LBFoster

415 Holiday Drive
Pittsburgh, PA 15220
(412) 928-3400
(412) 928-7891 (Fax)

November 1, 2012

Mr. David Brownlee
Acting Program Manager
Response and Remediation Program
Georgia Department of Natural Resources
Environmental Protection Division
2 Martin Luther King, Jr. Drive, S.E.
Suite 1462, East Tower
Atlanta, Georgia 30334-9000

Re: Voluntary Remediation Program Compliance Status Report
Former Southern Pipe Coating Operation Site, HSI #10757
6420 Corley Road
Norcross, Georgia 30071

Dear Mr. Brownlee,

Enclosed please find one (1) original and two (2) electronic versions of the Voluntary Remediation Program (VRP) Compliance Status Report (CSR) dated November 1, 2012 for the above referenced Site, submitted in response to your letter of June 22, 2012 accepting our June 6, 2012 VRP Application.

The VRP CSR includes the results of recent post-remediation monitoring conducted in accordance with the March 26, 2007 Corrective Action Plan, and certification that the Site is in compliance with Type 1 Risk Reduction Standards (RRS) with controls, including an Environmental Covenant (EC) pursuant to the Georgia Uniform Environmental Covenants Act, OCGA §44-16-1, with respect to groundwater on a limited portion of the qualifying properties. We understand the EC may be amended or terminated at a later date should Georgia Department of Natural Resources, Environmental Protection Division (GEPD) agree it is no longer required, and further understand GEPD will remove the Site from the Hazardous Site Inventory within 90 days of providing written concurrence with the findings presented in this VRP CSR.

Should you have any questions or require additional information, please call either me at 412-928-3402 or our consultant for the project, Robert Finkelstein of T-2 Environmental at 281-615-1487.

Regards,

L.B. FOSTER COMPANY

Steven L. Hart

cc: R. Finkelstein, T-2 Environmental
C. Tisdale, Esq.

enclosures

VOLUNTARY REMEDIATION PROGRAM
COMPLIANCE STATUS REPORT

Former Southern Pipe Coating Operation
6420 Corley Road
Norcross, Georgia 30071

HSI ID No. 10757

November 1, 2012

Robert Finkelstein, P.E.
Project Manager

John O. Schwaller, P.G.
(GA Registration No. 1617)

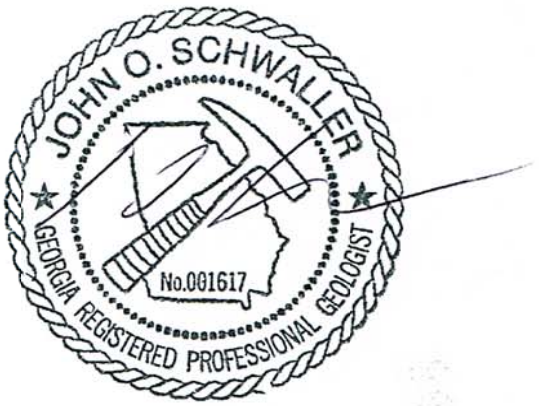


TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

Appendices

Note: Sections, Pages, Figures, Tables, and Appendices are ordered in a manner consistent with the January 14, 2008 Compliance Status Report (CSR) and the July 23, 2010 Response to CSR Comments (RTC). Asterisks indicate the relationship of the contents of this CSR to that of the January 14, 2008 CSR. The text, figures, tables, and enclosures reconcile with the January 14, 2008 CSR and the July 23, 2010 RTC as follows: * Replace
** Add

STATEMENT OF FINDINGS

This Voluntary Remediation Program (VRP) Compliance Status Report (CSR) for the Former Southern Pipe Coating Site located at 6420 Corley Road in Norcross, Georgia, Hazardous Site Inventory (HSI) No. 10757 (hereinafter the "Site") is submitted by L.B. Foster Company (Foster) in response to the Georgia Department of Natural Resources, Environmental Protection Division's (GEPD) June 22, 2012 approval of Foster's June 6, 2012 VRP Application. This VRP CSR documents the following findings:

Soils

All soils containing regulated substances above the Notification Concentrations in the Rules for Hazardous Site Response, Rule 391-3-19-.04(3)(b) (the "NC or NCs") were excavated and properly disposed off site, and the remaining soils are in compliance with Type 1 Risk Reduction Standards (RRS).

Groundwater

Groundwater containing regulated substances above the concentrations in Table 1 of Appendix III to the Rules for Hazardous Site Response, Rule 391-3-19 was remediated by air injection/soil vacuum extraction (AI/SVE), and groundwater is in compliance with Type 1 RRS with controls, including an Environmental Covenant (EC) pursuant to the Georgia Uniform Environmental Covenants Act, OCGA §44-16-1, with respect to groundwater on a limited portion of the 2.6 acre qualifying property identified as Tax Parcel ID: 6-252-029.

VOLUNTARY REMEDIATION PROGRAM
COMPLIANCE STATUS REPORT

Former Southern Pipe Coating Operation
L.B. Foster Company
6420 Corley Road
Norcross, Georgia 30071
Hazardous Site Inventory No. 10757

Certificate of Compliance with Risk Reduction Standards

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

Based on my review of the findings of this report with respect to the risk reduction standards of the Rules for Hazardous Site Response, Rule 391-3-19-.07, I have determined that HSI Site No. 10757 is in compliance with Type 1 Risk Reduction Standards (RRS) with controls.

Mr. Steven L. Hart

Printed Name (Owner/Operator)
L. B. Foster Company

Signature (Owner/Operator)

VOLUNTARY REMEDIATION PROGRAM
COMPLIANCE STATUS REPORT

Former Southern Pipe Coating Operation
L.B. Foster Company
6420 Corley Road
Norcross, Georgia 30071
Hazardous Site Inventory No. 10757

GROUNDWATER SCIENTIST STATEMENT

I certify that I am a qualified groundwater scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate transport. I further certify that this report was prepared by me or by a subordinate working under my direction.

Mr. John O. Schwaller, P.G.
Printed Name
REM-CON, LLC

Signature/Stamp

1.0 INTRODUCTION

This VRP CSR is submitted for HSI Site No. 10757 in response to GEPD's letter of June 22, 2012 approving Foster's June 6, 2012 VRP Application (the June 6, 2012 VRP Application) and amends Foster's following submittals:

1) Compliance Status Report, dated January 14, 2008 (January 14, 2008 CSR),
2) Response to CSR Comments, dated July 23, 2010 (July 23, 2010 RTC), and
3) The June 6, 2012 VRP Application

and documents the results of recent work conducted in accordance with the March 26, 2007 Corrective Action Plan (CAP) for the Site.

The January 14, 2008 CSR documented the then-current status of the Site with respect to the risk reduction standards of Rule 391-3-19-.07 for all regulated substances associated with each release at the Site. The July 23, 2010 RTC responded to GEPD's February 25, 2010 letter and comments concerning the January 14, 2008 CSR. GEPD's March 9, 2012 letter requested additional groundwater delineation required for the Site since VRP application had not yet been made. The June 6, 2012 VRP Application was submitted in response to GEPD's letter of March 9, 2012 and approved in GEPD's letter of June 22, 2012.

As noted in the June 6, 2012 VRP Application, Item #5 and Tab #4, three of the four required generic milestones were complete at the time of the VRP application submittal. The investigation, remediation, and results were documented in the January 14, 2008 CSR and the July 23, 2010 RTC, undertaken in accordance with the March 26, 2007 CAP. Foster has since continued post-remediation groundwater monitoring in accordance with the March 26, 2007 CAP. Foster submits this VRP CSR under the VRP and in support of the fourth milestone, as noted in the June 6, 2012 VRP Application, and in response to GEPD's letter of June 22, 2012.

This VRP CSR is compiled on the basis of Site conditions which exist after the completion of the voluntary corrective actions taken by Foster prior to this report. The January 14, 2008 CSR and the July 23, 2010 RTC are incorporated, as appropriate, in this submittal by reference.

The January 14, 2008 CSR and July 23, 2010 RTC confirmed remedial actions are complete for soil at the Site. Investigation and corrective actions were completed in 2001 and 2002. Soils containing regulated substances above GEPD NCs were excavated and disposed off-site. The investigation and corrective action activities and results were submitted in the January 14, 2008 CSR and July 23, 2010 RTC. The July 23, 2010 RTC included Type 1 RRS calculations and a table of Maximum Detected Concentrations (MDC) demonstrating remaining soils met Type 1 Soil RRS.

6.0 EXTENT OF REGULATED SUBSTANCES IN SOILS AND GROUNDWATER

6.3 Groundwater

The results from the groundwater sampling, as discussed in Sections 3.1 and 3.2 indicate the groundwater at the 2.6 acre qualifying property identified as Tax Parcel ID: 6-252-029 contained regulated substances (volatile organic compounds, VOC) above the Type 1 RRS in only the overburden wells. The installation and sampling of deeper wells MW-34D and MW-35D confirmed that no regulated substances were present in the bedrock aquifer. These data are presented on geologic cross-sections, Figures 8, 9 and 10.

As detailed in Section 8.2, Foster installed and started up an AI/SVE System in May 2004. Post-remediation monitoring since the AI/SVE System shutdown in May 2009 indicates corrective actions are complete. The levels and extent of VOC above Type 1 RRS are limited and expected to naturally attenuate in a short amount of time. Note the following:

Table 5. Table 5 presents the Type 1 RRS for the regulated substances detected in groundwater at the Site and the Type 4 RRS for trichloroethylene (TCE) only. TCE was detected in the most recent groundwater sample collected at MW-14R for post-remediation monitoring. TCE was not detected in the other post-remediation monitoring samples. No other Type 1 RRS exceedances remain.

Figure 14. Figure 14 presents the contaminants, levels, and Type 1 RRS exceedances remaining at the end of 2007. The AI/SVE project started in May 2004 and was still operating in 2007. Only one regulated substance, cis-1,2-dichloroethylene, was detected above current Type 1 RRS and at only one location, MW-21. MW-21 is located in the approximate middle of the AI/SVE project area. The AI/SVE System operated continuously through May 2009.

Figures 14a, 14b, and 14c. Figures 14a, 14b, and 14c present the results of post-remediation groundwater monitoring, after the May 2009 shut down of the AI/SVE System, including February 2010, July 2010, and August 2012, respectively, for MW-14R, MW-21, and MW-29. The wells were sampled in accordance with the March 26, 2007 CAP, the results were added to Table 5, and copies of the field sampling records and certified laboratory results are found in Appendices 19 and 20, respectively.

The 2010 results, presented on Figures 14a and 14b, indicate groundwater has been remediated to Type 1 RRS. No chemicals of concern were detected above Type 1 RRS. The 2012 results, presented on Figure 14c, show a low level Type 1 RRS exceedance of TCE detected at MW-14R and no other Type 1 RRS exceedances. TCE was detected at 14 micrograms per liter (ug/l), above its Type 1 RRS of 5.0 ug/l.

7.0 RELEASE RECEPTORS

7.1 Conceptual Site Model

Remaining soil and groundwater have been remediated, there is no significant risk to human health or the environment, and following completion of corrective actions in May 2009 the only ongoing Site activity is post-remediation monitoring for groundwater. In response to GEPD's request and the requirements of the VRP, a conceptual site model (CSM) is included as Figure 24. The CSM is a pictorial representation and narrative including considerations and assessments made during the investigation, delineation, and corrective actions undertaken from 2001 through completion in 2009 and continuing through subsequent post-remediation monitoring.

As indicated in Figure 24, the CSM recognizes the following potential pathways:

- Soil considering direct contact and vapor intrusion with ingestion, dermal contact, and inhalation by residential, commercial, and ecological receptors;
- Soil considering wind effects with ingestion, dermal contact, and inhalation by residential, commercial, and ecological receptors;
- Groundwater considering withdrawals for potable use with ingestion, dermal contact, and inhalation by residential, commercial, and ecological receptors;
- Groundwater considering vapor instrusion with ingestion, dermal contact, and inhalation by residential, commercial, and ecological receptors;
- Groundwater considering surface water discharge with ingestion, dermal contact, and inhalation by residential, commercial, and ecological receptors; and
- Storm Water Run-off considering sediments in run-off with ingestion, dermal contact, and inhalation by residential, commercial, and ecological receptors.

The CSM is presented following completion of corrective actions, all soil and groundwater are in compliance with Type 1 RRS with controls, and considering historical, current, and anticipated future land uses, none of these pathways are complete and no further evaluation is indicated.

In consideration of the recent low level TCE exceedance at MW-14R, the following are also considered with respect to potential impacts:

- Zoning. The 27 Acre Site is zoned for heavy industrial use. The downgradient and surrounding properties are also zoned for industrial use. As all of these properties are developed and under such use, this zoning classification is not expected to change.

- Drinking Water Supply. The 27 Acre Site and the surrounding properties are served by a reliable public drinking water supply (Gwinnett County, Department of Water Resources). Groundwater withdrawals for potable use are not necessary.

- Deed Notices. A groundwater limitation control, in the form of an Environmental Covenant (EC) pursuant to the Georgia Uniform Environmental Covenants Act, OCGA §44-16-1, will be recorded restricting the use or extraction of groundwater within the delineated portion of the 2.6 acre qualifying property identified as Tax Parcel ID: 6-252-029 (the 2.6 Acre Parcel). Foster understands the EC may be amended or terminated at a later date should GEPD agree the EC is no longer required. The EC drafted by Foster is enclosed in Appendix 21.

- Contaminant Fate and Transport. EPA's BIOCHLOR Natural Attenuation Decision Support System model, Version 2.2 (BIOCHLOR), was used to further address the TCE exceedance in groundwater at MW-14R detected in August 2012 at 14 ug/l and above its Type 1 RRS of 5 ug/l. The down-gradient extent of the Type 1 RRS exceedance plume is 50 feet, as determined by the model. The extent of the plume is rendered on Figure 14c.

  In consideration of the TCE exceedance, the BIOCHLOR modeling work was expanded to assess other potential receptors. The modeling was run with conservative assumptions including a non-decaying, sustained TCE source of 14 ug/l and time of 100 years. Comparatively, 15 ug/l is the highest TCE concentration reported for any groundwater sample collected since 2001.

  - BIOCHLOR modeling indicates TCE would not migrate to the hypothetical point of a drinking water well located 1000 feet down-gradient of the delineated contamination at levels above the Type 1 RRS for TCE of 5 ug/l.

- BIOCHLOR modeling also indicates TCE would not migrate to the nearest surface water body 1800 feet away at levels above the GEPD surface water quality standard for TCE of 30 ug/l.

In addition, BIOCHLOR modeling run backwards indicates TCE would not reach a hypothetical point of a drinking water well located 1000 feet down-gradient of the property line at concentrations above the Type 1 RRS for TCE of 5 ug/l, for TCE concentrations at MW-14R as high as 80 ug/l. The BIOCHLOR modeling report is found in Appendix 22.

- Vapor Intrusion. Vapor instrusion screening for TCE in groundwater was conducted using EPA's Vapor Intrusion Screening Level (VISL) Calculator, Version 2.0, using May 2012 Regional Screening Levels. This is a conservative conceptual model that assumes a groundwater source of volatile vapors that diffuse upwards through unsaturated soils towards the surface and into buildings. At this time, there are no buildings on the 2.6 Acre Parcel including the area where the low level TCE exceedance is indicated at MW-14R on Figure 14c. The VISL calculated Target Groundwater Concentration for TCE was found to be 22 ug/l, which is above the concentration of TCE recently found at MW-14R. These results indicate no further vapor intrusion assessment is necessary. The VISL Calculator documentation is found in Appendix 23.

  TCE in soil is not a vapor intrusion concern because the concentrations remaining in the Site soil are very low. The maximum detected concentration (MDC) in the remaining soils is 21 micrograms per kilogram (ug/kg), reported for a MW-14 excavation verification sample collected in the vicinity of MW-14R and located on the 2.6 Acre Parcel.

  Note also that OSHA's Permissible Exposure Limit (PEL) for TCE is 100 parts per million (ppm) which is equal to 535 milligrams per cubic meter (mg/m^3) and the ACGIH Threshold Limit Value (TLV) for TCE is 10 ppm (equal to 53.5 mg/m^3). Both are for 8-hour time weighted averages and neither level could be realized for the TCE concentrations indicated to be remaining in either the soil or groundwater.

8.0 SUMMARY OF THE ACTIONS PERFORMED

8.2 Groundwater Remediation

Twelve AI and twenty-two SVE wells were installed in early 2004 to remediate the release. Pilot testing in 2003 confirmed that the radius of influence for the AI and SVE wells was 50-100 feet. The AI compressors are rotary vane compressors (3 cfm each) and the SVE blowers are regenerative blowers (75 cfm each).

The AI/SVE system was started up in May 2004. In July 2006, four additional AI wells were installed and started up, and in October 2007, two additional AI wells were installed and started up. Figure 23 shows the location of all of the AI and SVE wells. Well logs for the 18 AI wells and the 22 VE wells are included in Appendix 18.

Groundwater was remediated in accordance with the March 26, 2007 CAP. The AI/SVE System was operated continuously for five years, from May 2004 through May 2009. The AI/SVE System has been shut down now for over three years to monitor static stabilized conditions. In accordance with the March 26, 2007 CAP, groundwater samples have been collected at MW-14R, MW-21, and MW-29.

As noted previously, post-remediation monitoring indicates the AI/SVE System has effectively remediated the groundwater at the Site and the remaining groundwater is in compliance with Type 1 RRS with controls as indicated in Section 7.1. The low level Type 1 RRS exceedance detected in the August 2012 sample collected at MW-14R, indicated TCE at 14 ug/l, and above its Type 1 RRS of 5 ug/l. Post-remediation monitoring is continuing in order to verify this exceedance is not significant and will naturally attenuate in a short period of time. For the same monitoring period, TCE was not detected at MW-21 or MW-29, installed sequentially down-gradient of MW-14R and along the groundwater flow path. TCE was also not detected in any other post-remediation monitoring samples since the May 2009 shutdown of the AI/SVE system.

