PRE-REMEDY GROUNDWATER MONITORING REPORT MAY 2000 SAMPLING EVENT

FORMER TAYLOR INSTRUMENTS SITE
ROCHESTER, NEW YORK

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COMBUSTION ENGINEERING
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May 2000 Sampling Event
Former Taylor Instruments Site
Rochester, New York

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LIST OF ACRONYMS

µg/L	micrograms per liter
COC	contaminants of concern
ELAP	Environmental Laboratory Accreditation Program
HLA	Harding Lawson Associates
LCS	laboratory control sample
mL/min	milliliters per minute
MS/MSD	matrix spike/matrix spike duplicate
NYSDEC	New York State Department of Environmental Conservation
RPD	relative percent difference
TCE	trichloroethene
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

1.0 INTRODUCTION

This report summarizes activities and results for the fourth tri-annual groundwater sampling event 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) was onsite to collect groundwater samples from selected monitoring wells at the Former Taylor Instruments Site from April 30 to May 4, 2000. Sampling was accomplished in accordance with the work plan for the Pre-Remedy Groundwater Monitoring Program (HLA, 1999). The wells associated with the groundwater monitoring plan are listed in Table 2-1. Figure 1 (Appendix A) shows the site boundary and locations of monitoring wells.

Table 2-1
Wells Sampled for VOC Analyses
May 2000 Sampling Event

Pre-Remedy Groundwater Monitoring Report
May 2000 Sampling Event
Former Taylor Instruments Site
Rochester, New York

Well ID	Well Type
BR-01	Bedrock
BR-02	Bedrock
BR-03	Bedrock
BR-04	Bedrock
BR-05	Bedrock
BR-07	Bedrock
OB-04	Overburden
OB-05	Overburden
MW-00	Overburden
TW-01	Overburden
TW-04	Overburden
TW-07	Overburden
TW-09	Overburden
TW-13	Overburden
TW-17	Overburden
TW-20	Overburden
W-4	Overburden
W-5	Overburden
W-6	Overburden

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, dissolved oxygen, and oxygen reduction potential were collected during purging. Purge and sample data can be found on the field data records (Appendix B).

3.0 SUMMARY OF RESULTS

The following paragraphs report the volatile organic compound (VOC) results of the May 2000 sampling event. VOC results for bedrock and overburden groundwater samples can be seen in Figures 2 and 3 (Appendix A). Data tables presenting analytical parameters from groundwater sampling events conducted in September 1997, October 1997, May 1999, September 1999, and January 2000 were presented in the Pre-Remedy Groundwater Monitoring Report for the January 2000 Sampling Event, submitted in February 2000 (HLA, 2000).

3.1 VOLATILE ORGANIC COMPOUND RESULTS

3.1.1 Overburden Wells

Thirteen overburden wells were sampled during the May 2000 Groundwater Sampling Event and analyzed for VOCs. Figure 2 (Appendix A) summarizes historic (beginning in 1999) and current concentrations detected in groundwater by well location. Laboratory analytical reports are provided in Appendix D.

Trichloroethene (TCE) is the predominant site-related VOC historically detected in the groundwater at the Former Taylor Instruments Site. TCE was reported in samples from eight of the thirteen overburden wells that were sampled in May 2000. TCE was reported at highest concentrations in samples from OB-04 (30,000 micrograms per liter [µg/L] and OB-05 (18,000 µg/L). These wells are located within the two known TCE source areas. Concentrations of TCE reported in downgradient site perimeter wells ranged from nondetect (<5.0 µg/L) to 660 µg/L (TW-17). TCE was not detected in the upgradient well (W-6) that was sampled during this event. An interpretive potentiometric surface map for shallow-overburden groundwater is presented on Figure 4 (Appendix A).

Other VOCs detected (and the range of reported concentrations) included biotic transformation products of TCE: cis-1,2-dichloroethene was reported in three wells (from 8.3 µg/L [TW-09] to 2,100 µg/L [OB-05]), and trans-1,2-dichloroethene was reported in one well (15 µg/L [W-5]). No VOCs were detected in the upgradient well that was sampled during the May 2000 event.

Compounds identified in the May 2000 sampling event are consistent with historical sampling data. Concentrations of TCE show a moderate decrease at both of the source areas OB-04 and OB-05 when compared to the January 2000 levels. TCE also decreased in perimeter wells TW-04, TW-07, TW-09, and W-5, while increasing slightly in perimeter wells TW-17 and TW-20. Concentrations of biotic transformation products have changed in several wells: cis-1,2-dichloroethene increased in source area well OB-05 and decreased in perimeter wells TW-09 and W-5; trans-1,2-dichloroethene was detected in perimeter well W-5 at a concentration of 15 µg/L and decreased in perimeter well TW-07 to below the detection limit of 5 µg/L; and vinyl chloride decreased to below the detection limit of 5 µg/L in perimeter well MW-00.

3.1.2 Bedrock Wells

Six of the seven bedrock wells at the site were sampled and analyzed for VOCs. TCE was detected in five of the wells. TCE was detected in source area wells BR-04 and BR-05 at concentrations of 5,000 and 2,000 µg/L, respectively. Concentrations of TCE reported in downgradient site perimeter wells ranged from nondetect (<5.0 µg/L) to 620 µg/L (BR-01). Figure 3 (Appendix A) summarizes historic (beginning in 1999) and current concentrations detected in groundwater by well location.

Other VOCs detected (and the range of reported concentrations) included the TCE biotic transformation products: cis-1,2-dichloroethene was detected in all six bedrock wells sampled (from 8.6 µg/L [BR-03] to 1,100 µg/L [BR-01 and BR-05]), trans-1,2-dichloroethene was detected in two wells (13 µg/L [BR-02] and 88 µg/L [BR-05]), and vinyl chloride was detected in two wells (49 µg/L [BR-07] and 120 µg/L [BR-05]).

Compounds identified in the May 2000 sampling event are consistent with historical sampling data. The concentration of TCE has shown a slight increase in bedrock wells BR-04 and BR-05 in the source areas in comparison to the January 2000 results. TCE also increased in perimeter wells BR-01, BR-02, and BR-03 and decreased to below the detection limit of 5 µg/L in perimeter well BR-07. Concentrations of biotic transformation products changed in several wells: cis-1,2-dichloroethene increased in both source area wells BR-04 and BR-05, increased in perimeter wells BR-02 and BR-03, decreased in perimeter well BR-07, and was present at the same concentration as during the January 2000 event in perimeter well BR-01; trans-1,2-dichloroethene was detected in source area well BR-05 at 88 µg/L, increased in perimeter well BR-02, and decreased in perimeter well BR-07 to below the detection limit of 5 µg/L; and vinyl chloride increased in source area well BR-05, increased in perimeter well BR-07, and reported as nondetect (<5.0 µg/L) in perimeter well BR-02.

4.0 ANALYTICAL PROGRAM

Groundwater samples during the May 2000 sampling event were analyzed by Columbia Analytical Services, Rochester, New York, for VOC analyses by U.S. Environmental Protection Agency (USEPA) 8260B. The chain of custody forms are located in Appendix C.

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

- precision and accuracy
- representativeness
- completeness
- comparability

4.1 ANALYTICAL PRECISION AND ACCURACY

4.1.1 Volatile Organic Compounds

All the initial and continuing calibration criteria were met for all analytes by the laboratory.

All surrogate standard recoveries were within acceptance limits for all samples; therefore, no qualifications were necessary.

The matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample TW130500 from well TW-13. 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.

Water samples BR0100500, BR010500D, BR040500, BR050500, OB040500, OB050500, and TW170500 were analyzed at dilutions based on historical or screening data to bring target analytes within the calibration range of the method. Samples BR020500, BR030500, and W50500 were reanalyzed at higher dilutions to bring target analytes within the calibration range of the method. No qualifications were necessary. The laboratory data reports are located in Appendix D.

4.2 ANALYTICAL REPRESENTATIVENESS

4.2.1 Volatile Organic Compounds

All method blanks, reinstate blanks, and field blanks 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 2000 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. Site remedial activities are anticipated to begin in the second and third quarter of this calendar year.

6.0 REFERENCES

HLA, 1999. *Pre-Remedy Groundwater Program Work Plan* (April).

HLA, 2000. *Pre-Remedy Groundwater Monitoring Report, January 2000 Sampling Event.*

New York State Department of Environmental Conservation (NYSDEC), 1992. *Division of Hazardous Substances Regulation, Bureau of Technical Support, TAGM 3028 (November).*

NYSDEC, 1997. *Voluntary Cleanup Agreement Taylor Instruments Site #828028a* (November).

