.01561	ND	0.000244 J	0.000455 J	ND	ND	ND	ND	0.01114
Fluorene	0.010		0.1198	0.01516	0.1018	ND	ND	ND	ND	ND	ND	ND	0.07883
2-Methylnaphthalene	0.010		0.000454 J	0.000403 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	0.010		0.000843	0.00526	ND	ND	ND	ND	ND	ND	ND	ND	0.000599
Nitrobenzene	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Nitrophenol	0.050		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	0.010		0.001932	ND	0.001079	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	0.050		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	0.010		0.001575	0.000571	0.001121	ND	ND	ND	ND	ND	ND	ND	0.001604
Phenol	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	0.010		0.006020	0.000682	0.006751	ND	0.000239 J	0.000779	0.000233 J	ND	ND	ND	0.005177

NOTES:

All values reported in mg/L.
ND = Not detected at the Method Detection Limit (MDL), which is less than or equal to the Practical Quantitation Limit (PQL) in all instances and can be found in the laboratory reports in Appendix C.
PQL = *Practical Quantitation Limit*, as defined on Table I of the Compliance Plan and determined by the analytical methods of EPA SW-846 *Test Methods for Determining Solid Wastes*. The PQL is the Ground Water Protection Standard (GWPS).
[ ] indicates value reported above the GWPS.
J = Estimated value between the reporting limit and MDL.
b = Target analyte was found in the method blank.
(a) MW-10AD is a duplicate of MW-10A.
(b) P-10D is a duplicate of P-10.

TABLE 2-4

Summary of Analytical Results for the B-Transmissive Zone (B-TZ)
Second Semiannual Event 2003

Houston Wood Preserving Works
Houston, Texas

Analyte	PQL (GWPS)	Monitor Well ID: / Sample Date:	MW-10B 9/24/03	MW-11B 9/24/03	P-10 9/24/03	P-10D 9/24/03	P-11 9/24/03	P-12 9/23/03
Volatile Organic Constituents								
Benzene	0.005		0.00262 J	ND	ND	ND	ND	ND
Chlorobenzene	0.005		ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.005		ND	ND	ND	ND	ND	ND
Methylene chloride	0.010		ND	ND	ND	ND	ND	ND
Ethylbenzene	0.005		0.00183 J	ND	ND	ND	ND	ND
Toluene	0.005		ND	ND	ND	ND	ND	ND
Xylene (total)	0.005		0.00328 J	0.00356 J	ND	ND	ND	ND
Semivolatile Organic Constituents								
Acenaphthene	0.010		0.096	0.1194	0.06039	0.06784	0.1211	ND
Acenaphthylene	0.010		0.001582	0.00158	0.000283 J	ND	ND	ND
Anthracene	0.010		0.005256	0.005248	0.001574	0.001767	0.005773	0.000224 J
Benzo(a)anthracene	0.010		ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	0.010		ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	0.010		ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	0.010		ND	ND	ND	ND	ND	ND
Chrysene	0.010		ND	0.000196 J	ND	ND	ND	ND
Dibenzofuran	0.010		0.04167	0.056	0.01518	0.01725	0.003039	ND
Di-n-butyl phthalate	0.010		0.000278 J	0.000319 J	0.000475 J	0.000452 J	0.000272 J	0.000293 J
2,4-Dimethylphenol	0.010		0.001035	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	0.050		ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	0.010		ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	0.010		ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	0.010		ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	0.010		ND	ND	0.000254 J	ND	0.000354 J	0.000220 J
Fluoranthene	0.010		0.003286	0.004736	0.001243	0.001420	0.008349	ND
Fluorene	0.010		0.0552	0.05904	0.2036	0.02265	0.05174	ND
2-Methylnaphthalene	0.010		0.02203	0.04249	0.01169	0.01388	0.000841	ND
Naphthalene	0.010		0.237	0.1101	0.2253	0.2382	0.05416	ND
Nitrobenzene	0.010		ND	ND	ND	ND	ND	ND
p-Nitrophenol	0.050		ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	0.010		ND	ND	0.000438 J	ND	0.000831	ND
Pentachlorophenol	0.050		ND	ND	ND	ND	ND	ND
Phenanthrene	0.010		0.03120	0.03678	0.003675	0.003966	0.02825	ND
Phenol	0.010		ND	ND	ND	ND	ND	ND
Pyrene	0.010		0.001280	0.00213	0.000522	0.000541	0.004235	0.005027

