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Union Pacific Railroad Company

Semiannual Monitoring  
Report: Second Semiannual  
Event 2002  
*Houston Wood Preserving Works*  
*Houston, Texas*

January 20, 2003

W.O. #422-102

**Received**

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Remediation Division  
Corrective Action Section

Environmental Resources Management  
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HOUSTON WOOD PRESERVING WORKS



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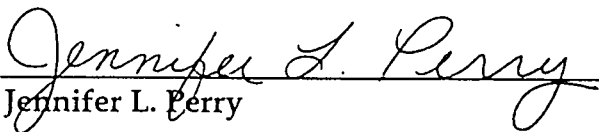
REPORT 2002 SEMIANNUAL MONITORING

Union Pacific Railroad Company

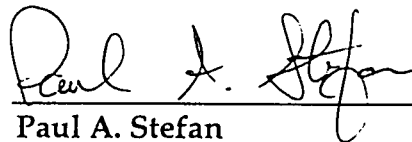
Semiannual Monitoring  
Report: Second Semiannual  
Event 2002  
*Houston Wood Preserving Works*  
*Houston, Texas*

January 20, 2003

W.O. #422-102

  
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## INTRODUCTION

Routine semiannual ground water monitoring is required as a condition of the Compliance Plan (CP) for the Union Pacific Railroad's Houston Wood Preserving Works (HWPW) site, located at 4910 Liberty Road, Houston, Texas (Figure 1-1). These activities are required to monitor ground water compliance beneath a closed RCRA-permitted surface impoundment.

## BACKGROUND

On September 23 through 25, 2002, Environmental Resources Management (ERM) conducted ground water sampling activities at the site. This semiannual sampling event included sampling the on-site wells and piezometers associated with a closed surface impoundment (TNRCC Permit Unit No. II.B.1) as described in RCRA Permit No. HW-50343-000 and associated Compliance Plan (CP-50343), both issued by the Texas Natural Resource Conservation Commission [TNRCC; now referred to as the Texas Commission on Environmental Quality (TCEQ)]. The sampling event, analytical data, and this data evaluation report represent the second semiannual monitoring period for 2002 (i.e., July 1 through December 31) and fulfill the semiannual reporting requirements described in the Compliance Plan (CP), Section VII.B.2.

## REPORT CONTENT AND ORGANIZATION

Section VII.B.2 of the CP requires that a specific list of items be included in each semiannual report. As such, each item listed below is addressed by number in Section 2 of this report. As of December 31, 2002, a recovery system had not been installed at this facility. Therefore, in the few instances where a provision refers to a recovery system (i.e., items 5, 7, and 11), a notation was made in the text, and the items, as they relate to recovery wells, were not addressed in this report. The following items are required for the semiannual report, pursuant to CP Section VII.B.2:

1. A narrative summary of the evaluations made in accordance with CP Sections V, VI, and VII for the preceding six-month period. These periods shall be January 1 through June 30 and July 1 through December 31;
2. The results of the chemical analyses, submitted in a tabulated format in a form acceptable to the Executive Director, which clearly indicates each parameter that exceeds the Ground Water Protection Standard (GWPS). Copies of the original laboratory report for chemical analyses showing detection limits and quality control and quality assurance data shall be provided if requested by the Executive Director;
3. Tabulation of all water level elevations (relative to mean sea level), depth to water measurements, and total depth of well measurements collected since the data that was submitted in the previous semiannual report;
4. Potentiometric surface maps showing the elevation of the water table at the time of sampling;

5. If a recovery system is installed, potentiometric surface maps showing delineation of the radius of influence, minimum and maximum gradient within the hydrologically influenced area, and the direction of ground-water flow gradients outside the radius of influence;
6. A notation of the presence or absence of non-aqueous phase liquids (NAPLs), both light and dense phases, in each well during each sampling event since the last event covered in the previous semiannual report and tabulation of depth and thickness of NAPLs, if detected;
7. If a recovery system is installed, monthly tabulations of quantities of recovered ground-water and NAPLs (if encountered), and graphs of weekly recorded flow rates versus time for the recovery wells during each quarter;
8. Tabulation of all data evaluation results pursuant to Section VI.D and status of each well listed on CP Table III with regard to compliance with the corrective action objectives and compliance with the GWPSs;
9. Maps of the contaminated area depicting concentrations of naphthalene, acenaphthene, and total benzene, toluene, ethylbenzene, and xylenes (BTEX) as isopleth contours;
10. An updated schedule summary as required by Section XI.A;
11. Summary of any changes made to the monitoring/corrective action program and a summary of recovery well inspections, repairs, and any operational difficulties;
12. Recommendation for any changes; and
13. Any other items requested by the Executive Director.

## 2.0 SECOND SEMIANNUAL GROUND WATER SAMPLING EVENT

This section contains a discussion of each of the semiannual report items required by CP Section VII.B.2, as presented in Section 1.2.

## 2.1 NARRATIVE SUMMARY OF SECOND SEMIANNUAL ACTIVITIES

CP Section VII.B.2.a requires a narrative summary of evaluations completed in accordance with CP Sections V, VI, and VII. Section V relates to the Corrective Action Program in place for the permitted unit. Section VI relates to the Ground Water Monitoring Program designed to evaluate the effectiveness of the Corrective Action Program. Section VII includes provisions for amending the Corrective Action Program and/or Compliance Plan.

### 2.1.1 *Corrective Action Program*

Existing wells were sampled to assess the extent of affected ground water in the A-Transmissive Zone (A-TZ) and the B-Transmissive Zone (B-TZ). The definitions of the A-TZ and B-TZ are consistent with the Uppermost Transmissive Zone (UTZ) and Second Transmissive Zone (STZ), respectively, as defined in CP Provision I.A.

- A-TZ refers to the first sand unit encountered at approximately 35 feet above mean sea level (msl), averaging 6 to 8 feet in thickness.
- B-TZ refers to the second sand unit encountered at approximately 15 feet above msl, averaging 8 to 10 feet in thickness.

Existing monitor wells in the A-TZ, designated by function in CP Table III (Appendix A), include the Corrective Action Observation (CAO) wells MW-04, MW-05, MW-07, MW-08, and MW-09, and the Point of Compliance (POC) wells MW-01A, MW-02, MW-03, MW-07, MW-10A, and MW-11A. Existing monitor wells in the B-TZ include the POC wells MW-10B and MW-11B, and the POC piezometers P-10, P-11, and P-12.

### 2.1.2 *Ground Water Monitoring*

ERM personnel performed monitoring activities at the site on September 23 through 25, 2002. The 15 A-TZ and B-TZ wells and piezometers listed in Section 2.1.1 (above) were located and inspected in preparation for the sampling event. Ground water sampling was performed using procedures outlined in a U.S. EPA document titled *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures* (EPA/540/S-95/504) published in April 1996. Purging and sampling were performed using a low-flow pump, with its sample intake set at the approximate center of the screened interval of each well.

Polytetrafluoroethylene (PTFE) tubing was placed in the wells and used for sampling. A Master-Flex® peristaltic pump was placed next to each well during sampling. Using a one-foot section of disposable silicon tubing placed around the pump head and attached to the PTFE tubing, ground water was pumped

from the screened interval of the well at a flow rate of approximately 0.5 L/min. A flow-through cell and field meters were used to evaluate field parameters, including temperature, pH, specific conductivity, dissolved oxygen, and turbidity. When the field parameters had stabilized, the well was sampled. The samples were collected at a flow rate of approximately 0.5 L/min. A compilation of recorded field parameters is included in Appendix B.

For each well, three 40-mL glass vials (for volatile organic compound analysis), and two 1,000-mL amber glass bottles (for semivolatile organic compounds analysis) were filled directly from the pumping apparatus described above. The bottles, which had been preserved previously by the laboratory, were sealed and packed in coolers with sufficient ice to maintain a sample temperature of approximately 4° C. The coolers were delivered to Severn Trent Laboratory, in Houston, Texas for analysis. Chain-of-Custody (COC) forms were completed and kept with their respective samples. Copies of the analytical data and COCs are included in Appendix C.

## 2.2 ANALYTICAL RESULTS

The results of the chemical analyses performed on the A-TZ and B-TZ ground water samples collected during the second semiannual sampling event of 2002 are summarized in Tables 2-1 and 2-2, respectively. Those compounds reported by the laboratory at concentrations greater than the GWPS are indicated in boxes on the tables. The CP sets the GWPS at the practical quantitation limit (PQL) for each of the compounds analyzed. Table 2-3 summarizes the field blank and trip blank results for quality assurance/quality control (QA/QC) purposes. Duplicate sample results are included on Table 2-1.

## 2.3 WATER LEVEL AND TOTAL DEPTH MEASUREMENT

Because low-flow sampling procedures were utilized for this sampling event, it was important to reduce disruption of the water column to the extent practical prior to sampling. To accomplish this, light non-aqueous phase liquid (LNAPL) measurements were made first with an oil/water interface probe. Measurable LNAPL was not noted with the probe at any of the wells measured. Next, water levels were measured using the oil/water interface probe. Since the meter came into contact with only the upper surface of the water column, disruption of the water column was reduced.

Dense non-aqueous phase liquid (DNAPL) and total depth measurements were collected with the oil/water interface probe following ground water sampling. These measurements were collected in accordance with the methodology described in EPA's low-flow guidance (U.S. EPA, April 1996) which suggests that a probe be lowered gently through the water column to the bottom of the well following sample collection. Measurable DNAPL was not noted at any of the wells measured. Table 2-4 summarizes the results of the depth-to-water and total well depth measurements.



#### 2.4 *POTENTIOMETRIC SURFACE MAPS*

The ground water elevation data described in Section 2.3 were used to create potentiometric surface maps of the A-TZ and B-TZ (Figures 2-1 and 2-2, respectively).

#### 2.5 *POTENTIOMETRIC SURFACE MAPS FOR RECOVERY SYSTEM*

As of December 31, 2002, a recovery system had not been installed at the closed surface impoundment. Therefore, this item is not addressed herein.

#### 2.6 *NON-AQUEOUS PHASE LIQUIDS*

The wells and piezometers were gauged for the presence of LNAPLs before low-flow sampling and DNAPLs after low-flow sampling was completed, in order to reduce disruption of the water column prior to sampling. The low-flow sampling method resulted in little or no drawdown. Accordingly, dense NAPL layers, if present, would not have been significantly affected by prior ground water sample collection. An oil/water interface probe was used to measure for light and dense NAPLs. NAPLs were not detected in any of the wells sampled as part of this semiannual event.

#### 2.7 *NAPL RECOVERIES*

As of December 31, 2002, a recovery system had not been installed at the closed surface impoundment. Therefore, this item is not addressed herein.

#### 2.8 *ANALYTICAL DATA EVALUATION*

CP Section VI.D describes two methods which may be used to determine the compliance status of a given well. The analytical results may be either directly compared to the GWPS (CP Table I; included in Appendix A herein), or statistically compared to the GWPS using the 99% significance level of the t-distribution. Table 2-5 shows the results of a direct comparison of data from the second semiannual sampling event to the GWPS. Wells and piezometers were considered to be compliant if each of the constituents listed in CP Table I was reported at a concentration less than or equal to the PQL (i.e., the GWPS). Conversely, wells and piezometers were considered non-compliant if one or more constituents were reported at concentrations greater than the PQL. A Response Action Plan (RAP) will be completed to evaluate alternatives to bring the non-compliant wells into compliance.

#### 2.9 *BTEX, ACENAPHTHENE, AND NAPHTHALENE ISOPLETHS*

As specified by the Compliance Plan, isopleth maps depicting concentrations of BTEX, acenaphthene, and naphthalene were constructed. The concentration contours of these constituents were prepared using the data presented in Tables 2-1 and 2-2. The contours were generated manually. To facilitate generation of

the contours, locations with results reported as *Not Detected* were assigned a value equal to one-half of the reported detection limit for contouring purposes.

The A-TZ and B-TZ BTEX concentrations measured during the second semi-annual sampling event of 2002 are presented in Figures 2-3 and 2-4, respectively. Similarly, acenaphthene and naphthalene isopleths are presented in Figures 2-5 through 2-8.

2.10 *UPDATED COMPLIANCE SCHEDULE*

An updated compliance schedule is included as Appendix D of this report. This schedule is consistent with the schedule submitted as part of the First Semiannual Monitoring Report, 2002 (ERM, July 19, 2002).

2.11 *SUMMARY OF CHANGES MADE TO THE MONITORING/CORRECTIVE ACTION PROGRAM AND SUMMARY OF RECOVERY WELL INSPECTIONS AND MAINTENANCE*

Neither recovery wells nor a ground water recovery system are present on site. Accordingly, recovery well inspections, repairs, or operations were not conducted. The POC and CAO wells were inspected twice during the semiannual monitoring period. A summary of the well inspections will be included in the 2002 Annual Report.

2.12 *RECOMMENDATIONS FOR CHANGES*

At this time, no changes are recommended.

2.13 *OTHER REQUESTED ITEMS*

To date, no other items have been requested by the Executive Director.

Tables

*January 20, 2003, 2002*  
W.O. #422-102

**Environmental Resources Management**  
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TABLE 2-1

Summary of Analytical Results for the A-Transmissive Zone (A-TZ)  
Semiannual Monitoring Report: Second Semiannual Event 2002

Houston Wood Preserving Works  
Houston, Texas

Analyte	PQL (GWPS)	Monitor Well ID: Sample Date:	MW-01A 9/25/02	MW-01AD (a) 9/25/02	MW-02 9/24/02	MW-03 9/24/02	MW-04 9/23/02	MW-04D (b) 9/23/02	MW-05 9/24/02	MW-07 9/25/02	MW-08 9/25/02	MW-09 9/24/02	MW-10A 9/24/02	MW-11A 9/23/02
Benzene	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.002 J
Chlorobenzene	0.005		ND	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	ND
Methylene chloride	0.010		ND	ND	ND	ND	ND	ND	0.002 J	ND	ND	ND	ND	ND
Ethylbenzene	0.005		ND	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	ND
Xylene (total)	0.005		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	0.010		0.260	0.290	0.020	0.110	ND	ND	0.003	0.0009 J	ND	ND	ND	0.007 J
Acenaphthylene	0.010		0.002	0.002	0.0004 J	0.001 J	ND	ND	ND	ND	ND	ND	ND	0.270
Anthracene	0.010		0.008	0.009	0.001 J	0.003	0.0005 J	0.0006 J	0.0004 J	0.0007 J	0.0002 J	ND	ND	0.009
Benzo(a)anthracene	0.010		ND	0.0001 J	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	ND
bis(2-Chloroethoxy)methane	0.010		ND	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	ND
Chrysene	0.010		ND	0.0001 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	0.010		0.170	0.190	0.014	0.063	ND	ND	0.00009 J	0.00008 J	ND	ND	ND	0.099
Di-n-butyl phthalate	0.010		0.002 J,b	0.002 J,b	0.0008 J,b	0.0009 J,b	0.002 J,b	0.002 J,b	0.0009 J,b	0.002 J,b	0.001 J,b	0.005 b	0.0008 J,b	0.0009 J,b
2,4-Dimethylphenol	0.010		ND	0.0002 J	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	ND
2,4-Dinitrotoluene	0.010		ND	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	ND
1,2-Diphenylhydrazine	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	0.010		ND	0.0004 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	0.010		0.010	0.009	0.001 J	0.009	ND	ND	0.0003 J	0.0004 J	ND	ND	ND	0.012
Fluorene	0.010		0.170	0.190	0.014	0.064	ND	ND	ND	0.0001 J	ND	ND	ND	0.150
2-Methylnaphthalene	0.010		0.002	0.011	0.0004 J	0.00007 J	ND	ND	0.00009 J	ND	ND	ND	ND	0.073
Naphthalene	0.010		0.005	0.009	0.013	0.0002 J	ND	ND	0.0001 J	0.0005 J	ND	ND	ND	0.490
Nitrobenzene	0.010		ND	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	ND
N-Nitrosodiphenylamine	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	0.050		ND	ND	ND	ND	ND	0.0002 J	ND	ND	0.00001 J	ND	ND	0.001
Phenanthrene	0.010		0.033	0.043	0.001 J	0.0006 J	ND	ND	0.0001 J	ND	ND	ND	ND	0.070
Phenol	0.010		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	0.010		0.005	0.005	0.0007 J	0.005	ND	ND	0.0004 J	0.0006 J	0.0002 J	ND	ND	0.007

## 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-01AD is a duplicate of MW-01A.

(b) MW-04D is a duplicate of MW-04.

TABLE 2-2

Summary of Analytical Results for the B-Transmissive Zone (B-TZ)  
Semiannual Monitoring Report: Second Semiannual Event 2002

Houston Wood Preserving Works  
Houston, Texas

Analyte	PQL (GWPS)	Monitor Well ID. Sample Date:	MW-10B 9/24/02	MW-11B 9/24/02	P-10 9/25/02	P-11 9/25/02	P-12 9/25/02
Benzene	0.005		0.003 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	0.002 J	ND	ND	ND
Ethylbenzene	0.005		ND	ND	ND	ND	ND
Toluene	0.005		ND	ND	ND	ND	ND
Xylene (total)	0.005		0.005 J	0.006 J	ND	ND	ND
Acenaphthene	0.010		0.150	0.210	0.042	0.011	ND
Acenaphthylene	0.010		0.002	0.003	0.0004 J	0.0002 J	ND
Anthracene	0.010		0.006	0.009	0.001 J	0.0002 J	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		0.076	0.120	0.011	0.0002 J	ND
Di-n-butyl phthalate	0.010		0.001 J,b	0.0008 J,b	0.003 b	0.001 J,b	0.001 J,b
2,4-Dimethylphenol	0.010		0.001 J	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		0.0004 J	ND	0.0009 J	ND	ND
Fluoranthene	0.010		0.005	0.008	0.001 J	0.0003 J	ND
Fluorene	0.010		0.086	0.120	0.013	0.001 J	ND
2-Methylnaphthalene	0.010		0.018	0.092	0.005	ND	ND
Naphthalene	0.010		0.330	0.700	0.200	0.002 J	ND
Nitrobenzene	0.010		ND	ND	ND	ND	ND
p-Nitrophenol	0.050		ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	0.010		ND	ND	ND	ND	ND
Pentachlorophenol	0.050		0.0005 J	0.0003 J	ND	ND	ND
Phenanthrene	0.010		0.044	0.084	0.002	ND	ND
Phenol	0.010		ND	ND	ND	ND	ND
Pyrene	0.010		0.003	0.004	0.0005 J	ND	0.006

## 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.

TABLE 2-3

Summary of Analytical Results for Quality Assurance/Quality Control Samples  
Semiannual Monitoring Report: Second Semiannual Event 2002

Houston Wood Preserving Works  
Houston, Texas

Analyte	PQL (GWPS)	Sample Sample Date:	Field Blank	Trip Blank	
			FB-092502 9/25/02	TB-092402 9/24/02	TB-092502 9/25/02
Methylene chloride	0.010		ND	0.003 J	ND
Di-n-butyl phthalate	0.010		0.001 J,b	NA	NA
bis(2-Ethylhexyl)phthalate	0.010		ND	NA	NA

## 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.

NA = Not Analyzed.

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).

J = Estimated value between the reporting limit and MDL.

b = Target analyte was found in the method blank.

TABLE 2-4

Water Level and Total Depth of Well Measurements  
Semiannual Monitoring Report: Second Semiannual Event 2002

Houston Wood Preserving Works  
Houston, Texas

<u>Well ID</u>	<u>Top of Casing Elevation (ft MSL)</u>	<u>Depth to Water (ft TOC)</u>	<u>Water Surface Elevation (ft MSL)</u>	<u>Total Depth of Well as Measured (ft TOC)</u>	<u>Total Depth as Completed (ft TOC) *</u>
<i>A-TZ Monitoring Locations</i>					
MW-01A	47.95	3.23	44.72	19.76	20.20
MW-02	48.03	3.16	44.87	18.47	20.30
MW-03	48.55	4.60	43.95	20.20	20.90
MW-04	49.85	5.29	44.56	21.72	23.40
MW-05	49.35	4.76	44.59	27.38	28.30
MW-07	48.86	4.69	44.17	24.91	N/A
MW-08	49.37	4.69	44.68	25.12	26.80
MW-09	49.29	4.45	44.84	25.41	26.80
MW-10A	49.90	5.19	44.71	25.60	25.90
MW-11A	50.04	5.60	44.44	24.03	24.40
<i>B-TZ Monitoring Locations</i>					
MW-10B	49.97	5.40	44.57	47.91	48.80
MW-11B	50.19	5.79	44.40	46.74	46.80
P-10	47.72	3.54	44.18	42.87	N/A
P-11	49.02	4.46	44.56	42.86	51.80
P-12	48.82	3.90	44.92	42.88	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

\* Reported during well installation and completion

N/A = Information not available

TABLE 2-5

Compliance Status of Wells and Piezometers  
Semiannual Monitoring Report: Second Semiannual Event 2002

Houston Wood Preserving Works  
Houston, Texas

<u>A-TZ Monitoring Location</u>	<u>Well Designation</u>	<u>Compliance Status</u>
MW-01A	Point of compliance	Non-Compliant
MW-02	Point of compliance	Non-Compliant
MW-03	Point of compliance	Non-Compliant
MW-10A	Point of compliance	Compliant
MW-11A	Point of compliance	Non-Compliant
MW-04	Corrective action observation	Compliant
MW-05	Corrective action observation	Compliant
MW-07	Corrective action observation	Compliant
MW-08	Corrective action observation	Compliant
MW-09	Corrective action observation	Compliant
<u>B-TZ Monitoring Location</u>	<u>Well Designation</u>	<u>Compliance Status</u>
MW-10B	Point of compliance	Non-Compliant
MW-11B	Point of compliance	Non-Compliant
P-10	Point of compliance	Non-Compliant
P-11	Corrective action observation	Non-Compliant
P-12	Corrective action observation	Compliant



**Figures**

*January 20, 2003*

W.O. #422-102

**Environmental Resources Management**

15810 Park Ten Place, Suite 300

Houston, Texas 77084

(281) 600-1000



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

0 2000 4000  
SCALE FEET

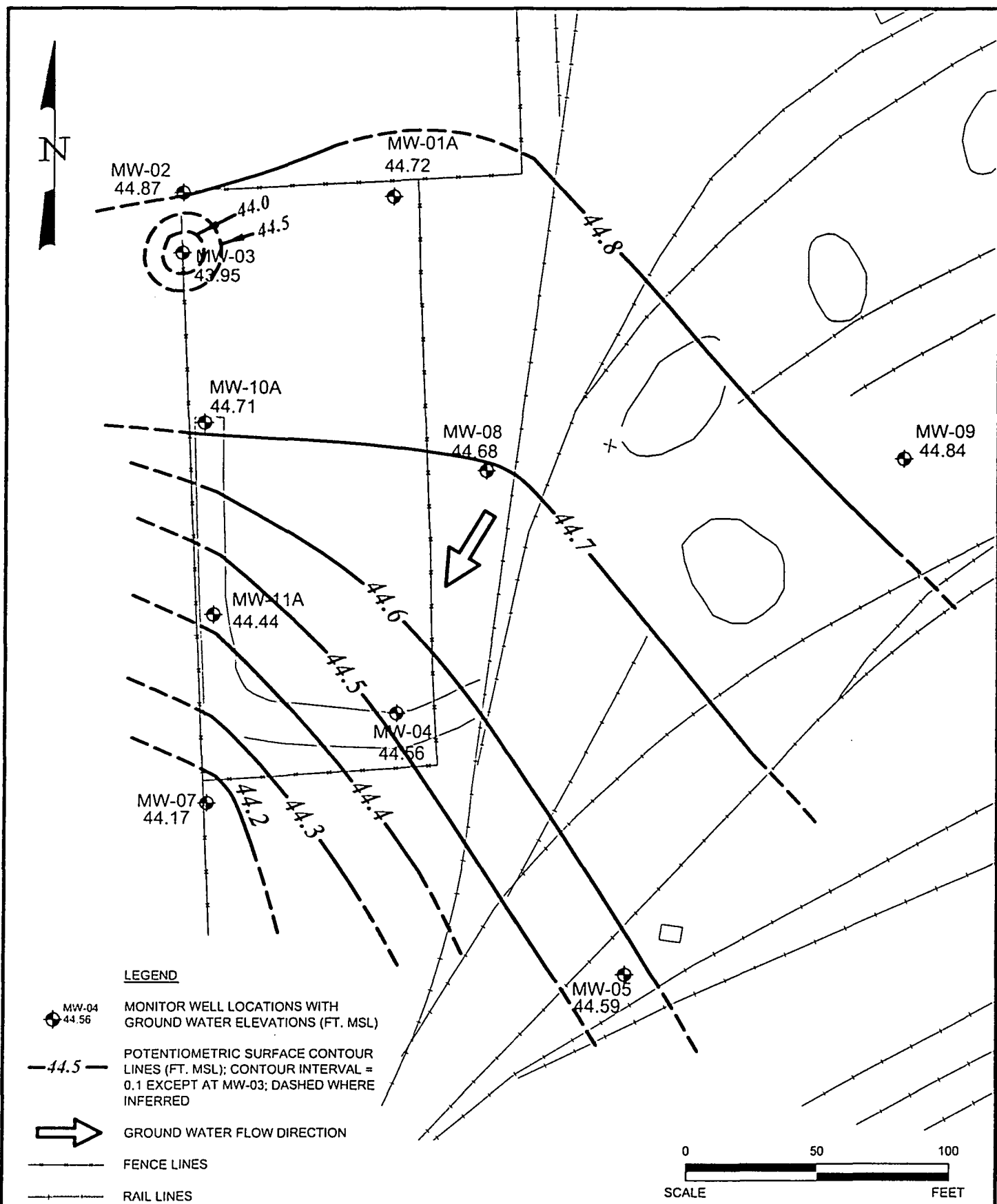
## ERM-Southwest, Inc.

