

**PRE-REMEDY GROUNDWATER
MONITORING REPORT
MAY 1999 SAMPLING EVENT**

**FORMER TAYLOR INSTRUMENTS FACILITY
ROCHESTER, NEW YORK**

Prepared for

Combustion Engineering, Inc.

Prepared By

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PRE-REMEDIY GROUNDWATER MONITORING REPORT
MAY 1999 SAMPLING EVENT
TAYLOR INSTRUMENTS FACILITY

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LIST OF ACRONYMS

| | |
|--------|---|
| µg/L | micrograms per liter |
| CCB | continuing calibration blank |
| COC | contaminants of concern |
| ELAP | Environmental Laboratory Accreditation Program |
| HLA | Harding Lawson Associates |
| ICB | initial calibration blanks |
| LCS | laboratory control sample |
| MCL | Maximum Contaminant Level |
| ml/min | milliliters per minute |
| MS | matrix spike |
| MS/MSD | matrix spike/matrix spike duplicate |
| NYSDEC | New York State Department of Environmental Conservation |
| PB | preparation blanks |
| RPD | relative percent difference |
| TCE | trichloroethene |
| USEPA | U.S. Environmental Protection Agency |
| VOC | volatile organic compound |

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1.0 INTRODUCTION

This report summarizes activities and results for the first of the 1999 tri-annual groundwater sampling events to take place at the former Taylor Instruments Facility – New York Department of Environmental Conservation (NYSDEC) Site #828028a located in Rochester, New York. The Pre-Remedy Groundwater Monitoring Program has been implemented to establish baseline groundwater conditions from which an evaluation of natural and remediation-induced trends of site-related contaminants of concern (COCs) can be determined.

2.0 SCOPE OF WORK

Harding Lawson Associates (HLA) collected groundwater samples from selected monitoring wells at the Taylor Instruments Site from May 4 to 6, 1999. Sampling was accomplished in accordance with the Work Plan for the Pre-Remedy Groundwater Monitoring Program (Harding Lawson Associates [HLA], 1999). The wells associated with the groundwater monitoring plan and analyses for which they were submitted is listed in Table 2-1. Figure 3-1 (Appendix A) shows the site boundary and locations of monitoring wells.

All monitoring wells were sampled using low-flow peristaltic pumps at flow rates of 400 milliliters per minute (ml/min) or less. Field measurements of pH, conductivity, temperature, turbidity and dissolved oxygen were collected during purging. Purge and sample data can be found on the field data records (Appendix B).

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Table 2-1
Wells and Analyses
May 1999 Sampling Event

Pre-Remedy Groundwater Monitoring Program
Taylor Instruments Site, Rochester, NY

| Well ID | Well Type | VOCs | Mercury | Engineering and Natural Attenuation Parameters |
|---------|------------|------|---------|--|
| BR-01 | Bedrock | X | X | X |
| BR-02 | Bedrock | X | X | |
| BR-03 | Bedrock | X | X | X |
| BR-04 | Bedrock | X | X | X |
| BR-05 | Bedrock | X | X | X |
| BR-06 | Bedrock | X | X | X |
| BR-07 | Bedrock | X | X | |
| OB-04 | Overburden | X | X | X |
| OB-05 | Overburden | X | X | X |
| MW00 | Overburden | X | X | |
| TW01 | Overburden | X | X | |
| TW04 | Overburden | X | X | X |
| TW07 | Overburden | X | X | |
| TW09 | Overburden | X | X | |
| TW13 | Overburden | X | X | |
| TW17 | Overburden | X | X | X |
| TW20 | Overburden | X | X | |
| TW69 | Overburden | X | X | |
| TW74 | Overburden | X | X | |
| W-1 | Overburden | X | X | |
| W-2 | Overburden | X | X | X |
| W-3 | Overburden | X | X | |
| W-4 | Overburden | X | X | |
| W-5 | Overburden | X | X | |
| W-6 | Overburden | X | X | |

3.0 SUMMARY OF RESULTS

The following paragraphs summarize the volatile organic compound (VOC) and mercury results of the May 1999 sampling event. Engineering and natural attenuation parameters were also collected to provide data for use in remedial design. These results are reported

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herein, but not discussed. Data tables for all analytical parameters are presented in Appendix C.

3.1 VOC RESULTS

3.1.1 Overburden Wells

A total of eighteen overburden wells were sampled during the May 1999 Groundwater Sampling Event and analyzed for VOCs. Results for compounds detected in any of the on-site wells are presented in Table 3-1, and Table 3-2 lists results for all VOC analytes. The tables include the results for previous sampling events of September 1997 and October 1997. Trichloroethene (TCE) was reported in samples from ten of the eighteen overburden wells. TCE is the predominant site-related VOC historically detected in the groundwater at the Taylor Instruments Site. TCE was not present in wells located upgradient (generally south and west) of TCE source areas (i.e., W-1, W-2, W-6, and TW-69). TCE was present in source area wells (OB-04 and OB-05) at concentrations up to 68,000J micrograms per liter ($\mu\text{g/L}$) and in downgradient perimeter wells at concentrations up to 3,000J $\mu\text{g/L}$ (W-5). Figure 3-2 (Appendix A) is an interpretive potentiometric surface map for shallow-overburden groundwater.

Other VOCs detected (and the highest reported concentration) included biotic transformation products of TCE: cis-1,2-dichloroethene (up to 2,700J $\mu\text{g/L}$), trans-1,2-dichloroethene (41J $\mu\text{g/L}$), 1,1-dichloroethene (23 $\mu\text{g/L}$), and vinyl chloride (140 $\mu\text{g/L}$). Tetrachloroethene was measured only in the two source area wells at concentrations below 25 $\mu\text{g/L}$. Low levels of fuel type hydrocarbons (benzene, ethylbenzene, and toluene) were also measured in the south source area well (OB-04).

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Compounds identified in the May 1999 sampling event are consistent with historic sampling data. Concentrations of TCE show a marked decrease at the source areas when compared to 1997 levels.

3.1.2 Bedrock Wells

All seven site bedrock wells were sampled and analyzed for VOCs. TCE and cis-1,2-dichloroethene were detected in six of the seven wells. No VOCs were detected in upgradient well BR-06. TCE was detected in source area wells (BR-04 and BR-05) at concentrations up to 6,700 µg/L. TCE was present in downgradient perimeter wells at concentrations up to 3,300 µg/L (BR-02). Cis-1,2-dichloroethene was detected at concentrations ranging up to 1,200 µg/L (BR-02). Similar to overburden results, these concentrations are lower in the source area bedrock wells BR-04 and BR-05 than the September and October 1997 results (Table 3-1).

3.2 MERCURY RESULTS

3.2.1 Overburden Wells

Three of eighteen overburden wells exhibited positive results for Mercury (TW07, TW69, and TW74). Mercury concentrations in wells TW07 and TW69 were 0.74 and 0.59 µg/L, respectively. In September/October 1997, mercury was detected in TW07 and TW69 at concentrations of 5.0 and 1.6 µg/L, respectively. The May 1999 results show a decrease in mercury concentrations compared to the historical results and are below the Maximum Contaminant Level (MCL) of 2.0 µg/L for mercury. The concentration of mercury in TW74, an interior well, has increased from 0.48 to 2.2 µg/L, when compared to the September/October 1997 results. This well is located adjacent to a known mercury source in shallow subsurface soils that will be removed during site remediation. Mercury results are presented in Table 3-3 (Appendix C).

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3.2.2 Bedrock

Mercury was not detected in any of the bedrock wells.

3.3 ENGINEERING AND NATURAL ATTENUATION PARAMETERS

Results are presented in Tables 3-4 and 3-5 in Appendix C.

4.0 ANALYTICAL PROGRAM

Groundwater samples from the May 1999 sampling event were analyzed at Columbia Analytical Services, Rochester, New York, for VOC analyses by U.S. Environmental Protection Agency (USEPA) 8260b and Mercury by USEPA 7470 (cold vapor atomic absorption). Selected samples were submitted for engineering and natural attenuation parameters to provide additional data for treatment system design. Analyses and methods are listed in Table 4-1. The chain-of-custody forms are located in Appendix D.

Data quality was evaluated in accordance with the work plan using the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 1994a) and the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, 1994b), where applicable. The data set was evaluated for the following four categories:

- Precision and Accuracy
- Representativeness
- Completeness
- Comparability

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Table 4-1
Analyses/Methods
May 1999 Sampling Event

Pre-Remedy Groundwater Monitoring Program
Taylor Instruments Site, Rochester, NY

| ANALYSIS | METHOD | DESCRIPTION |
|---------------------------------------|------------|------------------------------------|
| Volatile Organic Compounds | 8260b | Volatiles by GC/MS |
| Mercury | 7470 | Hg by cold vapor atomic absorption |
| Engineering Parameters | | |
| TAL Metals | 6010/200.7 | TAL metals |
| Hardness | 215.1 | Hardness, magnesium and calcium |
| TSS | 160.2 | Total Suspended Solids |
| TDS | 160.1 | Total Dissolved Solids |
| Iron (dissolved) | 6010/200.7 | Dissolved iron by ICP |
| Natural Attenuation Parameters | | |
| TOC | 415.1 | Total Organic Carbon |
| BOD | 405.1 | Biochemical Oxygen Demand (5-Day) |
| COD | 410.4 | Chemical Oxygen Demand |
| Alkalinity | 310.1 | Alkalinity |
| Total Nitrogen | 351.2 | Kjeldahl Nitrogen , total |
| Nitrogen | 351/353 | Nitrate/Nitrite as N |
| Chloride | 300.0 | Chloride by ion chromatography |
| Sulfate | 300.0 | Sulfate by ion chromatography |
| Phosphate | 365.1 | Phosphorus, total |
| Sulfide | 376.1 | Sulfide, total |
| Gases (ethene, ethane, methane) | 8015 | Gases by modified 8015 |

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4.1 ANALYTICAL PRECISION AND ACCURACY

4.1.1 Volatile Organic Compounds

The matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on samples from two wells, BR-04 and W-6 (samples BR04059901 and W6059901). The MS/MSD recoveries and relative percent differences (RPDs) were within the specified control limits, indicating acceptable accuracy for the matrix and the method and acceptable precision for the laboratory. All of the laboratory control samples (LCSs) exhibited acceptable recoveries.

All surrogate standard recoveries were within acceptance limits for all samples except for 4-bromofluorobenzene in samples TW17059901, BR05059901, TW74059901, TW20059901, W5059901, and TW09059901D. The surrogate recovery for 4-bromofluorobenzene was below the lower control limit for all of the samples listed above. Positive results are qualified "J" and the sample quantitation limits for the non-detected target compounds are qualified "UJ" as estimated.

Water sample TW09059901 was initially analyzed one day outside the hold time. Positive results are qualified "J" and the sample quantitation limits for the nondetected target compounds are qualified "UJ" as estimated.

Water samples BR01059901, BR02059901, BR03059901, BR04059901D, BR05059901, BR07059901, OB04059901, OB05059901, TW17059901, TW09059901, TW09059901D, and W5059901 were re-analyzed at higher dilutions to bring target analytes within the calibration range of the method. Two results were not brought into range. The cis-1,2-dichloroethene result for sample OB04059901 and the trichloroethene result for BR04059901 exceeded the calibration range and were flagged "J" as estimated.

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The re-analyses for samples BR040559901D, OB04059901, and OB05059901 exceeded the fourteen day hold time by one day. The re-analyses for samples BR02059901, BR07059901, TW09059901, TW09059901D, and W5059901 exceeded the hold time by two days. The re-analysis for sample BR03059901 exceeded the hold time by three days. The results taken from the re-analyses that exceeded the hold time were qualified "J" in accordance with the *National Functional Guidelines for Organic Data Review*. The laboratory data reports are located in Appendix E.

4.1.2 Mercury

The matrix spike (MS) analyses were performed on samples from two wells, BR-04 and W-6 (samples BR04059901 and W6059901, respectively). The MS recoveries were within the specified control limits, indicating acceptable accuracy for the matrix and the method. The laboratory blank spike recoveries were within the control limits.

The duplicate analyses were performed on samples BR04059901 and W6059901. Neither sample exhibited positive results for mercury; therefore, precision cannot be assessed.

4.2 ANALYTICAL REPRESENTATIVENESS

4.2.1 Volatile Organic Compounds

All method blanks, trip blanks and field blanks were free of contamination. One of the two rinseate blanks (QABR01) exhibited a positive result for 2-butanone at 14 µg/L. 2-Butanone was not detected in any of the environmental samples; therefore, no action was taken.

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4.2.2 Mercury

All rinseate blanks, field blanks, initial calibration blanks (ICB), continuing calibration blanks (CCB) and preparation blanks (PB) were free of contamination.

4.3 COMPLETENESS

No major laboratory deficiencies were discovered during the evaluation. No target analyte data was rejected. The data set is 100 percent complete.

4.4 COMPARABILITY

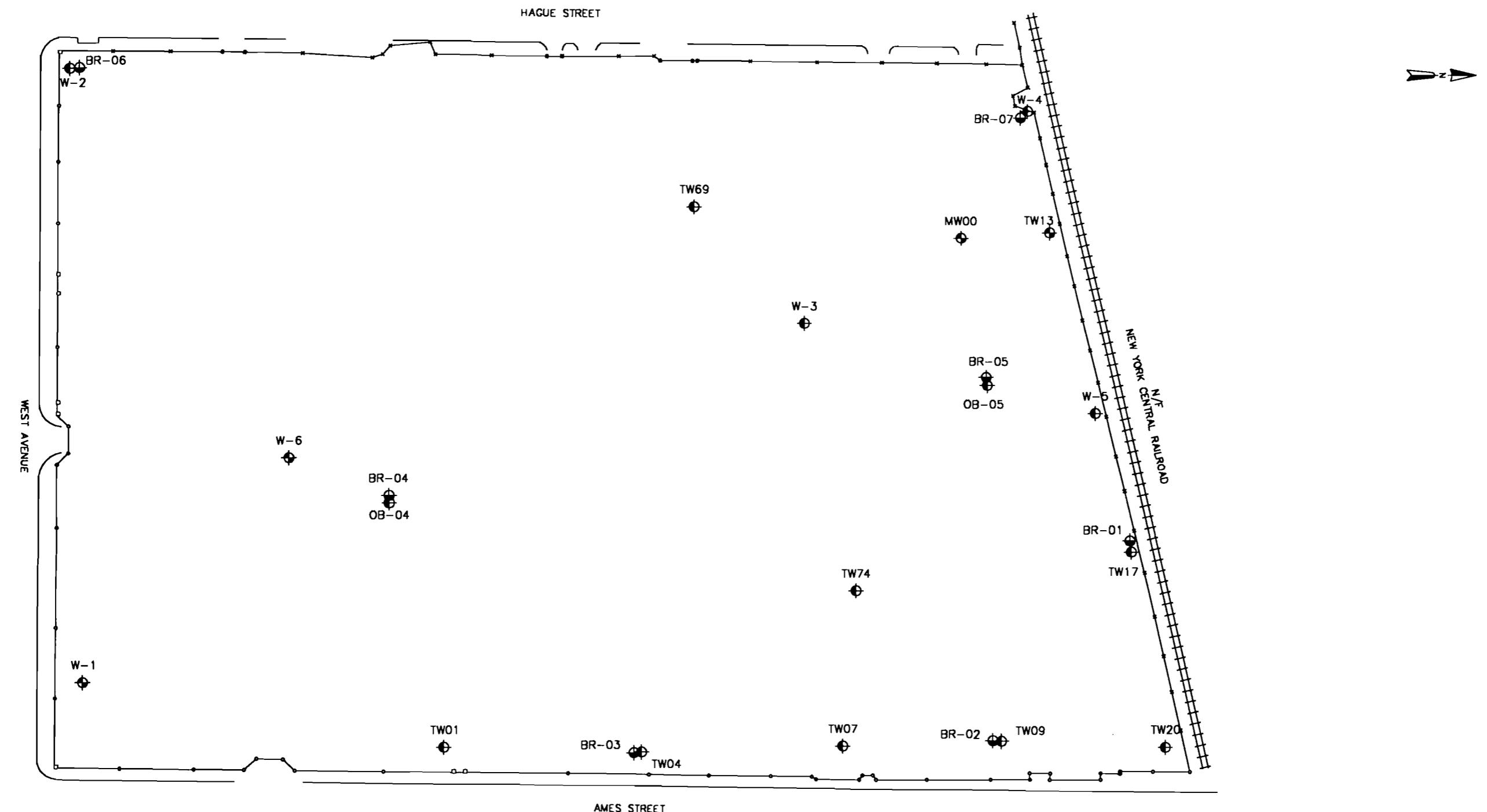
All analyses were performed by Columbia Analytical Services, an Environmental Laboratory Accreditation Program (ELAP)-certified laboratory. Results were reported according to NYSDEC Analytical Services Protocols. The data are interpreted to be comparable to other data sets provided by ELAP-certified laboratories using comparable analytical methods.

5.0 CONCLUSIONS

The May 1999 groundwater results are consistent with earlier groundwater sampling data and will be used to provide an ongoing baseline of contaminant concentration trends prior to site remediation. The next sampling event is scheduled for September 1999 and will be completed in accordance with the *Pre-Remedy Groundwater Monitoring Work Plan* (HLA, 1999).

APPENDIX A

FIGURES



Harding
Lawson
Associates

TITLE:
GROUNDWATER MONITORING LOCATIONS
PRE-REMEDY GROUNDWATER MONITORING PROGRAM
TAYLOR INSTRUMENTS SITE, ROCHESTER, NY

0 50 100
FEET

OWN:

JRF

DES.:

PROJECT NO.:
44836

CHKD:

APPO:

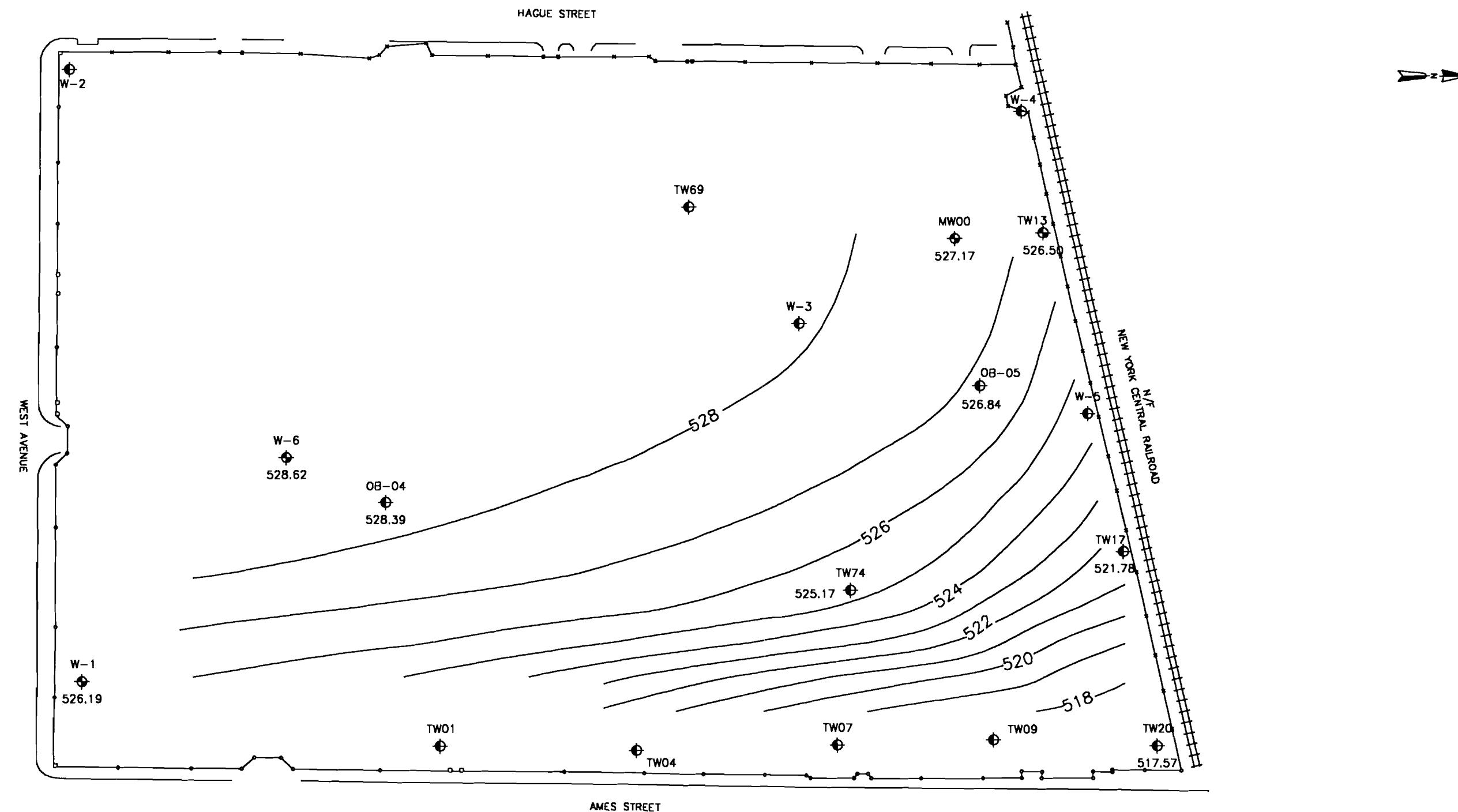
DATE:

7/7/99

REV.:

00

FIGURE NO.:
3-1



Harding
Lawson
Associates

TITLE:
POTENTIOMETRIC SURFACE MAP
OVERBURDEN GROUNDWATER, MAY 1999
TAYLOR INSTRUMENTS FACILITY, ROCHESTER, NY

0 50 100
FEET

| | | | |
|-------------|---------|--------|--------------|
| OWN: | JRF | DES.: | PROJECT NO.: |
| CHKD: | | APPD.: | 44836 |
| DATE: | 7/16/99 | REV.: | 01 |
| FIGURE NO.: | | 3-2 | |

APPENDIX B

FIELD SAMPLE RECORDS

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 2

Project:

Ames St

Sample Location ID:

BRØ1

Sample ID:

BRØ1059901

Job Number:

7198.41

Date:

5-6-99

Location Activity:

Start 1122

End 1321

Field QC Data:

Field Duplicate Collected

Dup ID

WATER LEVEL / WELL DATA

Well Depth:

41.91 FT

Measured
 Historical

TOC
 Top of Prot Casing

Well Stick-up
(from ground) FT

Prot Casing/
TOC Diff. FT

Depth to Water:

11.51 FT

Historical
Well Depth FT

Well Dia. 2 inch
 4 inch
 6 inch

Height of Water Column:

30.40 FT

.16 GAL/FT (2 IN)
 .65 GAL/FT (4 IN)
 1.5 GAL/FT (6 IN)
 ____ GAL/FT (____ IN)

19.76 GAL/VOL

Ambient Air 0.0 PPM

2nd TOTAL GAL PURGED

Well Mouth 0.0 PPM

Well Integrity:
Prot Casing Secure
Concrete Collar Intact
Well Locked
Other: _____

continued on next page

PURGE DATA

Purge Volume

Start Purge: 1122
1126 1135 1143
@ 0.5 GAL @ 0.7 GAL @ 1.2 GAL

End Purge: Continue on
1141 1158 other
@ 1.6 GAL @ 2.0 GAL page

Sample Observations

- Clear w/ black flecks
- Colored
- Cloudy
- Turbid
- Odor
- Other (see notes)

Temp. Deg C

16.4 16.7 16.7 16.8 16.7

pH, Units

7.80 7.67 7.72 7.60 7.62

Specific Conductivity umhos/cm

1.07 1.07 1.05 1.08 1.07

Turbidity (NTU)

555 207 147 154 121

DO (mg/L)

1.08 2.08 2.54 2.34

EQUIPMENT DOCUMENTATION

Purging Sampling

Equipment ID

Decon Fluids Used

Water Level Equip. Used

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air LR
- Water
- In-line Filter
- PreVac Filter

ISCO # _____
KECK # _____
 2 10 # _____
 QSD

- LiquiNex
- Deionized Water
- HNO3
- Potable Water
- Isopropanol
- None

- Electric Cond. Probe
- Float Activated
- Keck Interface Probe
- Other _____

Number of Filters Used _____

NOTES: flow rate \approx 220 ml/min.

1150 Decreased flow \approx 220 ml/min.

SM Approval _____

Date:

6/6/99

Signature:

[Signature]

1150 increased flow
to clean sediment out
of the tubing.

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

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Project Ames St

Sample ID

BR01059901

Job Number

7198.41

Date

5/6/99

Sample Location ID

BR-01

Location Activity

Start 1122

End 1321

Field QC Data:

Field Duplicate Collected

Due ID

WATER LEVEL / WELL DATA

Well Depth 41.91 FT

Measured
 Historical

TOC
 Top of Prot Casing

Well Stick-up
(from ground) FT

Prot Casing/
TOC Diff. FT

Depth to Water 11.51 FT

Historical
Well Depth FT

Well Dia. 2 Inch
 4 Inch
 6 Inch

Well Integrity: Yes No N/A
Prot Casing Secure
Concrete Collar Intact
Well Locked
Other:

Height of Water Column 30.40 FT

1.6 GAL/FT (2 IN)
 .65 GAL/FT (4 IN)
 1.5 GAL/FT (6 IN)
 ___ GAL/FT (___ IN)

Well Material:

PVC

Steel

21.4 GAL/VOL
5.4 TOTAL GAL PURGED

Ambient Air PPM
Well Mouth PPM

PURGE DATA

Continue from previous page

Start Purge: 1241

End Purge: 1256

Purge Volume

@ 4.6 GAL @ 5.2 GAL @ 5.4 GAL @ GAL @ GAL

Temp, Deg C

17.0 16.9 16.8

pH, Units

7.66 7.64 7.67

Specific Conductivity umhos/cm

1.08 1.07 1.08

Turbidity

97 100 98

DO

4.30 3.56 3.82

EQUIPMENT DOCUMENTATION

Purging Sampling

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air Lift
- Water
- In-line Filter
- Press/Vac Filter

Equipment ID

ISCO #
KECK #
 Z 1/4"
 CSD

Decon Fluids Used

- Liqui-Nox
- Deionized Water
- HNO3
- Potable Water
- Isopropanol
- None
- _____

Water Level Equip. Used

- Electric Cond. Probe
- Float Activated
- Keck Interface Probe
- Other _____

Number of Filters Used _____

NOTES: flow rate 220 ml/min. Final DTW - 11.90'

Date:

Signature:

SM Approval _____

John D. Jinkins 5/6/99

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project: Ames St

Sample Location ID: BR-02

Sample ID: BRO2059901

Job Number: 7198.41 Date: 5-5-99

Location Activity: Start 0837 End 0948

Field QC Data: Field Duplicate Collected _____ Due ID: _____

WATER LEVEL / WELL DATA

| | | | | |
|---|--|--|--|---|
| Well Depth: <u>44.29 FT</u> | <input checked="" type="checkbox"/> Measured <input type="checkbox"/> Historical | <input type="checkbox"/> TCC <input checked="" type="checkbox"/> Top of Prot Casing <input type="checkbox"/> | Well Stick-up (from ground) _____ FT | Prot Casing/TCC Diff. _____ FT |
| Depth to Water: <u>25.07 FT</u> | Historical Well Depth: _____ FT | Well Material: <input type="checkbox"/> PVC <input type="checkbox"/> SS <u>Steel</u> | Well Dia: <input type="checkbox"/> 2 inch <input checked="" type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch | Well Integrity: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> Prot Casing Secure <input checked="" type="checkbox"/> Concrete Collar Intact <input checked="" type="checkbox"/> Well Locked <input type="checkbox"/> Other: _____ |
| Height of Water Column: <u>19.22 FT</u> | X <u>.16 GAL/FT (2 IN)</u> <input checked="" type="checkbox"/> <u>.65 GAL/FT (4 IN)</u> <input type="checkbox"/> <u>1.5 GAL/FT (6 IN)</u> <input type="checkbox"/> <u>GAL/FT (IN)</u> | ~ 12.5 | <u>GAL/VOL</u> ~ 1.0 TOTAL GAL PURGED | Ambient Air: <u>0.0 PPM</u> Well Mouth: <u>0.2 PPM</u> |

PURGE DATA

| | | | |
|---|---|---|---|
| Purge Volume: <u>0.6</u> <u>0.35</u> <u>0.31</u> <u>0.942</u> | Start Purge: <u>0916</u> | End Purge: <u>0942</u> | Sample Observations: |
| @ <u>0.6</u> GAL | @ <u>0.3</u> GAL | @ <u>0.9</u> GAL | <input checked="" type="checkbox"/> Clear _____ |
| Temp. Deg C: <u>16.4</u> <u>15.7</u> <u>15.5</u> <u>15.7</u> | <u>9.14</u> <u>7.90</u> <u>7.70</u> <u>7.41</u> | <u>1.28</u> <u>1.19</u> <u>1.19</u> <u>1.21</u> | <input type="checkbox"/> Colored _____ |
| pH, Units: <u>21</u> <u>21</u> <u>20</u> <u>17</u> | <u>7.64</u> <u>7.26</u> <u>7.63</u> <u>6.06</u> | <u>Turbidity</u> | <input type="checkbox"/> Cloudy _____ |
| Specific Conductivity umhos/cm: <u>7.64</u> <u>7.26</u> <u>7.63</u> <u>6.06</u> | <u>7.64</u> <u>7.26</u> <u>7.63</u> <u>6.06</u> | <u>DO mg/L</u> | <input type="checkbox"/> Turbid _____ |
| <u>Water Level Equip. Used</u> | | | |
| <input checked="" type="checkbox"/> Electric Cord. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Keck Interface Probe <input type="checkbox"/> Other _____ | | | |
| Number of Filters Used: _____ | | | |

EQUIPMENT DOCUMENTATION

| | | | | |
|--|---|---|--|--|
| Purging: <input checked="" type="checkbox"/> | Sampling: <input checked="" type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Baller <input checked="" type="checkbox"/> Teflon Tubing <input type="checkbox"/> Air Lift <input type="checkbox"/> Waterman <input type="checkbox"/> In-line Filter <input type="checkbox"/> Press/Vac Filter | Equipment ID: <u>ISCO #</u> <u>KECK #</u> <u>2</u> <input type="checkbox"/> <u>1"</u> <u>#</u> <input type="checkbox"/> CED | Decon Fluids Used: <input type="checkbox"/> Liquid Nitrogen <input checked="" type="checkbox"/> Deionized Water <input type="checkbox"/> HNO3 <input type="checkbox"/> Potable Water <input type="checkbox"/> Isopropanol <input type="checkbox"/> None | Water Level Equip. Used: <input checked="" type="checkbox"/> Electric Cord. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Keck Interface Probe <input type="checkbox"/> Other _____ |
| NOTES: <u>flow rate ≈ 140 mL/min.</u> | | Date: <u>5-5-99</u> | | |
| SM Approval: _____ | | Signature: <u>Daren Corrigan</u> | | |

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

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Project: Ames St.