NOTES:

All values reported in mg/L.
ND = Not detected at the Method Detection Limit (MDL), which is less than or equal to the Practical Quantitation Limit (PQL) in all instances and can be found in the laboratory reports in Appendix C.
PQL = *Practical Quantitation Limit,* as defined on Table I of the Compliance Plan and determined by the analytical methods of EPA SW-846 *Test Methods for Determining Solid Wastes*. The PQL is the Ground Water Protection Standard (GWPS).
[ ] indicates value reported above the GWPS.
J = Estimated value between the reporting limit and MDL.
b = Target analyte was found in the method blank.
(a) MW-10AD is a duplicate of MW-10A.
(b) P-10D is a duplicate of P-10.

TABLE 2-5

Water Level and Total Depth of Well Measurements
Semiannual Events 2003

Houston Wood Preserving Works
Houston, Texas

Well ID	Top-of-Casing Elevation (ft MSL)	Depth to Water (ft TOC)		Ground Water Elevation (ft MSL)		Total Measured Well Depth (ft TOC)	Total Depth as* Completed (ft TOC)
		3/12/03	9/23/03	3/12/03	9/23/03		
A-TZ Monitoring Locations							
MW-01A	47.95	2.48	3.54	45.47	44.41	19.59	20.20
MW-02	48.03	2.54	3.29	45.49	44.74	18.37	20.30
MW-03	48.55	2.89	3.74	45.66	44.81	19.51	20.90
MW-04	49.85	4.36	5.28	45.49	44.57	21.56	23.40
MW-05	49.35	3.77	4.61	45.58	44.74	27.29	28.30
MW-07	48.86	3.52	4.70	45.34	44.16	24.69	N/A
MW-08	49.37	3.84	4.73	45.53	44.64	24.95	26.80
MW-09	49.29	3.59	4.31	45.7	44.98	25.28	26.80
MW-10A	49.90	4.43	5.31	45.47	44.59	25.45	25.90
MW-11A	50.04	4.66	5.73	45.38	44.31	23.91	24.40
B-TZ Monitoring Locations							
MW-10B	49.97	4.59	5.58	45.38	44.39	46.43	48.80
MW-11B	50.19	4.85	5.95	45.34	44.24	46.50	46.80
P-10	47.72	2.43	3.75	45.29	43.97	44.85	N/A
P-11	49.02	3.69	4.54	45.33	44.48	44.70	51.80
P-12	48.82	3.13	3.86	45.69	44.96	42.85	51.70

NOTES:

NAPL was not detected in any well.
ft MSL = feet above Mean Sea Level
ft TOC = feet below the Top Of (the well) Casing
* Reporting during well installation and completion
N/A = Information not available

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Figures

January 23, 2004
W.O. #422-102

Environmental Resources Management
15810 Park Ten Place Suite 300
Houston, Texas 77084-5140
(281) 600-1000

SOURCE: U.S.G.S. 7.5 MINUTE QUADRANGLE, SETTEGAST, TEXAS, 1982.