HOUSTON NEW ORLEANS ALSTIN MOBILE BEAUMONT BATON ROUGE CORPUS CHRISTI

DESIGN:	DRAWN: CAK	CHKD.: PJG
DATE: 07/23/02	SCALE: AS SHOWN	REV.:
W.O.NO.: N:\OLD\DWG\2002\G02422102A252.dwg, 11/18/2002 2:14:34 PM		

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





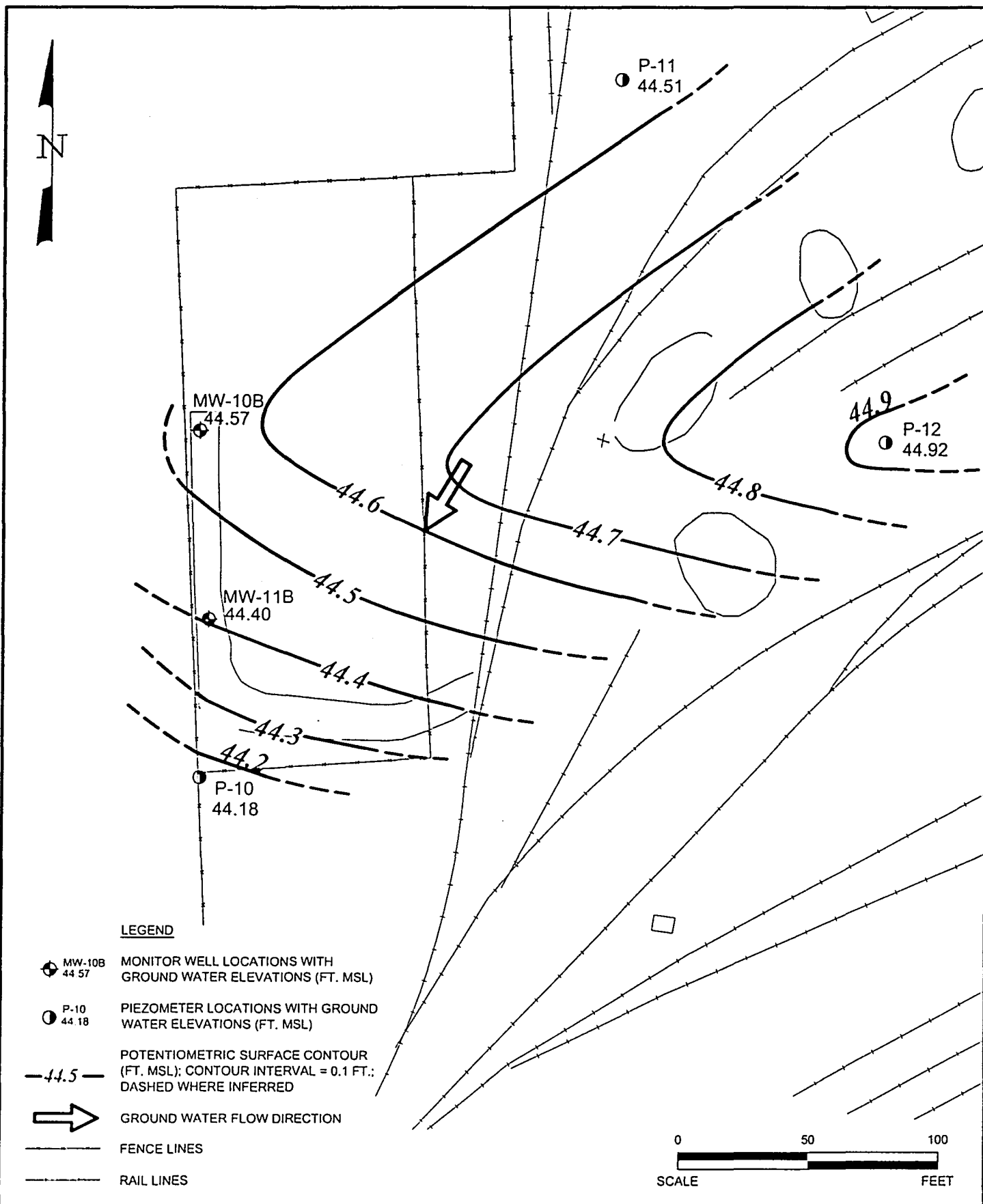
**ERM-Southwest, Inc.**

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

DESIGN: JLP	DRAWN: LMcLAH	CHKD.: TMO
DATE: 01/02/03	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\DWG\A03\Incoming\422102A02A03R0.dwg, 1/20/2003 2:03:07 PM		

FIGURE 2-1  
A-TZ POTENTIOMETRIC SURFACE  
SEPTEMBER 23, 2002  
TCEQ PERMIT UNIT No. II.B.1.  
Houston Wood Preserving Works  
Houston, Texas



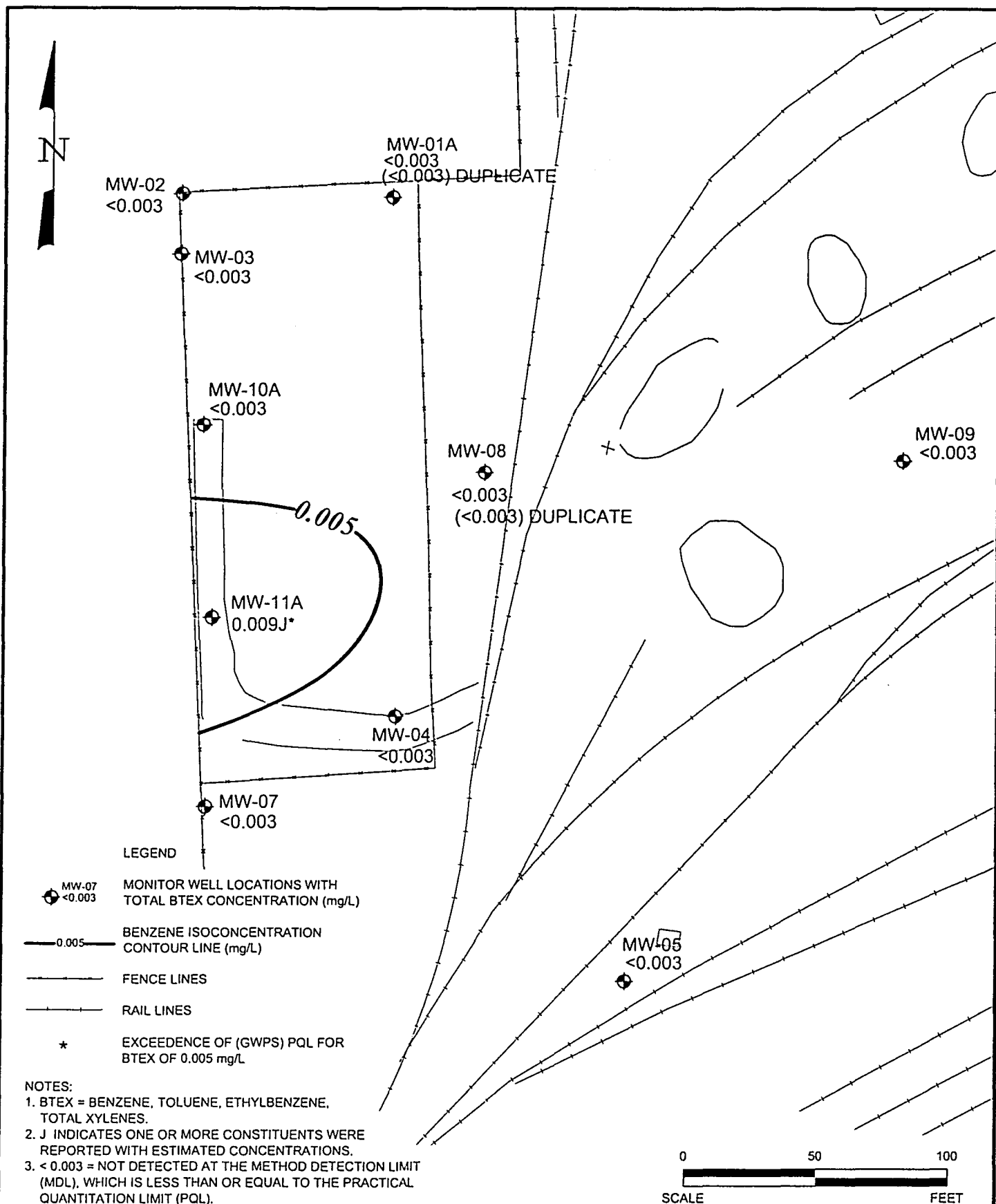


**ERM-Southwest, Inc.**  
HOUSTON NEW ORLEANS AUSTIN DALLAS BEAUMONT BATON ROUGE CORPUS CHRISTI

**FIGURE 2-2**  
**B-TZ POTENTIOMETRIC SURFACE**  
**SEPTEMBER 23, 2002**  
**TCEQ PERMIT UNIT No. II.B.1.**  
**Houston Wood Preserving Works**  
**Houston, Texas**



DESIGN: JLP	DRAWN: LMc/LAH	CHKD.: TMO
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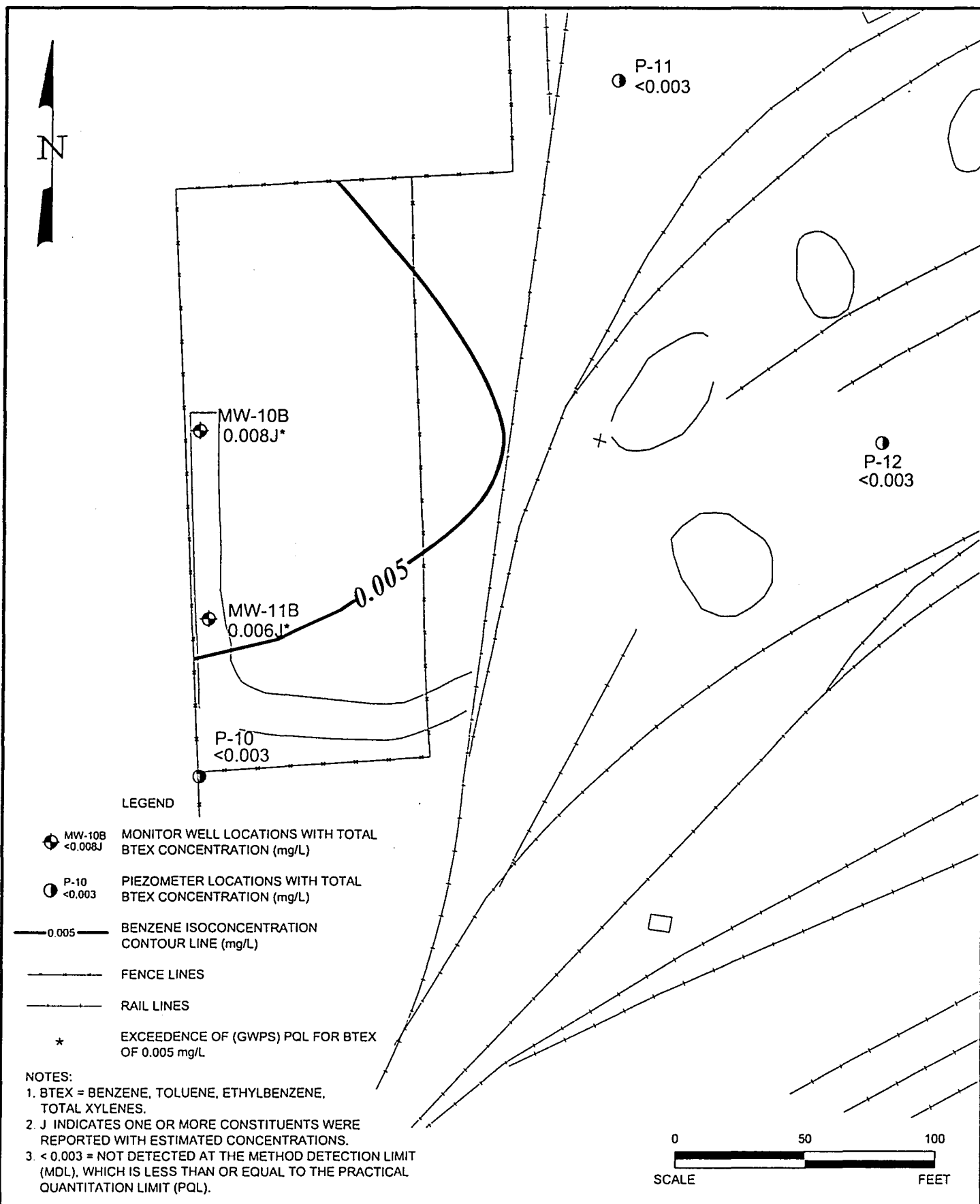


**ERM-Southwest, Inc.**  
HOUSTON NEW ORLEANS AUSTIN DALLAS BEAUMONT BATON ROUGE CORPUS CHRISTI

**FIGURE 2-3**  
**TOTAL BTEX IN A-TZ GROUND WATER**  
**SEPTEMBER 23, 2002**  
**TCEQ PERMIT UNIT No. II.B.1.**  
**Houston Wood Preserving Works**  
**Houston, Texas**



DESIGN: JLP	DRAWN: LMcLAH	CHKD.: TMO
DATE: 1/02/03	SCALE: AS SHOWN	REV.:
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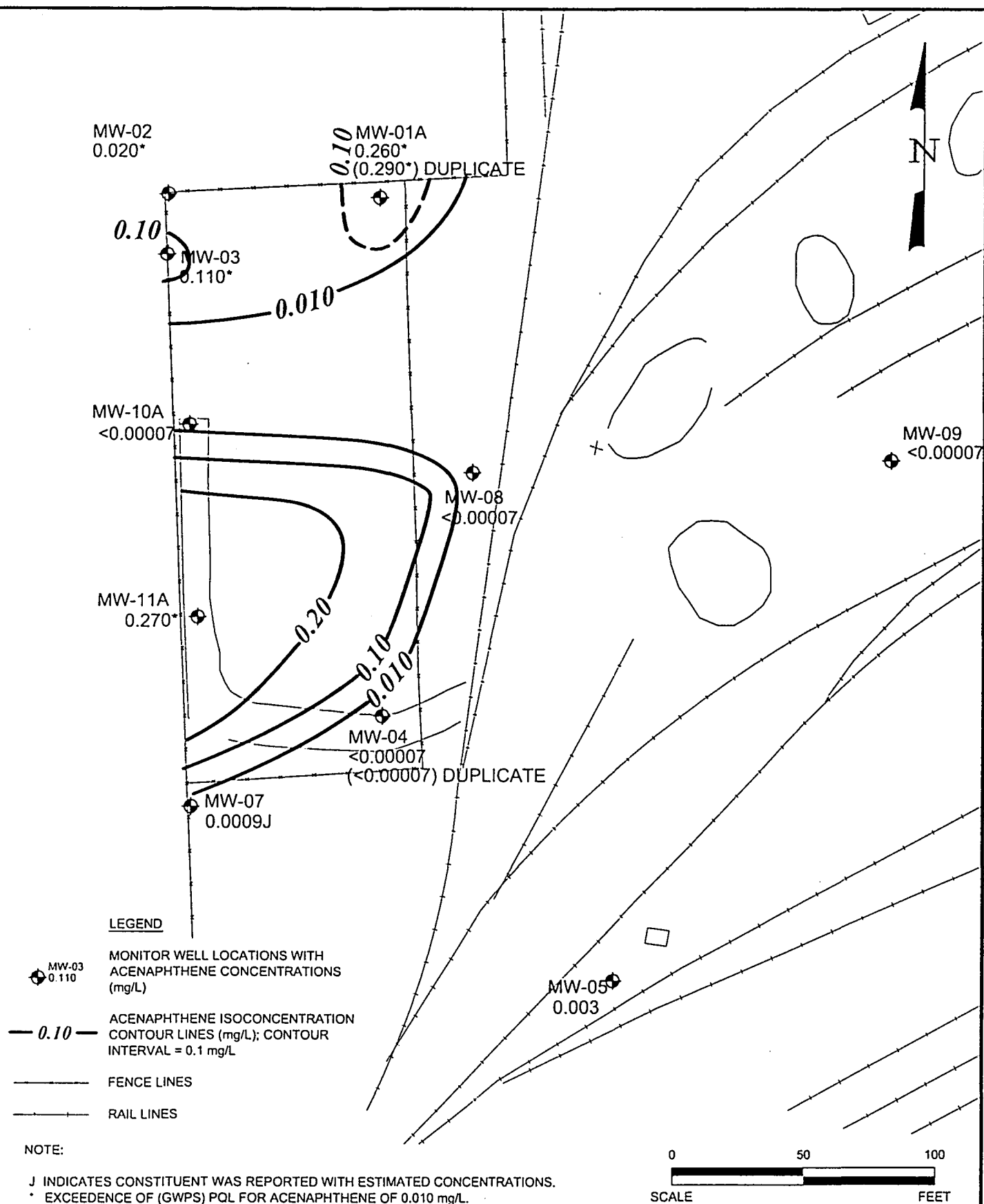
**ERM-Southwest, Inc.**  
HOUSTON NEW ORLEANS AUSTIN DALLAS BEAUMONT BATON ROUGE CORPUS CHRISTI

**FIGURE 2-4**  
**TOTAL BTEX IN B-TZ GROUND WATER**  
**SEPTEMBER 23-25, 2002**  
**TCEQ PERMIT UNIT No. II.B.1.**  
**Houston Wood Preserving Works**  
**Houston, Texas**



DESIGN: JLP	DRAWN: LMcLAH	CHKD.: TMO
DATE: 1/02/03	SCALE: AS SHOWN	REV.:

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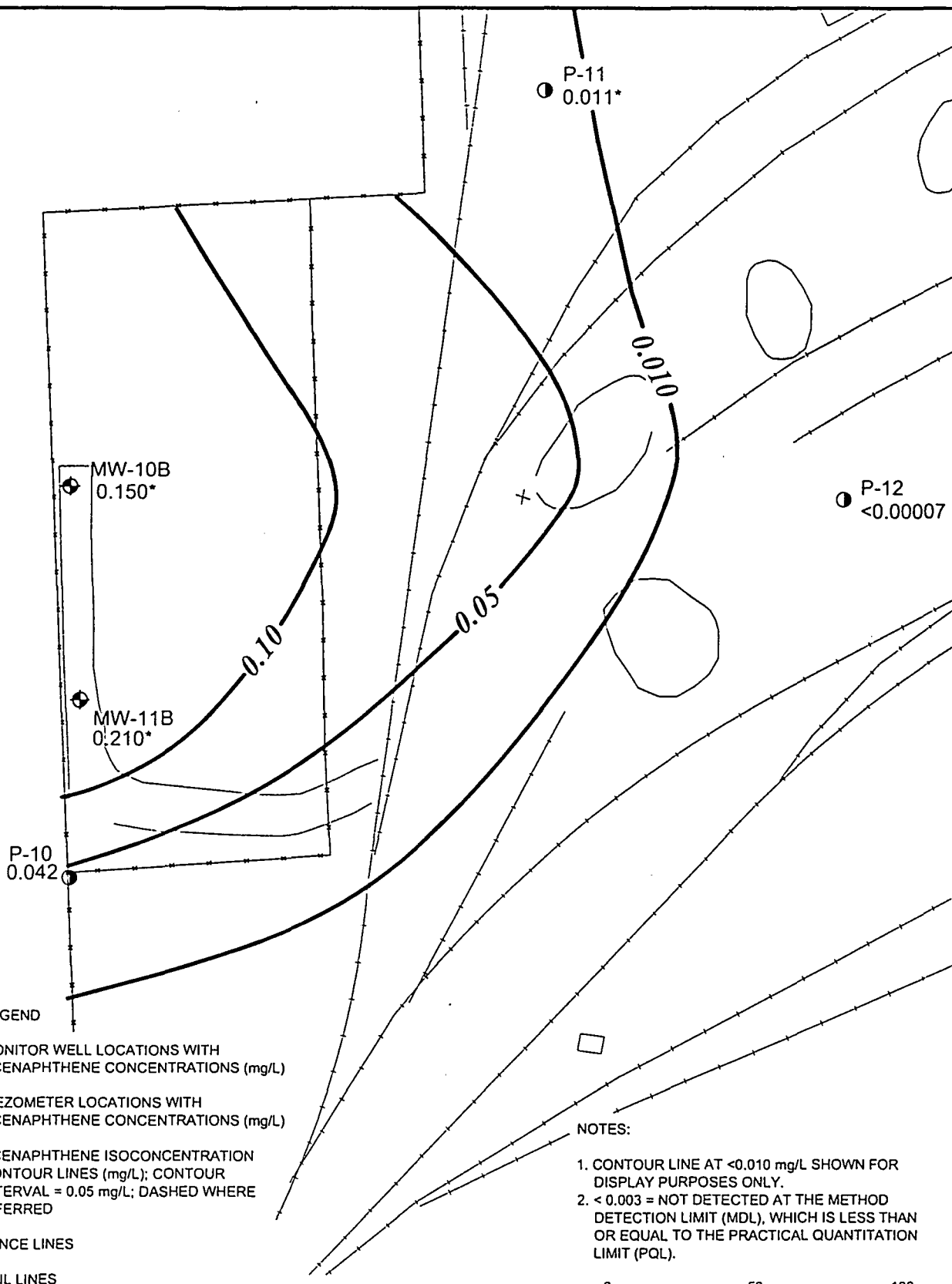


**ERM-Southwest, Inc.**  
HOUSTON NEW ORLEANS AUSTIN DALLAS BEAUMONT BATON ROUGE CORPUS CHRISTI

**FIGURE 2-5**  
**ACENAPHTHENE IN A-TZ GROUND WATER**  
**SEPTEMBER 23-25, 2002**  
**TCEQ PERMIT UNIT No. II.B.1.**  
**Houston Wood Preserving Works**  
**Houston, Texas**



DESIGN: JLP	DRAWN: LMCLAH	CHKD.: TMO
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W O.N.O.: H:\DWG\A03\Incoming\422102A06A03R0.dwg, 1/20/2003 2:04:27 PM		



NOTE:

\* EXCEEDENCE OF (GWPS) PQL FOR ACENAPHTHENE OF 0.010 mg/L.