Sample Location ID: BR-03

Sample ID:

BR03059901

Job Number:

7198.41

Date:

5-4-99

Location Activity:

Start 1824

End 1935

Field QC Data:

Field Duplicate Collected

Dup ID:

WATER LEVEL / WELL DATA

Well Depth:

40.91 ft

Measured
 Historical

TOC
 Top of Prot Casing

Well Stick-up
(from ground)

Prot Casing/
TOC Diff.

ft

Depth to Water:

9.96 ft

Historical
Well Depth:

ft

Well Material:

PVC
 SS Steel

Height of Water Column:

30.95 ft

.16 GAL/FT (2 IN)
 .55 GAL/FT (4 IN)
 1.5 GAL/FT (6 IN)
 ____ GAL/FT (____ IN)

20.1 GAL/FT

Z.4 TOTAL GAL PURGED

Ambient Air 0.0 PPM

Well Mouth 0.0 PPM

Well Integrity:
Prot Casing Secure
Concrete Collar Intact
Well Locked
Other: _____

Yes No N/A

PURGE DATA

Start Purge: 1836 1851 1859 End Purge: 1905

Purge Volume:

6.09 GAL @ 1.3 GAL @ 2.0 GAL @ 2.4 GAL @ ____ GAL

Temp, Deg C:

14.0 13.4 13.4 13.6

pH, Units:

7.82 7.77 7.71 7.76

Specific Conductivity umhos/cm:

1.27 1.28 1.28 1.30

Turbidity:

13 12 10 10

DO mg/l:

0.87 1.75 1.86 1.15

Sample Observations

- Clear
- Colored _____
- Cloudy _____
- Turbid _____
- Odor _____
- Other (see notes) _____

EQUIPMENT DOCUMENTATION

Purging Sampling

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air LR
- Water
- In-line Filter
- Press/Vac Filter

Equipment ID

ISCO # _____
KECK # W20025
 2 1" _____
 CPS

Decan Fluids Used

- Liqui-Nox
- Deionized Water
- HNO3
- Potable Water
- Isopropanol
- None

Water Level Equip. Used

- Electric Cond. Probe
- Float Activated
- Keck Interface Probe
- Other _____

Number of Filters Used: _____

NOTES: flow rate ~ 330 ml/min. final depth to water 12.60'

Date:

5/4/99

Signature:

SM Approval: _____

Jan R. Tiede

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project: Ames St
Sample Location ID: BR-04

Sample ID: BR04059901

Job Number: 7198.41 Date: 5-6-99

Location Activity: Start: 1347 End:

Field QC Data: Field Duplicate Collected: Bus ID: _____

WATER LEVEL / WELL DATA

| | | | | |
|-----------------------------------|---|--|--|---|
| Well Depth: 45.30' | <input checked="" type="checkbox"/> Measured <input type="checkbox"/> Historical | <input type="checkbox"/> TOC <input checked="" type="checkbox"/> Top of Prot Casing <input type="checkbox"/> _____ | Well Stick-up (from ground): _____ FT | Prot Casing/TOC Diff.: _____ FT |
| Depth to Water: 21.24' FT | Historical Well Depth: _____ FT | Well Material: <input type="checkbox"/> PVC <input type="checkbox"/> SS <input checked="" type="checkbox"/> Steel | Well Dia: <input type="checkbox"/> 2 inch <input checked="" type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch | Well Integrity: Prot Casing Secure: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Concrete Collar Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Well Locked: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Other: _____ |
| Height of Water Column: 24.06' FT | X <input type="checkbox"/> .16 GAL/FT (2 IN) <input checked="" type="checkbox"/> .65 GAL/FT (4 IN) <input type="checkbox"/> 1.5 GAL/FT (6 IN) <input type="checkbox"/> ___ GAL/FT (___ IN) | = (5.7 GAL/FT) | Ambient Air: 0.0 PPM | |
| | | - 1.2 TOTAL GAL PURGED | Well Mouth: 0.0 PPM | |

PURGE DATA

| | | | |
|--------------------------------------|-------------------|-----------------|---|
| Purge Volume: 1404 | Start Purge: 1348 | End Purge: 1416 | Sample Observations: <i>bluish tint</i> |
| @ 0.2 GAL | @ 1.0 GAL | @ 1.2 GAL | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Some <input type="checkbox"/> Affected |
| Temp, Deg C: 22.3 | 21.1 | 21.4 | <input type="checkbox"/> Colored _____ |
| pH, Units: 7.48 | 7.60 | 7.52 | <input type="checkbox"/> Cloudy _____ |
| Specific Conductivity umhos/cm: 2.08 | 2.12 | 2.14 | <input type="checkbox"/> Turbid _____ |
| Turbidity: 9 | 9 | 9 | <input type="checkbox"/> Odor _____ |
| DO mg/l: 4.97 | 5.21 | 5.66 | <input type="checkbox"/> Other (see notes) _____ |

EQUIPMENT DOCUMENTATION

| | | | | |
|--|--|--|--|--|
| Purging: <input checked="" type="checkbox"/> | Sampling: <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Baller <input checked="" type="checkbox"/> Teflon Tubing <input type="checkbox"/> Air LTR <input type="checkbox"/> Water <input type="checkbox"/> In-Line Filter <input type="checkbox"/> Press/Vac Filter | Equipment ID: ISCO # _____ KICK # _____ <input type="checkbox"/> 2" <input type="checkbox"/> 1" <input type="checkbox"/> _____ <input type="checkbox"/> CSD | Decon Fluids Used: <input checked="" type="checkbox"/> Liquid-Nick <input type="checkbox"/> Deionized Water <input type="checkbox"/> HNO3 <input type="checkbox"/> Potable Water <input type="checkbox"/> Isopropanol <input type="checkbox"/> None | Water Level Equip. Used: <input checked="" type="checkbox"/> Electric Cond. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Kick Interface Probe <input type="checkbox"/> Other _____ |
|--|--|--|--|--|

NOTES: flow rate x 165 ml/min final DFW = 21.25

Date: 5/7/99

Signature: *John J. Doherty*

SM Approval: _____

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project:

Ames St

Sample Location ID:

BR-05

Sample ID:

BRO5059901

Job Number:

7198.41

Date:

5-6-99

Location Activity:

Start 1455

End 1605

Field QC Data:

Field Duplicate Collected

Due ID

WATER LEVEL / WELL DATA

Well Depth: 51.56 ft

Measured
 Historical

TOC
 Top of Prot Casing

Well Stick-up
(from ground) _____ FT

Prot Casing/
TOC Diff. _____ FT

Depth to Water

22.19 ft

Historical Well Depth _____ FT

Well Material:

PVC
 Steel

Height of Water Column:

29.32 ft

1.6 GAL/FT (2 IN)
 .65 GAL/FT (4 IN)
 1.5 GAL/FT (6 IN)
 ____ GAL/FT (____ IN)

= (9.1) GAL/VOL

1.5 TOTAL GAL PURGED

Well Integrity: Yes No N/A

Prot Casing Secure

Concrete Collar Intact

Well Locked

Other: _____

Ambient Air 0.0 PPM

Well Mouth 0.2 PPM

PURGE DATA

Purge Volume

Start Purge: 1455
1506 1511 1516 1521 1526
End Purge: 1526
@ 0.5 GAL @ 0.8 GAL @ 1.0 GAL @ 1.2 GAL @ 1.2 GAL

Temp. Deg C

19.4 18.9 19.0 18.8 18.9

pH. Units

7.69 7.61 7.62 7.62 7.60

Specific Conductivity umhos/cm

1.71 1.72 1.71 1.71 1.73

Turbid. Turb.

83 78 60 60 59

DO mg/l

12.50 6.12 6.05 5.95 6.19

Sample Observations

- Clear Some black flecks
- Colored _____
- Cloudy _____
- Turbid _____
- Odor _____
- Other (see notes) _____

EQUIPMENT DOCUMENTATION

Purging Sampling

Equipment ID

Decon Fluids Used

Water Level Equip. Used

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air Lift
- Water
- In-line Filter
- Press/Vac Filter
- _____

ISCO # _____
KECK # _____
 2" 1" # _____
 CED

- Liquid-Nox
- Deionized Water
- HNO3
- Potable Water
- Isopropanol
- None
- _____

- Electric Cond. Probe
- Float Activated
- Keck Interface Probe
- Other _____

Number of Filters Used _____

NOTES: flow rate \approx 180 ml/min.

final depth to water
 $= 22.19$

Date:

5/6/99

Signature:

Jan R. Johnson

SM Approval _____

HARDING LAWSON ASSOCIATES FIELD DATA RECORD - GROUND WATER

Page 1 of 1

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|--|---|---|---|---|--|-------------------------------------|--|--|--|---|-------------|---|--|---|--------------------------------|-------------|-------------|--|---|---|-------------|-------------|-------------|--|----------------------|-----------|----------|----------|--|------------------------|-------------|-------------|-------------|--|
| Project: <u>Ames St.</u> | | Sample ID: <u>DC 5-4-99 WZ059401</u> | BRO6059901 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Location ID: <u>BR-06</u> | Job Number: <u>7198.41</u> | Data: <u>5-4-99</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Location Activity: <u>Start 1620</u> | | <u>End</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Field QC Data: <input type="checkbox"/> | Field Duplicate Collected: <input type="checkbox"/> | Due ID: _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WATER LEVEL / WELL DATA <table border="1"> <tr> <td>Well Depth: <u>44.16 ft</u> <u>16.9</u> <u>12.60</u></td> <td><input type="checkbox"/> Measured <input type="checkbox"/> Historical</td> <td><input type="checkbox"/> TOC <input type="checkbox"/> Top of Prot Casing</td> <td>Well Stick-up (from ground) _____ ft</td> <td>Prot Casing/ TOC Diff. _____ ft</td> </tr> <tr> <td>Depth to Water: <u>44.68 ft</u> <u>DC</u></td> <td><input type="checkbox"/> Historical</td> <td><input type="checkbox"/> Well Depth _____ ft</td> <td>Well Dia. <input type="checkbox"/> 2 inch <input checked="" type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch</td> <td>Well Integrity: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A</td> </tr> <tr> <td>Height of Water Column: <u>31.56</u> <u>27.26</u></td> <td>X</td> <td><u>31.16 GAL/FT (2 IN)</u> <u>1.65 GAL/FT (4 IN)</u> <u>1.5 GAL/FT (6 IN)</u> <u>GAL/FT (IN)</u></td> <td>Well Material: <input type="checkbox"/> PVC <input type="checkbox"/> SS <input checked="" type="checkbox"/> Steel</td> <td>Prot Casing Secure <input checked="" type="checkbox"/> Concrete Collar Intact <input checked="" type="checkbox"/> Well Locked <input checked="" type="checkbox"/> Other: _____</td> </tr> <tr> <td>Flow rate \approx 285 mL/min</td> <td></td> <td>=</td> <td><u>5 ft 20.5 GAL/FT</u> <u>113 TOTAL GAL PURGED</u></td> <td>Ambient Air <u>0.0 PPM</u> Well Mouth <u>0.4 PPM</u></td> </tr> </table> | | | | Well Depth: <u>44.16 ft</u> <u>16.9</u> <u>12.60</u> | <input type="checkbox"/> Measured <input type="checkbox"/> Historical | <input type="checkbox"/> TOC <input type="checkbox"/> Top of Prot Casing | Well Stick-up (from ground) _____ ft | Prot Casing/ TOC Diff. _____ ft | Depth to Water: <u>44.68 ft</u> <u>DC</u> | <input type="checkbox"/> Historical | <input type="checkbox"/> Well Depth _____ ft | Well Dia. <input type="checkbox"/> 2 inch <input checked="" type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch | Well Integrity: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | Height of Water Column: <u>31.56</u> <u>27.26</u> | X | <u>31.16 GAL/FT (2 IN)</u> <u>1.65 GAL/FT (4 IN)</u> <u>1.5 GAL/FT (6 IN)</u> <u>GAL/FT (IN)</u> | Well Material: <input type="checkbox"/> PVC <input type="checkbox"/> SS <input checked="" type="checkbox"/> Steel | Prot Casing Secure <input checked="" type="checkbox"/> Concrete Collar Intact <input checked="" type="checkbox"/> Well Locked <input checked="" type="checkbox"/> Other: _____ | Flow rate \approx 285 mL/min | | = | <u>5 ft 20.5 GAL/FT</u> <u>113 TOTAL GAL PURGED</u> | Ambient Air <u>0.0 PPM</u> Well Mouth <u>0.4 PPM</u> | | | | | | | | | | | | | | | |
| Well Depth: <u>44.16 ft</u> <u>16.9</u> <u>12.60</u> | <input type="checkbox"/> Measured <input type="checkbox"/> Historical | <input type="checkbox"/> TOC <input type="checkbox"/> Top of Prot Casing | Well Stick-up (from ground) _____ ft | Prot Casing/ TOC Diff. _____ ft | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Depth to Water: <u>44.68 ft</u> <u>DC</u> | <input type="checkbox"/> Historical | <input type="checkbox"/> Well Depth _____ ft | Well Dia. <input type="checkbox"/> 2 inch <input checked="" type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch | Well Integrity: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Height of Water Column: <u>31.56</u> <u>27.26</u> | X | <u>31.16 GAL/FT (2 IN)</u> <u>1.65 GAL/FT (4 IN)</u> <u>1.5 GAL/FT (6 IN)</u> <u>GAL/FT (IN)</u> | Well Material: <input type="checkbox"/> PVC <input type="checkbox"/> SS <input checked="" type="checkbox"/> Steel | Prot Casing Secure <input checked="" type="checkbox"/> Concrete Collar Intact <input checked="" type="checkbox"/> Well Locked <input checked="" type="checkbox"/> Other: _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flow rate \approx 285 mL/min | | = | <u>5 ft 20.5 GAL/FT</u> <u>113 TOTAL GAL PURGED</u> | Ambient Air <u>0.0 PPM</u> Well Mouth <u>0.4 PPM</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PURGE DATA <table border="1"> <tr> <td colspan="2">Start Purge: <u>1630 1705</u></td> <td colspan="2">End Purge: <u>1712 1714 1717 1720</u></td> <td>Sample Observations</td> </tr> <tr> <td>Purge Volume: <u>6.53 GAL</u></td> <td><u>8.06 GAL</u></td> <td><u>@0.90 GAL</u></td> <td><u>@1.13 GAL</u></td> <td><input checked="" type="checkbox"/> Clear <input checked="" type="checkbox"/> Colored greenish tint <input type="checkbox"/> Cloudy _____ <input type="checkbox"/> Turbid _____ <input type="checkbox"/> Ood _____ <input type="checkbox"/> Other (see notes) _____</td> </tr> <tr> <td>Temp, Deg C: <u>14.9</u></td> <td><u>14.7</u></td> <td><u>14.1</u></td> <td><u>14.0</u></td> <td></td> </tr> <tr> <td>pH, Units: <u>8.02</u></td> <td><u>7.96</u></td> <td><u>7.76</u></td> <td><u>7.71</u></td> <td></td> </tr> <tr> <td>Specific Conductivity umhos/cm: <u>1.08</u></td> <td><u>1.13</u></td> <td><u>1.23</u></td> <td><u>1.25</u></td> <td></td> </tr> <tr> <td>Turbidity: <u>15</u></td> <td><u>15</u></td> <td><u>9</u></td> <td><u>8</u></td> <td></td> </tr> <tr> <td>DO (mg/L): <u>0.87</u></td> <td><u>2.27</u></td> <td><u>1.68</u></td> <td><u>1.20</u></td> <td></td> </tr> </table> <p style="text-align: right;">RF 7/13/99</p> | | | | Start Purge: <u>1630 1705</u> | | End Purge: <u>1712 1714 1717 1720</u> | | Sample Observations | Purge Volume: <u>6.53 GAL</u> | <u>8.06 GAL</u> | <u>@0.90 GAL</u> | <u>@1.13 GAL</u> | <input checked="" type="checkbox"/> Clear <input checked="" type="checkbox"/> Colored greenish tint <input type="checkbox"/> Cloudy _____ <input type="checkbox"/> Turbid _____ <input type="checkbox"/> Ood _____ <input type="checkbox"/> Other (see notes) _____ | Temp, Deg C: <u>14.9</u> | <u>14.7</u> | <u>14.1</u> | <u>14.0</u> | | pH, Units: <u>8.02</u> | <u>7.96</u> | <u>7.76</u> | <u>7.71</u> | | Specific Conductivity umhos/cm: <u>1.08</u> | <u>1.13</u> | <u>1.23</u> | <u>1.25</u> | | Turbidity: <u>15</u> | <u>15</u> | <u>9</u> | <u>8</u> | | DO (mg/L): <u>0.87</u> | <u>2.27</u> | <u>1.68</u> | <u>1.20</u> | |
| Start Purge: <u>1630 1705</u> | | End Purge: <u>1712 1714 1717 1720</u> | | Sample Observations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Volume: <u>6.53 GAL</u> | <u>8.06 GAL</u> | <u>@0.90 GAL</u> | <u>@1.13 GAL</u> | <input checked="" type="checkbox"/> Clear <input checked="" type="checkbox"/> Colored greenish tint <input type="checkbox"/> Cloudy _____ <input type="checkbox"/> Turbid _____ <input type="checkbox"/> Ood _____ <input type="checkbox"/> Other (see notes) _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temp, Deg C: <u>14.9</u> | <u>14.7</u> | <u>14.1</u> | <u>14.0</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH, Units: <u>8.02</u> | <u>7.96</u> | <u>7.76</u> | <u>7.71</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Specific Conductivity umhos/cm: <u>1.08</u> | <u>1.13</u> | <u>1.23</u> | <u>1.25</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Turbidity: <u>15</u> | <u>15</u> | <u>9</u> | <u>8</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DO (mg/L): <u>0.87</u> | <u>2.27</u> | <u>1.68</u> | <u>1.20</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EQUIPMENT DOCUMENTATION <table border="1"> <tr> <td>Purging: <input checked="" type="checkbox"/></td> <td>Sampling: <input checked="" type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Baller <input checked="" type="checkbox"/> Teflon Tubing <input type="checkbox"/> Air Ltr <input type="checkbox"/> Water <input type="checkbox"/> In-line Filter <input type="checkbox"/> Press/Vac Filter</td> <td>Equipment ID: <u>ISCO #</u> _____ <u>KECOK #</u> _____ <input type="checkbox"/> 2" <input type="checkbox"/> 1" # _____ <input type="checkbox"/> CS</td> <td>Decon Fluids Used: <input checked="" type="checkbox"/> Liqui-Nox <input checked="" type="checkbox"/> Deionized Water <input type="checkbox"/> HNO3 <input type="checkbox"/> Potable Water <input type="checkbox"/> Isopropanol <input type="checkbox"/> None</td> <td>Water Level Equip. Used: <input checked="" type="checkbox"/> Electric Cond. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Knock Interface Probe <input type="checkbox"/> Other _____</td> </tr> <tr> <td colspan="2"></td> <td></td> <td></td> <td>Number of Filters Used: _____</td> </tr> </table> | | | | Purging: <input checked="" type="checkbox"/> | Sampling: <input checked="" type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Baller <input checked="" type="checkbox"/> Teflon Tubing <input type="checkbox"/> Air Ltr <input type="checkbox"/> Water <input type="checkbox"/> In-line Filter <input type="checkbox"/> Press/Vac Filter | Equipment ID: <u>ISCO #</u> _____ <u>KECOK #</u> _____ <input type="checkbox"/> 2" <input type="checkbox"/> 1" # _____ <input type="checkbox"/> CS | Decon Fluids Used: <input checked="" type="checkbox"/> Liqui-Nox <input checked="" type="checkbox"/> Deionized Water <input type="checkbox"/> HNO3 <input type="checkbox"/> Potable Water <input type="checkbox"/> Isopropanol <input type="checkbox"/> None | Water Level Equip. Used: <input checked="" type="checkbox"/> Electric Cond. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Knock Interface Probe <input type="checkbox"/> Other _____ | | | | | Number of Filters Used: _____ | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purging: <input checked="" type="checkbox"/> | Sampling: <input checked="" type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Baller <input checked="" type="checkbox"/> Teflon Tubing <input type="checkbox"/> Air Ltr <input type="checkbox"/> Water <input type="checkbox"/> In-line Filter <input type="checkbox"/> Press/Vac Filter | Equipment ID: <u>ISCO #</u> _____ <u>KECOK #</u> _____ <input type="checkbox"/> 2" <input type="checkbox"/> 1" # _____ <input type="checkbox"/> CS | Decon Fluids Used: <input checked="" type="checkbox"/> Liqui-Nox <input checked="" type="checkbox"/> Deionized Water <input type="checkbox"/> HNO3 <input type="checkbox"/> Potable Water <input type="checkbox"/> Isopropanol <input type="checkbox"/> None | Water Level Equip. Used: <input checked="" type="checkbox"/> Electric Cond. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Knock Interface Probe <input type="checkbox"/> Other _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | Number of Filters Used: _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOTES: Started w/ white pump. Pumped out 5 gallons, but was pumping too quickly so we went to peristaltic. 1.3 gal/min | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Final DFW - 15.54' | | Date: <u>5-4-99</u> | Signature: <u>Denver Caragon</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SM Approval: _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project Ames St

Sample ID

BR07059901

Sample Location ID BR-07

Job Number

7198.41

Date

5-5-99

Location Activity

Start 1033

End 1125

Field QC Data: Field Duplicate Collected Dus ID _____

WATER LEVEL / WELL DATA

| | | | | | | | |
|------------------------|-----------------|--|--|--|---------------------------------|--|---|
| Well Depth | <u>52.88 ft</u> | <input checked="" type="checkbox"/> Measured | <input type="checkbox"/> ZCC | Well Stick-up (from ground) | <input type="checkbox"/> ft | Prot Casing/ TOC Diff. | <input type="checkbox"/> ft |
| Depth to Water | <u>24.03 ft</u> | <input type="checkbox"/> Historical | <input type="checkbox"/> Top of Prot Casing | Well Dia. | <input type="checkbox"/> 2 inch | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| Height of Water Column | <u>28.85 ft</u> | <input type="checkbox"/> Well Depth | <input type="checkbox"/> 4 inch | <input type="checkbox"/> 6 inch | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Prot Casing Secure | <input type="checkbox"/> Concrete Collar Intact |
| | | X | <input type="checkbox"/> .16 GAL/FT (2 IN) | <input type="checkbox"/> 1.5 GAL/FT (6 IN) | <input type="checkbox"/> Other | <input type="checkbox"/> Well Locked | <input type="checkbox"/> Other |
| | | | <input checked="" type="checkbox"/> 55 GAL/FT (4 IN) | <input type="checkbox"/> 1.6 GAL/FT (1 IN) | | | |
| | | | | | Ambient Air <u>0.0 ppm</u> | | |
| | | | | | Well Mouth <u>0.0 ppm</u> | | |
| | | | | | TOTAL GAL PURGED <u>1.0</u> | | |

Flow rate ~ 225 mL/min

PURGE DATA

| | | | | | |
|--------------------------------|--------------------------|--------------|-------------|---|---------------------|
| Purge Volume | Start Purge: <u>1047</u> | <u>1055</u> | <u>1000</u> | End Purge: <u>1105</u> | Sample Observations |
| Temp, Deg C | <u>18.16</u> | <u>18.3</u> | <u>18.6</u> | <input checked="" type="checkbox"/> Clear | |
| pH, Units | <u>7.70</u> | <u>7.70</u> | <u>7.75</u> | <input type="checkbox"/> Colored _____ | |
| Specific Conductivity umhos/cm | <u>4.63</u> | <u>4.126</u> | <u>4.67</u> | <input type="checkbox"/> Cloudy _____ | |
| turbidity | <u>1</u> | <u>1</u> | <u>0</u> | <input type="checkbox"/> Turbid _____ | |
| DO mg/L | <u>6.02</u> | <u>5.96</u> | <u>6.10</u> | <input type="checkbox"/> Odor _____ | |

EQUIPMENT DOCUMENTATION

| | | | | |
|-------------------------------------|--|--|---|--|
| Purging | Sampling | Equipment ID | Decon. Fluids Used | Water Level Equip. Used |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Peristaltic Pump | ISCO # _____ | <input checked="" type="checkbox"/> Liqui-Nox | <input checked="" type="checkbox"/> Electric Cond. Probe |
| <input type="checkbox"/> | <input type="checkbox"/> Submersible Pump | KICK # _____ | <input checked="" type="checkbox"/> Deionized Water | <input type="checkbox"/> Float Activated |
| <input type="checkbox"/> | <input type="checkbox"/> Baller | <input type="checkbox"/> 2" <input type="checkbox"/> 1" <input type="checkbox"/> " | <input type="checkbox"/> HNO3 | <input type="checkbox"/> Kick Interface Probe |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Teflon Tubing | <input type="checkbox"/> CSD | <input type="checkbox"/> Potable Water | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> | <input type="checkbox"/> Air LR | | <input type="checkbox"/> Isopropanol | Number of Filters Used _____ |
| <input type="checkbox"/> | <input type="checkbox"/> Waterman | | <input type="checkbox"/> None | |
| <input type="checkbox"/> | <input type="checkbox"/> In-line Filter | | | |
| <input type="checkbox"/> | <input type="checkbox"/> Prese/Vac Filter | | | |

NOTES: Final DTW - 25.53'

Date:

5-5-99

Signature:

Deron Carigan

SM Approval _____

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project:

Ames SF

Sample Location ID:

MW-070 MW-00

Sample ID:

MW00059901

Job Number:

7198.41

Date:

5-5-99

Location Activity:

Start 1510

End 1551

Field QC Data:

Field Duplicate Collected

Due ID:

WATER LEVEL / WELL DATA

Well Depth: 12.23 FT

Measured
 Historical

TOC
 Top of Prot Casing

Well Stick-up
(from ground) _____ FT

Prot Casing/
TOC Diff. _____ FT

Depth to Water: 8.53 FT

Historical Well Depth: _____ FT

Well Dia: 2 Inch
 4 Inch
 6 Inch

Well Integrity: Yes No N/A

Height of Water Column: 3.70 FT

X .16 GAL/FT (2 IN)
 .65 GAL/FT (4 IN)
 1.5 GAL/FT (6 IN)
 _____ GAL/FT (____ IN)

Well Material:
 PVC
 SS

0.6 GAL/VOL
1.1 TOTAL GAL PURGED

Prot Casing Secure
Concrete Collar Intact
Well Locked
Other: _____

Ambient Air: 0.0 ppm
Well Mouth: 6.4 ppm

Flow rate - 220 mL/min

PURGE DATA

Start Purge: 1515

1514 1530 1534

End Purge: 1535

Purge Volume: 69.73 GAL

0.031 GAL 0.11 GAL @ ____ GAL @ ____ GAL

Temp. Deg C: 16.9

17.2 17.0

pH, Units: 7.44

7.39 7.41

Specific Conductivity umhos/cm: 0.855

0.810 0.861

turbidity: 5

1 2

DO mg/L: 1.40

1.74 1.72

Sample Observations

- Clear
- Colored _____
- Cloudy _____
- Turbid _____
- Odor _____
- Other (see notes) _____

EQUIPMENT DOCUMENTATION

Purging Sampling

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air Llt
- Water
- In-Line Filter
- Press/Vac Filter

Equipment ID

ISCO # _____
KECK # _____
 2" 1" # _____
 QED

Decon Fluids Used

- Liqui-Nex
- Deionized Water
- HNO3
- Potable Water
- Isopropanol
- None
- _____

Water Level Equip. Used

- Electric Cond. Probe
- Float Activated
- Keck Interface Probe
- Other _____

Number of Filters Used: _____

NOTES: Final DTW - 8.53'

Date:

5-5-99

Signature:

Deron Carigan

SM Approval: _____

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project: Ames St

Sample Location ID: OB-04

Sample ID: OB04059901

Job Number: 7198.41 Date: 5-6-99

Location Activity: Start 1335 End 1505

Field QC Data: Field Duplicate Collected Due ID: _____

WATER LEVEL / WELL DATA

| | | | | |
|----------------------------------|---|---|--|--|
| Well Depth: 18.73 FT | <input checked="" type="checkbox"/> Measured <input type="checkbox"/> Historical | TOC <input checked="" type="checkbox"/> Top of Prot Casing <input type="checkbox"/> _____ | Well Stick-up (from ground) _____ FT | Prot Casing/ TOC Dmt. _____ FT |
| Depth to Water: 6.81 FT | Historical Well Depth: _____ FT | Well Material: <input type="checkbox"/> PVC <input type="checkbox"/> SS _____ | Well Dia. <input type="checkbox"/> 2 inch <input type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch | Well Integrity: Prot Casing Secure <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Concrete Collar Intact <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Well Locked <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Other: _____ |
| Height of Water Column: 11.92 FT | X 0.16 GAL/FT (2 IN) 0.65 GAL/FT (4 IN) 1.5 GAL/FT (6 IN) GAL/FT (IN) | = 26 0.51.9 GAL VOL 2.2 TOTAL GAL PURGED | Ambient Air: 0.0 PPM | |
| Flow rate 400 mL/min | | | | Well Mouth: 2026 PPM |

PURGE DATA

| Purge Volume | * Note: 3 min hiatus to change batteries | | | | | Sample Observations |
|--------------------------------|--|-----------|--------------|-------------------------|------|---------------------|
| | Start Purge: 1348 1355 | 1359 | 1408 1405 | End Purge: 1413 1412 | 1413 | |
| @ 3.1 GAL | @ 1.12 GAL | @ 1.8 GAL | @ 2.2 GAL | @ ____ GAL | | |
| Tmax, Deg C | 18.1 | 17.2 | 15.3 | 15.5 | | |
| pH, Units | 7.83 | 7.86 | 7.77 | 7.76 | | |
| Specific Conductivity umhos/cm | 1.42 | 1.42 | 1.36 | 1.32 | | |
| turbidity | 23 | 12 | 4 | 2 | | |
| SS (mg/L) | 1.30 | 2.00 | 1.24 | 1.05 | | |

EQUIPMENT DOCUMENTATION

| Purging | Sampling | Equipment ID | Decon Fluids Used | Water Level Equip. Used |
|-------------------------------------|--|--|--|---|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Baller | ISCO # _____ KECK # _____ | <input checked="" type="checkbox"/> Liqui-Nox <input checked="" type="checkbox"/> Deionized Water <input type="checkbox"/> HNO3 <input type="checkbox"/> Potable Water <input type="checkbox"/> Isopropanol <input type="checkbox"/> None | <input checked="" type="checkbox"/> Electric Cond. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Keck Interface Probe <input type="checkbox"/> Other _____ |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Teflon Tubing <input type="checkbox"/> Air Ltr <input type="checkbox"/> Waterm | <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 1" # _____ <input type="checkbox"/> CSD | | Number of Filters Used: _____ |
| <input type="checkbox"/> | <input type="checkbox"/> In-line Filter <input type="checkbox"/> Press/Vac Filter | | | |
| <input type="checkbox"/> | | | | |

NOTES: Final DTN - 8.98'

Date: 5-6-99

Signature: D. Carwagen

SM Approval: _____

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project

Ames St

Sample Location ID

OBØ5

Sample ID

OBØ5Ø599Ø1

Job Number

7198.41

Date

5-6-99

Location Activity

Start 1231

End 1326

Field CC Data:

Field Duplicate Collected

Duo ID

WATER LEVEL / WELL DATA

Well Depth

20.07 ft

Measured
 Historical

TOC
 Top of Prot Casing

Well Stick-up
(from ground) _____ ft

Prot Casing/
TOC Diff. _____ ft

Depth to Water

7.54 ft

Historical
Well Depth _____ ft

Well Dia. 2 inch
 4 inch
 6 inch

ft

Height of Water Column

12.53 ft

X .16 GAL/FT (2 IN)
 .55 GAL/FT (4 IN)
 1.5 GAL/FT (6 IN)
 ____ GAL/FT (____ IN)

Well Material:
 PVC
 SS

2.00 GAL/VOL
1.0 TOTAL GAL PURGED

Well Integrity:
Prot Casing Secure
Concrete Collar Intact
Well Locked
Other: _____

Ambient Air 0.0 ppm
Well Mouth 300 ppm

Flow rate 333 ml/min ~ 305 mL/min

PURGE DATA

Start Purge: 1236

1241 1245 1249

End Purge: 1250

Purge Volume

1.00 GAL 0.01 GAL 0.02 GAL @ ____ GAL @ ____ GAL

Teme, Deg C

16.2

16.1

16.3

pH, Units

7.45

7.51

7.50

Specific Conductivity umhos/cm

0.930

0.935

0.937

Turbidity

1

1

0

DO mg/L

1.06

1.26

1.26

Sample Observations

- Clear
- Colored
- Cloudy
- Turbid
- Odor
- Other (see notes)

EQUIPMENT DOCUMENTATION

Purging Sampling

Equipment ID

Decon Fluids Used

Water Level Equip. Used

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air LTR
- Water
- In-line Filter
- Press/Vac Filter

ISCO # _____

KECK # _____

2" 1"

CED

LiquiNex

Deionized Water

HNO3

Potable Water

Isopropanol

None

Electric Cond. Probe

Fleet Activated

Keck Interface Probe

Other

Number of Filters Used _____

NOTES: Final DTW - 8.27/

Date:

5-6-99

Signature:

Deron Carigan

SM Approval _____

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project: Ames St.

Sample Location ID: TW-#1

Sample ID:

TW#10599#1

Job Number:

07198-41

Date:

5/4/99

Location Activity

Start 5/17/92 End 18/92

Field QC Data:

Field Duplicate Collected

Dup ID:

WATER LEVEL / WELL DATA

Well Depth: 22.03 ft

Measured

Historical

TOC

Top of Prot Casing

Flush

Well Stick-up
(from ground)

flush

Prot Casing/
TOC Diff.

FT

Depth to Water: 8.11 ft

Historical Well Depth:

ft

Well Dia.

2 inch

4 inch

6 inch

Well Integrity:
Prot Casing Secure

Yes No N/A

Concrete Collar Intact

Well Locked

Other: _____

Height of Water Column: 13.92 ft

X-
13.92 ft

.16 GAL/FT (2 IN)
 .65 GAL/FT (4 IN)
 1.5 GAL/FT (6 IN)
 ___ GAL/FT (___ IN)

Well Material:

PVC

SS

2.3 GAL/VOL
.6 TOTAL GAL PURGED

Ambient Air: 0.0 ppm

Well Melt: 1.9 ppm

PURGE DATA

Start Purge: 1742 1751 1755 End Purge: 1804
1747 1751 1755 1803

Purge Volume:

0.4 GAL 0.7 GAL 1.0 GAL 1.3 GAL 1.6 GAL

Temp. Deg C:

12.9 12.4 12.3 12.7 12.6

pH, Units:

8.60 8.62 8.59 8.53 8.50

Specific Conductivity umhos/cm:

0.640 0.642 0.649 0.650 0.657

Turbidity:

28 9 5 4 3

DO (mg/L):

2.57 2.49 2.22 2.42 2.35

Sample Observations

- Clear
- Colored _____
- Cloudy
- Turbid
- Odor
- Other (see notes)

EQUIPMENT DOCUMENTATION

Purging Sampling

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air Lift
- Water
- In-line Filter
- Press/Vac Filter

Equipment ID

ISCO # _____
KICK # _____
2" 1"
CES

Decon Fluids Used

- Liquid-Nox
- Deionized Water
- HNO3
- Potable Water
- Isopropanol
- None

Water Level Equip. Used

- Electric Cond. Probe
- Float Activated
- Keck Interface Probe
- Other

Number of Filters Used: _____

NOTES: purge rate = 285 ml/min

Date:

5-4-99

Signature:

Jen R. L. W.

SM Approval: _____

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project Ames St.

Sample ID TW04059901, 1

Sample Location ID TW - 04

Job Number 7198.41 Date 5-4-99

Field QC Data: Field Duplicate Collected Dus ID _____

WATER LEVEL / WELL DATA

Well Depth 20.55 FT Measured TCC Well Stick-up (from ground) FT Prot Casing/ TCC Diff. FT

Historical Tes of Prot Casing Well Dia. 2 Inch Yes No N/A

Depth to Water 9.36 FT 4 Inch Concrete Collar Intact

Well Depth FT 6 Inch Well Locked

Height of Water Column 11.19 FT PVC Other

.16 GAL/FT (2 IN) .65 GAL/FT (4 IN) Ambient Air 0.0 PPM

.15 GAL/FT (6 IN) 2.43 TOTAL GAL PURGED Well Mouth 2.9 PPM

GAL/FT (IN) z1.8 GAL/VOL

Flow rate 0.4 L/min

1821 1843 1850 End Purge: 1850 Sample Observations

Purge Volume 11.36 @ 0.45 GAL @ 1.69 GAL @ 2.43 GAL @ ____ GAL @ ____ GAL

Temp. Deg C 12.5 11.8 12.1 Clear

pH, Units 7.73 7.78 7.75 Colored _____

Specific Conductivity umhos/cm 0.950 0.951 0.942 Cloudy _____

Turbidity 11 10 4 Turbid _____

DO mg/l 0.97 1.90 2.09 Odor Sulfur

Other (see notes)

EQUIPMENT DOCUMENTATION

| Purging | Sampling | Equipment ID | Decon Fluids Used | Water Level Equip. Used |
|-------------------------------------|--|--|---|---|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Peristaltic Pump | ISCO # _____ | <input checked="" type="checkbox"/> Liquid-Nick | <input type="checkbox"/> Electric Cond. Probe |
| <input type="checkbox"/> | <input type="checkbox"/> Submersible Pump | KECK # _____ | <input checked="" type="checkbox"/> Deionized Water | <input type="checkbox"/> Float Activated |
| <input type="checkbox"/> | <input type="checkbox"/> Baller | <input type="checkbox"/> 2 <input type="checkbox"/> 1" # _____ | <input type="checkbox"/> HNO3 | <input type="checkbox"/> Keck Interface Probe |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Teflon Tubing | <input type="checkbox"/> CS | <input type="checkbox"/> Potable Water | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> | <input type="checkbox"/> Air Ltr | | <input type="checkbox"/> Isopropanol | |
| <input type="checkbox"/> | <input type="checkbox"/> Water | | <input type="checkbox"/> None | |
| <input type="checkbox"/> | <input type="checkbox"/> In-line Filter | | | Number of Filters Used _____ |
| <input type="checkbox"/> | <input type="checkbox"/> Press/Vac Filter | | | |

NOTES: Sulfur odor.