0 2000 4000

SCALE FEET

STATE OF TEXAS
CHRISTOPHER M. YOUNG
1/23/04
GEOLOGY
3342
LICENSED
PROFESSIONAL GEOSCIENTIST

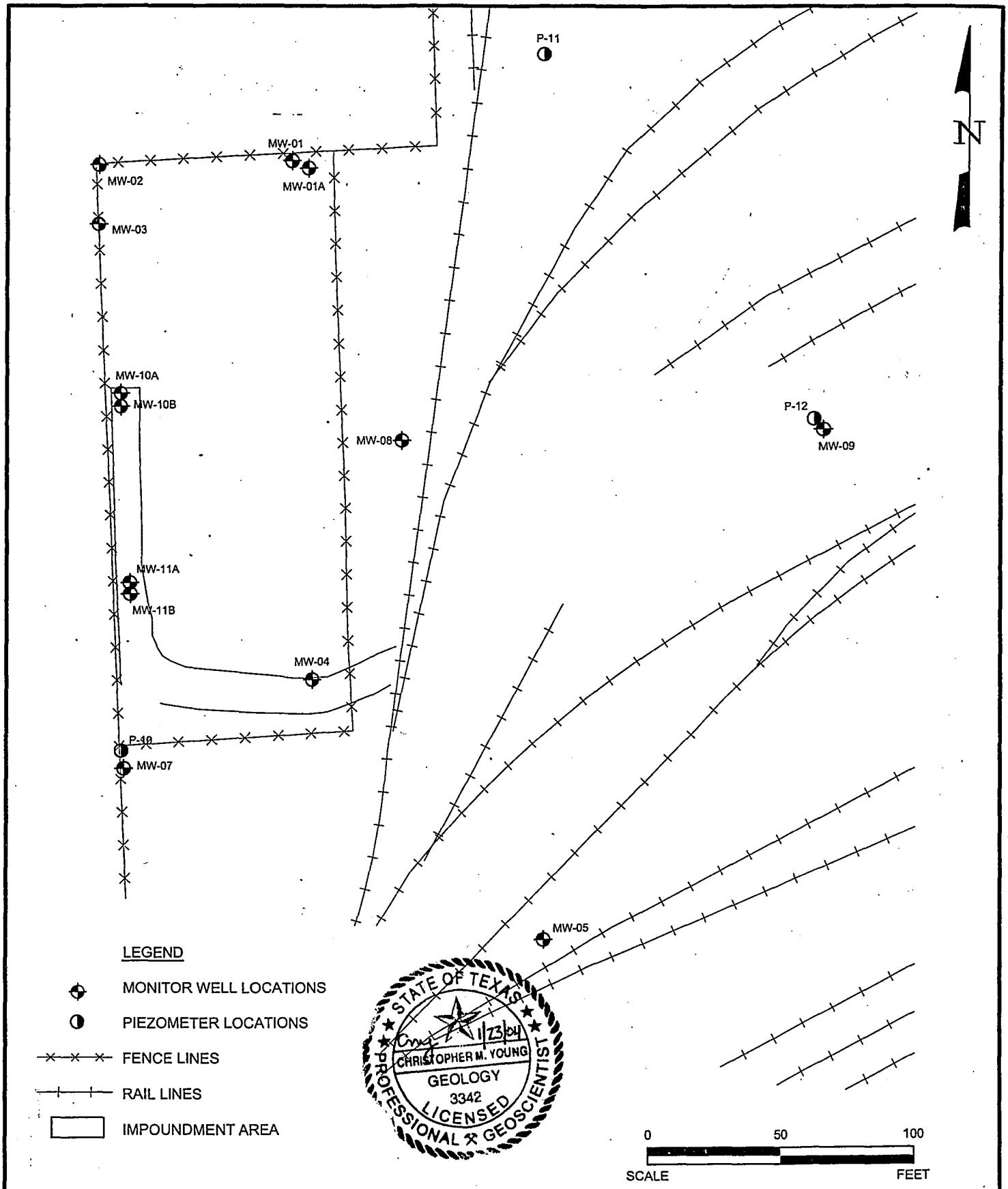
ERM-Southwest, Inc.

HOUSTON · NEW ORLEANS · AUSTIN · MOBILE · BEAUMONT · BATON ROUGE · CORPUS CHRISTI

FIGURE 1-1
SITE LOCATION MAP
Houston Wood Preserving Works
Houston, Texas

DESIGN:	DRAWN: CAK	CHKD.: PJG
DATE: 12/30/03	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\DWG\L03\422102A252.dwg, 1/23/2004 11:32:46 AM		

ERM



ERM-Southwest, Inc.

