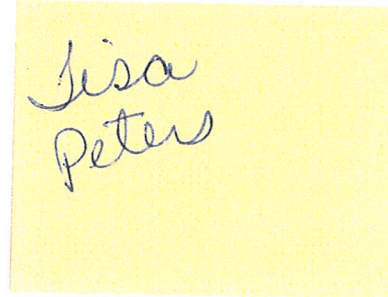




January 20, 2004

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



Subject: Transmittal of the Semiannual Monitoring: Second Half of 2003
Houston Wood Preserving Works, Houston, Texas

Dear Dr. Rahman:

Two copies of the referenced report are enclosed pursuant to the requirements of Section VII.B.2 of Compliance Plan No. CP-50343, issued in conjunction with Post-Closure Care Permit No. HW-50343-000.

Please call me at (281) 350-7197 if you have any questions regarding the enclosed report.

Sincerely,

A handwritten signature in cursive that reads "Geoffrey B. Reeder".

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

GBR/mnt
Enclosures

cc: Mark Arthur, TCEQ-Austin
Marsha Hill, TCEQ Region 12 – Houston
Christopher Young, Environmental Resources Management

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

**Semiannual Monitoring Report:
Second Semiannual Event 2003**

**Houston Wood Preserving Works
Houston, Texas**

Union Pacific Railroad Company

January 20, 2004

www.erm.com

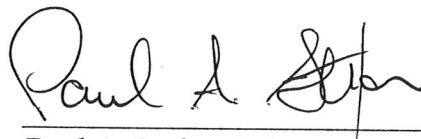
Union Pacific Railroad Company

Semiannual Monitoring
Report: Second Semiannual
Event 2003

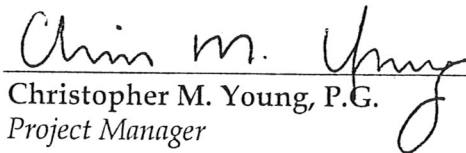
*Houston Wood Preserving Works
Houston, Texas*

January 20, 2004

W.O. #422-102



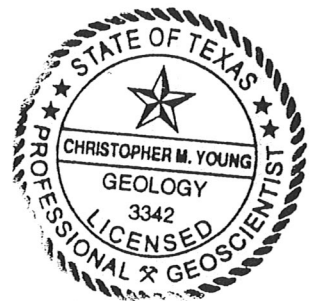
Paul A. Stefan, P.G.
Principal



Christopher M. Young, P.G.
Project Manager



Vivian M. Rohrback
Project Scientist



Environmental Resources Management
15810 Park Ten Place, Suite 300
Houston, Texas 77084-5140
T: 281-600-1000
F: 281-600-1001

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	SECOND SEMIANNUAL GROUND WATER SAMPLING EVENT FOR 2003	3
2.1	NARRATIVE SUMMARY OF SECOND SEMIANNUAL ACTIVITIES	3
	2.1.1 Corrective Action Program	3
	2.1.2 Ground Water Monitoring	3
2.2	ANALYTICAL RESULTS	4
2.3	WELL MEASUREMENT	4
2.4	POTENTIOMETRIC SURFACE MAPS	5
2.5	POTENTIOMETRIC SURFACE MAPS FOR RECOVERY SYSTEM	5
2.6	NON-AQUEOUS PHASE LIQUIDS	5
2.7	NAPL RECOVERIES	5
2.8	ANALYTICAL DATA EVALUATION	5
2.9	BTEX, ACENAPHTHENE, AND NAPHTHALENE ISOPLETHS	6
2.10	UPDATED COMPLIANCE SCHEDULE	6
2.11	SUMMARY OF CHANGES MADE TO THE MONITORING/CORRECTIVE ACTION PROGRAM AND SUMMARY OF RECOVERY WELL INSPECTIONS AND MAINTENANCE	6
2.12	RECOMMENDATIONS FOR CHANGES	6
2.13	OTHER REQUESTED ITEMS	6

APPENDICES

A	COMPLIANCE PLAN TABLES
B	FIELD PARAMETERS
C	LABORATORY ANALYTICAL REPORTS
D	UPDATED COMPLIANCE SCHEDULE

TABLE OF CONTENTS (CONT'D)

List of Tables

- 2-1 *Summary of Analytical Results for the A-Transmissive Zone (A-TZ)*
- 2-2 *Summary of Analytical Results for the B-Transmissive Zone (B-TZ)*
- 2-3 *Summary of Analytical Results for Quality Assurance/Quality Control Samples*
- 2-4 *Water Level and Total Depth of Well Measurements*
- 2-5 *Compliance Status of Wells and Piezometers*

List of Figures

- 1-1 *Site Vicinity Map*
- 2-1 *A-TZ Potentiometric Surface*
- 2-2 *B-TZ Potentiometric Surface*
- 2-3 *Total BTEX in A-TZ Ground Water*
- 2-4 *Total BTEX in B-TZ Ground Water*
- 2-5 *Acenaphthene in A-TZ Ground Water*
- 2-6 *Acenaphthene in B-TZ Ground Water*
- 2-7 *Naphthalene in A-TZ Ground Water*
- 2-8 *Naphthalene in B-TZ Ground Water*

INTRODUCTION

Routine semiannual ground water monitoring is required as a condition of the Compliance Plan (CP) for the former Houston Wood Preserving Works (HWPW) site, located at 4910 Liberty Road, Houston, Texas (Figure 1-1). These activities are performed to monitor ground water quality beneath a closed surface impoundment (Texas Natural Resource Conservation Commission [TNRCC] Permit Unit No. II.B.1). The surface impoundment was described in RCRA Permit No. HW-50343-000 and associated Compliance Plan (CP-50343), both issued by the 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 half of 2003 and fulfill the semiannual reporting requirements described in the CP, Section VII.B.2.

On September 23 and September 24, 2003, Environmental Resources Management (ERM) conducted ground water sampling activities at the site. These activities included sampling the on-site wells and piezometers associated with the surface impoundment.

Section VII.B.2 of the CP requires that a specific list of provisions be included in each semiannual report. As such, each provision listed below is addressed by number in Section 2 of this report. Some of the provisions listed in the CP refer to evaluation of a recovery system, if present. As of December 31, 2003, 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., provisions 5, 7, and 11), a notation was made in the text, and the provisions, as they relate to recovery wells, were not addressed in this report. The following provisions 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 FOR 2003

This section contains a discussion of each of the semiannual report provisions required by CP Section VII.B.2, by reference number to the list of provisions in Section 1.

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. Each of these evaluations is provided below.

2.1.1 *Corrective Action Program*

Ground water samples were collected from the existing wells to assess 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. and summarized as follows:

- 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.

The following monitor wells were sampled (as designated by function in CP Table III; Appendix A to this report):

- A-TZ Point of Compliance (POC) wells: MW-01A, MW-02, MW-07, MW-10A, and MW-11A;
- A-TZ Corrective Action Observation (CAO) wells: MW-04, MW-05, MW-07, MW-08, and MW-09;
- B-TZ POC wells: MW-10B, MW-11B, and P-10; and
- B-TZ CAO wells: P-11 and P-12.

In addition, MW-03, which is screened in the A-TZ within the closed impoundment, was also sampled.

2.1.2 *Ground Water Monitoring*

ERM performed quarterly well inspections on September 23, 2003 and December 31, 2003 and ground water monitoring activities on September 23 through September 24, 2003. 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.

The wells are equipped with dedicated polytetrafluoroethylene (PTFE) tubing for ground water sampling. At MW-11B, the tubing was not apparent in the top of well; therefore, new polyethylene tubing was used for sampling purposes and then removed and disposed of after sampling was complete. A Master-Flex® peristaltic pump was used to collect the ground water samples. A one-foot section of disposable silicon tubing placed around the pump head and attached to the PTFE tubing for proper operation of the pump. Ground water was pumped from the screened interval of the well at a flow rate of less than approximately 0.5 L/min. A flow-through cell and field meters were used to measure and evaluate field parameters including temperature, pH, specific conductivity, dissolved oxygen, and turbidity. When the field parameters had stabilized to the EPA-specified criteria, the well was sampled. The samples were also collected at a flow rate of less than 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 constituent (VOC) analysis] and two 1,000-mL amber glass bottles [for semivolatile organic constituent (SVOC) 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 with Union Pacific Railroad's (UPRR) samples 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 2003 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 for comparison with the original sample.

2.3 WELL MEASUREMENT

The following measurements were collected at each well in order:

Before Sampling

- light non-aqueous phase liquids (LNAPLs); and

- depth to ground water.

After Sampling

- dense non-aqueous phase liquids (DNAPLs); and
- total well depths.

Table 2-4 provides a summary of these measurements. LNAPL and DNAPL were not apparent in any CP well.

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). A review of Figure 2-1 indicates that ground water flow is toward the west with an estimated gradient of 0.0032 feet/foot (ft/ft) in the A-TZ. The flow in the B-TZ is toward the southwest with a gradient of 0.0026 ft/ft (Figure 2-2).

2.5 **POTENTIOMETRIC SURFACE MAPS FOR RECOVERY SYSTEM**

As of December 31, 2003, a recovery system had not been installed at the closed surface impoundment. Therefore, this provision is not applicable.

2.6 **NON-AQUEOUS PHASE LIQUIDS**

As mentioned above, no LNAPL or DNAPL was apparent in any of the CP wells.

2.7 **NAPL RECOVERIES**

As of December 31, 2003, 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. A boxed value indicates an exceedance of 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 GWPS.

2.9 *BTEX, ACENAPHTHENE, AND NAPHTHALENE ISOPLETHS*

As specified by the CP, isopleth maps depicting concentrations of BTEX, acenaphthene, and naphthalene were constructed using the data presented in Tables 2-1 and 2-2. 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. Figures 2-3 through 2-8 illustrate these data.

2.10 *UPDATED COMPLIANCE SCHEDULE*

An updated compliance schedule is included as Appendix D of this report. The schedule has been updated from the First Semiannual Monitoring Report, 2003.

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

No changes have been made to the monitor well network during the second half of 2003.

2.12 *RECOMMENDATIONS FOR CHANGES*

A compliance plan renewal application was submitted to TCEQ on December 23, 2003 consistent with the renewal requirements for the RCRA permit at the site. Several changes to the ground water monitoring program were proposed in the renewal application. These changes will be considered by the TCEQ before June 2004. 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, 2004

W.O. #422-102

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

TABLE 2-1

Summary of Analytical Results for the A-Transmissive Zone (A-Tz)
 Semiannual Monitoring Report, Second Semiannual Event 2003
 Houston Wood Preserving Works
 Houston, Texas

Analyte	PQL (GWPS)	MW-01A 9/24/03	MW-02 9/24/03	MW-03 9/24/03	MW-04 9/24/03	MW-05 9/24/03	MW-07 9/24/03	MW-08 9/24/03	MW-09 9/24/03	MW-10A 9/23/03	MW-10AD (a) 9/23/03	MW-11A 9/24/03
Volatile Organic Constituents												
Benzene	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylene (total)	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Semivolatile Organic Constituents												
Acenaphthene	0.010	0.1896	0.02056	0.1508	ND	0.001630	0.001589	ND	ND	ND	0.000194 J	0.135
Acenaphthylene	0.010	0.001912	0.000468 J	0.001295	ND	ND	ND	ND	ND	ND	ND	0.001214
Anthracene	0.010	0.01044	0.00173	0.005617	0.000572	0.000430 J	0.001110	ND	0.000584	ND	ND	0.000599
Benzo(a)anthracene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	0.010	0.1009	0.01456	0.07789	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	0.010	0.000242 J	0.000283 J	0.000394 J	ND	0.000202 J	0.000291 J	0.000215 J	0.000251 J	0.000284 J	0.000231 J	0.01991
2,4-Dimethylphenol	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000209 J
4,6-Dinitro-o-cresol	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	0.010	0.01464	0.001469	0.01551	ND	ND	ND	ND	ND	ND	ND	0.01114
Fluorene	0.010	0.1198	0.01516	0.1018	ND	0.000244 J	0.000455 J	ND	ND	ND	ND	0.07883
2-Methylnaphthalene	0.010	0.000454 J	0.000403 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	0.010	0.000843	0.00526	ND	ND	ND	ND	ND	ND	ND	ND	0.000599
Nitrobenzene	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Nitrophenol	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	0.010	0.001932	ND	0.001079	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	0.010	0.001575	0.000571	0.001121	ND	ND	ND	ND	ND	ND	ND	0.001604
Phenol	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	0.010	0.006020	0.000682	0.006751	ND	0.000239 J	0.000779	0.000233 J	ND	ND	ND	0.005177

NOTES:

All values reported in mg/L
 ND = Not detected at the Method Detection Limit (MDL), which is less than or equal to the Practical Quantitation Limit (PQL) in all instances and can be found in the laboratory reports in Appendix C.
 PQL = Practical Quantitation Limit, as defined on Table 1 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.
 L = Low bias
 U = Not Detected
 b = Target analyte was found in the method blank.
 (a) MW-10AD is a duplicate of MW-10A.
 (b) P-10D is a duplicate of P-10.

TABLE 2-2

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

Houston Wood Preserving Works
 Houston, Texas

Analyte	POL (GWPS)	Monitor Well ID:	Sample Date	MW-10B 9/24/03	MW-11B 9/24/03	P-10 9/24/03	P-10D 9/24/03	P-11 9/24/03	P-12 9/23/03
Benzene	0.005			0.00262 J	ND	ND	ND	ND	ND
Chlorobenzene	0.005			ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.005			ND	ND	ND	ND	ND	ND
Methylene chloride	0.010			ND	ND	ND	ND	ND	ND
Ethylbenzene	0.005			0.00183 J	ND	ND	ND	ND	ND
Toluene	0.005			ND	ND	ND	ND	ND	ND
Xylene (total)	0.005			0.00328 J	0.00356 J	ND	ND	ND	ND
Acenaphthene	0.010			0.096	0.1194	0.06039	0.06784	0.1211	ND
Acenaphthylene	0.010			0.001562	0.00155	0.000283 J	ND	ND	ND
Anthracene	0.010			0.005256	0.005248	0.001574	0.001767	0.005773	0.000224 J
Benzo(a)anthracene	0.010			ND	UJL	UJL	UJL	UJL	UJL
Benzo(e)pyrene	0.010			ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	0.010			ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	0.010			ND	ND	ND	ND	ND	ND
Chrysene	0.010			ND	0.000196 J	ND	ND	ND	ND
Dibenzofuran	0.010			0.04167	0.056	0.01518	0.01725	0.03039	ND
Di-n-butyl phthalate	0.010			0.000278 J	0.000319 J	0.000475 J	0.000452 J	0.000272 J	0.000293 J
2,4-Dimethylphenol	0.010			0.001035	ND	ND	ND	ND	U
4,6-Dinitro-o-cresol	0.050			ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	0.010			ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	0.010			ND	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	0.010			ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	0.010			ND	UJL	UJL	UJL	UJL	JL
Fluoranthene	0.010			0.003286	0.004736	0.001243	0.001420	0.008349	ND
Fluorene	0.010			0.0552	0.05904	0.2036	0.02265	0.05174	ND
2-Methylnaphthalene	0.010			0.02203	0.04249	0.01169	0.01388	0.00841	ND
Naphthalene	0.010			0.237	0.1101	0.2253	0.2382	0.05416	UJL
Nitrobenzene	0.010			ND	ND	ND	ND	ND	ND
p-Nitrophenol	0.050			ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	0.010			ND	ND	0.000438 J	ND	0.000831	ND
Pentachlorophenol	0.050			ND	ND	ND	ND	ND	ND
Phenanthrene	0.010			0.03120	0.03678	0.003675	0.003966	0.02825	ND
Phenol	0.010			ND	ND	ND	ND	ND	ND
Pyrene	0.010			0.001280	0.00213	0.000522	0.000541	0.004235	0.005027

NOTES:

All values reported in mg/L.

ND = Not detected at the Method Detection Limit (MDL), which is less than or equal to the Practical Quantitation Limit (PQL) in all instances and can be found in the laboratory reports in Appendix C.
 POL = Practical Quantitation Limit, as defined on Table 1 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.

L = Low bias

U = Not Detected

b = Target analyte was found in the method blank.

(a) MW-10AD is a duplicate of MW-10A.

(b) P-10D is a duplicate of P-10.

TABLE 2-3

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)	Field Blank		Trip Blank	
		Sample FB-092403	Sample Date: 9/24/03	Trip Blank - 1 9/25/03	Trip Blank - 2 9/25/02
Methylene chloride	0.010		ND	ND	ND
Di-n-butyl phthalate	0.010		NA	NA	NA
bis(2-Ethylhexyl)phthalate	0.010		NA	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 2003

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	3.54	44.41	19.59	20
MW-02	48.03	3.29	44.74	18.37	20
MW-03	48.55	3.74	44.81	19.51	21
MW-04	49.85	5.28	44.57	21.56	23
MW-05	49.35	4.61	44.74	27.29	28
MW-07	48.86	4.70	44.16	24.69	N/A
MW-08	49.37	4.73	44.64	24.95	27
MW-09	49.29	4.31	44.98	25.28	27
MW-10A	49.90	5.31	44.59	25.45	26
MW-11A	50.04	5.73	44.31	23.91	24
<i>B-TZ Monitoring Locations</i>					
MW-10B	49.97	5.58	44.39	46.43	49
MW-11B	50.19	5.95	44.24	46.50	47
P-10	47.72	3.75	43.97	44.85	N/A
P-11	49.02	4.54	44.48	44.70	52
P-12	48.82	3.86	44.96	42.85	52

NOTES:

Non-aqueous phase liquids were not measured 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 2003

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

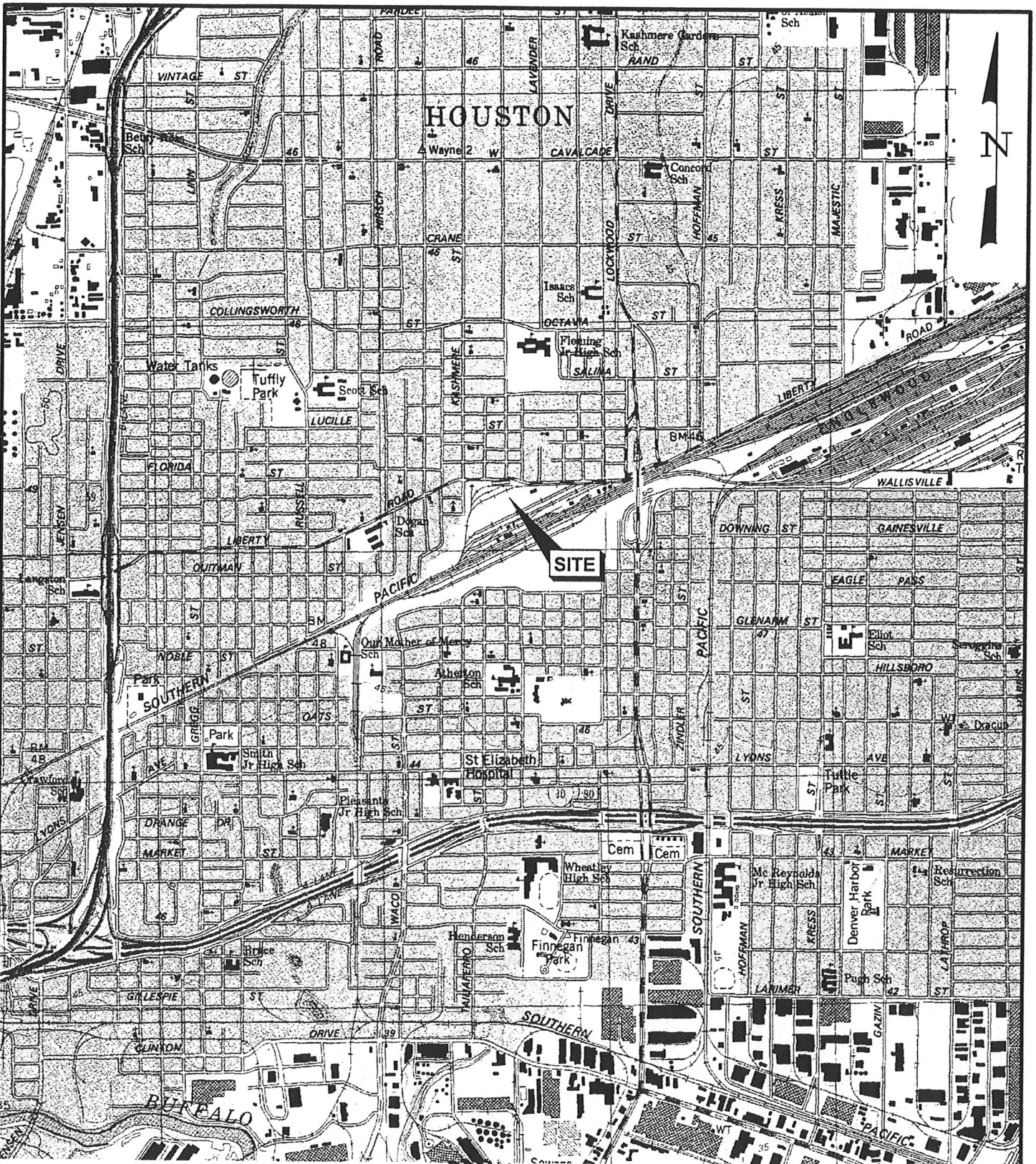
<u>B-TZ Monitoring Location</u>	<u>Well Designation</u>	<u>Compliance Status</u>
MW-10B	Point of compliance	Non-Compliant
MW-11B	Point of compliance	Non-Compliant
P-10	Point of compliance	Non-Compliant
P-11	Corrective action observation	Non-Compliant
P-12	Corrective action observation	Compliant