Final DTW - 14.87'

Date: 5-4-99

Signature: Deron Carigan

SM Approval: _____

TW-7

HARDING LAWSON ASSOCIATES FIELD DATA RECORD - GROUND WATER

Page 1 of 1Project Ames St.Sample ID TW07059901Sample Location ID TW-07Job Number 0799.41 Date 5/5/99Location Activity Start 0924 End 1020
RF 5/5/99Field QC Data: Field Duplicate Collected Dus ID _____**WATER LEVEL / WELL DATA**

| | | | | | | | | | |
|------------------------|-----------------|---|--|---|--|---------------------------|---|-----------------------------|------------------------------|
| Well Depth | <u>18.3</u> ft | <input checked="" type="checkbox"/> Measured | <input checked="" type="checkbox"/> TCC | Well Stick-up (from ground) | <u>flush</u> | Prot Casing/ TOC Diff. | <u>FT</u> | | |
| | | <input type="checkbox"/> Historical | <input type="checkbox"/> Top of Prot Casing | Well Dia. | <input checked="" type="checkbox"/> 2 inch | Well Integrity: | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| Depth to Water | <u>10.75</u> ft | Historical Well Depth | <u>ft</u> | | <input type="checkbox"/> 4 inch | Prot Casing Secure | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Height of Water Column | <u>7.5</u> ft | <input checked="" type="checkbox"/> .16 GAL/FT (2 IN) | <input type="checkbox"/> .65 GAL/FT (4 IN) | Well Material: | <input type="checkbox"/> 6 inch | Concrete Collar Intact | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> 1.5 GAL/FT (6 IN) | <input type="checkbox"/> ____ GAL/FT (____ IN) | <input checked="" type="checkbox"/> PVC | <input type="checkbox"/> SS | Well Locked | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | X | = | <u>1.2</u> GAL/VOL | <u>2.9</u> TOTAL GAL PURGED | Ambient Air | <u>0.0</u> PPM | | |
| | | | | | | Well Mouth | <u>1.9</u> PPM | | |

PURGE DATA

| | Start Purge: <u>0944</u> | <u>0953</u> | <u>0956</u> | <u>1000</u> | End Purge: <u>1008</u> | <u>1008</u> | <u>1013</u> | Sample Observations |
|--------------------------------|--------------------------|------------------|------------------|------------------|------------------------|-------------|-------------|--|
| Purge Volume | <u>@ 0.9 GAL</u> | <u>@ 1.2 GAL</u> | <u>@ 1.6 GAL</u> | <u>@ 2.0 GAL</u> | <u>@ 2.4 GAL</u> | <u>2.9</u> | <u>1013</u> | <input checked="" type="checkbox"/> Clear to Colored |
| Temp, Deg C | <u>12.1</u> | <u>11.6</u> | <u>11.9</u> | <u>11.8</u> | <u>11.4</u> | <u>11.7</u> | <u>11.3</u> | <input checked="" type="checkbox"/> Cloudy |
| pH, Units | <u>7.42</u> | <u>7.30</u> | <u>7.33</u> | <u>6.98</u> | <u>7.05</u> | <u>6.95</u> | <u>6.95</u> | <input type="checkbox"/> Turbid |
| Specific Conductivity umhos/cm | <u>1.89</u> | <u>1.90</u> | <u>1.89</u> | <u>1.88</u> | <u>1.88</u> | <u>1.88</u> | <u>1.88</u> | <input type="checkbox"/> Odor |
| Turbidity (NTU's) | <u>22</u> | <u>34</u> | <u>60</u> | <u>20</u> | <u>5</u> | <u>12</u> | <u>12</u> | <input type="checkbox"/> Other (see notes) |
| DO mg/L | <u>0.41</u> | <u>1.08</u> | <u>1.49</u> | <u>1.62</u> | <u>1.64</u> | <u>1.47</u> | <u>1.47</u> | |

EQUIPMENT DOCUMENTATION

| | | | | |
|-------------------------------------|---|---|---|--|
| Purging | Sampling | Equipment ID | Decon Fluids Used | Water Level Equip. Used |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> Peristaltic Pump | ISCO # _____ | <input checked="" type="checkbox"/> Liquid-Nox | <input checked="" type="checkbox"/> Electric Cond. Probe |
| <input type="checkbox"/> | <input type="checkbox"/> Submersible Pump | KOKE # _____ | <input checked="" type="checkbox"/> Deionized Water | <input type="checkbox"/> Float Activated |
| <input type="checkbox"/> | <input type="checkbox"/> Baller | <input type="checkbox"/> 2" <input type="checkbox"/> 1" # _____ | <input type="checkbox"/> HNO3 | <input type="checkbox"/> Keck Interface Probe |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Teflon Tubing | <input type="checkbox"/> CSD | <input type="checkbox"/> Potable Water | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> | <input type="checkbox"/> Air Ltr | | <input type="checkbox"/> Isopropanol | |
| <input type="checkbox"/> | <input type="checkbox"/> Waterms | | <input type="checkbox"/> None | |
| <input type="checkbox"/> | <input type="checkbox"/> In-line Filter | | | Number of Filters Used _____ |
| <input type="checkbox"/> | <input type="checkbox"/> Press/Vac Filter | | | |

NOTES: flow rate \approx 385 ml/min.

Collected VOA, Hg-CVAA

Final DTW = 11.61'

Date: 5/5/99Signature: J. R. Law

SM Approval _____

HARDING LAWSON ASSOCIATES FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project Ames St

Sample Location ID TW-09

Sample ID TWO9059901, D

Job Number 7198.41 Date 5-5-99

Location Activity Start 0837 End 0930

Field QC Data: Field Duplicate Collected Due ID _____

WATER LEVEL / WELL DATA

| | | | | |
|---------------------------------------|--|--|---|---|
| Well Depth <u>17.40</u> FT | <input checked="" type="checkbox"/> Measured <input type="checkbox"/> Historical | <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Top of Prot Casing | Well Stick-up (from ground) _____ FT | Prot Casing/ TOC Diff. _____ FT |
| Depth to Water <u>10.98</u> FT | Historical Well Depth _____ FT | Well Material: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS | Well Dia. <input checked="" type="checkbox"/> 2 Inch <input type="checkbox"/> 4 Inch <input type="checkbox"/> 6 Inch | Well Integrity: Prot Casing Secure <input type="checkbox"/> Concrete Collar Intact <input checked="" type="checkbox"/> Well Locked <input type="checkbox"/> Other _____ |
| Height of Water Column <u>0.42</u> FT | X- <u>.16 GAL/FT (2 IN)</u> <u>.65 GAL/FT (4 IN)</u> <u>1.5 GAL/FT (6 IN)</u> <u>GAL/FT (IN)</u> | = <u>~1.03</u> GAL/FT | Total Gal Purged <u>1.6</u> | Ambient Air <u>0.0</u> PPM Well Mouth <u>5.2</u> PPM |
| Flow rate ~ 333 mg/lb mL/min | | | | |

PURGE DATA

| | | | |
|--------------------------------|-----------------------------------|-----------|-------------------------|
| Purge Volume | Start Purge: 0841 0843 0857 | 0902 | End Purge: 0910 0912 |
| Temp, Deg C | 60.35 GAL | 81.44 GAL | 61.52 GAL |
| pH, Units | 12.5 | 12.8 | 12.2 |
| Specific Conductivity umhos/cm | 7.85 | 7.79 | 7.73 |
| turbidity | 0.97 | 5.94 | 0.95 |
| DO (mg/L) | 15 | 5 | 3 |
| | 1.43 | 2.00 | 1.72 |

Sample Observations

- Clear _____
- Colored _____
- Cloudy _____
- Turbid _____
- Odor _____
- Other (see notes) _____

EQUIPMENT DOCUMENTATION

| | | | | |
|--------------------------|--|--|--|---|
| Purging | Sampling | Equipment ID | Decon Fluids Used | Water Level Equip. Used |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Baller <input checked="" type="checkbox"/> Teflon Tubing <input type="checkbox"/> Air Lift <input type="checkbox"/> Water <input type="checkbox"/> In-line Filter <input type="checkbox"/> Press/Vac Filter | ISCO # _____ KECK # _____ 2" <input type="checkbox"/> 1" <input type="checkbox"/> GSD | <input checked="" type="checkbox"/> Liqui-Nox <input checked="" type="checkbox"/> Deionized Water <input type="checkbox"/> HNO3 <input type="checkbox"/> Potable Water <input type="checkbox"/> Isopropanol <input type="checkbox"/> None | <input checked="" type="checkbox"/> Electric Cond. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Keck Interface Probe <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> | | | | Number of Filters Used _____ |

NOTES:

Date: 5-5-99

Signature: Daren Carigan

SM Approval _____

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

| | | | |
|---|--|---|--|
| Project: Ames St. | | Sample ID: TW13059901 | |
| Sample Location ID: TW-13 | | Job Number: 7198.41 Date: 5-5-99 | |
| Field QC Data: <input type="checkbox"/> | | Field Duplicate Collected: <input type="checkbox"/> Due ID: _____ | |
| WATER LEVEL / WELL DATA Well Depth: <u>14.88 ft</u> <input checked="" type="checkbox"/> Measured <input type="checkbox"/> Historical Well Stick-up (from ground): <u>flush</u> ft Depth to Water: <u>5.05 ft</u> Historical Well Depth: <u>ft</u> Well Dia.: <input checked="" type="checkbox"/> 2 inch <input type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch Height of Water Column: <u>9.83 ft</u> <input checked="" type="checkbox"/> .16 GAL/FT (2 IN) <input type="checkbox"/> .65 GAL/FT (4 IN) <input type="checkbox"/> 1.5 GAL/FT (6 IN) <input type="checkbox"/> GAL/FT (IN) = <u>1.6</u> GAL/VOL Total Gal Purged: <u>1.2</u> Prot Casing/TOC Diff: <u>ft</u> Well Integrity: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Prot Casing Secure: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Concrete Collar Intact: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Well Locked: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Other: _____ Ambient Air: <u>0.0 ppm</u> Well Mount: <u>3.2 ppm</u> | | | |
| PURGE DATA Start Purge: <u>1526</u> <u>1345</u> <u>1551</u> End Purge: <u>1552</u> Purge Volume: <u>G 0.6 GAL</u> <u>@ 2.9 GAL</u> <u>@ 1.2 GAL</u> <u>@ GAL</u> <u>@ GAL</u> Temp, Deg C: <u>18.9</u> <u>17.5</u> <u>17.7</u> pH, Units: <u>7.49</u> <u>7.53</u> <u>7.35</u> Specific Conductivity umhos/cm: <u>1.79</u> <u>1.80</u> <u>1.82</u> <u>Turbidity (NTU)</u> : <u>28</u> <u>32</u> <u>28</u> <u>D_o (mg/L)</u> : <u>1.30</u> <u>1.72</u> <u>1.51</u> | | | Sample Observations <input checked="" type="checkbox"/> Clear (black flecks) <input type="checkbox"/> Colored _____ <input type="checkbox"/> Cloudy _____ <input type="checkbox"/> Turbid _____ <input type="checkbox"/> Odor _____ <input type="checkbox"/> Other (see notes) |
| EQUIPMENT DOCUMENTATION Purging: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Baler <input checked="" type="checkbox"/> Teflon Tubing <input type="checkbox"/> Air Lift <input type="checkbox"/> Water <input type="checkbox"/> In-line Filter <input type="checkbox"/> Press/Vac Filter Sampling: <input type="checkbox"/> | | | Equipment ID: ISCO # _____ KECK # _____ <input checked="" type="checkbox"/> 2" <input type="checkbox"/> 1" <input type="checkbox"/> 0" <input type="checkbox"/> QD Decon Fluids Used: <input checked="" type="checkbox"/> LiquiNax <input type="checkbox"/> Calcium Water <input type="checkbox"/> HNO ₃ <input type="checkbox"/> Potable Water <input type="checkbox"/> Isopropanol <input type="checkbox"/> None Water Level Equip. Used: <input checked="" type="checkbox"/> Electric Cond. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Keck Interface Probe <input type="checkbox"/> Other _____ Number of Filters Used: _____ |
| NOTES: flow rate ≈ 180 ml/min | | final depth to water = 6.0' | |
| SM Approval: _____ | | Date: 5/5/99 | Signature: <u>John Fuchs J</u> |

HARDING LAWSON ASSOCIATES FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project: Ames St

Sample ID: TW17059901

Sample Location ID: TW-17

Job Number: 7198.41 Date: 5-6-99

Location Activity: Start J108 End 1224

Field QC Data: Field Duplicate Collected Dus ID: _____

WATER LEVEL / WELL DATA

| | | | | |
|---------------------------------|---|--|--|---|
| Well Depth: 17.60 ft | <input checked="" type="checkbox"/> Measured <input type="checkbox"/> Historical | <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Top of Prot Casing <input type="checkbox"/> _____ | Well Stick-up (from ground) _____ ft | Prot Casing/ TOC Diff. _____ ft |
| Depth to Water: 7.86 ft | Historical Well Depth: _____ ft | Well Material: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS | Well Dia: <input checked="" type="checkbox"/> 2 inch <input type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch | Well Integrity: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Prot Casing Secure <input checked="" type="checkbox"/> Concrete Collar Intact <input type="checkbox"/> Well Locked <input checked="" type="checkbox"/> Other: _____ |
| Height of Water Column: 9.74 ft | X <input checked="" type="checkbox"/> .16 GAL/FT (2 IN) <input type="checkbox"/> .65 GAL/FT (4 IN) <input type="checkbox"/> 1.5 GAL/FT (6 IN) <input type="checkbox"/> _____ GAL/FT (_____ IN) | = ~1.5 GAL/VOL | Ambient Air: 0.0 ppm | |
| Flow rate - 250 mL/min | | - 1.7 gal | Well Mouth: 6.4 ppm | |

PURGE DATA

| | | | | |
|--------------------------------------|-------------------|-----------------|-----------|--|
| Purge Volume: 1123 | Start Purge: 1130 | End Purge: 1344 | b/s | Sample Observations: |
| 1130 | 1135 | 1138 | 1144 | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Colored _____ <input type="checkbox"/> Cloudy _____ <input type="checkbox"/> Turbid _____ <input type="checkbox"/> Odor _____ <input type="checkbox"/> Other (see notes) _____ |
| @ 0.5 GAL | @ 0.8 GAL | @ 1.0 GAL | @ 2.7 GAL | |
| Temp, Deg C: 14.6 | 14.2 | 12.9 | 14.3 | |
| pH, Units: 7.66 | 7.63 | 7.59 | 7.65 | |
| specific Conductivity umhos/cm: 0.97 | 0.93 | 0.93 | 0.94 | |
| turbidity: 10 | 5 | 4 | 2 | |
| DO mg/L: 5.42 | 5.10 | 5.49 | 5.34 | |

EQUIPMENT DOCUMENTATION

| | | | | |
|--|--|---|---|--|
| Purging: <input checked="" type="checkbox"/> | Sampling: <input checked="" type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Baller <input checked="" type="checkbox"/> Teflon Tubing <input type="checkbox"/> Air Llt <input type="checkbox"/> Waterm <input type="checkbox"/> In-line Filter <input type="checkbox"/> Press/Vac Filter | Equipment ID: ISCO # _____ KECK # _____ <input type="checkbox"/> 2" <input type="checkbox"/> 1" _____ <input type="checkbox"/> CED | Decon Fluids Used: <input checked="" type="checkbox"/> Liqui-Nox <input checked="" type="checkbox"/> Cleanized Water <input type="checkbox"/> HNO3 <input type="checkbox"/> Potable Water <input type="checkbox"/> Isopropanol <input type="checkbox"/> None | Water Level Equip. Used: <input checked="" type="checkbox"/> Electric Cond. Probe <input type="checkbox"/> Fixed Activated <input type="checkbox"/> Keck Interface Probe <input type="checkbox"/> Other _____ |
|--|--|---|---|--|

NOTES: Final DTW - 8.14'

Date: 5-6-99
Signature: Denver Carigan

SM Approval: _____

HARDING LAWSON ASSOCIATES FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project: Ames St.

Sample Location ID: TW-20

Field QC Data:

Field Duplicate Collected

Dup ID: _____

Sample ID:

TW 20059901

Job Number:

7198.41

Date:

5-5-99

Location Activity:

Start 4618-15' 1700 End

1742

RF 5/5/99

WATER LEVEL / WELL DATA

Well Depth: 17.22 ft

Measured
 Historical

TOC
 Top of Prot Casing

Well Stick-up
(from ground) _____ ft

Prot Casing/
TOC Diff. _____ ft

Depth to Water: 12.59 ft

Historical Well Depth: _____ ft

Well Material:
 PVC
 SS

Well Integrity: Yes No N/A

Prot Casing Secure:

Concrete Collar Intact:

Well Locked:

Other:

Height of Water Column: 4.63 ft

.16 GAL/FT (2 IN)
 .65 GAL/FT (4 IN)
 1.5 GAL/FT (6 IN)

0.74 GAL/VOL
1.7 TOTAL GAL PURGED

Ambient Air: 0.0 ppm
Well Mouth: 1.2 ppm

Flow rate: 190 mL/min at 5/5/99

PURGE DATA

Purge Volume: _____

| Start Purge: 1708 | 1700 | 1714 | End Purge: 1725 | 1730 |
|-------------------|---------|-----------|-----------------|-----------|
| @ 0.9 GAL | 3.8 GAL | @ 1.0 GAL | @ 1.4 GAL | @ 1.7 GAL |

Temp. Deg C: 14.0

| | | | | |
|------|------|------|------|------|
| 14.0 | 13.4 | 14.0 | 13.4 | 13.8 |
|------|------|------|------|------|

pH, Units: 7.83

| | | | | |
|------|------|------|------|------|
| 7.83 | 7.73 | 7.74 | 7.67 | 7.72 |
|------|------|------|------|------|

Specific Conductivity umhos/cm: 0.818

| | | | | |
|-------|-------|-------|-------|-------|
| 0.818 | 0.812 | 0.812 | 0.802 | 0.777 |
|-------|-------|-------|-------|-------|

turbidity: 34

| | | | | |
|----|----|---|---|---|
| 34 | 16 | 4 | 1 | 0 |
|----|----|---|---|---|

DO mg/L: 2.83

| | | | | |
|------|------|------|------|------|
| 2.83 | 2.88 | 2.96 | 3.07 | 2.89 |
|------|------|------|------|------|

Sample Observations

- Clear _____
- Colored _____
- Opaque _____
- Turbid _____
- Odor _____
- Other (see notes) _____

EQUIPMENT DOCUMENTATION

Purging

Sampling

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air Lift
- Water
- In-line Filter
- Press/Vac Filter

Equipment ID

ISCO # _____
KICK # _____
□ 2" □ 1" # _____
□ CSD

Decon Fluids Used

- Liqui-Nox
- Deionized Water
- HNO3
- Portable Water
- Isopropanol
- None
- _____

Water Level Equip. Used

- Electric Cond. Probe
- Float Activated
- Kick Interface Probe
- Other _____

Number of Filters Used: _____

NOTES:

flow rate ≈ 210 mL/min.

final depth to water 12.75'

Date:

5/5/99

Signature:

SM Approval: _____

Jan F. Liss

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project Ames St

Sample Location ID TW-109

Sample ID

TW109059901

Job Number

7198.41

Date

5-5-99

Location Activity

Start 1335

End 1412

Field QC Data:

Field Duplicate Collected

Dus ID

WATER LEVEL / WELL DATA

Well Depth 21.76 ft

Measured
 Historical

TCC
 Top of Prot Casing

Well Stick-up
(from ground) _____ FT

Prot Casing/
TOC Diff. _____ FT

Depth to Water 6.86 ft

Historical Well Depth _____ FT

Well Material:

Well Dia. 2 Inch
 4 Inch
 6 Inch

Well Integrity: Yes No N/A

Prot Casing Secure

Concrete Collar Intact

Well Locked

Other: _____

Height of Water Column 14.90 ft

.16 GAL/FT (2 IN)
 .55 GAL/FT (4 IN)
 1.5 GAL/FT (6 IN)
 ____ GAL/FT (____ IN)

X. ~ 2.38 GAL/FT
= ~ 0.860 TOTAL GAL PURGED

Ambient Air 0.0 ppm

Well Mouth 4.7 ppm

Flow rate ~ 205 mL/min

PURGE DATA

Start Purge: 1345 1352 1355 1401 End Purge: 1402

Purge Volume

@ 0.38 GAL @ 2.10 GAL @ 0.36 GAL @ ____ GAL @ ____ GAL

Total Deg C

15.9 16.0 16.6 _____

pH, Units

8.46 8.00 8.05 _____

Specific Conductivity units/cm

2.00 2.02 2.07 _____

turbidity

6 6 6 _____

100 mg/L

1.09 0.89 2.12 _____

Sample Observations

Clear w/ chunks of _____
 Colored _____

Cloudy _____

Turbid _____

Clear sulfur _____

Other (see notes) _____

EQUIPMENT DOCUMENTATION

Purging Sampling

Equipment ID

Decan Fluids Used

Water Level Equip. Used

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air LTR
- Water
- In-line Filter
- Press/Vac Filter

ISCO # _____

KOKE # _____

2" 1"

ccd _____

Liquinex

Deionized Water

HNO3

Potable Water

Isopropanol

None

Electric Cond. Probe

Fixed Activated

Kack Interface Probe

Other _____

Number of Filters Used _____

NOTES: Final DTW - 11.26'

Date:

5-5-99

Signature:

Deron Carpenter

SM Approval _____

HARDING LAWSON ASSOCIATES FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project: Ames SF

Sample ID:

TW 74059901

Sample Location ID: TW - 74

Job Number:

7198.41

Date:

5-5-99

Location Activity:

Start 1618

End 1718

Field QC Data:

Field Duplicate Collected

Dub ID

WATER LEVEL / WELL DATA

Well Depth: 16.92 FT

Measured
 Historical

TOC
 Top of Prot Casing

Well Stick-up
(from ground) FT

Prot Casing/
TOC Diff. FT

Depth to
Water

* taken after 1 L purged

10.660 *FT

Historical
Well Depth FT

Well Dia. 2 Inch
 4 Inch
 6 Inch

Well Integrity: Yes No N/A
Prot Casing Secure
Concrete Collar Intact
Well Locked
Other:

Height of
Water
Column

16.25 FT

1.6 GAL/FT (2 IN)
X. .65 GAL/FT (4 IN)
 1.5 GAL/FT (6 IN)
 ___ GAL/FT (___ IN)

= 1.0 GAL/VOL
1.7 TOTAL GAL PURGED

Ambient Air 0.0 PPM
Well Mouth 5.2 PPM

Flow rate - 190 mL/min

PURGE DATA

Start Purge: 1629

End Purge: 1703

Purge Volume

| | | | | |
|----------|-----------|-----------|-----------|----------|
| 1639 | 1646 | 16561 | 1657 | 1703 |
| 6.95 GAL | 6.955 GAL | 6.955 GAL | 6.944 GAL | 6.70 GAL |

Temp., Deg C

| | | | | |
|------|------|------|------|------|
| 19.7 | 18.5 | 17.2 | 17.4 | 18.5 |
|------|------|------|------|------|

pH, Units

| | | | | |
|------|------|------|------|------|
| 7.81 | 7.82 | 7.67 | 7.56 | 7.43 |
|------|------|------|------|------|

Specific Conductivity umhos/cm

| | | | | |
|------|------|------|------|------|
| 1.63 | 1.76 | 1.76 | 1.82 | 1.84 |
|------|------|------|------|------|

turbidity

| | | | | |
|----|----|----|-----|-----|
| 25 | 50 | 42 | 103 | 113 |
|----|----|----|-----|-----|

DO mg/L

| | | | | |
|------|------|------|------|------|
| 1.37 | 1.09 | 1.35 | 1.16 | 1.47 |
|------|------|------|------|------|

Sample Observations

- Clear
- Colored _____
- Cloudy _____
- Turbid _____
- Odor _____
- Other (see notes) _____

EQUIPMENT DOCUMENTATION

Purging Sampling

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air LR
- Water
- In-line Filter
- Press/Vac Filter

Equipment ID

ISCO # _____
KICK # _____
 2" 1" * _____
 CSD

Decon Fluids Used

- Liqui-Nox
- Deionized Water
- HNO3
- Potable Water
- Isopropanol
- None
- _____

Water Level Equip. Used

- Electric Cond. Probe
- Float Activated
- Kick Interface Probe
- Other _____

Number of Filters Used _____

NOTES: Final DTW - 10.04' * taken at 1746

Date:

5-5-99

Signature:

D. Carigan

SM Approval _____

HARDING LAWSON ASSOCIATES FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project: Ames St.

Sample Location ID: ~~W-01~~ ac W-1

Sample ID: W1059901

Job Number: 7198.41 Date: 5/4/99

Location Activity: Start 1317 End 1350

Field QC Data: Field Duplicate Collected Due ID: _____

WATER LEVEL / WELL DATA

| | | | | |
|---------------------------------|---|---|---|--|
| Well Depth: 13.74 ft | <input checked="" type="checkbox"/> Measured <input type="checkbox"/> Historical | <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Top of Prot. Casing | Well Stick-up (from ground): _____ ft | Prot. Casing/TOC Diff.: _____ ft |
| Depth to Water: 9.90 ft | Historical Well Depth: _____ ft | Well Material: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS | Well Dia.: <input checked="" type="checkbox"/> 2 inch <input type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch | Well Integrity: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A |
| Height of Water Column: 3.84 ft | X .16 GAL/FT (2 IN) .65 GAL/FT (4 IN) 1.5 GAL/FT (6 IN) | = 0.61 GAL/VOL | Total Gal Purged: 2.6 | Prot. Casing Secure <input type="checkbox"/> Concrete Collar Intact <input checked="" type="checkbox"/> Well Locked <input type="checkbox"/> Other: _____ |
| ≥ 300 mL/min | <input type="checkbox"/> 1.6 GAL/FT (2 IN) | | | Ambient Air: 0.0 ppm |
| | <input type="checkbox"/> 1.5 GAL/FT (4 IN) | | | Well Mouth: 0.0 ppm |
| | <input type="checkbox"/> 1.5 GAL/FT (6 IN) | | | |
| | <input type="checkbox"/> GAL/FT (N) | | | |

PURGE DATA

| Purge Volume | Start Purge: 13.7 | | | End Purge: 13.45 | | | Sample Observations |
|--------------------------------------|-------------------|-----------|-----------|------------------|-------------|-------------|---|
| | 13.2 | 13.3 | 13.4 | 13.2 | 13.3 | 13.4 | |
| G 1.01 GAL | G 1.15 GAL | G 1.8 GAL | G 2.2 GAL | G _____ GAL | G _____ GAL | G _____ GAL | <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Colored _____ <input type="checkbox"/> Cloudy _____ <input type="checkbox"/> Turbid 3.0° <input type="checkbox"/> Odor _____ <input type="checkbox"/> Other (see notes) _____ |
| Temp. Deg C: 14.8 | 13.5 | 13.8 | 13.3 | | | | |
| pH, Units: 7.52 | 7.40 | 7.37 | 7.35 | | | | |
| Specific Conductivity umhos/cm: 1.15 | 1.08 | 1.17 | 1.18 | | | | |
| DO (mg/L): 14.23 | 2.72 | 2.40 | 2.41 | | | | |
| Turbidity: 3 | 5 | 2 | 0 | | | | |

EQUIPMENT DOCUMENTATION

| Purging | Sampling | Equipment ID | Decon Fluids Used | Water Level Equip. Used |
|--------------------------|--|--|---|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Peristaltic Pump | ISCO # _____ | <input checked="" type="checkbox"/> LiquiNex | <input checked="" type="checkbox"/> Electric Cond. Probe |
| <input type="checkbox"/> | <input type="checkbox"/> Submersible Pump | KICK # _____ | <input checked="" type="checkbox"/> Deionized Water | <input type="checkbox"/> Float Activated |
| <input type="checkbox"/> | <input type="checkbox"/> Boiler | <input type="checkbox"/> 2" <input type="checkbox"/> 1" <input type="checkbox"/> " | <input type="checkbox"/> HNO3 | <input type="checkbox"/> Kick Interface Probe |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> Teflon Tubing | <input type="checkbox"/> GSD | <input type="checkbox"/> Potable Water | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> | <input type="checkbox"/> Air Ltr | | <input type="checkbox"/> Isopropanol | Number of Filters Used: _____ |
| <input type="checkbox"/> | <input type="checkbox"/> Waterman | | <input type="checkbox"/> None | |
| <input type="checkbox"/> | <input type="checkbox"/> In-line Filter | | | |
| <input type="checkbox"/> | <input type="checkbox"/> Presa/Vac Filter | | | |
| <input type="checkbox"/> | | | | |
| <input type="checkbox"/> | | | | |

NOTES: Final DTW = 11.49'

Date: 5-4-99

Signature: Denver Carigan

SM Approval: _____

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project Ames St.