USEPA, 1994. *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review.*

APPENDIX A

FIGURES

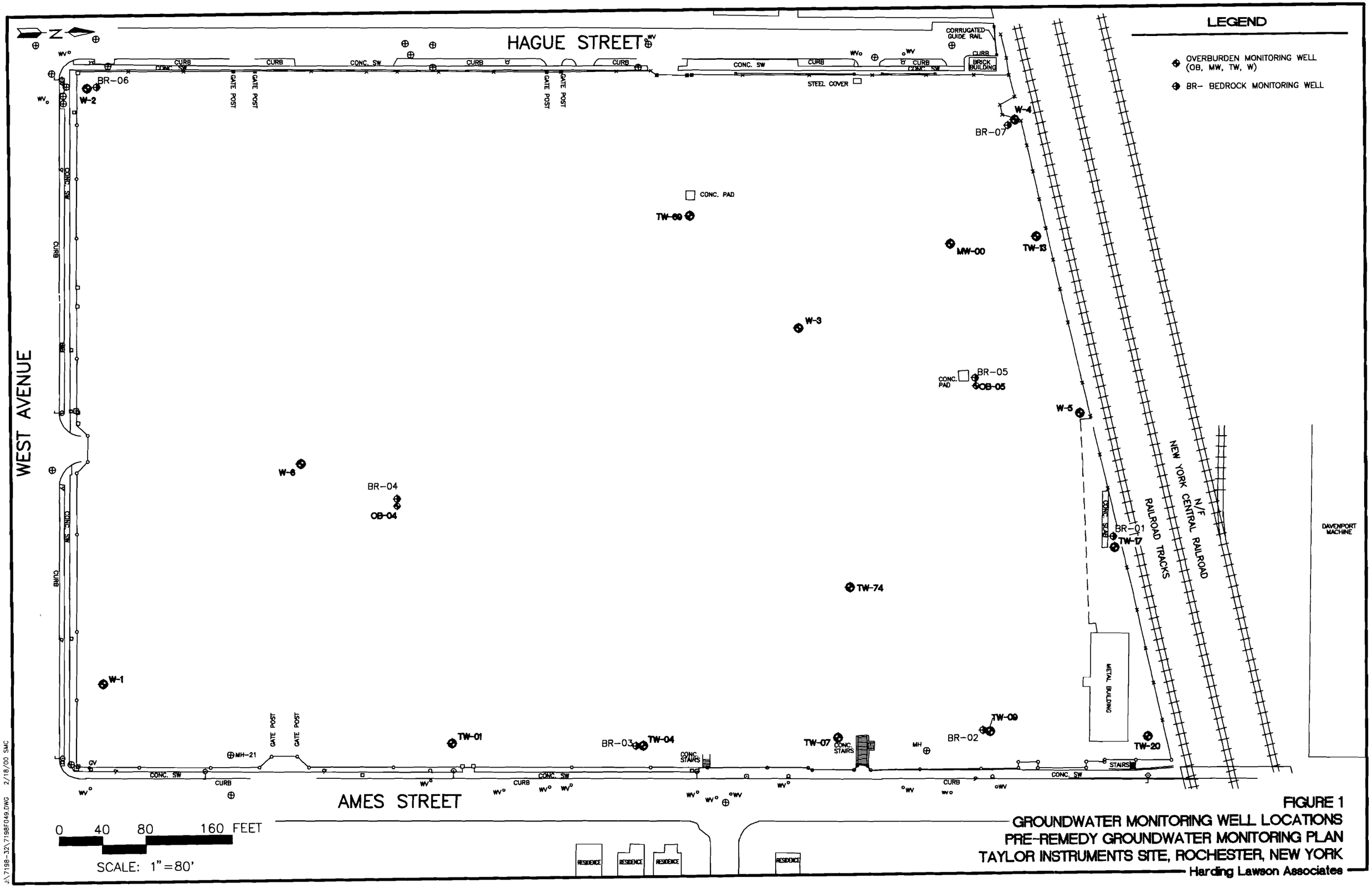

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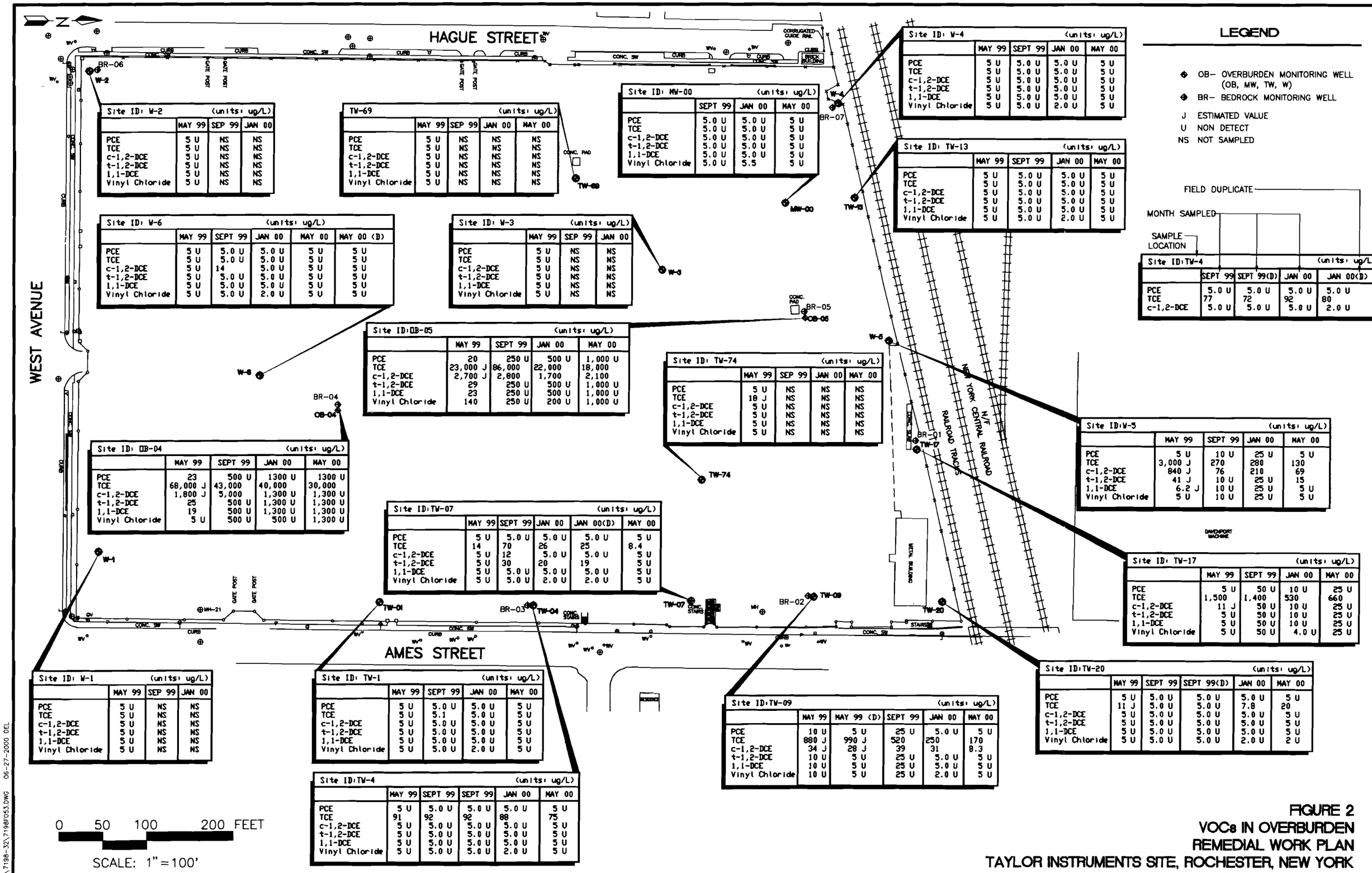
FIGURE 1
GROUNDWATER MONITORING WELL LOCATIONS
PRE-REMEDY GROUNDWATER MONITORING PLAN
TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK
Harding Lawson Associates



Site ID: W-2	(units: ug/L)		
	MAY 99	SEP 99	JAN 00
PCE	5 U	NS	NS
TCE	5 U	NS	NS
c-1,2-DCE	5 U	NS	NS
t-1,2-DCE	5 U	NS	NS
1,1-DCE	5 U	NS	NS
Vinyl Chloride	5 U	NS	NS

TW-69	(units: ug/L)			
	MAY 99	SEP 99	JAN 00	MAY 00
PCE	5 U	NS	NS	NS
TCE	5 U	NS	NS	NS
c-1,2-DCE	5 U	NS	NS	NS
t-1,2-DCE	5 U	NS	NS	NS
1,1-DCE	5 U	NS	NS	NS
Vinyl Chloride	5 U	NS	NS	NS

Site ID: MW-00	(units: ug/L)		
	SEPT 99	JAN 00	MAY 00
PCE	5.0 U	5.0 U	5 U
TCE	5.0 U	5.0 U	5 U
c-1,2-DCE	5.0 U	5.0 U	5 U
t-1,2-DCE	5.0 U	5.0 U	5 U
1,1-DCE	5.0 U	5.0 U	5 U
Vinyl Chloride	5.0 U	5.5	5 U

Site ID: W-4	(units: ug/L)			
	MAY 99	SEPT 99	JAN 00	MAY 00
PCE	5 U	5.0 U	5.0 U	5 U
TCE	5 U	5.0 U	5.0 U	5 U
c-1,2-DCE	5 U	5.0 U	5.0 U	5 U
t-1,2-DCE	5 U	5.0 U	5.0 U	5 U
1,1-DCE	5 U	5.0 U	5.0 U	5 U
Vinyl Chloride	5 U	5.0 U	2.0 U	5 U

Site ID: TW-13	(units: ug/L)			
	MAY 99	SEPT 99	JAN 00	MAY 00
PCE	5 U	5.0 U	5.0 U	5 U
TCE	5 U	5.0 U	5.0 U	5 U
c-1,2-DCE	5 U	5.0 U	5.0 U	5 U
t-1,2-DCE	5 U	5.0 U	5.0 U	5 U
1,1-DCE	5 U	5.0 U	5.0 U	5 U
Vinyl Chloride	5 U	5.0 U	2.0 U	5 U

LEGEND

- OB– OVERBURDEN MONITORING WELL (OB, MW, TW, W)
- BR– BEDROCK MONITORING WELL
- J ESTIMATED VALUE
- U NON DETECT
- NS NOT SAMPLED

FIELD DUPLICATE
MONTH SAMPLED
SAMPLE LOCATION

Site ID: TW-4	(units: ug/L)			
	SEPT 99	SEPT 99(D)	JAN 00	JAN 00(D)
PCE	5.0 U	5.0 U	5.0 U	5.0 U
TCE	77	72	92	80
c-1,2-DCE	5.0 U	5.0 U	5.0 U	2.0 U

Site ID: W-6	(units: ug/L)				
	MAY 99	SEPT 99	JAN 00	MAY 00	MAY 00 (D)
PCE	5 U	5.0 U	5.0 U	5 U	5 U
TCE	5 U	5.0 U	5.0 U	5 U	5 U
c-1,2-DCE	5 U	14	5.0 U	5 U	5 U
t-1,2-DCE	5 U	5.0 U	5.0 U	5 U	5 U
1,1-DCE	5 U	5.0 U	5.0 U	5 U	5 U
Vinyl Chloride	5 U	5.0 U	2.0 U	5 U	5 U

Site ID: W-3	(units: ug/L)		
	MAY 99	SEP 99	JAN 00
PCE	5 U	NS	NS
TCE	5 U	NS	NS
c-1,2-DCE	5 U	NS	NS
t-1,2-DCE	5 U	NS	NS
1,1-DCE	5 U	NS	NS
Vinyl Chloride	5 U	NS	NS

Site ID: OB-05	(units: ug/L)			
	MAY 99	SEPT 99	JAN 00	MAY 00
PCE	20	250 U	500 U	1,000 U
TCE	23,000 J	86,000	22,000	18,000
c-1,2-DCE	2,700 J	2,800	1,700	2,100
t-1,2-DCE	29	250 U	500 U	1,000 U
1,1-DCE	23	250 U	500 U	1,000 U
Vinyl Chloride	140	250 U	200 U	1,000 U

Site ID: TW-74	(units: ug/L)			
	MAY 99	SEP 99	JAN 00	MAY 00
PCE	5 U	NS	NS	NS
TCE	18 J	NS	NS	NS
c-1,2-DCE	5 U	NS	NS	NS
t-1,2-DCE	5 U	NS	NS	NS
1,1-DCE	5 U	NS	NS	NS
Vinyl Chloride	5 U	NS	NS	NS

Site ID: OB-04	(units: ug/L)			
	MAY 99	SEPT 99	JAN 00	MAY 00
PCE	23	500 U	1300 U	1300 U
TCE	68,000 J	43,000	40,000	30,000
c-1,2-DCE	1,800 J	5,000	1,300 U	1,300 U
t-1,2-DCE	25	500 U	1,300 U	1,300 U
1,1-DCE	19	500 U	1,300 U	1,300 U
Vinyl Chloride	5 U	500 U	500 U	1,300 U

Site ID: W-5	(units: ug/L)			
	MAY 99	SEPT 99	JAN 00	MAY 00
PCE	5 U	10 U	25 U	5 U
TCE	3,000 J	270	280	130
c-1,2-DCE	840 J	76	210	69
t-1,2-DCE	41 J	10 U	25 U	15
1,1-DCE	6.2 J	10 U	25 U	5 U
Vinyl Chloride	5 U	10 U	25 U	5 U

Site ID: TW-07	(units: ug/L)				
	MAY 99	SEPT 99	JAN 00	JAN 00(D)	MAY 00
PCE	5 U	5.0 U	5.0 U	5.0 U	5 U
TCE	14	70	26	25	8.4
c-1,2-DCE	5 U	12	5.0 U	5.0 U	5 U
t-1,2-DCE	5 U	30	20	19	5 U
1,1-DCE	5 U	5.0 U	5.0 U	5.0 U	5 U
Vinyl Chloride	5 U	5.0 U	2.0 U	2.0 U	5 U

Site ID: TW-17	(units: ug/L)			
	MAY 99	SEPT 99	JAN 00	MAY 00
PCE	5 U	50 U	10 U	25 U
TCE	1,500	1,400	530	660
c-1,2-DCE	11 J	50 U	10 U	25 U
t-1,2-DCE	5 U	50 U	10 U	25 U
1,1-DCE	5 U	50 U	10 U	25 U
Vinyl Chloride	5 U	50 U	4.0 U	25 U

Site ID: W-1	(units: ug/L)		
	MAY 99	SEP 99	JAN 00
PCE	5 U	NS	NS
TCE	5 U	NS	NS
c-1,2-DCE	5 U	NS	NS
t-1,2-DCE	5 U	NS	NS
1,1-DCE	5 U	NS	NS
Vinyl Chloride	5 U	NS	NS

Site ID: TW-1	(units: ug/L)			
	MAY 99	SEPT 99	JAN 00	MAY 00
PCE	5 U	5.0 U	5.0 U	5 U
TCE	5 U	5.1	5.0 U	5 U
c-1,2-DCE	5 U	5.0 U	5.0 U	5 U
t-1,2-DCE	5 U	5.0 U	5.0 U	5 U
1,1-DCE	5 U	5.0 U	5.0 U	5 U
Vinyl Chloride	5 U	5.0 U	2.0 U	5 U

Site ID: TW-4	(units: ug/L)				
	MAY 99	SEPT 99	SEPT 99	JAN 00	MAY 00
PCE	5 U	5.0 U	5.0 U	5.0 U	5 U
TCE	91	92	92	88	75
c-1,2-DCE	5 U	5.0 U	5.0 U	5.0 U	5 U
t-1,2-DCE	5 U	5.0 U	5.0 U	5.0 U	5 U
1,1-DCE	5 U	5.0 U	5.0 U	5.0 U	5 U
Vinyl Chloride	5 U	5.0 U	5.0 U	2.0 U	5 U

Site ID: TW-09	(units: ug/L)				
	MAY 99	MAY 99 (D)	SEPT 99	JAN 00	MAY 00
PCE	10 U	5 U	25 U	5.0 U	5 U
TCE	880 J	990 J	520	250	170
c-1,2-DCE	34 J	28 J	39	31	8.3
t-1,2-DCE	10 U	5 U	25 U	5.0 U	5 U
1,1-DCE	10 U	5 U	25 U	5.0 U	5 U
Vinyl Chloride	10 U	5 U	25 U	2.0 U	5 U

Site ID: TW-20	(units: ug/L)				
	MAY 99	SEPT 99	SEPT 99(D)	JAN 00	MAY 00
PCE	5 U	5.0 U	5.0 U	5.0 U	5 U
TCE	11 J	5.0 U	5.0 U	7.8	20
c-1,2-DCE	5 U	5.0 U	5.0 U	5.0 U	5 U
t-1,2-DCE	5 U	5.0 U	5.0 U	5.0 U	5 U
1,1-DCE	5 U	5.0 U	5.0 U	5.0 U	5 U
Vinyl Chloride	5 U	5.0 U	5.0 U	2.0 U	2 U

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FIGURE 2
VOCs IN OVERBURDEN
REMEDIAL WORK PLAN
TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK
Harding Lawson Associates