HOUSTON · NEW ORLEANS · AUSTIN · DALLAS · BEAUMONT · BATON ROUGE · CORPUS CHRISTI

DESIGN: LBG	DRAWN: EFC/LAH	CHKD.:
DATE: 01/02/03	SCALE: AS SHOWN	REV.:

W.O.NO.: H:\DWG\A03\Incoming\422102A01A03R0.dwg, 1/20/2003 2:31:43 PM

FIGURE 2-1
MONITOR WELLS AND PIEZOMETERS
TCEQ PERMIT UNIT No. II.B.1.
Houston Wood Preserving Works
Houston, Texas

ERM

Annual Waste Summary for Data Year 2003

Appendix A

January 23, 2004
W.O. #422-102

Environmental Resources Management
15810 Park Ten place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

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REGISTRATION AND REPORTING SECTION
MC 129
REGISTRATION, REVIEW AND REPORTING DIVISION
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. BOX 13087
AUSTIN, TEXAS 78711-3087 TELEPHONE: (512) 239-6413

ANNUAL WASTE SUMMARY

Your SOLID WASTE REGISTRATION NUMBER: 31547 (1–6) G 1 (7–8) Report for: 2003 (9–12)

FOR DATA YEAR: 2003

[ ] (24) NO REPORT REQUIRED {See 30 TAC 335.9(a)(3); also see instructions}

Your EPA ID #: T X D 0 0 0 8 2 0 2 6 6 (1–12)

Geoffrey B Reeder
Union Pacific Railroad Company
4910 Liberty Road
Houston, TX 77026-5264 281-350-7197

SUMMARY STATUS

[X] ORIGINAL SUMMARY [ ] REVISED SUMMARY [ ] SUPPLEMENTAL SUMMARY

YOUR WASTE GENERATION FEE IS CALCULATED FROM THIS REPORT. BE SURE THE INFORMATION IS CORRECT. TO REPORT WASTEWATER, SEE INSTRUCTION BOOKLET RG-151.

TEXAS WASTE CODE (25–32)	EPA HAZARDOUS WASTE NO. (33–36)	EPA HAZARDOUS WASTE NO. (37–40)	EPA HAZARDOUS WASTE NO. (41–44)	EPA HAZARDOUS WASTE NO. (45–48)	WASTE DESCRIPTION (49–87)	TOTAL QUANTITY GENERATED (49–58)	UNITS (58)
1 4 7 9 1 0 1 2					Petroleum-affected purge water	0	P

Chris Young 11/22/04

QUANTITY HANDLED (59–67)	UNITS (68)	SYSTEM TYPE CODE (69–71)	FEE (72)	FACILITY NUMBER (73–77)	RECEIVER'S EPA ID # (78–89)	COMMENTS (90–119)
		H				
		H				
		H				
		H				

TEXAS WASTE CODE (25–32)	EPA HAZARDOUS WASTE NO. (33–36)	EPA HAZARDOUS WASTE NO. (37–40)	EPA HAZARDOUS WASTE NO. (41–44)	EPA HAZARDOUS WASTE NO. (45–48)	WASTE DESCRIPTION (49–87)	TOTAL QUANTITY GENERATED (49–58)	UNITS (58)
0001301H					Soil generated primarily by the boring of monitoring we	0	P

QUANTITY HANDLED (59–67)	UNITS (68)	SYSTEM TYPE CODE (69–71)	FEE (72)	FACILITY NUMBER (73–77)	RECEIVER'S EPA ID # (78–89)	COMMENTS (90–119)
		H				
		H				
		H				
		H				

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Preparer (PRINT NAME)	Signature of Preparer	Date
Chris Young	Chris M. Young	1/23/04
Authorized Agent (PRINT NAME)	Signature of Authorized Agent	Date
GEOFFREY REEDER	Geoffrey Reeder	01 29 04