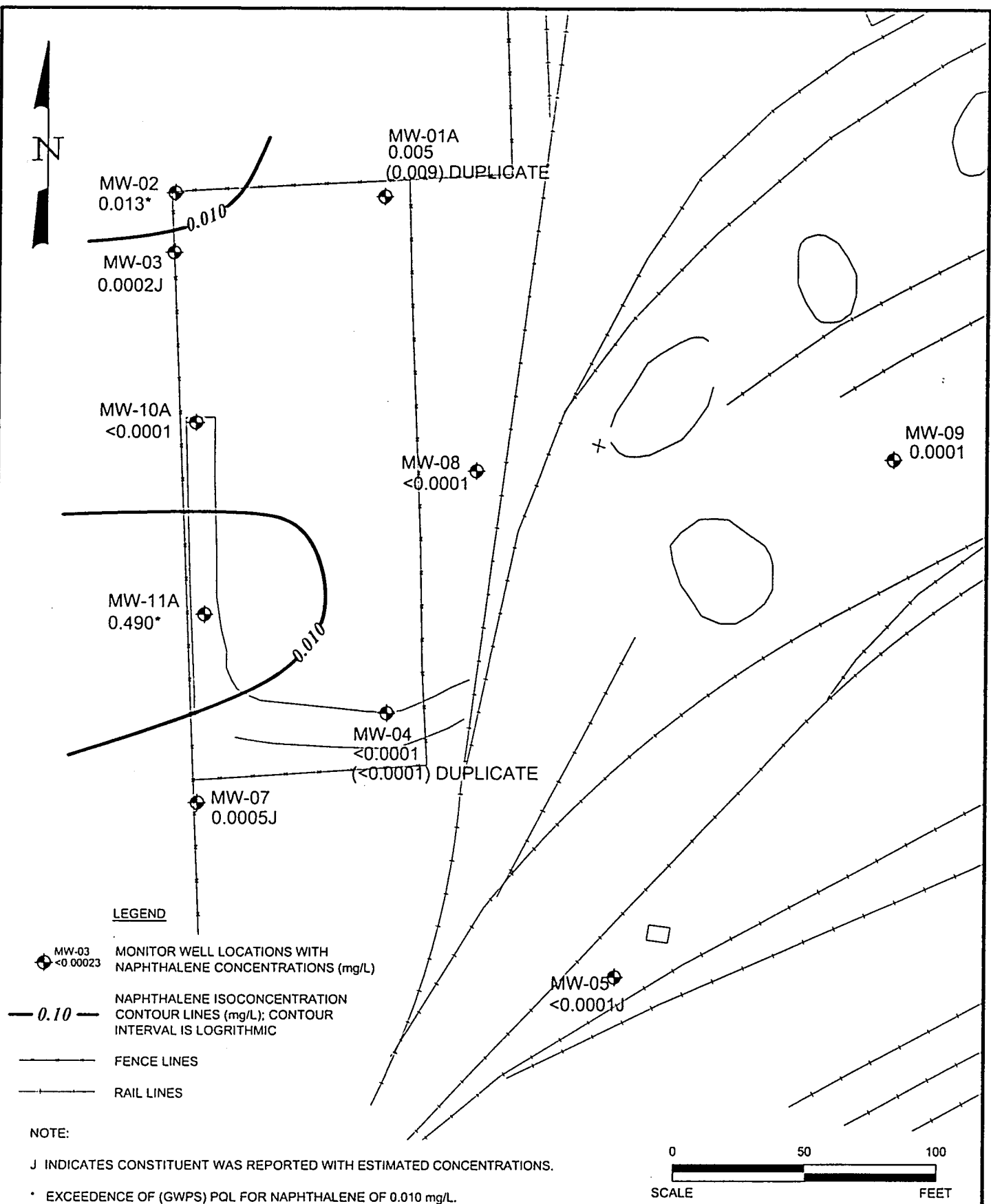
**ERM-Southwest, Inc.**  
HOUSTON NEW ORLEANS AUSTIN DALLAS BEAUMONT BATON ROUGE CORPUS CHRISTI

FIGURE 2-6  
ACENAPHTHENE IN B-TZ GROUND WATER  
SEPTEMBER 23-25, 2002  
TCEQ PERMIT UNIT No. II.B.1.  
Houston Wood Preserving Works  
Houston, Texas



DESIGN: JLP	DRAWN: LMcLAH	CHKD.: TMO
DATE: 1/02/03	SCALE: AS SHOWN	REV.:
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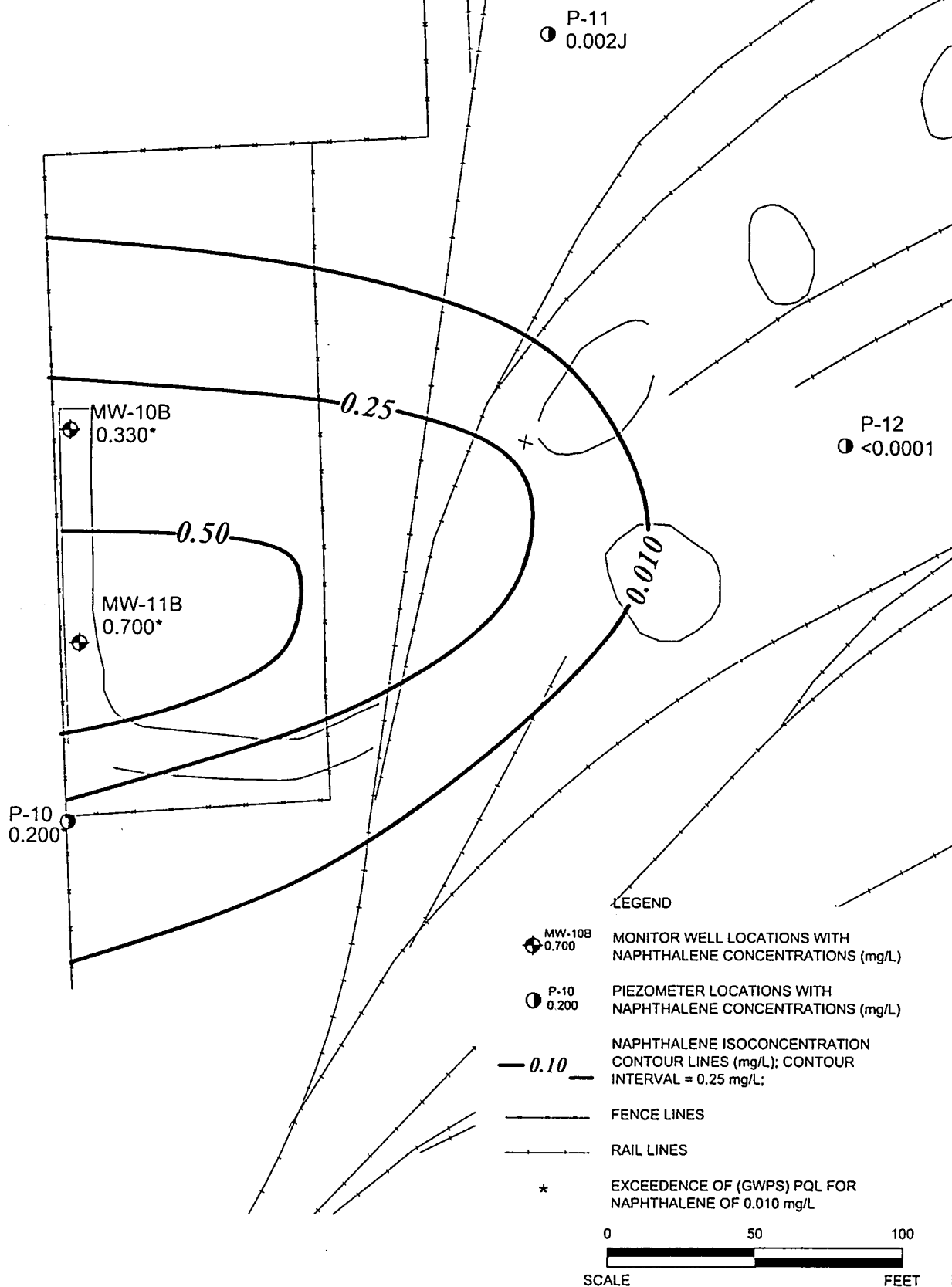
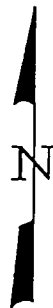


**ERM-Southwest, Inc.**  
HOUSTON NEW ORLEANS AUSTIN DALLAS BEAUMONT BATON ROUGE CORPUS CHRISTI

**FIGURE 2-7**  
**NAPHTHALENE IN A-TZ GROUND WATER (mg/L)**  
**SEPTEMBER 23-25, 2002**  
**TCEQ PERMIT UNIT No. II.B.1.**  
**Houston Wood Preserving Works**  
**Houston, Texas**



DESIGN: JLP	DRAWN: LMcLAH	CHKD.: TMO
DATE: 1/02/03	SCALE: AS SHOWN	REV.:
W O NO.: H:1D\WG\A03\Incoming\422102A08A03R0.dwg, 1/20/2003 2:05:38 PM		



**ERM-Southwest, Inc.**  
HOUSTON NEW ORLEANS AUSTIN DALLAS BEAUMONT BATON ROUGE CORPUS CHRISTI

FIGURE 2-8  
NAPHTHALENE IN B-TZ GROUND WATER (mg/L)  
SEPTEMBER 23-25, 2002  
TCEQ PERMIT UNIT No. II.B.1.  
Houston Wood Preserving Works  
Houston, Texas



DESIGN: JLP	DRAWN: LMcLAH	CHKD.: TMO
DATE: 1/02/03	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\DWG\A03\Incoming\422102A09A03R0.dwg, 1/20/2003 2:06:08 PM		

**Compliance Plan Tables**  
*Appendix A*

*January 20, 2003*  
W.O. #422-102

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

TABLE I

Table of Hazardous and Solid Waste Constituents and  
Concentration Limits for Ground-Water Protection Standard

COLUMN A Hazardous Constituents	COLUMN B Concentration Limits (mg/l)
Acenaphthene	ND (0.010)
Acenaphthylene	ND (0.010)
Anthracene	ND (0.010)
Benzene	ND (0.005)
Benzo(a)anthracene	ND (0.010)
Benzo(a)pyrene	ND (0.010)
bis(2-Ethylhexyl)phthalate	ND (0.010)
bis(2-Chloroethoxy)methane	ND (0.010)
Chlorobenzene	ND (0.005)
2-Chloranaphthalene	ND (0.010)
Chrysene	ND (0.010)
Dibenzofuran	ND (0.010)
1,2-Dichlorethane	ND (0.005)
Dichloromethane	ND (0.005)
2,4-Dimethylphenol	ND (0.010)
Di-n-butyl phthalate	ND (0.010)
4,6-Dinitro-o-cresol	ND (0.050)
2,4-Dinitrotoluene	ND (0.010)
2,6-Dinitrotoluene	ND (0.010)
1,2-Diphenylhydrazine	ND (0.010)
Ethylbenzene	ND (0.005)
Fluoranthene	ND (0.010)
Fluorene	ND (0.010)
Methylene chloride	ND (0.010)
2-Methylnaphthalene	ND (0.010)
Naphthalene	ND (0.010)
Nitrobenzene	ND (0.010)
4-Nitrophenal	ND (0.050)
N-Nitrosodiphenylamine	ND (0.010)
Pentachlorophenol	ND (0.050)
Phenanthrene	ND (0.010)
Phenol	ND (0.010)
Pyrene	ND (0.010)
Toluene	ND (0.005)
Xylenes	ND (0.005)

N.D. Non-detectable at Practical Quantitation Limit as determined by the analytical methods of the United States Environmental Protection Agency publication SW-846 Test Methods for Evaluating Solid Waste, Third Edition, November 1986, (USEPA SW-846) and as listed in the July 8, 1987 edition of the Federal Register and later editions. Practical Quantitation Limit (PQL) is indicated in parentheses. Practical Quantitation Limits are the lowest concentrations of analytes in ground-water that can be reliably determined within specified

limits of precision and accuracy by the indicated methods under routine laboratory operating conditions.

TABLE II

Table of Indicator Parameters and Concentration Limits for  
Ground-water Protection Standard

COLUMN A Hazardous Constituents	COLUMN 3 Concentration Limits (mg/l)
Acenaphthene	ND (0.010)
Anthracene	NO (0.010)
Benzene	ND (0.005)
bis(2-Ethylhexyl)phthalate	NO (0.010)
Dibenzofuran	ND (0.010)
2,4-Dimethylphenol	ND (0.010)
Ethylbenzene	ND (0.005)
Fluoranthene	NO (0.010)
Fluorene	ND (0.010)
Methylene Chloride	ND (0.010)
2-Methylnaphthalene	ND (0.010)
Naphthalene	ND (0.010)
Phenanthrene	ND (0.010)
Pyrene	ND (0.010)
Toluene	ND (0.005)
Xylenes	ND (0.005)

N.D. Non-detectable at Practical (Quantitation Limit as determined by the analytical methods of the United States Environmental Protection Agency publication SW-846 Test Methods for Evaluating Solid Waste, Third Edition, November 1986, (USEPA SW-846) and as listed in the July 8, 1987 edition of the Federal Register and later editions. Practical Quantitation Limit (PQL) is indicated in parentheses. Practical Quantitation Limits are the lowest concentrations of analytes in ground-water that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions.

TABLE III

Designation of Wells by Function

<u>1. POINT OF COMPLIANCE WELLS</u>	<u>SAMPLING FREQUENCY</u>
A. Upper Transmissive Zone (existing)	
MW-1	Semi-annual
MW-2	Semi-annual
MW-7	Semi-annual
KW-10*	Semi-annual
MW-11*	Semi-annual

2. BACKGROUND WELLS

As proposed in the Compliance Plan Application, background values of the tested constituents will be assumed to be the Practical Quantitation Limit (PQL), and therefore, negate the need for background wells, unless this Compliance Plan is modified under Section VI.A.

<u>3. CORRECTIVE ACTION OBSERVATION WELLS</u>	<u>SAMPLING FREQUENCY</u>
A. On-site Uppermost Transmissive Zone (existing)	
MW-4	Semi-annual
MW-5	Semi-annual
MW-7	Semi-annual
MW-8	Semi-annual
MW-9	Semi-annual

\*Point of Compliance wells noted with an asterisk are to be installed within ninety (90) days of issuance of this Compliance Plan along the property boundary between existing monitor wells MW-2 and MW-7.

**Field Parameters**  
*Appendix B*

*January 20, 2003*  
W.O. #422-102

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



TABLE B-1

## Ground Water Sampling Field Parameters

Semiannual Monitoring Report: Second Semiannual Event 2002  
Houston Wood Preserving Works  
Houston, Texas

Well ID: Date Sampled:	MW-01A 9/25/02	MW-02 9/24/02	MW-03 9/24/02	MW-04 9/23/02	MW-05 9/24/02	MW-07 9/25/02	MW-08 9/25/02	MW-09 9/24/02
Time Sampled (hrs CST)	1143	1607	1500	1403	0848	1416	1535	1720
Temperature (°C)	25.8	24.8	24.0	26.8	24.7	25.7	26.7	27.6
pH (Standard Units)	6.58	6.65	6.94	6.69	6.74	6.73	7.01	6.70
Specific Conductivity (uS)	2300	6700	7200	993	1473	5700	492	4300
Dissolved Oxygen (mg/L)	2.0	2.2	1.9	2.5	2.4	1.9	0.4	2.1
Turbidity (NTU)	3.09	0.00	0.00	0.00	4.13	0.00	4.72	0.00

Well ID: Date Sampled:	MW-10A 9/24/02	MW-10B 9/24/02	MW-11A 9/23/02	MW-11B 9/24/02	P-10 9/25/02	P-11 9/25/02	P-12 9/25/02
Time Sampled (hrs CST)	1153	1403	1544	0948	1521	1035	1420
Temperature (°C)	25.7	26.7	27.0	25.3	25.3	28.3	26.3
pH (Standard Units)	6.79	6.83	8.56	6.84	7.09	6.78	6.64
Specific Conductivity (uS)	5400	1100	2390	2400	1330	1061	1187
Dissolved Oxygen (mg/L)	1.9	1.8	1.8	2.2	1.9	1.3	2.0
Turbidity (NTU)	2.37	0.00	0.00	0.00	0.10	0.00	0.00

## NOTES:

CST - Central Standard Time

NTU = Natural Turbidity Unit

**Laboratory Analytical Reports**  
*Appendix C*

*January 20, 2003*  
W.O. #422-102

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

REVISED

ANALYTICAL REPORT

JOB NUMBER: 241573

Prepared For:

ERM Southwest, Inc. - Houston  
15810 Park Ten Place  
Suite 300  
Houston, TX 77084

Attention: Chris Young

Date: 01/02/2003

Signature

Name: Sachin G. Kudchadkar

Title: Project Manager III

E-Mail: [REDACTED]

Date

Severn Trent Laboratories  
6310 Rothway Drive  
Houston, TX 77040

PHONE: (713) 690-4444

TOTAL NO. OF PAGES

1

**REVISED**

01/02/2003

Chris Young  
ERM Southwest, Inc.- Houston  
15810 Park Ten Place  
Suite 300  
Houston, TX 77084

Project : UPRR-HWPW  
Project No. : 241573  
Date Received : 09/24/2002  
STL Job : 241573

Dear Chris Young:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

- |                    |                    |
|--------------------|--------------------|
| 1. MW04-2SAO2      | 2. MW04D-2SAO2     |
| 3. MW11A-2SAO2     | 4. MW5-2SAO2       |
| 5. MW11B-2SAO2     | 6. MW11BMS-2SAO2   |
| 7. MW11BMSD-2SAO2  | 8. MW10A-2SAO2     |
| 9. MW10AMS-2SAO2   | 10. MW10AMSD-2SAO2 |
| 11. MW10B-2SAO2    | 12. MW03-2SAO2     |
| 13. MW02-2SAO2     | 14. MW09-2SAO2     |
| 15. TB092402-2SAO2 |                    |

All holding times were met for the tests performed on these samples.

Enclosed, please find the Quality Control Summary. All quality control results for the QC batch that are applicable to the sample(s) are acceptable except as noted in the QC batch reports.

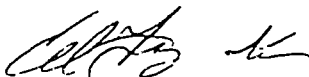
The test results in this report meet all NELAP requirements for STL Houston's NELAP accredited parameters. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting Severn-Trent Laboratories to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

Sincerely,



Sachin G. Kudchadkar  
Project Manager

REVISED

## SAMPLE INFORMATION

Date: 01/02/2003

Job Number.: 241573  
Customer....: ERM Southwest, Inc.- Houston  
Attn.....: Chris Young

Project Number.....: 99000484  
Customer Project ID....: SECOND SEMI-ANNUAL  
Project Description....: UPRR-HWPW

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
241573-1	MW04-2SA02	Water	09/23/2002	14:03	09/24/2002	18:46
241573-2	MW04D-2SA02	Water	09/23/2002	14:20	09/24/2002	18:46
241573-3	MW11A-2SA02	Water	09/23/2002	15:44	09/24/2002	18:46
241573-4	MW5-2SA02	Water	09/24/2002	08:48	09/24/2002	18:46
241573-5	MW11B-2SA02	Water	09/24/2002	09:48	09/24/2002	18:46
241573-6	MW11BMS-2SA02	Water	09/24/2002	10:00	09/24/2002	18:46
241573-7	MW11BMSD-2SA02	Water	09/24/2002	10:15	09/24/2002	18:46
241573-8	MW10A-2SA02	Water	09/24/2002	11:53	09/24/2002	18:46
241573-9	MW10AMS-2SA02	Water	09/24/2002	12:10	09/24/2002	18:46
241573-10	MW10AMSD-2SA02	Water	09/24/2002	12:30	09/24/2002	18:46
241573-11	MW10B-2SA02	Water	09/24/2002	14:03	09/24/2002	18:46
241573-12	MW03-2SA02	Water	09/24/2002	15:00	09/24/2002	18:46
241573-13	MW02-2SA02	Water	09/24/2002	16:07	09/24/2002	18:46
241573-14	MW09-2SA02	Water	09/24/2002	17:20	09/24/2002	18:46
241573-15	TB092402-2SA02	Trip Blank	09/24/2002	00:01	09/24/2002	18:46

# REVISED

Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW04-2SA02  
Date Sampled.....: 09/23/2002  
Time Sampled.....: 14:03  
Sample Matrix.....: Water

Laboratory Sample ID: 241573-1  
Date Received.....: 09/24/2002  
Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Data Package Validation	Complete					1		62329		11/07/02 0000	clu
	GC/MS VOA Validation, Water	Complete					1		62329		11/07/02 0000	clu
	GC/MS SVOA Validation, Water	Complete										
SW-846 8270C	Extraction (Sep. Funnel) SVOC Low Level	Complete					1		59596		09/27/02 1400	mra
A SW-846 8270C	Separatory Funnel Liq/Liq Extraction, Water	Complete										
	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60376		10/03/02 2057	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/03/02 2057	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60376		10/03/02 2057	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/03/02 2057	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60376		10/03/02 2057	lg1
SW-846 8270C	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/03/02 2057	lg1
	Semivolatile Organics, Low Level											
	Acenaphthene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1544	lg1
	Acenaphthylene, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 1544	lg1
	Anthracene, Water	0.5	J		0.09	2	1.00000	ug/L	60378		10/04/02 1544	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 1544	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 1544	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1544	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1544	lg1
	Dibenzofuran, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1544	lg1
	Di-n-butyl Phthalate, Water	2	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 1544	lg1
	Fluoranthene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1544	lg1
	Fluorene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1544	lg1
	2-Methylnaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1544	lg1
	Naphthalene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1544	lg1

\* In Description = Dry Wgt.

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## LABORATORY TEST RESULTS

Job Number: 241573

Date:01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW04-2SA02

Date Sampled.....: 09/23/2002

Time Sampled.....: 14:03

Sample Matrix.....: Water

Laboratory Sample ID: 241573-1

Date Received.....: 09/24/2002

Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH	
SW-846 8260B	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 1544	lg1	
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1544	lg1	
	Phenanthrene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1544	lg1	
	Pyrene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1544	lg1	
	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1544	lg1	
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60378		10/04/02 1544	lg1	
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60378		10/04/02 1544	lg1	
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 1544	lg1	
	Volatile Organics												
	Benzene, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1428	ydy	
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1428	ydy	
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1428	ydy	
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1428	ydy	
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1428	ydy	
	Toluene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1428	ydy	
Xylenes (total), Water	3	U		3	15	1.00000	ug/L	60019		09/30/02 1428	ydy		

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS												
Job Number: 241573						Date:01/02/2003						
CUSTOMER: ERM Southwest, Inc.- Houston						PROJECT: SECOND SEMI-ANNUAL				ATTN: Chris Young		
Customer Sample ID: MW04D-2SA02 Date Sampled.....: 09/23/2002 Time Sampled.....: 14:20 Sample Matrix.....: Water						Laboratory Sample ID: 241573-2 Date Received.....: 09/24/2002 Time Received.....: 18:46						
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60376		10/03/02 2125	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/03/02 2125	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60376		10/03/02 2125	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/03/02 2125	lg1
	Pentachlorophenol, Water	0.2	J		0.01	1	1.00000	ug/L	60376		10/03/02 2125	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/03/02 2125	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Acenaphthylene, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Anthracene, Water	0.6	J		0.09	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 1612	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Dibenzofuran, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Di-n-butyl Phthalate, Water	2	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Fluoranthene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Fluorene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	2-Methylnaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Naphthalene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Phenanthrene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Pyrene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1612	lg1

\* In Description = Dry Wgt.

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Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW04D-2SA02

Date Sampled.....: 09/23/2002

Time Sampled.....: 14:20

Sample Matrix.....: Water

Laboratory Sample ID: 241573-2

Date Received.....: 09/24/2002

Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 8260B	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60378		10/04/02 1612	lg1
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60378		10/04/02 1612	lg1
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 1612	lg1
	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1457	ydy
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1457	ydy
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1457	ydy
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1457	ydy
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1457	ydy
	Toluene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1457	ydy
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	60019		09/30/02 1457	ydy

\* In Description = Dry Wgt.

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Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW11A-2SA02  
 Date Sampled.....: 09/23/2002  
 Time Sampled.....: 15:44  
 Sample Matrix.....: Water

Laboratory Sample ID: 241573-3  
 Date Received.....: 09/24/2002  
 Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60376		10/03/02 2152	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/03/02 2152	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60376		10/03/02 2152	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/03/02 2152	lg1
	Pentachlorophenol, Water	1			0.01	1	1.00000	ug/L	60376		10/03/02 2152	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/03/02 2152	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	270			0.7	15	10.00000	ug/L	60378		10/09/02 2307	lg1
	Acenaphthylene, Water	3			0.06	2	1.00000	ug/L	60378		10/04/02 1639	lg1
	Anthracene, Water	9			0.09	2	1.00000	ug/L	60378		10/04/02 1639	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 1639	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 1639	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1639	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1639	lg1
	Dibenzofuran, Water	99			0.7	15	10.00000	ug/L	60378		10/09/02 2307	lg1
	Di-n-butyl Phthalate, Water	0.9	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 1639	lg1
	Fluoranthene, Water	12			0.09	2	1.00000	ug/L	60378		10/04/02 1639	lg1
	Fluorene, Water	150			0.7	15	10.00000	ug/L	60378		10/09/02 2307	lg1
	2-Methylnaphthalene, Water	73			0.7	15	10.00000	ug/L	60378		10/09/02 2307	lg1
	Naphthalene, Water	490			1	20	10.00000	ug/L	60378		10/09/02 2307	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 1639	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1639	lg1
	Phenanthrene, Water	70			0.9	15	10.00000	ug/L	60378		10/09/02 2307	lg1
	Pyrene, Water	7			0.09	2	1.00000	ug/L	60378		10/04/02 1639	lg1

\* In Description = Dry Wgt.

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Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW11A-2SA02  
 Date Sampled.....: 09/23/2002  
 Time Sampled.....: 15:44  
 Sample Matrix.....: Water

Laboratory Sample ID: 241573-3  
 Date Received.....: 09/24/2002  
 Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 82608          6	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1639	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60378		10/04/02 1639	lg1
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60378		10/04/02 1639	lg1
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 1639	lg1
	Volatile Organics											
	Benzene, Water	2	J		2	5	1.00000	ug/L	60019		09/30/02 1525	ydy
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1525	ydy
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1525	ydy
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1525	ydy
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1525	ydy
	Toluene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1525	ydy
	Xylenes (total), Water	7	J		3	15	1.00000	ug/L	60019		09/30/02 1525	ydy

\* In Description = Dry Wgt.