HAGUE STREET

WEST AVENUE

AMES STREET

NEW YORK CENTRAL RAILROAD N/F RAILROAD TRACKS

DAVENPORT MACHINE

METAL BUILDING

BRICK BUILDING

CORRUGATED GUIDE RAIL

STEEL COVER

CONC. PAD

CONC. STAIRS

STAIRS

RESIDENCE

LEGEND

- OB- OVERBURDEN MONITORING WELL (OB, MW, TW, W)
- BR- BEDROCK MONITORING WELL
- J ESTIMATED VALUE
- U NON DETECT
- NS NOT SAMPLED

FIELD DUPLICATE
MONTH SAMPLED
SAMPLE LOCATION

Site ID: TW-4 (units: ug/L)

	SEPT 99	SEPT 99(D)	JAN 00	JAN 00(D)
PCE	5.0 U	5.0 U	5.0 U	5.0 U
TCE	77	72	92	80
c-1,2-DCE	5.0 U	5.0 U	5.0 U	2.0 U

Site ID: BR-06 (units: ug/L)

	MAY 99	SEP 99	JAN 00	MAY 00
PCE	5 U	NS	NS	NS
TCE	5 U	NS	NS	NS
c-1,2-DCE	5 U	NS	NS	NS
t-1,2-DCE	5 U	NS	NS	NS
1,1-DCE	5 U	NS	NS	NS
Vinyl Chloride	5 U	NS	NS	NS

Site ID: BR-07 (units: ug/L)

	MAY 99	SEPT 99	SEPT 99(D)	JAN 00	MAY 00
PCE	5 U	13 U	13 U	5.0 U	5 U
TCE	5.4	13 U	13 U	7.2	5 U
c-1,2-DCE	53	32	33	21	9.7
t-1,2-DCE	5.9	13 U	13 U	7.6	5 U
1,1-DCE	5 U	13 U	13 U	5.0 U	5 U
Vinyl Chloride	360 J	340	350	2.0 U	49

Site ID: BR-04 (units: ug/L)

	MAY 99	MAY 99(D)	SEPT 99	JAN 00	MAY 00
PCE	50 U	50 U	100 U	130 U	130 U
TCE	2,100 J	2,100 J	9,900	4500	5000
c-1,2-DCE	160	210	690	590	770
t-1,2-DCE	50 U	50 U	100 U	130 U	130 U
1,1-DCE	50 U	50 U	100 U	130 U	130 U
Vinyl Chloride	50 U	50 U	100 U	50 U	50 U

Site ID: BR-05 (units: ug/L)

	MAY 99	SEPT 99	JAN 00	MAY 00
PCE	5 U	100 U	100 U	50 U
TCE	6,700	3,500	1900	2000
c-1,2-DCE	440	1,400	980	1100
t-1,2-DCE	84 J	100 U	100 U	88
1,1-DCE	23 J	100 U	100 U	50 U
Vinyl Chloride	95 J	120	80	120

Site ID: BR-01 (units: ug/L)

	MAY 99	SEPT 99	JAN 00	MAY 00	MAY 00(D)
PCE	5 U	50 U	50 U	50 U	25 U
TCE	1,800	940	400	620	570
c-1,2-DCE	320	1,800	1100	1100	930
t-1,2-DCE	5 U	50 U	50 U	50 U	25 U
1,1-DCE	5 U	50 U	50 U	50 U	25 U
Vinyl Chloride	5 U	50 U	20 U	50 U	25 U

Site ID: BR-03 (units: ug/L)

	MAY 99	SEPT 99	JAN 00	MAY 00
PCE	5 U	5.0 U	5.0 U	5 U
TCE	420 J	56	240	560
c-1,2-DCE	5.5	5.0 U	8.0	8.6
t-1,2-DCE	5 U	5.0 U	5.0 U	5 U
1,1-DCE	5 U	5.0 U	5.0 U	5 U
Vinyl Chloride	5 U	5.0 U	2.0 U	5 U

Site ID: BR-02 (units: ug/L)

	MAY 99	SEPT 99	JAN 00	JAN 00(D)	MAY 00
PCE	5 U	10 U	5.0 U	5.0 U	5 U
TCE	3,300 J	300	150	150	350
c-1,2-DCE	1,200 J	56	50	47	62
t-1,2-DCE	24	13	6.6	6.1	13
1,1-DCE	6.0	10 U	5.0 U	5.0 U	5 U
Vinyl Chloride	5 U	10 U	2.7	2.6	5 U

0 40 80 160 FEET

SCALE: 1"=80'

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FIGURE 3
VOCs IN BEDROCK
REMEDIAL WORK PLAN
TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK
Harding Lawson Associates

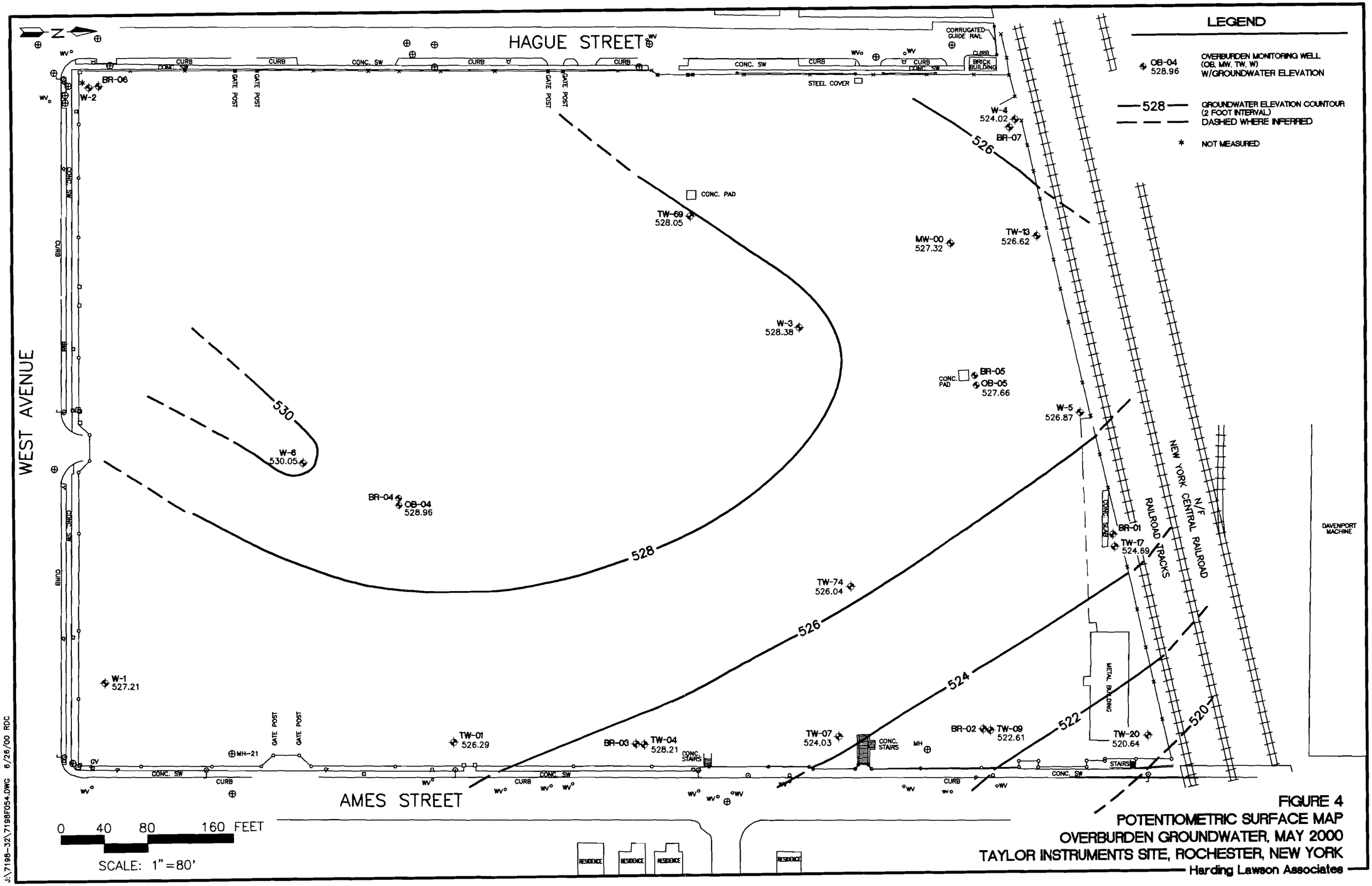

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FIGURE 4
POTENTIOMETRIC SURFACE MAP
OVERBURDEN GROUNDWATER, MAY 2000
TAYLOR INSTRUMENTS SITE, ROCHESTER, NEW YORK
Harding Lawson Associates

APPENDIX B

FIELD SAMPLE RECORDS

HARDING LAWSON ASSOCIATES

PAGE 1 OF 1

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring

JOB NUMBER: 44836 - 0719841

DATE: 050300

WELL ID: BR-01

ACTIVITY

TIME START 0800 END 0903

BOTTLE TIME: 0854, 0859

SAMPLE ID: BR010500

☑ QC SAMPLES COLLECTED

DUPLICATE ID: BR010500D

MS ID:

MSD ID:

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	42.2 FT	HISTORICAL WELL DEPTH	42.2 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	2.48 FT	PROTECTIVE CASING / WELL DIFFERENCE	NA FT
DEPTH TO WATER	11.03 FT	SCREEN LENGTH	20 FT	WELL DIAMETER	4 IN	WELL MATERIAL	steel

HEIGHT OF WATER COLUMN: 31.17 FT x ☐ 0.61 L/FT (2 in) ☑ 2.46 L/FT (4 in) ☐ 5.67 L/FT (6 in) = WELL VOLUME: 76.68 L

VOLUME PURGED: 13.1 L (1 Liter = 0.264 gallon 1 gallon = 3.785 L)

0.4 when well was uncapped on 4-30-00

FINAL DEPTH TO WATER: 12.85 FT

DRAWDOWN: 1.82 FT

AMBIENT AIR: 0.0 PPM

WELL MOUTH: 0.0 PPM

PURGE DATA

Begin purging: 0814 End purging: 0850

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
0827	5.2	11.63	4.7	2.85	6.8	198	5.37	400 mL/min
0832	7.0	11.66	4.5	2.84	7.3	198	5.22	300 mL/min
0837	8.5	11.68	4.5	2.84	7.5	198	5.10	300 mL/min
0843	10.3	11.78	4.5	2.83	7.7	198	4.90	
0850	13.1	11.93	4.5	2.82	7.8	198	4.84	400 mL/min

EQUIPMENT DOCUMENTATION

PURGING: ☑ ☐ ☐ ☐ ☑ ☐ ☐ ☐ ☑

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☐ PVC/SILICON TUBING; ☑ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☑ PRESS/VAC FILTER brass valve

DECON FLUIDS USED: ☐ METHANOL; ☐ LIQUINOX; ☑ POTABLE WATER; ☑ DEIONIZED WATER; ☐ HEXANE; ☐ NITRIC ACID; ☑ iso alc

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE; ☐ _____

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 ember glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐

NOTES: Sulfur odor, black particles in sample

SIGNATURE: [signature]

RECEIVED BY: _____

HARDING LAWSON ASSOCIATES

PAGE 1 OF 1

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring

JOB NUMBER: 44836 - 0719841

DATE: 5/2/00

WELL ID: BR-02

ACTIVITY

TIME: START 1605 END 1825

BOTTLE TIME: 1801

SAMPLE ID: BR020500

☐ QC SAMPLES COLLECTED

DUPLICATE ID:

MS ID:

MSD ID:

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	44.0 FT	HISTORICAL WELL DEPTH	44.0 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	2.52 FT
PROTECTIVE CASING / WELL DIFFERENCE	FT	DEPTH TO WATER	24.5 FT	SCREEN LENGTH	20 FT
WELL DIAMETER	4 IN	WELL MATERIAL	Steel	HEIGHT OF WATER COLUMN	19.5 FT

☐ 0.61 L/FT (2 in) ☒ 2.46 L/FT (4 in) = ☐ 5.67 L/FT (6 in)

WELL VOLUME: 47.97 L (1 Liter = 0.264 gallon 1 gallon = 3.785 L)

VOLUME PURGED: 3.00 L

FINAL DEPTH TO WATER: 24.67 FT

DRAWDOWN: 0.17 FT

AMBIENT AIR: 0.0 PPM

Initial Cap Removal 4/30 — 0.4 ppm

WELL MOUTH: 0.0 PPM

PURGE DATA

Begin purging: 1731 End purging:

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY * (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
1741	1.00	16.69	4.3	2.98	7.1	~~325~~ 177	3.25	100 mL/min
1751	2.00	16.23	4.3	2.92	8.0	177	3.31	* pump is on
1801	3.00	16.09	4.3	2.91	8.0	178	3.18	high, producing
								100 mL/min ∴ pushing a lot of air through
								Horiba U-22