Sample Location ID W-2

Sample ID

W2059901

Job Number

7198-41

Date

5-4-99

Location Activity

Start 1517

End 1617

Field QC Data:

Field Duplicate Collected

Dup ID

WATER LEVEL / WELL DATA

Well Depth 20.46 FT

Measured
 Historical

TCC
 Top of Prot Casing

Well Stick-up
(from ground) FT

Prot Casing/
TCC Diff. FT

Depth to Water 8.92 FT

Historical Well Depth FT

Well Material:
 PVC
 SS _____

Height of Water Column 11.54 FT X .16 GAL/FT (2 IN)
.65 GAL/FT (4 IN)
1.5 GAL/FT (6 IN)
2.5 GAL/FT (8 IN)

1.85 GAL/VOL
1.9 TOTAL GAL PURGED

Well Integrity: Yes No N/A

Prot Casing Secure
Concrete Collar Intact
Well Locked
Other

Ambient Air 0.0 PPM
Well Mouth 0.2 PPM

Flow rate = 290 mL/min

PURGE DATA

Purge Volume

| | | | | |
|-------------------|-----------|------------|-----------|-----------------|
| Start Purge: 1517 | 1531 | 1535 | 1538 | End Purge: 1542 |
| @ 1.01 GAL | @ 1.4 GAL | @ 1.16 GAL | @ 1.9 GAL | @ ____ GAL |

Temp, Deg C

| | | | | |
|------|------|------|------|-------|
| 14.2 | 12.4 | 12.5 | 12.3 | _____ |
|------|------|------|------|-------|

pH, Units

| | | | | |
|------|------|------|------|-------|
| 8.06 | 8.11 | 7.81 | 7.85 | _____ |
|------|------|------|------|-------|

Specific Conductivity umhos/cm

| | | | | |
|-------|--------|-------|-------|-------|
| 0.677 | 0.1095 | 0.693 | 0.698 | _____ |
|-------|--------|-------|-------|-------|

turbidity

| | | | | |
|---|----|---|---|-------|
| 1 | 10 | 1 | 0 | _____ |
|---|----|---|---|-------|

DO

| | | | | |
|------|------|------|------|-------|
| 5.50 | 5.42 | 5.73 | 5.48 | _____ |
|------|------|------|------|-------|

Sample Observations

- Clear
- Colored
- Cloudy
- Turbid
- Odor
- Other (see notes)

EQUIPMENT DOCUMENTATION

Purging Sampling

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air Lift
- Water
- In-line Filter
- Press/Vac Filter

Equipment ID

ISCO # _____
KECK # _____
 2 1 0

Decon Fluids Used

- LiquidNax
- Deionized Water
- HNO3
- Potable Water
- Isopropanol
- None

Water Level Equip. Used

- Electric Cond. Probe
- Float Activated
- Keck Interface Probe
- Other _____

Number of Filters Used _____

NOTES: Final DTW - 11.72'

Date:

5-4-99

Signature:

Deron Garigan

SM Approval _____

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project Ames St

Sample Location ID W-3

Sample ID

W3059901

Job Number

7198.41

Date

5-5-99

Location Activity

Start 1352

End 1449

Field QC Data:

Field Duplicate Collected

Dus ID

WATER LEVEL / WELL DATA

Well Depth 22.45 FT

Measured
 Historical

TCC
 Top of Prot. Casing

Well Stick-up
(from ground) FT

Prot. Casing/
TOC Diff. FT

Depth to Water 7.68 FT

Historical
Well Depth FT

Well Material:
 PVC SS

Well Integrity: Yes No N/A
Prot. Casing Secure
Concrete Collar Intact
Well Locked
Other:

Height of Water Column 14.77 FT

.16 GAL/FT (2 IN)
 .65 GAL/FT (4 IN)
 1.5 GAL/FT (6 IN)
 GAL/FT (IN)

2.36 GAL/FT
0.65 TOTAL GAL PURGED

Ambient Air 0.0 PPM
Well Mouth 0.0 PPM

Flow rate - 175 mL/min

PURGE DATA

Start Purge: 1417 End Purge: 1431

Purge Volume @ 0.3 GAL @ 0.5 GAL @ 0.15 GAL @ 1.0 GAL @ 0.0 GAL

Temp. Deg C 14.5

16.2 16.3

pH, Units 7.38

7.37 7.37

Specific Conductivity umhos/cm 4.30

4.35 4.38

Turbidity 10

11 10

DO (mg/L) 0.81

0.92 1.06

Sample Observations

- Clear w/ black chunks of metal (?)
- Colored
- Cloudy
- Turbid
- Odor
- Other (see notes)

EQUIPMENT DOCUMENTATION

Purging Sampling

- Peristaltic Pump
- Submersible Pump
- Baller
- Teflon Tubing
- Air Bit
- Water
- In-line Filter
- Press/Vac Filter
- _____
- _____

Equipment ID

ISCO #
KECK #
 2 1"
 CED

Decon Fluids Used

- Liquiflex
- Deionized Water
- HNO3
- Potable Water
- Isopropanol
- None
- _____

Water Level Equip. Used

- Electric Cond. Probe
- Fict Activated
- Keck Interface Probe
- Other _____

Number of Filters Used _____

NOTES: Final DSW - 11.74'

Removed section (~20') of tubing - pitch block at bottom

Date: 5-5-99

Signature: D. Cariger

SM Approval _____

HARDING LAWSON ASSOCIATES FIELD DATA RECORD - GROUND WATER

Page ____ of ____

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|---|---|----------------------------|---|---|--------------------------|---|--------------|---|--|--------------------------|---------------------------------|---------------------------------------|-------------------------------|---|-------------------------------------|---|-----------------------------|--|--------------------------------------|--------------------------|----------------------------------|--|--------------------------------------|-------------------------------|--------------------------|--------------------------------|--|-------------------------------|--|--------------------------|---|--|--|--|--------------------------|---|--|--|--|
| Project: Ames St | | Sample ID: W4059901 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Location ID: W-4 | | Job Number: 7198.41 Date: 5-5-99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | Location Activity: Start 1028 End 1130 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Field QC Data: <input type="checkbox"/> | | Field Duplicate Collected: <input type="checkbox"/> Bus ID: _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WATER LEVEL / WELL DATA Well Depth: 28.52 ft <input checked="" type="checkbox"/> Measured <input type="checkbox"/> TCC <input type="checkbox"/> Historical <input type="checkbox"/> Top of Prot Casing Well Stick-up (from ground) _____ ft Depth to Water: 9.78 ft Well Dia.: <input checked="" type="checkbox"/> 2 inch Prot Casing/ TCC Diam. _____ ft <input type="checkbox"/> Well Depth _____ ft <input type="checkbox"/> 4 inch Height of Water Column: 18.74 ft <input type="checkbox"/> 6 inch Well Integrity: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> .16 GAL/FT (2 IN) Prot Casing Secure: <input checked="" type="checkbox"/> <input type="checkbox"/> .65 GAL/FT (4 IN) Concrete Collar Intact: <input type="checkbox"/> <input type="checkbox"/> 1.5 GAL/FT (6 IN) Well Locked: <input checked="" type="checkbox"/> <input type="checkbox"/> ___ GAL/FT (___ IN) Other: <input type="checkbox"/> Well Material: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS ~ 3.0 GAL/VOL Ambient Air: 0.0 PPM 1.8 TOTAL GAL PURGED Well Mouth: 0.9 PPM Flow rate = 225 ml/min | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PURGE DATA Purge Volume: @ 0.8 GAL @ 1.1 GAL @ 1.4 GAL @ 1.6 GAL @ _____ GAL Start Purge: 1049 108 End Purge: 1125 Temp, Deg C: 17.5 17.6 16.9 16.8 pH, Units: 7.61 7.64 7.65 7.45 Specific Conductivity umhos/cm: 1.00 1.04 1.04 1.05 Turbidity: 26 22 21 23 DO (mg/l): 1.34 1.60 1.80 1.65 | | Sample Observations <input type="checkbox"/> Clear <input type="checkbox"/> Colored _____ <input type="checkbox"/> cloudy _____ <input checked="" type="checkbox"/> Turbid Black (flocs) <input type="checkbox"/> Odor _____ <input type="checkbox"/> Other (see notes) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EQUIPMENT DOCUMENTATION <table border="1"> <tr> <td>Purging: <input checked="" type="checkbox"/></td> <td>Sampling: <input checked="" type="checkbox"/> Peristaltic Pump</td> <td>Equipment ID: ISCO # _____</td> <td>Decon Fluids Used: <input checked="" type="checkbox"/> LiquiNix</td> <td>Water Level Equip. Used: <input checked="" type="checkbox"/> Electric Cond. Probe</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> Submersible Pump</td> <td>KECK # _____</td> <td><input checked="" type="checkbox"/> Deionized Water</td> <td><input type="checkbox"/> Float Activated</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> Baller</td> <td><input type="checkbox"/> Z 1" # _____</td> <td><input type="checkbox"/> HNO3</td> <td><input type="checkbox"/> Keck Interface Probe</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/> Teflon Tubing</td> <td><input type="checkbox"/> CD</td> <td><input type="checkbox"/> Potable Water</td> <td><input type="checkbox"/> Other _____</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> Air LST</td> <td></td> <td><input type="checkbox"/> Isopropanol</td> <td>Number of Filters Used: _____</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> Water</td> <td></td> <td><input type="checkbox"/> None</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> In-line Filter</td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/> Press/Vac Filter</td> <td></td> <td></td> <td></td> </tr> </table> | | | Purging: <input checked="" type="checkbox"/> | Sampling: <input checked="" type="checkbox"/> Peristaltic Pump | Equipment ID: ISCO # _____ | Decon Fluids Used: <input checked="" type="checkbox"/> LiquiNix | Water Level Equip. Used: <input checked="" type="checkbox"/> Electric Cond. Probe | <input type="checkbox"/> | <input type="checkbox"/> Submersible Pump | KECK # _____ | <input checked="" type="checkbox"/> Deionized Water | <input type="checkbox"/> Float Activated | <input type="checkbox"/> | <input type="checkbox"/> Baller | <input type="checkbox"/> Z 1" # _____ | <input type="checkbox"/> HNO3 | <input type="checkbox"/> Keck Interface Probe | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Teflon Tubing | <input type="checkbox"/> CD | <input type="checkbox"/> Potable Water | <input type="checkbox"/> Other _____ | <input type="checkbox"/> | <input type="checkbox"/> Air LST | | <input type="checkbox"/> Isopropanol | Number of Filters Used: _____ | <input type="checkbox"/> | <input type="checkbox"/> Water | | <input type="checkbox"/> None | | <input type="checkbox"/> | <input type="checkbox"/> In-line Filter | | | | <input type="checkbox"/> | <input type="checkbox"/> Press/Vac Filter | | | |
| Purging: <input checked="" type="checkbox"/> | Sampling: <input checked="" type="checkbox"/> Peristaltic Pump | Equipment ID: ISCO # _____ | Decon Fluids Used: <input checked="" type="checkbox"/> LiquiNix | Water Level Equip. Used: <input checked="" type="checkbox"/> Electric Cond. Probe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> Submersible Pump | KECK # _____ | <input checked="" type="checkbox"/> Deionized Water | <input type="checkbox"/> Float Activated | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> Baller | <input type="checkbox"/> Z 1" # _____ | <input type="checkbox"/> HNO3 | <input type="checkbox"/> Keck Interface Probe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Teflon Tubing | <input type="checkbox"/> CD | <input type="checkbox"/> Potable Water | <input type="checkbox"/> Other _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> Air LST | | <input type="checkbox"/> Isopropanol | Number of Filters Used: _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> Water | | <input type="checkbox"/> None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> In-line Filter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> Press/Vac Filter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOTES: final DTW = 16.83 flow rate 225 ml/min | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SM Approval: _____ Date: _____ Signature: _____ 5/5/99 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* Stop at 1115
return 1119

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project Ames St

Sample ID

W5059901

Sample Location ID W-5

Location Activity

Start 1749 End 1840

Field QC Data: Field Duplicate Collected Dus ID _____

WATER LEVEL / WELL DATA

| | | | | | | | |
|------------------------|---------------------|---|---|--------------------------------|--|---|---|
| Well Depth | <u>22.25</u> FT | <input checked="" type="checkbox"/> Measured <input type="checkbox"/> Historical | <input checked="" type="checkbox"/> TOC <input type="checkbox"/> Top of Prot Casing <input type="checkbox"/> _____ | Well Stick-up (from ground) | FT | Prot Casing/ TOC Diff. | FT |
| Depth to Water | <u>6.91</u> FT | Historical Well Depth | FT | Well Dia. | <input checked="" type="checkbox"/> 2 inch <input type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch <input type="checkbox"/> _____ | Well Integrity: | Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA |
| Height of Water Column | <u>15.34</u> | <u>22.25</u> FT | X <input checked="" type="checkbox"/> .16 GAL/FT (2 IN) <input type="checkbox"/> .65 GAL/FT (4 IN) <input type="checkbox"/> 1.5 GAL/FT (6 IN) <input type="checkbox"/> _____ GAL/FT (IN) | Well Material: | <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS | Prot Casing Secure Concrete Collar Intact Well Locked Other: _____ | <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> |
| Flow rate | <u>- 250 mL/min</u> | | | | <u>2.45</u> GAL/VOL | Ambient Air | <u>0.0</u> PPM |
| | | | | | <u>1.25</u> TOTAL GAL PURGED | Well Mount | <u>276</u> PPM |

PURGE DATA

| Purge Volume | Start Purge: 1810 | | | | End Purge: 1829 | | | |
|--------------------------------|-------------------|-------------|-------------|-------------|-----------------|------|------|------|
| | 1819 | 1820 | 1824 | 1829 | 1819 | 1820 | 1824 | 1829 |
| @0.21 GAL | @0.16 GAL | @0.92 GAL | @1.25 GAL | 0 | 0 | 0 | 0 | |
| Temp, Deg C | <u>15.3</u> | <u>14.5</u> | <u>14.6</u> | <u>14.7</u> | | | | |
| pH, Units | <u>7.38</u> | <u>7.42</u> | <u>7.42</u> | <u>7.49</u> | | | | |
| Specific Conductivity umhos/cm | <u>1.88</u> | <u>1.90</u> | <u>1.90</u> | <u>1.90</u> | | | | |
| turbidity | <u>40</u> | <u>8</u> | <u>3</u> | <u>2</u> | | | | |
| DO mg/L | <u>1.29</u> | <u>1.45</u> | <u>2.02</u> | <u>2.09</u> | | | | |

Sample Observations

- Clear
- Colored
- cloudy w/ black chuncks
- Turbid
- Clear
- Other (see notes)

EQUIPMENT DOCUMENTATION

| | | | | |
|-------------------------------------|--|--|---|---|
| Purging | Sampling | Equipment ID | Decon Fluids Used | Water Level Equip. Used |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Baller <input checked="" type="checkbox"/> Teflon Tubing <input type="checkbox"/> Air Lift <input type="checkbox"/> Water <input type="checkbox"/> In-Line Filter <input type="checkbox"/> Press/Vac Filter | ISCO # _____ KECK # _____ <input type="checkbox"/> 2" <input type="checkbox"/> 1" <input type="checkbox"/> " | <input type="checkbox"/> Liqui-Nox <input checked="" type="checkbox"/> Deionized Water <input type="checkbox"/> HNO3 <input type="checkbox"/> Potable Water <input type="checkbox"/> Isopropanol <input type="checkbox"/> None | <input checked="" type="checkbox"/> Electric Cond. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Keck Interface Probe <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> | | | | Number of Filters Used _____ |

NOTES: Pulled out lodged 12' section of tubing. Bottom was pitch black.

Final Dfw - 8.50'

Date: 5-5-99
Signature: D. Carigan

SM Approval _____

HARDING LAWSON ASSOCIATES
FIELD DATA RECORD - GROUND WATER

Page 1 of 1

Project: Ames St

Sample Location ID: N-6

Field QC Data: Field Duplicate Collected Dub ID _____

| WATER LEVEL / WELL DATA | | | |
|---|-----------------|---|---|
| Well Depth | <u>14.45</u> FT | <input checked="" type="checkbox"/> Measured <input type="checkbox"/> Historical | Well Stick-up (from ground) _____ FT |
| Depth to Water | <u>5.08</u> FT | <input type="checkbox"/> TOC <input type="checkbox"/> Top of Prot Casing <input type="checkbox"/> _____ | Well Dia. <input checked="" type="checkbox"/> 2 inch <input type="checkbox"/> 4 inch <input type="checkbox"/> 6 inch <input type="checkbox"/> _____ |
| Height of Water Column | <u>9.37</u> FT | Historical Well Depth _____ FT | Well Material: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> SS _____ |
| Flow rate - 250 mL/min | | X- <input checked="" type="checkbox"/> .16 GAL/FT (2 IN) <input type="checkbox"/> .65 GAL/FT (4 IN) <input type="checkbox"/> 1.5 GAL/FT (6 IN) <input type="checkbox"/> ____ GAL/FT (____ IN) | = <u>~1.5</u> GAL/VOL <u>1.4</u> TOTAL GAL PURGED |
| Ambient Air <u>0.0</u> PPM Well Mouth <u>1.2</u> PPM | | | |

| PURGE DATA | | | |
|--------------------------------|---|--------------|------------------|
| Purge Volume | Start Purge: <u>1250</u> <u>1250</u> <u>1304</u> <u>1308</u> <u>1311</u> | GAL | End Purge: _____ |
| Temp, Deg C | <u>19.5</u> | <u>15.3</u> | <u>15.0</u> |
| pH, Units | <u>11.13</u> | <u>11.0</u> | <u>11.07</u> |
| Specific Conductivity umhos/cm | <u>0.687</u> | <u>0.714</u> | <u>0.710</u> |
| turbidity | <u>13</u> | <u>13</u> | <u>15</u> |
| DO | <u>2.64</u> | <u>2.19</u> | <u>2.02</u> |
| | | | <u>2.24</u> |

Sample Observations

- Clear _____
- Colored _____
- cloudy _____
- Turbid _____
- Odor _____
- Other (see notes) _____

EQUIPMENT DOCUMENTATION

| Purging | Sampling | Equipment ID | Decon Fluids Used | Water Level Equip. Used |
|-------------------------------------|--|---|--|---|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Baller <input checked="" type="checkbox"/> Teflon Tubing <input type="checkbox"/> Air Llt <input type="checkbox"/> Waterm <input type="checkbox"/> In-line Filter <input type="checkbox"/> Press/Vac Filter | ISCO # _____ KECK # _____ 2" <input type="checkbox"/> 1" <input type="checkbox"/> CD | <input type="checkbox"/> Liquid-Nox <input checked="" type="checkbox"/> Deionized Water <input type="checkbox"/> HNO3 <input type="checkbox"/> Potable Water <input type="checkbox"/> Isopropanol <input type="checkbox"/> None <input type="checkbox"/> _____ | <input checked="" type="checkbox"/> Electric Cond. Probe <input type="checkbox"/> Float Activated <input type="checkbox"/> Keck Interface Probe <input type="checkbox"/> Other _____ |
| Number of Filters Used _____ | | | | |

NOTES: Final DTW - 11.85

Date:

Signature: 5-5-99
Deron Carigan

SM Approval _____

APPENDIX C

DATA TABLES

Table 3-1

VOC Positive Results
 May 1999 Groundwater Sampling Event
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
 Rochester, NY

Page 1 of 5

| CONSTITUENT (Units in ug/l) | SITE | BR-01 | BR-02 | BR-03 | BR-04 | BR-04 | BR-06 |
|--------------------------------|-------------|------------|------------|------------|------------|-------------|------------|
| | SAMPLE ID | BR01059901 | BR02059901 | BR03059901 | BR04059901 | BR04059901D | BR05059901 |
| | DATE | 05/06/99 | 05/06/99 | 05/04/99 | 05/06/99 | 05/06/99 | 05/06/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Duplicate 1 | Primary |
| Benzene | | 5 U | 5 U | 5 U | 50 U | 50 U | 5 UJ |
| 1,1-Dichloroethane | | 5 U | 5 U | 5 U | 50 U | 50 U | 5.2 J |
| 1,1-Dichloroethene | | 5 U | 6.0 | 5 U | 50 U | 50 U | 23 J |
| cis-1,2-Dichloroethene | | 320 | 1200 J | 5.5 | 180 | 210 | 440 |
| trans-1,2-Dichloroethene | | 5 U | 24 | 5 U | 50 U | 50 U | 84 J |
| Ethylbenzene | | 5 U | 5 U | 5 U | 50 U | 50 U | 5 UJ |
| Tetrachloroethene | | 5 U | 5 U | 5 U | 50 U | 50 U | 5 UJ |
| Toluene | | 5 U | 5 U | 8 U | 50 U | 50 U | 5 UJ |
| Trichloroethene | | 1800 | 3300 J | 420 J | 2100 J | 2100 J | 6700 |
| Vinyl chloride | | 5 U | 5 U | 5 U | 50 U | 50 U | 95 J |

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

U=Not Detected,quantitation limit noted, J=Estimated Value,

UJ = Quantitation Limit estimated

Table 3-1

VOC Positive Results
 May 1999 Groundwater Sampling Event
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
 Rochester, NY

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| CONSTITUENT (Units in ug/l) | SITE | BR-06 | BR-07 | MW00 | OB-04 | OB-05 | TW01 |
|--------------------------------|-------------|------------|------------|------------|------------|------------|------------|
| | SAMPLE ID | BR06059901 | BR07059901 | MW00059901 | OB04059901 | OB05059901 | TW01059901 |
| | DATE | 05/04/99 | 05/05/99 | 05/05/99 | 05/06/99 | 05/06/99 | 05/04/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| Benzene | | 5 U | 5 U | 5 U | 5.7 | 5 U | 5 U |
| 1,1-Dichloroethane | | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| 1,1-Dichloroethene | | 5 U | 5 U | 5 U | 19 | 23 | 5 U |
| cis-1,2-Dichloroethene | | 5 U | 5.3 | 5 U | 1800 J | 2700 J | 5 U |
| trans-1,2-Dichloroethene | | 5 U | 5.9 | 5 U | 25 | 29 | 5 U |
| Ethylbenzene | | 5 U | 5 U | 6.1 | 5 U | 5 U | 5 U |
| Tetrachloroethene | | 5 U | 5 U | 5 U | 23 | 20 | 5 U |
| Toluene | | 5 U | 5 U | 5 U | 5.7 | 5 U | 5 U |
| Trichloroethene | | 5 U | 5.4 | 5 U | 68000 J | 23000 J | 5 U |
| Vinyl chloride | | 5 U | 360 J | 12 | 5 U | 140 | 5 U |

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed

U = Not Detected, quantitation limit noted, J = Estimated Value,

UJ = Quantitation Limit estimated

Table 3-1

VOC Positive Results

May 1999 Groundwater Sampling Event
Pre-Remedy Groundwater Monitoring Plan

Taylor Instruments Facility
Rochester, NY

Page 3 of 5

| CONSTITUENT (Units in ug/l) | SITE | TW04 | TW07 | TW09 | TW09 | TW13 | TW17 |
|-----------------------------|-------------|------------|------------|------------|-------------|------------|------------|
| | SAMPLE ID | TW04059901 | TW07059901 | TW09059901 | TW09059901D | TW13059901 | TW17059901 |
| | DATE | 05/04/99 | 05/06/99 | 05/06/99 | 05/05/99 | 06/05/99 | 05/06/99 |
| | RESULT TYPE | Primary | Primary | Primary | Duplicate 1 | Primary | Primary |
| Benzene | | 5 U | 5 U | 10 UJ | 5 UJ | 5 U | 5 UJ |
| 1,1-Dichloroethane | | 5 U | 5 U | 10 UJ | 5 UJ | 5 U | 5 UJ |
| 1,1-Dichloroethene | | 5 U | 5 U | 10 UJ | 5 UJ | 5 U | 5 UJ |
| cis-1,2-Dichloroethene | | 5 U | 5 U | 34 J | 28 J | 5 U | 11 U |
| trans-1,2-Dichloroethene | | 5 U | 5 U | 10 UJ | 5 UJ | 5 U | 5 UJ |
| Ethylbenzene | | 5 U | 5 U | 10 UJ | 5 UJ | 5 U | 5 UJ |
| Tetrachloroethene | | 5 U | 5 U | 10 UJ | 5 UJ | 5 U | 5 UJ |
| Toluene | | 5 U | 5 U | 10 UJ | 5 UJ | 5 U | 5 UJ |
| Trichloroethene | | 91 | 14 | 880 J | 990 J | 5 U | 1500 |
| Vinyl chloride | | 5 U | 5 U | 10 UJ | 5 UJ | 5 U | 5 UJ |

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

U = Not Detected, quantitation limit noted, J = Estimated Value, UJ = Quantitation Limit estimated

Table 3-1

VOC Positive Results
 May 1999 Groundwater Sampling Event
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
 Rochester, NY

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| CONSTITUENT (Units in ug/l) | SITE | TW20 | TW69 | TW74 | W-1 | W-2 | W-3 |
|--------------------------------|-------------|------------|------------|------------|----------|----------|----------|
| | SAMPLE ID | TW20059901 | TW69059901 | TW74059901 | W1059901 | W2059901 | W3059901 |
| | DATE | 05/05/99 | 05/05/99 | 05/05/99 | 05/04/99 | 05/04/99 | 05/05/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| Benzene | | 5 UJ | 5 U | 5 UJ | 5 U | 5 U | 5 U |
| 1,1-Dichloroethane | | 5 UJ | 5 U | 5 UJ | 5 U | 5 U | 5 U |
| 1,1-Dichloroethene | | 5 UJ | 5 U | 5 UJ | 5 U | 5 U | 5 U |
| cis-1,2-Dichloroethene | | 5 UJ | 5 U | 5 UJ | 5 U | 5 U | 5 U |
| trans-1,2-Dichloroethene | | 5 UJ | 5 U | 5 UJ | 5 U | 5 U | 5 U |
| Ethylbenzene | | 5 UJ | 5 U | 5 UJ | 5 U | 5 U | 5 U |
| Tetrachloroethene | | 5 UJ | 5 U | 5 UJ | 5 U | 5 U | 5 U |
| Toluene | | 5 UJ | 5 U | 5 UJ | 5 U | 5 U | 5 U |
| Trichloroethene | | 11 J | 5 U | 18 J | 5 U | 5 U | 5 U |
| Vinyl chloride | | 5 UJ | 5 U | 5 UJ | 5 U | 5 U | 5 U |

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

U = Not Detected, quantitation limit noted, J = Estimated Value,

UJ = Quantitation Limit estimated

Table 3-1

VOC Positive Results

May 1999 Groundwater Sampling Event
Pre-Remedy Groundwater Monitoring Plan

Taylor Instruments Facility
Rochester, NY

Page 5 of 5

| CONSTITUENT (Units in ug/l) | SITE | W-4 | W-5 | W-6 |
|-----------------------------|-------------|----------|----------|----------|
| | SAMPLE ID | W4059901 | W5059901 | W6059901 |
| | DATE | 05/05/99 | 05/05/99 | 05/05/99 |
| | RESULT TYPE | Primary | Primary | Primary |
| Benzene | | 5 U | 5 UJ | 5 U |
| 1,1-Dichloroethane | | 5 U | 5 UJ | 5 U |
| 1,1-Dichloroethene | | 5 U | 6.2 J | 5 U |
| cis-1,2-Dichloroethene | | 5 U | 840 J | 5 U |
| trans-1,2-Dichloroethene | | 5 U | 41 J | 5 U |
| Ethylbenzene | | 5 U | 5 UJ | 5 U |
| Tetrachloroethene | | 5 U | 5 UJ | 5 U |
| Toluene | | 5 U | 5 UJ | 5 U |
| Trichloroethene | | 5 U | 3000 J | 5 U |
| Vinyl chloride | | 5 U | 5 U | 5 U |

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

U = Not Detected, quantitation limit noted, J = Estimated Value,
UJ = Quantitation Limit estimated

Table 3-2

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VOC Comprehensive Results
 September 1999 - May 1999
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
 Rochester, NY

| CONSTITUENT (Units in ug/l) | SITE | BR-01 | BR-01 | BR-01 | BR-02 | BR-02 | BR-02 |
|-----------------------------|-------------|----------|----------|------------|----------|----------|------------|
| | SAMPLE ID | BR01XXXX | BR01XXXX | BR01059901 | BR02XXXX | BR02XXXX | BR02059901 |
| | DATE | 09/07/97 | 10/01/97 | 05/06/99 | 09/07/97 | 10/01/97 | 05/06/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| Acetone | | 400 U | 500 U | 20 U | 40 U | 2000 U | 20 U |
| Benzene | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Bromodichloromethane | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Bromoform | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Bromomethane | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| 2-Butanone (MEK) | | 200 U | 250 U | 10 U | 20 U | 1000 U | 10 U |
| Carbon disulfide | | 200 U | 250 U | 10 U | 20 U | 1000 U | 10 U |
| Carbon tetrachloride | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Chlorobenzene | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Chloroethane | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Chloroform | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Chloromethane | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Dibromochloromethane | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| 1,1-Dichloroethane | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| 1,2-Dichloroethane | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| 1,1-Dichloroethene | | 100 U | 130 U | 5 U | 10 U | 500 U | 8.0 |
| cis-1,2-Dichloroethene | | 100 U | 130 U | 320 | 98 | 640 | 1200 J |
| trans-1,2-Dichloroethene | | 100 U | 130 U | 5 U | 85 | 500 U | 24 |
| 1,2-Dichloropropane | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| cis-1,3-Dichloropropene | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| trans-1,3-Dichloropropene | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Ethylbenzene | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| 2-Hexanone | | 200 U | 250 U | 10 U | 20 U | 1000 U | 10 U |
| Methylene chloride | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| 4-Methyl-2-pentanone(MIBK) | | 200 U | 250 U | 10 U | 20 U | 1000 U | 10 U |
| Styrene | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |

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Table 3-2

VOC Comprehensive Results
 September 1999 - May 1999
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| CONSTITUENT (Units in ug/l) | SITE | BR-01 | BR-01 | BR-01 | BR-02 | BR-02 | BR-02 |
|--------------------------------|-------------|----------|----------|------------|----------|----------|------------|
| | SAMPLE ID | BR01XXXX | BR01XXXX | BR01059901 | BR02XXXX | BR02XXXX | BR02059901 |
| | DATE | 09/07/97 | 10/01/97 | 05/06/99 | 09/07/97 | 10/01/97 | 06/05/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| 1,1,2,2-Tetrachloroethane | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Tetrachloroethene | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Toluene | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| 1,1,1-Trichloroethane | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| 1,1,2-Trichloroethane | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| Trichloroethene | | 3600 | 3800 | 1800 | 260 | 18000 | 3300 J |
| Vinyl chloride | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| o-Xylene | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |
| m + p-Xylene | | 100 U | 130 U | 5 U | 10 U | 500 U | 5 U |

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Table 3-2

VOC Comprehensive Results
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| CONSTITUENT (Units in ug/l) | SITE | BR-03 | BR-03 | BR-03 | BR-04 | BR-04 | BR-04 |
|-----------------------------|-------------|----------|----------|------------|----------|-------------|----------|
| | SAMPLE ID | BR03XXXX | BR03XXXX | BR03059901 | BR04XXXX | BR04XXXD | BR04XXXX |
| | DATE | 09/07/97 | 10/02/97 | 05/04/99 | 09/09/97 | 09/09/97 | 10/02/97 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Duplicate 1 | Primary |
| Acetone | | 200 U | 20 U | 20 U | 500 U | 500 U | 2000 U |
| Benzene | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Bromodichloromethane | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Bromoform | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Bromomethane | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| 2-Butanone (MEK) | | 100 U | 10 U | 10 U | 250 U | 250 U | 1000 U |
| Carbon disulfide | | 100 U | 10 U | 10 U | 250 U | 250 U | 1000 U |
| Carbon tetrachloride | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Chlorobenzene | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Chloroethane | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Chloroform | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Chloromethane | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Dibromochloromethane | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| 1,1-Dichloroethane | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| 1,2-Dichloroethane | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| 1,1-Dichloroethene | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| cis-1,2-Dichloroethene | | 50 U | 6.1 | 6.6 | 240 | 260 | 500 U |
| trans-1,2-Dichloroethene | | 50 U | 5 U | 6 U | 130 U | 130 U | 500 U |
| 1,2-Dichloropropane | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| cis-1,3-Dichloropropene | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| trans-1,3-Dichloropropene | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Ethylbenzene | | 50 U | 5 U | 6 U | 130 U | 130 U | 500 U |
| 2-Hexanone | | 100 U | 10 U | 10 U | 250 U | 250 U | 1000 U |
| Methylene chloride | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| 4-Methyl-2-pentanone(MIBK) | | 100 U | 10 U | 10 U | 250 U | 250 U | 1000 U |
| Styrene | | 50 U | 5 U | 6 U | 130 U | 130 U | 500 U |

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VOC Comprehensive Results
 September 1999 - May 1999
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| CONSTITUENT (Units in ug/l) | SITE | BR-03 | BR-03 | BR-03 | BR-04 | BR-04 | BR-04 |
|--------------------------------|-------------|----------|----------|------------|----------|-------------|----------|
| | SAMPLE ID | BR03XXXX | BR03XXXX | BR03059901 | BR04XXXX | BR04XXXD | BR04XXXX |
| | DATE | 09/07/97 | 10/02/97 | 05/04/99 | 09/09/97 | 09/09/97 | 10/02/97 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Duplicate 1 | Primary |
| 1,1,2,2-Tetrachloroethane | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Tetrachloroethene | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Toluene | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| 1,1,1-Trichloroethane | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| 1,1,2-Trichloroethane | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| Trichloroethene | | 850 | 440 | 420 J | 3700 | 4700 | 27000 |
| Vinyl chloride | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| o-Xylene | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |
| m+p-Xylene | | 50 U | 5 U | 5 U | 130 U | 130 U | 500 U |

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VOC Comprehensive Results
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| CONSTITUENT | SITE | BR-04 | BR-04 | BR-05 | BR-05 | BR-05 | BR-06 |
|----------------------------|-------------|------------|-------------|----------|----------|------------|----------|
| | SAMPLE ID | BR04059901 | BR04059901D | BR05XXXX | BR05XXXX | BR05059901 | BR06XXXX |
| | DATE | 05/06/99 | 05/06/99 | 09/09/97 | 10/01/97 | 05/06/99 | 09/09/97 |
| | RESULT TYPE | Primary | Duplicate 1 | Primary | Primary | Primary | Primary |
| Acetone | | 200 U | 200 U | 500 U | 500 U | 20 UJ | 20 U |
| Benzene | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| Bromodichloromethane | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| Bromoform | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| Bromomethane | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| 2-Butanone (MEK) | | 100 U | 100 U | 250 U | 250 U | 10 UJ | 10 U |
| Carbon disulfide | | 100 U | 100 U | 250 U | 250 U | 10 UJ | 10 U |
| Carbon tetrachloride | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| Chlorobenzene | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| Chloroethane | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| Chloroform | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| Chloromethane | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| Dibromochloromethane | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| 1,1-Dichloroethane | | 50 U | 50 U | 130 U | 130 U | 5.2 U | 5.0 U |
| 1,2-Dichloroethane | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| 1,1-Dichloroethene | | 50 U | 50 U | 130 U | 130 U | 23 J | 5.0 U |
| cis-1,2-Dichloroethene | | 160 | 210 | 580 | 620 | 440 | 5.0 U |
| trans-1,2-Dichloroethene | | 50 U | 50 U | 130 U | 130 U | 84 J | 5.0 U |
| 1,2-Dichloropropene | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| cis-1,3-Dichloropropene | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| trans-1,3-Dichloropropene | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| Ethylbenzene | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| 2-Hexanone | | 100 U | 100 U | 250 U | 250 U | 10 UJ | 10 U |
| Methylene chloride | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |
| 4-Methyl-2-pentanone(MIBK) | | 100 U | 100 U | 250 U | 250 U | 10 UJ | 10 U |
| Styrene | | 50 U | 50 U | 130 U | 130 U | 5 UJ | 5.0 U |

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Table 3-2

VOC Comprehensive Results
 September 1999 - May 1999
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
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| CONSTITUENT (Units in ug/l) | SITE | BR-04 | BR-04 | BR-06 | BR-06 | BR-05 | BR-05 |
|--------------------------------|-------------|------------|-------------|----------|----------|------------|----------|
| | SAMPLE ID | BR04059901 | BR04059901D | BR05XXXX | BR05XXXX | BR05059901 | BR06XXXX |
| | DATE | 06/06/99 | 05/06/99 | 09/09/97 | 10/01/97 | 06/06/99 | 09/09/97 |
| | RESULT TYPE | Primary | Duplicate 1 | Primary | Primary | Primary | Primary |
| 1,1,2,2-Tetrachloroethane | | 50 U | 50 U | 130 U | 130 U | 6 UJ | 6.0 U |
| Tetrachloroethene | | 50 U | 50 U | 130 U | 130 U | 6 UJ | 6.0 U |
| Toluene | | 50 U | 50 U | 130 U | 130 U | 6 UJ | 6.0 U |
| 1,1,1-Trichloroethane | | 50 U | 50 U | 130 U | 130 U | 6 UJ | 6.0 U |
| 1,1,2-Trichloroethane | | 50 U | 50 U | 130 U | 130 U | 6 UJ | 6.0 U |
| Trichloroethene | | 2100 J | 2100 J | 10000 | 12000 | 6700 | 5.0 U |
| Vinyl chloride | | 50 U | 50 U | 130 U | 130 U | 85 J | 6.0 U |
| o-Xylene | | 50 U | 50 U | 130 U | 130 U | 6 UJ | 6.0 U |
| m + p-Xylene | | 50 U | 50 U | 130 U | 130 U | 6 UJ | 6.0 U |

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 September 1999 - May 1999
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 Taylor Instruments Facility
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| CONSTITUENT (Units in ug/l) | SITE | BR-06 | BR-06 | BR-07 | BR-07 | BR-07 | BR-07 |
|--------------------------------|-----------|----------|------------|----------|----------|-------------|------------|
| | SAMPLE ID | BR06XXXX | BR06059901 | BR07XXXX | BR07XXXX | BR07XXXXD | BR07059901 |
| | DATE | 10/01/97 | 06/04/99 | 09/07/97 | 10/01/97 | 10/01/97 | 06/06/99 |
| RESULT TYPE | | Primary | Primary | Primary | Primary | Duplicate 1 | Primary |
| Acetone | | 20 U | 20 U | 40 U | 100 U | 50 U | 20 U |
| Benzene | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| Bromodichloromethane | | 5 U | 5 U | 10 U | 25 U | 13 U | 5 U |
| Bromoform | | 5 U | 5 U | 10 U | 25 U | 13 U | 5 U |
| Bromomethane | | 5 U | 5 U | 10 U | 25 U | 13 U | 5 U |
| 2-Butanone (MEK) | | 10 U | 10 U | 20 U | 50 U | 25 U | 10 U |
| Carbon disulfide | | 10 U | 10 U | 20 U | 50 U | 25 U | 10 U |
| Carbon tetrachloride | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| Chlorobenzene | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| Chloroethene | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| Chloroform | | 5 U | 5 U | 14 | 26 U | 13 U | 5 U |
| Chloromethane | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| Dibromochloromethane | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| 1,1-Dichloroethane | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| 1,2-Dichloroethane | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| 1,1-Dichloroethene | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| cis-1,2-Dichloroethene | | 5 U | 5 U | 62 | 460 | 450 | 53 |
| trans-1,2-Dichloroethene | | 5 U | 5 U | 10 U | 26 U | 13 U | 5.9 |
| 1,2-Dichloropropene | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| cis-1,3-Dichloropropene | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| trans-1,3-Dichloropropene | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| Ethylbenzene | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| 2-Hexanone | | 10 U | 10 U | 20 U | 50 U | 25 U | 10 U |
| Methylene chloride | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |
| 4-Methyl-2-pentanone(MIBK) | | 10 U | 10 U | 20 U | 50 U | 25 U | 10 U |
| Styrene | | 5 U | 5 U | 10 U | 26 U | 13 U | 5 U |