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Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

 Customer Sample ID: MW5-2SA02  
 Date Sampled.....: 09/24/2002  
 Time Sampled.....: 08:48  
 Sample Matrix.....: Water

 Laboratory Sample ID: 241573-4  
 Date Received.....: 09/24/2002  
 Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60376		10/03/02 2220	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/03/02 2220	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60376		10/03/02 2220	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/03/02 2220	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60376		10/03/02 2220	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/03/02 2220	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	3			0.07	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Acenaphthylene, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Anthracene, Water	0.4	J		0.09	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 1707	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Dibenzofuran, Water	0.09	J		0.07	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Di-n-butyl Phthalate, Water	0.9	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Fluoranthene, Water	0.3	J		0.09	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Fluorene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	2-Methylnaphthalene, Water	0.09	J		0.07	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Naphthalene, Water	0.1	J		0.1	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Phenanthrene, Water	0.1	J		0.09	2	1.00000	ug/L	60378		10/04/02 1707	lg1
	Pyrene, Water	0.4	J		0.09	2	1.00000	ug/L	60378		10/04/02 1707	lg1

\* In Description = Dry Wgt.

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TEST METHOD		PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 82608		2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1707	lg1
		2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60378		10/04/02 1707	lg1
		4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60378		10/04/02 1707	lg1
		Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 1707	lg1
		Volatile Organics											
		Benzene, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1553	ydy
		Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1553	ydy
		1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1553	ydy
		Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1553	ydy
		Methylene Chloride, Water	2	J		2	5	1.00000	ug/L	60019		09/30/02 1553	ydy
		Toluene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1553	ydy
		Xylenes (total), Water	3	U		3	15	1.00000	ug/L	60019		09/30/02 1553	ydy

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Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW118-2SA02  
 Date Sampled.....: 09/24/2002  
 Time Sampled.....: 09:48  
 Sample Matrix.....: Water

Laboratory Sample ID: 241573-5  
 Date Received.....: 09/24/2002  
 Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60376		10/03/02 2248	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/03/02 2248	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60376		10/03/02 2248	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/03/02 2248	lg1
	Pentachlorophenol, Water	0.3	J		0.01	1	1.00000	ug/L	60376		10/03/02 2248	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/03/02 2248	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	210			0.7	15	10.00000	ug/L	60378		10/09/02 2334	lg1
	Acenaphthylene, Water	3			0.06	2	1.00000	ug/L	60378		10/04/02 1734	lg1
	Anthracene, Water	9			0.09	2	1.00000	ug/L	60378		10/04/02 1734	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 1734	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 1734	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1734	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1734	lg1
	Dibenzofuran, Water	120			0.7	15	10.00000	ug/L	60378		10/09/02 2334	lg1
	Di-n-butyl Phthalate, Water	0.8	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 1734	lg1
	Fluoranthene, Water	8			0.09	2	1.00000	ug/L	60378		10/04/02 1734	lg1
	Fluorene, Water	120			0.7	15	10.00000	ug/L	60378		10/09/02 2334	lg1
	2-Methylnaphthalene, Water	92			0.7	15	10.00000	ug/L	60378		10/09/02 2334	lg1
	Naphthalene, Water	700			4	80	40.00000	ug/L	60378		10/10/02 0001	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 1734	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1734	lg1
	Phenanthrene, Water	84			0.9	15	10.00000	ug/L	60378		10/09/02 2334	lg1
	Pyrene, Water	4			0.09	2	1.00000	ug/L	60378		10/04/02 1734	lg1

\* In Description = Dry Wgt.

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[illegible]

# REVISED

Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW11BMS-2SA02

Date Sampled.....: 09/24/2002

Time Sampled.....: 10:00

Sample Matrix.....: Water

Laboratory Sample ID: 241573-6

Date Received.....: 09/24/2002

Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatiles Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60376		10/03/02 2315	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/03/02 2315	lg1
	2,4-Dinitrotoluene, Water	13			0.2	10	10.00000	ug/L	60376		10/09/02 1143	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/03/02 2315	lg1
	Pentachlorophenol, Water	20			0.1	10	10.00000	ug/L	60376		10/09/02 1143	lg1
	1,2-Diphenylhydrazine, Water	0.9	J		0.006	1	1.00000	ug/L	60376		10/03/02 2315	lg1
SW-846 8270C	Semivolatiles Organics, Low Level											
	Acenaphthene, Water	260			0.7	15	10.00000	ug/L	60378		10/10/02 0029	lg1
	Acenaphthylene, Water	3			0.06	2	1.00000	ug/L	60378		10/04/02 1802	lg1
	Anthracene, Water	9			0.09	2	1.00000	ug/L	60378		10/04/02 1802	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 1802	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 1802	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1802	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1802	lg1
	Dibenzofuran, Water	140			0.7	15	10.00000	ug/L	60378		10/10/02 0029	lg1
	Di-n-butyl Phthalate, Water	0.8	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 1802	lg1
	Fluoranthene, Water	8			0.09	2	1.00000	ug/L	60378		10/04/02 1802	lg1
	Fluorene, Water	130			0.7	15	10.00000	ug/L	60378		10/10/02 0029	lg1
	2-Methylnaphthalene, Water	110			0.7	15	10.00000	ug/L	60378		10/10/02 0029	lg1
	Naphthalene, Water	910			4	80	40.00000	ug/L	60378		10/10/02 0056	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 1802	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1802	lg1
	Phenanthrene, Water	95			0.9	15	10.00000	ug/L	60378		10/10/02 0029	lg1
	Pyrene, Water	14			0.09	2	1.00000	ug/L	60378		10/04/02 1802	lg1

\* In Description = Dry Wgt.

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## LABORATORY TEST RESULTS

Job Number: 241573

Date:01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW11BMS-2SA02

Date Sampled.....: 09/24/2002

Time Sampled.....: 10:00

Sample Matrix.....: Water

Laboratory Sample ID: 241573-6

Date Received.....: 09/24/2002

Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 8260B	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1802	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60378		10/04/02 1802	lg1
	4-Nitrophenol, Water	10			0.4	7	1.00000	ug/L	60378		10/04/02 1802	lg1
	Phenol, Water	7			0.06	2	1.00000	ug/L	60378		10/04/02 1802	lg1
	Volatile Organics											
	Benzene, Water	58			2	5	1.00000	ug/L	60019		10/03/02 1340	ydy
	Chlorobenzene, Water	61			1	5	1.00000	ug/L	60019		10/03/02 1340	ydy
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	60019		10/03/02 1340	ydy
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	60019		10/03/02 1340	ydy
	Methylene Chloride, Water	16			2	5	1.00000	ug/L	60019		10/03/02 1340	ydy
	Toluene, Water	61			1	5	1.00000	ug/L	60019		10/03/02 1340	ydy
	Xylenes (total), Water	5	J		3	15	1.00000	ug/L	60019		10/03/02 1340	ydy

\* In Description = Dry Wgt.

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Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW11BMSD-2SAO2  
Date Sampled.....: 09/24/2002  
Time Sampled.....: 10:15  
Sample Matrix.....: Water

Laboratory Sample ID: 241573-7  
Date Received.....: 09/24/2002  
Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.06	J		0.01	0.2	1.00000	ug/L	60376		10/03/02 2343	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/03/02 2343	lg1
	2,4-Dinitrotoluene, Water	13			0.2	10	10.00000	ug/L	60376		10/09/02 1210	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/03/02 2343	lg1
	Pentachlorophenol, Water	19			0.1	10	10.00000	ug/L	60376		10/09/02 1210	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/03/02 2343	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	240			0.7	15	10.00000	ug/L	60378		10/10/02 0123	lg1
	Acenaphthylene, Water	3			0.06	2	1.00000	ug/L	60378		10/04/02 1829	lg1
	Anthracene, Water	21			0.09	2	1.00000	ug/L	60378		10/04/02 1829	lg1
	Benzo(a)anthracene, Water	0.3	J		0.02	1	1.00000	ug/L	60378		10/04/02 1829	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 1829	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1829	lg1
	Chrysene, Water	0.3	J		0.1	2	1.00000	ug/L	60378		10/04/02 1829	lg1
	Dibenzofuran, Water	130			0.7	15	10.00000	ug/L	60378		10/10/02 0123	lg1
	Di-n-butyl Phthalate, Water	0.9	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 1829	lg1
	Fluoranthene, Water	8			0.09	2	1.00000	ug/L	60378		10/04/02 1829	lg1
	Fluorene, Water	120			0.7	15	10.00000	ug/L	60378		10/10/02 0123	lg1
	2-Methylnaphthalene, Water	110			0.7	15	10.00000	ug/L	60378		10/10/02 0123	lg1
	Naphthalene, Water	840			4	80	40.00000	ug/L	60378		10/10/02 0151	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 1829	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1829	lg1
	Phenanthrene, Water	90			0.9	15	10.00000	ug/L	60378		10/10/02 0123	lg1
	Pyrene, Water	14			0.09	2	1.00000	ug/L	60378		10/04/02 1829	lg1

\* In Description = Dry Wgt.

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## LABORATORY TEST RESULTS

Job Number: 241573

Date:01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW118MSD-2SA02

Date Sampled.....: 09/24/2002

Time Sampled.....: 10:15

Sample Matrix.....: Water

Laboratory Sample ID: 241573-7

Date Received.....: 09/24/2002

Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 8260B  17	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1829	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60378		10/04/02 1829	lg1
	4-Nitrophenol, Water	9			0.4	7	1.00000	ug/L	60378		10/04/02 1829	lg1
	Phenol, Water	7			0.06	2	1.00000	ug/L	60378		10/04/02 1829	lg1
	Volatile Organics											
	Benzene, Water	52			2	5	1.00000	ug/L	60019		10/03/02 1409	ydy
	Chlorobenzene, Water	55			1	5	1.00000	ug/L	60019		10/03/02 1409	ydy
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	60019		10/03/02 1409	ydy
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	60019		10/03/02 1409	ydy
	Methylene Chloride, Water	11			2	5	1.00000	ug/L	60019		10/03/02 1409	ydy
	Toluene, Water	55			1	5	1.00000	ug/L	60019		10/03/02 1409	ydy
	Xylenes (total), Water	5	J		3	15	1.00000	ug/L	60019		10/03/02 1409	ydy

\* In Description = Dry Wgt.

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Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW10A-2SA02  
 Date Sampled.....: 09/24/2002  
 Time Sampled.....: 11:53  
 Sample Matrix.....: Water

Laboratory Sample ID: 241573-8  
 Date Received.....: 09/24/2002  
 Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60376		10/04/02 0011	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/04/02 0011	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60376		10/04/02 0011	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/04/02 0011	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60376		10/04/02 0011	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/04/02 0011	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Acenaphthylene, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Anthracene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 1857	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Dibenzofuran, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Di-n-butyl Phthalate, Water	0.8	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Fluoranthene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Fluorene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	2-Methylnaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Naphthalene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Phenanthrene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1857	lg1
	Pyrene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1857	lg1

\* In Description = Dry Wgt.

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## Job Number: 241573

Date:01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW10A-2SA02

Date Sampled.....: 09/24/2002

Time Sampled.....: 11:53

Sample Matrix.....: Water

Laboratory Sample ID: 241573-8

Date Received.....: 09/24/2002

Time Received.....: 18:46

[illegible]

\* In Description = Dry Wgt.

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Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW10AMS-2SA02

Date Sampled.....: 09/24/2002

Time Sampled.....: 12:10

Sample Matrix.....: Water

Laboratory Sample ID: 241573-9

Date Received.....: 09/24/2002

Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	J		0.01	0.2	1.00000	ug/L	60376		10/04/02 0038	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/04/02 0038	lg1
	2,4-Dinitrotoluene, Water	12			0.2	10	10.00000	ug/L	60376		10/09/02 1236	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/04/02 0038	lg1
	Pentachlorophenol, Water	13			0.1	10	10.00000	ug/L	60376		10/09/02 1236	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/04/02 0038	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	8			0.07	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Acenaphthylene, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Anthracene, Water	0.1	J		0.09	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 1924	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Dibenzofuran, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Di-n-butyl Phthalate, Water	0.8	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Fluoranthene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Fluorene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	2-Methylnaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Naphthalene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Phenanthrene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1924	lg1
	Pyrene, Water	9			0.09	2	1.00000	ug/L	60378		10/04/02 1924	lg1

\* In Description = Dry Wgt.

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## LABORATORY TEST RESULTS

Job Number: 241573

Date:01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW10AMS-2SA02

Date Sampled.....: 09/24/2002

Time Sampled.....: 12:10

Sample Matrix.....: Water

Laboratory Sample ID: 241573-9

Date Received.....: 09/24/2002

Time Received.....: 18:46

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\* In Description = Dry Wgt.

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Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW10AMSD-2SA02  
Date Sampled.....: 09/24/2002  
Time Sampled.....: 12:30  
Sample Matrix.....: Water

Laboratory Sample ID: 241573-10  
Date Received.....: 09/24/2002  
Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatiles Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.02	J		0.01	0.2	1.00000	ug/L	60376		10/04/02 0106	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/04/02 0106	lg1
	2,4-Dinitrotoluene, Water	13			0.2	10	10.00000	ug/L	60376		10/09/02 1303	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/04/02 0106	lg1
	Pentachlorophenol, Water	13			0.1	10	10.00000	ug/L	60376		10/09/02 1303	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/04/02 0106	lg1
SW-846 8270C	Semivolatiles Organics, Low Level											
	Acenaphthene, Water	8			0.07	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Acenaphthylene, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Anthracene, Water	0.2	J		0.09	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 1952	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Dibenzofuran, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Di-n-butyl Phthalate, Water	0.8	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Fluoranthene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Fluorene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	2-Methylnaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Naphthalene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Phenanthrene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 1952	lg1
	Pyrene, Water	9			0.09	2	1.00000	ug/L	60378		10/04/02 1952	lg1

\* In Description = Dry Wgt.

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## LABORATORY TEST RESULTS

Job Number: 241573

Date:01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW10AMSD-2SA02

Date Sampled.....: 09/24/2002

Time Sampled.....: 12:30

Sample Matrix.....: Water

Laboratory Sample ID: 241573-10

Date Received.....: 09/24/2002

Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	O	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 8260B   <												

\* In Description = Dry Wgt.

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Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW10B-2SA02  
 Date Sampled.....: 09/24/2002  
 Time Sampled.....: 14:03  
 Sample Matrix.....: Water

Laboratory Sample ID: 241573-11  
 Date Received.....: 09/24/2002  
 Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60376		10/04/02 0133	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/04/02 0133	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60376		10/04/02 0133	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/04/02 0133	lg1
	Pentachlorophenol, Water	0.5	J		0.01	1	1.00000	ug/L	60376		10/04/02 0133	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/04/02 0133	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	150			0.7	15	10.00000	ug/L	60378		10/10/02 0218	lg1
	Acenaphthylene, Water	2			0.06	2	1.00000	ug/L	60378		10/04/02 2019	lg1
	Anthracene, Water	6			0.09	2	1.00000	ug/L	60378		10/04/02 2019	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 2019	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	J		0.4	2	1.00000	ug/L	60378		10/04/02 2019	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 2019	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 2019	lg1
	Dibenzofuran, Water	76			0.7	15	10.00000	ug/L	60378		10/10/02 0218	lg1
	Di-n-butyl Phthalate, Water	1	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 2019	lg1
	Fluoranthene, Water	5			0.09	2	1.00000	ug/L	60378		10/04/02 2019	lg1
	Fluorene, Water	86			0.7	15	10.00000	ug/L	60378		10/10/02 0218	lg1
	2-Methylnaphthalene, Water	18			0.07	2	1.00000	ug/L	60378		10/04/02 2019	lg1
	Naphthalene, Water	330			1	20	10.00000	ug/L	60378		10/10/02 0218	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 2019	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 2019	lg1
	Phenanthrene, Water	44			0.09	2	1.00000	ug/L	60378		10/04/02 2019	lg1
	Pyrene, Water	3			0.09	2	1.00000	ug/L	60378		10/04/02 2019	lg1

\* In Description = Dry Wgt.

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Job Number: 241573

LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW03-2SA02  
 Date Sampled.....: 09/24/2002  
 Time Sampled.....: 15:00  
 Sample Matrix.....: Water

Laboratory Sample ID: 241573-12  
 Date Received.....: 09/24/2002  
 Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatiles Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60376		10/04/02 0201	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/04/02 0201	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60376		10/04/02 0201	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/04/02 0201	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60376		10/04/02 0201	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/04/02 0201	lg1
SW-846 8270C	Semivolatiles Organics, Low Level											
	Acenaphthene, Water	110			0.4	8	5.00000	ug/L	60378		10/10/02 0245	lg1
	Acenaphthylene, Water	1	J		0.06	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	Anthracene, Water	3			0.09	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 2047	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	Dibenzofuran, Water	63			0.4	8	5.00000	ug/L	60378		10/10/02 0245	lg1
	Di-n-butyl Phthalate, Water	0.9	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	Fluoranthene, Water	9			0.09	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	Fluorene, Water	64			0.4	8	5.00000	ug/L	60378		10/10/02 0245	lg1
	2-Methylnaphthalene, Water	0.07	J		0.07	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	Naphthalene, Water	0.2	J		0.1	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	Phenanthrene, Water	0.6	J		0.09	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	Pyrene, Water	5			0.09	2	1.00000	ug/L	60378		10/04/02 2047	lg1

\* In Description = Dry Wgt.

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Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW03-2SA02  
Date Sampled.....: 09/24/2002  
Time Sampled.....: 15:00  
Sample Matrix.....: Water

Laboratory Sample ID: 241573-12  
Date Received.....: 09/24/2002  
Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 8260B       27	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60378		10/04/02 2047	lg1
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60378		10/04/02 2047	lg1
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 2047	lg1
	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1938	ydy
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1938	ydy
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1938	ydy
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1938	ydy
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1938	ydy
	Toluene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1938	ydy
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	60019		09/30/02 1938	ydy

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS													
Job Number: 241573						Date:01/02/2003							
CUSTOMER: ERM Southwest, Inc.- Houston						PROJECT: SECOND SEMI-ANNUAL						ATTN: Chris Young	
Customer Sample ID: MW02-2SA02 Date Sampled.....: 09/24/2002 Time Sampled.....: 16:07 Sample Matrix.....: Water						Laboratory Sample ID: 241573-13 Date Received.....: 09/24/2002 Time Received.....: 18:46							
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH	
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra	
SW-846 8270C	Semivolatile Organics - SIM Analysis												
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60376		10/04/02 0229	lg1	
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/04/02 0229	lg1	
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60376		10/04/02 0229	lg1	
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/04/02 0229	lg1	
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60376		10/04/02 0229	lg1	
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/04/02 0229	lg1	
SW-846 8270C	Semivolatile Organics, Low Level												
	Acenaphthene, Water	20			0.07	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Acenaphthylene, Water	0.4	J		0.06	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Anthracene, Water	1	J		0.09	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 2114	lg1	
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Dibenzofuran, Water	14			0.07	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Di-n-butyl Phthalate, Water	0.8	J	b	0.3	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Fluoranthene, Water	1	J		0.09	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Fluorene, Water	14			0.07	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	2-Methylnaphthalene, Water	0.4	J		0.07	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Naphthalene, Water	13			0.1	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Phenanthrene, Water	1	J		0.09	2	1.00000	ug/L	60378		10/04/02 2114	lg1	
	Pyrene, Water	0.7	J		0.09	2	1.00000	ug/L	60378		10/04/02 2114	lg1	

\* In Description = Dry Wgt.

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## LABORATORY TEST RESULTS

Job Number: 241573

Date:01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW02-2SA02

Date Sampled.....: 09/24/2002

Time Sampled.....: 16:07

Sample Matrix.....: Water

Laboratory Sample ID: 241573-13

Date Received.....: 09/24/2002

Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 82608  <												

\* In Description = Dry Wgt.

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REVISED

Job Number: 241573

## LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW09-2SA02  
Date Sampled.....: 09/24/2002  
Time Sampled.....: 17:20  
Sample Matrix.....: Water

Laboratory Sample ID: 241573-14  
Date Received.....: 09/24/2002  
Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59596		09/27/02 1400	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60376		10/04/02 0256	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60376		10/04/02 0256	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60376		10/04/02 0256	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60376		10/04/02 0256	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60376		10/04/02 0256	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60376		10/04/02 0256	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Acenaphthylene, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Anthracene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60378		10/04/02 2142	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Dibenzofuran, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Di-n-butyl Phthalate, Water	5	U	b	0.3	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Fluoranthene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Fluorene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	2-Methylnaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Naphthalene, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Phenanthrene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Pyrene, Water	0.09	U		0.09	2	1.00000	ug/L	60378		10/04/02 2142	lg1

\* In Description = Dry Wgt.

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Job Number: 241573		LABORATORY TEST RESULTS				Date:01/02/2003						
CUSTOMER: ERM Southwest, Inc.- Houston		PROJECT: SECOND SEMI-ANNUAL				ATTN: Chris Young						
Customer Sample ID: MW09-2SA02 Date Sampled.....: 09/24/2002 Time Sampled.....: 17:20 Sample Matrix.....: Water		Laboratory Sample ID: 241573-14 Date Received.....: 09/24/2002 Time Received.....: 18:46										
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 8260B  31	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60378		10/04/02 2142	lg1
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60378		10/04/02 2142	lg1
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60378		10/04/02 2142	lg1
	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 2034	ydy
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 2034	ydy
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 2034	ydy
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 2034	ydy
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 2034	ydy
	Toluene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 2034	ydy
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	60019		09/30/02 2034	ydy

\* In Description = Dry Wgt.

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REVISED

Job Number: 241573

LABORATORY TEST RESULTS

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: T8092402-2SA02  
 Date Sampled.....: 09/24/2002  
 Time Sampled.....: 00:01  
 Sample Matrix.....: Trip Blank

Laboratory Sample ID: 241573-15  
 Date Received.....: 09/24/2002  
 Time Received.....: 18:46

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 8260B	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1400	ydy
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1400	ydy
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	60019		09/30/02 1400	ydy
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1400	ydy
	Methylene Chloride, Water	3	J		2	5	1.00000	ug/L	60019		09/30/02 1400	ydy
	Toluene, Water	1	U		1	5	1.00000	ug/L	60019		09/30/02 1400	ydy
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	60019		09/30/02 1400	ydy

\* In Description = Dry Wgt.