Figures

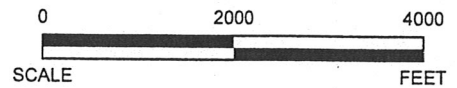
January 20, 2004

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, SET OF TEXAS, 1988



ERM-Southwest, Inc.
HOUSTON · NEW ORLEANS · AUSTIN · MOBILE · BEAUMONT · BATON ROUGE · CORPUS CHRISTI

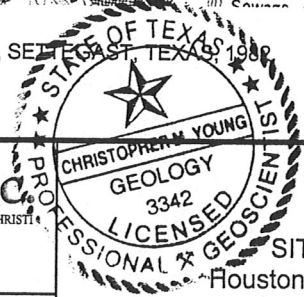
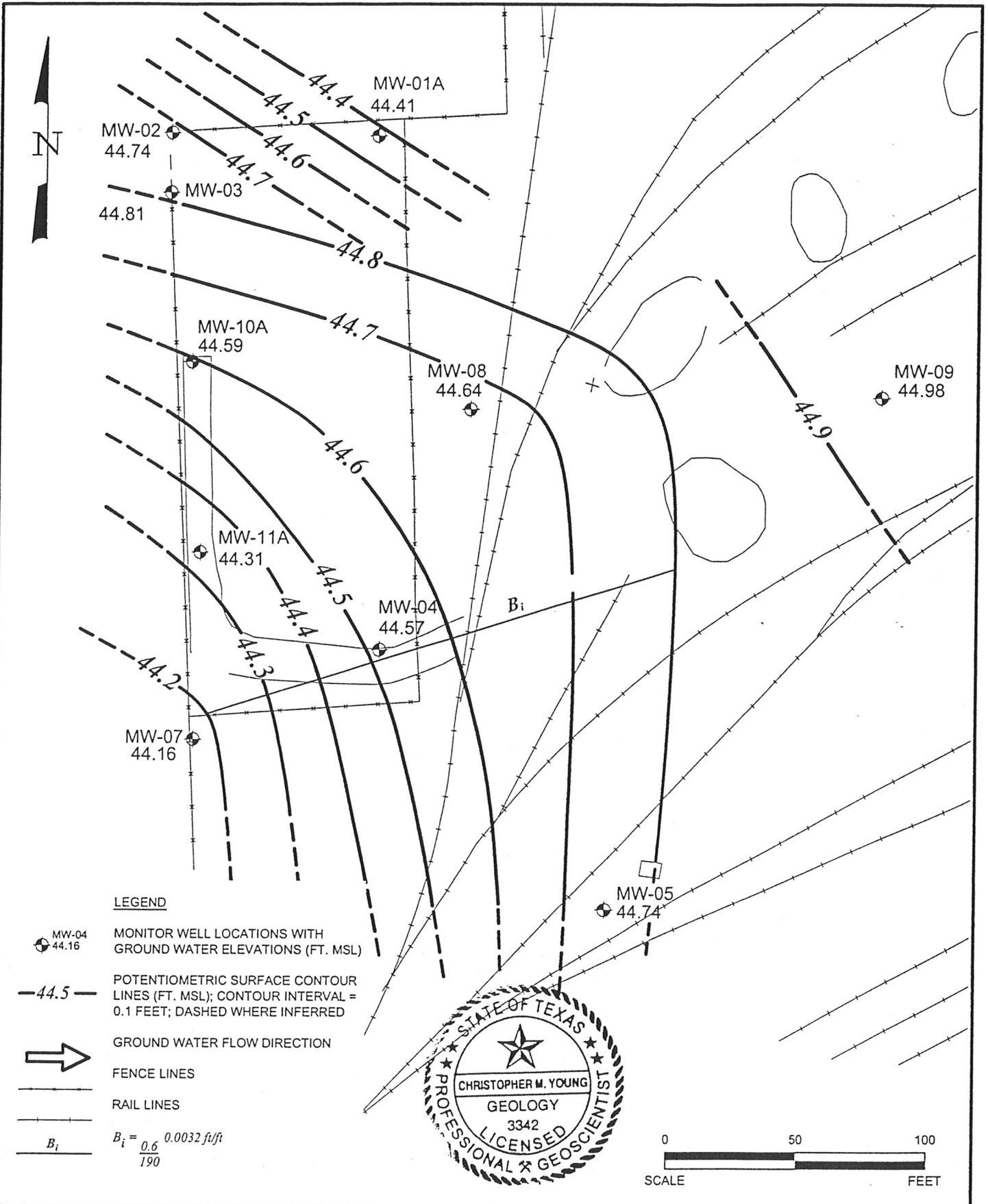


FIGURE 1-1
SITE LOCATION MAP
Houston Wood Preserving Works
Houston, Texas



DESIGN:	DRAWN: CAK	CHKD.: PJG
DATE: 07/23/02	SCALE: AS SHOWN	REV.:
W.O.NO.: O:\OLDDWG\2002\G02\422102A252.dwg, 1/14/2004 12:51:25 PM		

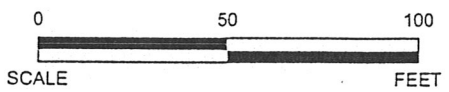
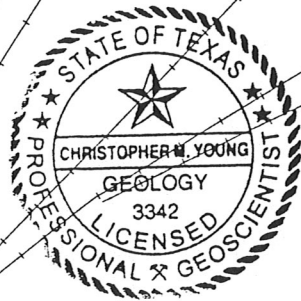
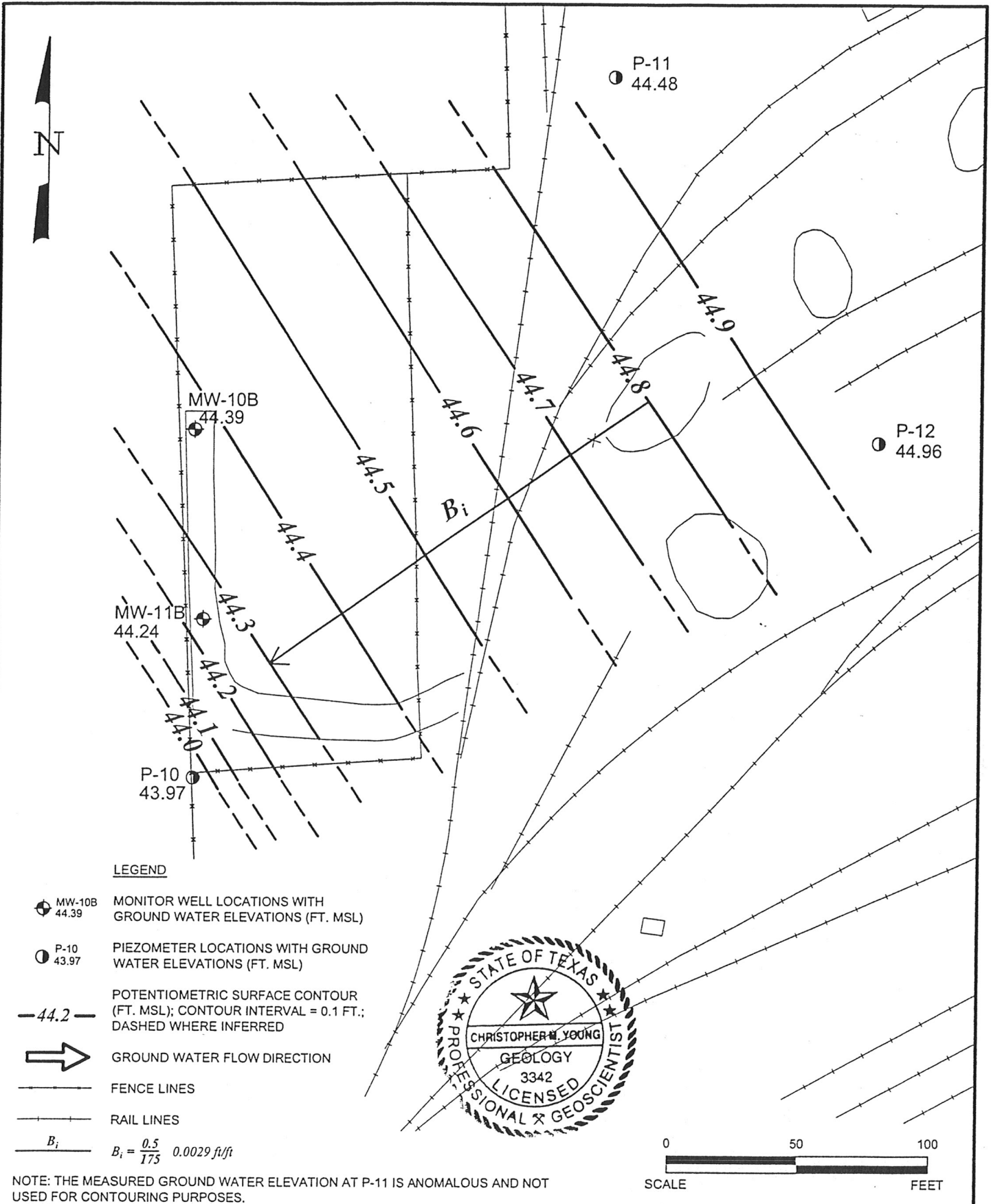


ERM-Southwest, Inc.
 HOUSTON · NEW ORLEANS · AUSTIN · DALLAS · BEAUMONT · BATON ROUGE · CORPUS CHRISTI

FIGURE 2-1
 A-TZ POTENTIOMETRIC SURFACE
 SEPTEMBER 23, 2003
 TCEQ PERMIT UNIT No. II.B.1.
 Houston Wood Preserving Works
 Houston, Texas



DESIGN: VMR	DRAWN: Lmc	CHKD.: MGS
DATE: 01/13/04	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\DWG\A04\422102A285.dwg, 1/13/2004 1:00:32 PM		

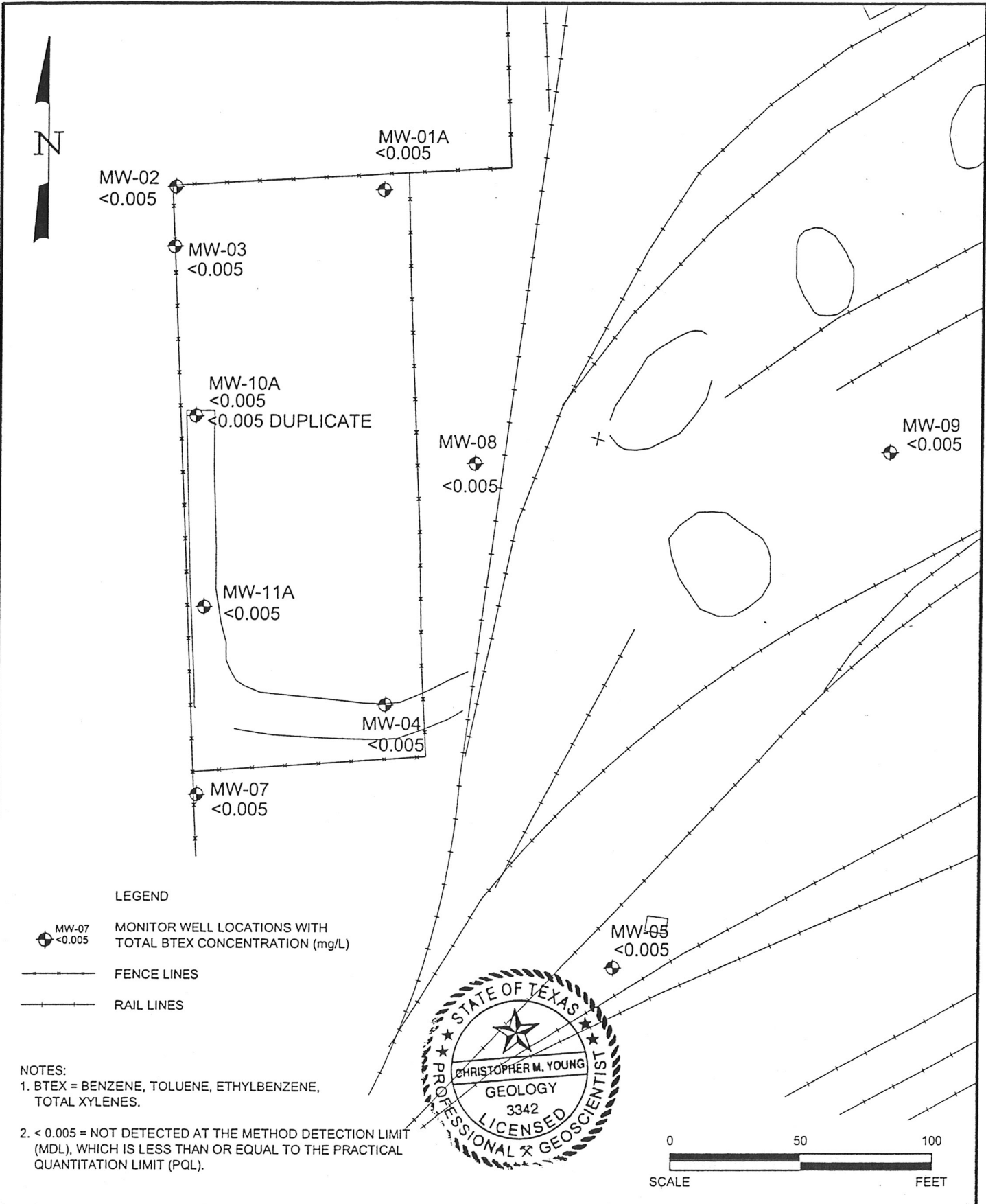


ERM-Southwest, Inc.
HOUSTON · NEW ORLEANS · AUSTIN · DALLAS · BEAUMONT · BATON ROUGE · CORPUS CHRISTI

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: LMCLAH	CHKD: TMO
DATE: 01/13/04	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\DWG\A04\422102A286.dwg, 1/13/2004 2:47:55 PM		

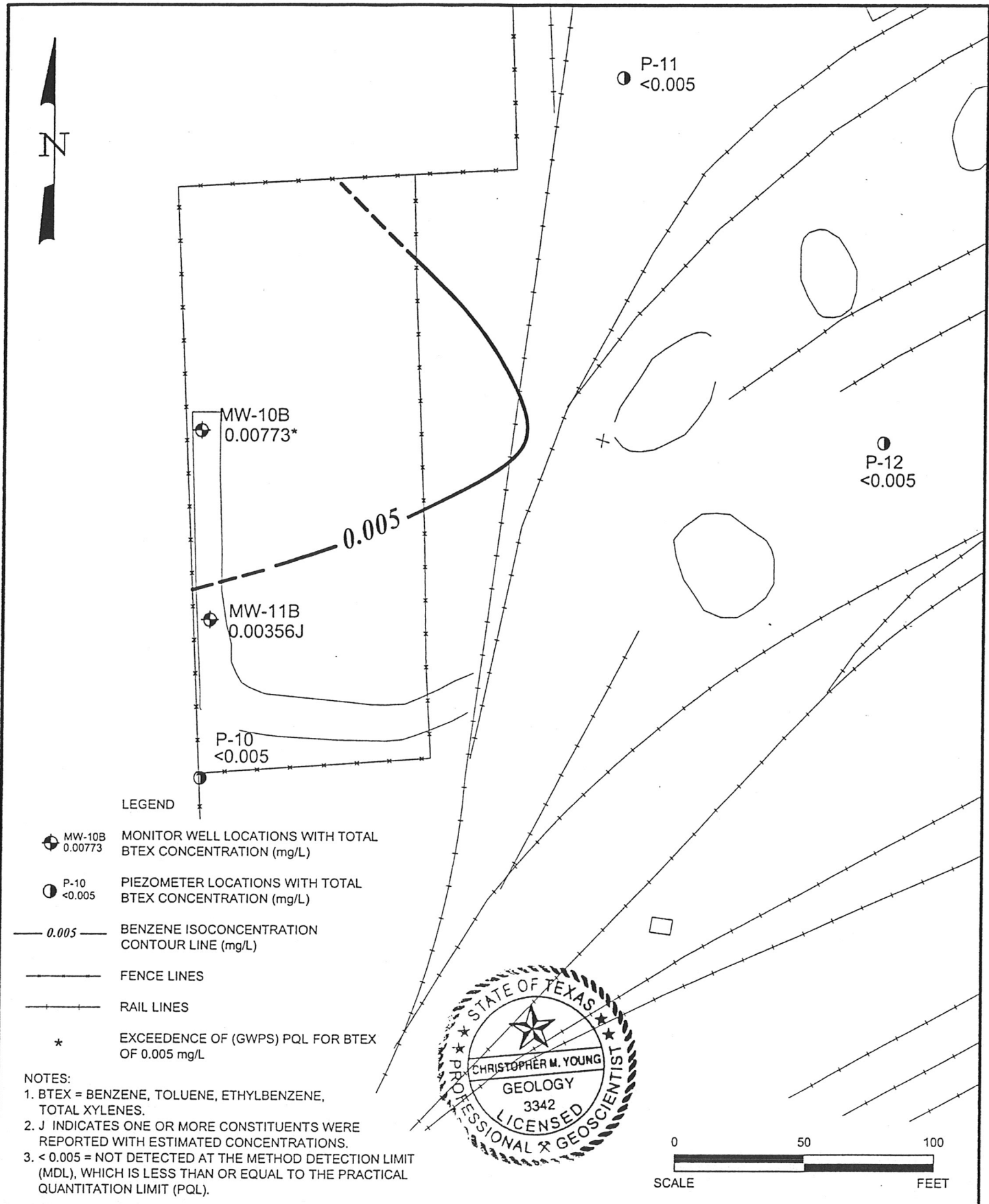


ERM-Southwest, Inc.
 HOUSTON · NEW ORLEANS · AUSTIN · DALLAS · BEAUMONT · BATON ROUGE · CORPUS CHRISTI

DESIGN: VMR	DRAWN: LMc	CHKD.: MGS
DATE: 12/30/03	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\DWG\L03\422102A287.dwg, 12/30/2003 8:16:03 AM		

FIGURE 2-3
TOTAL BTEX IN A-TZ GROUND WATER
SEPTEMBER 24, 2003
TCEQ PERMIT UNIT No. II.B.1.
Houston Wood Preserving Works
Houston, Texas





LEGEND

MW-10B 0.00773 MONITOR WELL LOCATIONS WITH TOTAL BTEX CONCENTRATION (mg/L)

P-10 <0.005 PIEZOMETER LOCATIONS WITH TOTAL BTEX CONCENTRATION (mg/L)

0.005 BENZENE ISOCONCENTRATION CONTOUR LINE (mg/L)

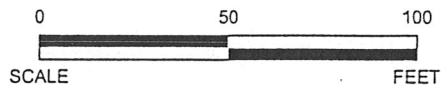
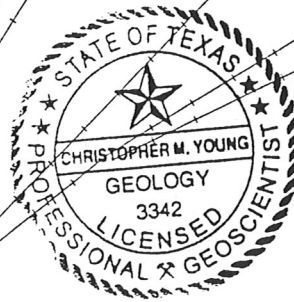
FENCE LINES

RAIL LINES

* EXCEEDENCE OF (GWPS) PQL FOR BTEX OF 0.005 mg/L

NOTES:

1. BTEX = BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENES.
2. J INDICATES ONE OR MORE CONSTITUENTS WERE REPORTED WITH ESTIMATED CONCENTRATIONS.
3. < 0.005 = NOT DETECTED AT THE METHOD DETECTION LIMIT (MDL), WHICH IS LESS THAN OR EQUAL TO THE PRACTICAL QUANTITATION LIMIT (PQL).



ERM-Southwest, Inc.