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VOC Comprehensive Results
 September 1999 - May 1999
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| CONSTITUENT (Units in ug/l) | SITE | BR-06 | BR-06 | BR-07 | BR-07 | BR-07 | BR-07 |
|--------------------------------|-------------|----------|------------|----------|----------|-------------|------------|
| | SAMPLE ID | BR06XXXX | BR06059901 | BR07XXXX | BR07XXXX | BR07XXXXD | BR07069901 |
| | DATE | 10/01/97 | 06/04/99 | 09/07/97 | 10/01/97 | 10/01/97 | 06/06/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Duplicate 1 | Primary |
| 1,1,2,2-Tetrachloroethane | | 5 U | 5 U | 10 U | 25 U | 13 U | 5 U |
| Tetrachloroethene | | 5 U | 5 U | 10 U | 25 U | 13 U | 5 U |
| Toluene | | 5 U | 5 U | 26 | 61 | 54 | 5 U |
| 1,1,1-Trichloroethane | | 5 U | 5 U | 10 U | 25 U | 13 U | 5 U |
| 1,1,2-Trichloroethane | | 5 U | 5 U | 10 U | 25 U | 13 U | 5 U |
| Trichloroethene | | 5 U | 5 U | 210 | 110 | 13 U | 5,4 |
| Vinyl chloride | | 5 U | 5 U | 200 | 700 | 530 | 360 J |
| o-Xylene | | 5 U | 5 U | 10 U | 25 U | 13 U | 5 U |
| m + p-Xylene | | 5 U | 5 U | 10 U | 25 U | 13 U | 5 U |

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| CONSTITUENT (Units in ug/l) | SITE | MW00 | OB-04 | OB-04 | OB-04 | OB-05 | OB-05 |
|--------------------------------|-----------|------------|----------|----------|------------|----------|----------|
| | SAMPLE ID | MW00059901 | OB04XXXX | OB04XXXX | OB04059901 | OB05XXXX | OB05XXXX |
| | DATE | 05/05/99 | 09/09/97 | 10/02/97 | 05/06/99 | 09/09/97 | 10/01/97 |
| RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary | Primary |
| Acetone | 20 U | 50000 U | 50000 U | 20 U | 20000 U | 5000 U | 5000 U |
| Benzene | 6 U | 13000 U | 13000 U | 5.7 | 5000 U | 1300 U | 1300 U |
| Bromodichloromethane | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| Bromoform | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| Bromomethane | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| 2-Butanone (MEK) | 10 U | 25000 U | 25000 U | 10 U | 10000 U | 2500 U | 2500 U |
| Carbon disulfide | 10 U | 25000 U | 25000 U | 10 U | 10000 U | 2500 U | 2500 U |
| Carbon tetrachloride | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| Chlorobenzene | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| Chloroethane | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| Chloroform | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| Chloromethane | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| Dibromochloromethane | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| 1,1-Dichloroethane | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| 1,2-Dichloroethane | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| 1,1-Dichloroethene | 5 U | 13000 U | 13000 U | 19 | 5000 U | 1300 U | 1300 U |
| cis-1,2-Dichloroethene | 6 U | 27000 | 13000 | 1800 J | 5000 U | 1300 U | 1300 U |
| trans-1,2-Dichloroethene | 5 U | 13000 U | 13000 U | 25 | 5000 U | 1300 U | 1300 U |
| 1,2-Dichloropropane | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| cis-1,3-Dichloropropene | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| trans-1,3-Dichloropropene | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| Ethylbenzene | 6.1 | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| 2-Hexanone | 10 U | 25000 U | 25000 U | 10 U | 10000 U | 2500 U | 2500 U |
| Methylene chloride | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |
| 4-Methyl-2-pentanone(MIBK) | 10 U | 25000 U | 25000 U | 10 U | 10000 U | 2500 U | 2500 U |
| Styrene | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U | 1300 U |

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VOC Comprehensive Results
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| CONSTITUENT (Units in ug/l) | SITE | MW00 | OB-04 | OB-04 | OB-04 | OB-05 | OB-05 |
|--------------------------------|-------------|------------|----------|----------|------------|----------|----------|
| | SAMPLE ID | MW00059901 | OB04XXXX | OB04XXXX | OB04059901 | OB05XXXX | OB05XXXX |
| | DATE | 06/05/99 | 09/09/97 | 10/02/97 | 05/06/98 | 09/09/97 | 10/01/97 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| 1,1,2,2-Tetrachloroethane | | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U |
| Tetrachloroethene | | 5 U | 13000 U | 13000 U | 23 | 5000 U | 1300 U |
| Toluene | | 5 U | 13000 U | 13000 U | 5.7 | 5000 U | 1300 U |
| 1,1,1-Trichloroethane | | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U |
| 1,1,2-Trichloroethane | | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U |
| Trichloroethene | | 5 U | 550000 | 280000 | 68000 J | 120000 | 47000 |
| Vinyl chloride | | 12 | 13000 U | 13000 U | 5 U | 5000 U | 1300 U |
| o-Xylene | | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U |
| m+p-Xylene | | 5 U | 13000 U | 13000 U | 5 U | 5000 U | 1300 U |

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| CONSTITUENT (Units in ug/l) | SITE | 08-06 | TW01 | TW01 | TW04 | TW04 | TW04 |
|--------------------------------|-------------|------------|----------|------------|----------|-------------|------------|
| | SAMPLE ID | 0805059901 | TW01XXXX | TW01059901 | TW04XXXX | TW04XXXXD | TW04059901 |
| | DATE | 05/06/99 | 09/06/97 | 05/04/99 | 09/06/97 | 09/06/97 | 05/04/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Duplicate 1 | Primary |
| Acetone | | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| Benzene | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Bromodichloromethane | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Bromoform | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Bromomethane | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| 2-Butanone (MEK) | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Carbon disulfide | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Carbon tetrachloride | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Chlorobenzene | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Chloroethane | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Chloroform | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Chloromethane | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Dibromochloromethane | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| 1,1-Dichloroethene | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| 1,2-Dichloroethane | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| 1,1-Dichloroethene | | 23 | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| cis-1,2-Dichloroethene | | 2700 J | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| trans-1,2-Dichloroethene | | 29 | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| 1,2-Dichloropropane | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| cis-1,3-Dichloropropene | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| trans-1,3-Dichloropropene | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Ethylbenzene | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| 2-Hexanone | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Methylene chloride | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| 4-Methyl-2-pentanone(MIBK) | | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Styrene | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |

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| CONSTITUENT (Units in ug/l) | SITE | OB-06 | TW01 | TW01 | TW04 | TW04 | TW04 |
|--------------------------------|-------------|------------|----------|------------|----------|-------------|------------|
| | SAMPLE ID | OB05059901 | TW01XXXX | TW01059901 | TW04XXXX | TW04XXXXD | TW04059901 |
| | DATE | 05/06/99 | 09/08/97 | 05/04/99 | 09/06/97 | 09/06/97 | 05/04/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Duplicate 1 | Primary |
| 1,1,2,2-Tetrachloroethane | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Tetrachloroethene | | 20 | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Toluene | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| 1,1,1-Trichloroethane | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| 1,1,2-Trichloroethane | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| Trichloroethene | | 23000 J | 6.0 | 5 U | 77 | 72 | 91 |
| Vinyl chloride | | 140 | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| o-Xylene | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |
| m + p-Xylene | | 5 U | 5.0 U | 5 U | 5.0 U | 5.0 U | 5 U |

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Table 3-2

VOC Comprehensive Results
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| CONSTITUENT (Units in ug/l) | SITE TW07 | SAMPLE ID TW07XXXX | DATE 10/02/97 | RESULT TYPE Primary | TW07 | TW09 TW09059901 | TW09 TW09059901D | TW13 TW13XXXX | TW13 TW13059901 |
|--------------------------------|--------------|-----------------------|------------------|------------------------|-------|--------------------|---------------------|------------------|--------------------|
| Acetone | | 20 U | | 20 U | 40 UJ | 20 UJ | 20 U | 20 U | 20 U |
| Benzene | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| Bromodichloromethane | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| Bromoform | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| Bromomethane | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| 2-Butanone (MEK) | | 10 U | | 10 U | 20 UJ | 10 UJ | 10 U | 10 U | 10 U |
| Carbon disulfide | | 10 U | | 10 U | 20 UJ | 10 UJ | 10 U | 10 U | 10 U |
| Carbon tetrachloride | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| Chlorobenzene | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| Chloroethane | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| Chloroform | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| Chloromethane | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| Dibromochloromethane | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| 1,1-Dichloroethane | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| 1,2-Dichloroethane | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| 1,1-Dichloroethene | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| cis-1,2-Dichloroethene | | 5 U | | 5 U | 34 J | 28 J | 5.0 U | 5 U | 5 U |
| trans-1,2-Dichloroethene | | 31 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| 1,2-Dichloropropane | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| cis-1,3-Dichloropropene | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| trans-1,3-Dichloropropene | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| Ethylbenzene | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| 2-Hexanone | | 10 U | | 10 U | 20 UJ | 10 UJ | 10 U | 10 U | 10 U |
| Methylene chloride | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |
| 4-Methyl-2-pentanone(MIBK) | | 10 U | | 10 U | 20 UJ | 10 UJ | 10 U | 10 U | 10 U |
| Styrene | | 5 U | | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U | 5 U |

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| CONSTITUENT (Units in ug/l) | SITE | TW07 | TW07 | TW09 | TW09 | TW13 | TW13 |
|--------------------------------|-------------|----------|------------|------------|-------------|----------|------------|
| | SAMPLE ID | TW07XXXX | TW07059901 | TW09059901 | TW09059901D | TW13XXXX | TW13059901 |
| | DATE | 10/02/97 | 05/05/99 | 05/05/99 | 05/05/99 | 09/08/97 | 05/05/99 |
| | RESULT TYPE | Primary | Primary | Primary | Duplicate 1 | Primary | Primary |
| 1,1,2,2-Tetrachloroethane | | 5 U | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U |
| Tetrachloroethene | | 5 U | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U |
| Toluene | | 5 U | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U |
| 1,1,1-Trichloroethane | | 5 U | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U |
| 1,1,2-Trichloroethane | | 5 U | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U |
| Trichloroethene | | 32 | 14 | 880 J | 880 J | 5.0 U | 5 U |
| Vinyl chloride | | 5 U | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U |
| o-Xylene | | 5 U | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U |
| m+p-Xylene | | 5 U | 5 U | 10 UJ | 5 UJ | 5.0 U | 5 U |

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| CONSTITUENT (Units in ug/l) | SITE | TW17 | TW17 | TW20 | TW20 | TW69 | TW69 |
|-----------------------------|-------------|----------|------------|----------|------------|----------|------------|
| | SAMPLE ID | TW17XXXX | TW17059901 | TW20XXXX | TW20059901 | TW69XXXX | TW69059901 |
| | DATE | 09/06/97 | 06/06/99 | 09/08/97 | 05/06/99 | 09/08/97 | 05/06/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| Acetone | | 200 U | 20 UJ | 20 U | 20 UJ | 20 U | 20 U |
| Benzene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Bromodichloromethane | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Bromoform | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Bromomethane | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| 2-Butanone (MEK) | | 100 U | 10 UJ | 10 U | 10 UJ | 10 U | 10 U |
| Carbon disulfide | | 100 U | 10 UJ | 10 U | 10 UJ | 10 U | 10 U |
| Carbon tetrachloride | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Chlorobenzene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Chloroethane | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Chloroform | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Chloromethane | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Dibromochloromethane | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| 1,1-Dichloroethane | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| 1,2-Dichloroethane | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| 1,1-Dichloroethene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| cis-1,2-Dichloroethene | | 50 U | 11 J | 5.0 U | 5 UJ | 5.0 U | 5 U |
| trans-1,2-Dichloroethene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| 1,2-Dichloropropane | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| cis-1,3-Dichloropropene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| trans-1,3-Dichloropropene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Ethylbenzene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| 2-Hexanone | | 100 U | 10 UJ | 10 U | 10 UJ | 10 U | 10 U |
| Methylene chloride | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| 4-Methyl-2-pentanone(MIBK) | | 100 U | 10 UJ | 10 U | 10 UJ | 10 U | 10 U |
| Styrene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |

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| CONSTITUENT (Units in ug/l) | SITE | TW17 | TW17 | TW20 | TW20 | TW69 | TW89 |
|--------------------------------|-----------|----------|------------|----------|------------|----------|------------|
| | SAMPLE ID | TW17XXXX | TW17059901 | TW20XXXX | TW20059901 | TW69XXXX | TW69059901 |
| | DATE | 09/06/97 | 05/06/99 | 09/06/97 | 05/05/99 | 09/08/97 | 05/05/99 |
| RESULT TYPE | | Primary | Primary | Primary | Primary | Primary | Primary |
| 1,1,2,2-Tetrachloroethane | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Tetrachloroethene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Toluene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| 1,1,1-Trichloroethane | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| 1,1,2-Trichloroethane | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| Trichloroethene | | 1800 | 1500 | 11 | 11 J | 5.0 U | 5 U |
| Vinyl chloride | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| o-Xylene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |
| m+p-Xylene | | 50 U | 5 UJ | 5.0 U | 5 UJ | 5.0 U | 5 U |

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| CONSTITUENT (Units in ug/l) | SITE SAMPLE ID | TW74 TW74XXXX | TW74 TW74059901 | W-1 MWW1XXXX | W-1 MWW1XXXD | W-1 W1059901 | W-2 MWW2XXXX |
|-----------------------------|-------------------|------------------|--------------------|-----------------|-----------------|-----------------|-----------------|
| | DATE | 09/07/97 | 05/05/99 | 09/08/97 | 09/08/97 | 05/04/99 | 09/09/97 |
| | RESULT TYPE | Primary | Primary | Primary | Duplicate 1 | Primary | Primary |
| Acetone | | 20 U | 20 UJ | 20 U | 20 U | 20 U | 20 U |
| Benzene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| Bromodichloromethane | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| Bromoform | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| Bromomethane | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| 2-Butanone (MEK) | | 10 U | 10 UJ | 10 U | 10 U | 10 U | 10 U |
| Carbon disulfide | | 10 U | 10 UJ | 10 U | 10 U | 10 U | 10 U |
| Carbon tetrachloride | | 6.0 U | 6 UJ | 6.0 U | 6.0 U | 6 U | 6.0 U |
| Chlorobenzene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| Chloroethane | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| Chloroform | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| Chloromethane | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| Dibromochloromethane | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| 1,1-Dichloroethane | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| 1,2-Dichloroethane | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| 1,1-Dichloroethene | | 6.0 U | 6 UJ | 6.0 U | 6.0 U | 6 U | 6.0 U |
| cis-1,2-Dichloroethene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| trans-1,2-Dichloroethene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| 1,2-Dichloropropene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| cis-1,3-Dichloropropene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| trans-1,3-Dichloropropene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| Ethylbenzene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| 2-Hexanone | | 10 U | 10 UJ | 10 U | 10 U | 10 U | 10 U |
| Methylene chloride | | 6.0 U | 6 UJ | 6.0 U | 6.0 U | 6 U | 6.0 U |
| 4-Methyl-2-pentanone(MIBK) | | 10 U | 10 UJ | 10 U | 10 U | 10 U | 10 U |
| Styrene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |

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| CONSTITUENT (Units in ug/l) | SITE SAMPLE ID | TW74 | TW74 | W-1 | W-1 | W-1 | W-2 |
|--------------------------------|-------------------|----------|------------|----------|-------------|----------|----------|
| | DATE | TW74XXXX | TW74059901 | MWW1XXXX | MWW1XXXD | W1059901 | MWW2XXXX |
| | RESULT TYPE | Primary | Primary | Primary | Duplicate 1 | Primary | Primary |
| 1,1,2,2-Tetrachloroethane | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| Tetrachloroethene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| Toluene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| 1,1,1-Trichloroethane | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| 1,1,2-Trichloroethane | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| Trichloroethene | | 19 | 18 J | 5.0 U | 5.0 U | 5 U | 23 |
| Vinyl chloride | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| o-Xylene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |
| m+p-Xylene | | 5.0 U | 5 UJ | 5.0 U | 5.0 U | 5 U | 5.0 U |

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UJ=Quantitation Limit estimated

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| CONSTITUENT (Units in ug/l) | SITE | W-2 | W-2 | W-3 | W-3 | W-4 | W-4 |
|--------------------------------|-----------|----------|----------|----------|----------|----------|----------|
| | SAMPLE ID | MWW2XXXX | W2059901 | MWW3XXXX | W3059901 | MWW4XXXX | W4059901 |
| | DATE | 10/01/97 | 05/04/99 | 09/07/97 | 05/05/99 | 09/07/97 | 05/05/99 |
| RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary | Primary |
| Acetone | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U | 20 U |
| Benzene | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| Bromodichloromethane | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| Bromoform | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| Bromomethane | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| 2-Butanone (MEK) | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Carbon disulfide | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Carbon tetrachloride | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| Chlorobenzene | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| Chloroethane | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| Chloroform | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| Chloromethane | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| Dibromochloromethane | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| 1,1-Dichloroethane | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| 1,2-Dichloroethane | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| 1,1-Dichloroethene | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| cis-1,2-Dichloroethene | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| trans-1,2-Dichloroethene | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| 1,2-Dichloropropane | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| cis-1,3-Dichloropropene | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| trans-1,3-Dichloropropene | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| Ethylbenzene | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| 2-Hexanone | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Methylene chloride | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |
| 4-Methyl-2-pentanone(MIBK) | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| Styrene | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U | 5 U |

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| CONSTITUENT (Units in ug/l) | SITE SAMPLE ID | W-2 MW2XXXX | W-2 W2059901 | W-3 MW2XXXX | W-3 W3059901 | W-4 MW2XXXX | W-4 W4059901 |
|-----------------------------|-------------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|
| | DATE | 10/01/97 | 05/04/99 | 09/07/97 | 05/05/99 | 09/07/97 | 05/05/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| 1,1,2,2-Tetrachloroethane | | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U |
| Tetrachloroethylene | | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U |
| Toluene | | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U |
| 1,1,1-Trichloroethane | | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U |
| 1,1,2-Trichloroethane | | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U |
| Trichloroethylene | | 5 U | 5 U | 10 U | 5 U | 5.3 U | 5 U |
| Vinyl chloride | | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U |
| o-Xylene | | 5 U | 5 U | 5.0 U | 5 U | 6.0 U | 5 U |
| m+p-Xylene | | 5 U | 5 U | 5.0 U | 5 U | 5.0 U | 5 U |

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U=Not Detected,quantitation limit noted, J=Estimated Value,
 UJ=Quantitation Limit estimated

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| CONSTITUENT (Units in ug/l) | SITE | W-5 | W-5 | W-6 | W-6 |
|-----------------------------|-------------|----------|----------|----------|----------|
| | SAMPLE ID | MWW5XXXX | W5059901 | MWW6XXXX | W6059901 |
| | DATE | 10/01/97 | 05/05/99 | 09/08/97 | 05/05/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary |
| Acetone | | 100 U | 20 UJ | 20 U | 20 U |
| Benzene | | 26 U | 6 UJ | 6.0 U | 6 U |
| Bromodichloromethane | | 26 U | 6 UJ | 5.0 U | 5 U |
| Bromoform | | 26 U | 6 UJ | 6.0 U | 6 U |
| Bromomethane | | 26 U | 6 UJ | 5.0 U | 5 U |
| 2-Butanone (MEK) | | 50 U | 10 UJ | 10 U | 10 U |
| Carbon disulfide | | 50 U | 10 UJ | 10 U | 10 U |
| Carbon tetrachloride | | 26 U | 6 UJ | 5.0 U | 5 U |
| Chlorobenzene | | 26 U | 6 UJ | 5.0 U | 5 U |
| Chloroethane | | 26 U | 6 UJ | 5.0 U | 5 U |
| Chloroform | | 26 U | 6 UJ | 5.0 U | 5 U |
| Chloromethane | | 26 U | 6 UJ | 5.0 U | 5 U |
| Dibromochloromethane | | 26 U | 6 UJ | 5.0 U | 5 U |
| 1,1-Dichloroethane | | 26 U | 6 UJ | 6.0 U | 6 U |
| 1,2-Dichloroethane | | 26 U | 6 UJ | 5.0 U | 5 U |
| 1,1-Dichloroethene | | 26 U | 6.2 J | 5.0 U | 5 U |
| cis-1,2-Dichloroethene | | 26 | 840 J | 5.0 U | 5 U |
| trans-1,2-Dichloroethene | | 26 U | 41 J | 5.0 U | 5 U |
| 1,2-Dichloropropane | | 26 U | 6 UJ | 5.0 U | 5 U |
| cis-1,3-Dichloropropene | | 26 U | 6 UJ | 5.0 U | 5 U |
| trans-1,3-Dichloropropene | | 26 U | 6 UJ | 5.0 U | 5 U |
| Ethylbenzene | | 26 U | 6 UJ | 5.0 U | 5 U |
| 2-Hexanone | | 50 U | 10 UJ | 10 U | 10 U |
| Methylene chloride | | 26 U | 6 UJ | 5.0 U | 5 U |
| 4-Methyl-2-pentanone(MIBK) | | 50 U | 10 UJ | 10 U | 10 U |
| Styrene | | 26 U | 6 UJ | 5.0 U | 5 U |

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed

U = Not Detected, quantitation limit noted, J = Estimated Value,

UJ = Quantitation Limit estimated

Table 3-2

VOC Comprehensive Results
 September 1999 - May 1999
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
 Rochester, NY

Page 22 of 22

| CONSTITUENT (Units in ug/l) | SITE | W-6 | W-6 | W-6 | W-6 |
|-----------------------------|-------------|----------|----------|----------|----------|
| | SAMPLE ID | MWW5XXXX | W5059901 | MWW6XXXX | W6059901 |
| | DATE | 10/01/97 | 05/05/99 | 09/08/97 | 05/05/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary |
| 1,1,2,2-Tetrachloroethane | | 25 U | 5 UJ | 5.0 U | 5 U |
| Tetrachloroethene | | 25 U | 5 UJ | 5.0 U | 5 U |
| Toluene | | 25 U | 5 UJ | 5.0 U | 5 U |
| 1,1,1-Trichloroethane | | 25 U | 5 UJ | 5.0 U | 5 U |
| 1,1,2-Trichloroethane | | 25 U | 5 UJ | 5.0 U | 5 U |
| Trichloroethene | | 2200 | 3000 J | 5.0 U | 5 U |
| Vinyl chloride | | 25 U | 5 U | 5.0 U | 5 U |
| o-Xylene | | 25 U | 5 U | 5.0 U | 5 U |
| m+p-Xylene | | 25 U | 5 U | 5.0 U | 5 U |

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed

U=Not Detected,quantitation limit noted, J=Estimated Value,

UJ = Quantitation Limit estimated

Table 3-3

Page 1 of 5

Mercury Results
May 1999 Groundwater Sampling Event
Pre-Remedy Groundwater Monitoring Plan
Taylor Instruments Facility
Rochester, NY

| CONSTITUENT (Units in ug/L) | SITE SAMPLE ID | BR-01 BR01059901 | BR-02 BR02059901 | BR-03 BR03059901 | BR-04 BR04059901 | BR-04 BR04059901D | BR-05 BR05059901 |
|--------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|
| | DATE | 05/06/99 | 05/05/99 | 05/04/99 | 05/06/99 | 05/06/99 | 05/06/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Duplicate 1 | Primary |
| Mercury | | 0.30 U | 0.30 U |

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

U = Not Detected, quantitation limit noted, J = Estimated Value,
UJ = Quantitation Limit estimated

Table 3-3

Mercury Results

May 1999 Groundwater Sampling Event
Pre-Remedy Groundwater Monitoring Plan

Taylor Instruments Facility
Rochester, NY

| CONSTITUENT (Units in ug/L) | SITE SAMPLE ID | BR-06 BR06059901 | BR-07 BR07059901 | MW00 MW00059901 | OB-04 OB04059901 | OB-05 OB05059901 | TW01 TW01059901 |
|--------------------------------|-------------------|---------------------|---------------------|--------------------|---------------------|---------------------|--------------------|
| | DATE | 06/04/99 | 06/05/99 | 06/05/99 | 06/06/99 | 06/06/99 | 06/04/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| Mercury | | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U | 0.30 U |

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

U = Not Detected, quantitation limit noted, J = Estimated Value,

UJ = Quantitation Limit estimated

Table 3-3

Page 3 of 5

Mercury Results

May 1999 Groundwater Sampling Event

Pre-Remedy Groundwater Monitoring Plan

Taylor Instruments Facility

Rochester, NY

| CONSTITUENT (Units in ug/L) | SITE SAMPLE ID | TW04 TW04059901 | TW07 TW07059901 | TW09 TW09059901 | TW09 TW09059901D | TW13 TW13059901 | TW17 TW17059901 |
|--------------------------------|-------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|
| | DATE | 05/04/99 | 05/05/99 | 05/05/99 | 05/05/99 | 05/05/99 | 05/06/99 |
| | RESULT TYPE | Primary | Primary | Primary | Duplicate 1 | Primary | Primary |
| Mercury | | 0.30 U | 0.74 | 0.30 U | 0.30 U | 0.30 U | 0.30 U |

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

U=Not Detected,quantitation limit noted, J=Estimated Value,

UJ = Quantitation Limit estimated

Table 3-3

Mercury Results

May 1999 Groundwater Sampling Event
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
 Rochester, NY

| CONSTITUENT (Units in ug/L) | SITE SAMPLE ID | TW20 TW20059901 | TW69 TW69059901 | TW74 TW74059901 | W-1 W1059901 | W-2 W2059901 | W-3 W3059901 |
|--------------------------------|-------------------|--------------------|--------------------|--------------------|-----------------|-----------------|-----------------|
| | DATE | 05/05/99 | 05/05/99 | 05/05/99 | 05/04/99 | 05/04/99 | 05/05/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| Mercury | | 0.30 U | 0.69 | 2.2 | 0.30 U | 0.30 U | 0.30 U |

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

Table 3-3

Mercury Results
May 1999 Groundwater Sampling Event
Pre-Remedy Groundwater Monitoring Plan
Taylor Instruments Facility
Rochester, NY

Page 5 of 5

| CONSTITUENT (Units in ug/L) | SITE W-4 | W-5 | W-6 |
|--------------------------------|-------------|----------|----------|
| SAMPLE ID | W4059901 | W5059901 | W6059901 |
| DATE | 05/05/99 | 05/05/99 | 05/05/99 |
| RESULT TYPE | Primary | Primary | Primary |
| Mercury | 0.30 U | 0.30 U | 0.30 U |

Values represent total concentrations unless noted < = Not detected at indicated reporting limit --- = Not analyzed

U = Not Detected, quantitation limit noted, J = Estimated Value,
UJ = Quantitation Limit estimated

Table 3-4

Page 1 of 4

Engineering Parameters
 May 1999 Groundwater Sampling Event
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
 Rochester, NY

| CONSTITUENT | SITE | BR-01 | BR-03 | BR-04 | BR-05 | BR-06 | OB-04 |
|------------------------------|-------------|------------|------------|------------|------------|------------|------------|
| | SAMPLE ID | BR01059901 | BR03059901 | BR04059901 | BR05059901 | BR06059901 | OB04059901 |
| | DATE | 05/06/99 | 05/04/99 | 05/06/99 | 05/06/99 | 05/04/99 | 05/06/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| Aluminum | (mg/l) | 1.18 | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.195 |
| Antimony | (mg/l) | 0.06 U |
| Arsenic | (mg/l) | 0.01 U |
| Barium | (mg/l) | 0.0540 | 0.02 U | 0.208 | 0.279 | 0.106 | 0.148 |
| Beryllium | (mg/l) | 0.005 U |
| Cadmium | (mg/l) | 0.005 U |
| Calcium | (mg/l) | 174 | 104 | 162 | 163 | 99.1 | 162 |
| Chromium | (mg/l) | 0.01 U |
| Cobalt | (mg/l) | 0.05 U |
| Copper | (mg/l) | 0.02 U |
| Iron | (mg/l) | 57.3 | 14.8 | 3.06 | 8.08 | 9.77 | 0.474 |
| Lead | (mg/l) | 0.0116 | 0.005 U |
| Magnesium | (mg/l) | 56.9 | 58.9 | 43.3 | 44.6 | 71.5 | 22.3 |
| Manganese | (mg/l) | 0.248 | 0.120 | 0.222 | 0.242 | 0.0541 | 0.135 |
| Nickel | (mg/l) | 0.04 U |
| Potassium | (mg/l) | 2.84 | 33.7 | 6.32 | 4.10 | 5.18 | 8.61 |
| Selenium | (mg/l) | 0.00634 | 0.005 U |
| Silver | (mg/l) | 0.01 U |
| Sodium | (mg/l) | 49.7 | 90.2 | 225 | 170 | 62.2 | 110 |
| Thallium | (mg/l) | 0.01 U |
| Vanadium | (mg/l) | 0.05 U |
| Zinc | (mg/l) | 0.0271 | 0.0182 | 0.0112 | 0.0122 | 0.01 U | 0.0485 |
| Total Dissolved Solids (TDS) | (mg/L) | 663 | 1380 | 1330 | 1150 | 690 | 957 |
| Total Suspended Solids (TSS) | (mg/l) | 778 | 28.8 | 2.60 | 12.8 | 21.5 | 26.2 |
| Hardness- calcium | (mg/l) | --- | --- | --- | --- | --- | 404 |
| Hardness- magnesium | (mg/l) | --- | --- | --- | --- | --- | 92.0 |

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- = Not analyzed

U = Not Detected, quantitation limit noted, J = Estimated Value,

UJ = Quantitation Limit estimated

Table 3-4

Engineering Parameters
 May 1999 Groundwater Sampling Event
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
 Rochester, NY

Page 2 of 4

| CONSTITUENT | SITE | BR-01 | BR-03 | BR-04 | BR-05 | BR-06 | OB-04 |
|------------------|-------------|------------|------------|------------|------------|------------|------------|
| | SAMPLE ID | BR01059901 | BR03059901 | BR04059901 | BR05059901 | BR06059901 | OB04059901 |
| | DATE | 05/06/99 | 05/04/99 | 05/06/99 | 05/06/99 | 05/04/99 | 05/06/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| Iron (Dissolved) | (mg/L) | .281 | 1.48 | .664 | .601 | 1.75 | .1 U |

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

U=Not Detected, quantitation limit noted, J=Estimated Value,

UJ=Quantitation Limit estimated

Table 3-4

Engineering Parameters
 May 1999 Groundwater Sampling Event
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
 Rochester, NY

Page 3 of 4

| CONSTITUENT | SITE | OB-05 | TW04 | TW17 | TW17 | W-2 |
|------------------------------|-------------|------------|------------|------------|-------------|----------|
| | SAMPLE ID | OB05059901 | TW04059901 | TW17059901 | TW17059901D | W2059901 |
| | DATE | 05/06/99 | 05/04/99 | 05/06/99 | 05/06/99 | 05/04/99 |
| | RESULT TYPE | Primary | Primary | Primary | Duplicate 1 | Primary |
| Aluminum | (mg/l) | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.1 U |
| Antimony | (mg/l) | 0.06 U | 0.06 U | 0.06 U | 0.06 U | 0.06 U |
| Arsenic | (mg/l) | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U |
| Barium | (mg/l) | 0.0821 | 0.0247 | 0.0569 | 0.0566 | 0.0526 |
| Beryllium | (mg/l) | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U |
| Cadmium | (mg/l) | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U |
| Calcium | (mg/l) | 136 | 101 | 134 | 131 | 33.6 |
| Chromium | (mg/l) | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U |
| Cobalt | (mg/l) | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Copper | (mg/l) | 0.02 U | 0.02 U | 0.02 U | 0.02 U | 0.02 U |
| Iron | (mg/l) | 0.1 U | 0.438 | 0.217 | 0.106 | 0.1 U |
| Lead | (mg/l) | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U |
| Magnesium | (mg/l) | 26.9 | 33.0 | 28.2 | 27.6 | 10.2 |
| Manganese | (mg/l) | 0.303 | 0.0607 | 0.01 U | 0.01 U | 0.0627 |
| Nickel | (mg/l) | 0.04 U | 0.04 U | 0.04 U | 0.04 U | 0.04 U |
| Potassium | (mg/l) | 2.31 | 6.22 | 2.36 | 2.11 | 2 U |
| Selenium | (mg/l) | 0.005 U | 0.005 U | 0.005 U | 0.005 U | 0.005 U |
| Silver | (mg/l) | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U |
| Sodium | (mg/l) | 21.3 | 33.4 | 51.6 | 51.6 | 109 |
| Thallium | (mg/l) | 0.01 U | 0.01 U | 0.01 U | 0.01 U | 0.01 U |
| Vanadium | (mg/l) | 0.05 U | 0.05 U | 0.05 U | 0.05 U | 0.05 U |
| Zinc | (mg/l) | 0.01 U | 0.0113 | 0.01 U | 0.01 U | 0.01 U |
| Total Dissolved Solids (TDS) | (mg/L) | 568 | 549 | 617 | 644 | 399 |
| Total Suspended Solids (TSS) | (mg/l) | 1 U | 2.70 | 4.73 | 1 U | 1 U |
| Hardness- calcium | (mg/l) | 340 | 252 | 334 | 327 | 83.9 |
| Hardness- magnesium | (mg/l) | 110 | 140 | 120 | 110 | 42.0 |

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed

Table 3-4

Engineering Parameters
 May 1999 Groundwater Sampling Event
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
 Rochester, NY

Page 4 of 4

| CONSTITUENT | SITE | OB-05 | TW04 | TW17 | TW17 | W-2 |
|------------------|-------------|------------|------------|------------|-------------|----------|
| | SAMPLE ID | OB05059901 | TW04059901 | TW17059901 | TW17059901D | W2059901 |
| | DATE | 05/06/99 | 05/04/99 | 05/06/99 | 06/06/99 | 05/04/99 |
| | RESULT TYPE | Primary | Primary | Primary | Duplicate 1 | Primary |
| Iron (Dissolved) | (mg/L) | .111 | .1 U | .1 U | .1 U | .1 U |