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REVISED

## QUALITY CONTROL RESULTS

Job Number.: 241573

Report Date.: 01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: SW-846 8270C

Units.....: ug/L

Analyst....: lg1

Method Description.: Semivolatile Organics - SIM Analysis

Batch(s)....: 60376

LCS	Laboratory Control Sample	SVS092502R	59596-1	10.00000	10/03/2002	2029
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzo(a)pyrene, Water	0.46787		0.500000		93.6	30-130	
bis(2-chloroethoxy)methane, Water	0.50702		0.500000		101.4	60-140	
2,4-Dinitrotoluene, Water	0.57705		0.500000		115.4	60-140	
2,6-Dinitrotoluene, Water	0.55305		0.500000		110.6	60-140	
Pentachlorophenol, Water	0.69531		0.500000		139.1	60-140	
1,2-Diphenylhydrazine, Water	0.58280		0.500000		116.6	60-140	

MB	Method Blank	SVS091202F	59596-1		10/03/2002	2002
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzo(a)pyrene, Water	0						
bis(2-chloroethoxy)methane, Water	0						
2,4-Dinitrotoluene, Water	0						
2,6-Dinitrotoluene, Water	0						
Pentachlorophenol, Water	0						
1,2-Diphenylhydrazine, Water	0						

MS	Matrix Spike	SVS090502B	241573-6	10.00000	10/09/2002	1143
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
2,4-Dinitrotoluene, Water	0.66699		0.500000	0	133	60-140	
Pentachlorophenol, Water	0.99398		1.000000	0.15521	84	60-140	

MS	Matrix Spike	SVS090502B	241573-9	10.00000	10/09/2002	1236
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
2,4-Dinitrotoluene, Water	0.62138		0.500000	0	124	60-140	
Pentachlorophenol, Water	0.65281		1.000000	0	65	60-140	

MSD	Matrix Spike Duplicate	SVS090502B	241573-7	10.00000	10/09/2002	1210
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
2,4-Dinitrotoluene, Water	0.63674	0.66699	0.500000	0	127	60-140	
Pentachlorophenol, Water	0.95329	0.99398	1.000000	0.15521	80	60-140	

REVISED

Job Number.: 241573

## QUALITY CONTROL RESULTS

Report Date.: 01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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MSD	Matrix Spike Duplicate	SVS090502B	241573-10	10.00000	10/09/2002	1303
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
2,4-Dinitrotoluene, Water	0.64564	0.62138	0.500000	0	129	60-140	
Pentachlorophenol, Water	0.67323	0.65281	1.000000	0	67	60-140	

Test Method.....: SW-846 8270C

Units.....: ug/L

Analyst....: lgl

Method Description.: Semivolatile Organics, Low Level

Batch(s)....: 60378

LCS	Laboratory Control Sample	SVS092502R	59596-2		10/04/2002	1131
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Acenaphthene, Water	3.56123		5.000000		71.2	32-165	
Acenaphthylene, Water	3.19189		5.000000		63.8	10-150	
Anthracene, Water	3.60662		5.000000		72.1	23-178	
Benzo(a)anthracene, Water	3.58773		5.000000		71.8	25-180	
bis(2-ethylhexyl)phthalate, Water	3.40505		5.000000		68.1	25-173	
2-Chloronaphthalene, Water	3.73551		5.000000		74.7	23-143	
Chrysene, Water	3.82777		5.000000		76.6	23-180	
Dibenzofuran, Water	3.52922		5.000000		70.6	35-153	
Di-n-butyl Phthalate, Water	4.87061		5.000000		97.4	28-185	
Fluoranthene, Water	3.97540		5.000000		79.5	28-180	
Fluorene, Water	3.47807		5.000000		69.6	30-189	
2-Methylnaphthalene, Water	3.61024		5.000000		72.2	26-168	
Naphthalene, Water	3.57786		5.000000		71.6	36-139	
Nitrobenzene, Water	3.66031		5.000000		73.2	17-163	
n-Nitrosodiphenylamine, Water	4.36649		5.000000		87.3	58-174	
Phenanthrene, Water	3.73885		5.000000		74.8	26-166	
Pyrene, Water	3.21972		5.000000		64.4	28-173	
2,4-Dimethylphenol, Water	3.19143		5.000000		63.8	23-157	
2-Methyl-4,6-dinitrophenol, Water	3.88837		5.000000		77.8	17-164	
4-Nitrophenol, Water	1.37979		5.000000		27.6	10-92	
Phenol, Water	1.65200		5.000000		33.0	20-83	

MB	Method Blank	SVS091202F	59596-2		10/04/2002	1103
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Acenaphthene, Water	0						
Acenaphthylene, Water	0						
Anthracene, Water	0						
Benzo(a)anthracene, Water	0						
bis(2-ethylhexyl)phthalate, Water	0.16261						
2-Chloronaphthalene, Water	0						
Chrysene, Water	0						
Dibenzofuran, Water	0						
Di-n-butyl Phthalate, Water	0.33923						
Fluoranthene, Water	0						
Fluorene, Water	0						
2-Methylnaphthalene, Water	0						
Naphthalene, Water	0						
Nitrobenzene, Water	0						
n-Nitrosodiphenylamine, Water	0						

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Job Number.: 241573

## QUALITY CONTROL RESULTS

Report Date.: 01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	SVS091202F	59596-2		10/04/2002	1103

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Phenanthrene, Water	0						
Pyrene, Water	0						
2,4-Dimethylphenol, Water	0						
2-Methyl-4,6-dinitrophenol, Water	0						
4-Nitrophenol, Water	0						
Phenol, Water	0						

MS	Matrix Spike	SVS090502B	241573-6		10/04/2002	1802
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Acenaphthene, Water	68.2633		5.000000	62.6356	113	46-118	
Pyrene, Water	6.93793		5.000000	2.18408	95	26-115	
4-Nitrophenol, Water	5.13531		10.000000	0	51	10-80	
Phenol, Water	3.63745		10.000000	0	36	10-112	

MS	Matrix Spike	SVS090502B	241573-9		10/04/2002	1924
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Acenaphthene, Water	3.76095		5.000000	0	75	46-118	
Pyrene, Water	4.69546		5.000000	0	94	26-115	
4-Nitrophenol, Water	2.92462		10.000000	0	29	10-80	
Phenol, Water	2.62162		10.000000	0	26	10-112	

MSD	Matrix Spike Duplicate	SVS090502B	241573-7		10/04/2002	1829
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Acenaphthene, Water	64.8556	68.2633	5.000000	62.6356	44	46-118	A
					87.3	31.0	
Pyrene, Water	6.95066	6.93793	5.000000	2.18408	95	26-115	
					0.2	31.0	
4-Nitrophenol, Water	4.68214	5.13531	10.000000	0	47	10-80	
					9.2	50.0	
Phenol, Water	3.27944	3.63745	10.000000	0	33	10-112	
					10.4	23.0	

MSD	Matrix Spike Duplicate	SVS090502B	241573-10		10/04/2002	1952
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Acenaphthene, Water	3.80551	3.76095	5.000000	0	76	46-118	
					1.2	31.0	
Pyrene, Water	4.58988	4.69546	5.000000	0	92	26-115	
					2.3	31.0	
4-Nitrophenol, Water	3.03453	2.92462	10.000000	0	30	10-80	
					3.7	50.0	
Phenol, Water	2.59293	2.62162	10.000000	0	26	10-112	
					1.1	23.0	

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QUALITY CONTROL RESULTS					
Job Number.: 241573			Report Date.: 01/02/2003		
CUSTOMER: ERM Southwest, Inc.- Houston		PROJECT: SECOND SEMI-ANNUAL		ATTN:	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time

Test Method.....: SW-846 8260B      Units.....: ug/L      Analyst....: ydy  
Method Description.: Volatile Organics      Batch(s)....: 60019 60101

LCS	Laboratory Control Sample	VS091802E			09/30/2002 1043
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	56.3280		50.00	ND	112.7	68-127	
Chlorobenzene, Water	57.5948		50.00	ND	115.2	65-129	
1,2-Dichloroethane, Water	54.0642		50.00	ND	108.1	65-133	
Ethylbenzene, Water	60.2962		50.00	ND	120.6	64-132	
Methylene Chloride, Water	53.2116		50.00	ND	106.4	54-133	
Toluene, Water	57.2123		50.00	ND	114.4	63-127	
Xylenes (total), Water	173.468		150.00	ND	115.6	37-161	

LCS	Laboratory Control Sample	VS091802E			10/03/2002 1145
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	48.5612		50.00	ND	97.1	68-127	
Chlorobenzene, Water	50.1842		50.00	ND	100.4	65-129	
1,2-Dichloroethane, Water	48.8725		50.00	ND	97.7	65-133	
Ethylbenzene, Water	51.5005		50.00	ND	103.0	64-132	
Methylene Chloride, Water	50.5391		50.00	4.23450	101.1	54-133	
Toluene, Water	49.2194		50.00	ND	98.4	63-127	
Xylenes (total), Water	149.847		150.00	ND	99.9	37-161	

MB	Method Blank	VS091802C			09/30/2002 1139
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	ND						
Chlorobenzene, Water	ND						
1,2-Dichloroethane, Water	ND						
Ethylbenzene, Water	ND						
Methylene Chloride, Water	ND						
Toluene, Water	ND						
Xylenes (total), Water	ND						

MB	Method Blank	VS091802C			10/03/2002 1214
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	ND						
Chlorobenzene, Water	ND						
1,2-Dichloroethane, Water	ND						
Ethylbenzene, Water	ND						
Methylene Chloride, Water	4.23450						
Toluene, Water	ND						
Xylenes (total), Water	ND						

REVISED

## QUALITY CONTROL RESULTS

Job Number.: 241573

Report Date.: 01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MS	Matrix Spike	VS091802F	241568-15		09/30/2002	1236

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	49.2201		50.00	ND	98	65-125	
Chlorobenzene, Water	53.2358		50.00	ND	106	74-122	
Toluene, Water	52.3296		50.00	ND	105	76-125	

MS	Matrix Spike	VS091802F	241573-6		10/03/2002	1340
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	57.5088		50.00	ND	115	65-125	
Chlorobenzene, Water	61.1500		50.00	ND	122	74-122	
Toluene, Water	60.8660		50.00	1.03355	120	76-125	

MSD	Matrix Spike Duplicate	VS091802F	241568-16		09/30/2002	1304
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	44.4657	49.2201	50.00	ND	89	65-125	
					10.1	30.0	
Chlorobenzene, Water	48.3645	53.2358	50.00	ND	97	74-122	
					9.6	30.0	
Toluene, Water	47.6944	52.3296	50.00	ND	95	76-125	
					9.3	30.0	

MSD	Matrix Spike Duplicate	VS091802F	241573-7		10/03/2002	1409
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	51.9328	57.5088	50.00	ND	104	65-125	
					10.2	30.0	
Chlorobenzene, Water	54.6713	61.1500	50.00	ND	109	74-122	
					11.2	30.0	
Toluene, Water	55.0459	60.8660	50.00	1.03355	108	76-125	
					10.0	30.0	

LCS	Laboratory Control Sample	VS100202E			10/04/2002	1108
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	49.1893		50.00	ND	98.4	68-127	
Chlorobenzene, Water	49.0038		50.00	ND	98.0	65-129	
1,2-Dichloroethane, Water	50.7718		50.00	ND	101.5	65-133	
Ethylbenzene, Water	50.4236		50.00	ND	100.8	64-132	
Methylene Chloride, Water	51.5259		50.00	1.03826	103.1	54-133	
Toluene, Water	48.2602		50.00	ND	96.5	63-127	
Xylenes (total), Water	145.838		150.00	ND	97.2	37-161	

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Job Number.: 241573

## QUALITY CONTROL RESULTS

Report Date.: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MB	Method Blank	VS100202C			10/04/2002	1136

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	ND						
Chlorobenzene, Water	ND						
1,2-Dichloroethane, Water	ND						
Ethylbenzene, Water	ND						
Methylene Chloride, Water	1.03826						
Toluene, Water	ND						
Xylenes (total), Water	ND						

MS	Matrix Spike	VS100202F	241573-9		10/04/2002	1303
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	45.4089		50.00	ND	91	65-125	
Chlorobenzene, Water	47.1635		50.00	ND	94	74-122	
Toluene, Water	47.0432		50.00	ND	94	76-125	

MSD	Matrix Spike Duplicate	VS100202F	241573-10		10/04/2002	1333
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	47.5782	45.4089	50.00	ND	95	65-125	
					4.7	30.0	
Chlorobenzene, Water	49.3143	47.1635	50.00	ND	99	74-122	
					4.5	30.0	
Toluene, Water	49.0742	47.0432	50.00	ND	98	76-125	
					4.2	30.0	



REVISED

## SURROGATE RECOVERIES REPORT

Job Number.: 241573

Report Date.: 01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Method.....: Volatile Organics  
Batch(s).....: 60019 60101Method Code....: 8260  
Test Matrix....: WaterPrep Batch.....:   
Equipment Code: GCMSVOA03

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFLM	TOLD8
60101--21	LCS		10/04/2002	107.9	98.9	105.5	104.1
60101--21	MB		10/04/2002	93.1	89.9	96.1	95.8
241568- 15	MS	MW28A-MS RFI	09/30/2002	102.1	102.4	107.3	110.3
241568- 16	MSD	MW28A-MSD RFI	09/30/2002	94.2	93.9	98.9	101.4
241573- 1		MW04-2SAO2	09/30/2002	92.8	93.2	98.2	99.7
241573- 2		MW04D-2SAO2	09/30/2002	92.2	93.9	97.4	101.7
241573- 3		MW11A-2SAO2	09/30/2002	97.7	96.9	103.5	106.8
241573- 4		MW5-2SAO2	09/30/2002	109.7	110.8	115.9	119.3
241573- 5		MW11B-2SAO2	10/03/2002	88.9	90.7	94.1	97.3
241573- 6		MW11BMS-2SAO2	10/03/2002	105.7	104.9	112.1	115.3
241573- 6	MS	MW11BMS-2SAO2	10/03/2002	105.7	104.9	112.1	115.3
241573- 7		MW11BMSD-2SAO2	10/03/2002	104.6	103.8	108.6	113.4
241573- 7	MSD	MW11BMSD-2SAO2	10/03/2002	104.6	103.8	108.6	113.4
241573- 8		MW10A-2SAO2	10/04/2002	100.8	98.9	103.3	104.8
241573- 9		MW10AMS-2SAO2	10/04/2002	94.7	91.9	97.0	100.0
241573- 9	MS	MW10AMS-2SAO2	10/04/2002	94.7	91.9	97.0	100.0
241573- 10		MW10AMS-2SAO2	10/04/2002	98.8	96.7	102.5	104.2
241573- 10	MSD	MW10AMS-2SAO2	10/04/2002	98.8	96.7	102.5	104.2
241573- 11		MW10B-2SAO2	09/30/2002	93.9	94.7	98.0	101.6
241573- 12		MW03-2SAO2	09/30/2002	92.3	92.6	94.9	99.9
241573- 13		MW02-2SAO2	09/30/2002	99.9	99.3	104.1	106.8
241573- 14		MW09-2SAO2	09/30/2002	95.8	93.7	98.6	101.4
241573- 15		T8092402-2SAO2	09/30/2002	101.2	100.5	107.8	110.1
600191--21	LCS		09/30/2002	82.2	92.4	92.2	95.0
600191--21	MB		09/30/2002	84.4	88.9	88.5	91.2
600192--21	LCS		10/03/2002	98.7	96.0	100.5	103.0
600192--21	MB		10/03/2002	96.6	96.3	101.2	101.9

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4	70 - 130
BRFLBE	4-Bromofluorobenzene	70 - 130
DBRFLM	Dibromofluoromethane	70 - 130
TOLD8	Toluene-d8	70 - 130

REVISED

## SURROGATE RECOVERIES REPORT

Job Number.: 241573

Report Date.: 01/02/2003

CUSTOMER: 483648

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Method.....: Semivolatile Organics, Low Level  
Batch(s).....: 60378Method Code....: 8270LL  
Test Matrix....: WaterPrep Batch.....: 59596  
Equipment Code: EGCMS06

Lab ID	DT	Sample ID	Date	246TBP	2FLUBP	2FLUPH	NITRD5	PHEND6	TERD14
59596-	2	LCS	10/04/2002	82.4	87.7	61.9	83.1	30.1	74.3
59596-	2	MB	10/04/2002	93.6	94.9	36.1	84.5	33.6	81.1
241573-	1	MW04-2SAO2	10/04/2002	100.2	90.9	28.6	82.0	31.0	99.3
241573-	2	MW04D-2SAO2	10/04/2002	106.6	96.4	33.5	90.1	33.9	108.0
241573-	3	MW11A-2SAO2	10/04/2002	150.1A	97.7	28.0	96.6	34.3	115.5
241573-	3	MW11A-2SAO2	10/09/2002	110.4	129.40	55.9	115.20	41.3	122.4
241573-	4	MW5-2SAO2	10/04/2002	137.2A	118.6A	32.3	111.6	41.5	134.3
241573-	5	MW11B-2SAO2	10/04/2002	130.5A	90.1	26.6	83.6	31.7	104.2
241573-	5	MW11B-2SAO2	10/09/2002	112.3	120.60	43.5	97.4	40.3	118.9
241573-	5	MW11B-2SAO2	10/10/2002	0.00	134.40	49.4	104.5	42.2	125.6
241573-	6	MW11BMS-2SAO2	10/04/2002	137.9A	101.0	34.5	109.4	47.4	107.3
241573-	6	MW11BMS-2SAO2	10/10/2002	132.20	147.20	61.6	134.10	50.5	136.5
241573-	6	MW11BMS-2SAO2	10/10/2002	0.00	148.10	63.3	136.70	60.7	138.5
241573-	6	MW11BMS-2SAO2	10/04/2002	137.9A	101.0	34.5	109.4	47.4	107.3
241573-	6	MS	10/04/2002	121.7	93.1	34.8	96.8	42.7	103.8
241573-	7	MW11BMSD-2SAO2	10/10/2002	123.10	131.10	57.3	117.00	50.9	124.3
241573-	7	MW11BMSD-2SAO2	10/10/2002	0.00	141.60	53.7	118.50	55.1	125.5
241573-	7	MSD	10/04/2002	121.7	93.1	34.8	96.8	42.7	103.8
241573-	8	MW10A-2SAO2	10/04/2002	92.4	82.8	28.8	79.1	30.1	101.6
241573-	9	MW10AMS-2SAO2	10/04/2002	98.7	86.7	28.4	78.6	33.0	105.1
241573-	9	MS	10/04/2002	98.7	86.7	28.4	78.6	33.0	105.1
241573-	10	MW10AMS-2SAO2	10/04/2002	92.4	86.0	27.6	76.8	34.2	97.5
241573-	10	MSD	10/04/2002	92.4	86.0	27.6	76.8	34.2	97.5
241573-	11	MW108-2SAO2	10/04/2002	136.4A	90.9	27.6	87.6	31.3	101.0
241573-	11	MW108-2SAO2	10/10/2002	108.8	122.60	46.4	111.4	40.4	113.2
241573-	12	MW03-2SAO2	10/04/2002	92.6	89.2	30.2	83.7	28.2	101.3
241573-	12	MW03-2SAO2	10/10/2002	45.6	100.0	39.3	86.8	31.9	101.3
241573-	13	MW02-2SAO2	10/04/2002	99.8	90.4	26.3	81.8	31.6	105.5
241573-	14	MW09-2SAO2	10/04/2002	105.2	87.7	24.4	74.9	31.9	104.8

Test	Test Description	Limits
246TBP	2,4,6-Tribromophenol	10 - 123
2FLUBP	2-Fluorobiphenyl	43 - 116
2FLUPH	2-Fluorophenol	21 - 100
NITRD5	Nitrobenzene-d5	35 - 114
PHEND6	Phenol-d6	10 - 94
TERD14	Terphenyl-d14	33 - 141

## QUALITY ASSURANCE METHODS

## REFERENCES AND NOTES

Report Date: 01/02/2003

## REPORT COMMENTS

- 1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.
- 2) Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.
- 3) According to 40CFR Part 136.3, pH, Chlorine Residual, and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field, (e.g. pH Field) they were not analyzed immediately, but as soon as possible on laboratory receipt.

## General Information:

- Cresylic Acid is the combination of o,m and p-Cresol. The combination is reported as the final result.
- m-Cresol and p-Cresol co-elute. The result of the two is reported as either m&p-cresol or as p-cresol.
- m-Xylene and p-Xylene co-elute. The result of the two is reported as m,p-Xylene.
- N-Nitrosodiphenylamine decomposes in the gas chromatograph inlet forming dipheylamine and, consequently, maybe detected as diphenylamine.
- Methylene Chloride and Acetone are recognized potential laboratory contaminants. Its presence in the sample up to five times the amount reported in the blank may be attributed to laboratory contamination.

## Explanation of Qualifiers:

- U - This qualifier indicates that the analyte was analyzed but not detected.
- J - (Organics only) This qualifier indicates that the analyte is an estimated value between the RL and the MDL.
- B - (Inorganics only) This Qualifier indicates that the analyte is an estimated value between the RL and the MDL.
- N - (Organics only) This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as "chlorinated hydrocarbon", the "N" flag is not used.

## Explanation of General QC Outliers:

- A - Matrix interference present in sample.
- a - MS/MSD analyses yielded comparable poor recoveries, indicating a possible matrix interference. Method performance is demonstrated by acceptable LCS recoveries.
- b - Target analyte was found in the method blank.
- M - QC sample analysis yielded recoveries outside QC acceptance criteria. This sample was reanalyzed.
- L - LCS analysis yielded high recoveries, indicating a potential high bias. No target analytes were observed above the RL in the associated samples.
- G - Marginal outlier within 1% of acceptance criteria.
- r - RPD value is outside method acceptance criteria.
- C - Poor RPD values observed due to the non-homogenous nature of the sample.
- O - Sample required dilution due to matrix interference.
- D - Sample reported from a dilution.
- d - Spike and/or surrogate diluted out.
- P - The recovery of this analyte is outside default QC limits. The data is accepted and will be used to calculate in-house statistical limits.
- E - The reported concentration exceeds the instrument calibration.
- F - The analyte is outside QC limits. The sample data is accepted since this analyte is not reported in associated samples.
- H - Continuing Calibration Verification (CCV) standard is not associated with the samples reported.
- W - The MS/MSD recoveries are outside QC acceptance criteria because the amount spiked is much less than the amount found in the sample.
- K - High recovery will not affect the quality of reported results.
- Z - See case narrative.

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## QUALITY ASSURANCE METHODS

## REFERENCES AND NOTES

Report Date: 01/02/2003

## Explanation of Organic QC Outliers:

- e - Method blank analysis yielded phthalate concentrations above the RL. Phthalates are recognized potential laboratory contaminants. Its presence in the sample up to five times the amount reported in the blank may be attributed to laboratory contamination.
- S - Sample reanalyzed/reextracted due to poor surrogate recovery. Reanalysis confirmed original analysis indicating a possible matrix interference.
- T - Sample analysis yielded poor surrogate recovery.
- R - The RPD between the two GC columns is greater than 40% and no anomalies are present. The higher result is reported as per EPA Method 8000B.
- I - The RPD between the two GC columns is greater than 40% and anomalies are present. The lower of the two results has been reported.
- X - Gaseous compound. In-house QC limits are advisory.
- Y - Ketone compounds have poor purge efficiency. In-house QC limits are advisory.
- f - Surrogate not associated with reported analytes.

## Explanation of Inorganic QC Outliers:

- Q - Method blank analysis yielded target analytes above the RL. Associated sample results are greater than 10 times the concentrations observed in the method blank.
- V - The RPD control limit for sample results less than 5 times the RL is +/- the RL value. Sample and duplicate results are within method acceptance criteria.
- e - Serial dilution failed due to matrix interference.
- g - Sample result quantitated by Method of Standard Additions (MSA) due to the analytical spike recovery being below 85 percent. The correlation coefficient for the MSA is greater than or equal to 0.995.
- s - BOD/cBOD seed value is not within method acceptance criteria. Due to the nature of the test method, the sample cannot be reanalyzed.
- l - BOD/cBOD LCS value is not within method acceptance criteria. Due to the nature of the test method, sample cannot be reanalyzed.
- n - Sample result quantitated by Method of Standard Additions (MSA) due to the analytical spike recovery being below 85 percent. The correlation coefficient for the MSA is less than 0.995.

## Abbreviations:

Batch	- Designation given to identify a specific extraction, digestion, preparation, or analysis set.
CCV	- Continuing Calibration Verification
CRA	- Low level standard check - GFAA, Mercury
CRI	- Low level standard check - ICP
Dil Fac	- Dilution Factor - Secondary dilution analysis
DLFac	- Detection Limit Factor
EB	- Extraction Blank (TCLP, SPLP, etc.)
ICAL	- Initial Calibration
ICB	- Initial Calibration Blank
ICV	- Initial Calibration Verification
ISA	- Interference Check Sample A - ICP
ISB	- Interference Check Sample B - ICP
LCD	- Laboratory Control Duplicate
LCS	- Laboratory Control Sample
MB	- Method Blank
MD	- Method Duplicate
MDL	- Method Detection Limit
MS	- Matrix Spike
MSD	- Matrix Spike Duplicate
ND	- Not Detected

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## QUALITY ASSURANCE METHODS

## REFERENCES AND NOTES

Report Date: 01/02/2003

PB - Preparation Blank  
PREPF - Preparation factor  
RPD - Relative Percent Difference  
RRF - Relative Response Factor  
RT - Retention Time

## Method References:

- (1) EPA 600/4-79-020 Methods for the Analysis of Water and Wastes, March 1983.
- (2) EPA SW846 Test Methods for Evaluating Solid Waste, Third Edition, September 1986; Update I July 1992; Update II, September 1994, Update IIA August 1993; Update IIB, January 1995; Update III, December 1996.
- (3) Standard Methods for the Examination of Water and Wastewater, 16th Edition (1985), 17th Edition (1989),
- (4) HACH Water Analysis Handbook 3rd Edition (1997).
- (5) Federal Register, July 1, 1990 (40 CFR Part 136).
- (6) Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, 2nd Edition, January 1997.
- (7) ASTM Annual Book of Methods (Various Years)
- (8) Diagnosis and Improvement of Saline and Alkali Soils, Agriculture Handbook No. 60, United States Department of Agriculture, 1954.