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

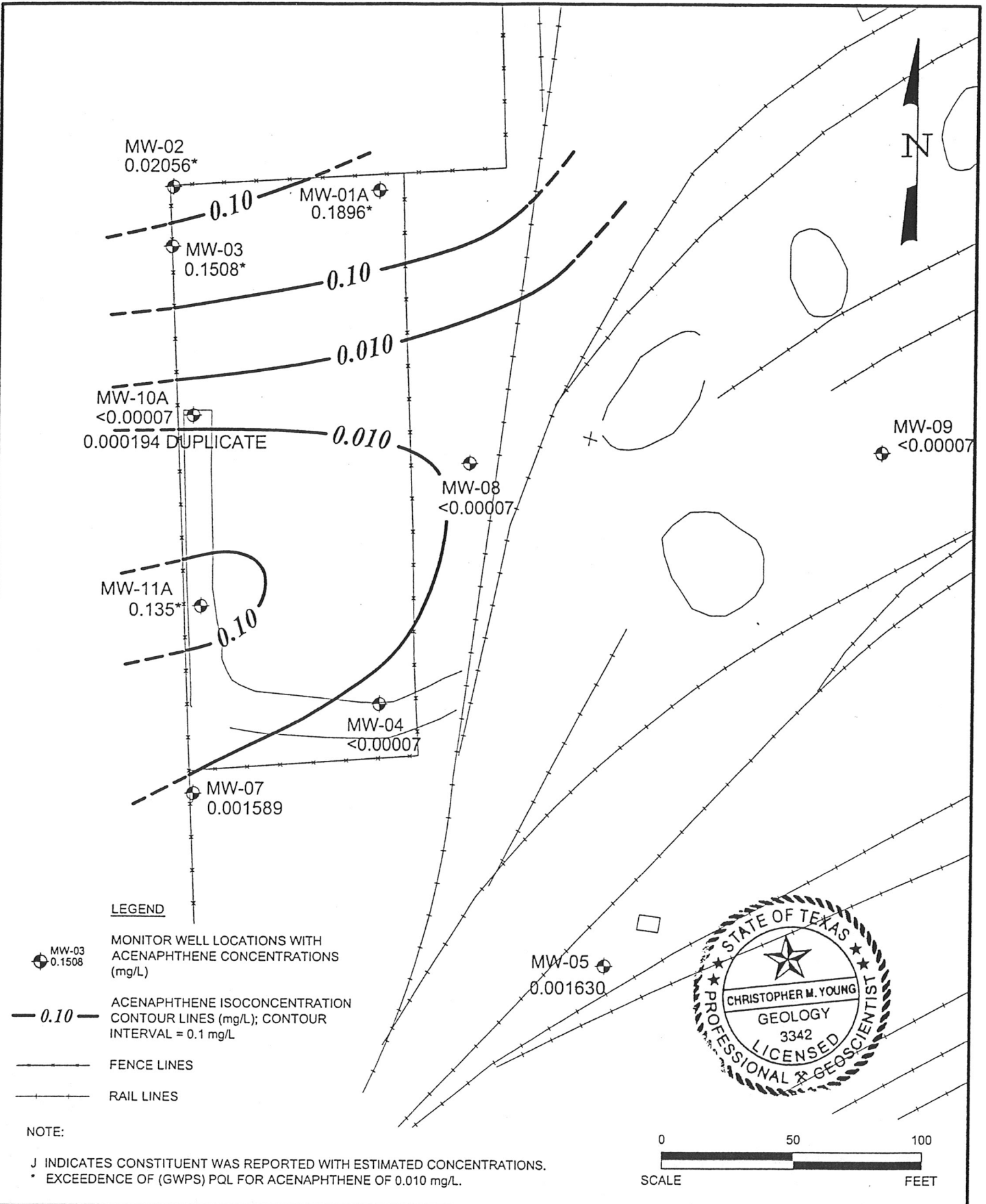
FIGURE 2-4
 TOTAL BTEX IN B-TZ GROUND WATER
 SEPTEMBER 23-24, 2003
 TCEQ PERMIT UNIT No. II.B.1.
 Houston Wood Preserving Works
 Houston, Texas



DESIGN: VMR DRAWN: LMc CHKD.: MGS

DATE: 01/13/04 SCALE: AS SHOWN REV.:

W.O.NO.: H:\DWG\A04\422102A288.dwg, 1/13/2004 1:29:24 PM

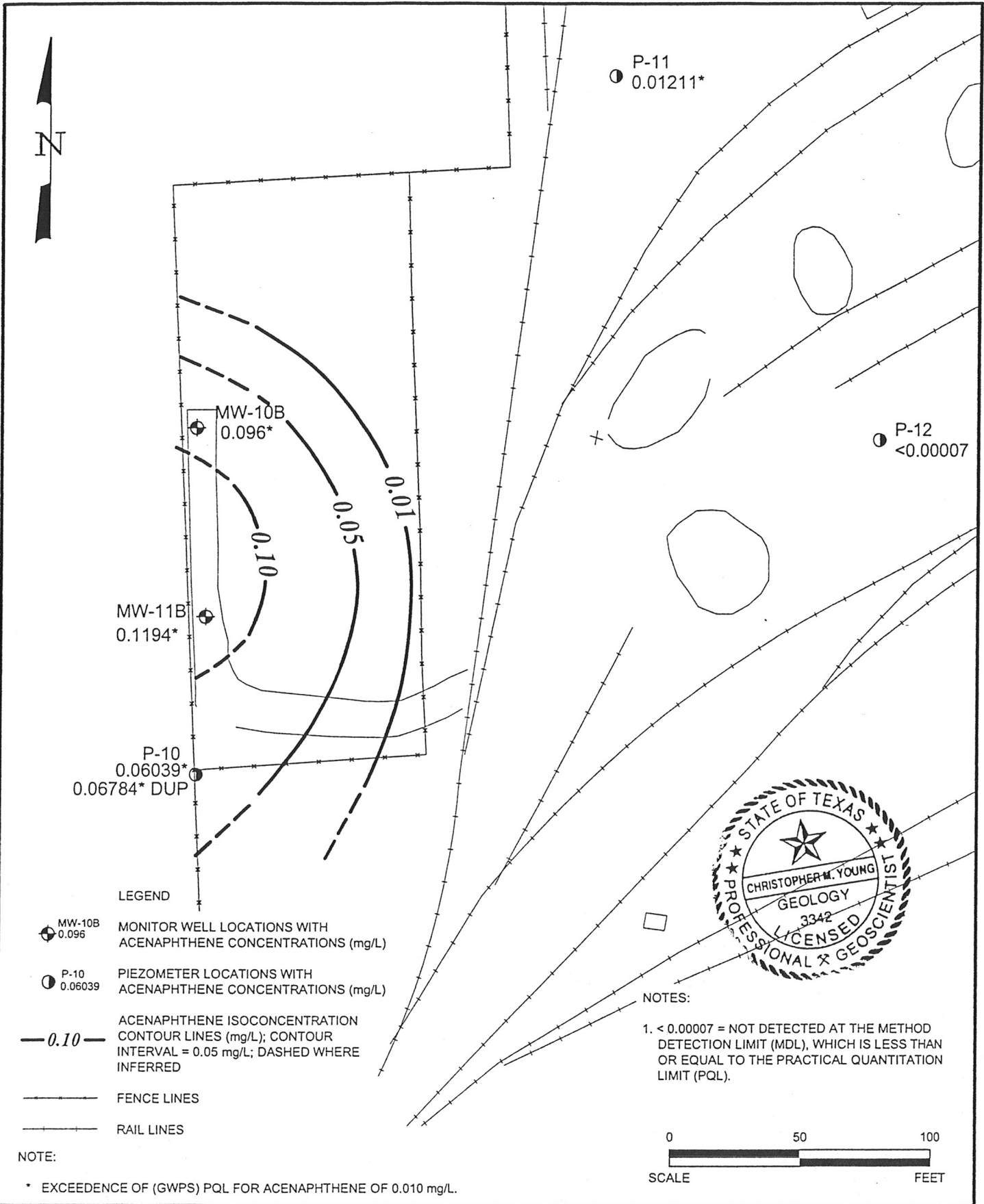


ERM-Southwest, Inc.
HOUSTON · NEW ORLEANS · AUSTIN · DALLAS · BEAUMONT · BATON ROUGE · CORPUS CHRISTI

FIGURE 2-5
ACENAPHTHENE IN A-TZ GROUND WATER
SEPTEMBER 23-24, 2003
TCEQ PERMIT UNIT No. II.B.1.
Houston Wood Preserving Works
Houston, Texas

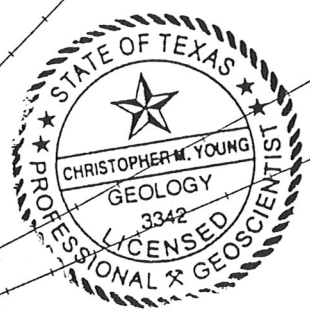


DESIGN: VMR	DRAWN: LMc	CHKD.: MGS
DATE: 01/13/04	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\DWG\A04\422102A289.dwg, 1/13/2004 1:45:11 PM		



LEGEND

MW-10B 0.096 MONITOR WELL LOCATIONS WITH ACENAPHTHENE CONCENTRATIONS (mg/L)
 P-10 0.06039 PIEZOMETER LOCATIONS WITH ACENAPHTHENE CONCENTRATIONS (mg/L)
 0.10 ACENAPHTHENE ISOCONCENTRATION CONTOUR LINES (mg/L); CONTOUR INTERVAL = 0.05 mg/L; DASHED WHERE INFERRED
 FENCE LINES
 RAIL LINES

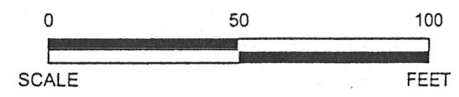


NOTES:

1. < 0.00007 = NOT DETECTED AT THE METHOD DETECTION LIMIT (MDL), WHICH IS LESS THAN OR EQUAL TO THE PRACTICAL QUANTITATION LIMIT (PQL).

NOTE:

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

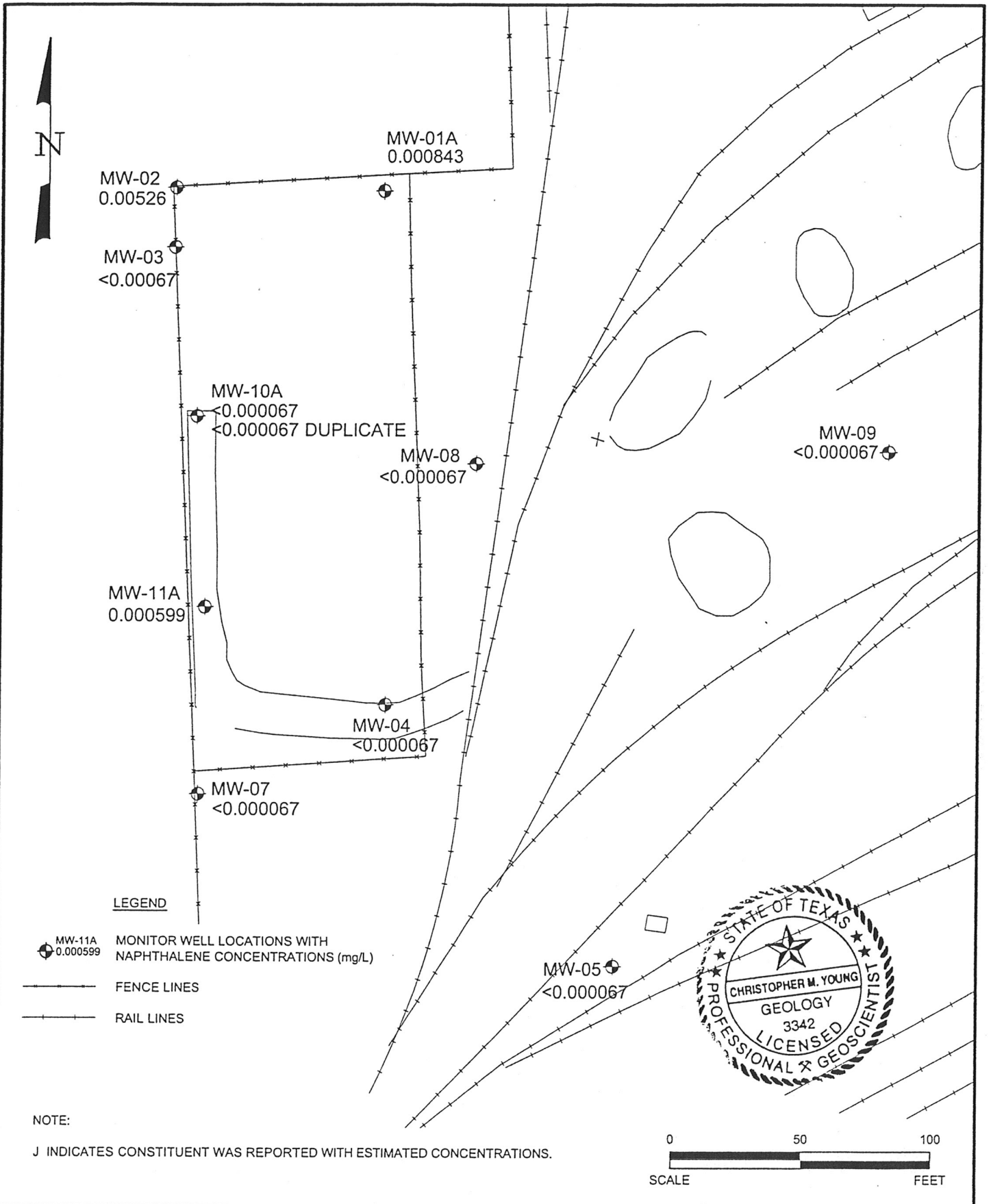


ERM-Southwest, Inc.
 HOUSTON · NEW ORLEANS · AUSTIN · DALLAS · BEAUMONT · BATON ROUGE · CORPUS CHRISTI

FIGURE 2-6
 ACENAPHTHENE IN B-TZ GROUND WATER
 SEPTEMBER 23-24, 2003
 TCEQ PERMIT UNIT No. II.B.1.
 Houston Wood Preserving Works
 Houston, Texas



DESIGN: VMR	DRAWN: LMc	CHKD.: MGS
DATE: 01/13/04	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\DWG\A04\422102A290.dwg, 1/13/2004 2:03:55 PM		



ERM-Southwest, Inc.

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

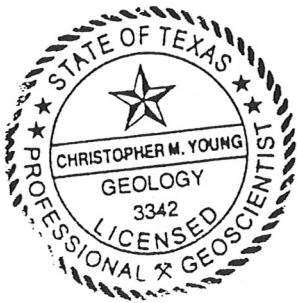
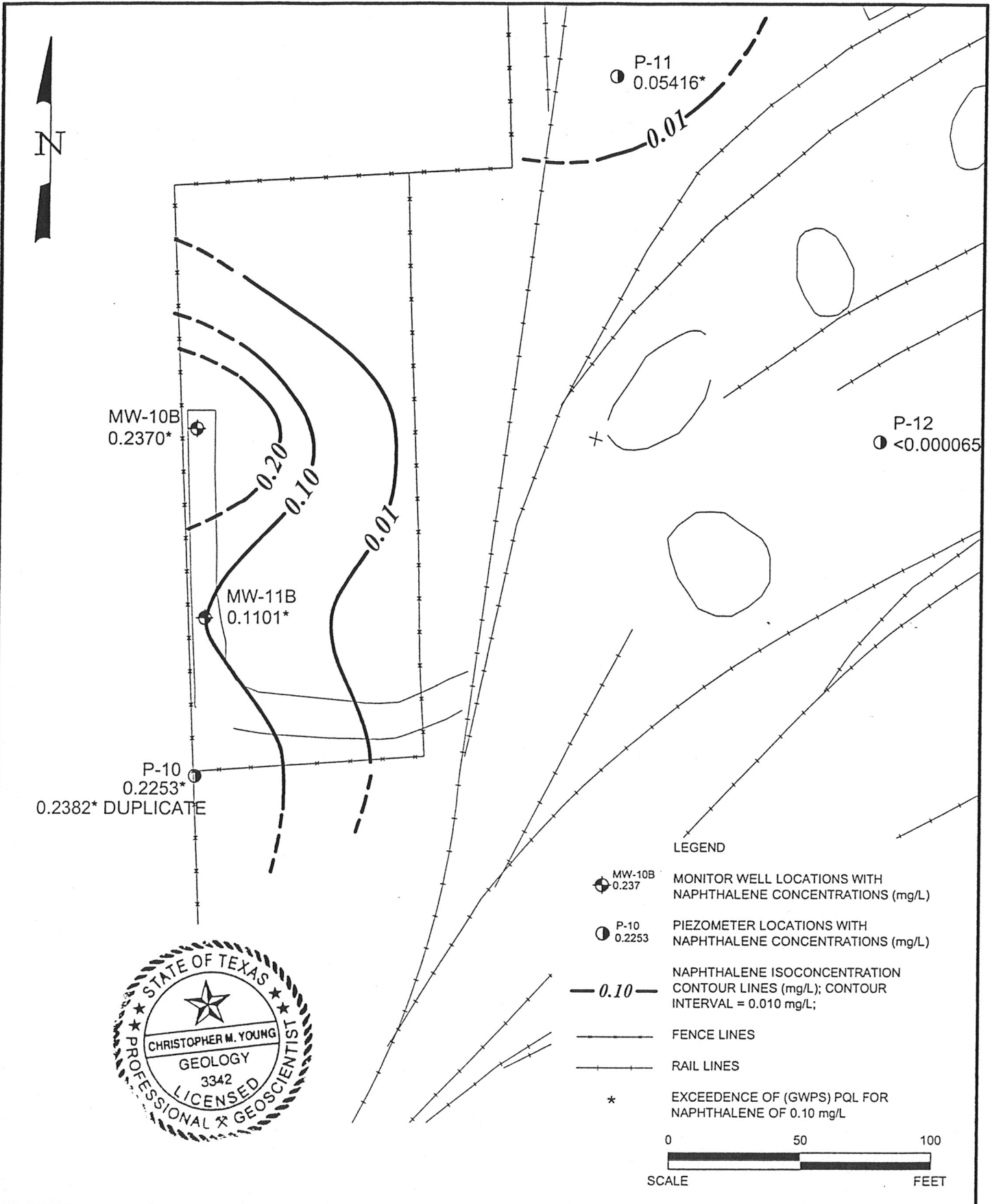
FIGURE 2-7
NAPHTHALENE IN A-TZ GROUND WATER (mg/L)
 SEPTEMBER 23-24, 2003
 TCEQ PERMIT UNIT No. II.B.1.
 Houston Wood Preserving Works
 Houston, Texas



DESIGN: VMR DRAWN: LMc CHKD.: MGS

DATE: 01/13/04 SCALE: AS SHOWN REV.:

W.O.NO.: H:\DWG\A04\422102A291.dwg, 1/13/2004 2:06:57 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 23-24, 2003
 TCEQ PERMIT UNIT No. II.B.1.
 Houston Wood Preserving Works
 Houston, Texas



DESIGN: VMR	DRAWN: LMc	CHKD.: MGS
DATE: 01/13/04	SCALE: AS SHOWN	REV.:
W.O.NO.: H:\DWGIA04\422102A292.dwg, 1/13/2004 2:26:46 PM		

Compliance Plan Tables
Appendix A

January 20, 2004
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-9	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, 2004

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 2003
Houston Wood Preserving Works
Houston, Texas

Well ID: Date Sampled:	MW-01A 9/24/03	MW-02 9/24/03	MW-03 9/24/03	MW-04 9/24/03	MW-05 9/24/03	MW-07 9/24/03	MW-08 9/24/03	MW-09 9/24/03
Time Sampled (hrs CST)	1,440	1,430	1,535	1,122	0908	1,130	822	1,037
Temperature (°C)	26.2	21.8	25.9	27.4	12.2	26.1	25.2	29.0
pH (Standard Units)	6.67	6.25	6.86	6.58	5.89	6.76	7.14	6.57
Specific Conductivity (uS)	1,495	---	1,011	867	726	827	543	928
Dissolved Oxygen (mg/L)	---	1.9	0.1	---	3.0	0.0	2.0	2.6
Turbidity (NTU)	2.54	4.61	4.55	2.90	3.40	1.54	--- (a)	2.21

Well ID: Date Sampled:	MW-10A 9/23/03	MW-10B 9/24/03	MW-11A 9/24/03	MW-11B 9/24/03	P-10 9/24/03	P-11 9/24/03	P-12 9/23/03
Time Sampled (hrs CST)	1,640	1,335	1,310	1,350	1,020	0910	1,700
Temperature (°C)	23.7	26.3	21.5	23.1	25.1	26.2	28.5
pH (Standard Units)	6.39	6.80	5.62	4.50	7.01	6.66	6.75
Specific Conductivity (uS)	958	1,332	1,147	1,267	1,170	1,412	1,347
Dissolved Oxygen (mg/L)	2.3	0.0	2.9	2.3	---	0.0	0.3
Turbidity (NTU)	0.87	2.58	0.97	0.77	3.66	0.42	1.37

NOTES:

CST = Central Standard Time

NTU = Natural Turbidity Unit

--- = Anomalous value

(a) = Anomalous value likely due to equipment failure.

Laboratory Analytical Reports
Appendix C

January 20, 2004
W.O. #422-102

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

ATTACHMENT

Data Usability Summary

Houston Wood Preserving Works
Houston, Texas

Environmental Resources Management (ERM) reviewed a laboratory analytical data package that included sample delivery group 261408 from Severn Trent Laboratories, Inc. of Houston, Texas for the analysis of 17 ground water samples collected on September 23 and 24, 2003 in the area of the Union Pacific Railroad property former Houston Wood Preserving Works site. Data were reviewed to assess conformance with the requirements of the *Review and Reporting of COC Concentration Data* TRRP-13 (December 2002), and adherence to project data quality objectives.