LPS Form TCEQ-0433A (Rev. 10-06-03)

REGISTRATION AND REPORTING SECTION
MC 129
REGISTRATION, REVIEW AND REPORTING DIVISION
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P.O. BOX 13087
AUSTIN, TEXAS 78711-3087 TELEPHONE: (512) 239-6413

Geoffrey B Reeder
Union Pacific Railroad Company
4910 Liberty Road
Houston, TX 77026-5264 281-350-7197

ANNUAL WASTE SUMMARY

Your SOLID WASTE REGISTRATION NUMBER: 31547 (1) G 1 (6) Report for: 2003 (8)

FOR DATA YEAR: 2003

[ ] (24) NO REPORT REQUIRED
{See 30 TAC 335.9(a)(3); also see Instructions}

Your EPA ID # (12): T X D 0 0 0 8 2 0 2 6 6

SUMMARY STATUS

[X] ORIGINAL SUMMARY [ ] REVISED SUMMARY [ ] SUPPLEMENTAL SUMMARY

YOUR WASTE GENERATION FEE IS CALCULATED FROM THIS REPORT. BE SURE THE INFORMATION IS CORRECT. TO REPORT WASTEWATER, SEE INSTRUCTION BOOKLET RG-151.

TEXAS WASTE CODE (25)	EPA HAZARDOUS WASTE NO. (33)	EPA HAZARDOUS WASTE NO. (37)	EPA HAZARDOUS WASTE NO. (41)	EPA HAZARDOUS WASTE NO. (45)	WASTE DESCRIPTION	TOTAL QUANTITY GENERATED (49)	UNITS (58)
04003011					Petroleum contaminated solls generated as part of corre	0	P

QUANTITY HANDLED (59)	UNITS (68)	SYSTEM TYPE CODE (69)	FEE (72)	FACILITY NUMBER (73)	RECEIVER'S EPA ID # (78)	COMMENTS (90)
		H				
		H				
		H				
		H				

TEXAS WASTE CODE (25)	EPA HAZARDOUS WASTE NO. (33)	EPA HAZARDOUS WASTE NO. (37)	EPA HAZARDOUS WASTE NO. (41)	EPA HAZARDOUS WASTE NO. (45)	WASTE DESCRIPTION	TOTAL QUANTITY GENERATED (49)	UNITS (58)
05012031					Spent solvent	0	P

QUANTITY HANDLED (59)	UNITS (68)	SYSTEM TYPE CODE (69)	FEE (72)	FACILITY NUMBER (73)	RECEIVER'S EPA ID # (78)	COMMENTS (90)
		H				
		H				
		H				
		H				

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Preparer (PRINT NAME)	Signature of Preparer	Date
Chris Young	Chris M. Young	1/23/04
Authorized Agent (PRINT NAME)	Signature of Authorized Agent	Date
Geoffrey Reeder	Geoffrey Reeder	01 19 04

LPS Form TCEQ - 0436A (Rev. 10-08-03)

REGISTRATION AND REPORTING SECTION
MC 129
REGISTRATION, REVIEW AND REPORTING DIVISION
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P.O. BOX 13087
AUSTIN, TEXAS 78711-3087 TELEPHONE: (512) 239-6413

Geoffrey.B Reeder
Union Pacific Railroad Company
4910 Liberty Road
Houston, TX 77026-5264 281-350-7197

ANNUAL WASTE SUMMARY

Your SOLID WASTE REGISTRATION NUMBER: 31547 (1–5) G 1 (6–8) Report for: 2003

FOR DATA YEAR: 2003

[ ] NO REPORT REQUIRED (24) {See 30 TAC 335.9(a)(3); also see instructions}

Your EPA ID # T X D 0 0 0 8 2 0 2 6 6 (12)

SUMMARY STATUS

[X] ORIGINAL SUMMARY [ ] REVISED SUMMARY [ ] SUPPLEMENTAL SUMMARY

YOUR WASTE GENERATION FEE IS CALCULATED FROM THIS REPORT. BE SURE THE INFORMATION IS CORRECT. TO REPORT WASTEWATER, SEE INSTRUCTION BOOKLET RG-151.