EQUIPMENT DOCUMENTATION

PURGING / SAMPLING

- ☐ PERISTALTIC PUMP
- ☐ SUBMERSIBLE PUMP
- ☐ BLADDER PUMP
- ☐ PVC/SILICON TUBING
- ☐ TEFLON/SILICON TUBING
- ☐ WATTERA
- ☐ IN LINE FILTER
- ☐ PRESS/VAC FILTER — brass valve

DECON FLUIDS USED

- ☐ METHANOL
- ☐ LIQUINOX
- ☐ POTABLE WATER
- ☐ DEIONIZED WATER
- ☐ HEXANE
- ☐ NITRIC ACID — 1SO a/c

WATER LEVEL EQUIPMENT USED

- ☐ ELECTRIC COND. PROBE
- ☐ FLOAT ACTIVATED
- ☐ KECK INTERFACE PROBE

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☐ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☐
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐

NOTES

SIGNATURE: Dena Corrigan

RECEIVED BY:

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PAGE 1 OF 1

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring

JOB NUMBER: 44836 - 0719841

DATE: 05-02-00

WELL ID: BR-03

ACTIVITY TIME: START 1443 END 1549

BOTTLE TIME: 1535

SAMPLE ID: BR030500

☐ QC SAMPLES COLLECTED — DUPLICATE ID: ; MS ID: ; MSD ID:

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	37.60 FT	HISTORICAL WELL DEPTH	40.1 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	2.5 FT	PROTECTIVE CASING / WELL DIFFERENCE	ND FT
DEPTH TO WATER	~~8.81~~ 9.59 FT	SCREEN LENGTH	20 FT	WELL DIAMETER	4 IN	WELL MATERIAL	Steel

HEIGHT OF WATER COLUMN: ~~28.79~~ 28.01 FT × ☐ 0.61 L/FT (2 in) ☑ 2.46 L/FT (4 in) = WELL VOLUME: ~~70.82~~ 68.90 L ☐ 5.67 L/FT (6 in)

(1 Liter = 0.264 gallon 1 gallon = 3.785 L)

VOLUME PURGED: ~12.5 L

FINAL DEPTH TO WATER: FT — DRAWDOWN: FT — AMBIENT AIR: 0.0 PPM — WELL MOUTH: 0.0 PPM

Initial Op Remark: 4/30 – 16.1

PURGE DATA

Begin purging: 1448 End purging: 1535 (~16 minutes)

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
1459	4.14	15.71	4.1	0.006	3.6	198	11.56	~376 mV/min
1506	~~5 minute~~ pause in purging							
1527	Resume							
1523	7.14	18.25	4.1	1.45	5.6	194	10.27	
1526	8.27	17.62	4.1	2.00	5.8	193	0.00	
1529	9.41	16.57	4.1	2.15	6.7	193	0.00	
1534	10.91	15.62	4.1	2.20	7.4	192	0.00	
1538	12.41	15.32	4.1	2.18	7.5	192	0.00	

EQUIPMENT DOCUMENTATION

PURGING: ☑

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☐ PVC/SILICON TUBING; ☑ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☑ PRESS/VAC FILTER (brass valve)

DECON FLUIDS USED: ☐ METHANOL; ☐ LIQUINOX; ☐ POTABLE WATER; ☑ DEIONIZED WATER; ☐ HEXANE; ☐ NITRIC ACID; ☑ ISO

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE; ☐ _____

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐

NOTES

SIGNATURE: Doreen Carrigan

RECEIVED BY: _____

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FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 050300

WELL ID: BR-04 | ACTIVITY TIME: START 1553 END 1711 | BOTTLE TIME: 1651

SAMPLE ID: BR040500

☐ QC SAMPLES COLLECTED | DUPLICATE ID: | MS ID: | MSD ID:

WATER LEVEL / WELL DATA

~~MEASURED~~ WELL DEPTH	44.26 FT	HISTORICAL WELL DEPTH	44 .2 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	2. 39 FT	PROTECTIVE CASING / WELL DIFFERENCE	NA FT
DEPTH TO WATER	20.53 FT	SCREEN LENGTH	20 FT	WELL DIAMETER	4 IN	WELL MATERIAL	Steel

HEIGHT OF WATER COLUMN: 23.67 FT x ☐ 0.61 L/FT (2 in) ☑ 2.46 L/FT (4 in) ☐ 5.67 L/FT (6 in) = WELL VOLUME: 58.23 L | VOLUME PURGED: 5.24 L (1 Liter = 0.264 gallon 1 gallon = 3.785 L)

FINAL DEPTH TO WATER: 20.56 FT | DRAWDOWN: 0.03 FT | AMBIENT AIR: 0.0 PPM | WELL MOUTH: 0.0 PPM

PURGE DATA

Begin purging: ~~1603~~ 1623 | End purging: 1650

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
1635	2.33	22.52	4.6	2.91	-3.2	183	8.36	194 mL/min
1640	3.30	19.12	4.6	2.92	-2.4	181	6.42	194 mL/min
1646	≥4.46	17.59	4.6	2.84	-2.5	181	5.88	
1650	5.24	17.07	4.6	2.83	-2.8	181	5.63	

EQUIPMENT DOCUMENTATION

PURGING: ☑ ☐ ☐ ☐ ☑ ☐ ☐ ☐ ☐

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☑ PVC/SILICON TUBING; ☐ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☐ PRESS/VAC FILTER; ☐ _____

DECON FLUIDS USED: ☐ METHANOL; ☐ LIQUINOX; ☑ POTABLE WATER; ☑ DEIONIZED WATER; ☐ HEXANE; ☑ NITRIC ACID; isa alcohol

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE; ☐ _____

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐					☐
☐					☐
☐					☐
☐					☐

NOTES

SIGNATURE: Devon Corrigan

RECEIVED BY: _____

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PAGE 1 OF 1

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring

JOB NUMBER: 44836 - 0719841

DATE: 050300

WELL ID: BR-05

ACTIVITY: TIME START 1038 END 1130

BOTTLE TIME: 1115

SAMPLE ID: BR050500

☐ QC SAMPLES COLLECTED — DUPLICATE ID: ; MS ID: ; MSD ID:

WATER LEVEL / WELL DATA

~~MEASURED~~ WELL DEPTH	49.9 FT	HISTORICAL WELL DEPTH	49.9 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	2.5 FT
PROTECTIVE CASING / WELL DIFFERENCE	FT	DEPTH TO WATER	22.40 FT	SCREEN LENGTH	20 FT
WELL DIAMETER	4 IN	WELL MATERIAL	steel	HEIGHT OF WATER COLUMN	27.50 FT

☐ 0.61 L/FT (2 in) ☑ ~~2.46~~ L/FT (4 in) = ☐ 5.67 L/FT (6 in)

WELL VOLUME: 67.65 L (1 Liter = 0.264 gallon 1 gallon = 3.785 L)

VOLUME PURGED: 5.33 L

0.4 when uncapped on 4-30-00

FINAL DEPTH TO WATER	22.36 FT	DRAWDOWN	0.04 FT	AMBIENT AIR	0.0 PPM
WELL MOUTH	0.0 PPM				

PURGE DATA

Begin purging: 1045 End purging: 1115

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
1059	2.87	18.91	4.6	2.85	5.6	186	8.6 DUP 8.53	208 mL/min
1103	3.07	—	—	—	—	—	—	100 mL/min
1105	3.37	18.51	4.6	2.80	8.4	186	7.13	200 mL/min
1110	4.37	18.09	4.6	2.80	9.4	186	6.85	200 mL/min
1115	5.33	17.84	4.6	2.78	10.0	186	6.65	192 mL/min

EQUIPMENT DOCUMENTATION

PURGING: ☑

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☑ PVC/SILICON TUBING; ☑ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☐ PRESS/VAC FILTER; ☐ _____

DECON FLUIDS USED: ☐ METHANOL; ☐ LIQUINOX; ☑ POTABLE WATER; ☑ DEIONIZED WATER; ☐ HEXANE; ☐ NITRIC ACID; ☑ isopropyl + DI

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE; ☐ _____

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐

NOTES

SIGNATURE: Darell Carrigan

RECEIVED BY: _____

HARDING LAWSON ASSOCIATES

PAGE 1 OF 1

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 05-02-00

WELL ID: BR-07 | ACTIVITY | BOTTLE

TIME: START 0641 END 0850 | TIME:

SAMPLE ID: BR070500

☐ QC SAMPLES COLLECTED | DUPLICATE ID: | MS ID: | MSD ID:

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	53.3 FT	HISTORICAL WELL DEPTH	53.3 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	2.5 FT	PROTECTIVE CASING / WELL DIFFERENCE	ND FT
DEPTH TO WATER	23.43 FT	SCREEN LENGTH	20 FT	WELL DIAMETER	4 IN	WELL MATERIAL	steel

HEIGHT OF WATER COLUMN: 29.87 FT x ☐ 0.61 L/FT (2 in) ☑ 2.46 L/FT (4 in) ☐ 5.67 L/FT (6 in) = WELL VOLUME: 73.48 L | VOLUME PURGED: 4.86 L

(1 Liter = 0.264 gallon 1 gallon = 3.785 L)

FINAL DEPTH TO WATER: 23.40 FT | DRAWDOWN: 0.03 FT | AMBIENT AIR: 0.0 PPM | Initial Cap Removal WELL MOUTH: 0.0 PPM 4/30 - 0.4

PURGE DATA

Begin purging: 0746 | End purging: | water began flowing @0754

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
0813	1.44	12.26	4.00	0.006	0.4	216	10.69	~90 mL/min
0823	2.61	12.88	4.00	0.005	0.9	212	10.82	
0831	3.60	13.23	4.00	0.004	1.0	211	10.84	

EQUIPMENT DOCUMENTATION

PURGING: ☑ PERISTALTIC PUMP ☐ SUBMERSIBLE PUMP ☐ BLADDER PUMP ☑ PVC/SILICON TUBING ☐ TEFLON/SILICON TUBING ☐ WATTERA ☐ IN LINE FILTER ☑

SAMPLING: ☑ PERISTALTIC PUMP ☐ SUBMERSIBLE PUMP ☐ BLADDER PUMP ☑ PVC/SILICON TUBING ☐ TEFLON/SILICON TUBING ☐ WATTERA ☐ IN LINE FILTER ☑ PRESS/VAC FILTER brass valve

DECON FLUIDS USED: ☐ METHANOL ☐ LIQUINOX ☑ POTABLE WATER (DC) ☑ DEIONIZED WATER ☐ HEXANE ☑ NITRIC ACID ISO AK

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE ☐ FLOAT ACTIVATED ☐ KECK INTERFACE PROBE

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	TCL-CLP 10/92 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐

NOTES

SIGNATURE: Owen Carigan

RECEIVED BY:

HARDING LAWSON ASSOCIATES

PAGE 1 OF 1

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 05-01-00

WELL ID: MW-00 | ACTIVITY TIME START: 0930 END: 1020 | BOTTLE TIME:

SAMPLE ID: MW000500

☐ QC SAMPLES COLLECTED | DUPLICATE ID: | MS ID: | MSD ID:

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	12.37 FT	HISTORICAL WELL DEPTH	ND FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	2.18 FT	PROTECTIVE CASING / WELL DIFFERENCE	0.26 FT
DEPTH TO WATER	7.00 FT	SCREEN LENGTH	ND FT	WELL DIAMETER	2 IN	WELL MATERIAL	PVC

HEIGHT OF WATER COLUMN: 5.37 FT x ☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) ☐ 5.67 L/FT (6 in) = WELL VOLUME: 3.28 L | VOLUME PURGED: L

(1 Liter = 0.264 gallon 1 gallon = 3.785 L)

FINAL DEPTH TO WATER: 9.89 FT | DRAWDOWN: 2.89 FT | AMBIENT AIR: 0.0 PPM | Initial Cap Removal 4/30 - 10.4 WELL MOUTH: 0.0 PPM

PURGE DATA

Begin purging: 0944 | End purging:

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
0953	2.6	15.88	4.2	0.005	-5.6	200	13.14	~.375 L/min
0959	3.3	~~12.97~~ 14.35	4.1	0.004	-7.1	200	12.96	~.118 L/min
1005	5.1	13.49	4.1	0.004	-7.2	200	12.71	0.4 L/min
1008	7.3	13.04	4.1	0.004	-7.3	200	12.56	

EQUIPMENT DOCUMENTATION

PURGING: ☑

SAMPLING: ☑ PERISTALTIC PUMP ☐ SUBMERSIBLE PUMP ☐ BLADDER PUMP ☑ PVC/SILICON TUBING ☑ TEFLON/SILICON TUBING ☐ WATTERA ☐ IN LINE FILTER ☑ PRESS/VAC FILTER brass valve

DECON FLUIDS USED: ☐ METHANOL ☐ LIQUINOX ☐ POTABLE WATER ☑ DEIONIZED WATER ☐ HEXANE ☑ NITRIC ACID ISO Alc

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE ☐ FLOAT ACTIVATED ☐ KECK INTERFACE PROBE ☐ _____

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐					☐
☐					☐
☐					☐
☐					☐