Monitoring data collected in 2007, after three years of AI/SVE System operation is presented on Figure 14. Post-remediation monitoring data collected in 2010 and 2012 is presented on Figures 14a, 14b, and 14c.

9.0 RISK REDUCTION STANDARDS

EPD Rule 391-3-19-.07 provides for 5 types of RRS values that are protective of human health and the environment. Type 1 RRS has been indicated to be realized at the Site for both soil and groundwater. Type 1 RRS will pose no significant risk on the basis of standardized exposure assumptions and defined risk level for residential properties, and institutional and/or engineering controls are normally not required. A recent low level Type 1 RRS exceedance, however, indicates a groundwater limitation control, in the form of an Environmental Covenant, will be required to complete corrective actions that are protective of human health and the environment and to the satisfaction of GEPD.

Remediation to Type 1 RRS is the preferred alternative as it allows unrestricted use of the property. As noted previously, the 27 Acre Site and surrounding properties are zoned by Gwinnett County for industrial use and are currently developed and under such non-residential use.

Soils

Corrective actions for soil were completed in 2002. Soil containing regulated substances was excavated to NC levels. The July 23, 2010 RTC included Type 1 RRS calculations and a table of MDCs demonstrating remaining soils met Type 1 RRS to the satisfaction of GEPD.

Groundwater

Post-remediation monitoring indicates the AI/SVE system has remediated groundwater to Type 1 RRS. For post-remediation monitoring during 2010, VOC were not detected above the Type 1 RRS. The trend generally continued for the post-remediation monitoring samples collected in 2012 for all VOC. The exception is a recent, low level exceedance of TCE detected at MW-14R.

At this time, this low level TCE exceedance is believed to be a limited artifact of the historical operations that occurred at the Site, including corrective actions. As the source in soil was completely removed, it is not the result of an ongoing source. Thus, it is also expected that this exceedance will naturally attenuate in a short amount of time and remaining groundwater will be in compliance with Type 1 RRS.

As rendered on Figure 14c, the extent of groundwater in the vicinity of MW-14R and indicated to contain TCE above its Type 1 RRS of 5 ug/l is very limited in extent and wholly contained on a small portion of the 2.6 Acre Parcel. TCE was not detected at the next down-gradient well, MW-21 (even with its lower method detection limit, MDL, of 0.38 ug/l). MW-21 and MW-29 are installed down-gradient of MW-14R, in the groundwater flow path.

10.0 SUMMARY AND CONCLUSIONS

The HSI ID No. 10757 property is in compliance with Type 1 RRS with controls, and corrective actions are complete.

Soils

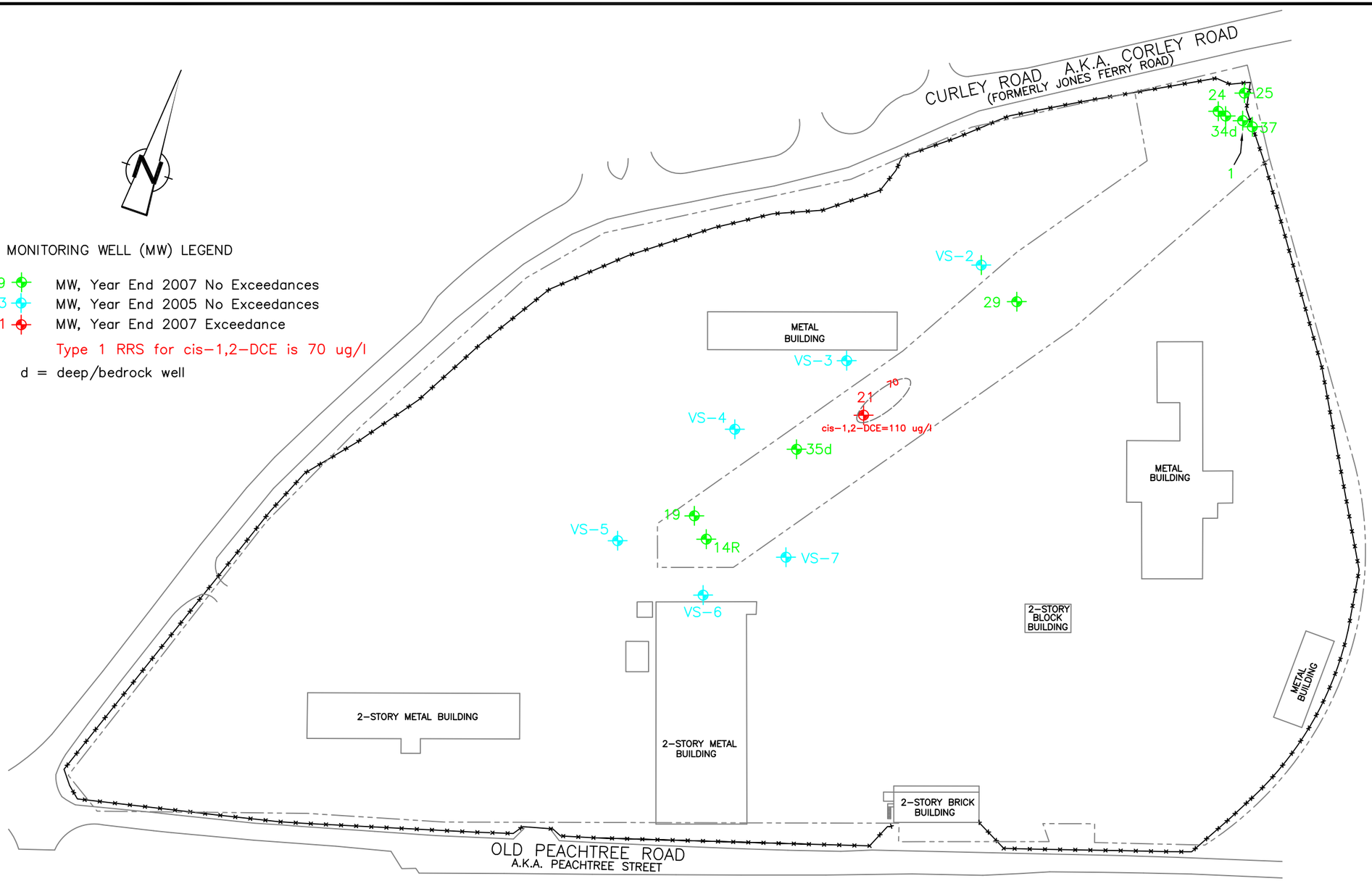
Remedial actions are complete for soil. Investigation and corrective actions were completed in 2001 and 2002. Soils containing regulated substances above GEPD NCs were excavated and disposed off-site.

Groundwater

Post-remediation monitoring verifies remedial actions are complete for groundwater with controls, including an environmental covenant prohibiting the extraction of groundwater for drinking water or any other non-remedial purpose.

Groundwater at a 500 ft^2 area of the 2.6 Acre Parcel contains TCE up to 14 ug/l, and above its Type 1 RRS of 5 ug/l. Fate and transport modeling (BIOCHLOR) and vapor intrusion calculations (VISL) indicate no on-property, off-property, or surface water concerns remain, if the groundwater containing TCE above 5 ug/l is not extracted.

Figures



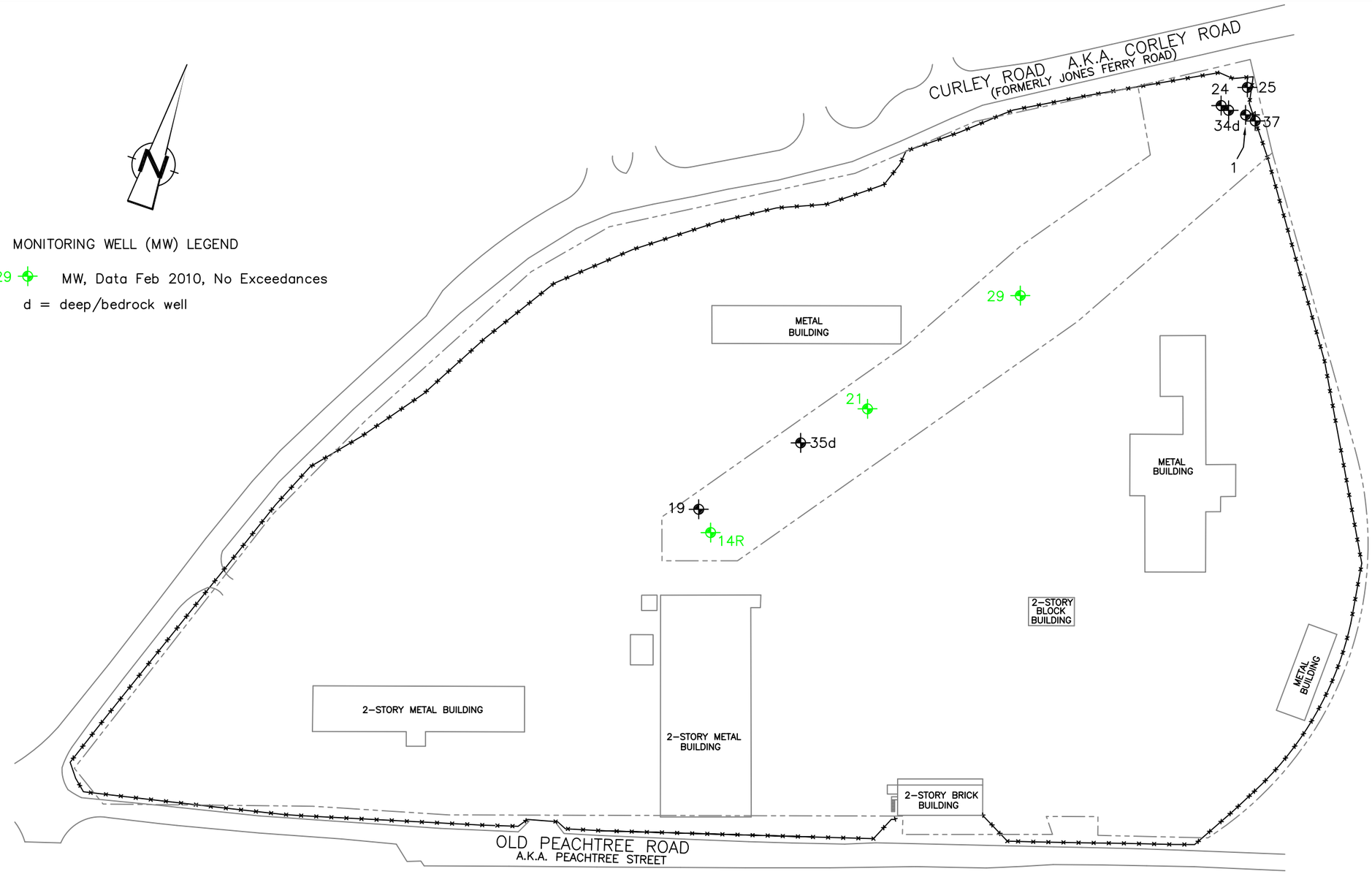
Iso-Concentration Map, During Remediation
VOC Type 1 RRS Exceedances, Thru December 2007

Former Southern Pipe Coating
NORCROSS, GEORGIA

6420 Corley Road

VRP Compliance Status Report - Site 10757

Figure 14



Iso-Concentration Map, Post Remediation Monitoring
VOC Type 1 RRS Exceedances, February 2010

Former Southern Pipe Coating
NORCROSS, GEORGIA

6420 Corley Road

VRP Compliance Status Report - Site 10757

Figure 14a

MONITORING WELL (MW) LEGEND

29 MW, Data July 2010, No Exceedances

d = deep/bedrock well

CURLEY ROAD A.K.A. CORLEY ROAD
(FORMERLY JONES FERRY ROAD)

OLD PEACHTREE ROAD
A.K.A. PEACHTREE STREET

METAL BUILDING

METAL BUILDING

2-STORY BLOCK BUILDING

METAL BUILDING

2-STORY METAL BUILDING

2-STORY METAL BUILDING

2-STORY BRICK BUILDING

24 25 34d 37 1 29 21 35d 19 14R

0 100 200ft

Iso-Concentration Map, Post Remediation Monitoring
VOC Type 1 RRS Exceedances, July 2010

Former Southern Pipe Coating
NORCROSS, GEORGIA

6420 Corley Road

VRP Compliance Status Report - Site 10757

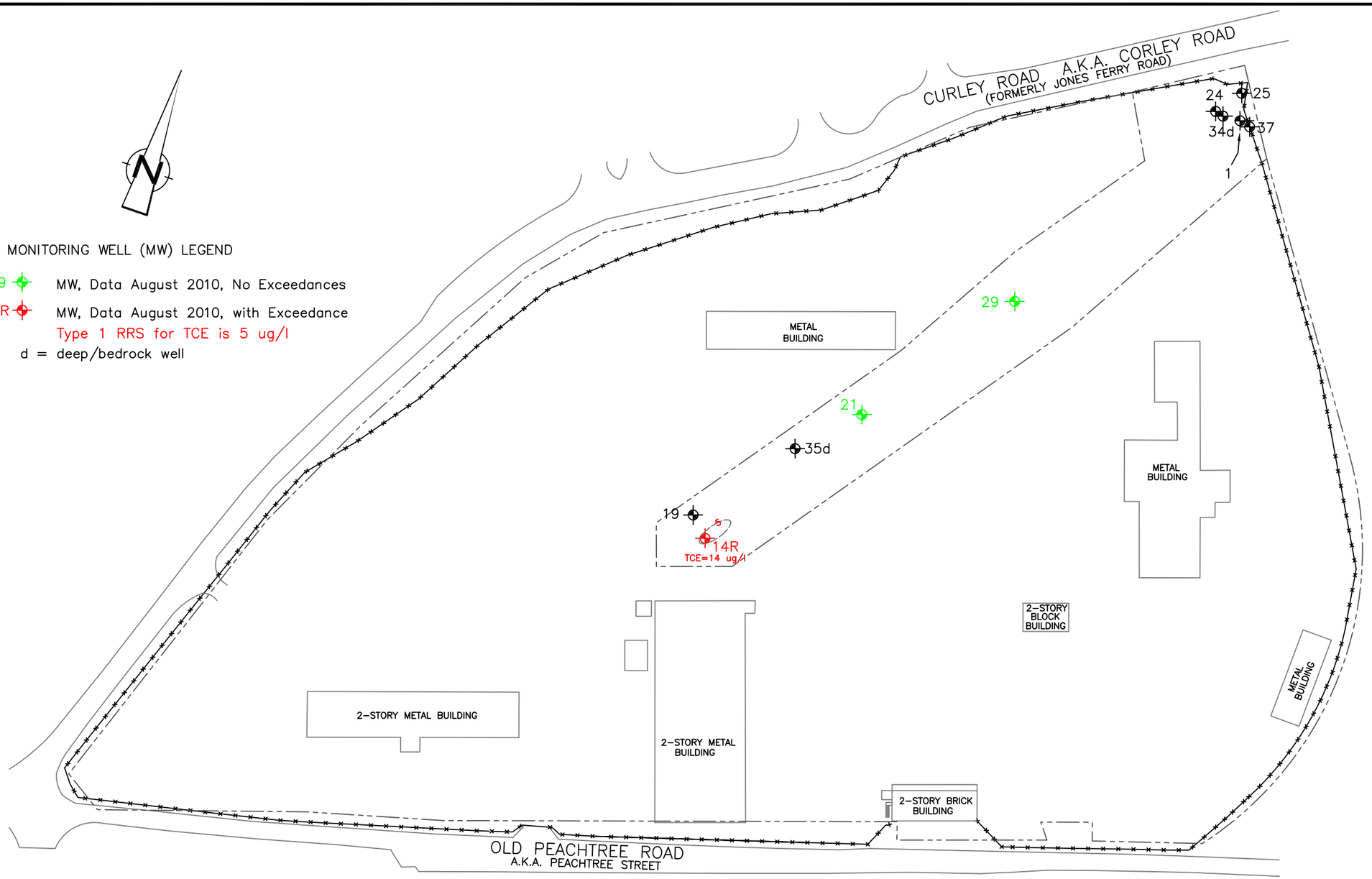
Figure 14b

MONITORING WELL (MW) LEGEND

29 MW, Data August 2010, No Exceedances

14R MW, Data August 2010, with Exceedance
Type 1 RRS for TCE is 5 ug/l

d = deep/bedrock well



0 100 200ft

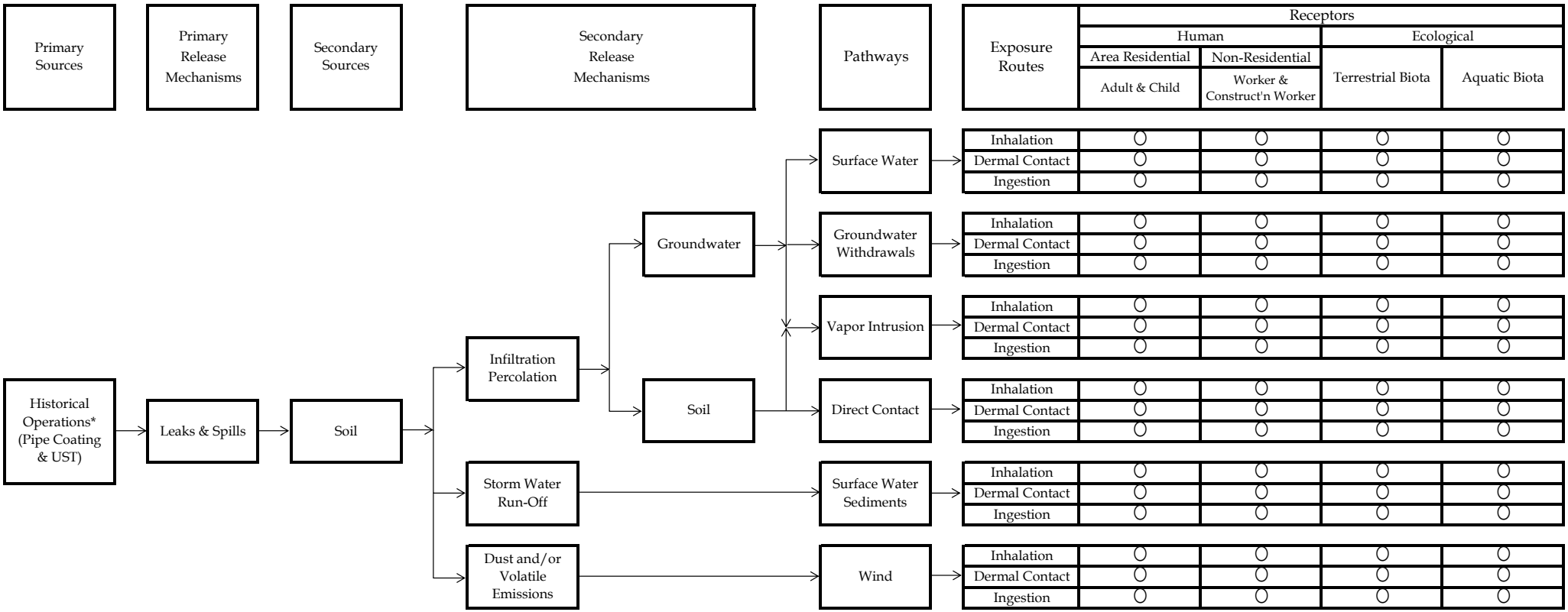
Iso-Concentration Map, Post Remediation Monitoring
VOC Type 1 RRS Exceedances, August 2010

Former Southern Pipe Coating
NORCROSS, GEORGIA

6420 Corley Road

VRP Compliance Status Report - Site 10757

Figure 14c



LEGEND

* Historical operations discontinued 1990.