TEXAS WASTE CODE (25)	EPA HAZARDOUS WASTE NO. (33)	EPA HAZARDOUS WASTE NO. (37)	EPA HAZARDOUS WASTE NO. (41)	EPA HAZARDOUS WASTE NO. (45)	WASTE DESCRIPTION	TOTAL QUANTITY GENERATED (49)	UNITS (50)
0909101H					Aqueous waste with low surfactants, Groundwater generat	0	P

QUANTITY HANDLED (59)	UNITS (68)	SYSTEM TYPE CODE (69)	FEE (72)	FACILITY NUMBER (73)	RECEIVER'S EPA ID # (78)	COMMENTS (90)
		H				
		H				
		H				
		H				

TEXAS WASTE CODE (25)	EPA HAZARDOUS WASTE NO. (33)	EPA HAZARDOUS WASTE NO. (37)	EPA HAZARDOUS WASTE NO. (41)	EPA HAZARDOUS WASTE NO. (45)	WASTE DESCRIPTION	TOTAL QUANTITY GENERATED (49)	UNITS (50)
0912489H					Creosote sludge, soil mixture generated as part of corr	0	P

QUANTITY HANDLED (59)	UNITS (68)	SYSTEM TYPE CODE (69)	FEE (72)	FACILITY NUMBER (73)	RECEIVER'S EPA ID # (78)	COMMENTS (90)
		H				
		H				
		H				
		H				

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Chris Young	Chris M. Young	1/23/04
Preparer (PRINT NAME)	Signature of Preparer	Date
Geoffrey Reeder	Geoffrey Reeder	01 19 04
Authorized Agent (PRINT NAME)	Signature of Authorized Agent	Date

LPB Form TCEQ - 0430A (Rev. 10-08-03)

REGISTRATION AND REPORTING SECTION
MC 129
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P.O. BOX 13087
AUSTIN, TEXAS 78711-3087 TELEPHONE: (512) 239-6413

Geoffrey B Reeder
Union Pacific Railroad Company
4910 Liberty Road
Houston, TX 77026-5264 281-350-7197

ANNUAL WASTE SUMMARY

Your SOLID WASTE REGISTRATION NUMBER: 31547 (1–6) G1 (6–8) Report for: 2003

FOR DATA YEAR: 2003

☐ (24) NO REPORT REQUIRED {See 30 TAC 335.9(a)(3); also see instructions}

Your EPA ID #: TXD000820266 (12)

SUMMARY STATUS: [X] ORIGINAL SUMMARY ☐ REVISED SUMMARY ☐ SUPPLEMENTAL SUMMARY

YOUR WASTE GENERATION FEE IS CALCULATED FROM THIS REPORT. BE SURE THE INFORMATION IS CORRECT. TO REPORT WASTEWATER, SEE INSTRUCTION BOOKLET RG-151.

TEXAS WASTE CODE (25)	EPA HAZARDOUS WASTE NO. (33)	EPA HAZARDOUS WASTE NO. (37)	EPA HAZARDOUS WASTE NO. (41)	EPA HAZARDOUS WASTE NO. (45)	WASTE DESCRIPTION	TOTAL QUANTITY GENERATED (49)	UNITS (58)
09141 01H					Groundwater generated from purging of various monitor w	220	P

Chris Young 1/22/04

QUANTITY HANDLED (59)	UNITS (68)	SYSTEM TYPE CODE (69)	FEE (72)	FACILITY NUMBER (73)	RECEIVER'S EPA ID # (78)	COMMENTS (90)
		H				
		H				
		H				
		H				

TEXAS WASTE CODE (25)	EPA HAZARDOUS WASTE NO. (33)	EPA HAZARDOUS WASTE NO. (37)	EPA HAZARDOUS WASTE NO. (41)	EPA HAZARDOUS WASTE NO. (45)	WASTE DESCRIPTION	TOTAL QUANTITY GENERATED (49)	UNITS (58)
09153 01H					Soil derived from the boring of monitoring wells for In	0	P