NOTES

SIGNATURE: Deven Carrigan

RECEIVED BY: _____

HARDING LAWSON ASSOCIATES

PAGE 1 OF 1

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Teylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 05-03-00

WELL ID: OB-04 | ACTIVITY TIME START: 1452 END | BOTTLE TIME: 1545

SAMPLE ID: OB040500

☐ QC SAMPLES COLLECTED | DUPLICATE ID | MS ID | MSD ID

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	17.5 FT	HISTORICAL WELL DEPTH	17.5 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	2.45 FT	PROTECTIVE CASING / WELL DIFFERENCE	0.26 FT
DEPTH TO WATER	5.1 FT	SCREEN LENGTH	15 FT	WELL DIAMETER	2 IN	WELL MATERIAL	PVC

HEIGHT OF WATER COLUMN: 12.4 FT x ☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) ☐ 5.67 L/FT (6 in) = WELL VOLUME: 7.56 L | VOLUME PURGED: 8.2 L

(1 Liter = 0.264 gallon 1 gallon = 3.785 L)

FINAL DEPTH TO WATER: 6.44 FT | DRAWDOWN: 1.34 FT | AMBIENT AIR: 0.4 PPM | WELL MOUTH: 5.6 PPM

8.3 when first uncapped on 4-30-00

PURGE DATA

Begin purging: 1517 | End purging:

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
1523	2.00	17.19	4.6	2.86	8.5	186	7.32	333 mL/min
1527	3.00	15.60	4.6	2.85	11.5	188	6.39	250 mL/min
1533	5.4	14.75	4.5	2.83	11.8	189	5.86	400 mL/min
1540	8.2	14.29	4.5	2.82	11.7	188	5.35	400 mL/min

EQUIPMENT DOCUMENTATION

PURGING: ☑

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☐ PVC/SILICON TUBING; ☑ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☐ PRESS/VAC FILTER; _____

DECON FLUIDS USED: ☐ METHANOL; ☐ LIQUINOX; ☐ POTABLE WATER; ☑ DEIONIZED WATER; ☐ HEXANE; ☑ NITRIC ACID ISO A/C

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE; _____

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☐ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L ember poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐

NOTES

SIGNATURE: _____

RECEIVED BY: _____

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FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 050300

WELL ID: OB-05 | ACTIVITY | BOTTLE TIME: ~~1330~~ 1430 RE

TIME: START 1349 END

SAMPLE ID: OB050500

☐ QC SAMPLES COLLECTED | DUPLICATE ID | MS ID | MSD ID

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	20.21 FT	HISTORICAL WELL DEPTH	18.0 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	2.29 FT	PROTECTIVE CASING / WELL DIFFERENCE	0.25 FT
DEPTH TO WATER	6.59 FT	SCREEN LENGTH	15 FT	WELL DIAMETER	2 IN	WELL MATERIAL	PVC

HEIGHT OF WATER COLUMN: 13.62 FT x ☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) = ☐ 5.67 L/FT (6 in)

WELL VOLUME: 8.31 L | VOLUME PURGED: 8.83 L

(1 Liter = 0.264 gallon 1 gallon = 3.785 L)

FINAL DEPTH TO WATER	8.00 FT	DRAWDOWN	1.41 FT	AMBIENT AIR	1.3 PPM	WELL MOUTH	1249 PPM

2835 - over range when well was opened on 4-30-a

over range

PURGE DATA

Begin purging: 1359 | End purging:

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
RE ~~1407~~	2.53	19.48	4.8	2.85	5.4	185	9.09	316 mL/min
1413	4.03	16.71	4.6	2.83	8.9	185	6.85	250 mL/min
1417	5.63	15.14	4.6	2.81	9.9	187	5.92	400 mL/min
1422	7.63	14.39	4.6	2.81	9.9	187	5.63	
1425	8.83	14.06	4.6	2.81	10.0	187	5.44	400 mL/min

EQUIPMENT DOCUMENTATION

PURGING	SAMPLING	
☐	☐	PERISTALTIC PUMP
☐	☐	SUBMERSIBLE PUMP
☐	☐	BLADDER PUMP
☐	☐	PVC/SILICON TUBING
☑	☑	TEFLON/SILICON TUBING
☐	☐	WATTERA
☐	☐	IN LINE FILTER
☐	☐	PRESS/VAC FILTER

DECON FLUIDS USED:
- ☐ METHANOL
- ☐ LIQUINOX
- ☐ POTABLE WATER
- ☑ DEIONIZED WATER
- ☐ HEXANE
- ☐ NITRIC ACID
- ☑ ISO alcohol + DI

WATER LEVEL EQUIPMENT USED:
- ☑ ELECTRIC COND. PROBE
- ☐ FLOAT ACTIVATED
- ☐ KECK INTERFACE PROBE

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☐
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐					☐
☐					☐
☐					☐
☐					☐

NOTES

SIGNATURE: Robert A. Gott

RECEIVED BY:

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FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 5/1/00

WELL ID: TW-01 | ACTIVITY | BOTTLE

TIME: START 1713 END | TIME: 1831

SAMPLE ID: TW010500

☐ QC SAMPLES COLLECTED — DUPLICATE ID: | MS ID: | MSD ID:

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	22.0 FT	HISTORICAL WELL DEPTH	22 .0 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	NA FT	PROTECTIVE CASING / WELL DIFFERENCE	FT
DEPTH TO WATER	13.91 FT	SCREEN LENGTH	5 FT	WELL DIAMETER	2 IN	WELL MATERIAL	PVC

HEIGHT OF WATER COLUMN: 8.09 FT x ☒ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) ☐ 5.67 L/FT (6 in) = WELL VOLUME: 4.93 L (1 Liter = 0.264 gallon 1 gallon = 3.785 L) | VOLUME PURGED: ~7.00 L

FINAL DEPTH TO WATER: 15.86 FT | DRAWDOWN: 1.95 FT | AMBIENT AIR: 0.0 PPM | Initial Gap Removal 4/30 - 1.3 WELL MOUTH: 0.0 PPM

PURGE DATA

Begin purging: 1758 | End purging: 1839

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
1806	2.33	12.64	4.0	0.004	2.2	216	11.63	~333 mL/min
1810	4.00	11.95	3.9	0.004	2.3	215	11.82	
1819	~5.80	11.57	3.9	0.004	2.3	215	11.82	~200 mL/min
1825	~7.00	11.50	3.9	0.004	2.2	215	11.74	~200 mL/min

EQUIPMENT DOCUMENTATION

PURGING	SAMPLING		DECON FLUIDS USED		WATER LEVEL EQUIPMENT USED	
☑	☑	PERISTALTIC PUMP	☐	METHANOL	☑	ELECTRIC COND. PROBE
☐	☐	SUBMERSIBLE PUMP	☐	LIQUINOX	☐	FLOAT ACTIVATED
☐	☐	BLADDER PUMP	☐	POTABLE WATER	☐	KECK INTERFACE PROBE
☐	☑	PVC/SILICON TUBING	☑	DEIONIZED WATER	☐	
☑	☐	TEFLON/SILICON TUBING	☐	HEXANE		
☐	☐	WATTERA	☑	NITRIC ACID		
☐	☐	IN LINE FILTER		Iso Alc		
☐	☑	PRESS/VAC FILTER				

bra DC

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	8260 TCL-CLP 10/92	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐					☐
☐					☐
☐					☐
☐					☐

NOTES

SIGNATURE:

RECEIVED BY:

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FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 5-2-00

WELL ID: TW-04 | ACTIVITY TIME START: 1418 END: 1452 | BOTTLE TIME: 1448

SAMPLE ID: TW040500

☐ QC SAMPLES COLLECTED | DUPLICATE ID: | MS ID: | MSD ID:

WATER LEVEL / WELL DATA

~~MEASURED~~ WELL DEPTH	17.3 FT	HISTORICAL WELL DEPTH	17 .3 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	2. 56 FT	PROTECTIVE CASING / WELL DIFFERENCE	0. 22 FT
DEPTH TO WATER	7.91 FT	SCREEN LENGTH	5 FT	WELL DIAMETER	2 IN	WELL MATERIAL	PVC

HEIGHT OF WATER COLUMN: 9.39 FT x ☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) ☐ 5.67 L/FT (6 in) = WELL VOLUME: 5.73 L (1 Liter = 0.264 gallon 1 gallon = 3.785 L)

VOLUME PURGED: ~6.2 L 4/30 - 3.0

FINAL DEPTH TO WATER: 14.68 FT | DRAWDOWN: 5.26 FT | AMBIENT AIR: 0.0 PPM | Initial Cap Removed WELL MOUTH: 0.0 PPM

PURGE DATA

Begin purging: 1423 End purging:

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
1431	3.2	18.80	4.1	0.005	7.1	202	10.41	~0.4 L/min
1437	4.7	15.33	4.1	0.004	6.6	201	10.87	~0.25 L/min
1440	~5.5	14.75	4.1	0.004	6.6	201	10.87	
1443	~6.2	14.10	4.1	0.004	5.4	201	11.17	

EQUIPMENT DOCUMENTATION

PURGING: ☑

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☑ PVC/SILICON TUBING; ☐ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☑ PRESS/VAC FILTER brass valve

DECON FLUIDS USED: ☐ METHANOL; ☐ LIQUINOX; ☐ POTABLE WATER; ☑ DEIONIZED WATER; ☐ HEXANE; ☑ NITRIC ACID ISO alc

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE; ☐ _____

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL viel	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL viel	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐

NOTES

SIGNATURE: Derek Corrigan

RECEIVED BY: _____

HARDING LAWSON ASSOCIATES

PAGE 1 OF 1

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring

JOB NUMBER: 44836 - 0719841

DATE: 050100

WELL ID: TW-07

ACTIVITY

TIME START: 1845 END:

BOTTLE TIME:

SAMPLE ID: TW070500

☐ QC SAMPLES COLLECTED

DUPLICATE ID:

MS ID:

MSD ID:

WATER LEVEL / WELL DATA

~~MEASURED~~ WELL DEPTH: 17.5 FT

HISTORICAL WELL DEPTH: 17.5 FT (BTOC)

PROTECTIVE CASING STICKUP (FROM GROUND): ND FT

PROTECTIVE CASING / WELL DIFFERENCE: FT

DEPTH TO WATER: 8.52 FT

SCREEN LENGTH: 5 FT

WELL DIAMETER: 2 IN

WELL MATERIAL: PVC

HEIGHT OF WATER COLUMN: 8.98 FT x ☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) = ☐ 5.67 L/FT (6 in)

WELL VOLUME: 5.48 L

VOLUME PURGED: ~8 L

(1 Liter = 0.264 gallon 1 gallon = 3.785 L)

FINAL DEPTH TO WATER: 10.52' FT

DRAWDOWN: ~~1.54~~ 2.00 FT

AMBIENT AIR: 0.0 PPM

Initial Cap Removal 4/30 - 1.3

WELL MOUTH: 0.0 PPM

PURGE DATA

Begin purging: 1914 End purging: 1945

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
1916	0.800	12.02	4.00	0.003	1.4	216	11.61	Flow = 400 mL/min
1921	~2 L	11.49	4.00	0.003	1.7	216	11.64	Flow = 250 mL/min
1931	~5.6 L	11.25	4.00	0.003	1.8	216	11.54	~ 362 mL/min
1942	~7.8	11.01	4.00	0.003	1.8	216	11.44	~200 mL/min

EQUIPMENT DOCUMENTATION

PURGING: ☑ ☐ ☐ ☐ ☑ ☐ ☐ ☐ ☑

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☑ PVC/SILICON TUBING; ☑ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☑ PRESS/VAC FILTER Brass Valve

DECON FLUIDS USED: ☐ METHANOL; ☐ LIQUINOX; ☑ POTABLE WATER (DE); ☑ DEIONIZED WATER; ☐ HEXANE; ☐ NITRIC ACID; ☑ Isopropanol

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE

NUMBER OF FILTERS USED: N/A

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☐
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐					☐
☐					☐
☐					☐
☐					☐

NOTES

SIGNATURE: Dena Carigan

RECEIVED BY:

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FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring

JOB NUMBER: 44836 - 0719841

DATE: 5-2-00

WELL ID: TW-09

ACTIVITY TIME: START 1638 END 1734

BOTTLE TIME: 1721

SAMPLE ID: TW090500

☐ QC SAMPLES COLLECTED — DUPLICATE ID: ; MS ID: ; MSD ID:

WATER LEVEL / WELL DATA

~~MEASURED~~ WELL DEPTH	16.0 FT	HISTORICAL WELL DEPTH	16.0 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	NA FT
PROTECTIVE CASING / WELL DIFFERENCE	FT	DEPTH TO WATER	9.89 FT	SCREEN LENGTH	5 FT
WELL DIAMETER	2 IN	WELL MATERIAL	PVC	HEIGHT OF WATER COLUMN	6.11 FT

x ☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) = ☐ 5.67 L/FT (6 in)

WELL VOLUME: 3.73 L (1 Liter = 0.264 gallon 1 gallon = 3.785 L)