O Pathway evaluated and determined incomplete; no further evaluation needed.

● Pathway evaluated and determined complete; none remaining at the Site.

Terrestrial Biota examples: plants, insects, worms, mammals, and birds.

Aquatic Biota examples: periphyton, bentic invertebrates, insects, and fish.

CONCEPTUAL SITE MODEL

Former Southern Pipe Coating Operation, HSI *10757 FIGURE 24

Tables

Table 5
Groundwater Monitoring Results Summary
Compliance Status Report - HSI No. 10757

"-" = Not analyzed/reported DL = Detection Limit	GW Type 1/3 RRS	GW Type 4 RRS	MW-1 11/20/01	MW-1 12/07/01	MW-1 04/19/02	MW-1 10/24/05	MW-1 05/24/07	MW-2 11/27/01	MW-2 12/07/01	MW-2 04/19/02	MW-4 11/27/01	MW-5 11/27/01
Analyte	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VOC												
Naphthalene	**20**		19	-	-	-	-	43	-	-	6	1340
chloroform	**80**		17	24	22	<5	<5	5	6.1	<5	<5	<5
1,1 dichloroethane	**4000**		77	120	110	<5	<5	25	31	18	<5	<5
1,1 dichloroethene	**7**		10	17	17	<5	<5	5	7	<5	<5	<5
1,2 dichloroethane	**5**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1 trichloroethane	**200**		41	66	64	<5	<5	32	54	22	<5	<5
xylenes (total)	**10000**		<5	<5	<5	<5	<5	379	400	323	<5	<5
cis-1,2-dichloroethene	**70**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
trans-1,2-dichloroethene	**100**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
ethylbenzene	**700**		<5	<5	<5	<5	<5	69	65	18	<5	<5
toluene	**1000**		<5	<5	<5	<5	<5	56	85	67	<5	<5
trichloroethene	**5**	**5.24**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
vinyl chloride	**2**		<2	<5	<2	<2	<2	<2	<5	<2	<2	<2
Benzene	**5**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon disulfide	**4000**		<5	<5	<5	<5	<5	30	<5	<5	<5	<5
Carbon tetrachloride	**5**		<5	<5	10	<5	<5	<5	<5	<5	<5	<5
SVOC												
Acenaphthene	**2000**		<10	<10	<10	-	-	94	49	<10	<10	309
Anthracene	**10**		<10	<10	<10	-	-	25	<10	<10	<10	26
Fluoranthene	**1000**		<10	<10	<10	-	-	13	12	<10	<10	21
Fluorene	**1000**		<10	<10	<10	-	-	75	29	<10	<10	147
Phenanthrene	**10**		11	<10	<10	-	-	156	12	<10	<10	181
naphthalene	**20**		<10	<10	<10	-	-	31	<10	<10	<10	442

Note: The Type 4 RRS Calculations for trichloroethene are enclosed in Appendix 16.

Table 5
Groundwater Monitoring Results Summary
Compliance Status Report - HSI No. 10757

"-" = Not analyzed/reported DL = Detection Limit	GW Type 1/3 RRS	GW Type 4 RRS	MW-6 11/27/01	MW-7 11/27/01	MW-11 12/17/01	MW-12 12/17/01	MW-13 12/17/01	MW-13 04/19/02	MW-14 12/18/01	MW-14R 04/25/02	MW-14R 07/15/04	MW-14R 01/28/05
Analyte	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VOC												
Naphthalene	**20**		<5	<5	-	-	-	-	-	-	-	-
chloroform	**80**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1 dichloroethane	**4000**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1 dichloroethene	**7**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2 dichloroethane	**5**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1 trichloroethane	**200**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
xylenes (total)	**10000**		<5	<5	<5	<5	<5	<5	256	480	<5	<5
cis-1,2-dichloroethene	**70**		<5	<5	<5	<5	76	<5	1900	5200	8.5	11
trans-1,2-dichloroethene	**100**		<5	<5	<5	<5	<5	<5	100	590	<5	<5
ethylbenzene	**700**		<5	<5	<5	<5	<5	<5	62	76	<5	<5
toluene	**1000**		<5	<5	<5	<5	<5	<5	12	16	<5	<5
trichloroethene	**5**	**5.24**	<5	<5	<5	<5	<5	<5	14	15	<5	7
vinyl chloride	**2**		<2	<2	<5	<5	<5	<2	17	18	<2	<2
Benzene	**5**		<5	<5	<5	<5	<5	<5	<5	8.5	<5	<5
Carbon disulfide	**4000**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	**5**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
SVOC												
Acenaphthene	**2000**		<10	<10	<10	<10	<10	-	<10	-	-	-
Anthracene	**10**		<10	<10	<10	<10	<10	-	<10	-	-	-
Fluoranthene	**1000**		<10	<10	<10	<10	<10	-	<10	-	-	-
Fluorene	**1000**		<10	<10	<10	<10	<10	-	<10	-	-	-
Phenanthrene	**10**		<10	<10	<10	<10	<10	-	<10	-	-	-
naphthalene	**20**		<10	<10	<10	<10	<10	-	<10	-	-	-

Note: The Type 4 RRS Calculations for trichloroethene are enclosed in Appendix 16.

Table 5
Groundwater Monitoring Results Summary
Compliance Status Report - HSI No. 10757

"-" = Not analyzed/reported DL = Detection Limit	GW Type 1/3 RRS	GW Type 4 RRS	MW-14R 10/24/05	MW-14R 07/25/06	MW-14R 09/14/06	MW-14R 01/11/07	MW-14R 05/11/07	MW-14R 08/07/07	MW-14R 02/25/10	MW-14R 07/14/10	MW-14R 06/21/12	MW-14R 08/27/12
Analyte	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VOC												
Naphthalene	**20**		-	-	-	-	-	-	-	-	-	-
chloroform	**80**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1 dichloroethane	**4000**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1 dichloroethene	**7**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2 dichloroethane	**5**		<5	<5	<5	<5	<5	<5	<5	<1	<5	<5
1,1,1 trichloroethane	**200**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
xylenes (total)	**10000**		<5	<5	<5	<5	<5	<5	-	<1	<5	<5
cis-1,2-dichloroethene	**70**		<5	320	270	130	30	26	<5	<5	9.2	14
trans-1,2-dichloroethene	**100**		<5	<5	31	12	<5	<5	<5	<5	<5	<5
ethylbenzene	**700**		<5	<5	<5	<5	<5	<5	-	<1	<5	<5
toluene	**1000**		<5	<5	<5	<5	<5	<5	-	<1	<5	<5
trichloroethene	**5**	**5.24**	<5	<5	<5	<5	<5	<5	<5	<5	9.5	14
vinyl chloride	**2**		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Benzene	**5**		<5	<5	<5	<5	<5	<5	-	<1	<5	<5
Carbon disulfide	**4000**		<5	<5	<5	<5	<5	<5	-	<5	<5	<5
Carbon tetrachloride	**5**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
SVOC												
Acenaphthene	**2000**		-	-	-	-	-	-	-	-	-	-
Anthracene	**10**		-	-	-	-	-	-	-	-	-	-
Fluoranthene	**1000**		-	-	-	-	-	-	-	-	-	-
Fluorene	**1000**		-	-	-	-	-	-	-	-	-	-
Phenanthrene	**10**		-	-	-	-	-	-	-	-	-	-
naphthalene	**20**		-	-	-	-	-	-	-	-	-	-

Note: The Type 4 RRS Calculations for trichloroethene are enclosed in Appendix 16.

Table 5
Groundwater Monitoring Results Summary
Compliance Status Report - HSI No. 10757

"-" = Not analyzed/reported DL = Detection Limit	GW Type 1/3 RRS	GW Type 4 RRS	MW-15 12/18/01	MW-16 12/18/01	MW-19 04/19/02	MW-19 08/07/07	MW-19 12/12/07	MW-20 04/19/02	MW-21 04/19/02	MW-21 07/15/04	MW-21 01/28/05	MW-21 10/24/05
Analyte	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VOC												
Naphthalene	**20**		-	-	-	-	-	-	-	-	-	-
chloroform	**80**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1 dichloroethane	**4000**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1 dichloroethene	**7**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2 dichloroethane	**5**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1 trichloroethane	**200**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
xylenes (total)	**10000**		<5	<5	<5	<5	<5	<5	<5	115	<5	<5
cis-1,2-dichloroethene	**70**		<5	<5	34	15	<5	<5	410	420	15	350
trans-1,2-dichloroethene	**100**		<5	<5	<5	<5	<5	<5	19	35	<5	25
ethylbenzene	**700**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
toluene	**1000**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
trichloroethene	**5**	**5.24**	<5	<5	<5	<5	<5	<5	<5	6.1	<5	<5
vinyl chloride	**2**		<5	<5	<2	<2	<2	<2	<2	3.9	<2	<2
Benzene	**5**		<5	<5	<5	5.8	<5	<5	<5	<5	<5	<5
Carbon disulfide	**4000**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	**5**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
SVOC												
Acenaphthene	**2000**		<10	<10	-	-	-	-	-	-	-	-
Anthracene	**10**		<10	<10	-	-	-	-	-	-	-	-
Fluoranthene	**1000**		<10	<10	-	-	-	-	-	-	-	-
Fluorene	**1000**		<10	<10	-	-	-	-	-	-	-	-
Phenanthrene	**10**		<10	<10	-	-	-	-	-	-	-	-
naphthalene	**20**		<10	<10	-	-	-	-	-	-	-	-

Note: The Type 4 RRS Calculations for trichloroethene are enclosed in Appendix 16.

Table 5
Groundwater Monitoring Results Summary
Compliance Status Report - HSI No. 10757

"-" = Not analyzed/reported DL = Detection Limit	GW Type 1/3 RRS	GW Type 4 RRS	MW-21 07/25/06	MW-21 09/14/06	MW-21 01/11/07	MW-21 05/11/07	MW-21 08/07/07	MW-21 02/25/10	MW-21 07/14/10	MW-21 06/21/12	MW-21 08/27/12	MW-22 04/19/02
Analyte	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VOC												
Naphthalene	**20**		-	-	-	-	-	-	-	-	-	-
chloroform	**80**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1 dichloroethane	**4000**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1 dichloroethene	**7**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2 dichloroethane	**5**		<5	<5	<5	<5	<5	<5	<1	<5	<5	<5
1,1,1 trichloroethane	**200**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
xylenes (total)	**10000**		<5	<5	<5	<5	<5	-	<1	<5	<5	<5
cis-1,2-dichloroethene	**70**		210	16	60	60	110	18	5.7	25	28	<5
trans-1,2-dichloroethene	**100**		18	<5	<5	<5	<5	<5	<5	<5	<5	<5
ethylbenzene	**700**		<5	<5	<5	<5	<5	-	<1	<5	<5	<5
toluene	**1000**		<5	<5	<5	<5	<5	-	<1	<5	<5	<5
trichloroethene	**5**	**5.24**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
vinyl chloride	**2**		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Benzene	**5**		<5	<5	<5	<5	<5	-	<1	<5	<5	<5
Carbon disulfide	**4000**		<5	<5	<5	<5	<5	-	<5	<5	<5	<5
Carbon tetrachloride	**5**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
SVOC												
Acenaphthene	**2000**		-	-	-	-	-	-	-	-	-	-
Anthracene	**10**		-	-	-	-	-	-	-	-	-	-
Fluoranthene	**1000**		-	-	-	-	-	-	-	-	-	-
Fluorene	**1000**		-	-	-	-	-	-	-	-	-	-
Phenanthrene	**10**		-	-	-	-	-	-	-	-	-	-
naphthalene	**20**		-	-	-	-	-	-	-	-	-	-

Note: The Type 4 RRS Calculations for trichloroethene are enclosed in Appendix 16.

Table 5
Groundwater Monitoring Results Summary
Compliance Status Report - HSI No. 10757

"-" = Not analyzed/reported DL = Detection Limit	GW Type 1/3 RRS	GW Type 4 RRS	MW-24 04/19/02	MW-24 10/24/05	MW-24 05/24/07	MW-25 04/19/02	MW-25 05/24/07	MW-28 08/02/02	MW-29 08/02/02	MW-29 07/15/04	MW-29 01/28/05	MW-29 10/24/05
Analyte	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VOC												
Naphthalene	**20**		-	-	-	-	-	-	-	-	-	-
chloroform	**80**		13	9.9	<5	<5	<5	<5	<5	<5	<5	<5
1,1 dichloroethane	**4000**		56	30	<5	21	<5	<5	<5	<5	<5	<5
1,1 dichloroethene	**7**		6.6	5.5	<5	<5	<5	<5	<5	<5	<5	<5
1,2 dichloroethane	**5**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,1 trichloroethane	**200**		<5	21	<5	12	<5	<5	<5	<5	<5	<5
xylenes (total)	**10000**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
cis-1,2-dichloroethene	**70**		<5	<5	5.7	<5	<5	190	170	6.6	110	<5
trans-1,2-dichloroethene	**100**		<5	<5	<5	<5	<5	11	7.9	<5	5.1	<5
ethylbenzene	**700**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
toluene	**1000**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
trichloroethene	**5**	**5.24**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
vinyl chloride	**2**		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Benzene	**5**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon disulfide	**4000**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	**5**		5.4	<5	<5	<5	<5	<5	<5	<5	<5	<5
SVOC												
Acenaphthene	**2000**		<10	-	-	<10	-	-	-	-	-	-
Anthracene	**10**		<10	-	-	<10	-	-	-	-	-	-
Fluoranthene	**1000**		<10	-	-	<10	-	-	-	-	-	-
Fluorene	**1000**		<10	-	-	<10	-	-	-	-	-	-
Phenanthrene	**10**		<10	-	-	<10	-	-	-	-	-	-
naphthalene	**20**		<10	-	-	<10	-	-	-	-	-	-

Note: The Type 4 RRS Calculations for trichloroethene are enclosed in Appendix 16.

Table 5
Groundwater Monitoring Results Summary
Compliance Status Report - HSI No. 10757

"-" = Not analyzed/reported DL = Detection Limit	GW Type 1/3 RRS	GW Type 4 RRS	MW-29 07/25/06	MW-29 01/11/07	MW-29 05/11/07	MW-29 08/07/07	MW-29 02/25/10	MW-29 07/14/10	MW-29 06/21/12	MW-29 08/27/12	MW-30 02/20/03	MW-31 02/20/03
Analyte	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VOC												
Naphthalene	**20**		-	-	-	-	-	-	-	-	-	-
chloroform	**80**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1 dichloroethane	**4000**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1 dichloroethene	**7**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2 dichloroethane	**5**		<5	<5	<5	<5	<5	<1	<5	<5	<5	<5
1,1,1 trichloroethane	**200**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
xylenes (total)	**10000**		<5	<5	<5	<5	-	<1	<5	<5	<5	<5
cis-1,2-dichloroethene	**70**		9.7	10	<5	<5	13	11	19	15	<5	<5
trans-1,2-dichloroethene	**100**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
ethylbenzene	**700**		<5	<5	<5	<5	-	<1	<5	<5	<5	<5
toluene	**1000**		<5	<5	<5	<5	-	<1	<5	<5	<5	<5
trichloroethene	**5**	**5.24**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
vinyl chloride	**2**		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Benzene	**5**		<5	<5	<5	<5	-	<1	<5	<5	<5	<5
Carbon disulfide	**4000**		<5	<5	<5	<5	-	<5	<5	<5	<5	<5
Carbon tetrachloride	**5**		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
SVOC												
Acenaphthene	**2000**		-	-	-	-	-	-	-	-	-	-
Anthracene	**10**		-	-	-	-	-	-	-	-	-	-
Fluoranthene	**1000**		-	-	-	-	-	-	-	-	-	-
Fluorene	**1000**		-	-	-	-	-	-	-	-	-	-
Phenanthrene	**10**		-	-	-	-	-	-	-	-	-	-
naphthalene	**20**		-	-	-	-	-	-	-	-	-	-

Note: The Type 4 RRS Calculations for trichloroethene are enclosed in Appendix 16.