Purpose of Sampling Event: Semiannual ground water monitoring.

Analysis requested included:

SW-846 8270C - Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (low-level and Selective Ion Monitoring (SIM))

SW-846 8260B - Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Data were reviewed and validated as described in the TRRP-13 Guidance Document and the results of the review/validation are discussed in this Data Usability Summary (DUS). The following laboratory submittals were reviewed by ERM:

- The reportable data (level II and level IV data packages),
- The laboratory review checklists and associated exception reports, and
- The field notes with respect to field instrument calibrations, filtering procedures, sampling procedures, and preservation procedures prior to shipping the samples to the laboratory.

The results of supporting quality control (QC) analyses are summarized in the QC section of the analytical report.

The reportable data and case narratives included in this review are attached to this DUS.

Introduction

Fifteen ground water samples and two duplicate ground water samples were analyzed for semivolatile organic compounds (SVOCs) by low-level and SIM methods and volatile organic compounds (VOCs). Rinsate and equipment blanks were not provided

to the laboratory for analysis. One field blank and three trip blanks were provided to the laboratory and analyzed for VOCs. Table 1 lists the sample identifications cross-referenced to laboratory identifications.

Data Review / Validation Results

Analytical Results

Qualified sample data are listed in Table 2. VOCs and SVOCs are reported in ug/L. Non-detected results are reported as less than the value of the sample quantitation limit (SQL).

Preservation and Holding Times

The samples were evaluated for agreement with the chain-of-custody (COC). The samples were received in the appropriate containers and in good condition with most of the paperwork filled out properly. Most sample receipt temperatures were within the acceptance criteria of 4 +/- 2 degrees C. One cooler had a temperature of 1.9 degrees C listed on the sample receipt checklist, which was below the acceptance criteria. Based on professional judgement, no data were qualified as a result of the marginally low temperature. The three trip blanks were not listed on the COC, but since they were in the coolers, the laboratory analyzed the trip blanks. The "# of containers" check box on the COC was not filled in for samples MW-10A 2SA03, MW-10AD 2SA03, MW-8 2SA03, MW-9 2SA03 and MW-5 2SA03. Per the COC, the client specified MS/MSD was requested for VOCs only. A verbal request was made to the laboratory for the MS/MSD to be analyzed for SVOCs also. The samples were preserved in the field as specified in SW-846 Table 2-36. Samples were prepared and analyzed within holding times as specified in SW-846 Table 2-36.

Calibrations and Tunes

According to the Level IV analytical data package reviewed, initial calibration and continuing calibration data met SW-846 method requirements for VOC and SVOC analyses. The data package documents satisfactory instrument performance calibrations (GC/MS tunes) for VOC and SVOC analyses.

Blanks

Three trip blanks (TRIP BLANK-1, TRIP BLANK-2 and TRIP BLANK-3) and one field blank (FB092403 2SA03) were received by the laboratory, and analyzed for VOCs. All three trip blanks and the field blank were reported as not-detected for VOCs. VOCs were reported as not-detected in the method blanks.

SVOC low-level method blank SBLKW1 had an estimated detection of di-n-butyl phthalate (0.309 J ug/L). Sixteen associated ground water samples (MW-11B 2SA03, MW-2 2SA03, P-12 2SA03, P-11 2SA03, P-10 2SA03, MW-07 2SA03, MW-10B 2SA03, MW-01A 2SA03, MW-10A 2SA03, MW-10AD 2SA03, MW-8 2SA03, MW-5 2SA03, MW-9

2SA03, MW-11A 2SA03, MW-03 2SA03 and P-10D 2SA03) had estimated detections (J flagged) of di-n-butyl phthalate less than 10 times the method blank concentration, and were qualified as non-detect (U) due to method blank contamination.

Surrogate Recoveries

Surrogate recoveries for ground water VOC and SVOC analyses were within laboratory-defined acceptable ranges.

Internal Standards

According to the Level IV data package, VOC and SVOC internal standard areas were within SW-846 method acceptance criteria.

Laboratory Control Samples

VOC and SVOC laboratory control sample (LCS) recoveries met the laboratory-defined acceptable ranges. An LCS was not analyzed for SVOC SIMs.

Matrix Spike/Matrix Spike Duplicates

A sample from this laboratory package (MW-03 2SA03) was specified as the matrix spike/matrix spike duplicate (MS/MSD) sample for this sample delivery group. VOC MS/MSD recoveries were within laboratory acceptance criteria.

SVOC low-level MS/MSD had elevated recovery for 4-nitrophenol and low recovery for 2-methylnaphthalene, bis(2-ethylhexyl)phthalate and benzo(a)anthracene. The 17 associated samples were reported as not-detected for 4-nitrophenol, so the elevated recovery did not require qualification. Additionally, the 17 associated samples were reported as not-detected for benzo(a)anthracene and qualified as non-detect estimated low (UJL) due to low MS/MSD recovery. The 17 associated samples were qualified as non-detect estimated low (UJL) for bis(2-ethylhexyl)phthalate and 2-methylnaphthalene results reported as not-detected, and qualified as estimated low (JL) for bis(2-ethylhexyl)phthalate and 2-methylnaphthalene results reported as detected due to low MS/MSD recovery. The SVOC low-level MS/MSD also had recoveries outside QC limits for acenaphthene, dibenzofuran and fluorene. The spike amount of these three compounds was less than four times the unspiked parent sample. Based on professional judgement, qualification was not added to the data for acenaphthene, dibenzofuran and fluorene because the true matrix effect may not have been represented.

SVOC SIM MS/MSD had elevated recovery for pentachlorophenol. The seventeen associated samples were reported as not-detected for pentachlorophenol, so qualification of the data was not necessary. This MS/MSD also had elevated relative percent difference (RPD) for 2,4-dinitrotoluene. The 2,4-dinitrotoluene MS/MSD results were greater than five times the method quantitation limit (MQL), indicating detections should be qualified. However, the seventeen associated samples were reported as not-detected for 2,4-dinitrotoluene, so qualification of the data was not necessary.

Field Precision

One field duplicate sample set (MW-10A 2SA03 / MW-10AD 2SA03) was reported as estimated detected for di-n-butyl phthalate. The sample, MW-10A 2SA03, was also reported as estimated detected for bis(2-ethylhexyl)phthalate and the duplicate, MW-10AD 2SA03, was reported as estimated detected for acenaphthene. A comparison of the di-n-butyl phthalate estimated detections was made and the RPD was slightly above the 20% criteria. Since the sample/duplicate results were less than five times the MQL and the difference between sample and duplicate results was less than two times the MQL, qualification of the data was not necessary.

The second field duplicate sample set (P-10 2SA03 / P-10D 2SA03) had detections or estimated detections of 2-methylnaphthalene, acenaphthene, anthracene, dibenzofuran, di-n-butyl phthalate, fluoranthene, fluorene, naphthalene, phenanthrene and pyrene. Table 4 details the sample/duplicate precision calculations. 2-methylnaphthalene, acenaphthene, anthracene, dibenzofuran, di-n-butyl phthalate, fluoranthene, fluorene, phenanthrene and pyrene had RPD less than the 20% criteria and sample/duplicate precision comparisons were within acceptance limits. Naphthalene had a RPD slightly above the 20% criteria. However, the sample duplicate results were greater than five times the MQL and the RPD was less than 30%, so qualification of the data was not necessary.

Sample/duplicate precision comparison calculations are included in Table 3.

Field Procedures

The samples were collected using documented sampling procedures.

SUMMARY

Ground water analytical data are useable for the purpose of delineation of VOCs and SVOCs in the area of the former Houston Wood Preserving Works site. Di-n-butyl phthalate was detected in the SVOC method blank and samples with detections less than 10X the method blank concentration were qualified as non-detect (U). Seventeen samples were qualified as estimated low (UJL or JL) for benzo(a)anthracene, 2-methylnaphthalene and bis(2-ethylhexyl)phthalate due to low MS/MSD recovery.

Table 1

Cross-Reference Field Sample Identifications and Laboratory Identifications
Laboratory Package 261408

Houston Wood Preserving Works
Union Pacific Railroad Company

<u>Field Identification</u>	<u>Laboratory Identification</u>
MW-11B 2SA03	261408-1
MW-2 2SA03	261408-2
P-12 2SA03	261408-3
P-11 2SA03	261408-4
P-10 2SA03	261408-5
MW-07 2SA03	261408-6
MW-10B 2SA03	261408-7
MW-01A 2SA3	261408-8
MW-10A 2SA3	261408-9
MW-10AD 2SA3	261408-10
MW-8 2SA3	261408-11
MW-5 2SA3	261408-12
MW-9 2SA3	261408-13
FB092403 2SA03	261408-14
MW-4 2SA03	261408-15
MW-11A 2SA03	261408-16
MW-03 2SA03	261408-17
MW-03MS 2SA03	261408-18
MW-03MSD 2SA03	261408-19
P-10D 2SA03	261408-20
TRIP BLANK-1	261408-21
TRIP BLANK-2	261408-22
TRIP BLANK-3	261408-23

Table 2

Qualified Analytical Data
Laboratory Package 261408

Houston Wood Preserving Works
Union Pacific Railroad Company

Field Identification	Analyte	Qualification	Reason for Qualification
MW-11B 2SA03	Di-n-butyl phthalate	U	Method blank contamination
MW-2 2SA03	Di-n-butyl phthalate	U	Method blank contamination
P-12 2SA03	Di-n-butyl phthalate	U	Method blank contamination
P-11 2SA03	Di-n-butyl phthalate	U	Method blank contamination
P-10 2SA03	Di-n-butyl phthalate	U	Method blank contamination
MW-07 2SA03	Di-n-butyl phthalate	U	Method blank contamination
MW-10B 2SA03	Di-n-butyl phthalate	U	Method blank contamination
MW-01A 2SA3	Di-n-butyl phthalate	U	Method blank contamination
MW-10A 2SA3	Di-n-butyl phthalate	U	Method blank contamination
MW-10AD 2SA3	Di-n-butyl phthalate	U	Method blank contamination
MW-8 2SA3	Di-n-butyl phthalate	U	Method blank contamination
MW-5 2SA3	Di-n-butyl phthalate	U	Method blank contamination
MW-9 2SA3	Di-n-butyl phthalate	U	Method blank contamination
MW-11A 2SA03	Di-n-butyl phthalate	U	Method blank contamination
MW-03 2SA03	Di-n-butyl phthalate	U	Method blank contamination
P-10D 2SA03	Di-n-butyl phthalate	U	Method blank contamination
MW-11B 2SA03	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-2 2SA03	benzo(a)anthracene	UJL	Low MS/MSD recovery
P-12 2SA03	benzo(a)anthracene	UJL	Low MS/MSD recovery
P-11 2SA03	benzo(a)anthracene	UJL	Low MS/MSD recovery
P-10 2SA03	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-07 2SA03	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-10B 2SA03	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-01A 2SA3	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-10A 2SA3	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-10AD 2SA3	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-8 2SA3	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-5 2SA3	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-9 2SA3	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-4 2SA03	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-11A 2SA03	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-03 2SA03	benzo(a)anthracene	UJL	Low MS/MSD recovery
P-10D 2SA03	benzo(a)anthracene	UJL	Low MS/MSD recovery
MW-11B 2SA03	2-methylnaphthalene	JL	Low MS/MSD recovery
MW-2 2SA03	2-methylnaphthalene	JL	Low MS/MSD recovery
P-12 2SA03	2-methylnaphthalene	UJL	Low MS/MSD recovery
P-11 2SA03	2-methylnaphthalene	JL	Low MS/MSD recovery
P-10 2SA03	2-methylnaphthalene	JL	Low MS/MSD recovery
MW-07 2SA03	2-methylnaphthalene	UJL	Low MS/MSD recovery
MW-10B 2SA03	2-methylnaphthalene	JL	Low MS/MSD recovery

MW-01A 2SA3	2-methylnaphthalene	JL	Low MS/MSD recovery
MW-10A 2SA3	2-methylnaphthalene	UJL	Low MS/MSD recovery
MW-10AD 2SA3	2-methylnaphthalene	UJL	Low MS/MSD recovery
MW-8 2SA3	2-methylnaphthalene	UJL	Low MS/MSD recovery
MW-5 2SA3	2-methylnaphthalene	UJL	Low MS/MSD recovery
MW-9 2SA3	2-methylnaphthalene	UJL	Low MS/MSD recovery
MW-4 2SA03	2-methylnaphthalene	UJL	Low MS/MSD recovery
MW-11A 2SA03	2-methylnaphthalene	UJL	Low MS/MSD recovery
MW-03 2SA03	2-methylnaphthalene	UJL	Low MS/MSD recovery
P-10D 2SA03	2-methylnaphthalene	JL	Low MS/MSD recovery
MW-11B 2SA03	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery
MW-2 2SA03	bis(2-ethylhexyl)phthalate	JL	Low MS/MSD recovery
P-12 2SA03	bis(2-ethylhexyl)phthalate	JL	Low MS/MSD recovery
P-11 2SA03	bis(2-ethylhexyl)phthalate	JL	Low MS/MSD recovery
P-10 2SA03	bis(2-ethylhexyl)phthalate	JL	Low MS/MSD recovery
MW-07 2SA03	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery
MW-10B 2SA03	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery
MW-01A 2SA3	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery
MW-10A 2SA3	bis(2-ethylhexyl)phthalate	JL	Low MS/MSD recovery
MW-10AD 2SA3	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery
MW-8 2SA3	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery
MW-5 2SA3	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery
MW-9 2SA3	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery
MW-4 2SA03	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery
MW-11A 2SA03	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery
MW-03 2SA03	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery
P-10D 2SA03	bis(2-ethylhexyl)phthalate	UJL	Low MS/MSD recovery

Notes:

J = estimated data, the reported sample concentration is approximated due to exceedance of QC requirements

U = not detected

L = Low bias

UJ = the analyte was analyzed for but was not detected above the reported sample quantitation limit.
the associated value is an estimate and may be inaccurate or imprecise.

Table 3
 Field Precision
 Laboratory Package 261408

Houston Wood Preserving Works
 Union Pacific Railroad Company

Field Identification	Analyte	Sample Result	Duplicate Result	RPD	Qualified
MW-10A 2SA03 / MW-10AD 2SA03	di-n-butyl phthalate	0.284	0.231	20.5825243	A*
P-10 2SA03 / P-10D 2SA03	2-methylnaphthalene	11.69	13.88	-17.129449	A
	acenaphthene	60.39	67.84	-11.619746	A
	anthracene	1.574	1.767	-11.553427	A
	dibenzofuran	15.18	17.25	-12.765957	A
	di-n-butyl phthalate	0.475	0.452	4.9622438	A
	fluoranthene	1.243	1.42	-13.293278	A
	fluorene	20.36	22.65	-10.648686	A
	naphthalene	225.3	283.2	-22.772861	A*
	phenanthrene	3.675	3.966	-7.6168041	A
	pyrene	0.522	0.541	-3.5747883	A

∞

Notes:

results reported as ug/L for SVOCs

$$RPD = ((SR-DR)*200)/(SR+DR)$$

J = estimated data due to inability to meet QC criteria

A = Acceptable data

A* = Acceptable data based on Table D-2 of the TRRP-13 guidance



STL

10/20/2003

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

Project : UPRR-HWPW-422-102/60
Project No. : 261408
Date Received : 09/25/2003
STL Job : 261408

Dear Chris Young:

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

- | | |
|--------------------|--------------------|
| 1. MW-11B 2SA03 | 2. MW-2 2S03 |
| 3. P-12 2SA03 | 4. P-11 2SA03 |
| 5. P-10 2SA03 | 6. MW-07 2SA03 |
| 7. MW-10B 2SA03 | 8. MW-01A 2SA03 |
| 9. MW-10A 2SA03 | 10. MW-10AD 2SA03 |
| 11. MW-8 2SA03 | 12. MW-5 2SA03 |
| 13. MW-9 2SA03 | 14. FB092403 2SA03 |
| 15. MW-4 2SA03 | 16. MW-11A 2SA03 |
| 17. MW-03 2SA03 | 18. MW-03MS 2SA03 |
| 19. MW-03MSD 2SA03 | 20. P-10D 2SA03 |
| 21. TRIP BLANK-1 | 22. TRIP BLANK-2 |
| 23. TRIP BLANK-3 | |

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 will be noted and included in a case narrative as a 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.

TRRP Laboratory Test Results

Job Number: 261408
Date: 10/20/03

CUSTOMER: ERM Southwest, Inc.- Houston
PROJECT: 422-102 60
ATTN: Chris Young

Customer Sample ID: P-10D 2SA03
Laboratory Sample ID: 261408-020
Date/Time Sampled: 9/24/03 0:00
Date/Time Received: 9/25/03 15:29
Sample Matrix: Water

TEST METHOD	CAS #	RESULT	FLAG	MDL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 8260B, Water										
1,2-Dichloroethane	107-06-2	1.01	U	1.01	1.01	ug/L	9/29/03 20:02	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	0.77	ug/L	9/29/03 20:02	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	0.68	ug/L	9/29/03 20:02	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	0.77	ug/L	9/29/03 20:02	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	2.45	ug/L	9/29/03 20:02	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	0.79	ug/L	9/29/03 20:02	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	2.29	ug/L	9/29/03 20:02	84337	1	zfl

TRRP Laboratory Test Results

Job Number: 261408 Date: 10/20/03

CUSTOMER: ERM Southwest, Inc.- Houston PROJECT: 422-102 60 ATTN: Chris Young

Customer Sample ID: P-10D 2SA03 Laboratory Sample ID: 261408-020
 Date/Time Sampled: 9/24/03 0:00 Sample Matrix: Water
 Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS #	RESULT	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	10/11/03 0:22	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/30/03 16:16	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	10/11/03 0:22	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	10/11/03 0:22	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 16:16	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/30/03 16:16	84565	1	lg1
2-Methylnaphthalene	91-57-6	13.88		0.07	0.5	0.067	ug/L	9/30/03 16:16	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/30/03 16:16	84565	1	lg1
Acenaphthene	83-32-9	67.84		0.078	0.5	0.37	ug/L	9/30/03 22:11	84565	5	lg1
Acenaphthylene	208-96-8	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 16:16	84565	1	lg1
Anthracene	120-12-7	1.767		0.13	0.5	0.124	ug/L	9/30/03 16:16	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/30/03 16:16	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	10/11/03 0:22	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	10/11/03 0:22	84566	1	lg1



TRRP Laboratory Test Results

Job Number: 261408 Date: 10/20/03

CUSTOMER: ERM Southwest, Inc.- Houston PROJECT: 422-102.60

Customer Sample ID: P-10D 2SA03 Laboratory Sample ID: 261408-020

Date/Time Sampled: 9/24/03 0:00 Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

ATTN: Chris Young

TEST METHOD	CAS #	RESULT	FLAG	MDL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
bis(2-ethylhexyl)phthalate	117-81-7	0.172	U	0.18	0.172	ug/L	9/30/03 16:16	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.09	ug/L	9/30/03 16:16	84565	1	lg1
Dibenzofuran	132-64-9	17.25		0.08	0.076	ug/L	9/30/03 16:16	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.452	J	0.15	0.143	ug/L	9/30/03 16:16	84565	1	lg1
Fluoranthene	206-44-0	1.42		0.098	0.093	ug/L	9/30/03 16:16	84565	1	lg1
Fluorene	86-73-7	22.65		0.071	0.068	ug/L	9/30/03 16:16	84565	1	lg1
Naphthalene	91-20-3	283.2		0.07	0.67	ug/L	10/2/03 10:50	84565	10	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.143	ug/L	9/30/03 16:16	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.09	ug/L	9/30/03 16:16	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.012	ug/L	10/1/03 0:22	84566	1	lg1
Phenanthrene	85-01-8	3.966		0.081	0.077	ug/L	9/30/03 16:16	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.0953	ug/L	9/30/03 16:16	84565	1	lg1
Pyrene	129-00-0	0.541		0.088	0.084	ug/L	9/30/03 16:16	84565	1	lg1

TRRP Laboratory Test Results

Job Number: 261408 Date: 10/20/03

CUSTOMER: ERM Southwest, Inc.- Houston ATTN: Chris Young

PROJECT: 422-102 60

Customer Sample ID: TRIP BLANK-1 Laboratory Sample ID: 261408-021

Date/Time Sampled: 9/25/03 15:29 Sample Matrix: Trip Blank

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS #	RESULT	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 14:11	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 14:11	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 14:11	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 14:11	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 14:11	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 14:11	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 14:11	84337	1	zfl

TRRP Laboratory Test Results

Job Number: 261408 Date: 10/20/03

CUSTOMER: ERM Southwest, Inc. - Houston PROJECT: 422-102.60 ATTN: Chris Young

Customer Sample ID: TRIP BLANK-2 Laboratory Sample ID: 261408-022
 Date/Time Sampled: 9/25/03 15:29 Sample Matrix: Trip Blank
 Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS #	RESULT	FLAG	MDL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 8260B, Water										
1,2-Dichloroethane	107-06-2	1.01	U	1.01	1.01	ug/L	9/29/03 13:44	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	0.77	ug/L	9/29/03 13:44	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	0.68	ug/L	9/29/03 13:44	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	0.77	ug/L	9/29/03 13:44	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	2.45	ug/L	9/29/03 13:44	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	0.79	ug/L	9/29/03 13:44	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	2.29	ug/L	9/29/03 13:44	84337	1	zfl

TRRP Laboratory Test Results

Job Number: 261408 Date: 10/20/03
 CUSTOMER: ERM Southwest, Inc.- Houston PROJECT: 422-102 60 ATTN: Chris Young

Customer Sample ID: TRIP BLANK-3 Laboratory Sample ID: 261408-023
 Date/Time Sampled: 9/25/03 15:29 Sample Matrix: Trip Blank
 Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS #	RESULT	FLAG	MDL	MQL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 13:17	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 13:17	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 13:17	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 13:17	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 13:17	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 13:17	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 13:17	84337	1	zfl

15



STL

We look forward to working with you on future projects.