VOLUME PURGED: 7.85 L

FINAL DEPTH TO WATER: 10.75 FT

DRAWDOWN: 0.86 FT

AMBIENT AIR: 0.0 PPM

Initial Cap Removal 4/30 - 1.3

WELL MOUTH: 0.0 PPM

PURGE DATA

Begin purging: 1655 End purging: 1719 (~3 min)

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
1708	3.85	17.24	4.2	3.06	9.8	178	2.48	385 mL/min
1712	5.45	15.54	4.2	3.00	8.5	178	2.71	400 mL/min
1715	6.65	14.48	4.2	3.08	9.4	179	2.63	~~300 mL/min~~
1717	7.25	14.44	4.2	3.04	9.5	179	2.54	300 mL/min

EQUIPMENT DOCUMENTATION

PURGING	SAMPLING	
☑	☑	PERISTALTIC PUMP
☐	☐	SUBMERSIBLE PUMP
☐	☐	BLADDER PUMP
☑	☑	PVC/SILICON TUBING
☑	☑	TEFLON/SILICON TUBING
☐	☐	WATTERA
☐	☐	IN LINE FILTER
☑	☑	PRESS/VAC FILTER brass valve

DECON FLUIDS USED

☐	METHANOL
☐	LIQUINOX
☑	POTABLE WATER
☑	DEIONIZED WATER
☐	HEXANE
☑	NITRIC ACID iso alc

WATER LEVEL EQUIPMENT USED

☑	ELECTRIC COND. PROBE
☐	FLOAT ACTIVATED
☐	KECK INTERFACE PROBE

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	TCL-~~CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐					☐
☐					☐
☐					☐
☐					☐

NOTES

SIGNATURE: Deven Corrigan

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FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 5-2-00

WELL ID: TW-13 | ACTIVITY TIME START 1018 END 1125 | BOTTLE TIME 1103

SAMPLE ID: TW130500

☑ QC SAMPLES COLLECTED | DUPLICATE ID: | MS ID: TW130500MS | MSD ID: TW130500MSD

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	15.0 FT	HISTORICAL WELL DEPTH	15.0 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	FT
PROTECTIVE CASING / WELL DIFFERENCE	FT	DEPTH TO WATER	4.96 FT	SCREEN LENGTH	5 FT
WELL DIAMETER	2 IN	WELL MATERIAL	PVC	HEIGHT OF WATER COLUMN	10.04 FT

☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) = ☐ 5.67 L/FT (6 in) x

WELL VOLUME: 6.12 L (1 Liter = 0.264 gallon 1 gallon = 3.785 L) | VOLUME PURGED: L

FINAL DEPTH TO WATER: 8.38 FT | DRAWDOWN: 3.42 FT | AMBIENT AIR: 0.0 PPM | Initial Cap Reward 4/30 - 0.8 | WELL MOUTH: 0.0 PPM

PURGE DATA

Begin purging: 1026 | End purging: 1103

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
1043	4.25	15.56	4.2	0.008	-6.9	196	12.65	~250 mL/min
1049	5.96 est	14.65	4.1	0.007	-6.9	195	12.70	
1054	7 est ~~8.5~~	13.90	4.1	0.006	-7.0	195	12.60	
1100	8.5	13.45	4.1	0.006	-7.1	195	12.33	~175 mL/min

EQUIPMENT DOCUMENTATION

PURGING: ☑

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☑ PVC/SILICON TUBING; ☐ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☑ PRESS/VAC FILTER brass valve

DECON FLUIDS USED: ☐ METHANOL; ☑ LIQUINOX; ☑ POTABLE WATER; ☑ DEIONIZED WATER; ☐ HEXANE; ☑ NITRIC ACID iso alcohol (RE)

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE; ☐ _____

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐					☐
☐					☐
☐					☐
☐					☐

NOTES

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FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 05-03-00

WELL ID: TW-17 | ACTIVITY | BOTTLE

TIME: START 0858 END | TIME: 0922

SAMPLE ID: TW170500

☐ QC SAMPLES COLLECTED | DUPLICATE ID | MS ID | MSD ID

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	RE 15.0 FT	HISTORICAL WELL DEPTH	15.0 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	2.38 FT	PROTECTIVE CASING / WELL DIFFERENCE	0.17 FT
DEPTH TO WATER	7.28 FT	SCREEN LENGTH	5 FT	WELL DIAMETER	2 IN	WELL MATERIAL	PVC

HEIGHT OF WATER COLUMN: 7.72 FT x ☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) ☐ 5.67 L/FT (6 in) = WELL VOLUME: 4.71 L

VOLUME PURGED: L (1 Liter = 0.264 gallon 1 gallon = 3.785 L)

19.2 when first opened on 4-30-00

FINAL DEPTH TO WATER	7.88 FT	DRAWDOWN	0.60 FT	AMBIENT AIR	0.0 PPM	WELL MOUTH	0.0 PPM

PURGE DATA

Begin purging: 0901 | End purging: RE 0932

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
0908	2.8	10.80	4.5	2.88	8.5	197	5.85	~400 mL/min
0913	4.8	10.29	4.5	2.87	8.8	197	5.54	
0918	6.8	10.06	4.5	2.86	9.1	197	4.98	
0922	7.8	9.77	4.5	2.86	8.9	198	4.87	~250 mL/min

EQUIPMENT DOCUMENTATION

PURGING: ☑ ☐ ☐ ☐ ☑ ☐ ☐ ☐ ☐ ☑

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☐ PVC/SILICON TUBING; ☑ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☐ PRESS/VAC FILTER; ☑ ~~torque valve~~ DC

DECON FLUIDS USED: ☐ METHANOL; ☐ LIQUINOX; ☐ POTABLE WATER; ☑ DEIONIZED WATER; ☐ HEXANE; ☐ NITRIC ACID; ☑ ISO AIC

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE; ☐ _____

NUMBER OF FILTERS USED: N/A

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐					☐
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☐					☐
☐					☐

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SIGNATURE: _____

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FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 050300

WELL ID: TW-20 | ACTIVITY | BOTTLE

TIME: START 0718 END 0808 | TIME: 0755

SAMPLE ID: TW200500

☐ QC SAMPLES COLLECTED | DUPLICATE ID | MS ID | MSD ID

WATER LEVEL / WELL DATA

~~MEASURED~~ okay WELL DEPTH: 17.37 ~~45.0~~ FT | HISTORICAL WELL DEPTH: 15.0 FT (BTOC) | PROTECTIVE CASING STICKUP (FROM GROUND): 2.23 FT | PROTECTIVE CASING / WELL DIFFERENCE: 0.25 FT

DEPTH TO WATER: 11.81 FT | SCREEN LENGTH: 5 FT | WELL DIAMETER: 2 IN | WELL MATERIAL: PVC

HEIGHT OF WATER COLUMN: 5.56 FT x ☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) ☐ 5.67 L/FT (6 in) = WELL VOLUME: 3.39 L | VOLUME PURGED: 8.0 L

(1 Liter = 0.264 gallon 1 gallon = 3.785 L)

FINAL DEPTH TO WATER: 12.73 FT | DRAWDOWN: 0.92 FT | AMBIENT AIR: 0.0 PPM | Initial Cap Removal 4/30 – 2.1 ppm WELL MOUTH: 0.0 PPM

PURGE DATA

Begin purging: 0726 | End purging: 0753

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
0744	4.5	9.82	4.5	2.98	3.1	200	6.11	250 mL/min
0748	6.0	9.94	4.5	2.96	3.6	200	5.85	380 mL/min
0753	8.0	4.96	4.5	2.95	4.0	199	5.62	400 mL/min

EQUIPMENT DOCUMENTATION

PURGING: ☑

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☑ PVC/SILICON TUBING; ☑ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☐ PRESS/VAC FILTER

DECON FLUIDS USED: ☐ METHANOL; ☐ LIQUINOX; ☑ POTABLE WATER; ☑ DEIONIZED WATER; ☐ HEXANE; ☐ NITRIC ACID; ☑ ISO alc

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☐ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐

NOTES

SIGNATURE: Deven Carigan

RECEIVED BY: _____

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FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 5-2-00

WELL ID: W-4 | ACTIVITY | BOTTLE

TIME: START 0836 END 0935 | TIME:

SAMPLE ID: W40500

☐ QC SAMPLES COLLECTED | DUPLICATE ID: | MS ID: | MSD ID:

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	RE 29 FT	HISTORICAL WELL DEPTH	29.00 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	1.6 FT
PROTECTIVE CASING / WELL DIFFERENCE	0.16 FT	DEPTH TO WATER	9.15 FT	SCREEN LENGTH	ND FT
WELL DIAMETER	2" IN	WELL MATERIAL	PVC	HEIGHT OF WATER COLUMN	19.85 FT

☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) ☐ 5.67 L/FT (6 in) x = WELL VOLUME 12.11 L

VOLUME PURGED 12.8 L (1 Liter = 0.264 gallon 1 gallon = 3.785 L)

FINAL DEPTH TO WATER	17.00 FT	DRAWDOWN	7.85 FT	AMBIENT AIR	0.0 PPM
Initial Cap Removal 4/30 - 0.4 WELL MOUTH	0.0 PPM				

PURGE DATA

Begin purging 0856 End purging 0928

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
0858	0.8	14.90	4.1	0.006	-2.0	≠205	11.98	~400 mL/min
0904	3.2	13.75	4.1	0.006	-2.9	205	11.90	
0909	5.2	13.48	4.1	0.006	-2.2	204	11.64	
0914	7.2	13.64	4.1	0.006	-1.9	204	11.42	
0920	9.6	13.45	4.1	0.006	-1.8	204	11.29	

EQUIPMENT DOCUMENTATION

PURGING: ☑ PERISTALTIC PUMP ☐ SUBMERSIBLE PUMP ☐ BLADDER PUMP ☑ PVC/SILICON TUBING ☑ TEFLON/SILICON TUBING ☐ WATTERA ☐ IN LINE FILTER ☑ PRESS/VAC FILTER brass valve

SAMPLING: ☑ PERISTALTIC PUMP ☐ SUBMERSIBLE PUMP ☐ BLADDER PUMP ☑ PVC/SILICON TUBING ☑ TEFLON/SILICON TUBING ☐ WATTERA ☐ IN LINE FILTER ☑ PRESS/VAC FILTER brass valve

DECON FLUIDS USED: ☐ METHANOL ☐ LIQUINOX ☐ POTABLE WATER ☑ DEIONIZED WATER ☐ HEXANE ☐ NITRIC ACID ☑ Iso Alc

WATER LEVEL EQUIPMENT USED: ☐ ELECTRIC COND. PROBE ☐ FLOAT ACTIVATED ☐ KECK INTERFACE PROBE

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8290	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐					☐
☐					☐
☐					☐
☐					☐

NOTES

SIGNATURE: Doreen Carigan

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PAGE 1 OF 1

FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 050300

WELL ID: W-5 | ACTIVITY | BOTTLE

TIME: START 0947 END 1034 | TIME: 1024

SAMPLE ID: W50500

☐ QC SAMPLES COLLECTED | DUPLICATE ID | MS ID | MSD ID

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	24.0 FT	HISTORICAL WELL DEPTH	24.00 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	0.22 FT	PROTECTIVE CASING / WELL DIFFERENCE	0.07 FT
DEPTH TO WATER	5.78 FT	SCREEN LENGTH	ND FT	WELL DIAMETER	2 IN	WELL MATERIAL	PVC

HEIGHT OF WATER COLUMN: 18.22 FT x ☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) ☐ 5.67 L/FT (6 in) = WELL VOLUME: 11.11 L (1 Liter = 0.264 gallon 1 gallon = 3.785 L) | VOLUME PURGED: ~7.7 L

13.2 when first popped on 4-3000

FINAL DEPTH TO WATER	6.60 FT	DRAWDOWN	4.82 FT	AMBIENT AIR	0.0 PPM	WELL MOUTH	0.0 PPM

PURGE DATA

Begin purging: 0950 | End purging: 1021

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
0958	2.4	15.07	4.6	2.94	-5.1	191	8.93	~300 mL/min
1005	4.15	14.17	4.6	2.90	-5.2	191	7.22	~250 mL/min
1011	5.65	13.76	4.6	2.88	-4.9	191	6.59	~250 mL/min
1019	7.65	13.60	4.6	2.88	-4.2	191	6.31	~250 mL/min

EQUIPMENT DOCUMENTATION

PURGING: ☑

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☐ PVC/SILICON TUBING; ☑ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☐ PRESS/VAC FILTER; ☑ brass valve

DECON FLUIDS USED: ☐ METHANOL; ☐ LIQUINOX; ☐ POTABLE WATER; ☑ DEIONIZED WATER; ☐ HEXANE; ☐ NITRIC ACID; ☑ Iso Alc + DI

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE; ☐ _____

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8260	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐					☐
☐					☐
☐					☐
☐					☐

NOTES: sulfur odor, sample contains fine black particles

SIGNATURE: _____

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FIELD DATA RECORD - GROUNDWATER SAMPLING