Table 5
Groundwater Monitoring Results Summary
Compliance Status Report - HSI No. 10757

"-" = Not analyzed/reported DL = Detection Limit	GW Type 1/3 RRS	GW Type 4 RRS	MW-33 02/20/03	MW-34D 08/07/07	MW-35D 08/07/07	MW-37 08/07/07	VS-2 06/16/05	VS-3 06/16/05	VS-4 06/16/05	VS-5 06/16/05	VS-6 06/16/05	VS-7 06/16/05
Analyte	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
VOC												
Naphthalene	**20**		-	-	-	-	-	-	-	-	-	-
chloroform	**80**		<5	<5	<5	<5	-	-	-	-	-	-
1,1 dichloroethane	**4000**		<5	<5	<5	13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1 dichloroethene	**7**		<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2 dichloroethane	**5**		<5	<5	<5	<5	-	-	-	-	-	-
1,1,1 trichloroethane	**200**		<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
xylenes (total)	**10000**		<5	<5	<5	<5	-	-	-	-	-	-
cis-1,2-dichloroethene	**70**		<5	<5	<5	7.6	12	52	<5.0	<5.0	<5.0	<5.0
trans-1,2-dichloroethene	**100**		<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
ethylbenzene	**700**		<5	<5	<5	<5	-	-	-	-	-	-
toluene	**1000**		<5	<5	<5	<5	-	-	-	-	-	-
trichloroethene	**5**	**5.24**	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
vinyl chloride	**2**		<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0
Benzene	**5**		<5	<5	<5	<5	-	-	-	-	-	-
Carbon disulfide	**4000**		<5	<5	<5	<5	-	-	-	-	-	-
Carbon tetrachloride	**5**		<5	<5	<5	<5	-	-	-	-	-	-
SVOC												
Acenaphthene	**2000**		-	-	-	-	-	-	-	-	-	-
Anthracene	**10**		-	-	-	-	-	-	-	-	-	-
Fluoranthene	**1000**		-	-	-	-	-	-	-	-	-	-
Fluorene	**1000**		-	-	-	-	-	-	-	-	-	-
Phenanthrene	**10**		-	-	-	-	-	-	-	-	-	-
naphthalene	**20**		-	-	-	-	-	-	-	-	-	-

Note: The Type 4 RRS Calculations for trichloroethene are enclosed in Appendix 16.

APPENDIX 16

RRS Calculations
Type 4 Groundwater RRS for Trichloroethene

Carcinogenic effects *(Water)* RAGS equation 1

TRICHLOROETHENE

variable	units	Standard Assumptions Type 1	Child Type 2	Adult Type 2	Standard Assumptions Type 3	Adult Type 4	
TR target excess individual lifetime cancer risk	unitless	0.00001	0.00001	0.00001	0.00001	0.00001	
Sfo, oral cancer slope factor	mg/kg-day		4.60E-02	4.60E-02		4.60E-02	
Sfi, inhalation cancer slope factor	mg/kg-day		1.44E-02	1.44E-02		1.44E-02	
BW, body weight	kg	70	15	70	70	70	
AT, averaging time	years	70	70	70	70	70	
EF, exposure frequency	days/yr	350	350	350	250	250	
ED, exposure duration	yr	30	6	30	25	25	
Ir_{air}, daily inhalation rate	m3/day	15	15	15	20	20	
Ir_w, daily water ingestion rate	L/day	2	1	2	1	1	
K, water to air volatization factor	unitless	0.5	0.5	0.5	0.5	0.5	
RRSo $\frac{TR*BW*AT*365}{EF*ED*(Sfo*IRw)}$		#DIV/0!	3.97E-02	0.018514493	#DIV/0!	0.06221	**Oral**
RRSi $\frac{TR*BW*AT*365}{EF*ED*(Sfi*K*IRair)}$		#DIV/0!	1.70E-02	1.58E-02	#DIV/0!	1.99E-02	**Inhalation**
$\frac{1.0000}{1/RRSo + 1/RRSi}$	mg/L	#DIV/0!	1.19E-02	8.53E-03	#DIV/0!	1.51E-02	
C(mg/L; risk-based)	**mg/L**	**#DIV/0!**	**1.19E-02**	**8.53E-03**	**#DIV/0!**	**1.51E-02**	**Equations OK**

Non-carcinogenic effects *(Water)*: RAGS equation 2

variable	units	Standard Assumptions Type 1	Child Type 2	Adult Type 2	Adult Type 3	Adult Type 4	
THI, target hazard index	unitless	1	1	1	1	1	
RfD_o, oral chronic reference dose	unitless		5.00E-04	5.00E-04		5.00E-04	
RfD_i, inhalation chronic reference dose	unitless		5.71E-04	5.71E-04		5.71E-04	
BW, body weight	kg	70	15	70	70	70	
AT, averaging time	years	30	6	30	25	25	**AT = ED for Non-carcinogen**
EF, exposure frequency	days/yr	350	350	350	250	250	
ED, exposure duration	yr	30	6	30	25	25	
Ir_{air}, daily inhalatiaon rate	m3/day	15	15	15	20	20	
Ir_w, daily water ingestion rate	L/day	2	1	2	1	1	
K, water-to-air volatization factor	unitless	0.5	0.5	0.5	0.5	0.5	
RRSo $\frac{THI*BW*AT*365}{EF*ED*(1/Rfdo*IRw)}$		#DIV/0!	0.0078	0.018	#DIV/0!	0.05	**Oral**
RRSi $\frac{THI*BW*AT*365}{EF*ED*(1/Rfdi*K*IRair)}$		#DIV/0!	0.001	0.006	#DIV/0!	0.00584	**Inhalation**
$\frac{1}{1/RRSo + 1/RRSi}$	mg/L	#DIV/0!	0.0010	0.00426	#DIV/0!	0.0052	
C(mg/L; risk-based)	**mg/L**	**#DIV/0!**	**1.03E-03**	**4.26E-03**	**#DIV/0!**	**5.241E-03**	**Equations are OK**

APPENDIX 19

Field Sample Data Collection Forms
Post-Remediation Monitoring

TABLE 1

SAMPLE COLLECTION DATA SHEET
Date: 2-25-10
Site: L.B Foster

Well No.	Top of Riser (ft.AMSL)[1]	Total Depth (ft.BTOC)[2]	Water Depth (ft.BTOC)	Water Elevation (ft. AMSL)	Purge Volume (Gallons)	Purge Method	Volume Purged (Gallons)	Field pH (S.U.)[3]	Field Temp. (^{0}F)	Field Cond.	Turbidity	Sample Number
MW-19	1068.91		24.96		NA	Low Flow	NA	See attached				
MW-21	1068.64		20.73		NA	"	NA					
MW-14R	1067.94		18.20		NA	"	NA					
Dup (21)												
Rinsate (after 21/before 14R)												

Notes:
(1) Feet above mean sea level
(2) Feet below top of casing
(3) Standard Units

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: L. B. Foster
Ref. No.:

Date: 2/25/2010
Personnel: BC/JS

Monitoring Well Data:

Well No.: MW-14R
Measurement Point: TOC
Constructed Well Depth (ft): 29.00
Measured Well Depth (ft): ~25.00
Depth of Sediment (ft): 4'

Screen Length (ft): 10
Depth to Pump Intake (ft)[1]: 22
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 18.20

Time	*Pumping Rate (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level[3] (ft)*	*pH*	*Temperature °C*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Volume Purged, V_p (mL)*	*No. of Well Screen Volumes Purged[4]*
1515	150	18.40		5.63	15.66	0.371	393	6.69	>1000		
1525		"		5.65	15.98	0.383	366	4.17	"		
1530		"		5.65	16.13	0.377	363	3.94	383		
40		"		5.68	16.42	0.354	356	3.80	217		
50		"		5.54	16.32	0.347	352	2.37	206		
1600		18.41		5.53	16.33	0.343	351	2.40	148		
1615	↓	"		5.52	16.31	0.340	349	2.36	150		
1620	Sampled										

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: L. B. Foster
Ref. No.:
Date: 2/25/2010
Personnel: BC/JS

Monitoring Well Data:

Well No.: MW-21
Measurement Point: TOC
Constructed Well Depth (ft): 34.30
Measured Well Depth (ft): 34.30
Depth of Sediment (ft):
Screen Length (ft): 10
Depth to Pump Intake (ft)[1]: 5' from bottom
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 20.73

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
1340	180			5.81	14.58	0.105	381	4.43	75.8		
50	↓			5.78	15.10	0.107	441	3.64	41.8		
1400				5.79	15.39	0.109	464	3.48	32.9		
1410				5.80	15.31	0.110	482	3.50	29.8		
1420				5.80	15.30	0.110	518	3.61	23.2		
1430				5.80	15.39	0.109	515	3.65	24.2		
	Sample	1430									
			Duplicate collected from MW-21								
			Rinsate collected after sampling MW-21 but before MW-14R								

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: L. B. Foster
Ref. No.:
Date: 2/25/2010
Personnel: BC/JS

Monitoring Well Data:

Well No.: MW-29
Measurement Point: TOC
Constructed Well Depth (ft): 32.00
Measured Well Depth (ft):
Depth of Sediment (ft):
Screen Length (ft): 10
Depth to Pump Intake (ft)[1]: 4' from bottom
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 24.96

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
1035	200	24.96		5.96	12.34	0.068	366	7.60	—		
1051	↓	25.05		6.42	14.79	0.071	302	7.50	—		
1100				6.47	14.73	0.055	316	6.07	>1000		
1110	↓			6.41	14.66	0.053	327	5.89	710		
1125	110	25.38		6.46	14.82	0.054	332	5.88	262		
1220		25.40		6.39	15.50	0.055	301	5.80	198		
1230		25.39		6.38	15.52	0.055	341	5.80	169		
1240		25.35		6.41	15.54	0.060	344	5.79	141		
1250		25.34		6.40	15.53	0.060	345	5.80	126		
1300	↓	25.33		6.40	15.48	0.055	347	5.79	129		
				Small	1310						

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

TABLE 1

SAMPLE COLLECTION DATA SHEET

Date: 7-14-10

Site: L.B. Foster

Well No.	Top of Riser (ft.AMSL)[1]	Total Depth (ft.BTOC)[2]	Water Depth (ft.BTOC)	Water Elevation (ft. AMSL)	Purge Volume (Gallons)	Purge Method	Volume Purged (Gallons)	Field pH (S.U.)[3]	Field Temp. (°F)	Field Cond.	Turbidity	Sample Number
MW-14R	1067.94		17.80		NA	Low Flow	NA	See attached				
21	1068.64		20.02		↓	↓	↓					
29	1068.91		24.26		↓	↓	↓					
Dup												
Rinsate												

Notes:
(1) Feet above mean sea level
(2) Feet below top of casing
(3) Standard Units

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: L.B. Foster

Ref. No.: RC-110

Date: 7/14/2010

Personnel: BC/JS

Monitoring Well Data:

Well No.: MW-14R Dup

Measurement Point:

Constructed Well Depth (ft):

Measured Well Depth (ft): ~25.00

Depth of Sediment (ft):

Screen Length (ft): 10

Depth to Pump Intake (ft)[1]: 20' BTOC

Well Diameter, D (in): 2

Well Screen Volume, V_s (mL)[2]:

Initial Depth to Water (ft): 17.80

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
755	110										
800	110	17.90		4.93	22.73	0.382	274	4.79	19.7		
808	"	17.90		4.98	23.32	0.377	282	3.89	13.9		
815		17.90		5.02	23.40	0.373	282	3.39	7.3		
0820	"	17.90		5.04	23.38	0.370	281	3.35	4.28		
0830	"	"		5.04	23.56	0.360	277	2.45	2.32		
0835	"	"		5.04	23.63	0.353	274	2.20	1.88		
0840	"	"		5.01	23.60	0.349	273	2.02	1.92		
0845	"	"		—	—	—	—	—	—		
0850	"	"		5.04	24.07	0.342	273	1.99	1.74		

Notes: Settings Refill 13/2 Discharge

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s=p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: L.B. Foster

Ref. No.: RC-110

Date: 7/14/2010

Personnel: BC/JS

Monitoring Well Data:

[illegible] after 21

Well No.: MW-21

Measurement Point:

Constructed Well Depth (ft): 34.30

Measured Well Depth (ft): 34.30

Depth of Sediment (ft):

Screen Length (ft): 10'

Depth to Pump Intake (ft)(1): 5' from bottom

Well Diameter, D (in): 2

Well Screen Volume, V_s (mL)(2):

Initial Depth to Water (ft): 20.02

Time	*Pumping Rate (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level (3) (ft)*	*pH*	*Temperature °C*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Volume Purged, Vp (mL)*	*No. of Well Screen Volumes Purged (4)*
913	110	20.20									
920	"	"		5.31	23.71	0.060	424	7.17	20.4		
925	"	20.10		5.23	23.88	0.061	466	6.86	11.6		
936	"			5.17	24.22	0.065	489	6.59	6.14		
946	"			5.17	24.58	0.073	471	6.47	4.46		
951				5.16	24.63	0.074	462	6.42	2.52		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s=p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: L.B. Foster
Ref. No.: RC-110

Date: 7/14/2010
Personnel: BC/JS

Monitoring Well Data:

Well No.: MW-29
Measurement Point:
Constructed Well Depth (ft): 30.00
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 10
Depth to Pump Intake (ft)[1]: 4' from bottom
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 24.36

Time	*Pumping Rate (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level[3] (ft)*	*pH*	*Temperature °C*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Volume Purged, V_p (mL)*	*No. of Well Screen Volumes Purged[4]*
10:15	110	24.50									
10:20	110	24.50		5.38	24.79	.068	408	6.65	20.9		
10:27	"			5.84	25.04	0.058	302	7.00	12.3		
10:32	"			5.86	25.64	0.057	281	6.83	9.39		
10:35	"	24.90		5.87	25.62	0.057	270	6.76	7.83		
10:40	"	"		5.81	25.67	0.057	267	6.78	8.80		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s=p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: L.B. Foster
Ref. No.: RC-110

Date: ~~7/14/2010~~ 6-21-12
Personnel: BC/JS

Monitoring Well Data:

Well No.: MW-14R
Measurement Point:
Constructed Well Depth (ft):
Measured Well Depth (ft): 25.00
Depth of Sediment (ft):

Screen Length (ft): 10
Depth to Pump Intake (ft)[1]: 23.5
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 19.52

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
11:10	<150										
1117			19.73	4.96	27.19	0.602	390	3.13	26.8		
1130			19.72	4.94	25.52	0.578	509	2.32	9.73		
1140			19.68	4.94	25.64	0.524	511	1.85	5.48		
1145			19.71	4.91	25.73	0.506	507	1.72	4.50		
1155			19.72	4.93	25.72	0.509	509	1.68	4.50		
	1155										

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: L.B. Foster
Ref. No.: RC-110

Date: ~~7/14/2010~~ 6-21-12
Personnel: BC/JS

Monitoring Well Data:

Well No.: MW-21
Measurement Point:
Constructed Well Depth (ft): 34.30
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 10'
Depth to Pump Intake (ft)[1]:
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 21.82

Time	*Pumping Rate (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level[3] (ft)*	*pH*	*Temperature °C*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Volume Purged, Vp (mL)*	*No. of Well Screen Volumes Purged[4]*
12:15											
1220		21.94		5.59	29.49	0.152	293	3.62	131		
1230		21.95		5.56	28.75	0.149	289	3.06	130		
1237				5.54	28.69	0.146	284	2.81	106		
1250		21.95		5.54	30.08	0.141	245	2.50	73.0		
1300		~~30.30~~ 21.95		5.53	30.30	0.139	242	2.29	59.9		
1310		21.93		5.52	30.33	0.137	234	2.87	39.8		
1320				5.52	30.83	0.137	232	2.79	38.8		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: L.B. Foster
Ref. No.: RC-110

Date: ~~7/14/2010~~ 6-21-12
Personnel: BC/JS

Monitoring Well Data:

Well No.: MW-29
Measurement Point:
Constructed Well Depth (ft): 32.00
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 10'
Depth to Pump Intake (ft)[1]:
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): ~~26.22~~

Time	*Pumping Rate (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level*[3] *(ft)*	*pH*	*Temperature °C*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Volume Purged, Vp (mL)*	*No. of Well Screen Volumes Purged*[4]
139		26.38									
146		26.42		5.91	28.92	0.071	219	7.84	33.6		
205		26.45		5.93	30.71	0.069	217	7.69	37		
220		26.46		5.82	30.15	0.067	221	7.33	26.4		
1725		26.45		5.79	29.44	0.068	218	7.37	25.5		
1470		26.47		5.79	29.23	.068	215	7.33	29.2		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: LB Foster
Ref. No.:
Date: 8/27/2012
Personnel: BC/JS

1067.94

Monitoring Well Data:

Well No.: MW-14R
Measurement Point:
Constructed Well Depth (ft): 25.50
Measured Well Depth (ft):
Depth of Sediment (ft):
Screen Length (ft): 10
Depth to Pump Intake (ft)[1]:
Well Diameter, D (in):
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 19.29

1048.65

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
1415	50	19.35		5.07	28.47	0.449	274	5.02	247?		
1425	50	19.45		5.07	28.21	0.453	284	4.91	174?		
1430	50	19.57		5.06	28.03	0.458	296	4.28	130?		
1440	50	19.50		5.03	30.47	0.424	285	2.89	58?		
1445	50	19.48		5.04	30.41	0.417	282	2.76	54?		
1450	50	19.48		5.02	30.92	0.404	283	2.51	75?		
1455	50	19.48		5.04	31.29	0.384	286	2.15	68?		
1500	50	19.48		5.03	31.48	0.371	291	1.89	68?		
1500	50	19.48		5.03	31.53	0.359	293	1.64	68?		
1510	50	19.48		5.04	31.59	0.358	296	1.60	50		
									Clear		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s=p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: LB Foster
Ref. No.:
Date: 8/27/2012
Personnel: BC/JS

Monitoring Well Data:

Well No.: MW-21
Measurement Point:
Constructed Well Depth (ft): 34.30
Measured Well Depth (ft):
Depth of Sediment (ft):
Screen Length (ft):
Depth to Pump Intake (ft)[1]: 32'
Well Diameter, D (in):
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 21.77