Sincerely,

A handwritten signature in black ink, appearing to read "Sachin G. Kudchadkar".

Sachin G. Kudchadkar
Project Manager



Table 1
 Cross-Reference Field Sample Identifications and Laboratory Identifications

Field Identification	DPA Sample Number	Laboratory Identification	8260B	8270C	Comment
MW-11B 2SA03	MW11B	261408-1	X	X	
MW-2 2SA03	MW2	261408-2	X	X	
P-12 2SA03	P12	261408-3	X	X	
P-11 2SA03	P11	261408-4	X	X	
P-10 2SA03	P10	261408-5	X	X	
MW-07 2SA03	MW07	261408-6	X	X	
MW-10B 2SA03	MW10B	261408-7	X	X	
MW-01A 2SA03	MW01A	261408-8	X	X	
MW-10A 2SA03	MW10A	261408-9	X	X	
MW-10AD 2SA03	MW10AD	261408-10	X	X	
MW-8 2SA03	MW8	261408-11	X	X	
MW-5 2SA03	MW5	261408-12	X	X	
MW-9 2SA03	MW9	261408-13	X	X	
FB092403 2SA03	FB	261408-14	X		Field Blank
MW-4 2SA03	MW4	261408-15	X	X	
MW-11A 2SA03	MW11A	261408-16	X	X	
MW-03 2SA03	MW03	261408-17	X	X	
MW-03MS 2SA03	MW03MS	261408-18	X	X	Matrix Spike of MW03 2SA03
MW-03MSD 2SA03	MW03MSD	261408-19	X	X	Matrix Spike Duplicate of MW03 2SA03
P-10D 2SA03	P10D	261408-20	X	X	
TRIP BLANK-1	TB1	261408-21	X		Trip Blank; Not on C-O-C
TRIP BLANK-2	TB2	261408-22	X		Trip Blank; Not on C-O-C
TRIP BLANK-3	TB3	261408-23	X		Trip Blank; Not on C-O-C

Appendix A Laboratory Data Package Cover Page

This data package consists of:

This signature page, the laboratory review checklist, and the following reportable data:

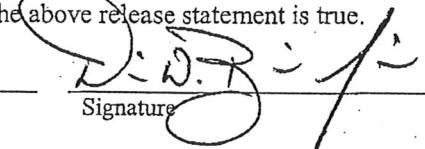
- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Check, if applicable: This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Norman Flynn
Name (Printed)


Signature

Laboratory Director
Official Title (printed)

10/22/07
Date

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: STL-Houston		LRC Date: 10/13/03					
Project Name: 422-102 60		Laboratory Job Number: 261408					
Reviewer Name: QL		Prep Batch Number(s): 84337-VOA					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1,2
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				3
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample quantitation limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
		Were LCS RPD within QC limits?			X		
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
R9	OI	Method quantitation limits (MQLs):					
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
		Are the MQLs for each method analyte included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs included in the laboratory data package?	X				
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
R10	OI	Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: STL-Houston		LRC Date: 10/13/03					
Project Name: 422-102 60		Laboratory Job Number: 261408					
Reviewer Name: QL		Prep Batch Number(s): 84337-VOA					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: STL-Houston	LRC Date: 10/13/03
Project Name: 422-102 60	Laboratory Job Number: 261408
Reviewer Name: QL	Prep Batch Number(s): 84337-VOA
ER # ¹	DESCRIPTION
1	The temperature of cooler G/G 4 received by the laboratory on 09/25/03 was below the acceptable range of 2.0-6.0 °C.
2	The laboratory received five containers each for samples MW10A, MW10AD, MW8, MW5, and MW9 even though the "# CONTAINER" column was left blank on the C-O-C for these samples.
3	Since the laboratory received two VOA vials each for three trip blanks that were not listed on the C-O-C, VOA analyses were logged in for them.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: STL-Houston		LRC Date: 10/15/03					
Project Name: 422-102 60		Laboratory Job Number: 261408					
Reviewer Name: CLU		Prep Batch Number(s): 84302-LL SV					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?		X			1,2
		Were all departures from standard conditions described in an exception report?	X				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				3
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample quantitation limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?			X		
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		If required for the project, TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?			X		
		Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			4
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SQL to minimize the matrix interference affects on the sample results?	X				5

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data							
Laboratory Name: STL-Houston			LRC Date: 10/15/03				
Project Name: 422-102 60			Laboratory Job Number: 261408				
Reviewer Name: CLU			Prep Batch Number(s): 84302-LL SV				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within OC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- 2 Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 3 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 4 NA = Not applicable.
- 5 NR = Not Reviewed.
- 6 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports	
Laboratory Name: STL-Houston	LRC Date: 10/15/03
Project Name: 422-102 60	Laboratory Job Number: 261408
Reviewer Name: CLU	Prep Batch Number(s): 84302-LL SV
ER # ¹	DESCRIPTION
1	The temperature of cooler G/G 4 received by the laboratory on 09/25/03 was below the acceptable range of 2.0-6.0 °C.
2	The laboratory received five containers each for samples MW10A, MW10AD, MW8, MW5, and MW9 even though the "# CONTAINER" column was left blank on the C-O-C for these samples.
3	Per client's request, samples MW03MS and MW03MSD were analyzed for 8270LL even though this analysis was not marked on the C-O-C.
4	Ten recoveries in the MS and MSD were outside acceptance limits due to matrix interference. The benzo(a)anthracene recovery in sample MW03MSD was marginally below acceptance limits. Since the recovery was within 1% of acceptance criteria, no corrective action was required.
5	Ten samples had two or more SQLs elevated due to the dilutions necessary for analyses.

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: STL-Houston		LRC Date: 10/14/03					
Project Name: 422-102 60		Laboratory Job Number: 261408					
Reviewer Name: CLU		Prep Batch Number(s): 84302-SIM SV					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt? Were all departures from standard conditions described in an exception report?		X			1,2
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers? Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				3
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample quantitation limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis? Were % moisture (or solids) reported for all soil and sediment samples? If required for the project, TICs reported?				X	
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction? Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency? Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?			X		
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?			X		
		Were LCSs analyzed at the required frequency? Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?			X		
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs? Was the LCSD RPD within QC limits?			X		
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency? Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X		X		4
		Were MS/MSD RPDs within laboratory QC limits?		X			5
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix? Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package? Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER? Were all necessary corrective actions performed for the reported data?	X				
		Was applicable and available technology used to lower the SQL to minimize the matrix interference affects on the sample results?	X				6

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Reportable Data

Laboratory Name: STL-Houston		LRC Date: 10/14/03					
Project Name: 422-102 60		Laboratory Job Number: 261408					
Reviewer Name: CLU		Prep Batch Number(s): 84302-SIM SV					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning:					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS):					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs):					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results:					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSS?	X				
S11	OI	Proficiency test reports:					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs):					
		Are laboratory SOPs current and on file for each method performed?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s).
- Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports

Laboratory Name: STL-Houston		LRC Date: 10/14/03
Project Name: 422-102 60		Laboratory Job Number: 261408
Reviewer Name: CLU		Prep Batch Number(s): 84302-SIM SV
ER # ¹	DESCRIPTION	
1	The temperature of cooler G/G 4 received by the laboratory on 09/25/03 was below the acceptable range of 2.0-6.0 °C.	
2	The laboratory received five containers each for samples MW10A, MW10AD, MW8, MW5, and MW9 even though the "# CONTAINER" column was left blank on the C-O-C for these samples.	
3	Per client's request, samples MW03MS and MW03MSD were analyzed for 8270SIM even though this analysis was not marked on the C-O-C.	
4	The pentachlorophenol recoveries in the MS and MSD were above in-house acceptance limits. These high recoveries will not affect the quality of reported results.	
5	The RPD for 2,4-dinitrotoluene was above acceptance limits due to matrix interference.	
6	The SQLs for four or more analytes in samples MW03MS and MW03MSD were elevated due to the dilutions necessary for analyses.	

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

CHAIN OF CUSTODY

CHAIN OF CUSTODY RECORD

Customer Information		Project Information		Analysis Method	
PO	726270	PROJECT NAME	99000484/422-102/60	A	8260
WO		LAB NUMBER		B	8270LL
COMPANY	ERM Southwest, Inc. - Houston	BILL TO	BOTTLE ORDER	C	8270SIM
SEND REPORT TO	Theodora Overfelt	INVOICE ATTN	Union Pacific Railroad	D	
ADDRESS	15810 Park Ten Place	ADDRESS	Geoff Reader	E	
	Suite 300	CITY/STATE/ZIP	24125 Aldine Westfield Road	F	
	Houston, TX 77084	PHONE	Spring, TX 77373-9015	G	
	281-600-1000	FAX	281-350-7197	H	
	281-600-1001		281-350-7362	I	

SAMP NO.	SAMPLE DESCRIPTION	PRESERVE	F	SAMPLE MATRIX	SAMPLE DATE	SAMPLE TIME	CONTAINER	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	MW-10A 2SA03	MULTI	VARIOUS	Water	9/23	1640		XXX																		
2	MW-10AD 2SA03			Water	9/23	1645		XXX																		
3	MW-82SA03			Water	9/24	0822		XXX																		
4	MW-5 2SA03			Water	9/24	0908		XXX																		
5	MW-92 SA03			Water	9/24	1037		XXX																		
6	FB 092403 2SA03			Water	9/24	1000	3																			
7	MW-4 2SA03			Water	9/24	1122	5																			
8	MW-11A 2SA03			Water	9/24	1310	5																			

Sampler: M-ST. NARI E

Shipment Method: STL

Airbill No.: 14 Days/28

Required TurnAround: 14 Days/28

1. Relinquished By:	<i>Mario St. Marie</i>	Date	9/24	3. Relinquished By:		Date	9/25/03
Company Name:	ERM	Time	1900	Company Name:	STL	Time	1529
1. Received By:	<i>MW</i>	Date	9/25/03	3. Received By:	JRS BENITZ	Date	9/25/03
Company Name:	STL	Time	1443	Company Name:	STL	Time	1529

Severn Trent Laboratories 6310 Rothway Drive Houston, TX 77040 (713) 690-4444

Job Number.: 261408 Location.: 57216 Check List Number.: 1 Description.:
 Customer Job ID.....: Job Check List Date.: 09/26/2003 Date of the Report...: 09/26/2003
 Project Number.: 99000484 Project Description.: UPRR-HWPW-422-102/60 Project Manager.....: sgk
 Customer.....: ERM Southwest, Inc.- Houston Contact.: Theodora Overfelt

Questions ? (Y/N) Comments

Chain of Custody Received?..... Y
 ...If "yes", completed properly?..... Y
 Custody seal on shipping container?..... Y
 ...If "yes", custody seal intact?..... Y
 Custody seals on sample containers?..... N
 ...If "yes", custody seal intact?.....
 Samples chilled?..... Y
 Temperature of cooler acceptable? (4 deg C +/- 2). Y 1.9,2.5,2.7,3.1
 ...If "no", is sample an air matrix?(no temp req.)
 Thermometer ID..... Y 324
 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?.....
 Additional.....
 Comments.....
 Sample Custodian Signature/Date..... Y EIB

JB 9/26/03

STL HOUSTON - SAMPLE RECEIPT CHECKLIST

CLIENT NAME: ERM
 PROJECT: _____
 DATE SHIPPED: 2003 SEP 25 11 53 28
 DATE RECEIVED: _____
 TOTAL # COOLERS RECEIVED: 4

CONTACT: _____
 CARRIER: Dhu
 UNPACKED BY: JB
 UNPACKED STAMP: _____
 TRACKING NUMBERS: 703 SEP 26 11 13 00

(Retain air bills in project folder)

COOLER CHECKLIST

COOLER ID	COC PRESENT (Y/N)	CUSTODY TAPE		COOLER TEMP (°C)	THERM ID	TEMP BLK PRESENT (Y/N)	List Sample Bottles in Each Cooler
		PRESENT (Y/N)	INTACT (Y/N)				
G/G 4	Y	C	Y	1.9	324	N	
		B	N				
B/w 3	Y	C	Y	2.5	324	N	
		B	N				
B/w 2	Y	C	Y	2.7	324	N	
		B	N				

C = COOLER B = BOTTLES

COOLER(S) SCREENED FOR RADIATION? Yes ___ No ___ IF TEMP BLK N, HOW WAS TEMP TAKEN: _____

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

SPECIFIC PROJECT INFORMATION

JOB NUMBER: 2001408
 PROJECT NAME: _____
 Marked As Preserved? Yes ___ No ___
 Number of VOA Vials: 100

VOLATILE HEADSPACE ACCEPTABLE? Yes ___ No ___ NA ___

pH OF WATER SAMPLES

PRESERVATION	# BOTTLES	CORRECT pH (Y/N)	If N, List sample ID and Corresponding pH)
H2SO4 (<2)			
HNO3 (<2)			
HCL (<2) (Not VOA Vials)			
NaOH - Cyanide (>12)			
NaOH/Zn Acetate - Sulfide (>9)			
Other	<u>34</u>		

OF NEAT BOTTLES: _____

OF SOIL JARS: _____

INCONSISTENCIES

ACTION TAKEN _____ DATE: _____
 PERSON CONTACTED: _____
 RESOLUTION _____

NOTES _____

(Use back of sheet if necessary)

Project Manager _____

STL HOUSTON - SAMPLE RECEIPT CHECKLIST

CLIENT NAME: ERM
 PROJECT: _____
 DATE SHIPPED: 200 SEP 25 PM 3:25
 DATE RECEIVED: _____
 TOTAL # COOLERS RECEIVED: 1

CONTACT: _____
 CARRIER: Plm
 UNPACKED BY: _____
 UNPACKED STAMP: _____
 TRACKING NUMBERS: _____

(Retain air bills in project folder)

COOLER CHECKLIST

COOLER ID	COC PRESENT (Y/N)	CUSTODY TAPE		COOLER TEMP (°C)	THERM ID	TEMP BLK PRESENT (Y/N)	List Sample Bottles in Each Cooler
		PRESENT (Y/N)	INTACT (Y/N)				
Blw 1	Y	C	Y	3.1	8324	N	
		B					
		C					
		B					
		C					
		B					

C = COOLER B = BOTTLES

COOLER(S) SCREENED FOR RADIATION? Yes No IF TEMP BLK N, HOW WAS TEMP TAKEN: _____

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

SPECIFIC PROJECT INFORMATION

VOLATILE HEADSPACE ACCEPTABLE? Yes No NA

JOB NUMBER: 261408
 PROJECT NAME: _____
 Marked As Preserved? Yes No
 Number of VOA Vials: _____

pH OF WATER SAMPLES

PRESERVATION	# BOTTLES	CORRECT pH (Y/N)	If N, List sample ID and Corresponding pH)
H2SO4 (<2)			
HNO3 (<2)			
HCL (<2) (Not VOA Vials)			
NaOH - Cyanide (>12)			
NaOH/Zn Acetate - Sulfide (>9)			
Other			

OF NEAT BOTTLES: _____

OF SOIL JARS: _____

INCONSISTENCIES

ACTION TAKEN

PERSON CONTACTED: _____ DATE: _____
 RESOLUTION _____

NOTES

Project Manager _____

(Use back of sheet if necessary)

SAMPLE DATA



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc - Houston PROJECT: 22-10260 ANALYST: Chris Young

Customer Sample ID: MW-11B 2SA03

Laboratory Sample ID: 261408-001

Date/Time Sampled: 9/24/03 13:50

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOL	SQ	UNITS	Analysis Date/Time	Batch	DIP	Analyst
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 20:29	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 20:29	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 20:29	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 20:29	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 20:29	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 20:29	84337	1	zfl
Xylenes (total)	1330-20-7	3.56	J	2.29	15	2.29	ug/L	9/29/03 20:29	84337	1	zfl



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: BFM Southwest, Inc. Houston PROJECT: 422-02-60 A.F.N. Chris Young

Customer Sample ID: MW-11B 2SA03

Laboratory Sample ID: 261408-001

Date/Time Sampled: 9/24/03 13:50

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	GAS	RESULT	FLAG	MDL	MO	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 17:49	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/29/03 19:40	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 17:49	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 17:49	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 19:40	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/29/03 19:40	84565	1	lg1
2-Methylnaphthalene	91-57-6	42.49		0.07	0.5	0.067	ug/L	9/29/03 19:40	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/29/03 19:40	84565	1	lg1
Acenaphthene	83-32-9	119.4		0.078	0.5	0.37	ug/L	9/30/03 19:13	84565	5	lg1
Acenaphthylene	208-96-8	1.58		0.08	0.5	0.076	ug/L	9/29/03 19:40	84565	1	lg1
Anthracene	120-12-7	5.248		0.13	0.5	0.124	ug/L	9/29/03 19:40	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/29/03 19:40	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 17:49	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 17:49	84566	1	lg1



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: BRM Southwest, Inc - Houston PROJECT: 422-102-60 ATTN: CHRIS YOUNG

Customer Sample ID: MW-11B 2SA03

Laboratory Sample ID: 261408-001

Date/Time Sampled: 9/24/03 13:50

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOJ	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
bis(2-ethylhexyl)phthalate	117-81-7	0.172	U	0.18	0.5	0.172	ug/L	9/29/03 19:40	84565	1	Ig1
Chrysene	218-01-9	0.196	J	0.094	0.5	0.09	ug/L	9/29/03 19:40	84565	1	Ig1
Dibenzofuran	132-64-9	56.02		0.08	0.5	0.38	ug/L	9/30/03 19:13	84565	5	Ig1
Di-n-butyl Phthalate	84-74-2	0.319	J	0.15	0.5	0.143	ug/L	9/29/03 19:40	84565	1	Ig1
Fluoranthene	206-44-0	4.736		0.098	0.5	0.093	ug/L	9/29/03 19:40	84565	1	Ig1
Fluorene	86-73-7	59.04		0.071	0.5	0.34	ug/L	9/30/03 19:13	84565	5	Ig1
Naphthalene	91-20-3	110.1		0.07	0.5	0.33	ug/L	9/30/03 19:13	84565	5	Ig1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/29/03 19:40	84565	1	Ig1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 19:40	84565	1	Ig1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 17:49	84566	1	Ig1
Phenanthrene	85-01-8	36.78		0.081	0.5	0.077	ug/L	9/29/03 19:40	84565	1	Ig1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/29/03 19:40	84565	1	Ig1
Pyrene	129-00-0	2.13		0.088	0.5	0.084	ug/L	9/29/03 19:40	84565	1	Ig1

30

Form I

Page 24



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: 022-102-60

AJTN: Chris Young

Customer Sample ID: MW-2 2S03

Laboratory Sample ID: 261408-002

Date/Time Sampled: 9/24/03 14:30

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOI	SOI	UNITS	Analysis Date/Time	Batch	D/E	Analysis
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 20:56	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 20:56	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 20:56	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 20:56	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 20:56	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 20:56	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 20:56	84337	1	zfl

39



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: TRM Southwest, Inc - Houston PROJECT: 422-10260 ANALYST: Chris Young

Customer Sample ID: MW-2 2S03 Laboratory Sample ID: 261408-002

Date/Time Sampled: 9/24/03 14:30

Date/Time Received: 9/25/03 15:29

Sample Matrix: Water

TEST METHOD	GC#	RESULT	FLAG	MDL	MOI	SOI	UNITS	Analysis Date/Time	Batch	DT	Analysis
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 18:15	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/29/03 20:10	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 18:15	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 18:15	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 20:10	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/29/03 20:10	84565	1	lg1
2-Methylnaphthalene	91-57-6	0.403	J	0.07	0.5	0.067	ug/L	9/29/03 20:10	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/29/03 20:10	84565	1	lg1
Acenaphthene	83-32-9	20.56		0.078	0.5	0.074	ug/L	9/29/03 20:10	84565	1	lg1
Acenaphthylene	208-96-8	0.468	J	0.08	0.5	0.076	ug/L	9/29/03 20:10	84565	1	lg1
Anthracene	120-12-7	1.731		0.13	0.5	0.124	ug/L	9/29/03 20:10	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/29/03 20:10	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 18:15	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 18:15	84566	1	lg1