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## LABORATORY CHRONICLE

Job Number: 241573

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Lab ID: 241573-1	Client ID: MW04-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/23/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
	Data Package Validation	1	62329		
	Electronic Data Deliverables	1	62350		
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
	GC/MS Semi-Volatile Package Production	1	61706		
	GC/MS Volatiles Data Package Production	1	62089		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60019		
				DATE/TIME ANALYZED	DILUTION
				11/07/2002	0000
				11/07/2002	0000
				09/27/2002	1400
				11/01/2002	1000
				10/03/2002	2057
				10/04/2002	1544
				09/30/2002	1428
					1.00000
					1.00000
					1.00000
Lab ID: 241573-2	Client ID: MW04D-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/23/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60019		
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/03/2002	2125
				10/04/2002	1612
				09/30/2002	1457
					1.00000
					1.00000
					1.00000
Lab ID: 241573-3	Client ID: MW11A-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/23/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60019		
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/03/2002	2152
				10/04/2002	1639
				10/09/2002	2307
				09/30/2002	1525
					1.00000
					1.00000
					10.0000
					1.00000
Lab ID: 241573-4	Client ID: MWS-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60019		
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/03/2002	2220
				10/04/2002	1707
				09/30/2002	1553
					1.00000
					1.00000
					1.00000
Lab ID: 241573-5	Client ID: MW11B-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60019		
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/03/2002	2248
				10/04/2002	1734
				10/09/2002	2334
				10/10/2002	0001
				10/03/2002	1535
					1.00000
					1.00000
					10.0000
					40.0000
					1.00000
Lab ID: 241573-6	Client ID: MW11BMS-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60019		
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/03/2002	2315
				10/09/2002	1143
				10/04/2002	1802
				10/10/2002	0029
				10/10/2002	0056
				10/03/2002	1340
					1.00000
					10.0000
					1.00000
					10.0000
					40.0000
					1.00000
Lab ID: 241573-7	Client ID: MW11BMSD-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/03/2002	2343
				10/09/2002	1210
					1.00000
					10.0000

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## LABORATORY CHRONICLE

Job Number: 241573

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Lab ID: 241573-7	Client ID: MW11BMSD-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60019		
				DATE/TIME ANALYZED	DILUTION
				10/04/2002	1829 1.00000
				10/10/2002	0123 10.0000
				10/10/2002	0151 40.0000
				10/03/2002	1409 1.00000
Lab ID: 241573-8	Client ID: MW10A-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60101		
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/04/2002	0011 1.00000
				10/04/2002	1857 1.00000
				10/04/2002	1234 1.00000
Lab ID: 241573-9	Client ID: MW10AMS-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60101		
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/04/2002	0038 1.00000
				10/09/2002	1236 10.0000
				10/04/2002	1924 1.00000
				10/04/2002	1303 1.00000
Lab ID: 241573-10	Client ID: MW10AMSD-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60101		
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/04/2002	0106 1.00000
				10/09/2002	1303 10.0000
				10/04/2002	1952 1.00000
				10/04/2002	1333 1.00000
Lab ID: 241573-11	Client ID: MW10B-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60019		
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/04/2002	0133 1.00000
				10/04/2002	2019 1.00000
				10/10/2002	0218 10.0000
				09/30/2002	1910 1.00000
Lab ID: 241573-12	Client ID: MW03-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60019		
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/04/2002	0201 1.00000
				10/04/2002	2047 1.00000
				10/10/2002	0245 5.00000
				09/30/2002	1938 1.00000
Lab ID: 241573-13	Client ID: MW02-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
SW-846 8270C	Semivolatile Organics, Low Level	1	60378	59596	
SW-846 8260B	Volatile Organics	1	60019		
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/04/2002	0229 1.00000
				10/04/2002	2114 1.00000
				09/30/2002	2006 1.00000
Lab ID: 241573-14	Client ID: MW09-2SAO2	Date Recvd: 09/24/2002	Sample Date: 09/24/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59596		
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60376	59596	
				DATE/TIME ANALYZED	DILUTION
				09/27/2002	1400
				10/04/2002	0256 1.00000

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Job Number: 241573

LABORATORY CHRONICLE

Date: 01/02/2003

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Lab ID: 241573-14 Client ID: MW09-2SA02

Date Recvd: 09/24/2002 Sample Date: 09/24/2002

METHOD	DESCRIPTION
SW-846 8270C	Semivolatile Organics, Low Level
SW-846 8260B	Volatile Organics

RUN#	BATCH#	PREP BT	#(S)	DATE/TIME ANALYZED	DILUTION
1	60378	59596		10/04/2002 2142	1.00000
1	60019			09/30/2002 2034	1.00000

Lab ID: 241573-15 Client ID: TB092402-2SA02

Date Recvd: 09/24/2002 Sample Date: 09/24/2002

METHOD	DESCRIPTION
SW-846 8260B	Volatile Organics

RUN#	BATCH#	PREP BT	#(S)	DATE/TIME ANALYZED	DILUTION
1	60019			09/30/2002 1400	1.00000



# SEVERN TRENT ENVIRONMENTAL LABORATORIES

6310 ROTHWAY DR STE 130  
HOUSTON - 77040

## INVOICE

11/11/2002 08:22:40 AM CST

### Invoice Information

\* Invoice # : 60017673

### SERVICE PERIOD/TERM COVERED

\* From Date : 09/24/2002  
(mm/dd/yyyy)

\* To Date : 11/08/2002  
(mm/dd/yyyy)

Remit To Message :  
(comments print on check stub)

Invoice# 60017673

General Comments :  
(comments are for the Contract User)

422-102/60/UPRR - RF12C-Second Semi-Annual Job#241626, 241568, 241573, 241628

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### Vendor Information

Vendor Name : SEVERN TRENT ENVIRONMENTAL LABORATORIES

Vendor Tax Id : 23-2919996

\* Vendor Phone : 7136904444 X114

Vendor Fax :

Vendor E-mail :

Remit To Address : 6310 ROTHWAY DR STE 130  
HOUSTON - 77040

### Contract Information

Contract Audit # : 726270 Compensation Limit (USD) : \$2,500,000.00

Contract Administrator : DAN LRIEGE Expiration Date : 04/30/2004

Service Desc : providing laboratory - analytical testing services for the Railroad's Environmental Site Remediation Group

Location Desc : systemwide

Ln #	Svc Item #	Svc Item Desc	Contract Qty	Contract Price	UOM	Inv. Quantity	Inv. Unit Price	Extended Amount
Location # 2: Volatile Organic Compounds								
1	5632528	Organics - Volatile Organics - Aqueous & Soil/Waste (Method 8260/8240/E624), Normal Turnaround	.00	85.50	EACH	48.00	85.50	4,104.00
Location # 3: Semivolatile Organic Compounds								
2	5632532	Organics - Total Semi- Volatile Organics - Soil/Waste (Method 8270/E625), Normal Turnaround	.00	180.00	EACH	48.00	180.00	8,640.00
3	5645592	Selective ion monitoring (Method SW8270SIM) for PAH list	.00	225.00	EACH	48.00	225.00	10,800.00
Location # 11: Miscellaneous								
4	5636014	Markup - Percent markup additive for Level IV (CLP like) Deliverable	.00		RECURRING LUMP SUM	1.00	4,708.80	4,708.80

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Amount Due This Invoice :

\$28,252.80







SEVERN TRENT LABORATORIES  
6310 Highway Center  
Houston, TX 77040  
(713) 690-4444, Fax (713) 690-5646

Company: Address: Tele #: 251-600-1000  
EEM CONTRACTOR 15210 FARMER ROAD  
SUGAR SPRING, TX 77040  
P.O. #:  
Reports Sent To: CIVERS PL. 1046  
Project #: 422-102-60

Project Name: Project Location: (IMPOUNDMENT)  
OPIL: SECOND SEMI-ANNUAL WIND-LOCKWOOD

Sampler(s) Name: (Signature) *[Signature]*  
Counter: *[Signature]*

Field Sample ID: 1. M100 - 2. S102  
2. T101V102 - 2. S102

Date: 01/24/02  
Time: 1720

Water ☒ Sludge ☐ Oil ☐ Ciner ☐

# of Containers: 5  
Sample (VAT): 1

32603 - V015  
32604 - L11 level  
32605 - 00173

Relinquished by: (Signature) <i>[Signature]</i>	Date: 01/24/02	Time: 1720	Received by: (Signature) <i>[Signature]</i>	Date: 01/24/02
Relinquished by: (Signature)	Date: 50	Time:	Received by: (Signature)	Date:
Relinquished by: (Signature)	Date:	Time:	Received by Laboratory: (Signature) <i>[Signature]</i>	Date: 01/24/02

Job Number.: 241573	Location.: 57216	Check List Number.: 1	Description.: .
Customer Job ID.....	Job Check List Date.: 09/25/2002		Date of the Report...: 09/25/2002
Project Number.: 99000484	Project Description.: UPRR-HWPW		Project Manager.....: sgk
Customer.....: ERM Southwest, Inc.- Houston	Contact.: Chris Young		

Questions ?	(Y/N) Comments
-------------	----------------

Chain of Custody Received?.....	Y	
...If "yes", completed properly?.....	Y	
Custody seal on shipping container?.....	N	
...if "yes", custody seal intact?.....		
Custody seals on sample containers?.....	N	
...If "yes", custody seal intact?.....		
Samples chilled?.....	Y	
Temperature of cooler acceptable? (4 deg C +/- 2). Y		3.1,2.9,3.1,3.5,2.7,2.9,2.6,2.9
...If "no", is sample an air matrix?(no temp req.)		
Thermometer ID.....	Y	374
Samples received intact (good condition)?.....	Y	IB 9/25/02
Volatile samples acceptable? (no headspace).....	Y	
Correct containers used?.....	Y	
Adequate sample volume provided?.....	Y	
Samples preserved correctly?.....	Y	
Samples received within holding-time?.....	Y	
Agreement between COC and sample labels?.....	Y	
Radioactivity at or below background levels?.....	Y	
Additional.....		
Comments.....		
Sample Custodian Signature/Date.....	Y	EIB

SAMPLE RECEIPT CHECKLIST

CLIENT ERMSU CONTACT C. Young  
 PROJECT Second Semi-Annual CARRIER CLIENT  
 DATE SHIPPED \_\_\_\_\_ UNPACKED TB  
 DATE RECEIVED \_\_\_\_\_ 202 SEP 25 AM 11:56  
 UNPACKED STAMP \_\_\_\_\_  
 NUMBER OF KITS RECEIVED 08 JOB# 241573 BO# \_\_\_\_\_

KIT CHECKLIST

KIT ID	COC PRESENT	CUSTODY TAPE		COOLER TEMP Thermometer =	# OF SAMPLE CONTAINERS
		PRESENT	INTACT		
714	Yes	C Yes	Yes	3-1	12
		B N	N		
922	Yes	C Yes	Yes	2-9	51
		B N	N		
834	Yes	C Yes	Yes	3-0	10
		B N	N		

C = COOLER B = BOTTLES

NUMBER OF WATER SAMPLES CHECKED? Yes ☒ No ☐ SAMPLE(S) SCREENED FOR RADIATION? Yes ☒ No ☐  
 VOLATILE HEAD SPACE CHECKED? Yes ☒ No ☐

SHORT HOLD / RUSH SAMPLES (include department delivered to and time delivered)

(INCONSISTENCIES)

PERSON CONTACTED: \_\_\_\_\_ ACTION TAKEN \_\_\_\_\_ DATE: \_\_\_\_\_  
 RESOLUTION \_\_\_\_\_

EMPLOYEE 3844 DATE: 28  
 HNO<sub>3</sub> ☐ HCL ☐ H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐ Na<sub>2</sub>S<sub>2</sub>O<sub>8</sub> ☐ NEAT ☐ NaHSO<sub>4</sub> ☐ OTHER \_\_\_\_\_  
44 VOA \_\_\_\_\_  
 \_\_\_\_\_ Other \_\_\_\_\_

# Cont.	Notes
<u>TB</u>	<u>W</u>
Total	

REC Manager (MCK)

SILICON  
SAMPLE RECEIPT CHECKLIST

CLIENT ERM SW CONTACT                       
 PROJECT                      CARRIER CLIENT  
 DATE SHIPPED 7/17 SEP 24 PM 6:46 UNPACKED BY B  
 DATE RECEIVED                      UNPACKED STAMP 7/17 SEP 25 AM 11:56  
 NUMBER OF KITS RECEIVED 08 JOB# 241573 BOX#                     

KIT CHECKLIST

KIT ID	COC PRESENT	CUSTODY TAPE		COOLER TEMP Thermometer #	# OF SAMPLE CONTAINERS
		PRESENT?	INTACT?		
311	Yes	C Yes	Yes	3-5	41
557	Yes	C Yes	Yes	2-7	11
608	Yes	C Yes	Yes	2-9	10

C = COOLER B = BOTTLES

SAMPLE CHECKS  
 # OF WATER SAMPLES CHECKED? Yes ☒ No ☐ SAMPLE(S) SCREENED FOR RADIATION? Yes ☒ No ☐  
 VENTILE HEAD SPACE CHECKED? Yes ☒ No ☐

SHORT HOLD / RUSH SAMPLES (include department delivered to and time delivered)

INCONSISTENCIES

ACTION TAKEN  
 PERSON CONTACTED                      DATE                       
 RESOLUTION                     

EMPLOYEE                      DATE                     

NO. ☐ HCL ☐ H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐ Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub> ☐ NEAT ☐ NaHSO<sub>4</sub> ☐ OTIPRE  
 (Water Only)

VQA  
 Other                     

VQA  
 Other                     

# Cont.	Notes
Total	

CLIENT EPMA - CONTACT                       
PROJECT 1 CARRIER                       
DATE SHIPPED                      UNPACKED BY JB  
DATE RECEIVED                      2002 SEP 25 AM 11:56  
UNPACKED STAMP                       
NUMBER OF KITS RECEIVED 08 NO. 241573 SO.                     

KIT ID	COC PRESENT	CUSTODY TAPE		COOLER TEMP Thermometer #	# OF SAMPLE CONTAINERS
		PRESENT	INTACT		
560	Yes	C Yes	Yes	2.6	12
		E N	N		
83	Yes	C Yes	Yes	2.9	31
		E N	N		
		C			
		E			

H OF WATER SAMPLES CHECKED? Yes    No    SAMPLE(S) SCREENED FOR RADIATION? Yes    No     
 VOLATILE HEAD SPACE CHECKED? Yes    No   

## INCONSISTENCIES

34

= Cost	Matrix
Total	



REVISED

ANALYTICAL REPORT

JOB NUMBER: 241628

Prepared For:

ERM Southwest, Inc. - Houston  
15810 Park Ten Place  
Suite 300  
Houston, TX 77084

Attention: Chris Young

Date: 12/30/2002

Signature

Name: Sachin G. Kudchadkar

Title: Project Manager III

E-Mail: [REDACTED]

Date

Severn Trent Laboratories  
6310 Rothway Drive  
Houston, TX 77040

PHONE: (713) 690-4444

TOTAL NO. OF PAGES

36

12/30/2002

Chris Young  
ERM Southwest, Inc.- Houston  
15810 Park Ten Place  
Suite 300  
Houston, TX 77084

Project : UPRR-HWPW  
Project No. : 241628  
Date Received : 09/25/2002  
STL Job : 241628

Dear Chris Young:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

- |                    |                 |
|--------------------|-----------------|
| 1. MW01A-2SAO2     | 2. MW01AD-2SAO2 |
| 3. MW7-2SAO2       | 4. P-10-2SAO2   |
| 5. P-11-2SAO2      | 6. P-12-2SAO2   |
| 7. FB-092502-2SAO2 | 8. MW8-2SAO2    |
| 9. TB-092502-2SAO2 |                 |

All holding times were met for the tests performed on these samples.

Enclosed, please find the Quality Control Summary. All quality control results for the QC batch that are applicable to the sample(s) are acceptable except as noted in the QC batch reports.

The test results in this report meet all NELAP requirements for STL Houston's NELAP accredited parameters. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting Severn-Trent Laboratories to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

Sincerely,

  
Sachin G. Kudchadkar  
Project Manager

REVISED

## SAMPLE INFORMATION

Date: 12/30/2002

Job Number.: 241628  
Customer....: ERM Southwest, Inc.- Houston  
Attn.....: Chris Young

Project Number.....: 99000484  
Customer Project ID....: SECOND SEMI-ANNUAL  
Project Description....: UPRR-HWPW

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
241628-1	MW01A-2SA02	Water	09/25/2002	11:43	09/25/2002	18:34
241628-2	MW01AD-2SA02	Water	09/25/2002	12:00	09/25/2002	18:34
241628-3	MW7-2SA02	Water	09/25/2002	14:16	09/25/2002	18:34
241628-4	P-10-2SA02	Water	09/25/2002	15:21	09/25/2002	18:34
241628-5	P-11-2SA02	Water	09/25/2002	10:35	09/25/2002	18:34
241628-6	P-12-2SA02	Water	09/25/2002	14:20	09/25/2002	18:34
241628-7	FB-092502-2SA02	Field Blank	09/25/2002	14:40	09/25/2002	18:34
241628-8	MW8-2SA02	Water	09/25/2002	15:35	09/25/2002	18:34
241628-9	TB-092502-2SA02	Trip Blank	09/25/2002	00:01	09/25/2002	18:34

REVISED

Job Number: 241628

## LABORATORY TEST RESULTS

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW01A-2SA02  
Date Sampled.....: 09/25/2002  
Time Sampled.....: 11:43  
Sample Matrix.....: Water

Laboratory Sample ID: 241628-1  
Date Received.....: 09/25/2002  
Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Data Package Validation											
	GC/MS VOA Validation, Water	Complete					1		62329		11/07/02 0000	clu
	GC/MS SVOA Validation, Water	Complete					1		62329		11/07/02 0000	clu
SW-846 8270C	Extraction (Sep. Funnel) SVOC Low Level											
	Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59608		09/28/02 1100	mra
C7 ∞	Semivolatiles Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60575		10/08/02 2234	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60575		10/08/02 2234	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60575		10/08/02 2234	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60575		10/08/02 2234	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60575		10/08/02 2234	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60575		10/08/02 2234	lg1
SW-846 8270C	Semivolatiles Organics, Low Level											
	Acenaphthene, Water	260			0.7	15	10.00000	ug/L	60573		10/11/02 1321	lg1
	Acenaphthylene, Water	2			0.06	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	Anthracene, Water	8			0.09	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60573		10/09/02 1614	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	Dibenzofuran, Water	170			0.7	15	10.00000	ug/L	60573		10/11/02 1321	lg1
	Di-n-butyl Phthalate, Water	2	J	b	0.3	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	Fluoranthene, Water	10			0.09	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	Fluorene, Water	170			0.7	15	10.00000	ug/L	60573		10/11/02 1321	lg1
	2-Methylnaphthalene, Water	2			0.07	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	Naphthalene, Water	5			0.1	2	1.00000	ug/L	60573		10/09/02 1614	lg1

\* In Description = Dry Wgt.

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Job Number: 241628

## LABORATORY TEST RESULTS

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW01A-2SA02  
Date Sampled.....: 09/25/2002  
Time Sampled.....: 11:43  
Sample Matrix.....: Water

Laboratory Sample ID: 241628-1  
Date Received.....: 09/25/2002  
Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 8260B 69	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	Phenanthrene, Water	33			0.09	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	Pyrene, Water	5			0.09	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60573		10/09/02 1614	lg1
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60573		10/09/02 1614	lg1
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60573		10/09/02 1614	lg1
	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0017	zfl
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0017	zfl
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0017	zfl
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0017	zfl
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0017	zfl
	Toluene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0017	zfl
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	59925		10/02/02 0017	zfl

\* In Description = Dry Wgt.

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Job Number: 241628

## LABORATORY TEST RESULTS

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW01AD-2SA02  
Date Sampled.....: 09/25/2002  
Time Sampled.....: 12:00  
Sample Matrix.....: Water

Laboratory Sample ID: 241628-2  
Date Received.....: 09/25/2002  
Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59608		09/28/02 1100	mra
SW-846 8270C	Semivolatiles Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60575		10/08/02 2300	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60575		10/08/02 2300	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60575		10/08/02 2300	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60575		10/08/02 2300	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60575		10/08/02 2300	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60575		10/08/02 2300	lg1
SW-846 8270C	Semivolatiles Organics, Low Level											
	Acenaphthene, Water	290			0.7	15	10.00000	ug/L	60573		10/11/02 1349	lg1
	Acenaphthylene, Water	2			0.06	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	Anthracene, Water	9			0.09	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	Benzo(a)anthracene, Water	0.1	J		0.02	1	1.00000	ug/L	60573		10/09/02 1642	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	J		0.4	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	Chrysene, Water	0.1	J		0.1	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	Dibenzofuran, Water	190			0.7	15	10.00000	ug/L	60573		10/11/02 1349	lg1
	Di-n-butyl Phthalate, Water	2	J	b	0.3	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	Fluoranthene, Water	9			0.09	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	Fluorene, Water	190			0.7	15	10.00000	ug/L	60573		10/11/02 1349	lg1
	2-Methylnaphthalene, Water	11			0.07	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	Naphthalene, Water	9			0.1	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	Phenanthrene, Water	43			0.09	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	Pyrene, Water	5			0.09	2	1.00000	ug/L	60573		10/09/02 1642	lg1

\* In Description = Dry Wgt.

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## LABORATORY TEST RESULTS

Date: 12/30/2002

ATTN: Chris Young

Laboratory Sample ID: 241628-2  
Date Received.....: 09/25/2002  
Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 8260B	2,4-Dimethylphenol, Water	0.2	J		0.1	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60573		10/09/02 1642	lg1
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60573		10/09/02 1642	lg1
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60573		10/09/02 1642	lg1
	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0141	zfl
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0141	zfl
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0141	zfl
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0141	zfl
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0141	zfl
	Toluene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0141	zfl
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	59925		10/02/02 0141	zfl

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REVISED

Job Number: 241628

## LABORATORY TEST RESULTS

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW7-2SAO2  
Date Sampled.....: 09/25/2002  
Time Sampled.....: 14:16  
Sample Matrix.....: Water

Laboratory Sample ID: 241628-3  
Date Received.....: 09/25/2002  
Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59608		09/28/02 1100	mra
SW-846 8270C	Semivolatiles Organics - SIM Analysis											
62	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60575		10/08/02 2327	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60575		10/08/02 2327	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60575		10/08/02 2327	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60575		10/08/02 2327	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60575		10/08/02 2327	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60575		10/08/02 2327	lg1
SW-846 8270C	Semivolatiles Organics, Low Level											
	Acenaphthene, Water	0.9	J		0.07	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Acenaphthylene, Water	0.06	U		0.06	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Anthracene, Water	0.7	J		0.09	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60573		10/09/02 1710	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Dibenzofuran, Water	0.08	J		0.07	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Di-n-butyl Phthalate, Water	2	J	b	0.3	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Fluoranthene, Water	0.4	J		0.09	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Fluorene, Water	0.1	J		0.07	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	2-Methylnaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Naphthalene, Water	0.5	J		0.1	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Phenanthrene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1710	lg1
	Pyrene, Water	0.6	J		0.09	2	1.00000	ug/L	60573		10/09/02 1710	lg1

\* In Description = Dry Wgt.

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## LABORATORY TEST RESULTS

Job Number: 241628

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW7-2SA02  
Date Sampled.....: 09/25/2002  
Time Sampled.....: 14:16  
Sample Matrix.....: Water

Laboratory Sample ID: 241628-3  
Date Received.....: 09/25/2002  
Time Received.....: 18:34

[illegible]

\* In Description = Dry Wgt.

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Job Number: 241628

## LABORATORY TEST RESULTS

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: P-10-2SA02  
 Date Sampled.....: 09/25/2002  
 Time Sampled.....: 15:21  
 Sample Matrix.....: Water

Laboratory Sample ID: 241628-4  
 Date Received.....: 09/25/2002  
 Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59608		09/28/02 1100	mra
SW-846 8270C	Semivolatiles Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60575		10/08/02 2353	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60575		10/08/02 2353	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60575		10/08/02 2353	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60575		10/08/02 2353	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60575		10/08/02 2353	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60575		10/08/02 2353	lg1
SW-846 8270C	Semivolatiles Organics, Low Level											
	Acenaphthene, Water	42			0.07	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Acenaphthylene, Water	0.4	J		0.06	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Anthracene, Water	1	J		0.09	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60573		10/09/02 1737	lg1
	bis(2-ethylhexyl)phthalate, Water	0.9	J		0.4	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Dibenzofuran, Water	11			0.07	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Di-n-butyl Phthalate, Water	3		b	0.3	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Fluoranthene, Water	1	J		0.09	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Fluorene, Water	13			0.07	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	2-Methylnaphthalene, Water	5			0.07	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Naphthalene, Water	200			0.5	10	5.00000	ug/L	60573		10/11/02 1417	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	n-Nitrosodiphenylamino, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Phenanthrene, Water	2			0.09	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Pyrene, Water	0.5	J		0.09	2	1.00000	ug/L	60573		10/09/02 1737	lg1

\* In Description = Dry Wgt.

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Job Number: 241628

## LABORATORY TEST RESULTS

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: P-10-2SA02  
Date Sampled.....: 09/25/2002  
Time Sampled.....: 15:21  
Sample Matrix.....: Water

Laboratory Sample ID: 241628-4  
Date Received.....: 09/25/2002  
Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 82608  9351	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60573		10/09/02 1737	lg1
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60573		10/09/02 1737	lg1
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60573		10/09/02 1737	lg1
	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0237	zfl
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0237	zfl
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0237	zfl
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0237	zfl
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0237	zfl
	Toluene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0237	zfl
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	59925		10/02/02 0237	zfl

\* In Description = Dry Wgt.

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Job Number: 241628

## LABORATORY TEST RESULTS

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: P-11-2SA02  
 Date Sampled.....: 09/25/2002  
 Time Sampled.....: 10:35  
 Sample Matrix.....: Water

Laboratory Sample ID: 241628-5  
 Date Received.....: 09/25/2002  
 Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59608		09/28/02 1100	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60575		10/09/02 0811	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60575		10/09/02 0811	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60575		10/09/02 0811	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60575		10/09/02 0811	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60575		10/09/02 0811	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60575		10/09/02 0811	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	11			0.07	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Acenaphthylene, Water	0.2	J		0.06	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Anthracene, Water	0.2	J		0.09	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60573		10/09/02 1805	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Dibenzofuran, Water	0.2	J		0.07	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Di-n-butyl Phthalate, Water	1	J	b	0.3	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Fluoranthene, Water	0.3	J		0.09	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Fluorene, Water	1	J		0.07	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	2-Methylnaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Naphthalene, Water	2	J		0.1	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Phenanthrene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Pyrene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1805	lg1

\* In Description = Dry Wgt.