Time	*Pumping Rate (mL/min)*	*Depth to Water (ft)*	*Drawdown from Initial Water Level (ft)*[3]	*pH*	*Temperature °C*	*Conductivity (mS/cm)*	*ORP (mV)*	*DO (mg/L)*	*Turbidity (NTU)*	*Volume Purged, Vp (mL)*	*No. of Well Screen Volumes Purged*[4]
1320	50	21.87		5.58	25.82	0.158	264	1.17	298?		
1325		21.80		5.56	25.68	0.158	262	0.92	192?		
1330	50	21.81		5.58	25.40	0.156	249	0.44	187?		
1335	50	21.80		5.55	25.16	0.153	238	0.14	157?		
1340		21.90		5.54	25.10	0.152	240	0.00	162?		
1345	50	21.88		5.54	25.20	0.153	218	0.00	178		
1350	50	21.88		5.54	25.20	0.153	218	0.00	178?		
1355	50	21.88		5.52	25.26	0.152	217	0.00	142?		
									Mets		
									Clear		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s=p*(D/2)^{2}*(5*12)*(2.54)^{3}$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: LB Foster
Ref. No.:
Date: 8/27/2012
Personnel: BC/JS

1068.91
1042.67

Monitoring Well Data:

Well No.: MW-29 + DUP.
Measurement Point:
Constructed Well Depth (ft): 30.00
Measured Well Depth (ft): 32.60
Depth of Sediment (ft):
Screen Length (ft): 10'
Depth to Pump Intake (ft)[1]: 30' BTOC
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]:
Initial Depth to Water (ft): 26.24

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
1210	100	26.40		5.61	26.48	0.125	270	9.02	140 ?		
1215	150ml	26.38		5.60	26.49	0.120	254	8.38			
1220		26.41		5.86	24.50	0.100	244	6.69			
1230		26.44		5.86	24.90	0.101	243	6.68			
1235		26.44		5.86	25.94	0.099	246	6.21			
1245		26.90		5.84	26.04	0.082	244	6.08			
1250		26.42		5.86	25.26	0.081	244	6.15			
1255				5.85	24.86	0.082	246	6.07			
									clear		

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 5-foot screen length, $V_s=p*(D/2)^{2}*(5*12)*(2.54)^{3}$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

APPENDIX 20

Analytical Data Reports
Post-Remediation Monitoring

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

March 16, 2010

Brent Cortelloni
Rem-Con, LLC
5262 Belle Wood Court
Buford GA 30518

TEL: (770) 271-4628
FAX: (770) 271-8944

RE: L B Foster

Dear Brent Cortelloni: Order No: 1002J49

Analytical Environmental Services, Inc. received 6 samples on 2/25/2010 4:45:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/09-06/30/10.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/11.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

James Forrest
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

AES 3785 Presidential Parkway, Atlanta GA 30340-3704
TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1002J49

Date: ____ Page ____ of ____

COMPANY: ~~EB~~ REM-CON/B.
ADDRESS:
PHONE:
FAX:
SAMPLED BY: J. SCHWALLER/A. [illegible]
SIGNATURE: [signature]

ANALYSIS REQUESTED: VOC*

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	VOC* (Preservation: H)													REMARKS	No # of Containers
1	MW-29	2/25	1310	X		GW	X													* Just Chlorinated	
2	MW-21	2/25	1430	X		↓	X													VOCs	
3	MW-14R	2/25	1620	X		↓	X														
4	Dup	↓	—	↓			X														
5	Rinsate	↓	—	↓			X													24 W TAT	
6	Trip Blank						X														
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	2/25 1645	1: [signature]	2/25/10 16:45
2:		2:	
3:		3:	

PROJECT INFORMATION
PROJECT NAME: LB FOSTER
PROJECT #:
SITE ADDRESS: A. FINKELSTEIN
SEND REPORT TO:
INVOICE TO: (IF DIFFERENT FROM ABOVE)
QUOTE #: ____ PO#: ____

RECEIPT
Total # of Containers

Turnaround Time Request
- ○ Standard 5 Business Days
- ○ 2 Business Day Rush
- ☒ Next Business Day Rush
- ○ Same Day Rush **(auth req.)**
- ○ Other ____

STATE PROGRAM (if any): ____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II (III) IV

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / / VIA:
(CLIENT) FedEx UPS MAIL COURIER
GREYHOUND OTHER ____

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 16-Mar-10

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-29
Project:	L B Foster	**Collection Date:**	2/25/2010 1:10:00 PM
Lab ID:	1002J49-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
1,1,2-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
1,1-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
1,1-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
1,2-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
1,2-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
1,2-Dichloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
1,3-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
1,4-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
Bromodichloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
Carbon tetrachloride	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
Chlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
Chloroethane	BRL	10		ug/L	125731	1	02/26/2010 11:04	JT
Chloroform	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
Chloromethane	BRL	10		ug/L	125731	1	02/26/2010 11:04	JT
cis-1,2-Dichloroethene	13	5.0		ug/L	125731	1	02/26/2010 11:04	JT
cis-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
Dibromochloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
Dichlorodifluoromethane	BRL	10		ug/L	125731	1	02/26/2010 11:04	JT
Methylene chloride	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
Tetrachloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
trans-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
Trichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
Trichlorofluoromethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:04	JT
Vinyl chloride	BRL	2.0		ug/L	125731	1	02/26/2010 11:04	JT
Surr: 4-Bromofluorobenzene	89.3	60.1-127		%REC	125731	1	02/26/2010 11:04	JT
Surr: Dibromofluoromethane	102	79.6-126		%REC	125731	1	02/26/2010 11:04	JT
Surr: Toluene-d8	101	78-116		%REC	125731	1	02/26/2010 11:04	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value

Analytical Environmental Services, Inc **Date:** 16-Mar-10

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-21
Project:	L B Foster	**Collection Date:**	2/25/2010 2:30:00 PM
Lab ID:	1002J49-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
1,1,2-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
1,1-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
1,1-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
1,2-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
1,2-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
1,2-Dichloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
1,3-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
1,4-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
Bromodichloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
Carbon tetrachloride	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
Chlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
Chloroethane	BRL	10		ug/L	125731	1	02/26/2010 11:32	JT
Chloroform	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
Chloromethane	BRL	10		ug/L	125731	1	02/26/2010 11:32	JT
cis-1,2-Dichloroethene	18	5.0		ug/L	125731	1	02/26/2010 11:32	JT
cis-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
Dibromochloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
Dichlorodifluoromethane	BRL	10		ug/L	125731	1	02/26/2010 11:32	JT
Methylene chloride	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
Tetrachloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
trans-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
Trichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
Trichlorofluoromethane	BRL	5.0		ug/L	125731	1	02/26/2010 11:32	JT
Vinyl chloride	BRL	2.0		ug/L	125731	1	02/26/2010 11:32	JT
Surr: 4-Bromofluorobenzene	88.8	60.1-127		%REC	125731	1	02/26/2010 11:32	JT
Surr: Dibromofluoromethane	104	79.6-126		%REC	125731	1	02/26/2010 11:32	JT
Surr: Toluene-d8	101	78-116		%REC	125731	1	02/26/2010 11:32	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value

Analytical Environmental Services, Inc **Date:** 16-Mar-10

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-14R
Project:	L B Foster	**Collection Date:**	2/25/2010 4:20:00 PM
Lab ID:	1002J49-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
1,1,2-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
1,1-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
1,1-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
1,2-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
1,2-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
1,2-Dichloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
1,3-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
1,4-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
Bromodichloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
Carbon tetrachloride	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
Chlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
Chloroethane	BRL	10		ug/L	125731	1	02/26/2010 12:01	JT
Chloroform	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
Chloromethane	BRL	10		ug/L	125731	1	02/26/2010 12:01	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
cis-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
Dibromochloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
Dichlorodifluoromethane	BRL	10		ug/L	125731	1	02/26/2010 12:01	JT
Methylene chloride	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
Tetrachloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
trans-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
Trichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
Trichlorofluoromethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:01	JT
Vinyl chloride	BRL	2.0		ug/L	125731	1	02/26/2010 12:01	JT
Surr: 4-Bromofluorobenzene	89.8	60.1-127		%REC	125731	1	02/26/2010 12:01	JT
Surr: Dibromofluoromethane	102	79.6-126		%REC	125731	1	02/26/2010 12:01	JT
Surr: Toluene-d8	101	78-116		%REC	125731	1	02/26/2010 12:01	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value

Analytical Environmental Services, Inc **Date:** 16-Mar-10

Client:	Rem-Con, LLC	**Client Sample ID:**	DUP
Project:	L B Foster	**Collection Date:**	2/25/2010
Lab ID:	1002J49-004	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
1,1,2-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
1,1-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
1,1-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
1,2-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
1,2-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
1,2-Dichloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
1,3-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
1,4-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
Bromodichloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
Carbon tetrachloride	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
Chlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
Chloroethane	BRL	10		ug/L	125731	1	02/26/2010 12:57	JT
Chloroform	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
Chloromethane	BRL	10		ug/L	125731	1	02/26/2010 12:57	JT
cis-1,2-Dichloroethene	18	5.0		ug/L	125731	1	02/26/2010 12:57	JT
cis-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
Dibromochloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
Dichlorodifluoromethane	BRL	10		ug/L	125731	1	02/26/2010 12:57	JT
Methylene chloride	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
Tetrachloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
trans-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
Trichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
Trichlorofluoromethane	BRL	5.0		ug/L	125731	1	02/26/2010 12:57	JT
Vinyl chloride	BRL	2.0		ug/L	125731	1	02/26/2010 12:57	JT
Surr: 4-Bromofluorobenzene	90	60.1-127		%REC	125731	1	02/26/2010 12:57	JT
Surr: Dibromofluoromethane	99.7	79.6-126		%REC	125731	1	02/26/2010 12:57	JT
Surr: Toluene-d8	101	78-116		%REC	125731	1	02/26/2010 12:57	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value

Analytical Environmental Services, Inc **Date:** 16-Mar-10

Client:	Rem-Con, LLC	**Client Sample ID:**	RINSATE
Project:	L B Foster	**Collection Date:**	2/25/2010
Lab ID:	1002J49-005	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
1,1,2-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
1,1-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
1,1-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
1,2-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
1,2-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
1,2-Dichloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
1,3-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
1,4-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
Bromodichloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
Carbon tetrachloride	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
Chlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
Chloroethane	BRL	10		ug/L	125731	1	02/26/2010 13:26	JT
Chloroform	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
Chloromethane	BRL	10		ug/L	125731	1	02/26/2010 13:26	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
cis-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
Dibromochloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
Dichlorodifluoromethane	BRL	10		ug/L	125731	1	02/26/2010 13:26	JT
Methylene chloride	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
Tetrachloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
trans-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
Trichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
Trichlorofluoromethane	BRL	5.0		ug/L	125731	1	02/26/2010 13:26	JT
Vinyl chloride	BRL	2.0		ug/L	125731	1	02/26/2010 13:26	JT
Surr: 4-Bromofluorobenzene	91.7	60.1-127		%REC	125731	1	02/26/2010 13:26	JT
Surr: Dibromofluoromethane	101	79.6-126		%REC	125731	1	02/26/2010 13:26	JT
Surr: Toluene-d8	102	78-116		%REC	125731	1	02/26/2010 13:26	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value

Analytical Environmental Services, Inc **Date:** 16-Mar-10

Client:	Rem-Con, LLC	**Client Sample ID:**	TRIP BLANK
Project:	L B Foster	**Collection Date:**	2/25/2010
Lab ID:	1002J49-006	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
1,1,2-Trichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
1,1-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
1,1-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
1,2-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
1,2-Dichloroethane	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
1,2-Dichloropropane	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
1,3-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
1,4-Dichlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
Bromodichloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
Carbon tetrachloride	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
Chlorobenzene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
Chloroethane	BRL	10		ug/L	125731	1	02/26/2010 10:35	JT
Chloroform	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
Chloromethane	BRL	10		ug/L	125731	1	02/26/2010 10:35	JT
cis-1,2-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
cis-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
Dibromochloromethane	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
Dichlorodifluoromethane	BRL	10		ug/L	125731	1	02/26/2010 10:35	JT
Methylene chloride	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
Tetrachloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
trans-1,2-Dichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
trans-1,3-Dichloropropene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
Trichloroethene	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
Trichlorofluoromethane	BRL	5.0		ug/L	125731	1	02/26/2010 10:35	JT
Vinyl chloride	BRL	2.0		ug/L	125731	1	02/26/2010 10:35	JT
Surr: 4-Bromofluorobenzene	89.6	60.1-127		%REC	125731	1	02/26/2010 10:35	JT
Surr: Dibromofluoromethane	103	79.6-126		%REC	125731	1	02/26/2010 10:35	JT
Surr: Toluene-d8	102	78-116		%REC	125731	1	02/26/2010 10:35	JT

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Kem - Con Work Order Number 1002J49

Checklist completed by M. J 2/25/10
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.1 C Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: Rem-Con, LLC
Project Name: L B Foster
Workorder: 1002J49

ANALYTICAL QC SUMMARY REPORT

BatchID: 125731

Sample ID: **MB-125731** Client ID: Units: **ug/L** Prep Date: **02/26/2010** Run No: **166413**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **125731** Analysis Date: **02/26/2010** Seq No: **3448668**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
2-Butanone	BRL	50	0	0	0	0	0	0	0	0	
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0	
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0	
Acetone	BRL	50	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon disulfide	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	10	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	10	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L B Foster
Workorder: 1002J49

ANALYTICAL QC SUMMARY REPORT

BatchID: 125731

Sample ID: **MB-125731** Client ID: Units: **ug/L** Prep Date: **02/26/2010** Run No: **166413**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **125731** Analysis Date: **02/26/2010** Seq No: **3448668**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Freon-113	BRL	10	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	10	0	0	0	0	0	0	0	0	
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0	
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Styrene	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	44.13	0	50	0	88.3	60.1	127	0	0	0	
Surr: Dibromofluoromethane	51.71	0	50	0	103	79.6	126	0	0	0	
Surr: Toluene-d8	50.92	0	50	0	102	78	116	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L B Foster
Workorder: 1002J49

ANALYTICAL QC SUMMARY REPORT

BatchID: 125731

Sample ID: **LCS-125731** Client ID: Units: **ug/L** Prep Date: **02/26/2010** Run No: **166413**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **125731** Analysis Date: **02/26/2010** Seq No: **3448667**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	70.55	5.0	50	0	141	61.4	146	0	0	0	
Benzene	52.03	5.0	50	0	104	72.8	131	0	0	0	
Chlorobenzene	48.37	5.0	50	0	96.7	76	123	0	0	0	
Toluene	50.40	5.0	50	0	101	74.7	128	0	0	0	
Trichloroethene	47.81	5.0	50	0	95.6	74.4	130	0	0	0	
Surr: 4-Bromofluorobenzene	45.83	0	50	0	91.7	60.1	127	0	0	0	
Surr: Dibromofluoromethane	49.44	0	50	0	98.9	79.6	126	0	0	0	
Surr: Toluene-d8	49.33	0	50	0	98.7	78	116	0	0	0	

Sample ID: **1002J49-001AMS** Client ID: **MW-29** Units: **ug/L** Prep Date: **02/26/2010** Run No: **166413**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **125731** Analysis Date: **02/26/2010** Seq No: **3448701**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	78.29	5.0	50	0	157	48.8	172	0	0	0	
Benzene	55.03	5.0	50	0	110	64.5	143	0	0	0	
Chlorobenzene	49.46	5.0	50	0	98.9	74.5	129	0	0	0	
Toluene	54.85	5.0	50	0	110	62	145	0	0	0	
Trichloroethene	50.39	5.0	50	0	101	70.3	140	0	0	0	
Surr: 4-Bromofluorobenzene	45.45	0	50	0	90.9	60.1	127	0	0	0	
Surr: Dibromofluoromethane	50.68	0	50	0	101	79.6	126	0	0	0	
Surr: Toluene-d8	50.09	0	50	0	100	78	116	0	0	0	

Sample ID: **1002J49-001AMSD** Client ID: **MW-29** Units: **ug/L** Prep Date: **02/26/2010** Run No: **166413**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **125731** Analysis Date: **02/26/2010** Seq No: **3448771**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	78.66	5.0	50	0	157	48.8	172	78.29	0.471	21.6	
Benzene	55.37	5.0	50	0	111	64.5	143	55.03	0.616	18.3	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L B Foster
Workorder: 1002J49

ANALYTICAL QC SUMMARY REPORT

BatchID: 125731

Sample ID: **1002J49-001AMSD** Client ID: **MW-29** Units: **ug/L** Prep Date: **02/26/2010** Run No: **166413**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **125731** Analysis Date: **02/26/2010** Seq No: **3448771**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	50.57	5.0	50	0	101	74.5	129	49.46	2.22	19.2	
Toluene	54.18	5.0	50	0	108	62	145	54.85	1.23	21.2	
Trichloroethene	51.36	5.0	50	0	103	70.3	140	50.39	1.91	20.3	
Surr: 4-Bromofluorobenzene	44.98	0	50	0	90	60.1	127	45.45	0	0	
Surr: Dibromofluoromethane	50.57	0	50	0	101	79.6	126	50.68	0	0	
Surr: Toluene-d8	50.77	0	50	0	102	78	116	50.09	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

July 15, 2010

Brent Cortelloni
Rem-Con, LLC
5262 Belle Wood Court
Buford GA 30518

TEL: (770) 271-4628
FAX: (770) 271-8944

RE: L.B. Foster Co.