QUANTITY HANDLED (59)	UNITS (68)	SYSTEM TYPE CODE (69)	FEE (72)	FACILITY NUMBER (73)	RECEIVER'S EPA ID # (78)	COMMENTS (90)
		H				
		H				
		H				
		H				

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Preparer (PRINT NAME)	Signature of Preparer	Date
Chris Young	Chris M. Young	1/23/04
Authorized Agent (PRINT NAME)	Signature of Authorized Agent	Date
GEOFFREY REEDER	Geoffrey Reeder	01 19 04

LPS Form TCEQ-0439A (Rev. 10-06-03)

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P.O. BOX 13087
AUSTIN, TEXAS 78711-3087 TELEPHONE: (512) 239-6413

Geoffrey B Reeder
Union Pacific Railroad Company
4910 Liberty Road
Houston, TX 77026-5264 281-350-7197

ANNUAL WASTE SUMMARY

Your SOLID WASTE REGISTRATION NUMBER: 31547 (1) G 1 (8) Report for: 2003 (8)

FOR DATA YEAR: 2003

☐ (24) NO REPORT REQUIRED {See 30 TAC 335.9(a)(3); also see instructions}

Your EPA ID #: TXD000082066 (12)

SUMMARY STATUS

☒ ORIGINAL SUMMARY ☐ REVISED SUMMARY ☐ SUPPLEMENTAL SUMMARY

YOUR WASTE GENERATION FEE IS CALCULATED FROM THIS REPORT. BE SURE THE INFORMATION IS CORRECT. TO REPORT WASTEWATER, SEE INSTRUCTION BOOKLET RG-151.

TEXAS WASTE CODE (25)	EPA HAZARDOUS WASTE NO. (33)	EPA HAZARDOUS WASTE NO. (37)	EPA HAZARDOUS WASTE NO. (41)	EPA HAZARDOUS WASTE NO. (45)	WASTE DESCRIPTION	TOTAL QUANTITY GENERATED (49)	UNITS (58)
09174061	K001	F034			Plastic and used Personal Protective Equipment generate	20	P

QUANTITY HANDLED (59)	UNITS (68)	SYSTEM TYPE CODE (69)	FEE (72)	FACILITY NUMBER (73)	RECEIVER'S EPA ID # (78)	COMMENTS (90)
20	P	H134		30271	TXD074196338	
		H				
		H				
		H				

TEXAS WASTE CODE (25)	EPA HAZARDOUS WASTE NO. (33)	EPA HAZARDOUS WASTE NO. (37)	EPA HAZARDOUS WASTE NO. (41)	EPA HAZARDOUS WASTE NO. (45)	WASTE DESCRIPTION	TOTAL QUANTITY GENERATED (49)	UNITS (58)
14773012					Petroleum-affected soils generated	4500	P

QUANTITY HANDLED (59)	UNITS (68)	SYSTEM TYPE CODE (69)	FEE (72)	FACILITY NUMBER (73)	RECEIVER'S EPA ID # (78)	COMMENTS (90)
		H				
		H				
		H				
		H				

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Chris Young	Chris M. Young	1/23/04
Preparer (PRINT NAME)	Signature of Preparer	Date
GEOFFREY REEDER	Geoffrey Reeder	01 19 04
Authorized Agent (PRINT NAME)	Signature of Authorized Agent	Date

LPS Form TCEQ - 0430A (Rev. 10-06-03)

REGISTRATION AND REPORTING SECTION
MC 129
REGISTRATION, REVIEW AND REPORTING DIVISION
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. BOX 13087
AUSTIN, TEXAS 78711-3087 TELEPHONE: (512) 239-6413

Geoffrey B Reeder
Union Pacific Railroad Company
4910 Liberty Road
Houston, TX 77026-5264 281-350-7197