PROJECT: Taylor Instruments Pre-Remedy Monitoring | JOB NUMBER: 44836 - 0719841 | DATE: 05-02-00

WELL ID: W-6 | ACTIVITY: 1134 | BOTTLE TIME: 1221

TIME START: ~~1555~~ END: 1218

SAMPLE ID: W60500

☑ QC SAMPLES COLLECTED | DUPLICATE ID: W60500D | MS ID: | MSD ID:

WATER LEVEL / WELL DATA

MEASURED WELL DEPTH	16.50 FT	HISTORICAL WELL DEPTH	16.50 FT (BTOC)	PROTECTIVE CASING STICKUP (FROM GROUND)	0.97 FT
PROTECTIVE CASING / WELL DIFFERENCE	0.08 FT	DEPTH TO WATER	~~4.42~~ 4.12 FT	SCREEN LENGTH	ND FT
WELL DIAMETER	2 IN	WELL MATERIAL	PVC	HEIGHT OF WATER COLUMN	~~11.58~~ 12.35 FT

☑ 0.61 L/FT (2 in) ☐ 2.46 L/FT (4 in) = ☐ 5.67 L/FT (6 in) x HEIGHT OF WATER COLUMN

WELL VOLUME: ~~7.06~~ 7.53 L (1 Liter = 0.264 gallon 1 gallon = 3.785 L)

VOLUME PURGED: 7.35 L

FINAL DEPTH TO WATER: 13.16 FT | DRAWDOWN: 9.04 FT | AMBIENT AIR: 0.0 PPM | WELL MOUTH: 0.0 PPM

Initial Grp Removal 4/30 – 1.3

PURGE DATA

Begin purging: 1137 | End purging: 1203

Time	VOLUME PURGED (L)	TEMPERATURE (°C)	pH (units)	SpC (cond) (mS/cm)	TURBIDITY (NTU)	REDOX POTENTIAL (mV)	DISSOLVED O_2 (mg/L)	Comments
1152	4.41	18.22	4.1	0.003	-6.8	193	11.91	~294 mL/min
1155	5.29	16.76	4.1	0.003	-6.7	193	12.20	
1158	6.17	15.87	4.1	0.003	-6.7	192	12.06	

EQUIPMENT DOCUMENTATION

PURGING: ☑

SAMPLING: ☑ PERISTALTIC PUMP; ☐ SUBMERSIBLE PUMP; ☐ BLADDER PUMP; ☑ PVC/SILICON TUBING; ☑ TEFLON/SILICON TUBING; ☐ WATTERA; ☐ IN LINE FILTER; ☑ PRESS/VAC FILTER brass valve

DECON FLUIDS USED: ☐ METHANOL; ☐ LIQUINOX; ☑ POTABLE WATER; ☑ DEIONIZED WATER; ☐ HEXANE; ☑ NITRIC ACID iso alc

WATER LEVEL EQUIPMENT USED: ☑ ELECTRIC COND. PROBE; ☐ FLOAT ACTIVATED; ☐ KECK INTERFACE PROBE; ☐ _____

NUMBER OF FILTERS USED: NA

ANALYTICAL PARAMETERS

	METHOD NUMBER	FILTERED	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
☑ LL VOA	~~TCL-CLP 10/92~~ 8290	NO	HCL	3 x 40 mL vial	☑
☐ LL VINYL CHLORIDE	Mod USEPA 601	NO	HCL	3 x 40 mL vial	☐
☐ SVOA	TCL-CLP 3/90	NO	4 DEG C	2 x 1 amber glass	☐
☐ LL PEST/PCB	TCL-CLP 10/92	NO	4 DEG C	2 x 1 amber glass	☐
☐ TOTAL INORGANICS & ANIMONY	TAL-CLP 3/90	NO	HNO3	1 L poly	☐
☐ CYANIDE	TAL-CLP 3/90	NO	NAOH	1 L amber poly	☐
☐ GASOLINE RANGE ORGANICS	MEDEP GRO	NO	HCL	3 x 40 mL vial	☐
☐ DIESEL RANGE ORGANICS	MEDEP DRO	NO	HCL	3 x 40 mL vial	☐
☐ MODIFIED GRO (JP-4)	Mod MEDEP GRO	NO	HCL	3 x 40 mL vial	☐

NOTES

SIGNATURE: Doreen Corrigan

RECEIVED BY: _____

APPENDIX C

CHAIN OF CUSTODY FORMS

Columbia Analytical Services INC.
An Employee-Owned Company

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

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 050100 PAGE 2 OF 4

PROJECT NAME Pre-Remedy GWMP
PROJECT MANAGER/CONTACT Paul Edmonds
COMPANY/ADDRESS HLA 1400 Centerpoint Blvd #158 Knoxville TN 37932
TEL (865) 531-1922 FAX (865) 531-8226
SAMPLER'S SIGNATURE Deven Carigan

All Us are zeros

SAMPLE I.D.	DATE	TIME	FOR OFFICE USE ONLY LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☑ 8260 ☐ 624 ☐ 95-1	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ 95-2	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/PCB's ☐ 8081 ☐ 608 ☐ 95-3	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	PRESERVATION pH < 2.0	pH > 12	Other HCl
TW010500	050100	1835		water	3	3												✓
TW070500	050100	1950		water	3	3												✓
BR070500	050200	0825		water	3	3												✓
W40500	050200	0926		water	3	3												✓
MW000500	050200	1014		water	3	3												✓
QAFB0500	050200	1035		water	3	3												✓
QARI0500	050200	1043		water	3	3												✓
TW130500	050200	1115		water	3	3												✓
TW130500MS	050200	1115		water	3	3			QC									✓
TW130500MSD	050200	1115		water	3	3												✓

RELINQUISHED BY:
Signature: Deven Carigan
Printed Name: Deven Carigan
Firm: HLA
Date/Time: 050400/1215

RECEIVED BY:
Signature: Rachelle Bogart
Printed Name: Rachelle Bogart
Firm: CAS
Date/Time: 5-4-06 1300

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

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.
please refer to PO

INVOICE INFORMATION:
P.O. #: 60082 (Quote #3321)
Bill To: HLA
1400 Centerpoint #158
Knoxville TN
37932

SAMPLE RECEIPT:
Shipping Via: Client
Shipping #:
Temperature: 5.0-6.0°C
Submission No: R20-1936

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

Columbia Analytical Services INC.
An Employee-Owned Company

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

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 050200 PAGE 3 OF 4

PROJECT NAME Re-Remedy GWMP
PROJECT MANAGER/CONTACT Paul Edmonds
COMPANY/ADDRESS HLA 1400 Centerpoint Blvd #158 Knoxville TN 37932
TEL (865) 531-1922 FAX (865) 531-8226
SAMPLER'S SIGNATURE Deven Carigan

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	FOR OFFICE USE ONLY LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ 95-1	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ 95-2	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/PCB's ☐ 8081 ☐ 608 ☐ 95-3	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	PRESERVATION pH < 2.0	PRESERVATION pH > 12	PRESERVATION Other HCl
W600500	050200	1221		water	3	3												3
W600500D	050200	1221			3	3												3
TW040500	050200	1445			3	3												3
BR030500	050200	1535			3	3												3
TW090500	050200	1721			3	3												3
BR020500	050200	1801			3	3												3

RELINQUISHED BY:
Signature: Deven Carigan
Printed Name: Deven Carigan
Firm: HLA
Date/Time: 050400/1215

RECEIVED BY:
Signature: Rachelle Boyt
Printed Name: Rachelle Boyt
Firm: CAS
Date/Time: 5-4-00 1300

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

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 Report 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.
please see P.O.

INVOICE INFORMATION:
P.O. #: 6082 (Quote #3321)
Bill To: HLA
1400 Centerpoint #158
Knoxville TN
37932

SAMPLE RECEIPT:
Shipping Via: Client
Shipping #:
Temperature: 5, 6°, 6°
Submission No: R20-1936

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

Columbia Analytical Services INC.
An Employee-Owned Company

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

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DATE 050300 PAGE 4 OF 4

PROJECT NAME Pre-Remedy GWMP
PROJECT MANAGER/CONTACT Paul Edmonds
COMPANY/ADDRESS HLA 1400 Centerpoint Blvd #158
Knoxville TN 37932
TEL (865) 531-1922 FAX (865) 531-8226
SAMPLER'S SIGNATURE Deven Carigan

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	FOR OFFICE USE ONLY LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ 95-1	GC/MS SVOA's ☐ 8270 ☐ 625 ☐ 95-2	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES/PCB's ☐ 8081 ☐ 608 ☐ 95-3	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	PRESERVATION pH < 2.0	PRESERVATION pH > 12	PRESERVATION Other HCl
TW200500	050300	0755		water	3	3												3
BR010500	050300	0854			3	3												3
BR010500D	050300	0859			3	3												3
TW170500	050300	0924			3	3												3
W50500	050300	1024			3	3												3
BR050500	050300	1115			3	3												3
OB050500	050300	1430			3	3												3
OB040500	050300	1545			3	3												3
BR040500	050300	1651			3	3												3
Trip Blank	—	—			3	3												3

RELINQUISHED BY:
Signature Deven Carigan
Printed Name HLA
Firm 050400/1215
Date/Time

RECEIVED BY:
Signature Rachelle Bogart
Printed Name CAS
Firm 5-4-00 1300
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

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.
please see P.O.

INVOICE INFORMATION:
P.O. #: 6082 (Quote #3321)
Bill To: HLA 1400 → Centerpoint Blvd #158
Knoxville TN 37932

SAMPLE RECEIPT:
Shipping Via: client
Shipping #:
Temperature: 5°, 6°, 6°
Submission No: R20-1936

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

APPENDIX D

LABORATORY REPORTS

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : BR010500

Date Sampled : 05/03/00 08:54 **Order #:** 376747 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/12/00
ANALYTICAL DILUTION: 10.00

ANALYTE	PQL	RESULT	UNITS
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	1100	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	50 U	UG/L
1,2-DICHLOROPROPANE	5.0	50 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	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	620	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 %)	92	%
TOLUENE-D8	(88 - 110 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	111	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference:
Client Sample ID : BR010500D

Date Sampled : 05/03/00 8:59 **Order #:** 376842 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/13/00
ANALYTICAL DILUTION: 5.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	100 U	UG/L
BENZENE	5.0	25 U	UG/L
BROMODICHLOROMETHANE	5.0	25 U	UG/L
BROMOFORM	5.0	25 U	UG/L
BROMOMETHANE	5.0	25 U	UG/L
2-BUTANONE (MEK)	10	50 U	UG/L
CARBON DISULFIDE	10	50 U	UG/L
CARBON TETRACHLORIDE	5.0	25 U	UG/L
CHLOROBENZENE	5.0	25 U	UG/L
CHLOROETHANE	5.0	25 U	UG/L
CHLOROFORM	5.0	25 U	UG/L
CHLOROMETHANE	5.0	25 U	UG/L
DIBROMOCHLOROMETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHANE	5.0	25 U	UG/L
1,2-DICHLOROETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHENE	5.0	25 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1100 E	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	25 U	UG/L
1,2-DICHLOROPROPANE	5.0	25 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
ETHYLBENZENE	5.0	25 U	UG/L
2-HEXANONE	10	50 U	UG/L
METHYLENE CHLORIDE	5.0	25 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50 U	UG/L
STYRENE	5.0	25 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	25 U	UG/L
TETRACHLOROETHENE	5.0	25 U	UG/L
TOLUENE	5.0	25 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	25 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	25 U	UG/L
TRICHLOROETHENE	5.0	570	UG/L
VINYL CHLORIDE	5.0	25 U	UG/L
O-XYLENE	5.0	25 U	UG/L
M+P-XYLENE	5.0	25 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	95	%
TOLUENE-D8	(88 - 110 %)	106	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	115	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference:
Client Sample ID : BR010500D

Date Sampled : 05/03/00 8:59 **Order #:** 376842 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/17/00
ANALYTICAL DILUTION: 10.00

ANALYTE	PQL	RESULT	UNITS
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	930	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	50 U	UG/L
1,2-DICHLOROPROPANE	5.0	50 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	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	420	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 %)	104	%
TOLUENE-D8	(88 - 110 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	99	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : BR020500

Date Sampled : 05/02/00 18:01 **Order #:** 376745 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 05/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	62	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	13	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	330 E	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	93	%
TOLUENE-D8	(88 - 110 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	114	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : BR020500

Date Sampled : 05/02/00 18:01 **Order #:** 376745 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 0

DATE ANALYZED : 05/15/00
ANALYTICAL DILUTION: 2.00

ANALYTE	PQL	RESULT	UNITS
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	59	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	12	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	350	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 %)	114	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : BR030500

Date Sampled : 05/02/00 15:35 **Order #:** 376743 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 05/15/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	8.6	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	550 E	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

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

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : BR030500

Date Sampled : 05/02/00 15:35 **Order #:** 376743 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 0