Dear Brent Cortelloni: Order No: 1007963

Analytical Environmental Services, Inc. received 5 samples on 7/14/2010 11:10:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/10-06/30/11.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/11.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

James Forrest
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1007963

Date: ______ Page ____ of ____

COMPANY: REM-CON / BC

ADDRESS:

PHONE:

FAX:

SAMPLED BY: B. Conklin / T. Schuller

SIGNATURE: [signature]

ANALYSIS REQUESTED: TCL VOC

Visit our website **www.aesatlanta.com** to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	TCL VOC	REMARKS	No # of Containers
1	MW-14R	7-14-10	0850	X		GW	X		
2	↓ 21	↓	09:52	X		↓	X	2 Day	
3	↓ 29		10:43	X			X		
4	Dup		—	X			X		
5	Rinsate		—	X			X	T/A	
6	Trip Blank	—	—			W	X		
7									
8									
9									
10									
11									
12									
13									
14									

PRESERVATION (See codes)

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1: [signature]	7-14-10/11:10	1: [signature]	7/14/10 11:10
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER ______

PROJECT INFORMATION

PROJECT NAME: LBF

PROJECT #: RC-110

SITE ADDRESS:

SEND REPORT TO:

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE #: ______ PO#: ______

RECEIPT

Total # of Containers

Turnaround Time Request

Standard 5 Business Days

2 Business Day Rush (marked)

Next Business Day Rush

Same Day Rush (**auth req.**)

Other ______

STATE PROGRAM (if any): ______

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 16-Jul-10

Client: Rem-Con, LLC
Project: L.B. Foster Co.
Lab ID: 1007963

Case Narrative

Sample Receiving Nonconformance:

A Trip Blank was listed on the Chain of Custody, however none was received.

Analytical Environmental Services, Inc **Date:** 15-Jul-10

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-14R
Lab Order	1007963	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	7/14/2010 8:50:00 AM
Lab ID:	1007963-001A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
1,1,2-Trichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
1,1-Dichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
1,1-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
1,2-Dibromoethane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
1,2-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
1,2-Dichloroethane	BRL	1.0		ug/L	132263	1	07/15/2010 12:37	NK
1,2-Dichloropropane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
1,3-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
1,4-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
2-Butanone	BRL	50		ug/L	132263	1	07/15/2010 12:37	NK
2-Hexanone	BRL	10		ug/L	132263	1	07/15/2010 12:37	NK
4-Methyl-2-pentanone	BRL	10		ug/L	132263	1	07/15/2010 12:37	NK
Acetone	BRL	50		ug/L	132263	1	07/15/2010 12:37	NK
Benzene	BRL	1.0		ug/L	132263	1	07/15/2010 12:37	NK
Bromodichloromethane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Bromoform	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Bromomethane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Carbon disulfide	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Carbon tetrachloride	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Chlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Chloroethane	BRL	10		ug/L	132263	1	07/15/2010 12:37	NK
Chloroform	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Chloromethane	BRL	10		ug/L	132263	1	07/15/2010 12:37	NK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Cyclohexane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Dibromochloromethane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Dichlorodifluoromethane	BRL	10		ug/L	132263	1	07/15/2010 12:37	NK
Ethylbenzene	BRL	1.0		ug/L	132263	1	07/15/2010 12:37	NK
Freon-113	BRL	10		ug/L	132263	1	07/15/2010 12:37	NK
Isopropylbenzene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
m,p-Xylene	BRL	1.0		ug/L	132263	1	07/15/2010 12:37	NK
Methyl acetate	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Methyl tert-butyl ether	BRL	1.0		ug/L	132263	1	07/15/2010 12:37	NK
Methylcyclohexane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Methylene chloride	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Jul-10

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-14R
Lab Order	1007963	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	7/14/2010 8:50:00 AM
Lab ID:	1007963-001A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
o-Xylene	BRL	1.0		ug/L	132263	1	07/15/2010 12:37	NK
Styrene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Tetrachloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Toluene	BRL	1.0		ug/L	132263	1	07/15/2010 12:37	NK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Trichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Trichlorofluoromethane	BRL	5.0		ug/L	132263	1	07/15/2010 12:37	NK
Vinyl chloride	BRL	2.0		ug/L	132263	1	07/15/2010 12:37	NK
Surr: 4-Bromofluorobenzene	103	60.1-127		%REC	132263	1	07/15/2010 12:37	NK
Surr: Dibromofluoromethane	94.6	79.6-126		%REC	132263	1	07/15/2010 12:37	NK
Surr: Toluene-d8	102	78-116		%REC	132263	1	07/15/2010 12:37	NK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Jul-10

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-21
Lab Order	1007963	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	7/14/2010 9:52:00 AM
Lab ID:	1007963-002A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
1,1,2-Trichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
1,1-Dichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
1,1-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
1,2-Dibromoethane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
1,2-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
1,2-Dichloroethane	BRL	1.0		ug/L	132263	1	07/15/2010 13:56	NK
1,2-Dichloropropane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
1,3-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
1,4-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
2-Butanone	BRL	50		ug/L	132263	1	07/15/2010 13:56	NK
2-Hexanone	BRL	10		ug/L	132263	1	07/15/2010 13:56	NK
4-Methyl-2-pentanone	BRL	10		ug/L	132263	1	07/15/2010 13:56	NK
Acetone	BRL	50		ug/L	132263	1	07/15/2010 13:56	NK
Benzene	BRL	1.0		ug/L	132263	1	07/15/2010 13:56	NK
Bromodichloromethane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Bromoform	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Bromomethane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Carbon disulfide	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Carbon tetrachloride	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Chlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Chloroethane	BRL	10		ug/L	132263	1	07/15/2010 13:56	NK
Chloroform	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Chloromethane	BRL	10		ug/L	132263	1	07/15/2010 13:56	NK
cis-1,2-Dichloroethene	5.7	5.0		ug/L	132263	1	07/15/2010 13:56	NK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Cyclohexane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Dibromochloromethane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Dichlorodifluoromethane	BRL	10		ug/L	132263	1	07/15/2010 13:56	NK
Ethylbenzene	BRL	1.0		ug/L	132263	1	07/15/2010 13:56	NK
Freon-113	BRL	10		ug/L	132263	1	07/15/2010 13:56	NK
Isopropylbenzene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
m,p-Xylene	BRL	1.0		ug/L	132263	1	07/15/2010 13:56	NK
Methyl acetate	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Methyl tert-butyl ether	BRL	1.0		ug/L	132263	1	07/15/2010 13:56	NK
Methylcyclohexane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Methylene chloride	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Jul-10

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-21
Lab Order	1007963	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	7/14/2010 9:52:00 AM
Lab ID:	1007963-002A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
o-Xylene	BRL	1.0		ug/L	132263	1	07/15/2010 13:56	NK
Styrene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Tetrachloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Toluene	BRL	1.0		ug/L	132263	1	07/15/2010 13:56	NK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Trichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Trichlorofluoromethane	BRL	5.0		ug/L	132263	1	07/15/2010 13:56	NK
Vinyl chloride	BRL	2.0		ug/L	132263	1	07/15/2010 13:56	NK
Surr: 4-Bromofluorobenzene	104	60.1-127		%REC	132263	1	07/15/2010 13:56	NK
Surr: Dibromofluoromethane	95.8	79.6-126		%REC	132263	1	07/15/2010 13:56	NK
Surr: Toluene-d8	103	78-116		%REC	132263	1	07/15/2010 13:56	NK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Jul-10

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-29
Lab Order	1007963	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	7/14/2010 10:43:00 AM
Lab ID:	1007963-003A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
1,1,2-Trichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
1,1-Dichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
1,1-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
1,2-Dibromoethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
1,2-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
1,2-Dichloroethane	BRL	1.0		ug/L	132263	1	07/15/2010 14:23	NK
1,2-Dichloropropane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
1,3-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
1,4-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
2-Butanone	BRL	50		ug/L	132263	1	07/15/2010 14:23	NK
2-Hexanone	BRL	10		ug/L	132263	1	07/15/2010 14:23	NK
4-Methyl-2-pentanone	BRL	10		ug/L	132263	1	07/15/2010 14:23	NK
Acetone	BRL	50		ug/L	132263	1	07/15/2010 14:23	NK
Benzene	BRL	1.0		ug/L	132263	1	07/15/2010 14:23	NK
Bromodichloromethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Bromoform	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Bromomethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Carbon disulfide	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Carbon tetrachloride	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Chlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Chloroethane	BRL	10		ug/L	132263	1	07/15/2010 14:23	NK
Chloroform	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Chloromethane	BRL	10		ug/L	132263	1	07/15/2010 14:23	NK
cis-1,2-Dichloroethene	11	5.0		ug/L	132263	1	07/15/2010 14:23	NK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Cyclohexane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Dibromochloromethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Dichlorodifluoromethane	BRL	10		ug/L	132263	1	07/15/2010 14:23	NK
Ethylbenzene	BRL	1.0		ug/L	132263	1	07/15/2010 14:23	NK
Freon-113	BRL	10		ug/L	132263	1	07/15/2010 14:23	NK
Isopropylbenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
m,p-Xylene	BRL	1.0		ug/L	132263	1	07/15/2010 14:23	NK
Methyl acetate	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Methyl tert-butyl ether	BRL	1.0		ug/L	132263	1	07/15/2010 14:23	NK
Methylcyclohexane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Methylene chloride	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Jul-10

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-29
Lab Order	1007963	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	7/14/2010 10:43:00 AM
Lab ID:	1007963-003A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
o-Xylene	BRL	1.0		ug/L	132263	1	07/15/2010 14:23	NK
Styrene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Tetrachloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Toluene	BRL	1.0		ug/L	132263	1	07/15/2010 14:23	NK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Trichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Trichlorofluoromethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:23	NK
Vinyl chloride	BRL	2.0		ug/L	132263	1	07/15/2010 14:23	NK
Surr: 4-Bromofluorobenzene	101	60.1-127		%REC	132263	1	07/15/2010 14:23	NK
Surr: Dibromofluoromethane	95.3	79.6-126		%REC	132263	1	07/15/2010 14:23	NK
Surr: Toluene-d8	102	78-116		%REC	132263	1	07/15/2010 14:23	NK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Jul-10

Client:	Rem-Con, LLC	**Client Sample ID:**	DUP
Lab Order	1007963	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	7/14/2010
Lab ID:	1007963-004A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
1,1,2-Trichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
1,1-Dichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
1,1-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
1,2-Dibromoethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
1,2-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
1,2-Dichloroethane	BRL	1.0		ug/L	132263	1	07/15/2010 14:49	NK
1,2-Dichloropropane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
1,3-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
1,4-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
2-Butanone	BRL	50		ug/L	132263	1	07/15/2010 14:49	NK
2-Hexanone	BRL	10		ug/L	132263	1	07/15/2010 14:49	NK
4-Methyl-2-pentanone	BRL	10		ug/L	132263	1	07/15/2010 14:49	NK
Acetone	BRL	50		ug/L	132263	1	07/15/2010 14:49	NK
Benzene	BRL	1.0		ug/L	132263	1	07/15/2010 14:49	NK
Bromodichloromethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Bromoform	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Bromomethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Carbon disulfide	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Carbon tetrachloride	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Chlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Chloroethane	BRL	10		ug/L	132263	1	07/15/2010 14:49	NK
Chloroform	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Chloromethane	BRL	10		ug/L	132263	1	07/15/2010 14:49	NK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Cyclohexane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Dibromochloromethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Dichlorodifluoromethane	BRL	10		ug/L	132263	1	07/15/2010 14:49	NK
Ethylbenzene	BRL	1.0		ug/L	132263	1	07/15/2010 14:49	NK
Freon-113	BRL	10		ug/L	132263	1	07/15/2010 14:49	NK
Isopropylbenzene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
m,p-Xylene	BRL	1.0		ug/L	132263	1	07/15/2010 14:49	NK
Methyl acetate	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Methyl tert-butyl ether	BRL	1.0		ug/L	132263	1	07/15/2010 14:49	NK
Methylcyclohexane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Methylene chloride	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Jul-10

Client:	Rem-Con, LLC	**Client Sample ID:**	DUP
Lab Order	1007963	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	7/14/2010
Lab ID:	1007963-004A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
o-Xylene	BRL	1.0		ug/L	132263	1	07/15/2010 14:49	NK
Styrene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Tetrachloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Toluene	BRL	1.0		ug/L	132263	1	07/15/2010 14:49	NK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Trichloroethene	5.8	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Trichlorofluoromethane	BRL	5.0		ug/L	132263	1	07/15/2010 14:49	NK
Vinyl chloride	BRL	2.0		ug/L	132263	1	07/15/2010 14:49	NK
Surr: 4-Bromofluorobenzene	104	60.1-127		%REC	132263	1	07/15/2010 14:49	NK
Surr: Dibromofluoromethane	96.4	79.6-126		%REC	132263	1	07/15/2010 14:49	NK
Surr: Toluene-d8	102	78-116		%REC	132263	1	07/15/2010 14:49	NK

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Jul-10

Client:	Rem-Con, LLC	**Client Sample ID:**	RINSATE
Lab Order	1007963	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	7/14/2010
Lab ID:	1007963-005A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
1,1,2-Trichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
1,1-Dichloroethane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
1,1-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
1,2-Dibromoethane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
1,2-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
1,2-Dichloroethane	BRL	1.0		ug/L	132263	1	07/15/2010 15:16	NK
1,2-Dichloropropane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
1,3-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
1,4-Dichlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
2-Butanone	BRL	50		ug/L	132263	1	07/15/2010 15:16	NK
2-Hexanone	BRL	10		ug/L	132263	1	07/15/2010 15:16	NK
4-Methyl-2-pentanone	BRL	10		ug/L	132263	1	07/15/2010 15:16	NK
Acetone	BRL	50		ug/L	132263	1	07/15/2010 15:16	NK
Benzene	BRL	1.0		ug/L	132263	1	07/15/2010 15:16	NK
Bromodichloromethane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Bromoform	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Bromomethane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Carbon disulfide	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Carbon tetrachloride	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Chlorobenzene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Chloroethane	BRL	10		ug/L	132263	1	07/15/2010 15:16	NK
Chloroform	35	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Chloromethane	BRL	10		ug/L	132263	1	07/15/2010 15:16	NK
cis-1,2-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
cis-1,3-Dichloropropene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Cyclohexane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Dibromochloromethane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Dichlorodifluoromethane	BRL	10		ug/L	132263	1	07/15/2010 15:16	NK
Ethylbenzene	BRL	1.0		ug/L	132263	1	07/15/2010 15:16	NK
Freon-113	BRL	10		ug/L	132263	1	07/15/2010 15:16	NK
Isopropylbenzene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
m,p-Xylene	BRL	1.0		ug/L	132263	1	07/15/2010 15:16	NK
Methyl acetate	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Methyl tert-butyl ether	BRL	1.0		ug/L	132263	1	07/15/2010 15:16	NK
Methylcyclohexane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Methylene chloride	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 15-Jul-10

Client:	Rem-Con, LLC	**Client Sample ID:**	RINSATE
Lab Order	1007963	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	7/14/2010
Lab ID:	1007963-005A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
o-Xylene	BRL	1.0		ug/L	132263	1	07/15/2010 15:16	NK
Styrene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Tetrachloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Toluene	BRL	1.0		ug/L	132263	1	07/15/2010 15:16	NK
trans-1,2-Dichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
trans-1,3-Dichloropropene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Trichloroethene	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Trichlorofluoromethane	BRL	5.0		ug/L	132263	1	07/15/2010 15:16	NK
Vinyl chloride	BRL	2.0		ug/L	132263	1	07/15/2010 15:16	NK
Surr: 4-Bromofluorobenzene	102	60.1-127		%REC	132263	1	07/15/2010 15:16	NK
Surr: Dibromofluoromethane	96.8	79.6-126		%REC	132263	1	07/15/2010 15:16	NK
Surr: Toluene-d8	101	78-116		%REC	132263	1	07/15/2010 15:16	NK

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Rem-Con/BC Work Order Number 10079963

Checklist completed by LR 7-14-10
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (4°C±2)*	Yes ✓	No __	

Cooler #1 3.4° Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __
Chain of custody signed when relinquished and received?	Yes ✓	No __
Chain of custody agrees with sample labels?	Yes __	No ✓
Samples in proper container/bottle?	Yes ✓	No __
Sample containers intact?	Yes ✓	No __
Sufficient sample volume for indicated test?	Yes ✓	No __
All samples received within holding time?	Yes ✓	No __
Was TAT marked on the COC?	Yes ✓	No __
Proceed with Standard TAT as per project history?	Yes __	No __ Not Applicable ✓
Water - VOA vials have zero headspace?	No VOA vials submitted __	Yes ✓ No __
Water - pH acceptable upon receipt?	Yes ✓	No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Analytical Environmental Services, Inc

Date: 15-Jul-10

Client: Rem-Con, LLC
Project: L.B. Foster Co.
Lab Order: 1007963

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1007963-001A	MW-14R	7/14/2010 8:50:00AM	Groundwater	TCL VOLATILE ORGANICS		07/14/2010	07/15/2010
1007963-002A	MW-21	7/14/2010 9:52:00AM	Groundwater	TCL VOLATILE ORGANICS		07/14/2010	07/15/2010
1007963-003A	MW-29	7/14/2010 10:43:00AM	Groundwater	TCL VOLATILE ORGANICS		07/14/2010	07/15/2010
1007963-004A	DUP	7/14/2010 12:00:00AM	Groundwater	TCL VOLATILE ORGANICS		07/14/2010	07/15/2010
1007963-005A	RINSATE	7/14/2010 12:00:00AM	Groundwater	TCL VOLATILE ORGANICS		07/14/2010	07/15/2010

Client: Rem-Con, LLC
Project Name: L.B. Foster Co.
Workorder: 1007963

ANALYTICAL QC SUMMARY REPORT

BatchID: 132263

Sample ID: **MB-132263** Client ID: Units: **ug/L** Prep Date: **07/15/2010** Run No: **175867**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **132263** Analysis Date: **07/14/2010** Seq No: **3659425**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	1.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
2-Butanone	BRL	50	0	0	0	0	0	0	0	0	
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0	
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0	
Acetone	BRL	50	0	0	0	0	0	0	0	0	
Benzene	BRL	1.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon disulfide	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	10	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	10	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster Co.
Workorder: 1007963