Form I

Page 26



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: FRM Southwest Inc - Houston PROJECT: 292-102-60 ANALYST: Chris Young

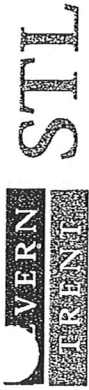
Customer Sample ID: MW-2.2S03 Laboratory Sample ID: 261408-002

Date/Time Sampled: 9/24/03 14:30

Date/Time Received: 9/25/03 15:29

Sample Matrix: Water

TEST METHOD	CAS #	RESULT	FLAG	MDL	MOI	SOI	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
bis(2-ethylhexyl)phthalate	117-81-7	0.291	J	0.18	0.5	0.172	ug/L	9/29/03 20:10	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 20:10	84565	1	lg1
Dibenzofuran	132-64-9	14.56		0.08	0.5	0.076	ug/L	9/29/03 20:10	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.283	J	0.15	0.5	0.143	ug/L	9/29/03 20:10	84565	1	lg1
Fluoranthene	206-44-0	1.469		0.098	0.5	0.093	ug/L	9/29/03 20:10	84565	1	lg1
Fluorene	86-73-7	15.16		0.071	0.5	0.068	ug/L	9/29/03 20:10	84565	1	lg1
Naphthalene	91-20-3	5.26		0.07	0.5	0.067	ug/L	9/29/03 20:10	84565	1	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/29/03 20:10	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 20:10	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 18:15	84566	1	lg1
Phenanthrene	85-01-8	0.571		0.081	0.5	0.077	ug/L	9/29/03 20:10	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/29/03 20:10	84565	1	lg1
Pyrene	129-00-0	0.682		0.088	0.5	0.084	ug/L	9/29/03 20:10	84565	1	lg1



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc. Houston PROJECT: 22-107-60

ATTN: Chris Young

Customer Sample ID: P-12 2SA03

Laboratory Sample ID: 261408-003

Date/Time Sampled: 9/23/03 17:00

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	VOL	SQ#	UNITS	Analysis Date/Time	Batch	DF	Analysis
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/26/03 20:56	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/26/03 20:56	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/26/03 20:56	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/26/03 20:56	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/26/03 20:56	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/26/03 20:56	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/26/03 20:56	84337	1	zfl

42



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: BRM-Southwest, Inc. Houston PROJECT: 422-102-60 A/E/N: Chris Young

Customer Sample ID: P-12 2SA03

Laboratory Sample ID: 261408-003

Date/Time Sampled: 9/23/03 17:00

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MPL	MOL	SOI	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 18:41	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/29/03 20:40	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 18:41	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 18:41	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 20:40	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/29/03 20:40	84565	1	lg1
2-Methylnaphthalene	91-57-6	0.067	U	0.07	0.5	0.067	ug/L	9/29/03 20:40	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/29/03 20:40	84565	1	lg1
Acenaphthene	83-32-9	0.074	U	0.078	0.5	0.074	ug/L	9/29/03 20:40	84565	1	lg1
Acenaphthylene	208-96-8	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 20:40	84565	1	lg1
Anthracene	120-12-7	0.224	J	0.13	0.5	0.124	ug/L	9/29/03 20:40	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/29/03 20:40	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 18:41	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 18:41	84566	1	lg1

Form I

Page 29



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: FIRM SOLUTIONS, Inc. Houston PROJECT: 422-102.60 A.I.T.N. Chris Young

Customer Sample ID: P-12 2SA03

Laboratory Sample ID: 261408-003

Date/Time Sampled: 9/23/03 17:00

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	GAS	RESULT	FLAG	MDL	MOL	SO ₂	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
bis(2-ethylhexyl)phthalate	117-81-7	0.22	J	0.18	0.5	0.172	ug/L	9/29/03 20:40	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 20:40	84565	1	lg1
Dibenzofuran	132-64-9	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 20:40	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.293	J	0.15	0.5	0.143	ug/L	9/29/03 20:40	84565	1	lg1
Fluoranthene	206-44-0	0.093	U	0.098	0.5	0.093	ug/L	9/29/03 20:40	84565	1	lg1
Fluorene	86-73-7	0.068	U	0.071	0.5	0.068	ug/L	9/29/03 20:40	84565	1	lg1
Naphthalene	91-20-3	0.067	U	0.07	0.5	0.067	ug/L	9/29/03 20:40	84565	1	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/29/03 20:40	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 20:40	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 18:41	84566	1	lg1
Phenanthrene	85-01-8	0.077	U	0.081	0.5	0.077	ug/L	9/29/03 20:40	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/29/03 20:40	84565	1	lg1
Pyrene	129-00-0	5.027		0.088	0.5	0.084	ug/L	9/29/03 20:40	84565	1	lg1



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: BRW Southwest, Inc. Houston PROJECT: 422-102-60 ANALYST: Chris Young

Laboratory Sample ID: 261408-004

Sample Matrix: Water

Customer Sample ID: P-11 2SA03

Date/Time Sampled: 9/24/03 9:10

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOQ	SO ₂	UNITS	Analysis Date/Time	Batch	DF	Analysis
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/26/03 21:23	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/26/03 21:23	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/26/03 21:23	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/26/03 21:23	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/26/03 21:23	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/26/03 21:23	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/26/03 21:23	84337	1	zfl



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

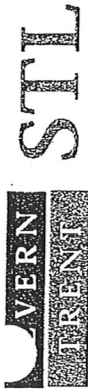
CUSTOMER: ERM Southwest, Inc - Houston PROJECT: 422-102-60 ATTN: Chris Young

Customer Sample ID: P-11 2SA03
 Date/Time Sampled: 9/24/03 9:10
 Date/Time Received: 9/25/03 15:29

Laboratory Sample ID: 261408-004
 Sample Matrix: Water

TEST METHOD	CAS	RESULT	FLAG	MDL	MQL	SOL	UNITS	Analysis Date/Time	Batch	D.P.	Analysis
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 19:07	84566	1	Ig1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/29/03 21:09	84565	1	Ig1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 19:07	84566	1	Ig1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 19:07	84566	1	Ig1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 21:09	84565	1	Ig1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/29/03 21:09	84565	1	Ig1
2-Methylnaphthalene	91-57-6	0.841		0.07	0.5	0.067	ug/L	9/29/03 21:09	84565	1	Ig1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/29/03 21:09	84565	1	Ig1
Acenaphthene	83-32-9	121.1		0.078	0.5	0.3	ug/L	9/30/03 19:43	84565	4	Ig1
Acenaphthylene	208-96-8	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 21:09	84565	1	Ig1
Anthracene	120-12-7	5.773		0.13	0.5	0.124	ug/L	9/29/03 21:09	84565	1	Ig1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/29/03 21:09	84565	1	Ig1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 19:07	84566	1	Ig1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 19:07	84566	1	Ig1

46



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc., Houston PROJECT: 422-102-60 A/T/N: Chris Young

Customer Sample ID: P-11 2SA03

Laboratory Sample ID: 261408-004

Date/Time Sampled: 9/24/03 9:10

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST/METHOD	CAS#	RESULT	FLAG	MPL	MQL	SOL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
bis(2-ethylhexyl)phthalate	117-81-7	0.354	J	0.18	0.5	0.172	ug/L	9/29/03 21:09	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 21:09	84565	1	lg1
Dibenzofuran	132-64-9	3.039		0.08	0.5	0.076	ug/L	9/29/03 21:09	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.272	J	0.15	0.5	0.143	ug/L	9/29/03 21:09	84565	1	lg1
Fluoranthene	206-44-0	8.349		0.098	0.5	0.093	ug/L	9/29/03 21:09	84565	1	lg1
Fluorene	86-73-7	51.74		0.071	0.5	0.27	ug/L	9/30/03 19:43	84565	4	lg1
Naphthalene	91-20-3	54.16		0.07	0.5	0.27	ug/L	9/30/03 19:43	84565	4	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/29/03 21:09	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.831		0.094	0.5	0.09	ug/L	9/29/03 21:09	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 19:07	84566	1	lg1
Phenanthrene	85-01-8	28.25		0.081	0.5	0.077	ug/L	9/29/03 21:09	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/29/03 21:09	84565	1	lg1
Pyrene	129-00-0	4.235		0.088	0.5	0.084	ug/L	9/29/03 21:09	84565	1	lg1

Form I

Page 33



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc., Houston

PROJECT: 422-102-60

ATTN: Chris Young

Customer Sample ID: P-10 2SA03

Laboratory Sample ID: 261408-005

Date/Time Sampled: 9/24/03 10:20

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS #	RESULT	FLAG	MDI	MOI	SQL	UNITS	ANALYS. DATE/TIME	BATCH	D.P.	ANALYS.
Method: SW-846.8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/26/03 21:50	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/26/03 21:50	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/26/03 21:50	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/26/03 21:50	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/26/03 21:50	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/26/03 21:50	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/26/03 21:50	84337	1	zfl



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc., Houston PROJECT: 422-102-60 A.I.N. Chris Young

Customer Sample ID: P-10 2SA03

Laboratory Sample ID: 261408-005

Date/Time Sampled: 9/24/03 10:20

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOL	SOI	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 19:33	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/29/03 21:39	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 19:33	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 19:33	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 21:39	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/29/03 21:39	84565	1	lg1
2-Methylnaphthalene	91-57-6	11.69		0.07	0.5	0.067	ug/L	9/29/03 21:39	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/29/03 21:39	84565	1	lg1
Acenaphthene	83-32-9	60.39		0.078	0.5	0.37	ug/L	9/30/03 20:13	84565	5	lg1
Acenaphthylene	208-96-8	0.283	J	0.08	0.5	0.076	ug/L	9/29/03 21:39	84565	1	lg1
Anthracene	120-12-7	1.574		0.13	0.5	0.124	ug/L	9/29/03 21:39	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/29/03 21:39	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 19:33	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 19:33	84566	1	lg1

49

Form I

Page 35



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: BRM Southwest, Inc - Houston PROJECT: 422-102-60

APPN: Chris Young

Customer Sample ID: P-10 2SA03

Laboratory Sample ID: 261408-005

Date/Time Sampled: 9/24/03 10:20

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MPL	MOI	SOI	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
bis(2-ethylhexyl)phthalate	117-81-7	0.254	J	0.18	0.5	0.172	ug/L	9/29/03 21:39	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 21:39	84565	1	lg1
Dibenzofuran	132-64-9	15.18		0.08	0.5	0.076	ug/L	9/29/03 21:39	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.475	J	0.15	0.5	0.143	ug/L	9/29/03 21:39	84565	1	lg1
Fluoranthene	206-44-0	1.243		0.098	0.5	0.093	ug/L	9/29/03 21:39	84565	1	lg1
Fluorene	86-73-7	20.36		0.071	0.5	0.068	ug/L	9/29/03 21:39	84565	1	lg1
Naphthalene	91-20-3	225.3		0.07	0.5	0.33	ug/L	9/30/03 20:13	84565	5	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/29/03 21:39	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.438	J	0.094	0.5	0.09	ug/L	9/29/03 21:39	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 19:33	84566	1	lg1
Phenanthrene	85-01-8	3.675		0.081	0.5	0.077	ug/L	9/29/03 21:39	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/29/03 21:39	84565	1	lg1
Pyrene	129-00-0	0.522		0.088	0.5	0.084	ug/L	9/29/03 21:39	84565	1	lg1

Form I

Page 36



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: BRM Southwest, Inc., Houston PROJECT: 422-102-60 AITN: Chris Young

Customer Sample ID: MW-07 2SA03

Laboratory Sample ID: 261408-006

Date/Time Sampled: 9/24/03 11:30

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS #	RESULT	FLAG	MDL	MOI	SQL	UNITS	Analysis Date/Time	Batch	DiF	Analyst
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/26/03 22:17	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/26/03 22:17	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/26/03 22:17	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/26/03 22:17	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/26/03 22:17	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/26/03 22:17	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/26/03 22:17	84337	1	zfl



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc - Houston

PROJECT: 422-102.60

ANALYST: Chris Young

Customer Sample ID: MW-07 2SA03

Laboratory Sample ID: 261408-006

Date/Time Sampled: 9/24/03 11:30

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOI	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 20:00	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/29/03 22:09	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 20:00	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 20:00	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 22:09	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/29/03 22:09	84565	1	lg1
2-Methylnaphthalene	91-57-6	0.067	U	0.07	0.5	0.067	ug/L	9/29/03 22:09	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/29/03 22:09	84565	1	lg1
Acenaphthene	83-32-9	1.589		0.078	0.5	0.074	ug/L	9/29/03 22:09	84565	1	lg1
Acenaphthylene	208-96-8	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 22:09	84565	1	lg1
Anthracene	120-12-7	1.11		0.13	0.5	0.124	ug/L	9/29/03 22:09	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/29/03 22:09	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 20:00	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 20:00	84566	1	lg1

Form I

Page 38

52



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERMSouthwest, Inc. Houston PROJECT: 492-10260 ANALYST: Chris Young

Customer Sample ID: MW-07 2SA03

Laboratory Sample ID: 261408-006

Date/Time Sampled: 9/24/03 11:30

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOQ	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
bis(2-ethylhexyl)phthalate	117-81-7	0.172	U	0.18	0.5	0.172	ug/L	9/29/03 22:09	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 22:09	84565	1	lg1
Dibenzofuran	132-64-9	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 22:09	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.291	J	0.15	0.5	0.143	ug/L	9/29/03 22:09	84565	1	lg1
Fluoranthene	206-44-0	0.455	J	0.098	0.5	0.093	ug/L	9/29/03 22:09	84565	1	lg1
Fluorene	86-73-7	0.068	U	0.071	0.5	0.068	ug/L	9/29/03 22:09	84565	1	lg1
Naphthalene	91-20-3	0.067	U	0.07	0.5	0.067	ug/L	9/29/03 22:09	84565	1	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/29/03 22:09	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 22:09	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 20:00	84566	1	lg1
Phenanthrene	85-01-8	0.077	U	0.081	0.5	0.077	ug/L	9/29/03 22:09	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/29/03 22:09	84565	1	lg1
Pyrene	129-00-0	0.779		0.088	0.5	0.084	ug/L	9/29/03 22:09	84565	1	lg1

51 33

Form I

Page 39



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: TRM Southwest, Inc. Houston PROJECT: 22-102 60

ATTN: Chris Young

Customer Sample ID: MW-10B 2SA03

Laboratory Sample ID: 261408-007

Date/Time Sampled: 9/24/03 13:35

Date/Time Received: 9/25/03 15:29

Sample Matrix: Water

TEST METHOD	CAS#	RESULT	FLAG	MDI	MO	SOI	UNITS	Analysis Date/Time	Batch	D.T.	Analyt
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/26/03 22:44	84337	1	zfl
Benzene	71-43-2	2.62	J	0.77	5	0.77	ug/L	9/26/03 22:44	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/26/03 22:44	84337	1	zfl
Ethylbenzene	100-41-4	1.83	J	0.77	5	0.77	ug/L	9/26/03 22:44	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/26/03 22:44	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/26/03 22:44	84337	1	zfl
Xylenes (total)	1330-20-7	3.28	J	2.29	15	2.29	ug/L	9/26/03 22:44	84337	1	zfl



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc - Houston
PROJECT: 422-102-60
ATTN: Chris Young

Customer Sample ID: MW-10B 2SA03

Laboratory Sample ID: 261408-007

Date/Time Sampled: 9/24/03 13:35

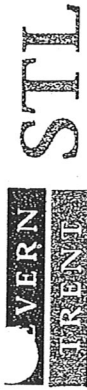
Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOI	SOI	UNITS	Analysis Date/Time	Batch	DT	Analysis
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 20:26	84566	1	lg1
2,4-Dimethylphenol	105-67-9	1.035		0.122	0.5	0.116	ug/L	9/29/03 22:38	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 20:26	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 20:26	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 22:38	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/29/03 22:38	84565	1	lg1
2-Methylnaphthalene	91-57-6	22.03		0.07	0.5	0.067	ug/L	9/29/03 22:38	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/29/03 22:38	84565	1	lg1
Acenaphthene	83-32-9	96.24		0.078	0.5	0.37	ug/L	9/30/03 20:42	84565	5	lg1
Acenaphthylene	208-96-8	1.582		0.08	0.5	0.076	ug/L	9/29/03 22:38	84565	1	lg1
Anthracene	120-12-7	5.256		0.13	0.5	0.124	ug/L	9/29/03 22:38	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/29/03 22:38	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 20:26	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 20:26	84566	1	lg1

Form I

Page 41



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc - Houston PROJECT: 422-10760 A.I.J.N.: Chris Young

Customer Sample ID: MW-10B 2SA03

Laboratory Sample ID: 261408-007

Date/Time Sampled: 9/24/03 13:35

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MPL	MOL	SO ₂	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
bis(2-ethylhexyl)phthalate	117-81-7	0.172	U	0.18	0.5	0.172	ug/L	9/29/03 22:38	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 22:38	84565	1	lg1
Dibenzofuran	132-64-9	41.67		0.08	0.5	0.076	ug/L	9/29/03 22:38	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.278	J	0.15	0.5	0.143	ug/L	9/29/03 22:38	84565	1	lg1
Fluoranthene	206-44-0	3.286		0.098	0.5	0.093	ug/L	9/29/03 22:38	84565	1	lg1
Fluorene	86-73-7	55.2		0.071	0.5	0.34	ug/L	9/30/03 20:42	84565	5	lg1
Naphthalene	91-20-3	237		0.07	0.5	0.33	ug/L	9/30/03 20:42	84565	5	lg1
Nitrobenzene	98-95-3	0.143		0.15	0.5	0.143	ug/L	9/29/03 22:38	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 22:38	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 20:26	84566	1	lg1
Phenanthrene	85-01-8	31.2		0.081	0.5	0.077	ug/L	9/29/03 22:38	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/29/03 22:38	84565	1	lg1
Pyrene	129-00-0	1.28		0.088	0.5	0.084	ug/L	9/29/03 22:38	84565	1	lg1

50

Form 1

Page 42



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: TRM Southwest, Inc - Houston

PROJECT: 422-102-60

ANALYST: Chris Young

Customer Sample ID: MW-01A 2SA03

Laboratory Sample ID: 261408-008

Date/Time Sampled: 9/24/03 14:40

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	PEAK	MDL	MOE	SO ₂	UNITS	Analysis Date/Time	Batch	D.T.	Analysis
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 16:26	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 16:26	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 16:26	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 16:26	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 16:26	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 16:26	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 16:26	84337	1	zfl

57



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc. Houston PROJECT: 722-102-60

ATTN: Chris Young

Customer Sample ID: MW-01A 2SA03

Laboratory Sample ID: 261408-008

Date/Time Sampled: 9/24/03 14:40

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MO	SQ	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 20:52	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/29/03 23:08	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 20:52	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 20:52	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 23:08	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/29/03 23:08	84565	1	lg1
2-Methylnaphthalene	91-57-6	0.454	J	0.07	0.5	0.067	ug/L	9/29/03 23:08	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/29/03 23:08	84565	1	lg1
Acenaphthene	83-32-9	189.6		0.078	0.5	0.37	ug/L	9/30/03 21:12	84565	5	lg1
Acenaphthylene	208-96-8	1.912		0.08	0.5	0.076	ug/L	9/29/03 23:08	84565	1	lg1
Anthracene	120-12-7	10.44		0.13	0.5	0.124	ug/L	9/29/03 23:08	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/29/03 23:08	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 20:52	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 20:52	84566	1	lg1

STI

Form I

Page 44



TRRP Laboratory Test Results

Job Number: 261408

CUSTOMER: ERV Southwest, Inc., Houston

PROJECT: 422-10260

ANALYST: Chris Young

Date: 10/20/03

Customer Sample ID: MW-01A 2SA03

Date/Time Sampled: 9/24/03 14:40

Date/Time Received: 9/25/03 15:29

Laboratory Sample ID: 261408-008

Sample Matrix: Water

TEST METHOD	CAS	RESULT	FLAG	MDL	MOI	SOI	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
bis(2-ethylhexyl)phthalate	117-81-7	0.172	U	0.18	0.5	0.172	ug/L	9/29/03 23:08	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 23:08	84565	1	lg1
Dibenzofuran	132-64-9	100.9		0.08	0.5	0.38	ug/L	9/30/03 21:12	84565	5	lg1
Di-n-butyl Phthalate	84-74-2	0.242	J	0.15	0.5	0.143	ug/L	9/29/03 23:08	84565	1	lg1
Fluoranthene	206-44-0	14.64		0.098	0.5	0.093	ug/L	9/29/03 23:08	84565	1	lg1
Fluorene	86-73-7	119.8		0.071	0.5	0.34	ug/L	9/30/03 21:12	84565	5	lg1
Naphthalene	91-20-3	0.843		0.07	0.5	0.067	ug/L	9/29/03 23:08	84565	1	lg1
Nitrobenzene	98-95-3	0.143		0.15	0.5	0.143	ug/L	9/29/03 23:08	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	1.932	U	0.094	0.5	0.09	ug/L	9/29/03 23:08	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/29/03 23:08	84566	1	lg1
Phenanthrene	85-01-8	1.575		0.081	0.5	0.077	ug/L	9/30/03 20:52	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/29/03 23:08	84565	1	lg1
Pyrene	129-00-0	6.02		0.088	0.5	0.084	ug/L	9/29/03 23:08	84565	1	lg1