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

U=Not Detected,quantitation limit noted, J=Estimated Value,
 UJ=Quantitation Limit estimated

Table 3-5

Natural Attenuation Parameters
 May 1999 Groundwater Sampling Event
 Pre-Remedy Groundwater Monitoring Plan
 Taylor Instruments Facility
 Rochester, NY

Page 1 of 2

| CONSTITUENT | SITE | BR-01 | BR-03 | BR-04 | BR-05 | BR-06 | OB-04 |
|-----------------------------------|-------------|------------|------------|------------|------------|------------|------------|
| | SAMPLE ID | BR01059901 | BR03059901 | BR04059901 | BR05059901 | BR06059901 | OB04059901 |
| | DATE | 05/06/99 | 05/04/99 | 05/06/99 | 05/06/99 | 05/04/99 | 05/06/99 |
| | RESULT TYPE | Primary | Primary | Primary | Primary | Primary | Primary |
| Biochemical Oxygen Demand (6-day) | (mg/L) | 2 U | 2 U | 2 U | 2 U | 2 U | 2 U |
| Chemical Oxygen Demand | (mg/L) | 16.2 | 7.64 | 22.6 | 18 | 8.27 | 43.4 |
| Chloride | (mg/l) | 74.4 | 22.0 | 434 | 209 | 231 | 89.8 |
| Alkalinity, total | (mg/L) | 363 | 260 | 335 | 338 | 270 | 231 |
| Total Organic Carbon | (mg/L) | 1.86 | 1.9 | 6.17 | 4.32 | 1.89 | 13.8 |
| Nitrate/Nitrite as N | (mg/l) | --- | --- | --- | --- | --- | 8.46 |
| Sulfate | (mg/L) | --- | --- | --- | --- | --- | 367 |
| Nitrogen, total (Kjeldahl) | (mg/l) | --- | --- | --- | --- | --- | 1.06 |
| Total phosphorus | (mg/l) | --- | --- | --- | --- | --- | 0.0675 |
| Sulfide, total | (mg/l) | --- | --- | --- | --- | --- | 1 U |
| Ethane | (ug/l) | --- | --- | --- | --- | --- | 41 |
| Ethene | (ug/l) | --- | --- | --- | --- | --- | 49 |
| Methane | (ug/l) | --- | --- | --- | --- | --- | 30 |
| Propane | (ug/l) | --- | --- | --- | --- | --- | 7.4 |

Values represent total concentrations unless noted < =Not detected at indicated reporting limit --- =Not analyzed

U = Not Detected, quantitation limit noted, J = Estimated Value,
 UJ = Quantitation Limit estimated

Table 3-5

Natural Attenuation Parameters
 May 1999 Groundwater Sampling Event
 Pre-Remedy Groundwater Monitoring Plan

Taylor Instruments Facility
 Rochester, NY

| CONSTITUENT | SITE | OB-05 | TW04 | TW17 | TW17 | W-2 |
|-----------------------------------|-----------|------------|------------|------------|-------------|----------|
| | SAMPLE ID | OB05059901 | TW04059901 | TW17059901 | TW17059901D | W2059901 |
| | DATE | 05/06/99 | 05/04/99 | 05/06/99 | 05/06/99 | 05/04/99 |
| RESULT TYPE | | Primary | Primary | Primary | Duplicate 1 | Primary |
| Biochemical Oxygen Demand (5-day) | (mg/L) | 2 U | 2 U | 2 U | 2 U | 2 U |
| Chemical Oxygen Demand | (mg/L) | 14.4 | 5 U | 7.01 | 7.01 | 6.37 |
| Chloride | (mg/l) | 15.7 | 6.18 | 43.5 | 46.0 | 5.70 |
| Alkalinity, total | (mg/L) | 392 | 152 | 361 | 363 | 307 |
| Total Organic Carbon | (mg/L) | 3.13 | 1.77 | 1.95 | 1.86 | 1.36 |
| Nitrate/Nitrite as N | (mg/l) | 0.938 | 1.08 | 0.859 | 0.847 | 2.26 |
| Sulfate | (mg/L) | 97.7 | 258 | 118 | 140 | 43.2 |
| Nitrogen, total (Kjeldahl) | (mg/l) | 0.203 | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| Total phosphorus | (mg/l) | 0.05 U | 0.0659 | 0.05 U | 0.05 U | 0.05 U |
| Sulfide, total | (mg/l) | 1 U | 1 U | 1 U | 1 U | 1 U |
| Ethane | (ug/l) | 1 U | 1 U | 1 U | --- | 1 U |
| Ethene | (ug/l) | 1 U | 1 U | 1 U | --- | 1 U |
| Methane | (ug/l) | 3.2 | 2 U | 2 U | --- | 2 U |
| Propane | (ug/l) | 1 U | 1 U | 1 U | --- | 1 U |

Values represent total concentrations unless noted <=Not detected at indicated reporting limit ---=Not analyzed

U=Not Detected,quantitation limit noted, J=Estimated Value,

UJ = Quantitation Limit estimated

APPENDIX D

CHAIN OF CUSTODY FORMS

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE _____ PAGE _____ OF _____

PROJECT NAME Pre-Remedy GWMP
 PROJECT MANAGER/CONTACT Ronny Fields
 COMPANY/ADDRESS HLA 1400 Centerpoint Blvd Ste 158 Knoxville TN 37932
 TEL (423) 531-1933 FAX (423) 531-8226

SAMPLER'S SIGNATURE _____

| SAMPLE I.D. | DATE | TIME | FOR OFFICE USE ONLY LAB I.D. | SAMPLE MATRIX | # OF CONTAINERS | GC/MS VOAs <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 95-1 GC/MS VOAs Hg - CVAA <input type="checkbox"/> 8270 <input checked="" type="checkbox"/> 625 | EGGTERS TAL Metals <input type="checkbox"/> 8021 <input type="checkbox"/> 80100 Hardness PESHTERDEPC's TSS, TDS <input type="checkbox"/> 8001 <input type="checkbox"/> 8000 | START LIST 8021 VOAs <input type="checkbox"/> 8001 <input checked="" type="checkbox"/> 8000 Fe (dissolved) | START LIST 8270 VOAs <input type="checkbox"/> 8270 <input checked="" type="checkbox"/> 8260 TOC TSLP METALS BOD 405-1 <input type="checkbox"/> 8260 <input checked="" type="checkbox"/> 8250 COD ClO4/SVOAs | WASTE CHARACTERIZATION <input type="checkbox"/> React <input type="checkbox"/> Corros. <input type="checkbox"/> Ignit. METALS TOTAL (LIST BELOW) METALS DISSEVERED 310-1 (LIST BELOW) ALKALINITY TKN Nitrate/Nitrile Chloride 300.0 Sulfate 300.0 phosphorus, total (as P) Sulfide Methane, ethane, ethene BOILS | PRESERVATION <input type="checkbox"/> pH < 2.0 <input type="checkbox"/> pH > 12 <input type="checkbox"/> Other |
|--------------------|--------------|------|---------------------------------|------------------|-----------------|--|--|---|---|--|---|
| W1059901 | 5-4-99 | | 290482 | groundwater | 4 | 3 1 | | | | | |
| W2059901 | 5-4-99 | | 290486 | | 18 | 3 1 1 1 1 1 2 1 | | 1 1 1 1 1 1 1 1 | X 1 1 2 | 290528 | |
| BR06059901 | 5-4-99 | | 290488 | | 13 | 3 1 1 1 1 1 2 1 | | 1 1 1 1 1 1 1 1 | | 290529 | |
| TW01059901 | 5-4-99 | | 290485 | | 4 | 3 1 | | | | | |
| BR03059901 | 5-4-99 7:00P | | 290487 | SLK1 | 13 | 3 1 1 1 1 1 2 1 | | 1 1 1 1 1 1 1 1 | | 290489 / 53 | |
| TW04059901 | 5-4-99 1:00P | | 290489 | ↓ | 19 | 3 1 1 1 1 1 3 1 | | 1 1 1 1 1 1 1 1 | X 1 1 2 | 290487 / 53 | |
| QATB01 (tripblank) | — | — | 290490 | tripblank | 1 | 1 | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | | |
|--|--|--|---|---|--|
| RELINQUISHED BY: Signature Printed Name Firm Date/Time | RECEIVED BY: Signature Printed Name Firm Date/Time | TURNAROUND REQUIREMENTS — 24 hr. — 48 hr. — 5 day — Standard (10-15 working days) — Provide Verbal Preliminary Results — Provide FAX Preliminary Results Requested Report Date _____ | REPORT REQUIREMENTS 1. Routine Report 2. Routine Rep. w/CASE Narrative 3. EPA Level III Validatable Package 4. N.J. Reduced Deliverables Level IV 5. NY ASP/CLP Deliverables 6. Site specific QC. | INVOICE INFORMATION: Project #: 7198.41 PO #: _____ Bill To: _____ _____ _____ | SAMPLE RECEIPT: Shipping Via: CAR Shipping #: _____ Temperature: 5.3 Submission No: 5-79 |
| RELINQUISHED BY: Signature Printed Name Firm Date/Time | RECEIVED BY: Signature Printed Name Firm Date/Time | SPECIAL INSTRUCTIONS/COMMENTS: METALS ORGANICS: <input type="checkbox"/> TCL <input type="checkbox"/> PPL <input type="checkbox"/> AE Only <input type="checkbox"/> BN Only <input type="checkbox"/> Special List TW04 - Hg / VOA - Field Dup.? | | | |
| RELINQUISHED BY: Signature Printed Name Firm Date/Time | RECEIVED BY: Signature Printed Name Firm Date/Time | | | | |

DATE 5-5-99 PAGE 1 OF 1

| | | | | |
|-------------------------|---|--|--|--|
| PROJECT NAME | <u>pre-Remedy GWMP</u> | | | |
| PROJECT MANAGER/CONTACT | <u>Ronny Fields</u> | | | |
| COMPANY/ADDRESS | <u>HLA / 1400 Centerpoint Blvd Ste # 158, Knoxville, TN 37932</u> | | | |
| TEL (423) 531-1922 | FAX (423) 531-8226 | | | |
| SAMPLER'S SIGNATURE | | | | |

| SAMPLE I.D. | DATE | TIME | FOR OFFICE USE ONLY LAB I.D. | SAMPLE MATRIX |
|-------------|--------|------|---------------------------------|------------------|
| TW09059901 | 5-5-99 | 0915 | 290985 | groundmso |
| BR02059901 | 5-5-99 | 0925 | 290986 | |
| TW07059901 | 5-5-99 | 1006 | 290987 | |
| BR07059901 | 5-5-99 | 1108 | 290988 | |
| W4059901 | 5-5-99 | 1120 | 290990 | |
| W6059901 | 5-5-99 | 1318 | 290991 | |
| W6059901 MS | 5-5-99 | 1318 | QC | |
| W6059901 MD | 5-5-99 | 1318 | | |
| TW69059901 | 5-5-99 | 1352 | 290995 | |
| W3059901 | 5-5-99 | 1430 | 290997 | |

| ANALYSIS REQUESTED | | | | | | | | | | PRESERVATION | | | | | | | | | |
|--------------------|--|--------------------------------------|--------------------------------------|--|--|---------|---|--------------------------------------|--|--|--|---|---|-------------------------------|-----------------------------------|--|--|--|--|
| # OF CONTAINERS | GC/MS VOAs <input checked="" type="checkbox"/> 8280 | 95-1 <input type="checkbox"/> 624 | CVAA <input type="checkbox"/> 625 | CVAA/Hg <input type="checkbox"/> 95-2 | GC VOAs <input type="checkbox"/> 8021 | 601/602 | PESTICIDES/PCB's <input type="checkbox"/> 8081 | 95-3 <input type="checkbox"/> 608 | STAR'S LIST 8021 VOAs <input type="checkbox"/> TOTAL <input type="checkbox"/> TCLP | STAR'S LIST 8270 SVOA's <input type="checkbox"/> TOTAL <input type="checkbox"/> TCLP | TCLP <input type="checkbox"/> METALS <input type="checkbox"/> VOAs | METALS <input type="checkbox"/> SVOA's <input type="checkbox"/> H/P | WASTE CHARACTERIZATION <input type="checkbox"/> React <input type="checkbox"/> Corros. <input type="checkbox"/> Ignit. | METALS, TOTAL (LIST BELOW) | METALS, DISSOLVED (LIST BELOW) | | | | |
| | | | | | | | | | | | | | | | | | | | |
| 4 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 4 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 4 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 4 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 4 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 4 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 4 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 4 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 4 | 3 | 1 | | | | | | | | | | | | | | | | | |
| 4 | 3 | 1 | | | | | | | | | | | | | | | | | |

*(matrix spike)
(matrix spike duplicate)*

| | |
|--|-----------------------------------|
| RELINQUISHED BY: | RECEIVED BY: |
| Signature: <u>Jerry R. Fields Jr.</u> | Signature: <u>Tom Hastings</u> |
| Printed Name: <u>Harding Lawson Assoc.</u> | Printed Name: <u>Tom Hastings</u> |
| Firm: <u></u> | Date/Time: <u>5/7/99 0820</u> |
| Date/Time: <u>5/6/99 10:21</u> | |
| RELINQUISHED BY: | RECEIVED BY: |
| Signature | Signature |
| Printed Name | Printed Name |
| Firm | Firm |
| Date/Time | Date/Time |
| RELINQUISHED BY: | RECEIVED BY: |
| Signature | Signature |
| Printed Name | Printed Name |
| Firm | Firm |
| Date/Time | Date/Time |

| | | | |
|--|--|---------------------------------------|--|
| TURNAROUND REQUIREMENTS | REPORT REQUIREMENTS | INVOICE INFORMATION: | SAMPLE RECEIPT: |
| <input type="checkbox"/> 24 hr. <input type="checkbox"/> Standard (10-15 working days) <input type="checkbox"/> Provide Verbal Preliminary Results <input type="checkbox"/> Provide FAX Preliminary Results <input type="checkbox"/> Requested Report Date _____ | <ol style="list-style-type: none"> 1. Routine Report 2. Routine Rep. w/CASE Narrative 3. EPA Level III Validatable Package <u>VOC, Hg (mtg) RE 5/6/99</u> 4. N.J. Reduced Deliverables Level IV 5. NY ASP/CLP Deliverables 6. Site specific QC | P.O. #: <u>3533</u> Bill To: _____ | Shipping Via: _____ Shipping #: _____ Temperature: _____ Submission No: <u>4905-079</u> |

| | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|
| SPECIAL INSTRUCTIONS/COMMENTS: | | | | | | | | | |
| METALS | | | | | | | | | |
| ORGANICS: <input type="checkbox"/> TCL <input type="checkbox"/> PPL <input type="checkbox"/> AE Only <input type="checkbox"/> BN Only <input type="checkbox"/> Special List | | | | | | | | | |



Mustard St., Suite 250, Rochester, NY 14609-69245
(716) 288-5380 • FAX (716) 288-8475

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 5-6-99 PAGE _____ OF _____

| PROJECT NAME <u>Pre - Remedy GWMP</u> | | | | | ANALYSIS REQUESTED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--------|------|---------------------------------|-------------------------|---|---|---|--|-------------------------------|------------------------------|---|---|-------------------------------|---|-------------------------------|------------------------------|---|--------------------------------|-------------------------------|---------------------------------|-------------------------------|--------------------------------|------------------------------|--------------------------------|----------------------------------|---------------------------------|--------------------------------|-------------------------------|----------------------------------|-------------------------------|--------------------------------|------------------------------|--------------------------------|----------------------------------|---------------------------------|-----------------------------------|----------------------------------|--------------------------------|
| PROJECT MANAGER/CONTACT <u>Ronny Fields</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COMPANY/ADDRESS <u>HLA / 1400 Centerpoint Blvd Ste # 158 Knoxville, TN 37932</u> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TEL (423) 531-1922 FAX (423) 531-8226 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLER'S SIGNATURE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAMPLE I.D. | DATE | TIME | FOR OFFICE USE ONLY LAB I.D. | SAMPLE MATRIX | # OF CONTAINERS | | | PESTICIDES/PCBS | | | STARS LIST 8021 VOAs | | | STARS LIST 8270 SVOAs | | | TCLP | | | METALS | | | WASTE CHARACTERIZATION | | | METALS TOTAL (LIST BELOW) | | | METALS DISSOLVED (LIST BELOW) | | | PRESERVATION | | | | | | |
| MW00059901 | 5-5-99 | 1535 | 291000 | ground H ₂ O | 4 | 3 | 1 | <input checked="" type="checkbox"/> GC/MS VOAs | <input type="checkbox"/> 8260 | <input type="checkbox"/> 624 | <input type="checkbox"/> 95-1 | <input checked="" type="checkbox"/> GC VOAs | <input type="checkbox"/> 8021 | <input type="checkbox"/> 601/602 | <input type="checkbox"/> 8081 | <input type="checkbox"/> 608 | <input type="checkbox"/> 95-3 | <input type="checkbox"/> TOTAL | <input type="checkbox"/> TCLP | <input type="checkbox"/> METALS | <input type="checkbox"/> VOAs | <input type="checkbox"/> SVOAs | <input type="checkbox"/> H/P | <input type="checkbox"/> React | <input type="checkbox"/> Corros. | <input type="checkbox"/> Ignit. | <input type="checkbox"/> TOTAL | <input type="checkbox"/> TCLP | <input type="checkbox"/> METALS | <input type="checkbox"/> VOAs | <input type="checkbox"/> SVOAs | <input type="checkbox"/> H/P | <input type="checkbox"/> React | <input type="checkbox"/> Corros. | <input type="checkbox"/> Ignit. | <input type="checkbox"/> pH < 2.0 | <input type="checkbox"/> pH > 12 | <input type="checkbox"/> Other |
| TW13059901 | 5-5-99 | 1557 | 291001 | | 4 | 3 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TW74059901 | 5-5-99 | 1703 | 291002 | | 4 | 3 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TW20059902 | 5-5-99 | 1730 | 291003 | | 4 | 3 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| W5059901 | 5-5-99 | 1829 | 291005 | | 4 | 3 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TW09059901D | 5-5-99 | 0915 | 291007 | | 4 | 3 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | (Duplicate) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | 5/6/99 | | | | | | | | | | | | | | | | | | | | | |
| RElinquished BY: <i>Tom Hastings</i> Signature <i>Tom Hastings</i> Printed Name <i>Tom Hastings</i> Firm <i>Tom Hastings</i> Date/Time <i>5/6/99 08:20</i> | | | | | RECEIVED BY: <i>Tom Hastings</i> Signature <i>Tom Hastings</i> Printed Name <i>Tom Hastings</i> Firm <i>Tom Hastings</i> Date/Time <i>5/7/99 08:20</i> | | | TURNAROUND REQUIREMENTS | | | REPORT REQUIREMENTS | | | INVOICE INFORMATION: | | | SAMPLE RECEIPT: | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard (10-15 working days) <input type="checkbox"/> Provide Verbal Preliminary Results <input type="checkbox"/> Provide FAX Preliminary Results <input type="checkbox"/> Requested Report Date _____ | | | <input type="checkbox"/> 1. Routine Report <input type="checkbox"/> 2. Routine Rep. w/CASE <input type="checkbox"/> Narrative <input checked="" type="checkbox"/> 3. EPA Level III <input type="checkbox"/> Validatable Package <input type="checkbox"/> 4. N.J. Reduced <input type="checkbox"/> Deliverables Level IV <input type="checkbox"/> 5. NY ASP/CLP Deliverables <input type="checkbox"/> 6. Site specific QC. | | | P.O. #: 3533 Bill To: <i>VOA, Inc. (cont'd) eff 5/6/99</i> | | | Shipping Via: _____ Shipping #: _____ Temperature: _____ Submission No: 9905-079 | | | | | | | | | | | | | | | | | | | | | |
| RElinquished BY: <i>Tom Hastings</i> Signature <i>Tom Hastings</i> Printed Name <i>Tom Hastings</i> Firm <i>Tom Hastings</i> Date/Time <i>5/6/99 10:21</i> | | | | | RECEIVED BY: <i>Tom Hastings</i> Signature <i>Tom Hastings</i> Printed Name <i>Tom Hastings</i> Firm <i>Tom Hastings</i> Date/Time <i>5/7/99 08:20</i> | | | SPECIAL INSTRUCTIONS/COMMENTS: METALS ORGANICS: <input type="checkbox"/> TCL <input type="checkbox"/> PPL <input type="checkbox"/> AE Only <input type="checkbox"/> BN Only <input type="checkbox"/> Special List | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RElinquished BY: <i>Tom Hastings</i> Signature <i>Tom Hastings</i> Printed Name <i>Tom Hastings</i> Firm <i>Tom Hastings</i> Date/Time <i>5/6/99 10:21</i> | | | | | RECEIVED BY: <i>Tom Hastings</i> Signature <i>Tom Hastings</i> Printed Name <i>Tom Hastings</i> Firm <i>Tom Hastings</i> Date/Time <i>5/7/99 08:20</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

 DATE 5/6/99 PAGE 1 OF 2

PROJECT NAME Pre-Remedy GW MP
 PROJECT MANAGER/CONTACT Ronny Fields
 COMPANY/ADDRESS HLA, 1400 Centerpoint Blvd.
Ste 15B, Knoxville, TN 37932-
 TEL (423) 531-1922 FAX (423) 531-8226
 SAMPLER'S SIGNATURE Jar R. J. [Signature]

| SAMPLE I.D. | DATE | TIME | FOR OFFICE USE ONLY LAB I.D. | SAMPLE MATRIX | # OF CONTAINERS | GC/MS VOAS E8260 | GC/MS VOAS E8264 | 95-1 | GC/MS VOAS— E8270 | GC/MS VOAS— E8275 | 95-CVAA E8252 | GC/MS VOAS— E8002 | TAL Metals Hardness E8002 | TSS, TDS E8004 | STANDARD 8025 SVODAs E8004 | STANDARD 8025 SVODAs E8004 | STANDARD 8025 SVODAs E8004 | STANDARD 8025 SVODAs E8004 | TCL E8004 | BOD 40F E8004 | TCL E8004 | TCL E8004 | WASTE CHARACTERIZATION | React | Corros. | Ignit. | METALS TOTAL (LIST BELOW) | METALS DISSECTED (LIST BELOW) | ALKALINITY 253 | NITRATE/NITITE 351 | PRESERVATION |
|-----------------|--------|------|---------------------------------|------------------|-----------------|---------------------|---------------------|------|----------------------|----------------------|------------------|----------------------|------------------------------|-------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------|------------------|--------------|--------------|------------------------|-------|---------|--------|------------------------------|----------------------------------|-------------------|-----------------------|--------------|
| QABR01 | 5-6-99 | 0945 | | rinseate | 18 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | X | 1 | 1 | 2 | 291040 | | | | | |
| QATB02 | 5-6-99 | — | | trip blank | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| QAFB01 | 5-6-99 | 1015 | | field blank | 4 | 3 | 1 | | | | | | | | | | | | | | | | | | | 291041 | | | | | |
| *TWO TW17059901 | 5-6-99 | 1144 | | | 18 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | X | 1 | 1 | 2 | 291042 | + Duplicate | | | | |
| OB05059901 | 5-6-99 | 1250 | | | 18 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | X | 1 | 1 | 2 | 291045 | | | | | |
| BR01059901 | 5-6-99 | 1256 | | | 13 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | 291046 | | | | | |
| OB04059901 | 5-6-99 | 1415 | | | 18 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | X | 1 | 1 | 2 | 291047 | | | | | |
| BR04059901 | 5-6-99 | 1417 | | | 13 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | 291048 | | | | | |
| BR04059901MS | 5-6-99 | 1417 | | matrixspike | 4 | 3 | 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| BR04059901MD | 5-6-99 | 1417 | | MSD | 4 | 3 | 1 | | | | | | | | | | | | | | | | | | | | | | | | |

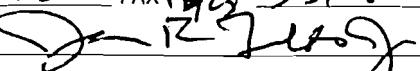
| | | | | | |
|--|---|--|--|---------------------------------|--|
| RELINQUISHED BY: | RECEIVED BY: <i>Tom Hastings</i> Signature Printed Name Firm Date/Time | TURNAROUND REQUIREMENTS | REPORT REQUIREMENTS | INVOICE INFORMATION: | SAMPLE RECEIPT: |
| Signature Printed Name Firm Date/Time | <i>Tom Hastings</i> Signature Printed Name Firm Date/Time | <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard (10-15 working days) <input type="checkbox"/> Provide Verbal Preliminary Results <input type="checkbox"/> Provide FAX Preliminary Results <input type="checkbox"/> Requested Report Date _____ | <ol style="list-style-type: none"> 1. Routine Report 2. Routine Rep. w/CASE Narrative 3. EPA Level III Validatable Package (VCA, Hg) 4. N.J. Reduced Deliverables Level IV 5. NY ASP/CLP Deliverables 6. Site specific QC. | P.O. #: _____ Bill To: _____ | Shipping Via: _____ Shipping #: _____ Temperature: _____ Submission No: <u>9905-079</u> |

| | | |
|------------------|--|--|
| RELINQUISHED BY: | RECEIVED BY: Signature Printed Name Firm Date/Time | SPECIAL INSTRUCTIONS/COMMENTS: METALS |
|------------------|--|--|

| | | |
|------------------|--|---|
| RELINQUISHED BY: | RECEIVED BY: Signature Printed Name Firm Date/Time | ORGANICS: <input type="checkbox"/> TCL <input type="checkbox"/> PPL <input type="checkbox"/> AE Only <input type="checkbox"/> BN Only <input type="checkbox"/> Special List <i>* ON Sample TW17059901 please run duplicate analyses for engineering parameters (NET Vol or Hg) run for engineering parameters, o.l. —> run & RF</i> |
|------------------|--|---|

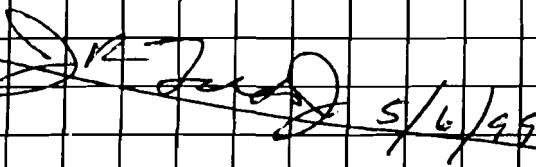
CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

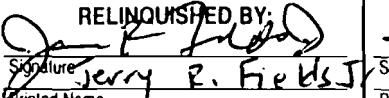
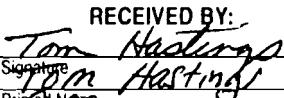
 DATE 5/6/99 PAGE 2 OF 2

| | | | | |
|---------------------------------------|--|--|--|---|
| PROJECT NAME | | | | Pre-Remedy GWMP |
| PROJECT MANAGER/CONTACT | | | | Ronny Fields |
| COMPANY/ADDRESS | | | | H.A., 1400 Centerpoint Blvd. Ste 158, Knoxville, TN 37932 |
| TEL (423) 531-1922 FAX (423) 531-8226 | | | | |
| SAMPLER'S SIGNATURE | | | |  |

| SAMPLE I.D. | DATE | TIME | FOR OFFICE USE ONLY LAB I.D. | SAMPLE MATRIX |
|-------------|--------|------|---------------------------------|---------------|
| BR48599410 | 5-6-99 | 1417 | | Duplicate |
| BR48599401 | 5-6-99 | 1530 | | Groundwater |
| QABR02 | 5-6-99 | 1530 | | Rinsate |
| QAFB02 | 5-6-99 | 1530 | | Field blank |

| | | | | | | | | | | | |
|-----------------|--|--|--|--|---|--|---|---|---|---|--------------|
| # OF CONTAINERS | ANALYSIS REQUESTED | | | | | | | | | | PRESERVATION |
| | GC/MS VOA's <input checked="" type="checkbox"/> 8260 <input type="checkbox"/> 624 <input type="checkbox"/> 95-1 | GEMS VOAs <input checked="" type="checkbox"/> 8270 <input type="checkbox"/> 625 <input type="checkbox"/> 95-2 | HT-UVAA <input checked="" type="checkbox"/> 8021 <input type="checkbox"/> 601602 Hartline, SS | PESTICIDES/PER's <input checked="" type="checkbox"/> 8081 <input type="checkbox"/> 6068 <input type="checkbox"/> 95-3 | TSS, TDS <input checked="" type="checkbox"/> 8021 <input type="checkbox"/> 601602 Hartline, SS | STAR'S LIST VOA's <input type="checkbox"/> TOTAL <input checked="" type="checkbox"/> TCLP <input type="checkbox"/> 9021 VOA's | STAR'S LIST VOC's <input type="checkbox"/> TOTAL <input checked="" type="checkbox"/> TCLP <input type="checkbox"/> TOC | BOD 405 <input type="checkbox"/> TOTAL <input checked="" type="checkbox"/> TCLP <input type="checkbox"/> BOD 405 | WASTE CHARACTERIZATION <input type="checkbox"/> React <input type="checkbox"/> Corros. <input type="checkbox"/> Ignit. | METALS-TOTAL COD <input type="checkbox"/> TOTAL <input checked="" type="checkbox"/> TCLP | |
| 4 | 3 | 1 | 1 | 1 | 1 | 2 | 1 | | 1 | 1 | 1 |
| | | | | | | | | | | | |


5/6/99

| | | | | | |
|---|---|--|--|---|---|
| RELINQUISHED BY:  Signature: Jerry R. Fields J Printed Name: Firm: H.A. Date/Time: 1545 / 5-6-99 | RECEIVED BY:  Signature: Tom Hastings Printed Name: Firm: C.R. Date/Time: 5/7/99 0820 | TURNAROUND REQUIREMENTS <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 5 day <input checked="" type="checkbox"/> Standard (10-15 working days) <input type="checkbox"/> Provide Verbal Preliminary Results <input type="checkbox"/> Provide FAX Preliminary Results Requested Report Date _____ | REPORT REQUIREMENTS <input checked="" type="checkbox"/> Routine Report <input type="checkbox"/> Routine Rep. w/CASE <input checked="" type="checkbox"/> eng <input type="checkbox"/> perering <input checked="" type="checkbox"/> Narrative <input checked="" type="checkbox"/> EPA Level III <input type="checkbox"/> Validatable Package (VOA, HG) <input type="checkbox"/> N.J. Reduced <input type="checkbox"/> Deliverables Level IV <input type="checkbox"/> NY ASP/CLP Deliverables <input type="checkbox"/> Site specific QC. | INVOICE INFORMATION: P.O.: <u>Engineering</u> Bill To: _____ _____ | SAMPLE RECEIPT: Shipping Via: _____ Shipping #: _____ Temperature: _____ Submission No: <u>9905-079</u> |
| RELINQUISHED BY: Signature Printed Name Firm Date/Time | RECEIVED BY: Signature Printed Name Firm Date/Time | SPECIAL INSTRUCTIONS/COMMENTS: METALS ORGANICS: <input type="checkbox"/> TCL <input type="checkbox"/> PPL <input type="checkbox"/> AE Only <input type="checkbox"/> BN Only <input type="checkbox"/> Special List _____ | | | |
| RELINQUISHED BY: Signature Printed Name Firm Date/Time | RECEIVED BY: Signature Printed Name Firm Date/Time | | | | |

APPENDIX E

LABORATORY REPORTS

COLUMBIA ANALYTICAL SERVICES**VOLATILE ORGANICS**

METHOD 8260B TCL

Reported: 06/03/99

Harding Lawson Associates

Project Reference: PRE-REMEDY GWMP

Client Sample ID : BR01059901

Date Sampled : 05/06/99 Order #: 290960 Sample Matrix: WATER
 Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/20/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 390 E | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 1400 E | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 87 | % |
| TOLUENE-D8 | (88 - 110 %) | 103 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 102 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR01059901

Date Sampled : 05/06/99 Order #: 290960 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/20/99 | | |
| ANALYTICAL DILUTION: | 10.00 | | |
| ACETONE | 20 | 200 | U |
| BENZENE | 5.0 | 50 | U |
| BROMODICHLOROMETHANE | 5.0 | 50 | U |
| BROMOFORM | 5.0 | 50 | U |
| BROMOMETHANE | 5.0 | 50 | U |
| 2-BUTANONE (MEK) | 10 | 100 | U |
| CARBON DISULFIDE | 10 | 100 | U |
| CARBON TETRACHLORIDE | 5.0 | 50 | U |
| CHLOROBENZENE | 5.0 | 50 | U |
| CHLOROETHANE | 5.0 | 50 | U |
| CHLOROFORM | 5.0 | 50 | U |
| CHLOROMETHANE | 5.0 | 50 | U |
| DIBROMOCHLOROMETHANE | 5.0 | 50 | U |
| 1,1-DICHLOROETHANE | 5.0 | 50 | U |
| 1,2-DICHLOROETHANE | 5.0 | 50 | U |
| 1,1-DICHLOROETHENE | 5.0 | 50 | U |
| CIS-1,2-DICHLOROETHENE | 5.0 | 320 | U |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 50 | U |
| 1,2-DICHLOROPROPANE | 5.0 | 50 | U |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 50 | U |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 50 | U |
| ETHYLBENZENE | 5.0 | 50 | U |
| 2-HEXANONE | 10 | 100 | U |
| METHYLENE CHLORIDE | 5.0 | 50 | U |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 100 | U |
| STYRENE | 5.0 | 50 | U |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 50 | U |
| TETRACHLOROETHENE | 5.0 | 50 | U |
| TOLUENE | 5.0 | 50 | U |
| 1,1,1-TRICHLOROETHANE | 5.0 | 50 | U |
| 1,1,2-TRICHLOROETHANE | 5.0 | 50 | U |
| TRICHLOROETHENE | 5.0 | 1800 | U |
| VINYL CHLORIDE | 5.0 | 50 | U |
| O-XYLENE | 5.0 | 50 | U |
| M+P-XYLENE | 5.0 | 50 | U |

| SURROGATE RECOVERIES | QC LIMITS | | % |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 90 | % |
| TOLUENE-D8 | (88 - 110 %) | 109 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 109 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :BR01059901

Date Sampled : 05/06/99 Order #: 290960 Sample Matrix: WATER
Date Received: 05/07/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|------------------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 1.18 | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.0540 | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 174 | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 57.3 | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.0116 | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 56.9 | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.249 | MG/L | 05/25/99 | 1.0 |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 2.94 | MG/L | 05/26/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00634 | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 49.7 | MG/L | 05/26/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0271 | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/07/99 | 1.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 16.2 | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 74.4 | MG/L | 05/20/99 | 10.0 |
| TOTAL ALKALINITY | 2.00 | 363 | MG/L | 05/20/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 663 | MG/L | 05/13/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 1.85 | MG/L | 05/11/99 | 1.0 |
| TOTAL SUSPENDED SOLIDS | 1.00 | 779 | MG/L | 05/13/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :BR01059901 SOLUBLE