ANALYTICAL QC SUMMARY REPORT

BatchID: 132263

Sample ID: **MB-132263** Client ID: Units: **ug/L** Prep Date: **07/15/2010** Run No: **175867**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **132263** Analysis Date: **07/14/2010** Seq No: **3659425**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	1.0	0	0	0	0	0	0	0	0	
Freon-113	BRL	10	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	1.0	0	0	0	0	0	0	0	0	
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	1.0	0	0	0	0	0	0	0	0	
Styrene	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	1.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	43.74	0	50	0	87.5	60.1	127	0	0	0	
Surr: Dibromofluoromethane	57.41	0	50	0	115	79.6	126	0	0	0	
Surr: Toluene-d8	46.70	0	50	0	93.4	78	116	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster Co.
Workorder: 1007963

ANALYTICAL QC SUMMARY REPORT

BatchID: 132263

Sample ID: **LCS-132263** Client ID: Units: **ug/L** Prep Date: **07/15/2010** Run No: **175867**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **132263** Analysis Date: **07/14/2010** Seq No: **3659427**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	46.62	5.0	50	0	93.2	61.4	146	0	0	0	
Benzene	57.43	1.0	50	0	115	72.8	131	0	0	0	
Chlorobenzene	50.45	5.0	50	0	101	76	123	0	0	0	
Toluene	58.14	1.0	50	0	116	74.7	128	0	0	0	
Trichloroethene	57.74	5.0	50	0	115	74.4	130	0	0	0	
Surr: 4-Bromofluorobenzene	52.18	0	50	0	104	60.1	127	0	0	0	
Surr: Dibromofluoromethane	57.77	0	50	0	116	79.6	126	0	0	0	
Surr: Toluene-d8	56.74	0	50	0	113	78	116	0	0	0	

Sample ID: **1007548-021AMS** Client ID: Units: **ug/L** Prep Date: **07/14/2010** Run No: **175867**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **132263** Analysis Date: **07/14/2010** Seq No: **3659433**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	52.12	5.0	50	0	104	48.8	172	0	0	0	
Benzene	63.28	1.0	50	0	127	64.5	143	0	0	0	
Chlorobenzene	56.72	5.0	50	0	113	74.5	129	0	0	0	
Toluene	65.37	1.0	50	0	131	62	145	0	0	0	
Trichloroethene	65.76	5.0	50	0	132	70.3	140	0	0	0	
Surr: 4-Bromofluorobenzene	53.29	0	50	0	107	60.1	127	0	0	0	
Surr: Dibromofluoromethane	60.48	0	50	0	121	79.6	126	0	0	0	
Surr: Toluene-d8	57.58	0	50	0	115	78	116	0	0	0	

Sample ID: **1007548-021AMSD** Client ID: Units: **ug/L** Prep Date: **07/14/2010** Run No: **175867**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **132263** Analysis Date: **07/14/2010** Seq No: **3659436**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	49.85	5.0	50	0	99.7	48.8	172	52.12	4.45	21.6	
Benzene	60.20	1.0	50	0	120	64.5	143	63.28	4.99	18.3	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster Co.
Workorder: 1007963

ANALYTICAL QC SUMMARY REPORT

BatchID: 132263

Sample ID: **1007548-021AMSD** Client ID:
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/L** Prep Date: **07/14/2010** Run No: **175867**
BatchID: **132263** Analysis Date: **07/14/2010** Seq No: **3659436**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	55.64	5.0	50	0	111	74.5	129	56.72	1.92	19.2	
Toluene	61.48	1.0	50	0	123	62	145	65.37	6.13	21.2	
Trichloroethene	64.10	5.0	50	0	128	70.3	140	65.76	2.56	20.3	
Surr: 4-Bromofluorobenzene	54.44	0	50	0	109	60.1	127	53.29	0	0	
Surr: Dibromofluoromethane	58.33	0	50	0	117	79.6	126	60.48	0	0	
Surr: Toluene-d8	56.63	0	50	0	113	78	116	57.58	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

June 27, 2012

Brent Cortelloni
Rem-Con, LLC
5262 Belle Wood Court
Buford GA 30518

TEL: (770) 271-4628
FAX: (770) 271-8944

RE: L.B. Foster Co.

Dear Brent Cortelloni: Order No: 1206H82

Analytical Environmental Services, Inc. received 6 samples on 6/21/2012 3:10:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/11-06/30/12.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Mirzeta Kararic

Mirzeta Kararic
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1206182

Date: _____ Page _____ of _____

COMPANY: REM-CON

ADDRESS:

PHONE:

FAX:

SAMPLED BY: B. [illegible] J. Schaller

SIGNATURE:

ANALYSIS REQUESTED: TCL VOCs

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)	REMARKS	No # of Containers
1	MW-14R	6-21-12	1155	X		GW	X		
2	21		1320						
3	29		1429					24-hr	
4	Dup.		—						
5	Rinsate		—					TAT	
6	Trip Blk								
7									
8									
9									
10									
11									
12									
13									
14									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	6/21/12 1500	1: Elvira Zgui	6/21/12 3:10pm
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / / VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER_____

PROJECT INFORMATION

PROJECT NAME: L.B. Foster

PROJECT #: RC-160

SITE ADDRESS:

SEND REPORT TO:

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE #:_____ PO#:_____

RECEIPT

Total # of Containers

Turnaround Time Request

- Standard 5 Business Days
- 2 Business Day Rush
- Next Business Day Rush
- Same Day Rush **(auth req.)**
- Other _____

STATE PROGRAM (if any): _____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES. SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-14R
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012 11:55:00 AM
Lab ID:	1206H82-001A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,1-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,1-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,2-Dibromoethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,2-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,2-Dichloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
2-Butanone	BRL	50		ug/L	162999	1	06/22/2012 12:01	NP
2-Hexanone	BRL	10		ug/L	162999	1	06/22/2012 12:01	NP
4-Methyl-2-pentanone	BRL	10		ug/L	162999	1	06/22/2012 12:01	NP
Acetone	BRL	50		ug/L	162999	1	06/22/2012 12:01	NP
Benzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Bromodichloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Bromoform	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Bromomethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Carbon disulfide	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Carbon tetrachloride	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Chlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Chloroethane	BRL	10		ug/L	162999	1	06/22/2012 12:01	NP
Chloroform	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Chloromethane	BRL	10		ug/L	162999	1	06/22/2012 12:01	NP
cis-1,2-Dichloroethene	9.2	5.0		ug/L	162999	1	06/22/2012 12:01	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Cyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Dibromochloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Dichlorodifluoromethane	BRL	10		ug/L	162999	1	06/22/2012 12:01	NP
Ethylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Freon-113	BRL	10		ug/L	162999	1	06/22/2012 12:01	NP
Isopropylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
m,p-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Methyl acetate	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Methylcyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Methylene chloride	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-14R
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012 11:55:00 AM
Lab ID:	1206H82-001A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Styrene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Tetrachloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Toluene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Trichloroethene	9.5	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Trichlorofluoromethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:01	NP
Vinyl chloride	BRL	2.0		ug/L	162999	1	06/22/2012 12:01	NP
Surr: 4-Bromofluorobenzene	85.1	67.4-123		%REC	162999	1	06/22/2012 12:01	NP
Surr: Dibromofluoromethane	104	75.5-128		%REC	162999	1	06/22/2012 12:01	NP
Surr: Toluene-d8	88.9	70-120		%REC	162999	1	06/22/2012 12:01	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-21
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012 1:20:00 PM
Lab ID:	1206H82-002A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,1-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,1-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,2-Dibromoethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,2-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,2-Dichloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
2-Butanone	BRL	50		ug/L	162999	1	06/22/2012 12:58	NP
2-Hexanone	BRL	10		ug/L	162999	1	06/22/2012 12:58	NP
4-Methyl-2-pentanone	BRL	10		ug/L	162999	1	06/22/2012 12:58	NP
Acetone	BRL	50		ug/L	162999	1	06/22/2012 12:58	NP
Benzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Bromodichloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Bromoform	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Bromomethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Carbon disulfide	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Carbon tetrachloride	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Chlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Chloroethane	BRL	10		ug/L	162999	1	06/22/2012 12:58	NP
Chloroform	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Chloromethane	BRL	10		ug/L	162999	1	06/22/2012 12:58	NP
cis-1,2-Dichloroethene	25	5.0		ug/L	162999	1	06/22/2012 12:58	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Cyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Dibromochloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Dichlorodifluoromethane	BRL	10		ug/L	162999	1	06/22/2012 12:58	NP
Ethylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Freon-113	BRL	10		ug/L	162999	1	06/22/2012 12:58	NP
Isopropylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
m,p-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Methyl acetate	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Methylcyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Methylene chloride	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-21
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012 1:20:00 PM
Lab ID:	1206H82-002A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Styrene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Tetrachloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Toluene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Trichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Trichlorofluoromethane	BRL	5.0		ug/L	162999	1	06/22/2012 12:58	NP
Vinyl chloride	BRL	2.0		ug/L	162999	1	06/22/2012 12:58	NP
Surr: 4-Bromofluorobenzene	83.6	67.4-123		%REC	162999	1	06/22/2012 12:58	NP
Surr: Dibromofluoromethane	104	75.5-128		%REC	162999	1	06/22/2012 12:58	NP
Surr: Toluene-d8	86.3	70-120		%REC	162999	1	06/22/2012 12:58	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-29
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012 2:29:00 PM
Lab ID:	1206H82-003A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,1-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,1-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,2-Dibromoethane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,2-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,2-Dichloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
2-Butanone	BRL	50		ug/L	162999	1	06/22/2012 15:24	NP
2-Hexanone	BRL	10		ug/L	162999	1	06/22/2012 15:24	NP
4-Methyl-2-pentanone	BRL	10		ug/L	162999	1	06/22/2012 15:24	NP
Acetone	BRL	50		ug/L	162999	1	06/22/2012 15:24	NP
Benzene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Bromodichloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Bromoform	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Bromomethane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Carbon disulfide	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Carbon tetrachloride	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Chlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Chloroethane	BRL	10		ug/L	162999	1	06/22/2012 15:24	NP
Chloroform	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Chloromethane	BRL	10		ug/L	162999	1	06/22/2012 15:24	NP
cis-1,2-Dichloroethene	19	5.0		ug/L	162999	1	06/22/2012 15:24	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Cyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Dibromochloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Dichlorodifluoromethane	BRL	10		ug/L	162999	1	06/22/2012 15:24	NP
Ethylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Freon-113	BRL	10		ug/L	162999	1	06/22/2012 15:24	NP
Isopropylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
m,p-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Methyl acetate	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Methylcyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Methylene chloride	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-29
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012 2:29:00 PM
Lab ID:	1206H82-003A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Styrene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Tetrachloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Toluene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Trichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Trichlorofluoromethane	BRL	5.0		ug/L	162999	1	06/22/2012 15:24	NP
Vinyl chloride	BRL	2.0		ug/L	162999	1	06/22/2012 15:24	NP
Surr: 4-Bromofluorobenzene	77.3	67.4-123		%REC	162999	1	06/22/2012 15:24	NP
Surr: Dibromofluoromethane	108	75.5-128		%REC	162999	1	06/22/2012 15:24	NP
Surr: Toluene-d8	86.6	70-120		%REC	162999	1	06/22/2012 15:24	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	DUP
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012
Lab ID:	1206H82-004A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,1-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,1-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,2-Dibromoethane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,2-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,2-Dichloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
2-Butanone	BRL	50		ug/L	162999	1	06/22/2012 17:47	NP
2-Hexanone	BRL	10		ug/L	162999	1	06/22/2012 17:47	NP
4-Methyl-2-pentanone	BRL	10		ug/L	162999	1	06/22/2012 17:47	NP
Acetone	BRL	50		ug/L	162999	1	06/22/2012 17:47	NP
Benzene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Bromodichloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Bromoform	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Bromomethane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Carbon disulfide	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Carbon tetrachloride	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Chlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Chloroethane	BRL	10		ug/L	162999	1	06/22/2012 17:47	NP
Chloroform	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Chloromethane	BRL	10		ug/L	162999	1	06/22/2012 17:47	NP
cis-1,2-Dichloroethene	9.3	5.0		ug/L	162999	1	06/22/2012 17:47	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Cyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Dibromochloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Dichlorodifluoromethane	BRL	10		ug/L	162999	1	06/22/2012 17:47	NP
Ethylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Freon-113	BRL	10		ug/L	162999	1	06/22/2012 17:47	NP
Isopropylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
m,p-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Methyl acetate	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Methylcyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Methylene chloride	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	DUP
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012
Lab ID:	1206H82-004A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Styrene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Tetrachloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Toluene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Trichloroethene	9.9	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Trichlorofluoromethane	BRL	5.0		ug/L	162999	1	06/22/2012 17:47	NP
Vinyl chloride	BRL	2.0		ug/L	162999	1	06/22/2012 17:47	NP
Surr: 4-Bromofluorobenzene	77.8	67.4-123		%REC	162999	1	06/22/2012 17:47	NP
Surr: Dibromofluoromethane	110	75.5-128		%REC	162999	1	06/22/2012 17:47	NP
Surr: Toluene-d8	87.4	70-120		%REC	162999	1	06/22/2012 17:47	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	RINSATE
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012
Lab ID:	1206H82-005A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,1-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,1-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,2-Dibromoethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,2-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,2-Dichloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
2-Butanone	BRL	50		ug/L	162999	1	06/22/2012 18:16	NP
2-Hexanone	BRL	10		ug/L	162999	1	06/22/2012 18:16	NP
4-Methyl-2-pentanone	BRL	10		ug/L	162999	1	06/22/2012 18:16	NP
Acetone	BRL	50		ug/L	162999	1	06/22/2012 18:16	NP
Benzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Bromodichloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Bromoform	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Bromomethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Carbon disulfide	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Carbon tetrachloride	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Chlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Chloroethane	BRL	10		ug/L	162999	1	06/22/2012 18:16	NP
Chloroform	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Chloromethane	BRL	10		ug/L	162999	1	06/22/2012 18:16	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Cyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Dibromochloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Dichlorodifluoromethane	BRL	10		ug/L	162999	1	06/22/2012 18:16	NP
Ethylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Freon-113	BRL	10		ug/L	162999	1	06/22/2012 18:16	NP
Isopropylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
m,p-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Methyl acetate	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Methylcyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Methylene chloride	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	RINSATE
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012
Lab ID:	1206H82-005A	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Styrene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Tetrachloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Toluene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Trichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Trichlorofluoromethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:16	NP
Vinyl chloride	BRL	2.0		ug/L	162999	1	06/22/2012 18:16	NP
Surr: 4-Bromofluorobenzene	82.2	67.4-123		%REC	162999	1	06/22/2012 18:16	NP
Surr: Dibromofluoromethane	114	75.5-128		%REC	162999	1	06/22/2012 18:16	NP
Surr: Toluene-d8	87.7	70-120		%REC	162999	1	06/22/2012 18:16	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	TRIP BLANK
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012
Lab ID:	1206H82-006A	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,1-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,1-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,2-Dibromoethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,2-Dichloroethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,2-Dichloropropane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
2-Butanone	BRL	50		ug/L	162999	1	06/22/2012 18:44	NP
2-Hexanone	BRL	10		ug/L	162999	1	06/22/2012 18:44	NP
4-Methyl-2-pentanone	BRL	10		ug/L	162999	1	06/22/2012 18:44	NP
Acetone	BRL	50		ug/L	162999	1	06/22/2012 18:44	NP
Benzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Bromodichloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Bromoform	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Bromomethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Carbon disulfide	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Carbon tetrachloride	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Chlorobenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Chloroethane	BRL	10		ug/L	162999	1	06/22/2012 18:44	NP
Chloroform	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Chloromethane	BRL	10		ug/L	162999	1	06/22/2012 18:44	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Cyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Dibromochloromethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Dichlorodifluoromethane	BRL	10		ug/L	162999	1	06/22/2012 18:44	NP
Ethylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Freon-113	BRL	10		ug/L	162999	1	06/22/2012 18:44	NP
Isopropylbenzene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
m,p-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Methyl acetate	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Methylcyclohexane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Methylene chloride	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 27-Jun-12

Client:	Rem-Con, LLC	**Client Sample ID:**	TRIP BLANK
Lab Order	1206H82	**Tag Number:**	
Project:	L.B. Foster Co.	**Collection Date:**	6/21/2012
Lab ID:	1206H82-006A	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
o-Xylene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Styrene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Tetrachloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Toluene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Trichloroethene	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Trichlorofluoromethane	BRL	5.0		ug/L	162999	1	06/22/2012 18:44	NP
Vinyl chloride	BRL	2.0		ug/L	162999	1	06/22/2012 18:44	NP
Surr: 4-Bromofluorobenzene	81.6	67.4-123		%REC	162999	1	06/22/2012 18:44	NP
Surr: Dibromofluoromethane	110	75.5-128		%REC	162999	1	06/22/2012 18:44	NP
Surr: Toluene-d8	84.3	70-120		%REC	162999	1	06/22/2012 18:44	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Rem-Con Work Order Number 1206482

Checklist completed by _____ 06/21/12
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client ✓ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.5 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: Rem-Con, LLC
Project Name: L.B. Foster Co.
Workorder: 1206H82

ANALYTICAL QC SUMMARY REPORT

BatchID: 162999

Sample ID: **MB-162999** Client ID: Units: **ug/L** Prep Date: **06/22/2012** Run No: **223738**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **162999** Analysis Date: **06/22/2012** Seq No: **4680921**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
2-Butanone	BRL	50	0	0	0	0	0	0	0	0	
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0	
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0	
Acetone	BRL	50	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon disulfide	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	10	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	10	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster Co.
Workorder: 1206H82