CU

Form I

Page 45



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERV Southwest, Inc - Houston PROJECT: 22-10260 ATTN: Chris Young

Customer Sample ID: MW-10A 2SA03

Laboratory Sample ID: 261408-009

Date/Time Sampled: 9/23/03 16:40

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDI	MOI	SOI	UNITS	Analysis Date/Time	Batch	DT	Analysis
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 16:53	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 16:53	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 16:53	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 16:53	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 16:53	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 16:53	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 16:53	84337	1	zfl

60



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: BRM Southwest, Inc., Houston PROJECT: 423-102-60

ATTN: Chris Young

Customer Sample ID: MW-10A 2SA03

Laboratory Sample ID: 261408-009

Date/Time Sampled: 9/23/03 16:40

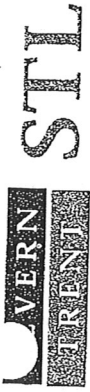
Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDI	MOI	SOL	UNITS	Analysis Date/Time	Batch	D/F	Analyst
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 21:18	84566	1	Ig1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/29/03 23:38	84565	1	Ig1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 21:18	84566	1	Ig1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 21:18	84566	1	Ig1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 23:38	84565	1	Ig1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/29/03 23:38	84565	1	Ig1
2-Methylnaphthalene	91-57-6	0.067	U	0.07	0.5	0.067	ug/L	9/29/03 23:38	84565	1	Ig1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/29/03 23:38	84565	1	Ig1
Acenaphthene	83-32-9	0.074	U	0.078	0.5	0.074	ug/L	9/29/03 23:38	84565	1	Ig1
Acenaphthylene	208-96-8	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 23:38	84565	1	Ig1
Anthracene	120-12-7	0.124	U	0.13	0.5	0.124	ug/L	9/29/03 23:38	84565	1	Ig1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/29/03 23:38	84565	1	Ig1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 21:18	84566	1	Ig1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 21:18	84566	1	Ig1

Form I

Page 47



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: TRM Southvest, Inc. Houston PROJECT: 422-10260 APIN: Chris Young

Customer Sample ID: MW-10A 2SA03

Laboratory Sample ID: 261408-009

Date/Time Sampled: 9/23/03 16:40

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS #	RESULT	FLAG	MDL	MOI	SOI	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
bis(2-ethylhexyl)phthalate	117-81-7	0.372	J	0.18	0.5	0.172	ug/L	9/29/03 23:38	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 23:38	84565	1	lg1
Dibenzofuran	132-64-9	0.076	U	0.08	0.5	0.076	ug/L	9/29/03 23:38	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.284	J	0.15	0.5	0.143	ug/L	9/29/03 23:38	84565	1	lg1
Fluoranthene	206-44-0	0.093	U	0.098	0.5	0.093	ug/L	9/29/03 23:38	84565	1	lg1
Fluorene	86-73-7	0.068	U	0.071	0.5	0.068	ug/L	9/29/03 23:38	84565	1	lg1
Naphthalene	91-20-3	0.067	U	0.07	0.5	0.067	ug/L	9/29/03 23:38	84565	1	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/29/03 23:38	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/29/03 23:38	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 21:18	84566	1	lg1
Phenanthrene	85-01-8	0.077	U	0.081	0.5	0.077	ug/L	9/29/03 23:38	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/29/03 23:38	84565	1	lg1
Pyrene	129-00-0	0.084	U	0.088	0.5	0.084	ug/L	9/29/03 23:38	84565	1	lg1

SN

Form I

Page 48



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwestern, Inc., Houston PROJECT: 422-102-60 ANALYST: Chris Young

Customer Sample ID: MW-10AD 2SA03
 Date/Time Sampled: 9/23/03 16:45
 Date/Time Received: 9/25/03 15:29

Laboratory Sample ID: 261408-010
 Sample Matrix: Water

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOI	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 17:20	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 17:20	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 17:20	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 17:20	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 17:20	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 17:20	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 17:20	84337	1	zfl

63



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: 422-105-60

ANALYST: Chris Young

Customer Sample ID: MW-10AD 2SA03

Laboratory Sample ID: 261408-010

Date/Time Sampled: 9/23/03 16:45

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MIDL	MOL	SOL	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
Method: SW-846-8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 21:44	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/30/03 13:18	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 21:44	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 21:44	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 13:18	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/30/03 13:18	84565	1	lg1
2-Methylnaphthalene	91-57-6	0.067	U	0.07	0.5	0.067	ug/L	9/30/03 13:18	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/30/03 13:18	84565	1	lg1
Acenaphthene	83-32-9	0.194	J	0.078	0.5	0.074	ug/L	9/30/03 13:18	84565	1	lg1
Acenaphthylene	208-96-8	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 13:18	84565	1	lg1
Anthracene	120-12-7	0.124	U	0.13	0.5	0.124	ug/L	9/30/03 13:18	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/30/03 13:18	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 21:44	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 21:44	84566	1	lg1

Form I

Page 50



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: IRM Southwest, Inc. Houston

PROJECT: 422-02-60

ATTN: Chris Young

Customer Sample ID: MW-10AD 2SA03

Laboratory Sample ID: 261408-010

Date/Time Sampled: 9/23/03 16:45

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOI	SOI	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
bis(2-ethylhexyl)phthalate	117-81-7	0.172	U	0.18	0.5	0.172	ug/L	9/30/03 13:18	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 13:18	84565	1	lg1
Dibenzofuran	132-64-9	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 13:18	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.231	J	0.15	0.5	0.143	ug/L	9/30/03 13:18	84565	1	lg1
Fluoranthene	206-44-0	0.093	U	0.098	0.5	0.093	ug/L	9/30/03 13:18	84565	1	lg1
Fluorene	86-73-7	0.068	U	0.071	0.5	0.068	ug/L	9/30/03 13:18	84565	1	lg1
Naphthalene	91-20-3	0.067	U	0.07	0.5	0.067	ug/L	9/30/03 13:18	84565	1	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/30/03 13:18	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 13:18	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 21:44	84566	1	lg1
Phenanthrene	85-01-8	0.077	U	0.081	0.5	0.077	ug/L	9/30/03 13:18	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/30/03 13:18	84565	1	lg1
Pyrene	129-00-0	0.084	U	0.088	0.5	0.084	ug/L	9/30/03 13:18	84565	1	lg1

05



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: 222-102-60

ANALYST: Chris Young

Customer Sample ID: MW-8 2SA03

Laboratory Sample ID: 261408-011

Date/Time Sampled: 9/24/03 8:22

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOL	SOL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 17:47	84337	1	zfi
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 17:47	84337	1	zfi
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 17:47	84337	1	zfi
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 17:47	84337	1	zfi
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 17:47	84337	1	zfi
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 17:47	84337	1	zfi
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 17:47	84337	1	zfi

66



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: BRM Southwest, Inc. Houston

PROJECT: 22-102-60

ANALYST: Chris Young

Customer Sample ID: MW-8 2SA03

Laboratory Sample ID: 261408-011

Date/Time Sampled: 9/24/03 8:22

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MPL	MOL	SOL	UNITS	Analysis Date/Time	Batch	DT	Analyst
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 22:11	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/30/03 13:48	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 22:11	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 22:11	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 13:48	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/30/03 13:48	84565	1	lg1
2-Methylnaphthalene	91-57-6	0.067	U	0.07	0.5	0.067	ug/L	9/30/03 13:48	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/30/03 13:48	84565	1	lg1
Acenaphthene	83-32-9	0.074	U	0.078	0.5	0.074	ug/L	9/30/03 13:48	84565	1	lg1
Acenaphthylene	208-96-8	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 13:48	84565	1	lg1
Anthracene	120-12-7	0.124	U	0.13	0.5	0.124	ug/L	9/30/03 13:48	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/30/03 13:48	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 22:11	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 22:11	84566	1	lg1

67

Form I

Page 53



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: CRM Solutions, Inc. Houston

PROJECT: 22-102-60

ANALYST: Chris Young

Customer Sample ID: MW-8 2SA03

Laboratory Sample ID: 261408-011

Date/Time Sampled: 9/24/03 8:22

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOI	SOI	UNITS	Analysis Date/Time	Batch	DTF	Analysis
bis(2-ethylhexyl)phthalate	117-81-7	0.172	U	0.18	0.5	0.172	ug/L	9/30/03 13:48	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 13:48	84565	1	lg1
Dibenzofuran	132-64-9	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 13:48	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.215	J	0.15	0.5	0.143	ug/L	9/30/03 13:48	84565	1	lg1
Fluoranthene	206-44-0	0.093	U	0.098	0.5	0.093	ug/L	9/30/03 13:48	84565	1	lg1
Fluorene	86-73-7	0.068	U	0.071	0.5	0.068	ug/L	9/30/03 13:48	84565	1	lg1
Naphthalene	91-20-3	0.067	U	0.07	0.5	0.067	ug/L	9/30/03 13:48	84565	1	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/30/03 13:48	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 13:48	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 22:11	84566	1	lg1
Phenanthrene	85-01-8	0.077	U	0.081	0.5	0.077	ug/L	9/30/03 13:48	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/30/03 13:48	84565	1	lg1
Pyrene	129-00-0	0.233	J	0.088	0.5	0.084	ug/L	9/30/03 13:48	84565	1	lg1

68

Form I

Page 54



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: TRM Southwest, Inc - Houston

PROJECT: 422-102.60

ANALYST: Chris Young

Customer Sample ID: MW-5 2SA03

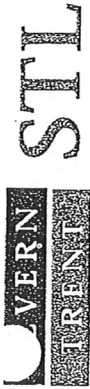
Laboratory Sample ID: 261408-012

Date/Time Sampled: 9/24/03 9:08

Date/Time Received: 9/25/03 15:29

Sample Matrix: Water

TEST METHOD	CAS#	RESULT	FLAG	MDL	MQ	SQ	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 18:14	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 18:14	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 18:14	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 18:14	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 18:14	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 18:14	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 18:14	84337	1	zfl



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM, Southvest, Inc., Houston PROJECT: 22-102-60 APTN: CHISSYOUNG

Customer Sample ID: MW-5 2SA03
 Laboratory Sample ID: 261408-012
 Date/Time Sampled: 9/24/03 9:08
 Date/Time Received: 9/25/03 15:29
 Sample Matrix: Water

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOI	SQL	UNITS	Analysis Date/Time	Batch	DJ	Analysis
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 22:37	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/30/03 14:17	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 22:37	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 22:37	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 14:17	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/30/03 14:17	84565	1	lg1
2-Methylnaphthalene	91-57-6	0.067	U	0.07	0.5	0.067	ug/L	9/30/03 14:17	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/30/03 14:17	84565	1	lg1
Acenaphthene	83-32-9	1.63		0.078	0.5	0.074	ug/L	9/30/03 14:17	84565	1	lg1
Acenaphthylene	208-96-8	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 14:17	84565	1	lg1
Anthracene	120-12-7	0.43	J	0.13	0.5	0.124	ug/L	9/30/03 14:17	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/30/03 14:17	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 22:37	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 22:37	84566	1	lg1

20



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: TRM Southwest, Inc. - Houston PROJECT: 222-102-60 ATTN: Chris Young

Customer Sample ID: MW-5 2SA03

Laboratory Sample ID: 261408-012

Date/Time Sampled: 9/24/03 9:08

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOL	SOL	CONCENTRATION	ANALYSIS DATE/TIME	BATCH	D.P.	ANALYST
bis(2-ethylhexyl)phthalate	117-81-7	0.172	U	0.18	0.5	0.172	ug/L	9/30/03 14:17	84565	1	Ig1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 14:17	84565	1	Ig1
Dibenzofuran	132-64-9	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 14:17	84565	1	Ig1
Di-n-butyl Phthalate	84-74-2	0.202	J	0.15	0.5	0.143	ug/L	9/30/03 14:17	84565	1	Ig1
Fluoranthene	206-44-0	0.244	J	0.098	0.5	0.093	ug/L	9/30/03 14:17	84565	1	Ig1
Fluorene	86-73-7	0.068	U	0.071	0.5	0.068	ug/L	9/30/03 14:17	84565	1	Ig1
Naphthalene	91-20-3	0.067	U	0.07	0.5	0.067	ug/L	9/30/03 14:17	84565	1	Ig1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/30/03 14:17	84565	1	Ig1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 14:17	84565	1	Ig1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 22:37	84566	1	Ig1
Phenanthrene	85-01-8	0.077	U	0.081	0.5	0.077	ug/L	9/30/03 14:17	84565	1	Ig1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/30/03 14:17	84565	1	Ig1
Pyrene	129-00-0	0.239	J	0.088	0.5	0.084	ug/L	9/30/03 14:17	84565	1	Ig1

71



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: TRWSouthwest, Inc. - Houston PROJECT: 422-102-60 ATTN: Chris Young

Customer Sample ID: MW-9 2SA03

Laboratory Sample ID: 261408-013

Date/Time Sampled: 9/24/03 10:37

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOI	SQL	UNITS	Analysis Date/Time	Batch	Dis	Analyst
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 18:41	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 18:41	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 18:41	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 18:41	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 18:41	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 18:41	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 18:41	84337	1	zfl



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: BRW Southwest, Inc., Houston PROJECT: 292-102-60

ANALYST: Chris Young

Customer Sample ID: MW-9 2SA03

Laboratory Sample ID: 261408-013

Date/Time Sampled: 9/24/03 10:37

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	GAS	RESULT	FLAG	MDL	MOI	SOI	UNITS	Analysis Date/Time	Batch	DT	Analysis
Method: SW-846 8270C: Water											
1,2-Diphenylhydrazine	122-66-7	1.45		0.00584	0.1	0.00557	ug/L	9/30/03 23:03	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/30/03 14:47	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 23:03	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 23:03	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 14:47	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/30/03 14:47	84565	1	lg1
2-Methylnaphthalene	91-57-6	0.067	U	0.07	0.5	0.067	ug/L	9/30/03 14:47	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/30/03 14:47	84565	1	lg1
Acenaphthene	83-32-9	0.074	U	0.078	0.5	0.074	ug/L	9/30/03 14:47	84565	1	lg1
Acenaphthylene	208-96-8	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 14:47	84565	1	lg1
Anthracene	120-12-7	0.584		0.13	0.5	0.124	ug/L	9/30/03 14:47	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/30/03 14:47	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 23:03	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 23:03	84566	1	lg1



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: FRM Solutions, Inc. Houston PROJECT: 22-02160 ANALYST: Chris Young

Customer Sample ID: MW-9 2SA03

Laboratory Sample ID: 261408-013

Date/Time Sampled: 9/24/03 10:37

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOL	SOI	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
bis(2-ethylhexyl)phthalate	117-81-7	0.172	U	0.18	0.5	0.172	ug/L	9/30/03 14:47	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 14:47	84565	1	lg1
Dibenzofuran	132-64-9	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 14:47	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.251	J	0.15	0.5	0.143	ug/L	9/30/03 14:47	84565	1	lg1
Fluoranthene	206-44-0	0.093	U	0.098	0.5	0.093	ug/L	9/30/03 14:47	84565	1	lg1
Fluorene	86-73-7	0.068	U	0.071	0.5	0.068	ug/L	9/30/03 14:47	84565	1	lg1
Naphthalene	91-20-3	0.067	U	0.07	0.5	0.067	ug/L	9/30/03 14:47	84565	1	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/30/03 14:47	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 14:47	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 23:03	84566	1	lg1
Phenanthrene	85-01-8	0.077	U	0.081	0.5	0.077	ug/L	9/30/03 14:47	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/30/03 14:47	84565	1	lg1
Pyrene	129-00-0	0.084	U	0.088	0.5	0.084	ug/L	9/30/03 14:47	84565	1	lg1



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: FRM Southwest, Inc Houston PROJECT: 422-102-60 APTN: Chris Young

Customer Sample ID: FB092403 2SA03

Laboratory Sample ID: 261408-014

Date/Time Sampled: 9/24/03 10:00

Sample Matrix: Trip Blank

Date/Time Received: 9/25/03 15:29

TEST METHOD	GC/MS	RESULT	FLAG	MDL	MOI	SQL	UNITS	Analysis Date/Time	Batch	D.T.	Analysis
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 14:38	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 14:38	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 14:38	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 14:38	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 14:38	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 14:38	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 14:38	84337	1	zfl



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Solutions, Inc. - Houston PROJECT: 222-0260 ALLEN, Chris Young

Customer Sample ID: MW-4 2SA03 Laboratory Sample ID: 261408-015
 Date/Time Sampled: 9/24/03 11:22 Sample Matrix: Water
 Date/Time Received: 9/25/03 15:29

TEST METHOD	GAS	RESULT	FBAG	MDL	MOL	SOL	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
Method: SW-846-8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 19:08	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 19:08	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 19:08	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 19:08	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 19:08	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 19:08	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 19:08	84337	1	zfl



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: FRM SouthWest, Inc - Houston

PROJECT: 4225-02-60

ANALYST: Chris Young

Customer Sample ID: MW-4 2SA03

Laboratory Sample ID: 261408-015

Date/Time Sampled: 9/24/03 11:22

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	GAS	RESULT	FLAG	MDI	MOL	SQL	UNITS	Analysis Date/Time	Batch	D/F	Analysis
Method: SW-846-8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 23:29	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/30/03 15:17	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 23:29	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 23:29	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 15:17	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/30/03 15:17	84565	1	lg1
2-Methylnaphthalene	91-57-6	0.067	U	0.07	0.5	0.067	ug/L	9/30/03 15:17	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/30/03 15:17	84565	1	lg1
Acenaphthene	83-32-9	0.074	U	0.078	0.5	0.074	ug/L	9/30/03 15:17	84565	1	lg1
Acenaphthylene	208-96-8	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 15:17	84565	1	lg1
Anthracene	120-12-7	0.572		0.13	0.5	0.124	ug/L	9/30/03 15:17	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/30/03 15:17	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 23:29	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 23:29	84566	1	lg1

77

Form I

Page 63



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: TRM SouthWest, Inc - Houston PROJECT: 422-10260 APTN: Chris Young

Customer Sample ID: MW-4 2SA03
 Laboratory Sample ID: 261408-015
 Date/Time Sampled: 9/24/03 11:22
 Date/Time Received: 9/25/03 15:29
 Sample Matrix: Water

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOL	SOI	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
bis(2-ethylhexyl)phthalate	117-81-7	0.172	U	0.18	0.5	0.172	ug/L	9/30/03 15:17	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 15:17	84565	1	lg1
Dibenzofuran	132-64-9	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 15:17	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.143	U	0.15	0.5	0.143	ug/L	9/30/03 15:17	84565	1	lg1
Fluoranthene	206-44-0	0.093	U	0.098	0.5	0.093	ug/L	9/30/03 15:17	84565	1	lg1
Fluorene	86-73-7	0.068	U	0.071	0.5	0.068	ug/L	9/30/03 15:17	84565	1	lg1
Naphthalene	91-20-3	0.067	U	0.07	0.5	0.067	ug/L	9/30/03 15:17	84565	1	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/30/03 15:17	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 15:17	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 23:29	84566	1	lg1
Phenanthrene	85-01-8	0.077	U	0.081	0.5	0.077	ug/L	9/30/03 15:17	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/30/03 15:17	84565	1	lg1
Pyrene	129-00-0	0.084	U	0.088	0.5	0.084	ug/L	9/30/03 15:17	84565	1	lg1

38



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc. - Houston PROJECT: 422-102-60 ANALYST: Chris Young

Customer Sample ID: MW-11A 2SA03

Laboratory Sample ID: 261408-016

Date/Time Sampled: 9/24/03 13:10

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS #	RESULT	FLAG	MPL	MOI	SOI	UNITS	Analysis Date/Time	Batch	DF	Analyst
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 19:35	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 19:35	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 19:35	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 19:35	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 19:35	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 19:35	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 19:35	84337	1	zfl

79



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: FRM/Southwest, Inc. Houston