DATE ANALYZED : 05/16/00
ANALYTICAL DILUTION: 5.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	100 U	UG/L
BENZENE	5.0	25 U	UG/L
BROMODICHLOROMETHANE	5.0	25 U	UG/L
BROMOFORM	5.0	25 U	UG/L
BROMOMETHANE	5.0	25 U	UG/L
2-BUTANONE (MEK)	10	50 U	UG/L
CARBON DISULFIDE	10	50 U	UG/L
CARBON TETRACHLORIDE	5.0	25 U	UG/L
CHLOROBENZENE	5.0	25 U	UG/L
CHLOROETHANE	5.0	25 U	UG/L
CHLOROFORM	5.0	25 U	UG/L
CHLOROMETHANE	5.0	25 U	UG/L
DIBROMOCHLOROMETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHANE	5.0	25 U	UG/L
1,2-DICHLOROETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHENE	5.0	25 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	25 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	25 U	UG/L
1,2-DICHLOROPROPANE	5.0	25 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
ETHYLBENZENE	5.0	25 U	UG/L
2-HEXANONE	10	50 U	UG/L
METHYLENE CHLORIDE	5.0	25 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50 U	UG/L
STYRENE	5.0	25 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	25 U	UG/L
TETRACHLOROETHENE	5.0	25 U	UG/L
TOLUENE	5.0	25 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	25 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	25 U	UG/L
TRICHLOROETHENE	5.0	560	UG/L
VINYL CHLORIDE	5.0	25 U	UG/L
O-XYLENE	5.0	25 U	UG/L
M+P-XYLENE	5.0	25 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	90	%
TOLUENE-D8	(88 - 110 %)	100	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	116	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : BR040500

Date Sampled : 05/03/00 16:51 **Order #:** 376753 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 05/13/00			
ANALYTICAL DILUTION: 25.00			
ACETONE	20	500 U	UG/L
BENZENE	5.0	130 U	UG/L
BROMODICHLOROMETHANE	5.0	130 U	UG/L
BROMOFORM	5.0	130 U	UG/L
BROMOMETHANE	5.0	130 U	UG/L
2-BUTANONE (MEK)	10	250 U	UG/L
CARBON DISULFIDE	10	250 U	UG/L
CARBON TETRACHLORIDE	5.0	130 U	UG/L
CHLOROBENZENE	5.0	130 U	UG/L
CHLOROETHANE	5.0	130 U	UG/L
CHLOROFORM	5.0	130 U	UG/L
CHLOROMETHANE	5.0	130 U	UG/L
DIBROMOCHLOROMETHANE	5.0	130 U	UG/L
1,1-DICHLOROETHANE	5.0	130 U	UG/L
1,2-DICHLOROETHANE	5.0	130 U	UG/L
1,1-DICHLOROETHENE	5.0	130 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	770	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	130 U	UG/L
1,2-DICHLOROPROPANE	5.0	130 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	130 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	130 U	UG/L
ETHYLBENZENE	5.0	130 U	UG/L
2-HEXANONE	10	250 U	UG/L
METHYLENE CHLORIDE	5.0	130 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	250 U	UG/L
STYRENE	5.0	130 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	130 U	UG/L
TETRACHLOROETHENE	5.0	130 U	UG/L
TOLUENE	5.0	130 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	130 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	130 U	UG/L
TRICHLOROETHENE	5.0	6500 E	UG/L
VINYL CHLORIDE	5.0	130 U	UG/L
O-XYLENE	5.0	130 U	UG/L
M+P-XYLENE	5.0	130 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	94	%
TOLUENE-D8	(88 - 110 %)	104	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	116	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : BR040500

Date Sampled : 05/03/00 16:51 **Order #:** 376753 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/17/00
ANALYTICAL DILUTION: 50.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	1000 U	UG/L
BENZENE	5.0	250 U	UG/L
BROMODICHLOROMETHANE	5.0	250 U	UG/L
BROMOFORM	5.0	250 U	UG/L
BROMOMETHANE	5.0	250 U	UG/L
2-BUTANONE (MEK)	10	500 U	UG/L
CARBON DISULFIDE	10	500 U	UG/L
CARBON TETRACHLORIDE	5.0	250 U	UG/L
CHLOROBENZENE	5.0	250 U	UG/L
CHLOROETHANE	5.0	250 U	UG/L
CHLOROFORM	5.0	250 U	UG/L
CHLOROMETHANE	5.0	250 U	UG/L
DIBROMOCHLOROMETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHANE	5.0	250 U	UG/L
1,2-DICHLOROETHANE	5.0	250 U	UG/L
1,1-DICHLOROETHENE	5.0	250 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	710	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	250 U	UG/L
1,2-DICHLOROPROPANE	5.0	250 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	250 U	UG/L
ETHYLBENZENE	5.0	250 U	UG/L
2-HEXANONE	10	500 U	UG/L
METHYLENE CHLORIDE	5.0	250 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	500 U	UG/L
STYRENE	5.0	250 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	250 U	UG/L
TETRACHLOROETHENE	5.0	250 U	UG/L
TOLUENE	5.0	250 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	250 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	250 U	UG/L
TRICHLOROETHENE	5.0	5000	UG/L
VINYL CHLORIDE	5.0	250 U	UG/L
O-XYLENE	5.0	250 U	UG/L
M+P-XYLENE	5.0	250 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	106	%
TOLUENE-D8	(88 - 110 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	97	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : BR050500

Date Sampled : 05/03/00 11:15 **Order #:** 376750 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/13/00
ANALYTICAL DILUTION: 10.00

ANALYTE	PQL	RESULT	UNITS
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	1100	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	88	UG/L
1,2-DICHLOROPROPANE	5.0	50 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	50 U	UG/L
TRANS-1,3-DICHLOROPROPENE	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	2000	UG/L
VINYL CHLORIDE	5.0	120	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 %)	94	%
TOLUENE-D8	(88 - 110 %)	104	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	111	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : BR070500

Date Sampled : 05/02/00 08:25 **Order #:** 376732 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/12/00
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	150	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	9.7	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	49	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	98	%
TOLUENE-D8	(88 - 110 %)	100	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	112	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : MW000500

Date Sampled : 05/02/00 10:14 **Order #:** 376734 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/12/00
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	8.4	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	16	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	98	%
TOLUENE-D8	(88 - 110 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	114	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : OB040500

Date Sampled : 05/03/00 15:45 **Order #:** 376752 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/13/00
ANALYTICAL DILUTION: 250.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	5000 U	UG/L
BENZENE	5.0	1300 U	UG/L
BROMODICHLOROMETHANE	5.0	1300 U	UG/L
BROMOFORM	5.0	1300 U	UG/L
BROMOMETHANE	5.0	1300 U	UG/L
2-BUTANONE (MEK)	10	2500 U	UG/L
CARBON DISULFIDE	10	2500 U	UG/L
CARBON TETRACHLORIDE	5.0	1300 U	UG/L
CHLOROBENZENE	5.0	1300 U	UG/L
CHLOROETHANE	5.0	1300 U	UG/L
CHLOROFORM	5.0	1300 U	UG/L
CHLOROMETHANE	5.0	1300 U	UG/L
DIBROMOCHLOROMETHANE	5.0	1300 U	UG/L
1,1-DICHLOROETHANE	5.0	1300 U	UG/L
1,2-DICHLOROETHANE	5.0	1300 U	UG/L
1,1-DICHLOROETHENE	5.0	1300 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	1300 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	1300 U	UG/L
1,2-DICHLOROPROPANE	5.0	1300 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	1300 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	1300 U	UG/L
ETHYLBENZENE	5.0	1300 U	UG/L
2-HEXANONE	10	2500 U	UG/L
METHYLENE CHLORIDE	5.0	1300 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	2500 U	UG/L
STYRENE	5.0	1300 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	1300 U	UG/L
TETRACHLOROETHENE	5.0	1300 U	UG/L
TOLUENE	5.0	1300 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	1300 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	1300 U	UG/L
TRICHLOROETHENE	5.0	30000	UG/L
VINYL CHLORIDE	5.0	1300 U	UG/L
O-XYLENE	5.0	1300 U	UG/L
M+P-XYLENE	5.0	1300 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	94	%
TOLUENE-D8	(88 - 110 %)	104	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	114	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : OB050500

Date Sampled : 05/03/00 14:30 **Order #:** 376751 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 05/13/00			
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	2100	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	18000	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 %)	95	%
TOLUENE-D8	(88 - 110 %)	105	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	116	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : TW010500

Date Sampled : 05/01/00 18:35 **Order #:** 376730 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/12/00
ANALYTICAL DILUTION: 1.00

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

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	97	%
TOLUENE-D8	(88 - 110 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	110	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : TW040500

Date Sampled : 05/02/00 14:45 **Order #:** 376742 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/12/00
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	75	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	95	%
TOLUENE-D8	(88 - 110 %)	104	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	109	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : TW070500

Date Sampled : 05/01/00 19:50 **Order #:** 376731 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/12/00
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	8.4	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	93	%
TOLUENE-D8	(88 - 110 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	112	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : TW090500

Date Sampled : 05/02/00 17:21 **Order #:** 376744 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/16/00
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	8.3	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	170	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	89	%
TOLUENE-D8	(88 - 110 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	113	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : TW130500

Date Sampled : 05/02/00 11:15 **Order #:** 376739 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/12/00
ANALYTICAL DILUTION: 1.00

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

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	95	%
TOLUENE-D8	(88 - 110 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	113	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : TW170500

Date Sampled : 05/03/00 09:24 **Order #:** 376748 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 05/12/00			
ANALYTICAL DILUTION: 5.00			
ACETONE	20	100 U	UG/L
BENZENE	5.0	25 U	UG/L
BROMODICHLOROMETHANE	5.0	25 U	UG/L
BROMOFORM	5.0	25 U	UG/L
BROMOMETHANE	5.0	25 U	UG/L
2-BUTANONE (MEK)	10	50 U	UG/L
CARBON DISULFIDE	10	50 U	UG/L
CARBON TETRACHLORIDE	5.0	25 U	UG/L
CHLOROBENZENE	5.0	25 U	UG/L
CHLOROETHANE	5.0	25 U	UG/L
CHLOROFORM	5.0	25 U	UG/L
CHLOROMETHANE	5.0	25 U	UG/L
DIBROMOCHLOROMETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHANE	5.0	25 U	UG/L
1,2-DICHLOROETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHENE	5.0	25 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	25 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	25 U	UG/L
1,2-DICHLOROPROPANE	5.0	25 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
ETHYLBENZENE	5.0	25 U	UG/L
2-HEXANONE	10	50 U	UG/L
METHYLENE CHLORIDE	5.0	25 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50 U	UG/L
STYRENE	5.0	25 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	25 U	UG/L
TETRACHLOROETHENE	5.0	25 U	UG/L
TOLUENE	5.0	25 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	25 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	25 U	UG/L
TRICHLOROETHENE	5.0	660	UG/L
VINYL CHLORIDE	5.0	25 U	UG/L
O-XYLENE	5.0	25 U	UG/L
M+P-XYLENE	5.0	25 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	94	%
TOLUENE-D8	(88 - 110 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	112	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : TW200500

Date Sampled : 05/03/00 07:55 **Order #:** 376746 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 05/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	20	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	94	%
TOLUENE-D8	(88 - 110 %)	104	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	114	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : W40500

Date Sampled : 05/02/00 09:26 **Order #:** 376733 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/12/00
ANALYTICAL DILUTION: 1.00

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

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	99	%
TOLUENE-D8	(88 - 110 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	112	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : W50500

Date Sampled : 05/03/00 10:24 **Order #:** 376749 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/17/00
ANALYTICAL DILUTION: 1.00

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	68	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	69	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	15	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	130	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	105	%
TOLUENE-D8	(88 - 110 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	100	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : W50500

Date Sampled : 05/03/00 10:24 **Order #:** 376749 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/13/00
ANALYTICAL DILUTION: 50.00

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

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	94	%
TOLUENE-D8	(88 - 110 %)	103	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	116	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : W60500

Date Sampled : 05/02/00 12:21 **Order #:** 376740 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/12/00
ANALYTICAL DILUTION: 1.00

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

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	98	%
TOLUENE-D8	(88 - 110 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	111	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : W60500D

Date Sampled : 05/02/00 12:21 **Order #:** 376741 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/12/00
ANALYTICAL DILUTION: 1.00

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

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	95	%
TOLUENE-D8	(88 - 110 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	111	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : QAFB0500

Date Sampled : 05/02/00 10:35 **Order #:** 376737 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

DATE ANALYZED : 05/12/00
ANALYTICAL DILUTION: 1.00

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

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	94	%
TOLUENE-D8	(88 - 110 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	115	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B TCL
Reported: 06/02/00

Harding Lawson Associates
Project Reference: PRE-REMEDY GWMP AMES STREET PROJECT
Client Sample ID : QARI0500

Date Sampled : 05/02/00 10:43 **Order #:** 376738 **Sample Matrix:** WATER
Date Received: 05/04/00 **Submission #:** R2001936 **Analytical Run** 51031

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 05/12/00			
ANALYTICAL DILUTION: 1.00			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

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