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Job Number: 241628

## LABORATORY TEST RESULTS

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: P-11-2SA02  
Date Sampled.....: 09/25/2002  
Time Sampled.....: 10:35  
Sample Matrix.....: Water

Laboratory Sample ID: 241628-5  
Date Received.....: 09/25/2002  
Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 82608 67	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60573		10/09/02 1805	lg1
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60573		10/09/02 1805	lg1
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60573		10/09/02 1805	lg1
	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 1635	zfl
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 1635	zfl
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 1635	zfl
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 1635	zfl
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 1635	zfl
	Toluene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 1635	zfl
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	59925		10/02/02 1635	zfl

\* In Description = Dry Wgt.

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Job Number: 241628

## LABORATORY TEST RESULTS

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: P-12-2SA02  
 Date Sampled.....: 09/25/2002  
 Time Sampled.....: 14:20  
 Sample Matrix.....: Water

Laboratory Sample ID: 241628-6  
 Date Received.....: 09/25/2002  
 Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	O	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59608		09/28/02 1100	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60575		10/09/02 0838	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60575		10/09/02 0838	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60575		10/09/02 0838	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60575		10/09/02 0838	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60575		10/09/02 0838	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60575		10/09/02 0838	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Acenaphthylene, Water	0.06	U		0.06	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Anthracene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60573		10/09/02 1832	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Dibenzofuran, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Di-n-butyl Phthalate, Water	1	J	b	0.3	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Fluoranthene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Fluorene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	2-Methylnaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Naphthalene, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Phenanthrene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Pyrene, Water	6			0.09	2	1.00000	ug/L	60573		10/09/02 1832	lg1

\* In Description = Dry Wgt.

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## LABORATORY TEST RESULTS

Job Number: 241628

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: P-12-2SA02  
Date Sampled.....: 09/25/2002  
Time Sampled.....: 14:20  
Sample Matrix.....: Water

Laboratory Sample ID: 241628-6  
Date Received.....: 09/25/2002  
Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
69 SW-846 82608	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60573		10/09/02 1832	lg1
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60573		10/09/02 1832	lg1
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60573		10/09/02 1832	lg1
	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 1702	zfl
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 1702	zfl
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 1702	zfl
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 1702	zfl
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 1702	zfl
	Toluene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 1702	zfl
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	59925		10/02/02 1702	zfl

\* In Description = Dry Wgt.

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Job Number: 241628

## LABORATORY TEST RESULTS

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: FB-092502-2SA02

Date Sampled.....: 09/25/2002

Time Sampled.....: 14:40

Sample Matrix.....: Field Blank

Laboratory Sample ID: 241628-7

Date Received.....: 09/25/2002

Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59608		09/28/02 1100	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60575		10/09/02 0904	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60575		10/09/02 0904	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60575		10/09/02 0904	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60575		10/09/02 0904	lg1
	Pentachlorophenol, Water	0.01	U		0.01	1	1.00000	ug/L	60575		10/09/02 0904	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60575		10/09/02 0904	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Acenaphthylene, Water	0.06	U		0.06	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Anthracene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60573		10/09/02 1900	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Dibenzofuran, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Di-n-butyl Phthalate, Water	1	J	b	0.3	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Fluoranthene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Fluorene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	2-Methylnaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Naphthalene, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Phenanthrene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Pyrene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1900	lg1

\* In Description = Dry Wgt.

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REVISED

Job Number: 241628

## LABORATORY TEST RESULTS

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: FB-092502-2SA02

Date Sampled.....: 09/25/2002

Time Sampled.....: 14:40

Sample Matrix.....: Field Blank

Laboratory Sample ID: 241628-7

Date Received.....: 09/25/2002

Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 8260B       12	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60573		10/09/02 1900	lg1
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60573		10/09/02 1900	lg1
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60573		10/09/02 1900	lg1
	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0401	zfl
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0401	zfl
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0401	zfl
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0401	zfl
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 0401	zfl
	Toluene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 0401	zfl
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	59925		10/02/02 0401	zfl

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS												
Job Number: 241628						Date:12/30/2002						
CUSTOMER: ERM Southwest, Inc.- Houston						PROJECT: SECOND SEMI-ANNUAL				ATTN: Chris Young		
Customer Sample ID: MW8-2SA02 Date Sampled.....: 09/25/2002 Time Sampled.....: 15:35 Sample Matrix.....: Water						Laboratory Sample ID: 241628-8 Date Received.....: 09/25/2002 Time Received.....: 18:34						
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level Separatory Funnel Liq/Liq Extraction, Water	Complete					1		59608		09/28/02 1100	mra
SW-846 8270C	Semivolatile Organics - SIM Analysis											
212	Benzo(a)pyrene, Water	0.01	U		0.01	0.2	1.00000	ug/L	60575		10/09/02 0931	lg1
	bis(2-chloroethoxy)methane, Water	0.04	U		0.04	0.1	1.00000	ug/L	60575		10/09/02 0931	lg1
	2,4-Dinitrotoluene, Water	0.02	U		0.02	1	1.00000	ug/L	60575		10/09/02 0931	lg1
	2,6-Dinitrotoluene, Water	0.008	U		0.008	1	1.00000	ug/L	60575		10/09/02 0931	lg1
	Pentachlorophenol, Water	0.01	J		0.01	1	1.00000	ug/L	60575		10/09/02 0931	lg1
	1,2-Diphenylhydrazine, Water	0.006	U		0.006	1	1.00000	ug/L	60575		10/09/02 0931	lg1
SW-846 8270C	Semivolatile Organics, Low Level											
	Acenaphthene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Acenaphthylene, Water	0.06	U		0.06	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Anthracene, Water	0.2	J		0.09	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Benzo(a)anthracene, Water	0.02	U		0.02	1	1.00000	ug/L	60573		10/09/02 1927	lg1
	bis(2-ethylhexyl)phthalate, Water	0.4	U		0.4	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	2-Chloronaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Chrysene, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Dibenzofuran, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Di-n-butyl Phthalate, Water	1	J	b	0.3	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Fluoranthene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Fluorene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	2-Methylnaphthalene, Water	0.07	U		0.07	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Naphthalene, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Nitrobenzene, Water	0.3	U		0.3	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	n-Nitrosodiphenylamine, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Phenanthrene, Water	0.09	U		0.09	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Pyrene, Water	0.2	J		0.09	2	1.00000	ug/L	60573		10/09/02 1927	lg1

\* In Description = Dry Wgt.

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## Job Number: 241628

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Customer Sample ID: MW8-2SA02  
Date Sampled.....: 09/25/2002  
Time Sampled.....: 15:35  
Sample Matrix.....: Water

Laboratory Sample ID: 241628-8  
Date Received.....: 09/25/2002  
Time Received.....: 18:34

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
73 SW-846 8260B	2,4-Dimethylphenol, Water	0.1	U		0.1	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	2-Methyl-4,6-dinitrophenol, Water	0.4	U		0.4	10	1.00000	ug/L	60573		10/09/02 1927	lg1
	4-Nitrophenol, Water	0.4	U		0.4	7	1.00000	ug/L	60573		10/09/02 1927	lg1
	Phenol, Water	0.06	U		0.06	2	1.00000	ug/L	60573		10/09/02 1927	lg1
	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 1728	zfl
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 1728	zfl
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 1728	zfl
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 1728	zfl
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	59925		10/02/02 1728	zfl
	Toluene, Water	1	U		1	5	1.00000	ug/L	59925		10/02/02 1728	zfl
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	59925		10/02/02 1728	zfl

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS												
Job Number: 241628		Date:12/30/2002										
CUSTOMER: ERM Southwest, Inc.- Houston		PROJECT: SECOND SEMI-ANNUAL										
ATTN: Chris Young												
Customer Sample ID: TB-092502-2SA02		Laboratory Sample ID: 241628-9										
Date Sampled.....: 09/25/2002		Date Received.....: 09/25/2002										
Time Sampled.....: 00:01		Time Received.....: 18:34										
Sample Matrix.....: Trip Blank												
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
SW-846 8260B       74	Volatile Organics											
	Benzene, Water	2	U		2	5	1.00000	ug/L	59925		10/01/02 2321	zfl
	Chlorobenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/01/02 2321	zfl
	1,2-Dichloroethane, Water	2	U		2	5	1.00000	ug/L	59925		10/01/02 2321	zfl
	Ethylbenzene, Water	1	U		1	5	1.00000	ug/L	59925		10/01/02 2321	zfl
	Methylene Chloride, Water	2	U		2	5	1.00000	ug/L	59925		10/01/02 2321	zfl
	Toluene, Water	1	U		1	5	1.00000	ug/L	59925		10/01/02 2321	zfl
	Xylenes (total), Water	3	U		3	15	1.00000	ug/L	59925		10/01/02 2321	zfl

\* In Description = Dry Wgt.

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## QUALITY CONTROL RESULTS

Job Number.: 241628

Report Date.: 12/30/2002

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
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Test Method.....: SW-846 8270C

Units.....: ug/L

Analyst....: lg1

Method Description.: Semivolatile Organics - SIM Analysis

Batch(s)....: 60575

LCS	Laboratory Control Sample	SVS092502R	59608-1	10.00000	10/07/2002	1241
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzo(a)pyrene, Water	0.43774		0.500000	0	87.5	30-130	
bis(2-chloroethoxy)methane, Water	0.36053		0.500000	0	72.1	60-140	
2,4-Dinitrotoluene, Water	0.48925		0.500000	0	97.8	60-140	
2,6-Dinitrotoluene, Water	0.44122		0.500000	0	88.2	60-140	
Pentachlorophenol, Water	0.09003		0.500000	0	18.0	60-140	
1,2-Diphenylhydrazine, Water	0.44792		0.500000	0	89.6	60-140	

MB	Method Blank	SVS091202F	59608-1		10/07/2002	1214
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzo(a)pyrene, Water	0						
bis(2-chloroethoxy)methane, Water	0						
2,4-Dinitrotoluene, Water	0						
2,6-Dinitrotoluene, Water	0						
Pentachlorophenol, Water	0						
1,2-Diphenylhydrazine, Water	0						

Test Method.....: SW-846 8270C

Units.....: ug/L

Analyst....: lg1

Method Description.: Semivolatile Organics, Low Level

Batch(s)....: 60289

LCS	Laboratory Control Sample	SVS092502R	59608-1		10/08/2002	1300
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Acenaphthene, Water	3.14926		5.000000		63.0	32-165	
Acenaphthylene, Water	2.84479		5.000000		56.9	10-150	
Anthracene, Water	3.61096		5.000000		72.2	23-178	
Benzo(a)anthracene, Water	3.56112		5.000000		71.2	25-180	
Benzo(b)fluoranthene, Water	2.85103		5.000000		57.0	24-175	
Benzo(k)fluoranthene, Water	4.27512		5.000000		85.5	15-185	
Benzo(ghi)perylene, Water	3.11736		5.000000		62.3	15-182	
Benzo(a)pyrene, Water	3.21524		5.000000		64.3	19-182	
bis(2-ethylhexyl)phthalate, Water	13.6176		5.000000		272.4	25-173	K
2-Chloronaphthalene, Water	3.18752		5.000000		63.8	23-143	
Chrysene, Water	4.24539		5.000000		84.9	23-180	
Dibenzo(a,h)anthracene, Water	2.63400		5.000000		52.7	12-178	
Dibenzofuran, Water	3.24050		5.000000		64.8	35-153	
Di-n-butyl Phthalate, Water	4.76576		5.000000		95.3	28-185	
Fluoranthene, Water	3.80033		5.000000		76.0	28-180	
Fluorene, Water	3.22642		5.000000		64.5	30-189	
Indeno(1,2,3-cd)pyrene, Water	1.89485		5.000000		37.9	16-180	
2-Methylnaphthalene, Water	3.07623		5.000000		61.5	26-168	
Naphthalene, Water	3.05095		5.000000		61.0	36-139	
Nitrobenzene, Water	3.32390		5.000000		66.5	17-163	
Nitrosodiphenylamine, Water	4.07277		5.000000		81.5	58-174	
Phenanthrene, Water	3.77188		5.000000		75.4	26-166	

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QUALITY CONTROL RESULTS					
Job Number.: 241628			Report Date.: 12/30/2002		
CUSTOMER: ERM Southwest, Inc.- Houston		PROJECT: SECOND SEMI-ANNUAL		ATTN:	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time

LCS	Laboratory Control Sample	SVS092502R	59608-1		10/08/2002 1300
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Pyrene, Water	3.41328		5.000000		68.3	28-173	
2,4-Dimethylphenol, Water	1.40970		5.000000		28.2	23-157	
2-Methyl-4,6-dinitrophenol, Water	4.97955		5.000000		99.6	17-164	
4-Nitrophenol, Water	1.69330		5.000000		33.9	10-92	
Pentachlorophenol, Water	4.56706		5.000000		91.3	10-130	
Phenol, Water	1.43816		5.000000		28.8	20-83	

MB	Method Blank	SVS091202F	59608-1		10/08/2002 1138
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Acenaphthene, Water	0						
Acenaphthylene, Water	0						
Anthracene, Water	0						
Benzo(a)anthracene, Water	0						
Benzo(b)fluoranthene, Water	0						
Benzo(k)fluoranthene, Water	0						
Benzo(ghi)perylene, Water	0						
Benzo(a)pyrene, Water	0						
bis(2-ethylhexyl)phthalate, Water	0						
2-Chloronaphthalene, Water	0						
Chrysene, Water	0						
Dibenzo(a,h)anthracene, Water	0						
Dibenzofuran, Water	0						
Di-n-butyl Phthalate, Water	0.19966						
Fluoranthene, Water	0						
Fluorene, Water	0						
Indeno(1,2,3-cd)pyrene, Water	0						
2-Methylnaphthalene, Water	0						
Naphthalene, Water	0						
Nitrobenzene, Water	0						
n-Nitrosodiphenylamine, Water	0						
Phenanthrene, Water	0						
Pyrene, Water	0						
2,4-Dimethylphenol, Water	0						
2-Methyl-4,6-dinitrophenol, Water	0						
4-Nitrophenol, Water	0						
Pentachlorophenol, Water	0						
Phenol, Water	0						
1-Methylnaphthalene, Water	0						

SB	Spiked Blank	SVS092502R	59608-1		10/08/2002 1205
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Acenaphthene, Water	3.84569		5.000000	0	77	46.0-118.0	
Acenaphthylene, Water	3.46781		5.000000	0	69	30.0-130.0	
Anthracene, Water	3.79885		5.000000	0	76	30.0-130.0	
Benzo(a)anthracene, Water	3.63322		5.000000	0	73	60.0-140.0	
Benzo(b)fluoranthene, Water	3.06598		5.000000	0	61	60.0-140.0	
Benzo(k)fluoranthene, Water	4.45753		5.000000	0	89	30.0-130.0	
Benzo(ghi)perylene, Water	3.26417		5.000000	0	65	60.0-140.0	

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## QUALITY CONTROL RESULTS

Job Number.: 241628

Report Date.: 12/30/2002

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
SB	Spiked Blank	SVS092502R	59608-1		10/08/2002	1205

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzo(a)pyrene, Water	3.29693		5.000000	0	66	60.0-140.0	
bis(2-ethylhexyl)phthalate, Water	3.61208		5.000000	0	72	60.0-140.0	
2-Chloronaphthalene, Water	4.14321		5.000000	0	83	30.0-130.0	
Chrysene, Water	4.21068		5.000000	0	84	30.0-130.0	
Dibenzo(a,h)anthracene, Water	2.82560		5.000000	0	57	60.0-140.0	P
Dibenzofuran, Water	3.91214		5.000000	0	78	30.0-130.0	
Di-n-butyl Phthalate, Water	4.73613		5.000000	0.19966	91	30.0-130.0	
Fluoranthene, Water	3.81036		5.000000	0	76	30.0-130.0	
Fluorene, Water	3.67519		5.000000	0	74	30.0-130.0	
Indeno(1,2,3-cd)pyrene, Water	1.96115		5.000000	0	39	60.0-140.0	P
2-Methylnaphthalene, Water	3.97266		5.000000	0	79	60.0-140.0	
Naphthalene, Water	3.97431		5.000000	0	79	30.0-130.0	
Nitrobenzene, Water	4.45769		5.000000	0	89	30.0-130.0	
n-Nitrosodiphenylamine, Water	4.29592		5.000000	0	86	30.0-130.0	
Phenanthrene, Water	3.87492		5.000000	0	77	30.0-130.0	
Pyrene, Water	3.52280		5.000000	0	70	26.0-115.0	
2,4-Dimethylphenol, Water	1.71283		5.000000	0	34	30.0-130.0	
2-Methyl-4,6-dinitrophenol, Water	5.18547		5.000000	0	104	30.0-130.0	
4-Nitrophenol, Water	1.59815		5.000000	0	32	10.0-80.0	
Pentachlorophenol, Water	4.80943		5.000000	0	96	9.0-103.0	
Phenol, Water	1.80979		5.000000	0	36	10.0-112.0	

SBD	Spiked Blank Duplicate	SVS092502R	59608-1		10/08/2002	1232
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Acenaphthene, Water	3.33610	3.84569	5.000000	0	66.7	46-118	
Acenaphthylene, Water	3.00064	3.46781	5.000000	0	14.2	31	
Anthracene, Water	3.44809	3.79885	5.000000	0	60.0	30-130	
Benzo(a)anthracene, Water	3.34617	3.63322	5.000000	0	14.4	50	
Benzo(b)fluoranthene, Water	2.61623	3.06598	5.000000	0	69.0	30-130	
Benzo(k)fluoranthene, Water	3.84349	4.45753	5.000000	0	9.7	50	
Benzo(ghi)perylene, Water	2.97874	3.26417	5.000000	0	66.9	60-140	
Benzo(a)pyrene, Water	2.93904	3.29693	5.000000	0	8.2	30	
bis(2-ethylhexyl)phthalate, Water	3.46812	3.61208	5.000000	0	52.3	60-140	P
2-Chloronaphthalene, Water	3.57848	4.14321	5.000000	0	15.8	30	
Chrysene, Water	3.98490	4.21068	5.000000	0	76.9	30-130	
Dibenzo(a,h)anthracene, Water	2.36681	2.82560	5.000000	0	14.8	50	
Dibenzofuran, Water	3.37478	3.91214	5.000000	0	59.6	60-140	P
Di-n-butyl Phthalate, Water	4.42481	4.73613	5.000000	0.19966	9.1	50	
					58.8	60-140	P
					11.5	30	
					69.4	60-140	
					4.1	30	
					71.6	30-130	
					14.6	50	
					79.7	30-130	
					5.5	50	
					47.3	60-140	P
					17.7	30	
					67.5	30-130	
					14.7	50	
					84.5	30-130	
					6.8	50	

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QUALITY CONTROL RESULTS					
Job Number.: 241628			Report Date.: 12/30/2002		
CUSTOMER: ERM Southwest, Inc.- Houston		PROJECT: SECOND SEMI-ANNUAL		ATTN:	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time
SBD	Spiked Blank Duplicate	SVS092502R	59608-1		10/08/2002 1232

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Fluoranthene, Water	3.49583	3.81036	5.000000	0	69.9 8.6	30-130 50	
Fluorene, Water	3.25963	3.67519	5.000000	0	65.2 12.0	30-130 50	
Indeno(1,2,3-cd)pyrene, Water	1.82096	1.96115	5.000000	0	36.4 7.4	60-140 30	P
2-Methylnaphthalene, Water	3.39508	3.97266	5.000000	0	67.9 15.7	60-140 30	
Naphthalene, Water	3.50812	3.97431	5.000000	0	70.2 12.5	30-130 50	
Nitrobenzene, Water	3.91720	4.45769	5.000000	0	78.3 12.9	30-130 50	
n-Nitrosodiphenylamine, Water	4.02704	4.29592	5.000000	0	80.5 6.5	30-130 50	
Phenanthrene, Water	3.59707	3.87492	5.000000	0	71.9 7.4	30-130 50	
Pyrene, Water	3.31881	3.52280	5.000000	0	66.4 6.0	26-115 31	
2,4-Dimethylphenol, Water	3.12489	1.71283	5.000000	0	62.5 58.4	30-130 50	
2-Methyl-4,6-dinitrophenol, Water	4.81450	5.18547	5.000000	0	96.3 7.4	30-130 50	r
4-Nitrophenol, Water	1.61212	1.59815	5.000000	0	32.2 0.9	10-80 50	
Pentachlorophenol, Water	4.46724	4.80943	5.000000	0	89.3 7.4	9-103 50	
Phenol, Water	1.62082	1.80979	5.000000	0	32.4 11.0	10-112 23	

Test Method.....: SW-846 8260B	Units.....: ug/L	Analyst....: zfl
Method Description.: Volatile Organics	Batch(s)....: 59925	

LCS	Laboratory Control Sample	VS091802E				10/01/2002 2128
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits F
Benzene, Water	52.7811		50.00	ND	105.6	68-127
Chlorobenzene, Water	52.1291		50.00	ND	104.3	65-129
1,2-Dichloroethane, Water	55.3560		50.00	ND	110.7	65-133
Ethylbenzene, Water	53.6632		50.00	ND	107.3	64-132
Methylene Chloride, Water	47.1320		50.00	ND	94.3	54-133
Toluene, Water	52.3828		50.00	ND	104.8	63-127
Xylenes (total), Water	162.450		150.00	ND	108.3	37-161



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## QUALITY CONTROL RESULTS

Job Number.: 241628

Report Date.: 12/30/2002

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
LCS	Laboratory Control Sample	VS100202E			10/02/2002	1144

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	47.1482		50.00	ND	94.3	68-127	
Chlorobenzene, Water	48.8658		50.00	ND	97.7	65-129	
1,2-Dichloroethane, Water	47.3167		50.00	ND	94.6	65-133	
Ethylbenzene, Water	49.6500		50.00	ND	99.3	64-132	
Methylene Chloride, Water	46.5856		50.00	ND	93.2	54-133	
Toluene, Water	48.9323		50.00	ND	97.9	63-127	
Xylenes (total), Water	148.580		150.00	ND	99.1	37-161	

MB	Method Blank	VS091802C				10/01/2002	2225
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	ND						
Chlorobenzene, Water	ND						
1,2-Dichloroethane, Water	ND						
Ethylbenzene, Water	ND						
Methylene Chloride, Water	ND						
Toluene, Water	ND						
Xylenes (total), Water	ND						

MB	Method Blank	VS100202C				10/02/2002	1237
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	ND						
Chlorobenzene, Water	ND						
1,2-Dichloroethane, Water	ND						
Ethylbenzene, Water	ND						
Methylene Chloride, Water	ND						
Toluene, Water	ND						
Xylenes (total), Water	ND						

MS	Matrix Spike	VS091802F	241628-2			10/02/2002	0046
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	49.4475		50.00	ND	99	65-125	
Chlorobenzene, Water	48.9698		50.00	ND	98	74-122	
Toluene, Water	48.7417		50.00	ND	97	76-125	

MS	Matrix Spike	VS100202E	241763-1	20.00000		10/02/2002	1449
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, TCLP	47.6347		50.00	ND	95	63-123	
Chlorobenzene, TCLP	49.1255		50.00	ND	98	61-126	
1,2-Dichloroethane, TCLP	47.5430		50.00	ND	95	66-135	

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Job Number.: 241628

## QUALITY CONTROL RESULTS

Report Date.: 12/30/2002

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN:

QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time
MSD	Matrix Spike Duplicate	VS091802F	241628-2		10/02/2002	0114

Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, Water	53.7012	49.4475	50.00	ND	107 8.2	65-125 30.0	
Chlorobenzene, Water	53.2064	48.9698	50.00	ND	106 8.3	74-122 30.0	
Toluene, Water	50.8340	48.7417	50.00	ND	102 4.2	76-125 30.0	

MSD	Matrix Spike Duplicate	VS100202E	241763-1	20.00000	10/02/2002	1516
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Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	* Limits	F
Benzene, TCLP	47.1676	47.6347	50.00	ND	94 1.0	63-123 30.0	
Chlorobenzene, TCLP	48.3709	49.1255	50.00	ND	97 1.5	61-126 30.0	
1,2-Dichloroethane, TCLP	47.2992	47.5430	50.00	ND	95 0.5	66-135 30.0	

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## SURROGATE RECOVERIES REPORT

Job Number.: 241628

Report Date.: 12/30/2002

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Method.....: Volatile Organics  
Batch(s).....: 59925Method Code....: 8260  
Test Matrix....: WaterPrep Batch.....:   
Equipment Code: GCMSVOA01