PROJECT: 422-102-60

ANALYST: Chris Young

Customer Sample ID: MW-11A 2SA03

Laboratory Sample ID: 261408-016

Date/Time Sampled: 9/24/03 13:10

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOI	SOI	UNITS	Analysis Date/Time	Batch	DT	Analysis
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00557	U	0.00584	0.1	0.00557	ug/L	9/30/03 23:56	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.116	U	0.122	0.5	0.116	ug/L	9/30/03 15:46	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01713	U	0.018	0.1	0.01713	ug/L	9/30/03 23:56	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00786	U	0.00825	0.1	0.00786	ug/L	9/30/03 23:56	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.076	U	0.08	0.5	0.076	ug/L	9/30/03 15:46	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.295	U	0.31	1.5	0.295	ug/L	9/30/03 15:46	84565	1	lg1
2-Methylnaphthalene	91-57-6	0.067	U	0.07	0.5	0.067	ug/L	9/30/03 15:46	84565	1	lg1
4-Nitrophenol	100-02-7	0.285	U	0.299	1.5	0.285	ug/L	9/30/03 15:46	84565	1	lg1
Acenaphthene	83-32-9	135		0.078	0.5	0.37	ug/L	9/30/03 21:42	84565	5	lg1
Acenaphthylene	208-96-8	1.214		0.08	0.5	0.076	ug/L	9/30/03 15:46	84565	1	lg1
Anthracene	120-12-7	6.599		0.13	0.5	0.124	ug/L	9/30/03 15:46	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.267	U	0.28	0.5	0.267	ug/L	9/30/03 15:46	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 23:56	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03735	U	0.0392	0.1	0.03735	ug/L	9/30/03 23:56	84566	1	lg1

Form I

Page 66



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc - Houston PROJECT: 492-102-60 ANALYST: AJTN Chris Young

Customer Sample ID: MW-11A 2SA03

Laboratory Sample ID: 261408-016

Date/Time Sampled: 9/24/03 13:10

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOL	SO ₂	UNITS	Analysis Date/Time	Batch	DF	Analysis
bis(2-ethylhexyl)phthalate	117-81-7	0.172	U	0.18	0.5	0.172	ug/L	9/30/03 15:46	84565	1	lg1
Chrysene	218-01-9	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 15:46	84565	1	lg1
Dibenzofuran	132-64-9	19.91		0.08	0.5	0.076	ug/L	9/30/03 15:46	84565	1	lg1
Di-n-butyl Phthalate	84-74-2	0.209	J	0.15	0.5	0.143	ug/L	9/30/03 15:46	84565	1	lg1
Fluoranthene	206-44-0	11.14		0.098	0.5	0.093	ug/L	9/30/03 15:46	84565	1	lg1
Fluorene	86-73-7	78.83		0.071	0.5	0.34	ug/L	9/30/03 21:42	84565	5	lg1
Naphthalene	91-20-3	0.599		0.07	0.5	0.067	ug/L	9/30/03 15:46	84565	1	lg1
Nitrobenzene	98-95-3	0.143	U	0.15	0.5	0.143	ug/L	9/30/03 15:46	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	0.09	U	0.094	0.5	0.09	ug/L	9/30/03 15:46	84565	1	lg1
Pentachlorophenol	87-86-5	0.012	U	0.013	0.3	0.012	ug/L	9/30/03 23:56	84566	1	lg1
Phenanthrene	85-01-8	1.604		0.081	0.5	0.077	ug/L	9/30/03 15:46	84565	1	lg1
Phenol	108-95-2	0.0953	U	0.1	0.5	0.0953	ug/L	9/30/03 15:46	84565	1	lg1
Pyrene	129-00-0	5.177		0.088	0.5	0.084	ug/L	9/30/03 15:46	84565	1	lg1



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Solutions, Inc. - Houston

PROJECT: 422-102-60

ATTN: Chris Young

Customer Sample ID: MW-03 2SA03

Laboratory Sample ID: 261408-017

Date/Time Sampled: 9/24/03 15:35

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOI	SOI	UNITS	Analysis Date/Time	Batch	D.P.	Analysis
Method: SW-846-8260B, Water											
I,2-Dichloroethane	107-06-2	1.01	U	1.01	5	1.01	ug/L	9/29/03 15:05	84337	1	zfl
Benzene	71-43-2	0.77	U	0.77	5	0.77	ug/L	9/29/03 15:05	84337	1	zfl
Chlorobenzene	108-90-7	0.68	U	0.68	5	0.68	ug/L	9/29/03 15:05	84337	1	zfl
Ethylbenzene	100-41-4	0.77	U	0.77	5	0.77	ug/L	9/29/03 15:05	84337	1	zfl
Methylene Chloride	75-09-2	2.45	U	2.45	5	2.45	ug/L	9/29/03 15:05	84337	1	zfl
Toluene	108-88-3	0.79	U	0.79	5	0.79	ug/L	9/29/03 15:05	84337	1	zfl
Xylenes (total)	1330-20-7	2.29	U	2.29	15	2.29	ug/L	9/29/03 15:05	84337	1	zfl

002



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc - Houston PROJECT: 422-102-80 ATTN: Chris Young

Customer Sample ID: MW-03 2SA03

Laboratory Sample ID: 261408-017

Date/Time Sampled: 9/24/03 15:35

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS #	RESULT	FLAG	MID	MOI	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analyst
Method: SW-846:8270C, Water											
1,2-Diphenylhydrazine	122-66-7	0.00584	U	0.00584	0.1	0.00584	ug/L	9/30/03 15:38	84566	1	lg1
2,4-Dimethylphenol	105-67-9	0.122	U	0.122	0.5	0.122	ug/L	9/29/03 18:11	84565	1	lg1
2,4-Dinitrotoluene	121-14-2	0.01798	U	0.018	0.1	0.01798	ug/L	9/30/03 15:38	84566	1	lg1
2,6-Dinitrotoluene	606-20-2	0.00825	U	0.00825	0.1	0.00825	ug/L	9/30/03 15:38	84566	1	lg1
2-Chloronaphthalene	91-58-7	0.08	U	0.08	0.5	0.08	ug/L	9/29/03 18:11	84565	1	lg1
2-Methyl-4,6-dinitrophenol	534-52-1	0.31	U	0.31	1.5	0.31	ug/L	9/29/03 18:11	84565	1	lg1
2-Methylnaphthalene	91-57-6	0.07	U	0.07	0.5	0.07	ug/L	9/29/03 18:11	84565	1	lg1
4-Nitrophenol	100-02-7	0.299	U	0.299	1.5	0.299	ug/L	9/29/03 18:11	84565	1	lg1
Acenaphthene	83-32-9	150.8		0.078	0.5	0.39	ug/L	9/30/03 17:44	84565	5	lg1
Acenaphthylene	208-96-8	1.295		0.08	0.5	0.08	ug/L	9/29/03 18:11	84565	1	lg1
Anthracene	120-12-7	5.617		0.13	0.5	0.13	ug/L	9/29/03 18:11	84565	1	lg1
Benzo(a)anthracene	56-55-3	0.28	U	0.28	0.5	0.28	ug/L	9/29/03 18:11	84565	1	lg1
Benzo(a)pyrene	50-32-8	0.005	U	0.005	0.1	0.005	ug/L	9/30/03 15:38	84566	1	lg1
bis(2-chloroethoxy)methane	111-91-1	0.03919	U	0.0392	0.1	0.03919	ug/L	9/30/03 15:38	84566	1	lg1

Form I

Page 69



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc - Houston PROJECT: 22-10260 APTN: Chris Young

Customer Sample ID: MW-03 2SA03

Laboratory Sample ID: 261408-017

Date/Time Sampled: 9/24/03 15:35

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MPL	MOL	SQL	UNITS	Analysis Date/Time	Batch	D.F.	Analysis
bis(2-ethylhexyl)phthalate	117-81-7	0.18	U	0.18	0.5	0.18	ug/L	9/29/03 18:11	84565	1	lg1
Chrysene	218-01-9	0.094	U	0.094	0.5	0.094	ug/L	9/29/03 18:11	84565	1	lg1
Dibenzofuran	132-64-9	77.89		0.08	0.5	0.4	ug/L	9/30/03 17:44	84565	5	lg1
Di-n-butyl Phthalate	84-74-2	0.394	J	0.15	0.5	0.15	ug/L	9/29/03 18:11	84565	1	lg1
Fluoranthene	206-44-0	15.61		0.098	0.5	0.098	ug/L	9/29/03 18:11	84565	1	lg1
Fluorene	86-73-7	101.8		0.071	0.5	0.36	ug/L	9/30/03 17:44	84565	5	lg1
Naphthalene	91-20-3	0.07	U	0.07	0.5	0.07	ug/L	9/29/03 18:11	84565	1	lg1
Nitrobenzene	98-95-3	0.15	U	0.15	0.5	0.15	ug/L	9/29/03 18:11	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	1.079		0.094	0.5	0.094	ug/L	9/29/03 18:11	84565	1	lg1
Pentachlorophenol	87-86-5	0.013	U	0.013	0.3	0.013	ug/L	9/30/03 15:38	84566	1	lg1
Phenanthrene	85-01-8	1.121		0.081	0.5	0.081	ug/L	9/29/03 18:11	84565	1	lg1
Phenol	108-95-2	0.1	U	0.1	0.5	0.1	ug/L	9/29/03 18:11	84565	1	lg1
Pyrene	129-00-0	6.751		0.088	0.5	0.088	ug/L	9/29/03 18:11	84565	1	lg1

Form I

Page 70



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc. - Houston

PROJECT: 499-102-60

ATTN: Chris Young

Customer Sample ID: MW-03MS 2SA03

Laboratory Sample ID: 261408-018

Date/Time Sampled: 9/24/03 15:35

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	PLAC	MDL	MOL	SOL	UNITS	Analysis Date/Time	Batch	DF	Analysis
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	54.9		1.01	5	1.01	ug/L	9/29/03 15:32	84337	1	zfl
Benzene	71-43-2	50.9		0.77	5	0.77	ug/L	9/29/03 15:32	84337	1	zfl
Chlorobenzene	108-90-7	49.3		0.68	5	0.68	ug/L	9/29/03 15:32	84337	1	zfl
Ethylbenzene	100-41-4	47.7		0.77	5	0.77	ug/L	9/29/03 15:32	84337	1	zfl
Methylene Chloride	75-09-2	53.5		2.45	5	2.45	ug/L	9/29/03 15:32	84337	1	zfl
Toluene	108-88-3	48.8		0.79	5	0.79	ug/L	9/29/03 15:32	84337	1	zfl
Xylenes (total)	1330-20-7	144		2.29	15	2.29	ug/L	9/29/03 15:32	84337	1	zfl

85



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest Inc. Houston PROJECT: 022-10260 ANALYST: CHRIS YOUNG

Customer Sample ID: MW-03MS 2SA03

Laboratory Sample ID: 261408-018

Date/Time Sampled: 9/24/03 15:35

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOI	SOL	UNITS	ANALYSIS DATE/TIME	BASE	D.P.	ANALYST
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	7.37		0.00584	0.1	0.0292	ug/L	9/30/03 16:56	84566	5	Ig1
2,4-Dimethylphenol	105-67-9	6.104		0.122	0.5	0.122	ug/L	9/29/03 18:41	84565	1	Ig1
2,4-Dinitrotoluene	121-14-2	5.13		0.018	0.1	0.01798	ug/L	9/30/03 16:04	84566	1	Ig1
2,6-Dinitrotoluene	606-20-2	9.19		0.00825	0.1	0.0412	ug/L	9/30/03 16:56	84566	5	Ig1
2-Chloronaphthalene	91-58-7	6.346		0.08	0.5	0.08	ug/L	9/29/03 18:41	84565	1	Ig1
2-Methyl-4,6-dinitrophenol	534-52-1	9.517		0.31	1.5	0.31	ug/L	9/29/03 18:41	84565	1	Ig1
2-Methylnaphthalene	91-57-6	5.81		0.07	0.5	0.07	ug/L	9/29/03 18:41	84565	1	Ig1
4-Nitrophenol	100-02-7	8.7		0.299	1.5	0.299	ug/L	9/29/03 18:41	84565	1	Ig1
Acenaphthene	83-32-9	125.5		0.078	0.5	0.39	ug/L	9/30/03 18:14	84565	5	Ig1
Acenaphthylene	208-96-8	7.658		0.08	0.5	0.08	ug/L	9/29/03 18:41	84565	1	Ig1
Anthracene	120-12-7	12.89		0.13	0.5	0.13	ug/L	9/29/03 18:41	84565	1	Ig1
Benzo(a)anthracene	56-55-3	6.978		0.28	0.5	0.28	ug/L	9/29/03 18:41	84565	1	Ig1
Benzo(a)pyrene	50-32-8	5.96		0.005	0.1	0.005	ug/L	9/30/03 16:04	84566	1	Ig1
bis(2-chloroethoxy)methane	111-91-1	6.24		0.0392	0.1	0.196	ug/L	9/30/03 16:56	84566	5	Ig1

Form I

Page 72



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: BRM Southwest, Inc - Houston
PROJECT: 422 - 02-60
ANALYST: Chris Young

Customer Sample ID: MW-03MS 2SA03

Laboratory Sample ID: 261408-018

Date/Time Sampled: 9/24/03 15:35

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	GAS	RESULT	FLAG	MDL	MOU	SOI	UNITS	Analysis Date/Time	Batch	D.L.	Analyst
bis(2-ethylhexyl)phthalate	117-81-7	5.268		0.18	0.5	0.18	ug/L	9/29/03 18:41	84565	1	lg1
Chrysene	218-01-9	6.518		0.094	0.5	0.094	ug/L	9/29/03 18:41	84565	1	lg1
Dibenzofuran	132-64-9	69.73		0.08	0.5	0.4	ug/L	9/30/03 18:14	84565	5	lg1
Di-n-butyl Phthalate	84-74-2	9.554		0.15	0.5	0.15	ug/L	9/29/03 18:41	84565	1	lg1
Fluoranthene	206-44-0	21.32		0.098	0.5	0.098	ug/L	9/29/03 18:41	84565	1	lg1
Fluorene	86-73-7	90.37		0.071	0.5	0.36	ug/L	9/30/03 18:14	84565	5	lg1
Naphthalene	91-20-3	5.904		0.07	0.5	0.07	ug/L	9/29/03 18:41	84565	1	lg1
Nitrobenzene	98-95-3	5.302		0.15	0.5	0.15	ug/L	9/29/03 18:41	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	11.31		0.094	0.5	0.094	ug/L	9/29/03 18:41	84565	1	lg1
Pentachlorophenol	87-86-5	7.12		0.013	0.3	0.065	ug/L	9/30/03 16:56	84566	5	lg1
Phenanthrene	85-01-8	9.445		0.081	0.5	0.081	ug/L	9/29/03 18:41	84565	1	lg1
Phenol	108-95-2	3.788		0.1	0.5	0.1	ug/L	9/29/03 18:41	84565	1	lg1
Pyrene	129-00-0	13.9		0.088	0.5	0.088	ug/L	9/29/03 18:41	84565	1	lg1



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc. - Houston PROJECT: 422-10260 APTN: Chris Young

Customer Sample ID: MW-03MSD 2SA03
 Laboratory Sample ID: 261408-019
 Date/Time Sampled: 9/24/03 15:35
 Date/Time Received: 9/25/03 15:29
 Sample Matrix: Water

TEST METHOD	CAS#	RESULT	FLAG	MDL	MO	SQ	UNITS	Analysis Date/Time	Batch	ID	Analysis
Method: SW-846 8260B, Water											
1,2-Dichloroethane	107-06-2	51.3		1.01	5	1.01	ug/L	9/29/03 15:59	84337	1	zfl
Benzene	71-43-2	50.4		0.77	5	0.77	ug/L	9/29/03 15:59	84337	1	zfl
Chlorobenzene	108-90-7	48.6		0.68	5	0.68	ug/L	9/29/03 15:59	84337	1	zfl
Ethylbenzene	100-41-4	47.7		0.77	5	0.77	ug/L	9/29/03 15:59	84337	1	zfl
Methylene Chloride	75-09-2	49.7		2.45	5	2.45	ug/L	9/29/03 15:59	84337	1	zfl
Toluene	108-88-3	48.1		0.79	5	0.79	ug/L	9/29/03 15:59	84337	1	zfl
Xylenes (total)	1330-20-7	144		2.29	15	2.29	ug/L	9/29/03 15:59	84337	1	zfl

∞ ∞



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: BERN Southwest, Inc., Houston, TX
 PROJECT: 22-102-60
 ATTN: Chris Young

Customer Sample ID: MW-03MSD 2SA03

Laboratory Sample ID: 261408-019

Date/Time Sampled: 9/24/03 15:35

Sample Matrix: Water

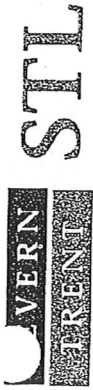
Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS#	RESULT	FLAG	MDL	MOL	SOL	UNITS	Analysis Date/Time	Batch	DF	Analysis
Method: SW-846 8270C, Water											
1,2-Diphenylhydrazine	122-66-7	8.4		0.00584	0.1	0.0292	ug/L	9/30/03 17:23	84566	5	Ig1
2,4-Dimethylphenol	105-67-9	6.596		0.122	0.5	0.122	ug/L	9/29/03 19:11	84565	1	Ig1
2,4-Dinitrotoluene	121-14-2	2.64		0.018	0.1	0.01798	ug/L	9/30/03 16:30	84566	1	Ig1
2,6-Dinitrotoluene	606-20-2	10		0.00825	0.1	0.0412	ug/L	9/30/03 17:23	84566	5	Ig1
2-Chloronaphthalene	91-58-7	6.593		0.08	0.5	0.08	ug/L	9/29/03 19:11	84565	1	Ig1
2-Methyl-4,6-dinitrophenol	534-52-1	9.416		0.31	1.5	0.31	ug/L	9/29/03 19:11	84565	1	Ig1
2-Methylnaphthalene	91-57-6	6.694		0.07	0.5	0.07	ug/L	9/29/03 19:11	84565	1	Ig1
4-Nitrophenol	100-02-7	6.605		0.299	1.5	0.299	ug/L	9/29/03 19:11	84565	1	Ig1
Acenaphthene	83-32-9	132.7		0.078	0.5	0.39	ug/L	9/30/03 18:44	84565	5	Ig1
Acenaphthylene	208-96-8	7.729		0.08	0.5	0.08	ug/L	9/29/03 19:11	84565	1	Ig1
Anthracene	120-12-7	13.33		0.13	0.5	0.13	ug/L	9/29/03 19:11	84565	1	Ig1
Benzo(a)anthracene	56-55-3	6.147		0.28	0.5	0.28	ug/L	9/29/03 19:11	84565	1	Ig1
Benzo(a)pyrene	50-32-8	4.8		0.005	0.1	0.02	ug/L	9/30/03 17:23	84566	5	Ig1
bis(2-chloroethoxy)methane	111-91-1	7.78		0.0392	0.1	0.196	ug/L	9/30/03 17:23	84566	5	Ig1

00

Form I

Page 75



TRRP Laboratory Test Results

Job Number: 261408

Date: 10/20/03

CUSTOMER: ERM Southwest, Inc - Houston PROJECT: 422-10260 ATTN: Chris Young

Customer Sample ID: MW-03MSD 2SA03

Laboratory Sample ID: 261408-019

Date/Time Sampled: 9/24/03 15:35

Sample Matrix: Water

Date/Time Received: 9/25/03 15:29

TEST METHOD	CAS	RESULT	FLAG	MDL	MOL	SQL	UNITS	Analysis Date/Time	Batch	D	Analysis
bis(2-ethylhexyl)phthalate	117-81-7	4.468		0.18	0.5	0.18	ug/L	9/29/03 19:11	84565	1	lg1
Chrysene	218-01-9	5.675		0.094	0.5	0.094	ug/L	9/29/03 19:11	84565	1	lg1
Dibenzofuran	132-64-9	72.9		0.08	0.5	0.4	ug/L	9/30/03 18:44	84565	5	lg1
Di-n-butyl Phthalate	84-74-2	9.597		0.15	0.5	0.15	ug/L	9/29/03 19:11	84565	1	lg1
Fluoranthene	206-44-0	22.09		0.098	0.5	0.098	ug/L	9/29/03 19:11	84565	1	lg1
Fluorene	86-73-7	93.92		0.071	0.5	0.36	ug/L	9/30/03 18:44	84565	5	lg1
Naphthalene	91-20-3	6.84		0.07	0.5	0.07	ug/L	9/29/03 19:11	84565	1	lg1
Nitrobenzene	98-95-3	6.346		0.15	0.5	0.15	ug/L	9/29/03 19:11	84565	1	lg1
n-Nitrosodiphenylamine	86-30-6	11.69		0.094	0.5	0.094	ug/L	9/29/03 19:11	84565	1	lg1
Pentachlorophenol	87-86-5	6.85		0.013	0.3	0.065	ug/L	9/30/03 17:23	84566	5	lg1
Phenanthrene	85-01-8	9.622		0.081	0.5	0.081	ug/L	9/29/03 19:11	84565	1	lg1
Phenol	108-95-2	3.755		0.1	0.5	0.1	ug/L	9/29/03 19:11	84565	1	lg1
Pyrene	129-00-0	14		0.088	0.5	0.088	ug/L	9/29/03 19:11	84565	1	lg1

90

Updated Compliance Schedule
Appendix D

January 20, 2004
W.O. #422-102

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