Date Sampled : 05/06/99 Order #: 291046 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------|-------|--------|-------|---------------|---------------------|
| METALS | | | | | |
| IRON | 0.100 | 0.281 | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR02059901

Date Sampled : 05/05/99 Order #: 290986 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/17/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 6.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 1000 | E |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 24 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 1500 | E |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 88 | % |
| TOLUENE-D8 | (88 - 110 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 103 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR02059901

Date Sampled : 05/05/99 Order #: 290986 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|--------------|--------|-------|
| DATE ANALYZED : 05/21/99 | | | |
| ANALYTICAL DILUTION: 20.00 | | | |
| ACETONE | 20 | 400 U | UG/L |
| BENZENE | 5.0 | 100 U | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 100 U | UG/L |
| BROMOFORM | 5.0 | 100 U | UG/L |
| BROMOMETHANE | 5.0 | 100 U | UG/L |
| 2-BUTANONE (MEK) | 10 | 200 U | UG/L |
| CARBON DISULFIDE | 10 | 200 U | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 100 U | UG/L |
| CHLOROBENZENE | 5.0 | 100 U | UG/L |
| CHLOROETHANE | 5.0 | 100 U | UG/L |
| CHLOROFORM | 5.0 | 100 U | UG/L |
| CHLOROMETHANE | 5.0 | 100 U | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 100 U | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 100 U | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 100 U | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 100 U | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 1200 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 100 U | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 100 U | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 100 U | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 100 U | UG/L |
| ETHYLBENZENE | 5.0 | 100 U | UG/L |
| 2-HEXANONE | 10 | 200 U | UG/L |
| METHYLENE CHLORIDE | 5.0 | 100 U | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 200 U | UG/L |
| STYRENE | 5.0 | 100 U | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 100 U | UG/L |
| TETRACHLOROETHENE | 5.0 | 100 U | UG/L |
| TOLUENE | 5.0 | 100 U | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 100 U | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 100 U | UG/L |
| TRICHLOROETHENE | 5.0 | 3300 | UG/L |
| VINYL CHLORIDE | 5.0 | 100 U | UG/L |
| O-XYLENE | 5.0 | 100 U | UG/L |
| M+P-XYLENE | 5.0 | 100 U | UG/L |
| <hr/> | | | |
| SURROGATE RECOVERIES | QC LIMITS | | |
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 95 | % |
| TOLUENE-D8 | (88 - 110 %) | 104 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 98 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR02059901

Date Sampled : 05/05/99 Order #: 290986 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|-------------------|----------|------------|-------|------------------|------------------------|
| METALS MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR03059901

Date Sampled : 05/04/99 Order #: 290489 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/17/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.5 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 400 | E |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

SURROGATE RECOVERIES

| | QC LIMITS | | % |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 88 | % |
| TOLUENE-D8 | (88 - 110 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 101 | % |

COLUMBIA ANALYTICAL SERVICES**VOLATILE ORGANICS**
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR03059901

Date Sampled : 05/04/99 Order #: 290489 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/21/99 | | |
| ANALYTICAL DILUTION: | 5.00 | | |
| ACETONE | 20 | 100 | UG/L |
| BENZENE | 5.0 | 25 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 25 | UG/L |
| BROMOFORM | 5.0 | 25 | UG/L |
| BROMOMETHANE | 5.0 | 25 | UG/L |
| 2 - BUTANONE (MEK) | 10 | 50 | UG/L |
| CARBON DISULFIDE | 10 | 50 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 25 | UG/L |
| CHLOROBENZENE | 5.0 | 25 | UG/L |
| CHLOROETHANE | 5.0 | 25 | UG/L |
| CHLOROFORM | 5.0 | 25 | UG/L |
| CHLOROMETHANE | 5.0 | 25 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 25 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 25 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 25 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 25 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 25 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 25 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 25 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 25 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 25 | UG/L |
| ETHYLBENZENE | 5.0 | 25 | UG/L |
| 2 - HEXANONE | 10 | 50 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 25 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 50 | UG/L |
| STYRENE | 5.0 | 25 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 25 | UG/L |
| TETRACHLOROETHENE | 5.0 | 25 | UG/L |
| TOLUENE | 5.0 | 25 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 25 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 25 | UG/L |
| TRICHLOROETHENE | 5.0 | 420 | UG/L |
| VINYL CHLORIDE | 5.0 | 25 | UG/L |
| O-XYLENE | 5.0 | 25 | UG/L |
| M+P-XYLENE | 5.0 | 25 | UG/L |

SURROGATE RECOVERIES**QC LIMITS**

| | | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 95 | % |
| TOLUENE-D8 | (88 - 110 %) | 102 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 94 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
 Project Reference: PRE-REMEDY GWMP
 Client Sample ID :BR03059901

Date Sampled : 05/04/99
 Date Received: 05/06/99

Order #: 290489
 Submission #: 9905000079

Sample Matrix: WATER

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|------------------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 104 | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 14.8 | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 58.9 | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.120 | MG/L | 05/25/99 | 1.0 |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 33.7 | MG/L | 05/26/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 90.2 | MG/L | 05/26/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0182 | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/06/99 | 1.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 7.64 | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 22.0 | MG/L | 05/20/99 | 10.0 |
| TOTAL ALKALINITY | 2.00 | 260 | MG/L | 05/17/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 1380 | MG/L | 05/11/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 1.90 | MG/L | 05/11/99 | 1.0 |
| TOTAL SUSPENDED SOLIDS | 1.00 | 28.8 | MG/L | 05/11/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :BR03059901 SOLUBLE

Date Sampled : 05/04/99 Order #: 290530 Sample Matrix: WATER
Date Received: 05/06/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------|-------|--------|-------|---------------|---------------------|
| METALS | | | | | |
| IRON | 0.100 | 1.48 | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES**VOLATILE ORGANICS**

METHOD 8260B TCL

Reported: 06/03/99

Harding Lawson Associates

Project Reference: PRE-REMEDY GWMP

Client Sample ID : BR04059901

Date Sampled : 05/06/99 Order #: 290961 Sample Matrix: WATER
 Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|---------------|
| DATE ANALYZED | : 05/20/99 | | |
| ANALYTICAL DILUTION: | 10.00 | | |
| ACETONE | 20 | 200 | UG/L |
| BENZENE | 5.0 | 50 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 50 | UG/L |
| BROMOFORM | 5.0 | 50 | UG/L |
| BROMOMETHANE | 5.0 | 50 | UG/L |
| 2-BUTANONE (MEK) | 10 | 100 | UG/L |
| CARBON DISULFIDE | 10 | 100 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 50 | UG/L |
| CHLOROBENZENE | 5.0 | 50 | UG/L |
| CHLOROETHANE | 5.0 | 50 | UG/L |
| CHLOROFORM | 5.0 | 50 | UG/L |
| CHLOROMETHANE | 5.0 | 50 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 50 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 50 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 50 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 50 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 160 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 50 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 50 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 50 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 50 | UG/L |
| ETHYLBENZENE | 5.0 | 50 | UG/L |
| 2-HEXANONE | 10 | 100 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 50 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 100 | UG/L |
| STYRENE | 5.0 | 50 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 50 | UG/L |
| TETRACHLOROETHENE | 5.0 | 50 | UG/L |
| TOLUENE | 5.0 | 50 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 50 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 50 | UG/L |
| TRICHLOROETHENE | 5.0 | 2100 | RF 7/29/99 |
| VINYL CHLORIDE | 5.0 | 50 | UG/L |
| O-XYLENE | 5.0 | 50 | UG/L |
| M+P-XYLENE | 5.0 | 50 | UG/L |

SURROGATE RECOVERIES**QC LIMITS**

| | | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 87 | % |
| TOLUENE-D8 | (88 - 110 %) | 108 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 109 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
 Project Reference: PRE-REMEDY GWMP
 Client Sample ID :BR04059901

Date Sampled : 05/06/99 Order #: 290961 Sample Matrix: WATER
 Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|------------------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.208 | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 162 | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 3.06 | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 43.3 | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.222 | MG/L | 05/25/99 | 1.0 |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 6.32 | MG/L | 05/26/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 225 | MG/L | 05/26/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0112 | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/07/99 | 1.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 22.6 | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 434 | MG/L | 05/20/99 | 100.0 |
| TOTAL ALKALINITY | 2.00 | 335 | MG/L | 05/20/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 1330 | MG/L | 05/13/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 6.17 | MG/L | 05/11/99 | 1.0 |
| TOTAL SUSPENDED SOLIDS | 1.00 | 2.60 | MG/L | 05/13/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID :BR04059901 SOLUBLE

Date Sampled : 05/06/99 Order #: 291048 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|----------------|-------|--------|-------|------------------|------------------------|
| METALS IRON | 0.100 | 0.664 | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE - REMEDY GWMP
Client Sample ID : BR04059901D

Date Sampled : 05/06/99 Order #: 290984 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/20/99 | | | |
| ANALYTICAL DILUTION: 10.00 | | | |
| ACETONE | 20 | 200 | U |
| BENZENE | 5.0 | 50 | U |
| BROMODICHLOROMETHANE | 5.0 | 50 | U |
| BROMOFORM | 5.0 | 50 | U |
| BROMOMETHANE | 5.0 | 50 | U |
| 2-BUTANONE (MEK) | 10 | 100 | U |
| CARBON DISULFIDE | 10 | 100 | U |
| CARBON TETRACHLORIDE | 5.0 | 50 | U |
| CHLOROBENZENE | 5.0 | 50 | U |
| CHLOROETHANE | 5.0 | 50 | U |
| CHLOROFORM | 5.0 | 50 | U |
| CHLOROMETHANE | 5.0 | 50 | U |
| DIBROMOCHLOROMETHANE | 5.0 | 50 | U |
| 1,1-DICHLOROETHANE | 5.0 | 50 | U |
| 1,2-DICHLOROETHANE | 5.0 | 50 | U |
| 1,1-DICHLOROETHENE | 5.0 | 50 | U |
| CIS-1,2-DICHLOROETHENE | 5.0 | 210 | U |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 50 | U |
| 1,2-DICHLOROPROPANE | 5.0 | 50 | U |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 50 | U |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 50 | U |
| ETHYLBENZENE | 5.0 | 50 | U |
| 2-HEXANONE | 10 | 100 | U |
| METHYLENE CHLORIDE | 5.0 | 50 | U |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 100 | U |
| STYRENE | 5.0 | 50 | U |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 50 | U |
| TETRACHLOROETHENE | 5.0 | 50 | U |
| TOLUENE | 5.0 | 50 | U |
| 1,1,1-TRICHLOROETHANE | 5.0 | 50 | U |
| 1,1,2-TRICHLOROETHANE | 5.0 | 50 | U |
| TRICHLOROETHENE | 5.0 | 2100 | E |
| VINYL CHLORIDE | 5.0 | 50 | U |
| O-XYLENE | 5.0 | 50 | U |
| M+P-XYLENE | 5.0 | 50 | U |

SURROGATE RECOVERIES **QC LIMITS**

| | | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 94 | % |
| TOLUENE-D8 | (88 - 110 %) | 102 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 97 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates

Project Reference: PRE-REMEDY GWMP

Client Sample ID : BR04059901D

Date Sampled : 05/06/99 Order #: 290984 Sample Matrix: WATER
 Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/21/99 | | |
| ANALYTICAL DILUTION: | 20.00 | | |
| ACETONE | 20 | 400 | U |
| BENZENE | 5.0 | 100 | U |
| BROMODICHLOROMETHANE | 5.0 | 100 | U |
| BROMOFORM | 5.0 | 100 | U |
| BROMOMETHANE | 5.0 | 100 | U |
| 2-BUTANONE (MEK) | 10 | 200 | U |
| CARBON DISULFIDE | 10 | 200 | U |
| CARBON TETRACHLORIDE | 5.0 | 100 | U |
| CHLOROBENZENE | 5.0 | 100 | U |
| CHLOROETHANE | 5.0 | 100 | U |
| CHLOROFORM | 5.0 | 100 | U |
| CHLOROMETHANE | 5.0 | 100 | U |
| DIBROMOCHLOROMETHANE | 5.0 | 100 | U |
| 1,1-DICHLOROETHANE | 5.0 | 100 | U |
| 1,2-DICHLOROETHANE | 5.0 | 100 | U |
| 1,1-DICHLOROETHENE | 5.0 | 100 | U |
| CIS-1,2-DICHLOROETHENE | 5.0 | 190 | U |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 100 | U |
| 1,2-DICHLOROPROPANE | 5.0 | 100 | U |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 100 | U |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 100 | U |
| ETHYLBENZENE | 5.0 | 100 | U |
| 2-HEXANONE | 10 | 200 | U |
| METHYLENE CHLORIDE | 5.0 | 100 | U |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 200 | U |
| STYRENE | 5.0 | 100 | U |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 100 | U |
| TETRACHLOROETHENE | 5.0 | 100 | U |
| TOLUENE | 5.0 | 100 | U |
| 1,1,1-TRICHLOROETHANE | 5.0 | 100 | U |
| 1,1,2-TRICHLOROETHANE | 5.0 | 100 | U |
| TRICHLOROETHENE | 5.0 | 2100 | U |
| VINYL CHLORIDE | 5.0 | 100 | U |
| O-XYLENE | 5.0 | 100 | U |
| M+P-XYLENE | 5.0 | 100 | U |

SURROGATE RECOVERIES**QC LIMITS**

| | | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 94 | % |
| TOLUENE-D8 | (88 - 110 %) | 101 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 94 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :BR04059901D

Date Sampled : 05/06/99
Date Received: 05/07/99

Order #: 290984
Submission #:9905000079

Sample Matrix: WATER

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|-------------------|----------|------------|-------|------------------|------------------------|
| METALS MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR05059901

Date Sampled : 05/06/99 Order #: 290964 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/20/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.2 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 23 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 680 | E |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 84 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 3300 | E |
| VINYL CHLORIDE | 5.0 | 95 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|------|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 83 * | % |
| TOLUENE-D8 | (88 - 110 %) | 100 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 100 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR05059901

Date Sampled : 05/06/99 Order #: 290964 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/20/99 | | |
| ANALYTICAL DILUTION: | 50.00 | | |
| ACETONE | 20 | 1000 | U |
| BENZENE | 5.0 | 250 | U |
| BROMODICHLOROMETHANE | 5.0 | 250 | U |
| BROMOFORM | 5.0 | 250 | U |
| BROMOMETHANE | 5.0 | 250 | U |
| 2-BUTANONE (MEK) | 10 | 500 | U |
| CARBON DISULFIDE | 10 | 500 | U |
| CARBON TETRACHLORIDE | 5.0 | 250 | U |
| CHLOROBENZENE | 5.0 | 250 | U |
| CHLOROETHANE | 5.0 | 250 | U |
| CHLOROFORM | 5.0 | 250 | U |
| CHLOROMETHANE | 5.0 | 250 | U |
| DIBROMOCHLOROMETHANE | 5.0 | 250 | U |
| 1,1-DICHLOROETHANE | 5.0 | 250 | U |
| 1,2-DICHLOROETHANE | 5.0 | 250 | U |
| 1,1-DICHLOROETHENE | 5.0 | 250 | U |
| CIS-1,2-DICHLOROETHENE | 5.0 | 440 | U |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 250 | U |
| 1,2-DICHLOROPROPANE | 5.0 | 250 | U |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 250 | U |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 250 | U |
| ETHYLBENZENE | 5.0 | 250 | U |
| 2-HEXANONE | 10 | 500 | U |
| METHYLENE CHLORIDE | 5.0 | 250 | U |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 500 | U |
| STYRENE | 5.0 | 250 | U |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 250 | U |
| TETRACHLOROETHENE | 5.0 | 250 | U |
| TOLUENE | 5.0 | 250 | U |
| 1,1,1-TRICHLOROETHANE | 5.0 | 250 | U |
| 1,1,2-TRICHLOROETHANE | 5.0 | 250 | U |
| TRICHLOROETHENE | 5.0 | 6700 | U |
| VINYL CHLORIDE | 5.0 | 250 | U |
| O-XYLENE | 5.0 | 250 | U |
| M+P-XYLENE | 5.0 | 250 | U |

SURROGATE RECOVERIES QC LIMITS

| | | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 87 | % |
| TOLUENE-D8 | (88 - 110 %) | 106 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 105 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
 Project Reference: PRE-REMEDY GWMP
 Client Sample ID :BR05059901

Date Sampled : 05/06/99 Order #: 290964 Sample Matrix: WATER
 Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|------------------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.279 | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 163 | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 8.08 | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 44.6 | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.242 | MG/L | 05/25/99 | 1.0 |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 4.10 | MG/L | 05/26/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 170 | MG/L | 05/26/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0122 | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/07/99 | 1.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 18.0 | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 209 | MG/L | 05/20/99 | 40.0 |
| TOTAL ALKALINITY | 2.00 | 338 | MG/L | 05/20/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 1150 | MG/L | 05/13/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 4.32 | MG/L | 05/11/99 | 1.0 |
| TOTAL SUSPENDED SOLIDS | 1.00 | 12.6 | MG/L | 05/13/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR05059901 SOLUBLE

Date Sampled : 05/06/99 Order #: 291049
Date Received: 05/07/99 Submission #: 9905000079 Sample Matrix: WATER

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------|-------|--------|-------|------------------|------------------------|
| METALS | | | | | |
| IRON | 0.100 | 0.601 | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR06059901

Date Sampled : 05/04/99 Order #: 290488 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/17/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 88 | % |
| TOLUENE-D8 | (88 - 110 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 99 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR06059901

Date Sampled : 05/04/99 Order #: 290488 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|------------------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.106 | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 99.1 | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 9.77 | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 71.5 | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.0541 | MG/L | 05/25/99 | 1.0 |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 5.16 | MG/L | 05/26/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 52.2 | MG/L | 05/26/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/06/99 | 1.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 8.27 | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 231 | MG/L | 05/20/99 | 40.0 |
| TOTAL ALKALINITY | 2.00 | 270 | MG/L | 05/17/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 690 | MG/L | 05/11/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 1.89 | MG/L | 05/11/99 | 1.0 |
| TOTAL SUSPENDED SOLIDS | 1.00 | 21.5 | MG/L | 05/11/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE - REMEDY GWMP
Client Sample ID : BR06059901 SOLUBLE

Date Sampled : 05/04/99 Order #: 290529 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------------|-------|--------|-------|------------------|------------------------|
| METALS | | | | | |
| IRON | 0.100 | 1.75 | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE - REMEDY GWMP
Client Sample ID : BR07059901

Date Sampled : 05/05/99 Order #: 290988 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/17/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 53 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.9 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.4 | UG/L |
| VINYL CHLORIDE | 5.0 | 410 | E |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

SURROGATE RECOVERIES **QC LIMITS**

| | | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 87 | % |
| TOLUENE-D8 | (88 - 110 %) | 97 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 100 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : BR07059901

Date Sampled : 05/05/99 Order #: 290988 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/21/99 | | |
| ANALYTICAL DILUTION: | 5.00 | | |
| ACETONE | 20 | 100 | UG/L |
| BENZENE | 5.0 | 25 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 25 | UG/L |
| BROMOFORM | 5.0 | 25 | UG/L |
| BROMOMETHANE | 5.0 | 25 | UG/L |
| 2-BUTANONE (MEK) | 10 | 50 | UG/L |
| CARBON DISULFIDE | 10 | 50 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 25 | UG/L |
| CHLOROBENZENE | 5.0 | 25 | UG/L |
| CHLOROETHANE | 5.0 | 25 | UG/L |
| CHLOROFORM | 5.0 | 25 | UG/L |
| CHLOROMETHANE | 5.0 | 25 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 25 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 25 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 25 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 25 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 64 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 25 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 25 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 25 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 25 | UG/L |
| ETHYLBENZENE | 5.0 | 25 | UG/L |
| 2-HEXANONE | 10 | 50 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 25 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 50 | UG/L |
| STYRENE | 5.0 | 25 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 25 | UG/L |
| TETRACHLOROETHENE | 5.0 | 25 | UG/L |
| TOLUENE | 5.0 | 25 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 25 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 25 | UG/L |
| TRICHLOROETHENE | 5.0 | 25 | UG/L |
| VINYL CHLORIDE | 5.0 | 360 | UG/L |
| O-XYLENE | 5.0 | 25 | UG/L |
| M+P-XYLENE | 5.0 | 25 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 91 | % |
| TOLUENE-D8 | (88 - 110 %) | 103 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 100 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :BR07059901

| Date Sampled : 05/05/99 | Order #: 290988 | Sample Matrix: WATER | | | |
|-------------------------|-------------------------|----------------------|-------|------------------|------------------------|
| Date Received: 05/07/99 | Submission #:9905000079 | | | | |
| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
| METALS MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES**VOLATILE ORGANICS**

METHOD 8260B TCL

Reported: 06/03/99

Harding Lawson Associates

Project Reference: PRE-REMEDY GWMP

Client Sample ID : MW00059901

Date Sampled : 05/05/99 Order #: 291000 Sample Matrix: WATER
 Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/17/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 6.1 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 12 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

SURROGATE RECOVERIES**QC LIMITS**

| | | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 95 | % |
| TOLUENE-D8 | (88 - 110 %) | 101 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 100 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : MW00059901

| | | |
|-------------------------|--------------------------|----------------------|
| Date Sampled : 05/05/99 | Order #: 291000 | Sample Matrix: WATER |
| Date Received: 05/07/99 | Submission #: 9905000079 | |

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : OB04059901

Date Sampled : 05/06/99 Order #: 290959 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/20/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.7 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 19 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 1800 | E |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 25 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 23 | UG/L |
| TOLUENE | 5.0 | 5.7 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 11000 | E |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

SURROGATE RECOVERIES**QC LIMITS**

| | | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 92 | % |
| TOLUENE-D8 | (88 - 110 %) | 106 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 101 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : OB04059901

Date Sampled : 05/06/99 Order #: 290959 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/21/99 | | |
| ANALYTICAL DILUTION: | 500.00 | | |
| ACETONE | 20 | 10000 | U |
| BENZENE | 5.0 | 2500 | U |
| BROMODICHLOROMETHANE | 5.0 | 2500 | U |
| BROMOFORM | 5.0 | 2500 | U |
| BROMOMETHANE | 5.0 | 2500 | U |
| 2-BUTANONE (MEK) | 10 | 5000 | U |
| CARBON DISULFIDE | 10 | 5000 | U |
| CARBON TETRACHLORIDE | 5.0 | 2500 | U |
| CHLOROBENZENE | 5.0 | 2500 | U |
| CHLOROETHANE | 5.0 | 2500 | U |
| CHLOROFORM | 5.0 | 2500 | U |
| CHLOROMETHANE | 5.0 | 2500 | U |
| DIBROMOCHLOROMETHANE | 5.0 | 2500 | U |
| 1,1-DICHLOROETHANE | 5.0 | 2500 | U |
| 1,2-DICHLOROETHANE | 5.0 | 2500 | U |
| 1,1-DICHLOROETHENE | 5.0 | 2500 | U |
| CIS-1,2-DICHLOROETHENE | 5.0 | 2500 | U |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 2500 | U |
| 1,2-DICHLOROPROPANE | 5.0 | 2500 | U |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 2500 | U |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 2500 | U |
| ETHYLBENZENE | 5.0 | 2500 | U |
| 2-HEXANONE | 10 | 5000 | U |
| METHYLENE CHLORIDE | 5.0 | 2500 | U |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 5000 | U |
| STYRENE | 5.0 | 2500 | U |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 2500 | U |
| TETRACHLOROETHENE | 5.0 | 2500 | U |
| TOLUENE | 5.0 | 2500 | U |
| 1,1,1-TRICHLOROETHANE | 5.0 | 2500 | U |
| 1,1,2-TRICHLOROETHANE | 5.0 | 2500 | U |
| TRICHLOROETHENE | 5.0 | 68000 | U |
| VINYL CHLORIDE | 5.0 | 2500 | U |
| O-XYLENE | 5.0 | 2500 | U |
| M+P-XYLENE | 5.0 | 2500 | U |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 94 | % |
| TOLUENE-D8 | (88 - 110 %) | 102 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 98 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/04/99

Harding Lawson Associates
 Project Reference: PRE-REMEDY GWMP
 Client Sample ID :OB04059901

Date Sampled : 05/06/99 Order #: 290959 Sample Matrix: WATER
 Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|--------------------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 0.195 | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.149 | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 162 | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 0.474 | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 22.3 | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.135 | MG/L | 05/25/99 | 1.0 |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 8.61 | MG/L | 05/26/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 110 | MG/L | 05/26/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0485 | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/07/99 | 1.0 |
| CALCIUM HARDNESS | 1.25 | 404 | MG/L | | 0.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 43.4 | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 89.8 | MG/L | 05/20/99 | 10.0 |
| MAGNESIUM HARDNESS | 1.2 | 92 | MG/L | | 1.0 |
| NITRATE/NITRITE NITROGEN | 0.0500 | 8.46 | MG/L | 05/28/99 | 10.0 |
| SULFATE | 0.200 | 367 | MG/L | 05/20/99 | 100.0 |
| TOTAL ALKALINITY | 2.00 | 231 | MG/L | 05/20/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 957 | MG/L | 05/13/99 | 1.0 |
| TOTAL KJELDAHL NITROGEN | 0.200 | 1.05 | MG/L | 05/13/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 13.8 | MG/L | 05/11/99 | 1.0 |
| TOTAL PHOSPHORUS | 0.0500 | 0.0675 | MG/L | 05/14/99 | 1.0 |
| TOTAL SULFIDE | 1.00 | 1.00 U | MG/L | 05/11/99 | 1.0 |
| TOTAL SUSPENDED SOLIDS | 1.00 | 26.2 | MG/L | 05/13/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8015B GASES
Reported: 06/03/99

Harding Lawson Associates

Project Reference: PRE-REMEDY GWMP

Client Sample ID : OB04059901

Date Sampled : 05/06/99 Order #: 290959 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38061

| ANALYTE | PQL | RESULT | UNITS |
|----------------------|------------|--------|-------|
| DATE ANALYZED | : 05/11/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ETHANE | 1.0 | 41 | UG/L |
| ETHYLENE | 1.0 | 49 | UG/L |
| METHANE | 2.0 | 30 | UG/L |
| PROPANE | 1.0 | 7.4 | UG/L |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID :OB04059901 SOLUBLE

Date Sampled : 05/06/99 Order #: 291047 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------------|-------|---------|-------|---------------|---------------------|
| METALS | | | | | |
| IRON | 0.100 | 0.100 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : OB05059901

Date Sampled : 05/06/99 Order #: 290958 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/19/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | U |
| BENZENE | 5.0 | 5.0 | U |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | U |
| BROMOFORM | 5.0 | 5.0 | U |
| BROMOMETHANE | 5.0 | 5.0 | U |
| 2-BUTANONE (MEK) | 10 | 10 | U |
| CARBON DISULFIDE | 10 | 10 | U |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | U |
| CHLOROBENZENE | 5.0 | 5.0 | U |
| CHLOROETHANE | 5.0 | 5.0 | U |
| CHLOROFORM | 5.0 | 5.0 | U |
| CHLOROMETHANE | 5.0 | 5.0 | U |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | U |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | U |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | U |
| 1,1-DICHLOROETHENE | 5.0 | 23 | U |
| CIS-1,2-DICHLOROETHENE | 5.0 | 1800 | E |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 29 | U |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | U |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | U |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | U |
| ETHYLBENZENE | 5.0 | 5.0 | U |
| 2-HEXANONE | 10 | 10 | U |
| METHYLENE CHLORIDE | 5.0 | 5.0 | U |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | U |
| STYRENE | 5.0 | 5.0 | U |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | U |
| TETRACHLOROETHENE | 5.0 | 20 | U |
| TOLUENE | 5.0 | 5.0 | U |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | U |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | U |
| TRICHLOROETHENE | 5.0 | 5700 | E |
| VINYL CHLORIDE | 5.0 | 140 | U |
| O-XYLENE | 5.0 | 5.0 | U |
| M+P-XYLENE | 5.0 | 5.0 | U |

| SURROGATE RECOVERIES | QC LIMITS | | % |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 90 | % |
| TOLUENE-D8 | (88 - 110 %) | 107 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 101 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : OB05059901

Date Sampled : 05/06/99 Order #: 290958 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------------|
| DATE ANALYZED | : 05/21/99 | | |
| ANALYTICAL DILUTION: | 200.00 | | |
| ACETONE | 20 | 4000 | U UG/L |
| BENZENE | 5.0 | 1000 | U UG/L |
| BROMODICHLOROMETHANE | 5.0 | 1000 | U UG/L |
| BROMOFORM | 5.0 | 1000 | U UG/L |
| BROMOMETHANE | 5.0 | 1000 | U UG/L |
| 2-BUTANONE (MEK) | 10 | 2000 | U UG/L |
| CARBON DISULFIDE | 10 | 2000 | U UG/L |
| CARBON TETRACHLORIDE | 5.0 | 1000 | U UG/L |
| CHLOROBENZENE | 5.0 | 1000 | U UG/L |
| CHLOROETHANE | 5.0 | 1000 | U UG/L |
| CHLOROFORM | 5.0 | 1000 | U UG/L |
| CHLOROMETHANE | 5.0 | 1000 | U UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 1000 | U UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 1000 | U UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 1000 | U UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 1000 | U UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 2700 | U UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 1000 | U UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 1000 | U UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 1000 | U UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 1000 | U UG/L |
| ETHYLBENZENE | 5.0 | 1000 | U UG/L |
| 2-HEXANONE | 10 | 2000 | U UG/L |
| METHYLENE CHLORIDE | 5.0 | 1000 | U UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 2000 | U UG/L |
| STYRENE | 5.0 | 1000 | U UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 1000 | U UG/L |
| TETRACHLOROETHENE | 5.0 | 1000 | U UG/L |
| TOLUENE | 5.0 | 1000 | U UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 1000 | U UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 1000 | U UG/L |
| TRICHLOROETHENE | 5.0 | 23000 | U UG/L |
| VINYL CHLORIDE | 5.0 | 1000 | U UG/L |
| O-XYLENE | 5.0 | 1000 | U UG/L |
| M+P-XYLENE | 5.0 | 1000 | U UG/L |

| SURROGATE RECOVERIES | QC LIMITS |
|----------------------|-----------|
|----------------------|-----------|

| | | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 94 | % |
| TOLUENE-D8 | (88 - 110 %) | 104 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 100 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/04/99

Harding Lawson Associates
 Project Reference: PRE-REMEDY GWMP
 Client Sample ID :OB05059901

Date Sampled : 05/06/99 Order #: 290958 Sample Matrix: WATER
 Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|--------------------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.0821 | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 136 | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 26.9 | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.303 | MG/L | 05/25/99 | 1.0 |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 2.31 | MG/L | 05/26/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 21.3 | MG/L | 05/26/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/07/99 | 1.0 |
| CALCIUM HARDNESS | 1.25 | 340 | MG/L | | 0.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 14.4 | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 15.7 | MG/L | 05/20/99 | 10.0 |
| MAGNESIUM HARDNESS | 1.2 | 110 | MG/L | | 1.0 |
| NITRATE/NITRITE NITROGEN | 0.0500 | 0.938 | MG/L | 05/28/99 | 1.0 |
| SULFATE | 0.200 | 97.7 | MG/L | 05/20/99 | 10.0 |
| TOTAL ALKALINITY | 2.00 | 392 | MG/L | 05/20/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 568 | MG/L | 05/13/99 | 1.0 |
| TOTAL KJELDAHL NITROGEN | 0.200 | 0.203 | MG/L | 05/13/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 3.13 | MG/L | 05/11/99 | 1.0 |
| TOTAL PHOSPHORUS | 0.0500 | 0.0500 U | MG/L | 05/14/99 | 1.0 |
| TOTAL SULFIDE | 1.00 | 1.00 U | MG/L | 05/11/99 | 1.0 |
| TOTAL SUSPENDED SOLIDS | 1.00 | 1.00 U | MG/L | 05/13/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8015B GASES
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : OB05059901

Date Sampled : 05/06/99 Order #: 290958 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38061

| ANALYTE | PQL | RESULT | UNITS |
|---------------------------|-----|--------|-------|
| DATE ANALYZED : 05/11/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ETHANE | 1.0 | 1.0 U | UG/L |
| ETHYLENE | 1.0 | 1.0 U | UG/L |
| METHANE | 2.0 | 3.2 | UG/L |
| PROPANE | 1.0 | 1.0 U | UG/L |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :OB05059901 SOLUBLE

Date Sampled : 05/06/99 Order #: 291045 Sample Matrix: WATER
Date Received: 05/07/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------|-------|--------|-------|---------------|---------------------|
| METALS | | | | | |
| IRON | 0.100 | 0.111 | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW01059901

Date Sampled : 05/04/99 Order #: 290485 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/17/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 88 | % |
| TOLUENE-D8 | (88 - 110 %) | 96 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 99 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :TW01059901

Date Sampled : 05/04/99 Order #: 290485 Sample Matrix: WATER
Date Received: 05/06/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|-------------------|----------|------------|-------|---------------|---------------------|
| METALS MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW04059901

Date Sampled : 05/04/99 Order #: 290487 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/17/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 91 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

SURROGATE RECOVERIES

| | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 90 | % |
| TOLUENE-D8 | (88 - 110 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 100 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/04/99

Harding Lawson Associates
 Project Reference: PRE-REMEDY GWMP
 Client Sample ID :TW04059901

Date Sampled : 05/04/99 Order #: 290487 Sample Matrix: WATER
 Date Received: 05/06/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|--------------------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.0247 | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 101 | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 0.438 | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 33.0 | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.0607 | MG/L | 05/25/99 | 1.0 |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 6.22 | MG/L | 05/26/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 33.4 | MG/L | 05/26/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0113 | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/06/99 | 1.0 |
| CALCIUM HARDNESS | 1.25 | 252 | MG/L | | 0.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 5.00 U | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 6.18 | MG/L | 05/20/99 | 10.0 |
| MAGNESIUM HARDNESS | 1.2 | 140 | MG/L | | 1.0 |
| NITRATE/NITRITE NITROGEN | 0.0500 | 1.08 | MG/L | 05/28/99 | 1.0 |
| SULFATE | 0.200 | 258 | MG/L | 05/20/99 | 100.0 |
| TOTAL ALKALINITY | 2.00 | 152 | MG/L | 05/17/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 549 | MG/L | 05/11/99 | 1.0 |
| TOTAL KJELDAHL NITROGEN | 0.200 | 0.200 U | MG/L | 05/13/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 1.77 | MG/L | 05/11/99 | 1.0 |
| TOTAL PHOSPHORUS | 0.0500 | 0.0659 | MG/L | 05/14/99 | 1.0 |
| TOTAL SULFIDE | 1.00 | 1.00 U | MG/L | 05/11/99 | 1.0 |
| TOTAL SUSPENDED SOLIDS | 1.00 | 2.70 | MG/L | 05/11/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8015B GASES
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW04059901