ANNUAL WASTE SUMMARY

Your SOLID WASTE REGISTRATION NUMBER: 31547 (1–5) G1 (6–7) Report for: 2003 (8–11)

FOR DATA YEAR: 2003

☐ 24 NO REPORT REQUIRED {See 30 TAC 335.9(a)(3); also see Instructions}

Your EPA ID #: TXD000820266 (12–23)

SUMMARY STATUS

[X] ORIGINAL SUMMARY ☐ REVISED SUMMARY ☐ SUPPLEMENTAL SUMMARY

YOUR WASTE GENERATION FEE IS CALCULATED FROM THIS REPORT. BE SURE THE INFORMATION IS CORRECT. TO REPORT WASTEWATER, SEE INSTRUCTION BOOKLET RG-151.

TEXAS WASTE CODE (25–32)	EPA HAZARDOUS WASTE NO. (33–36)	EPA HAZARDOUS WASTE NO. (37–40)	EPA HAZARDOUS WASTE NO. (41–44)	EPA HAZARDOUS WASTE NO. (45–48)	WASTE DESCRIPTION	TOTAL QUANTITY GENERATED (49–57)	UNITS (58)
1480406 2					Plastic and used personal protective equipment	135	P

QUANTITY HANDLED (59–67)	UNITS (68)	SYSTEM TYPE CODE (69–71)	FEE (72)	FACILITY NUMBER (73–77)	RECEIVER'S EPA ID # (78–89)	COMMENTS (90–119)
		H				
		H				
		H				
		H				

TEXAS WASTE CODE (25–32)	EPA HAZARDOUS WASTE NO. (33–36)	EPA HAZARDOUS WASTE NO. (37–40)	EPA HAZARDOUS WASTE NO. (41–44)	EPA HAZARDOUS WASTE NO. (45–48)	WASTE DESCRIPTION	TOTAL QUANTITY GENERATED (49–57)	UNITS (58)

QUANTITY HANDLED (59–67)	UNITS (68)	SYSTEM TYPE CODE (69–71)	FEE (72)	FACILITY NUMBER (73–77)	RECEIVER'S EPA ID # (78–89)	COMMENTS (90–119)
		H				
		H				
		H				
		H				

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Preparer (PRINT NAME)	Signature of Preparer	Date
Chris Young	Chris M. Young	1/23/04
Authorized Agent (PRINT NAME)	**Signature of Authorized Agent**	**Date**
GEOFFREY REEDER	Geoffrey Reeder	01 19 04

LPS Form TCEQ - 0438A (Rev. 10-08-03)

Certification

Appendix B

January 23, 2004
W.O. #422-102

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

APPENDIX B

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Geoffrey Reeder

Mr. Geoffrey B. Reeder, P.G.
Authorized Representative
Union Pacific Railroad

Post-Closure Care Cost Estimate

Appendix C

January 23, 2004
W.O. #422-102

Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
(281) 600-1000

APPENDIX C

Post-Closure Care Cost Calculation

Former Houston Wood Preserving Works
4910 Liberty Road
Houston, Texas

Surface Impoundment
Post-Closure Care Permit HW-50343-000
Industrial Solid Waste Registration No. 31547

Ground Water Monitoring

15 existing wells/piezometers sampled semiannually at a cost of $500 each	$15,000

Inspection and Maintenance

Mowing monthly at a cost of $300 per month	$3,600
15 wells/piezometers inspected monthly at a cost of $50 each	$750
Impoundment/storage area inspected weekly at a cost of $150/week	$5,200
Minor repairs and/or upgrades (estimated)	$4,000
	$13,550

Total Estimated Cost (2004)	**$28,550**
Adjusted to 2003 dollars using the inflation factor of 1.0171 (1)	**$29,040**

NOTE:

(1) The annual cost estimate for post-closure care has been adjusted from 2003 dollars in accordance with 40 CFR §264.144 using the Implicit Price Deflator obtained from the U.S. Department of Commerce. The Implicit Price Deflator results in an inflation factor of 1.0171.