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFLM	TOLD8
241628- 1		MW01A-2SAO2	10/02/2002	111.2	95.2	108.5	86.3
241628- 2		MW01AD-2SAO2	10/02/2002	135.7S	114.5	122.7	98.2
241628- 2 MS		MW01AD-2SAO2	10/02/2002	144.6A	118.4	137.3A	101.3
241628- 2 MSD		MW01AD-2SAO2	10/02/2002	136.6A	113.9	132.3A	108.5
241628- 3		MW7-2SAO2	10/02/2002	99.2	108.0	100.0	109.7
241628- 4		P-10-2SAO2	10/02/2002	129.3	102.2	107.8	83.3
241628- 5		P-11-2SAO2	10/02/2002	98.0	102.5	99.4	102.5
241628- 6		P-12-2SAO2	10/02/2002	89.0	101.4	98.3	99.6
241628- 7		FB-092502-2SAO2	10/02/2002	123.2	94.8	108.0	83.4
241628- 8		MW8-2SAO2	10/02/2002	89.9	97.6	98.4	101.0
241628- 9		TB-092502-2SAO2	10/01/2002	117.7	106.3	111.8	91.9
599251--21 LCS			10/01/2002	118.3	114.4	117.0	110.4
599251--21 MB			10/01/2002	111.7	111.1	111.8	103.1
599252--21 LCS			10/02/2002	88.5	100.1	90.6	99.9
599252--21 MB			10/02/2002	94.1	101.6	96.6	98.5

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4	70 - 130
BRFLBE	4-Bromofluorobenzene	70 - 130
DBRFLM	Dibromofluoromethane	70 - 130
TOLD8	Toluene-d8	70 - 130

Method.....: Volatile Organics  
Batch(s).....: 59925Method Code....: 8260  
Test Matrix....: TCLPPrep Batch.....:   
Equipment Code: GCMSVOA01

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFLM	TOLD8
241763- 1 MS		SANDBAGS CONTAMINATED WITH DIESEL	10/02/2002	90.4	95.5	90.4	96.8
241763- 1 MSD		SANDBAGS CONTAMINATED WITH DIESEL	10/02/2002	87.3	95.5	93.4	95.7

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4	70 - 130
BRFLBE	4-Bromofluorobenzene	70 - 130
DBRFLM	Dibromofluoromethane	70 - 130
TOLD8	Toluene-d8	70 - 130

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## SURROGATE RECOVERIES REPORT

Job Number.: 241628

Report Date.: 12/30/2002

CUSTOMER: 483648

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Method.....: Semivolatile Organics, Low Level  
Batch(s).....: 60289 60573Method Code....: 8270LL  
Test Matrix....: WaterPrep Batch.....: 59608  
Equipment Code: EGCMS06

Lab ID	DT	Sample ID	Date	246TBP	2FLUBP	2FLUPH	NITRD5	PHEND6	TERD14
59608-	1	LCS	10/08/2002	89.6	76.3	32.6	74.5	27.9	76.8
59608-	1	MB	10/08/2002	78.6	93.7	45.5	92.4	40.5	80.9
59608-	1	SB	10/08/2002	91.3	96.4	46.0	97.5	35.9	75.0
59608-	1	SBD	10/08/2002	88.8	84.6	44.0	87.8	33.7	69.0
241628-	1	MW01A-2SAO2	10/09/2002	133.7A	98.3	32.0	94.5	35.2	106.5
241628-	1	MW01A-2SAO2	10/11/2002	153.80	142.20	86.7	129.80	35.2	131.1
241628-	2	MW01AD-2SAO2	10/09/2002	153.80	100.3	30.4	82.5	32.3	106.1
241628-	2	MW01AD-2SAO2	10/11/2002	196.20	150.80	56.3	110.7	30.2	148.70
241628-	3	MW7-2SAO2	10/09/2002	110.4	99.1	37.5	90.8	36.7	112.4
241628-	4	P-10-2SAO2	10/09/2002	105.5	103.0	47.0	104.3	37.7	106.6
241628-	4	P-10-2SAO2	10/11/2002	108.4	132.10	80.7	121.80	36.5	121.9
241628-	5	P-11-2SAO2	10/09/2002	80.8	87.2	36.2	83.3	30.3	97.9
241628-	6	P-12-2SAO2	10/09/2002	71.3	77.4	34.1	73.0	27.7	95.8
241628-	7	FB-092502-2SAO2	10/09/2002	74.0	92.7	43.8	92.0	33.9	100.2
241628-	8	MW8-2SAO2	10/09/2002	64.2	85.7	37.3	82.5	30.1	94.7

Test	Test Description	Limits
246TBP	2,4,6-Tribromophenol	10 - 123
2FLUBP	2-Fluorobiphenyl	43 - 116
2FLUPH	2-Fluorophenol	21 - 100
NITRD5	Nitrobenzene-d5	35 - 114
PHEND6	Phenol-d6	10 - 94
TERD14	Terphenyl-d14	33 - 141

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## QUALITY ASSURANCE METHODS

## REFERENCES AND NOTES

Report Date: 12/30/2002

## REPORT COMMENTS

- 1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.
- 2) Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.
- 3) According to 40CFR Part 136.3, pH, Chlorine Residual, and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field, (e.g. pH Field) they were not analyzed immediately, but as soon as possible on laboratory receipt.

## General Information:

- Cresylic Acid is the combination of o,m and p-Cresol. The combination is reported as the final result.
- m-Cresol and p-Cresol co-elute. The result of the two is reported as either m&p-cresol or as p-cresol.
- m-Xylene and p-Xylene co-elute. The result of the two is reported as m,p-Xylene.
- N-Nitrosodiphenylamine decomposes in the gas chromatograph inlet forming dipheylamine and, consequently, maybe detected as diphenylamine.
- Methylene Chloride and Acetone are recognized potential laboratory contaminants. Its presence in the sample up to five times the amount reported in the blank may be attributed to laboratory contamination.

## Explanation of Qualifiers:

- U - This qualifier indicates that the analyte was analyzed but not detected.
- J - (Organics only) This qualifier indicates that the analyte is an estimated value between the RL and the MDL.
- B - (Inorganics only) This Qualifier indicates that the analyte is an estimated value between the RL and the MDL.
- N - (Organics only) This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as "chlorinated hydrocarbon", the "N" flag is not used.

## Explanation of General QC Outliers:

- A - Matrix interference present in sample.
- a - MS/MSD analyses yielded comparable poor recoveries, indicating a possible matrix interference. Method performance is demonstrated by acceptable LCS recoveries.
- b - Target analyte was found in the method blank.
- M - QC sample analysis yielded recoveries outside QC acceptance criteria. This sample was reanalyzed.
- L - LCS analysis yielded high recoveries, indicating a potential high bias. No target analytes were observed above the RL in the associated samples.
- G - Marginal outlier within 1% of acceptance criteria.
- r - RPD value is outside method acceptance criteria.
- C - Poor RPD values observed due to the non-homogenous nature of the sample.
- O - Sample required dilution due to matrix interference.
- D - Sample reported from a dilution.
- d - Spike and/or surrogate diluted out.
- P - The recovery of this analyte is outside default QC limits. The data is accepted and will be used to calculate in-house statistical limits.
- E - The reported concentration exceeds the instrument calibration.
- F - The analyte is outside QC limits. The sample data is accepted since this analyte is not reported in associated samples.
- H - Continuing Calibration Verification (CCV) standard is not associated with the samples reported.
- W - The MS/MSD recoveries are outside QC acceptance criteria because the amount spiked is much less than the amount found in the sample.
- K - High recovery will not affect the quality of reported results.
- Z - See case narrative.

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QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 12/30/2002

Explanation of Organic QC Outliers:

- e - Method blank analysis yielded phthalate concentrations above the RL. Phthalates are recognized potential laboratory contaminants. Its presence in the sample up to five times the amount reported in the blank may be attributed to laboratory contamination.
- S - Sample reanalyzed/reextracted due to poor surrogate recovery. Reanalysis confirmed original analysis indicating a possible matrix interference.
- T - Sample analysis yielded poor surrogate recovery.
- R - The RPD between the two GC columns is greater than 40% and no anomalies are present. The higher result is reported as per EPA Method 8000B.
- I - The RPD between the two GC columns is greater than 40% and anomalies are present. The lower of the two results has been reported.
- X - Gaseous compound. In-house QC limits are advisory.
- Y - Ketone compounds have poor purge efficiency. In-house QC limits are advisory.
- f - Surrogate not associated with reported analytes.

Explanation of Inorganic QC Outliers:

- Q - Method blank analysis yielded target analytes above the RL. Associated sample results are greater than 10 times the concentrations observed in the method blank.
- V - The RPD control limit for sample results less than 5 times the RL is +/- the RL value. Sample and duplicate results are within method acceptance criteria.
- e - Serial dilution failed due to matrix interference.
- g - Sample result quantitated by Method of Standard Additions (MSA) due to the analytical spike recovery being below 85 percent. The correlation coefficient for the MSA is greater than or equal to 0.995.
- s - 800/c800 seed value is not within method acceptance criteria. Due to the nature of the test method, the sample cannot be reanalyzed.
- l - 800/c800 LCS value is not within method acceptance criteria. Due to the nature of the test method, sample cannot be reanalyzed.
- n - Sample result quantitated by Method of Standard Additions (MSA) due to the analytical spike recovery being below 85 percent. The correlation coefficient for the MSA is less than 0.995.

Abbreviations:

Batch	- Designation given to identify a specific extraction, digestion, preparation, or analysis set.
CCV	- Continuing Calibration Verification
CRA	- Low level standard check - GFAA, Mercury
CRI	- Low level standard check - ICP
Dil Fac	- Dilution Factor - Secondary dilution analysis
DLFac	- Detection Limit Factor
EB	- Extraction Blank (TCLP, SPLP, etc.)
ICAL	- Initial Calibration
ICB	- Initial Calibration Blank
ICV	- Initial Calibration Verification
ISA	- Interference Check Sample A - ICP
ISB	- Interference Check Sample B - ICP
LCD	- Laboratory Control Duplicate
LCS	- Laboratory Control Sample
MB	- Method Blank
MD	- Method Duplicate
MDL	- Method Detection Limit
MS	- Matrix Spike
MSD	- Matrix Spike Duplicate
ND	- Not Detected

## QUALITY ASSURANCE METHODS

## REFERENCES AND NOTES

Report Date: 12/30/2002

PB - Preparation Blank  
PREPF - Preparation factor  
RPD - Relative Percent Difference  
RRF - Relative Response Factor  
RT - Retention Time

## Method References:

- (1) EPA 600/4-79-020 Methods for the Analysis of Water and Wastes, March 1983.
- (2) EPA SW846 Test Methods for Evaluating Solid Waste, Third Edition, September 1986; Update I July 1992; Update II, September 1994, Update IIA August 1993; Update IIB, January 1995; Update III, December 1996.
- (3) Standard Methods for the Examination of Water and Wastewater, 16th Edition (1985), 17th Edition (1989),
- (4) HACH Water Analysis Handbook 3rd Edition (1997).
- (5) Federal Register, July 1, 1990 (40 CFR Part 136).
- (6) Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, 2nd Edition, January 1997.
- (7) ASTM Annual Book of Methods (Various Years)
- (8) Diagnosis and Improvement of Saline and Alkali Soils, Agriculture Handbook No. 60, United States Department of Agriculture, 1954.

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## LABORATORY CHRONICLE

Job Number: 241628

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Lab ID: 241628-1	Client ID: MW01A-2SA02	Date Recvd: 09/25/2002	Sample Date: 09/25/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
	Data Package Validation	1	62329		11/07/2002 0000
	Electronic Data Deliverables	1	62350		11/07/2002 0000
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59608		09/28/2002 1100
	GC/MS Semi-Volatile Package Production	1	61707		
	GC/MS Volatiles Data Package Production	1	62089		11/01/2002 1000
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60575	59608	10/08/2002 2234
SW-846 8270C	Semivolatile Organics, Low Level	1	60573	59608	10/09/2002 1614
SW-846 8270C	Semivolatile Organics, Low Level	1	60573	59608	10/11/2002 1321
SW-846 8260B	Volatile Organics	1	59925		10/02/2002 0017
					1.00000
					1.00000
					10.0000
					1.00000
Lab ID: 241628-2	Client ID: MW01AD-2SA02	Date Recvd: 09/25/2002	Sample Date: 09/25/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59608		09/28/2002 1100
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60575	59608	10/08/2002 2300
SW-846 8270C	Semivolatile Organics, Low Level	1	60573	59608	10/09/2002 1642
SW-846 8270C	Semivolatile Organics, Low Level	1	60573	59608	10/11/2002 1349
SW-846 8260B	Volatile Organics	1	59925		10/02/2002 0141
					1.00000
					1.00000
					10.0000
					1.00000
Lab ID: 241628-3	Client ID: MW7-2SA02	Date Recvd: 09/25/2002	Sample Date: 09/25/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59608		09/28/2002 1100
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60575	59608	10/08/2002 2327
SW-846 8270C	Semivolatile Organics, Low Level	1	60573	59608	10/09/2002 1710
SW-846 8260B	Volatile Organics	1	59925		10/02/2002 1542
					1.00000
					1.00000
					1.00000
Lab ID: 241628-4	Client ID: P-10-2SA02	Date Recvd: 09/25/2002	Sample Date: 09/25/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59608		09/28/2002 1100
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60575	59608	10/08/2002 2353
SW-846 8270C	Semivolatile Organics, Low Level	1	60573	59608	10/09/2002 1737
SW-846 8270C	Semivolatile Organics, Low Level	1	60573	59608	10/11/2002 1417
SW-846 8260B	Volatile Organics	1	59925		10/02/2002 0237
					5.00000
					1.00000
Lab ID: 241628-5	Client ID: P-11-2SA02	Date Recvd: 09/25/2002	Sample Date: 09/25/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59608		09/28/2002 1100
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60575	59608	10/09/2002 0811
SW-846 8270C	Semivolatile Organics, Low Level	1	60573	59608	10/09/2002 1805
SW-846 8260B	Volatile Organics	1	59925		10/02/2002 1635
					1.00000
					1.00000
					1.00000
Lab ID: 241628-6	Client ID: P-12-2SA02	Date Recvd: 09/25/2002	Sample Date: 09/25/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59608		09/28/2002 1100
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60575	59608	10/09/2002 0838
SW-846 8270C	Semivolatile Organics, Low Level	1	60573	59608	10/09/2002 1832
SW-846 8260B	Volatile Organics	1	59925		10/02/2002 1702
					1.00000
					1.00000
					1.00000
Lab ID: 241628-7	Client ID: FB-092502-2SA02	Date Recvd: 09/25/2002	Sample Date: 09/25/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59608		09/28/2002 1100
SW-846 8270C	Semivolatile Organics - SIM Analysis	1	60575	59608	10/09/2002 0904
SW-846 8270C	Semivolatile Organics, Low Level	1	60573	59608	10/09/2002 1900
SW-846 8260B	Volatile Organics	1	59925		10/02/2002 0401
					1.00000
					1.00000
					1.00000
Lab ID: 241628-8	Client ID: MW8-2SA02	Date Recvd: 09/25/2002	Sample Date: 09/25/2002		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3510C	Extraction (Sep. Funnel) SVOC Low Level	1	59608		09/28/2002 1100



REVISED

## LABORATORY CHRONICLE

Job Number: 241628

Date: 12/30/2002

CUSTOMER: ERM Southwest, Inc.- Houston

PROJECT: SECOND SEMI-ANNUAL

ATTN: Chris Young

Lab ID: 241628-8	Client ID: MW8-2SA02	Date Recvd: 09/25/2002	Sample Date: 09/25/2002
METHOD	DESCRIPTION	RUN# BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
SW-846 8270C	Semivolatile Organics - SIM Analysis	1 60575 59608	10/09/2002 0931 1.00000
SW-846 8270C	Semivolatile Organics, Low Level	1 60573 59608	10/09/2002 1927 1.00000
SW-846 82608	Volatile Organics	1 59925	10/02/2002 1728 1.00000

Lab ID: 241628-9	Client ID: TB-092502-2SA02	Date Recvd: 09/25/2002	Sample Date: 09/25/2002
METHOD	DESCRIPTION	RUN# BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
SW-846 82608	Volatile Organics	1 59925	10/01/2002 2321 1.00000

**SEVERN TRENT ENVIRONMENTAL LABORATORIES**

6310 ROTHWAY DR STE 130

HOUSTON - 77040

**INVOICE**

11/11/2002 08:22:40 AM CST

**Invoice Information**

Invoice # : 60017673

**SERVICE PERIOD/TERM COVERED**From Date : 09/24/2002  
(mm/dd/yyyy)To Date : 11/08/2002  
(mm/dd/yyyy)Remit To Message :  
(comments print on check stub)

Invoice# 60017673

General Comments :  
(comments are for the Contract User)

422-102/60/UPRR - RFI2C-Second Semi-Annual Job#241626, 241568, 241573, 241628

**Vendor Information**

Vendor Name : SEVERN TRENT ENVIRONMENTAL LABORATORIES

Vendor Tax Id : 23-2919996

Vendor Phone : 7136904444 X114

Vendor Fax :

Vendor E-mail :

Remit To Address : 6310 ROTHWAY DR STE 130  
HOUSTON - 77040**Contract Information**

Contract Audit # : 726270

Compensation Limit (USD) : \$2,500,000.00

Contract Administrator : DAN LRIEGE

Expiration Date : 04/30/2004

Service Desc : providing laboratory - analytical testing services for the Railroad's Environmental Site Remediation Group

Location Desc : systemwide

Ln #	Svc Item #	Svc Item Desc	Contract Qty	Contract Price	UOM	Inv. Quantity	Inv. Unit Price	Extended Amount
Location # 2: Volatile Organic Compounds								
1	5632528	Organics - Volatile Organics - Aqueous & Soil/Waste (Method 8260/8240/E624), Normal Turnaround	.00	85.50	EACH	48.00	85.50	4,104.00
Location # 3: Semivolatile Organic Compounds								
2	5632532	Organics - Total Semi-Volatile Organics - Soil/Waste (Method 8270/E625), Normal Turnaround	.00	180.00	EACH	48.00	180.00	8,640.00
3	5645592	Selective Ion monitoring (Method SW8270SIM) for PAH list	.00	225.00	EACH	48.00	225.00	10,800.00
Location # 11: Miscellaneous								
4	5636014	Markup - Percent markup additive for Level IV (CLP like) Deliverable	.00		RECURRING LUMP SUM	1.00	4,708.80	4,708.80

Amount Due This Invoice :

\$28,252.80



rpjsckl		Job Sample Receipt Checklist Report		V2
Job Number.: 241628	Location.: 57216	Check List Number.: 1	Description.:	
Customer Job ID.....:		Job Check List Date.: 09/26/2002	Date of the Report...: 09/26/2002	
Project Number.: 99000484	Project Description.: UPRR-HWPW		Project Manager.....: sgk	
Customer.....: ERM Southwest, Inc.- Houston	Contact.: Chris Young			
Questions ?	(Y/N)	Comments		
Chain of Custody Received?.....	Y			
...If "yes", completed properly?.....	Y			
Custody seal on shipping container?.....	N			
...If "yes", custody seal intact?.....				
Custody seals on sample containers?.....	N			
...If "yes", custody seal intact?.....				
Samples chilled?.....	Y			
Temperature of cooler acceptable? (4 deg C +/- 2). Y		2.3,2.5,2.6,2.3		
...If "no", is sample an air matrix?(no temp req.)				
Thermometer ID.....	Y	368		
Samples received intact (good condition)?.....	Y			
Volatile samples acceptable? (no headspace).....	Y			
Correct containers used?.....	Y			
Adequate sample volume provided?.....	Y			
Samples preserved correctly?.....	Y			
Samples received within holding-time?.....	Y			
Agreement between COC and sample labels?.....	Y			
Radioactivity at or below background levels?.....	Y			
Additional.....				
Comments.....				
Sample Custodian Signature/Date.....	Y	EIB		

SILICON  
SAMPLE RECEIPT CHECKLIST

CLIENT ERM CONTACT C. Young  
 PROJECT Second Semi-Annual CARRIED Client  
 DATE SHIPPED 2002 SEP 25 PM 6:34 UNPACKED BY JB  
 DATE RECEIVED \_\_\_\_\_ UNPACKED STAMP 2002 SEP 26 AM 7:13  
 NUMBER OF KITS RECEIVED 4 JOB# 2411028 A.O.# \_\_\_\_\_

KIT CHECKLIST

KIT ID	COC PRESENT	CUSTODY TAPE		COOLER TEMP Thermometer #	# OF SAMPLE CONTAINERS
		PRESENT?	INTACT?		
<u>all green 833</u>	<u>YES</u>	<u>C YES</u>	<u>YES</u>	<u>368</u>	<u>32</u>
<u>W/B 44</u>		<u>S YES</u>	<u>YES</u>	<u>2-3</u>	<u>10</u>
<u>all green 46</u>		<u>C YES</u>	<u>YES</u>	<u>2-5</u>	<u>14</u>
<u>all green 828</u>		<u>S YES</u>	<u>YES</u>	<u>2-6</u>	<u>48</u>
<u>E = COOLER, S = 30 BOTTLES</u>		<u>yes</u>	<u>yes</u>	<u>2-3</u>	<u>48</u>

PH OF WATER SAMPLES CHECKED? Yes ✓ No \_\_\_\_\_ SAMPLE(S) SCREENED FOR RADIATION? Yes ✓ No \_\_\_\_\_  
 VOLATILE HEAD SPACE CHECKED? Yes ✓ No \_\_\_\_\_

SHORT HOLD / RUSH SAMPLES (include department delivered to and time delivered)

INCONSISTENCIES

ACTION TAKEN

PERSON CONTACTED: \_\_\_\_\_ DATE: \_\_\_\_\_  
 RESOLUTION \_\_\_\_\_

EMPLOYEE \_\_\_\_\_ DATE: \_\_\_\_\_

☒ HNO<sub>3</sub> ☒ HCl ☐ H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐ Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub> ☐ NEAT ☐ NaHSO<sub>4</sub> ☐ OT/PRE  
 (Water Only)

260  
 Other \_\_\_\_\_

VOA  
 Other \_\_\_\_\_

# Cont	Matrix
<u>42</u>	<u>W</u>
Total	

STES \_\_\_\_\_

Project Manager \_\_\_\_\_

**Updated Compliance Schedule**  
*Appendix D*

*January 20, 2003*  
W.O. #422-102

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

ID	Task Name/Permit or CP Section No.	Start	Finish	2003					2004				2005	
				Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Combined On-Site and Off-Site Risk Assessment [Permit VIII.I]	Fri 2/28/03	Fri 6/6/03											
2	Submit off-site Risk Assessment (APAR)	Fri 2/28/03	Fri 2/28/03											
3	TCEQ Review Process	Mon 3/3/03	Fri 6/6/03											
4	Corrective Measures Study [Permit VIII.I and CP IX]	Mon 6/9/03	Mon 1/19/04											
5	Prepare and Submit Corrective Measures Study (RAP)	Mon 6/9/03	Fri 10/10/03											
6	TCEQ Review Process	Mon 10/13/03	Mon 1/19/04											
7	Corrective Measures Implementation [Permit VIII.J and CP X]	Mon 6/9/03	Mon 10/17/05											
8	Prepare and Submit Corrective Measures Implementation Work Plan (RAP)	Mon 6/9/03	Fri 10/10/03											
9	TCEQ Review Process	Mon 10/13/03	Mon 1/19/04											
10	Implement Corrective Action	Tue 1/20/04	Mon 6/13/05											
11	Prepare and Submit Corrective Measures Report (RAER/RACR)	Tue 6/14/05	Mon 10/17/05											
12	Compliance Activities [Permit IV,C and CP VI]	Wed 1/1/03	Wed 12/31/03											
13	Impoundment Inspections (weekly)	Wed 1/1/03	Wed 12/31/03											
14	Water Level Measurements (Monthly)	Wed 1/1/03	Wed 12/31/03											
15	Monitor Well Inspections (Quarterly)	Mon 3/3/03	Wed 12/31/03											
16	Ground Water Sampling (First Semiannual)	Mon 3/3/03	Fri 3/7/03											
17	Ground Water Sampling (Second Semiannual)	Mon 9/1/03	Fri 9/5/03											
18	Post-Closure Care Reporting	Tue 4/15/03	Tue 1/20/04											
19	Semiannual Report - July 21, 2003 [CP VII.B.2]	Tue 4/15/03	Mon 7/21/03											
20	Perform Data Evaluation	Tue 4/15/03	Fri 7/18/03											
21	Submit Report to TCEQ	Mon 7/21/03	Mon 7/21/03											
22	Semiannual Report - January 21, 2004 [CP VII.B.2]	Wed 10/15/03	Tue 1/20/04											
23	Perform Data Evaluation	Wed 10/15/03	Mon 1/19/04											
24	Submit Report to TCEQ	Tue 1/20/04	Tue 1/20/04											
25	2003 Annual Report - January 25, 2004 [Permit V.F and III.B.1]	Mon 12/1/03	Fri 1/23/04											
26	Perform Data Evaluation	Mon 12/1/03	Thu 1/22/04											
27	Submit Report to TCEQ	Fri 1/23/04	Fri 1/23/04											

Compliance Schedule  
UPRR Houston Wood Preserving Works Site  
Houston, Texas

Task

Progress

Milestone

Summary

Rolled Up Task

Rolled Up Milestone

Rolled Up Progress

Split

External Tasks

Project Summary

External Milestone

Deadline

G:\DM422\102\3068H