Date Sampled : 05/04/99 Order #: 290487 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079 Analytical Run 38061

| ANALYTE | PQL | RESULT | UNITS |
|---------------------------|-----|--------|-------|
| DATE ANALYZED : 05/11/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ETHANE | 1.0 | 1.0 U | UG/L |
| ETHYLENE | 1.0 | 1.0 U | UG/L |
| METHANE | 2.0 | 2.0 U | UG/L |
| PROPANE | 1.0 | 1.0 U | UG/L |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :TW04059901 SOLUBLE

Date Sampled : 05/04/99 Order #: 290531 Sample Matrix: WATER
Date Received: 05/06/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------------|-------|---------|-------|---------------|---------------------|
| METALS | | | | | |
| IRON | 0.100 | 0.100 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW07059901

Date Sampled : 05/05/99 Order #: 290987 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/17/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 14 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 87 | % |
| TOLUENE-D8 | (88 - 110 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 102 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :TW07059901

Date Sampled : 05/05/99 Order #: 290987 Sample Matrix: WATER
Date Received: 05/07/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|-------------------|----------|----------|-------|---------------|---------------------|
| METALS MERCURY | 0.000300 | 0.000742 | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
 METHOD 8260B TCL
 Reported: 06/03/99

Harding Lawson Associates
 Project Reference: PRE-REMEDY GWMP
 Client Sample ID : TW09059901

Date Sampled : 05/06/99 Order #: 290985 Sample Matrix: WATER
 Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|--------------|-----------|-------|
| DATE ANALYZED | : 05/20/99 | | |
| ANALYTICAL DILUTION: | 2.00 | | |
| ACETONE | 20 | 40 U | UG/L |
| BENZENE | 5.0 | 10 U | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 10 U | UG/L |
| BROMOFORM | 5.0 | 10 U | UG/L |
| BROMOMETHANE | 5.0 | 10 U | UG/L |
| 2-BUTANONE (MEK) | 10 | 20 U | UG/L |
| CARBON DISULFIDE | 10 | 20 U | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 10 U | UG/L |
| CHLOROBENZENE | 5.0 | 10 U | UG/L |
| CHLOROETHANE | 5.0 | 10 U | UG/L |
| CHLOROFORM | 5.0 | 10 U | UG/L |
| CHLOROMETHANE | 5.0 | 10 U | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 10 U | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 10 U | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 10 U | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 10 U | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 34 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 10 U | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 10 U | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 10 U | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 10 U | UG/L |
| ETHYLBENZENE | 5.0 | 10 U | UG/L |
| 2-HEXANONE | 10 | 20 U | UG/L |
| METHYLENE CHLORIDE | 5.0 | 10 U | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 20 U | UG/L |
| STYRENE | 5.0 | 10 U | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 10 U | UG/L |
| TETRACHLOROETHENE | 5.0 | 10 U | UG/L |
| TOLUENE | 5.0 | 10 U | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 10 U | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 10 U | UG/L |
| TRICHLOROETHENE | 5.0 | 880 E | UG/L |
| VINYL CHLORIDE | 5.0 | 10 U | UG/L |
| O-XYLENE | 5.0 | 10 U | UG/L |
| M+P-XYLENE | 5.0 | 10 U | UG/L |
| SURROGATE RECOVERIES | | QC LIMITS | |
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 98 | % |
| TOLUENE-D8 | (88 - 110 %) | 103 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 100 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW09059901

Date Sampled : 05/05/99 *PF 7/26/99* **Order #:** 290985 **Sample Matrix:** WATER
Date Received: 05/07/99 **Submission #:** 9905000079 **Analytical Run** 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/21/99 | | |
| ANALYTICAL DILUTION: | 5.00 | | |
| ACETONE | 20 | 100 | UG/L |
| BENZENE | 5.0 | 25 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 25 | UG/L |
| BROMOFORM | 5.0 | 25 | UG/L |
| BROMOMETHANE | 5.0 | 25 | UG/L |
| 2-BUTANONE (MEK) | 10 | 50 | UG/L |
| CARBON DISULFIDE | 10 | 50 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 25 | UG/L |
| CHLOROBENZENE | 5.0 | 25 | UG/L |
| CHLOROETHANE | 5.0 | 25 | UG/L |
| CHLOROFORM | 5.0 | 25 | UG/L |
| CHLOROMETHANE | 5.0 | 25 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 25 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 25 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 25 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 25 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 30 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 25 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 25 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 25 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 25 | UG/L |
| ETHYLBENZENE | 5.0 | 25 | UG/L |
| 2-HEXANONE | 10 | 50 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 25 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 50 | UG/L |
| STYRENE | 5.0 | 25 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 25 | UG/L |
| TETRACHLOROETHENE | 5.0 | 25 | UG/L |
| TOLUENE | 5.0 | 25 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 25 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 25 | UG/L |
| TRICHLOROETHENE | 5.0 | 880 | UG/L |
| VINYL CHLORIDE | 5.0 | 25 | UG/L |
| O-XYLENE | 5.0 | 25 | UG/L |
| M+P-XYLENE | 5.0 | 25 | UG/L |

SURROGATE RECOVERIES

| | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 98 | % |
| TOLUENE-D8 | (88 - 110 %) | 102 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 95 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID :TW09059901

Date Sampled : 05/06/99 *4/28/99* Order #: 290985 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|-------------------|----------|------------|-------|------------------|------------------------|
| METALS MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW09059901D

Date Sampled : 05/05/99 Order #: 291007 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/19/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 28 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 920 | E |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|------|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 82 * | % |
| TOLUENE-D8 | (88 - 110 %) | 100 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 99 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW09059901D

Date Sampled : 05/05/99 Order #: 291007 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/21/99 | | |
| ANALYTICAL DILUTION: | 10.00 | | |
| ACETONE | 20 | 200 | UG/L |
| BENZENE | 5.0 | 50 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 50 | UG/L |
| BROMOFORM | 5.0 | 50 | UG/L |
| BROMOMETHANE | 5.0 | 50 | UG/L |
| 2-BUTANONE (MEK) | 10 | 100 | UG/L |
| CARBON DISULFIDE | 10 | 100 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 50 | UG/L |
| CHLOROBENZENE | 5.0 | 50 | UG/L |
| CHLOROETHANE | 5.0 | 50 | UG/L |
| CHLOROFORM | 5.0 | 50 | UG/L |
| CHLOROMETHANE | 5.0 | 50 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 50 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 50 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 50 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 50 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 50 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 50 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 50 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 50 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 50 | UG/L |
| ETHYLBENZENE | 5.0 | 50 | UG/L |
| 2-HEXANONE | 10 | 100 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 50 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 100 | UG/L |
| STYRENE | 5.0 | 50 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 50 | UG/L |
| TETRACHLOROETHENE | 5.0 | 50 | UG/L |
| TOLUENE | 5.0 | 50 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 50 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 50 | UG/L |
| TRICHLOROETHENE | 5.0 | 990 | UG/L |
| VINYL CHLORIDE | 5.0 | 50 | UG/L |
| O-XYLENE | 5.0 | 50 | UG/L |
| M+P-XYLENE | 5.0 | 50 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 97 | % |
| TOLUENE-D8 | (88 - 110 %) | 101 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 101 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE - REMEDY GWMP
Client Sample ID :TW09059901D

Date Sampled : 05/05/99 Order #: 291007 Sample Matrix: WATER
Date Received: 05/07/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|-------------------|----------|------------|-------|---------------|---------------------|
| METALS MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW13059901

Date Sampled : 05/05/99 Order #: 291001 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/17/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 87 | % |
| TOLUENE-D8 | (88 - 110 %) | 99 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 100 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :TW13059901

Date Sampled : 05/05/99 Order #: 291001 Sample Matrix: WATER
Date Received: 05/07/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|-------------------|----------|------------|-------|---------------|---------------------|
| METALS MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW17059901

Date Sampled : 05/06/99 Order #: 290957 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|--------------|--------|-------|
| DATE ANALYZED | : 05/19/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 11 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 1300 | E |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |
| SURROGATE RECOVERIES | QC LIMITS | | |
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 84 * | % |
| TOLUENE-D8 | (88 - 110 %) | 101 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 102 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW17059901

Date Sampled : 05/06/99 Order #: 290957 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|--------------|--------|-------|
| DATE ANALYZED : 05/20/99 | | | |
| ANALYTICAL DILUTION: 10.00 | | | |
| ACETONE | 20 | 200 U | UG/L |
| BENZENE | 5.0 | 50 U | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 50 U | UG/L |
| BROMOFORM | 5.0 | 50 U | UG/L |
| BROMOMETHANE | 5.0 | 50 U | UG/L |
| 2-BUTANONE (MEK) | 10 | 100 U | UG/L |
| CARBON DISULFIDE | 10 | 100 U | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 50 U | UG/L |
| CHLOROBENZENE | 5.0 | 50 U | UG/L |
| CHLOROETHANE | 5.0 | 50 U | UG/L |
| CHLOROFORM | 5.0 | 50 U | UG/L |
| CHLOROMETHANE | 5.0 | 50 U | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 50 U | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 50 U | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 50 U | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 50 U | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 50 U | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 50 U | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 50 U | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 50 U | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 50 U | UG/L |
| ETHYLBENZENE | 5.0 | 50 U | UG/L |
| 2-HEXANONE | 10 | 100 U | UG/L |
| METHYLENE CHLORIDE | 5.0 | 50 U | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 100 U | UG/L |
| STYRENE | 5.0 | 50 U | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 50 U | UG/L |
| TETRACHLOROETHENE | 5.0 | 50 U | UG/L |
| TOLUENE | 5.0 | 50 U | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 50 U | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 50 U | UG/L |
| TRICHLOROETHENE | 5.0 | 1500 | UG/L |
| VINYL CHLORIDE | 5.0 | 50 U | UG/L |
| O-XYLENE | 5.0 | 50 U | UG/L |
| M+P-XYLENE | 5.0 | 50 U | UG/L |
| SURROGATE RECOVERIES | QC LIMITS | | |
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 88 | % |
| TOLUENE-D8 | (88 - 110 %) | 104 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 106 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/04/99

Harding Lawson Associates
 Project Reference: PRE-REMEDY GWMP
 Client Sample ID :TW17059901

Date Sampled : 05/06/99 Order #: 290957 Sample Matrix: WATER
 Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|--------------------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.0569 | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 134 | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 0.217 | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 28.2 | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 2.36 | MG/L | 05/26/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 51.6 | MG/L | 05/26/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/07/99 | 1.0 |
| CALCIUM HARDNESS | 1.25 | 334 | MG/L | | 0.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 7.01 | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 43.5 | MG/L | 05/20/99 | 10.0 |
| MAGNESIUM HARDNESS | 1.2 | 120 | MG/L | | 1.0 |
| NITRATE/NITRITE NITROGEN | 0.0500 | 0.859 | MG/L | 05/28/99 | 1.0 |
| SULFATE | 0.200 | 118 | MG/L | 05/20/99 | 40.0 |
| TOTAL ALKALINITY | 2.00 | 361 | MG/L | 05/20/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 617 | MG/L | 05/13/99 | 1.0 |
| TOTAL KJELDAHL NITROGEN | 0.200 | 0.200 U | MG/L | 05/13/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 1.95 | MG/L | 05/11/99 | 1.0 |
| TOTAL PHOSPHORUS | 0.0500 | 0.0500 U | MG/L | 05/14/99 | 1.0 |
| TOTAL SULFIDE | 1.00 | 1.00 U | MG/L | 05/11/99 | 1.0 |
| TOTAL SUSPENDED SOLIDS | 1.00 | 4.73 | MG/L | 05/13/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8015B GASES
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW17059901

Date Sampled : 05/06/99 Order #: 290957 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38061

| ANALYTE | PQL | RESULT | UNITS |
|---------------------------|-----|--------|-------|
| DATE ANALYZED : 05/11/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ETHANE | 1.0 | 1.0 U | UG/L |
| ETHYLENE | 1.0 | 1.0 U | UG/L |
| METHANE | 2.0 | 2.0 U | UG/L |
| PROPANE | 1.0 | 1.0 U | UG/L |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :TW17059901 SOLUBLE

Date Sampled : 05/06/99 Order #: 291041 Sample Matrix: WATER
Date Received: 05/07/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------|-----|--------|-------|---------------|---------------------|
|---------|-----|--------|-------|---------------|---------------------|

METALS

| | | | | | |
|------|-------|---------|------|----------|-----|
| IRON | 0.100 | 0.100 U | MG/L | 05/28/99 | 1.0 |
|------|-------|---------|------|----------|-----|

COLUMBIA ANALYTICAL SERVICES

Reported: 06/04/99

Harding Lawson Associates
 Project Reference: PRE - REMEDY GWMP
 Client Sample ID : TW17059901 DUP

Date Sampled : 05/06/99 Order #: 290969
 Date Received: 05/07/99 Submission #: 9905000079 Sample Matrix: WATER

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|--------------------------|---------|-----------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.0555 | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 131 | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 0.106 | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 27.6 | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 2.11 | MG/L | 05/27/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 51.6 | MG/L | 05/27/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/07/99 | 1.0 |
| CALCIUM HARDNESS | 1.25 | 327 | MG/L | | 0.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 7.01 | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 46.0 | MG/L | 05/20/99 | 10.0 |
| MAGNESIUM HARDNESS | 1.2 | 110 | MG/L | | 1.0 |
| NITRATE/NITRITE NITROGEN | 0.0500 | 0.847 | MG/L | 05/28/99 | 1.0 |
| SULFATE | 0.200 | 140 | MG/L | 05/20/99 | 40.0 |
| TOTAL ALKALINITY | 2.00 | 363 | MG/L | 05/20/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 644 | MG/L | 05/13/99 | 1.0 |
| TOTAL KJELDAHL NITROGEN | 0.200 | 0.200 U | MG/L | 05/13/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 1.86 | MG/L | 05/11/99 | 1.0 |
| TOTAL PHOSPHORUS | 0.0500 | 0.0500 U | MG/L | 05/14/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/04/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :TW17059901 DUP SOLUBLE

Date Sampled : 05/06/99 Order #: 291042 Sample Matrix: WATER
Date Received: 05/07/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------------|-------|---------|-------|---------------|---------------------|
| METALS | | | | | |
| IRON | 0.100 | 0.100 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW20059901

Date Sampled : 05/05/99 **Order #:** 291003 **Sample Matrix:** WATER
Date Received: 05/07/99 **Submission #:** 9905000079 **Analytical Run** 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|--------------|--------|-------|
| DATE ANALYZED | : 05/19/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 11 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |
| <hr/> | | | |
| SURROGATE RECOVERIES | QC LIMITS | | |
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 81 * | % |
| TOLUENE-D8 | (88 - 110 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 100 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW20059901

Date Sampled : 05/05/99 Order #: 291003 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/20/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 12 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 88 | % |
| TOLUENE-D8 | (88 - 110 %) | 109 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 107 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :TW20059901

Date Sampled : 05/05/99 Order #: 291003 Sample Matrix: WATER
Date Received: 05/07/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|-------------------|----------|------------|-------|---------------|---------------------|
| METALS MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE - REMEDY GWMP
Client Sample ID : TW69059901

Date Sampled : 05/05/99 Order #: 290995 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/17/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

SURROGATE RECOVERIES

| | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 87 | % |
| TOLUENE-D8 | (88 - 110 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 100 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :TW69059901

Date Sampled : 05/05/99 Order #: 290995 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------------|----------|----------|-------|---------------|---------------------|
| METALS | | | | | |
| MERCURY | 0.000300 | 0.000593 | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW74059901

Date Sampled : 05/05/99 Order #: 291002 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/19/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 18 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|------|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 83 * | % |
| TOLUENE-D8 | (88 - 110 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 100 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : TW74059901

Date Sampled : 05/05/99 Order #: 291002 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|--------------|--------|-------|
| DATE ANALYZED | : 05/20/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | U |
| BENZENE | 5.0 | 5.0 | U |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | U |
| BROMOFORM | 5.0 | 5.0 | U |
| BROMOMETHANE | 5.0 | 5.0 | U |
| 2 - BUTANONE (MEK) | 10 | 10 | U |
| CARBON DISULFIDE | 10 | 10 | U |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | U |
| CHLOROBENZENE | 5.0 | 5.0 | U |
| CHLOROETHANE | 5.0 | 5.0 | U |
| CHLOROFORM | 5.0 | 5.0 | U |
| CHLOROMETHANE | 5.0 | 5.0 | U |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | U |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | U |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | U |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | U |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | U |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | U |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | U |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | U |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | U |
| ETHYLBENZENE | 5.0 | 5.0 | U |
| 2 - HEXANONE | 10 | 10 | U |
| METHYLENE CHLORIDE | 5.0 | 5.0 | U |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | U |
| STYRENE | 5.0 | 5.0 | U |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | U |
| TETRACHLOROETHENE | 5.0 | 5.0 | U |
| TOLUENE | 5.0 | 5.0 | U |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | U |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | U |
| TRICHLOROETHENE | 5.0 | 19 | U |
| VINYL CHLORIDE | 5.0 | 5.0 | U |
| O-XYLENE | 5.0 | 5.0 | U |
| M+P-XYLENE | 5.0 | 5.0 | U |
| SURROGATE RECOVERIES | QC LIMITS | | |
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 88 | % |
| TOLUENE-D8 | (88 - 110 %) | 107 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 107 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE - REMEDY GWMP
Client Sample ID : TW74059901

Date Sampled : 05/05/99 Order #: 291002 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|-------------------|----------|---------|-------|------------------|------------------------|
| METALS MERCURY | 0.000300 | 0.00225 | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES**VOLATILE ORGANICS**

METHOD 8260B TCL

Reported: 06/03/99

Harding Lawson Associates

Project Reference: PRE-REMEDY GWMP

Client Sample ID : W1059901

Date Sampled : 05/04/99 Order #: 290482 Sample Matrix: WATER
 Date Received: 05/06/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/17/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

SURROGATE RECOVERIES**QC LIMITS**

| | | | |
|----------------------|--------------|----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 89 | % |
| TOLUENE-D8 | (88 - 110 %) | 96 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 98 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : W1059901

Date Sampled : 05/04/99 Order #: 290482 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|-------------------|----------|------------|-------|------------------|------------------------|
| METALS MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : W2059901

Date Sampled : 05/04/99 Order #: 290486 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|--------------|--------|-------|
| DATE ANALYZED | : 05/17/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |
| SURROGATE RECOVERIES | QC LIMITS | | |
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 90 | % |
| TOLUENE-D8 | (88 - 110 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 102 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/04/99

Harding Lawson Associates
 Project Reference: PRE-REMEDY GWMP
 Client Sample ID : W2059901

Date Sampled : 05/04/99 Order #: 290486 Sample Matrix: WATER
 Date Received: 05/06/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|--------------------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.0525 | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 33.6 | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 10.2 | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.0527 | MG/L | 05/25/99 | 1.0 |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 2.00 U | MG/L | 05/26/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 109 | MG/L | 05/26/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/06/99 | 1.0 |
| CALCIUM HARDNESS | 1.25 | 83.9 | MG/L | | 0.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 6.37 | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 5.70 | MG/L | 05/20/99 | 10.0 |
| MAGNESIUM HARDNESS | 1.2 | 42 | MG/L | | 1.0 |
| NITRATE/NITRITE NITROGEN | 0.0500 | 2.26 | MG/L | 05/28/99 | 2.0 |
| SULFATE | 0.200 | 43.2 | MG/L | 05/20/99 | 10.0 |
| TOTAL ALKALINITY | 2.00 | 307 | MG/L | 05/17/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 399 | MG/L | 05/11/99 | 1.0 |
| TOTAL KJELDAHL NITROGEN | 0.200 | 0.200 U | MG/L | 05/13/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 1.36 | MG/L | 05/11/99 | 1.0 |
| TOTAL PHOSPHORUS | 0.0500 | 0.0500 U | MG/L | 05/14/99 | 1.0 |
| TOTAL SULFIDE | 1.00 | 1.00 U | MG/L | 05/11/99 | 1.0 |
| TOTAL SUSPENDED SOLIDS | 1.00 | 1.00 U | MG/L | 05/11/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8015B GASES
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : W2059901

Date Sampled : 05/04/99 Order #: 290486 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079 Analytical Run 38061

| ANALYTE | PQL | RESULT | UNITS |
|---------------------------|-----|--------|-------|
| DATE ANALYZED : 05/11/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ETHANE | 1.0 | 1.0 U | UG/L |
| ETHYLENE | 1.0 | 1.0 U | UG/L |
| METHANE | 2.0 | 2.0 U | UG/L |
| PROPANE | 1.0 | 1.0 U | UG/L |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE - REMEDY GWMP
Client Sample ID :W2059901 SOLUBLE

Date Sampled : 05/04/99 Order #: 290528
Date Received: 05/06/99 Submission #:9905000079 Sample Matrix: WATER

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------------|-------|---------|-------|---------------|---------------------|
| METALS | | | | | |
| IRON | 0.100 | 0.100 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : W3059901

Date Sampled : 05/05/99 Order #: 290997 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/17/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | % |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 86 | % |
| TOLUENE-D8 | (88 - 110 %) | 99 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 102 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : W3059901

Date Sampled : 05/05/99 Order #: 290997 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : W4059901

Date Sampled : 05/05/99 Order #: 290990 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/17/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 87 | % |
| TOLUENE-D8 | (88 - 110 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 98 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE - REMEDY GWMP
Client Sample ID :W4059901

Date Sampled : 05/05/99 Order #: 290990 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------------|-----------------|-------------------|-------|---------------|---------------------|
| METALS | | | | | |
| MERCURY | 0 . 0 0 0 3 0 0 | 0 . 0 0 0 3 0 0 U | MG/L | 05/28/99 | 1 . 0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : W5059901

Date Sampled : 05/05/99 Order #: 291005 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|--------------|--------|-------|
| DATE ANALYZED | : 05/19/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 6.2 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 810 | E |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 41 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 1700 | E |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |
| SURROGATE RECOVERIES | QC LIMITS | | |
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 84 * | % |
| TOLUENE-D8 | (88 - 110 %) | 99 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 102 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : W5059901

Date Sampled : 05/05/99 Order #: 291005 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/21/99 | | | |
| ANALYTICAL DILUTION: 25.00 | | | |
| ACETONE | 20 | 500 | U |
| BENZENE | 5.0 | 130 | U |
| BROMODICHLOROMETHANE | 5.0 | 130 | U |
| BROMOFORM | 5.0 | 130 | U |
| BROMOMETHANE | 5.0 | 130 | U |
| 2-BUTANONE (MEK) | 10 | 250 | U |
| CARBON DISULFIDE | 10 | 250 | U |
| CARBON TETRACHLORIDE | 5.0 | 130 | U |
| CHLOROBENZENE | 5.0 | 130 | U |
| CHLOROETHANE | 5.0 | 130 | U |
| CHLOROFORM | 5.0 | 130 | U |
| CHLOROMETHANE | 5.0 | 130 | U |
| DIBROMOCHLOROMETHANE | 5.0 | 130 | U |
| 1,1-DICHLOROETHANE | 5.0 | 130 | U |
| 1,2-DICHLOROETHANE | 5.0 | 130 | U |
| 1,1-DICHLOROETHENE | 5.0 | 130 | U |
| CIS-1,2-DICHLOROETHENE | 5.0 | 840 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 130 | U |
| 1,2-DICHLOROPROPANE | 5.0 | 130 | U |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 130 | U |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 130 | U |
| ETHYLBENZENE | 5.0 | 130 | U |
| 2-HEXANONE | 10 | 250 | U |
| METHYLENE CHLORIDE | 5.0 | 130 | U |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 250 | U |
| STYRENE | 5.0 | 130 | U |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 130 | U |
| TETRACHLOROETHENE | 5.0 | 130 | U |
| TOLUENE | 5.0 | 130 | U |
| 1,1,1-TRICHLOROETHANE | 5.0 | 130 | U |
| 1,1,2-TRICHLOROETHANE | 5.0 | 130 | U |
| TRICHLOROETHENE | 5.0 | 3000 | UG/L |
| VINYL CHLORIDE | 5.0 | 130 | U |
| O-XYLENE | 5.0 | 130 | U |
| M+P-XYLENE | 5.0 | 130 | U |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 94 | % |
| TOLUENE-D8 | (88 - 110 %) | 101 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 98 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :W5059901

Date Sampled : 05/05/99 Order #: 291005
Date Received: 05/07/99 Submission #:9905000079 Sample Matrix: WATER

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : W6059901

Date Sampled : 05/05/99 Order #: 290991 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/17/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 86 | % |
| TOLUENE-D8 | (88 - 110 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 102 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE - REMEDY GWMP
Client Sample ID :W6059901

Date Sampled : 05/05/99 Order #: 290991 Sample Matrix: WATER
Date Received: 05/07/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : QABR01

Date Sampled : 05/06/99 **Order #:** 290956 **Sample Matrix:** WATER
Date Received: 05/07/99 **Submission #:** 9905000079 **Analytical Run** 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/19/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 14 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 86 | % |
| TOLUENE-D8 | (88 - 110 %) | 105 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 106 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/04/99

Harding Lawson Associates
 Project Reference: PRE - REMEDY GWMP
 Client Sample ID : QABR01

Date Sampled : 05/06/99 Order #: 290956
 Date Received: 05/07/99 Submission #: 9905000079 Sample Matrix: WATER

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|--------------------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| ALUMINUM | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| ANTIMONY | 0.0600 | 0.0600 U | MG/L | 05/25/99 | 1.0 |
| ARSENIC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| BARIUM | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| BERYLLIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CADMIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| CALCIUM | 0.500 | 0.500 U | MG/L | 05/25/99 | 1.0 |
| CHROMIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| COBALT | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| COPPER | 0.0200 | 0.0200 U | MG/L | 05/25/99 | 1.0 |
| IRON | 0.100 | 0.100 U | MG/L | 05/25/99 | 1.0 |
| LEAD | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| MAGNESIUM | 0.500 | 0.500 U | MG/L | 05/25/99 | 1.0 |
| MANGANESE | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |
| NICKEL | 0.0400 | 0.0400 U | MG/L | 05/25/99 | 1.0 |
| POTASSIUM | 2.00 | 2.00 U | MG/L | 05/26/99 | 1.0 |
| SELENIUM | 0.00500 | 0.00500 U | MG/L | 05/25/99 | 1.0 |
| SILVER | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| SODIUM | 0.500 | 0.500 U | MG/L | 05/26/99 | 1.0 |
| THALLIUM | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| VANADIUM | 0.0500 | 0.0500 U | MG/L | 05/25/99 | 1.0 |
| ZINC | 0.0100 | 0.0100 U | MG/L | 05/25/99 | 1.0 |
| WET CHEMISTRY | | | | | |
| BOD-5 | 2.00 | 2.00 U | MG/L | 05/07/99 | 1.0 |
| CALCIUM HARDNESS | 1.25 | 1.13 | MG/L | | 0.0 |
| CHEMICAL OXYGEN DEMAND | 5.00 | 5.00 U | MG/L | 05/28/99 | 1.0 |
| CHLORIDE | 0.100 | 1.00 U | MG/L | 05/20/99 | 10.0 |
| MAGNESIUM HARDNESS | 1.2 | 1.20 U | MG/L | | 1.0 |
| NITRATE/NITRITE NITROGEN | 0.0500 | 0.176 | MG/L | 05/28/99 | 1.0 |
| SULFATE | 0.200 | 3.78 | MG/L | 05/20/99 | 10.0 |
| TOTAL ALKALINITY | 2.00 | 2.00 U | MG/L | 05/20/99 | 1.0 |
| TOTAL DISSOLVED SOLIDS | 10.0 | 10.0 U | MG/L | 05/13/99 | 1.0 |
| TOTAL KJELDAHL NITROGEN | 0.200 | 0.200 U | MG/L | 05/13/99 | 1.0 |
| TOTAL ORGANIC CARBON | 1.00 | 1.0 U | MG/L | 05/11/99 | 1.0 |
| TOTAL PHOSPHORUS | 0.0500 | 0.0500 U | MG/L | 05/14/99 | 1.0 |
| TOTAL SULFIDE | 1.00 | 1.00 U | MG/L | 05/11/99 | 1.0 |
| TOTAL SUSPENDED SOLIDS | 1.00 | 1.00 U | MG/L | 05/13/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8015B GASES
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : QABR01

Date Sampled : 05/06/99 Order #: 290956 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38061

| ANALYTE | PQL | RESULT | UNITS |
|---------------------------|-----|--------|-------|
| DATE ANALYZED : 05/11/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ETHANE | 1.0 | 1.0 U | UG/L |
| ETHYLENE | 1.0 | 1.0 U | UG/L |
| METHANE | 2.0 | 2.0 U | UG/L |
| PROPANE | 1.0 | 1.0 U | UG/L |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :QABR01 SOLUBLE

Date Sampled : 05/06/99 Order #: 291040
Date Received: 05/07/99 Submission #: 9905000079 Sample Matrix: WATER

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------------|-------|---------|-------|------------------|------------------------|
| METALS | | | | | |
| IRON | 0.100 | 0.100 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : QABR02

Date Sampled : 05/06/99 Order #: 290974 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/20/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | % |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 95 | % |
| TOLUENE-D8 | (88 - 110 %) | 100 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 97 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :QABR02

Date Sampled : 05/06/99 Order #: 290974 Sample Matrix: WATER
Date Received: 05/07/99 Submission #:9905000079

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------------|-----------------|-------------------|-------|---------------|---------------------|
| METALS | | | | | |
| MERCURY | 0 . 0 0 0 3 0 0 | 0 . 0 0 0 3 0 0 U | MG/L | 05/28/99 | 1 . 0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : QAFB01

Date Sampled : 05/06/99 Order #: 290972 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/20/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS |
|----------------------|-----------|
|----------------------|-----------|

| | | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 89 | % |
| TOLUENE-D8 | (88 - 110 %) | 105 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 107 | % |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE -REMEDY GWMP
Client Sample ID :QAFB01

Date Sampled : 05/06/99 Order #: 290972
Date Received: 05/07/99 Submission #:9905000079 Sample Matrix: WATER

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates

Project Reference: PRE-REMEDY GWMP

Client Sample ID : QAFB02

Date Sampled : 05/06/99 Order #: 290973 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|------------|--------|-------|
| DATE ANALYZED | : 05/20/99 | | |
| ANALYTICAL DILUTION: | 1.00 | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2 - BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1 - DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2 - DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1 - DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2 - HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | % |
|----------------------|--------------|-----|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 94 |
| TOLUENE-D8 | (88 - 110 %) | 100 |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 98 |

COLUMBIA ANALYTICAL SERVICES

Reported: 06/03/99

Harding Lawson Associates
Project Reference:PRE-REMEDY GWMP
Client Sample ID :QAFB02

Date Sampled : 05/06/99 Order #: 290973
Date Received: 05/07/99 Submission #:9905000079 Sample Matrix: WATER

| ANALYTE | PQL | RESULT | UNITS | DATE ANALYZED | ANALYTICAL DILUTION |
|---------------|----------|------------|-------|---------------|---------------------|
| METALS | | | | | |
| MERCURY | 0.000300 | 0.000300 U | MG/L | 05/28/99 | 1.0 |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : QATB01

Date Sampled : 05/04/99 Order #: 290490 Sample Matrix: WATER
Date Received: 05/06/99 Submission #: 9905000079 Analytical Run 38683

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/17/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 88 | % |
| TOLUENE-D8 | (88 - 110 %) | 97 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 101 | % |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/03/99

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP
Client Sample ID : QATB02

Date Sampled : 05/06/99 Order #: 290970 Sample Matrix: WATER
Date Received: 05/07/99 Submission #: 9905000079 Analytical Run 38690

| ANALYTE | PQL | RESULT | UNITS |
|-----------------------------|-----|--------|-------|
| DATE ANALYZED : 05/20/99 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| ACETONE | 20 | 20 | UG/L |
| BENZENE | 5.0 | 5.0 | UG/L |
| BROMODICHLOROMETHANE | 5.0 | 5.0 | UG/L |
| BROMOFORM | 5.0 | 5.0 | UG/L |
| BROMOMETHANE | 5.0 | 5.0 | UG/L |
| 2-BUTANONE (MEK) | 10 | 10 | UG/L |
| CARBON DISULFIDE | 10 | 10 | UG/L |
| CARBON TETRACHLORIDE | 5.0 | 5.0 | UG/L |
| CHLOROBENZENE | 5.0 | 5.0 | UG/L |
| CHLOROETHANE | 5.0 | 5.0 | UG/L |
| CHLOROFORM | 5.0 | 5.0 | UG/L |
| CHLOROMETHANE | 5.0 | 5.0 | UG/L |
| DIBROMOCHLOROMETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.0 | UG/L |
| 1,2-DICHLOROPROPANE | 5.0 | 5.0 | UG/L |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.0 | UG/L |
| ETHYLBENZENE | 5.0 | 5.0 | UG/L |
| 2-HEXANONE | 10 | 10 | UG/L |
| METHYLENE CHLORIDE | 5.0 | 5.0 | UG/L |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 10 | UG/L |
| STYRENE | 5.0 | 5.0 | UG/L |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.0 | UG/L |
| TETRACHLOROETHENE | 5.0 | 5.0 | UG/L |
| TOLUENE | 5.0 | 5.0 | UG/L |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.0 | UG/L |
| TRICHLOROETHENE | 5.0 | 5.0 | UG/L |
| VINYL CHLORIDE | 5.0 | 5.0 | UG/L |
| O-XYLENE | 5.0 | 5.0 | UG/L |
| M+P-XYLENE | 5.0 | 5.0 | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|----------------------|--------------|-----|---|
| 4-BROMOFLUOROBENZENE | (86 - 115 %) | 97 | % |
| TOLUENE-D8 | (88 - 110 %) | 100 | % |
| DIBROMOFLUOROMETHANE | (86 - 118 %) | 98 | % |