ANALYTICAL QC SUMMARY REPORT

BatchID: 162999

Sample ID: **MB-162999** Client ID: Units: **ug/L** Prep Date: **06/22/2012** Run No: **223738**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **162999** Analysis Date: **06/22/2012** Seq No: **4680921**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Freon-113	BRL	10	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0	
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Styrene	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	42.10	0	50	0	84.2	67.4	123	0	0	0	
Surr: Dibromofluoromethane	52.32	0	50	0	105	75.5	128	0	0	0	
Surr: Toluene-d8	45.94	0	50	0	91.9	70	120	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster Co.
Workorder: 1206H82

ANALYTICAL QC SUMMARY REPORT

BatchID: 162999

Sample ID: **LCS-162999** Client ID: Units: **ug/L** Prep Date: **06/22/2012** Run No: **223738**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **162999** Analysis Date: **06/22/2012** Seq No: **4680916**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	56.65	5.0	50	0	113	60	140	0	0	0	
Benzene	52.27	5.0	50	0	105	70	130	0	0	0	
Chlorobenzene	55.63	5.0	50	0	111	70	130	0	0	0	
Toluene	55.09	5.0	50	0	110	70	130	0	0	0	
Trichloroethene	54.93	5.0	50	0	110	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	49.63	0	50	0	99.3	67.4	123	0	0	0	
Surr: Dibromofluoromethane	49.25	0	50	0	98.5	75.5	128	0	0	0	
Surr: Toluene-d8	48.89	0	50	0	97.8	70	120	0	0	0	

Sample ID: **1206E00-001AMS** Client ID: Units: **ug/L** Prep Date: **06/22/2012** Run No: **223738**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **162999** Analysis Date: **06/22/2012** Seq No: **4680917**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	57.08	5.0	50	0	114	50.1	179	0	0	0	
Benzene	55.42	5.0	50	0	111	61.2	150	0	0	0	
Chlorobenzene	53.58	5.0	50	0	107	72.1	140	0	0	0	
Toluene	56.64	5.0	50	0	113	58.7	154	0	0	0	
Trichloroethene	56.11	5.0	50	0	112	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	48.57	0	50	0	97.1	67.4	123	0	0	0	
Surr: Dibromofluoromethane	50.42	0	50	0	101	75.5	128	0	0	0	
Surr: Toluene-d8	45.87	0	50	0	91.7	70	120	0	0	0	

Sample ID: **1206E00-001AMSD** Client ID: Units: **ug/L** Prep Date: **06/22/2012** Run No: **223738**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **162999** Analysis Date: **06/22/2012** Seq No: **4680918**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	47.15	5.0	50	0	94.3	50.1	179	57.08	19.1	23.3	
Benzene	52.10	5.0	50	0	104	61.2	150	55.42	6.18	19	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster Co.
Workorder: 1206H82

ANALYTICAL QC SUMMARY REPORT

BatchID: 162999

Sample ID: **1206E00-001AMSD** Client ID:
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B**
Units: **ug/L** Prep Date: **06/22/2012** Run No: **223738**
BatchID: **162999** Analysis Date: **06/22/2012** Seq No: **4680918**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	52.70	5.0	50	0	105	72.1	140	53.58	1.66	21.5	
Toluene	53.15	5.0	50	0	106	58.7	154	56.64	6.36	20	
Trichloroethene	50.65	5.0	50	0	101	68.3	149	56.11	10.2	17.7	
Surr: 4-Bromofluorobenzene	49.98	0	50	0	100	67.4	123	48.57	0	0	
Surr: Dibromofluoromethane	50.40	0	50	0	101	75.5	128	50.42	0	0	
Surr: Toluene-d8	46.02	0	50	0	92	70	120	45.87	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

August 31, 2012

Brent Cortelloni
Rem-Con, LLC
5262 Belle Wood Court
Buford GA 30518

TEL: (770) 271-4628
FAX: (770) 271-8944

RE: L.B. Foster

Dear Brent Cortelloni: Order No: 1208K57

Analytical Environmental Services, Inc. received 6 samples on 8/27/2012 3:50:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Mirzeta Kararic

Mirzeta Kararic
Project Manager

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704
AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1208K57

Date: _____ Page _____ of _____

COMPANY: REM-CON / BC

ADDRESS:

PHONE:

FAX:

SAMPLED BY: D. Castellon / J. Schuller

SIGNATURE:

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	ANALYSIS REQUESTED: TCL VOCs	PRESERVATION (See codes)	REMARKS	No # of Containers
1	MW-14R	8-27-12	1510	X		GW	X			
2	MW-21	↓	1355	↓		↓	↓			
3	MW-29		1255	↓						
4	Rinsate		—	—						
5	Duplicate	↓	—	—		↓				
6	Trip Blank		—	—		—	↓		48-hr T/A	
7										
8										
9										
10										
11										
12										
13										
14										

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

RELINQUISHED BY: DATE/TIME
1: 8/27/12 1550
2:
3:

RECEIVED BY: DATE/TIME
1: 8/27/12 1550
2:
3:

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD
OUT / / VIA:
IN / VIA:
CLIENT FedEx UPS MAIL COURIER
GREYHOUND OTHER_____

PROJECT INFORMATION
PROJECT NAME: L.B. Foster
PROJECT #: RC-110
SITE ADDRESS:
SEND REPORT TO: Contractors
INVOICE TO:
(IF DIFFERENT FROM ABOVE)
QUOTE #:_____ PO#:_____

RECEIPT
Total # of Containers

Turnaround Time Request
Standard 5 Business Days
2 Business Day Rush
Next Business Day Rush
Same Day Rush **(auth req.)**
Other _____

STATE PROGRAM (if any): _____
E-mail? Y / N; Fax? Y / N
DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water
PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-14R
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 3:10:00 PM
Lab ID:	1208K57-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,1-Dichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,1-Dichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,2-Dibromoethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,2-Dichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,2-Dichloropropane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
2-Butanone	BRL	50		ug/L	165765	1	08/29/2012 13:47	NP
2-Hexanone	BRL	10		ug/L	165765	1	08/29/2012 13:47	NP
4-Methyl-2-pentanone	BRL	10		ug/L	165765	1	08/29/2012 13:47	NP
Acetone	BRL	50		ug/L	165765	1	08/29/2012 13:47	NP
Benzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Bromodichloromethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Bromoform	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Bromomethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Carbon disulfide	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Carbon tetrachloride	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Chlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Chloroethane	BRL	10		ug/L	165765	1	08/29/2012 13:47	NP
Chloroform	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Chloromethane	BRL	10		ug/L	165765	1	08/29/2012 13:47	NP
cis-1,2-Dichloroethene	14	5.0		ug/L	165765	1	08/29/2012 13:47	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Cyclohexane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Dibromochloromethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Dichlorodifluoromethane	BRL	10		ug/L	165765	1	08/29/2012 13:47	NP
Ethylbenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Freon-113	BRL	10		ug/L	165765	1	08/29/2012 13:47	NP
Isopropylbenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
m,p-Xylene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Methyl acetate	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Methylcyclohexane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Methylene chloride	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
o-Xylene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-14R
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 3:10:00 PM
Lab ID:	1208K57-001	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Styrene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Tetrachloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Toluene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Trichloroethene	14	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Trichlorofluoromethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:47	NP
Vinyl chloride	BRL	2.0		ug/L	165765	1	08/29/2012 13:47	NP
Surr: 4-Bromofluorobenzene	101	67.4-123		%REC	165765	1	08/29/2012 13:47	NP
Surr: Dibromofluoromethane	115	75.5-128		%REC	165765	1	08/29/2012 13:47	NP
Surr: Toluene-d8	97.5	70-120		%REC	165765	1	08/29/2012 13:47	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-21
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 1:55:00 PM
Lab ID:	1208K57-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,1,2-Trichloroethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,1-Dichloroethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,1-Dichloroethene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,2-Dibromoethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,2-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,2-Dichloroethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,2-Dichloropropane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,3-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
1,4-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
2-Butanone	BRL	50		ug/L	165765	1	08/28/2012 21:27	DB
2-Hexanone	BRL	10		ug/L	165765	1	08/28/2012 21:27	DB
4-Methyl-2-pentanone	BRL	10		ug/L	165765	1	08/28/2012 21:27	DB
Acetone	BRL	50		ug/L	165765	1	08/28/2012 21:27	DB
Benzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Bromodichloromethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Bromoform	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Bromomethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Carbon disulfide	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Carbon tetrachloride	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Chlorobenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Chloroethane	BRL	10		ug/L	165765	1	08/28/2012 21:27	DB
Chloroform	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Chloromethane	BRL	10		ug/L	165765	1	08/28/2012 21:27	DB
cis-1,2-Dichloroethene	28	5.0		ug/L	165765	1	08/28/2012 21:27	DB
cis-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Cyclohexane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Dibromochloromethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Dichlorodifluoromethane	BRL	10		ug/L	165765	1	08/28/2012 21:27	DB
Ethylbenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Freon-113	BRL	10		ug/L	165765	1	08/28/2012 21:27	DB
Isopropylbenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
m,p-Xylene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Methyl acetate	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Methyl tert-butyl ether	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Methylcyclohexane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Methylene chloride	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
o-Xylene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-21
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 1:55:00 PM
Lab ID:	1208K57-002	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Styrene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Tetrachloroethene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Toluene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
trans-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Trichloroethene	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Trichlorofluoromethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:27	DB
Vinyl chloride	BRL	2.0		ug/L	165765	1	08/28/2012 21:27	DB
Surr: 4-Bromofluorobenzene	87	67.4-123		%REC	165765	1	08/28/2012 21:27	DB
Surr: Dibromofluoromethane	99	75.5-128		%REC	165765	1	08/28/2012 21:27	DB
Surr: Toluene-d8	91.6	70-120		%REC	165765	1	08/28/2012 21:27	DB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-29
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 12:55:00 PM
Lab ID:	1208K57-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,1,2-Trichloroethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,1-Dichloroethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,1-Dichloroethene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,2-Dibromoethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,2-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,2-Dichloroethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,2-Dichloropropane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,3-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
1,4-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
2-Butanone	BRL	50		ug/L	165765	1	08/28/2012 21:56	DB
2-Hexanone	BRL	10		ug/L	165765	1	08/28/2012 21:56	DB
4-Methyl-2-pentanone	BRL	10		ug/L	165765	1	08/28/2012 21:56	DB
Acetone	BRL	50		ug/L	165765	1	08/28/2012 21:56	DB
Benzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Bromodichloromethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Bromoform	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Bromomethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Carbon disulfide	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Carbon tetrachloride	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Chlorobenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Chloroethane	BRL	10		ug/L	165765	1	08/28/2012 21:56	DB
Chloroform	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Chloromethane	BRL	10		ug/L	165765	1	08/28/2012 21:56	DB
cis-1,2-Dichloroethene	15	5.0		ug/L	165765	1	08/28/2012 21:56	DB
cis-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Cyclohexane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Dibromochloromethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Dichlorodifluoromethane	BRL	10		ug/L	165765	1	08/28/2012 21:56	DB
Ethylbenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Freon-113	BRL	10		ug/L	165765	1	08/28/2012 21:56	DB
Isopropylbenzene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
m,p-Xylene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Methyl acetate	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Methyl tert-butyl ether	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Methylcyclohexane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Methylene chloride	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
o-Xylene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-29
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 12:55:00 PM
Lab ID:	1208K57-003	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Styrene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Tetrachloroethene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Toluene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
trans-1,2-Dichloroethene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
trans-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Trichloroethene	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Trichlorofluoromethane	BRL	5.0		ug/L	165765	1	08/28/2012 21:56	DB
Vinyl chloride	BRL	2.0		ug/L	165765	1	08/28/2012 21:56	DB
Surr: 4-Bromofluorobenzene	88	67.4-123		%REC	165765	1	08/28/2012 21:56	DB
Surr: Dibromofluoromethane	99.3	75.5-128		%REC	165765	1	08/28/2012 21:56	DB
Surr: Toluene-d8	92.8	70-120		%REC	165765	1	08/28/2012 21:56	DB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	RINSATE
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,1-Dichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,1-Dichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,2-Dibromoethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,2-Dichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,2-Dichloropropane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
2-Butanone	BRL	50		ug/L	165765	1	08/29/2012 14:16	NP
2-Hexanone	BRL	10		ug/L	165765	1	08/29/2012 14:16	NP
4-Methyl-2-pentanone	BRL	10		ug/L	165765	1	08/29/2012 14:16	NP
Acetone	BRL	50		ug/L	165765	1	08/29/2012 14:16	NP
Benzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Bromodichloromethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Bromoform	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Bromomethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Carbon disulfide	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Carbon tetrachloride	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Chlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Chloroethane	BRL	10		ug/L	165765	1	08/29/2012 14:16	NP
Chloroform	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Chloromethane	BRL	10		ug/L	165765	1	08/29/2012 14:16	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Cyclohexane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Dibromochloromethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Dichlorodifluoromethane	BRL	10		ug/L	165765	1	08/29/2012 14:16	NP
Ethylbenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Freon-113	BRL	10		ug/L	165765	1	08/29/2012 14:16	NP
Isopropylbenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
m,p-Xylene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Methyl acetate	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Methylcyclohexane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Methylene chloride	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
o-Xylene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	RINSATE
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-004	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Styrene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Tetrachloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Toluene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Trichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Trichlorofluoromethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:16	NP
Vinyl chloride	BRL	2.0		ug/L	165765	1	08/29/2012 14:16	NP
Surr: 4-Bromofluorobenzene	98.7	67.4-123		%REC	165765	1	08/29/2012 14:16	NP
Surr: Dibromofluoromethane	113	75.5-128		%REC	165765	1	08/29/2012 14:16	NP
Surr: Toluene-d8	98.3	70-120		%REC	165765	1	08/29/2012 14:16	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	DUPLICATE
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,1-Dichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,1-Dichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,2-Dibromoethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,2-Dichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,2-Dichloropropane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
2-Butanone	BRL	50		ug/L	165765	1	08/29/2012 14:45	NP
2-Hexanone	BRL	10		ug/L	165765	1	08/29/2012 14:45	NP
4-Methyl-2-pentanone	BRL	10		ug/L	165765	1	08/29/2012 14:45	NP
Acetone	BRL	50		ug/L	165765	1	08/29/2012 14:45	NP
Benzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Bromodichloromethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Bromoform	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Bromomethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Carbon disulfide	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Carbon tetrachloride	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Chlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Chloroethane	BRL	10		ug/L	165765	1	08/29/2012 14:45	NP
Chloroform	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Chloromethane	BRL	10		ug/L	165765	1	08/29/2012 14:45	NP
cis-1,2-Dichloroethene	14	5.0		ug/L	165765	1	08/29/2012 14:45	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Cyclohexane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Dibromochloromethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Dichlorodifluoromethane	BRL	10		ug/L	165765	1	08/29/2012 14:45	NP
Ethylbenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Freon-113	BRL	10		ug/L	165765	1	08/29/2012 14:45	NP
Isopropylbenzene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
m,p-Xylene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Methyl acetate	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Methylcyclohexane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Methylene chloride	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
o-Xylene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	DUPLICATE
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-005	**Matrix:**	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Styrene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Tetrachloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Toluene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Trichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Trichlorofluoromethane	BRL	5.0		ug/L	165765	1	08/29/2012 14:45	NP
Vinyl chloride	BRL	2.0		ug/L	165765	1	08/29/2012 14:45	NP
Surr: 4-Bromofluorobenzene	96.9	67.4-123		%REC	165765	1	08/29/2012 14:45	NP
Surr: Dibromofluoromethane	111	75.5-128		%REC	165765	1	08/29/2012 14:45	NP
Surr: Toluene-d8	98.9	70-120		%REC	165765	1	08/29/2012 14:45	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	TRIP BLANK
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-006	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
1,1,1-Trichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,1,2-Trichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,1-Dichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,1-Dichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,2-Dibromoethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,2-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,2-Dichloroethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,2-Dichloropropane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,3-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
1,4-Dichlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
2-Butanone	BRL	50		ug/L	165765	1	08/29/2012 13:18	NP
2-Hexanone	BRL	10		ug/L	165765	1	08/29/2012 13:18	NP
4-Methyl-2-pentanone	BRL	10		ug/L	165765	1	08/29/2012 13:18	NP
Acetone	BRL	50		ug/L	165765	1	08/29/2012 13:18	NP
Benzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Bromodichloromethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Bromoform	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Bromomethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Carbon disulfide	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Carbon tetrachloride	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Chlorobenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Chloroethane	BRL	10		ug/L	165765	1	08/29/2012 13:18	NP
Chloroform	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Chloromethane	BRL	10		ug/L	165765	1	08/29/2012 13:18	NP
cis-1,2-Dichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
cis-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Cyclohexane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Dibromochloromethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Dichlorodifluoromethane	BRL	10		ug/L	165765	1	08/29/2012 13:18	NP
Ethylbenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Freon-113	BRL	10		ug/L	165765	1	08/29/2012 13:18	NP
Isopropylbenzene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
m,p-Xylene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Methyl acetate	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Methyl tert-butyl ether	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Methylcyclohexane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Methylene chloride	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
o-Xylene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value
- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc **Date:** 31-Aug-12

Client:	Rem-Con, LLC	**Client Sample ID:**	TRIP BLANK
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-006	**Matrix:**	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**				
Styrene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Tetrachloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Toluene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
trans-1,2-Dichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
trans-1,3-Dichloropropene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Trichloroethene	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Trichlorofluoromethane	BRL	5.0		ug/L	165765	1	08/29/2012 13:18	NP
Vinyl chloride	BRL	2.0		ug/L	165765	1	08/29/2012 13:18	NP
Surr: 4-Bromofluorobenzene	97.6	67.4-123		%REC	165765	1	08/29/2012 13:18	NP
Surr: Dibromofluoromethane	117	75.5-128		%REC	165765	1	08/29/2012 13:18	NP
Surr: Toluene-d8	98	70-120		%REC	165765	1	08/29/2012 13:18	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated (value above quantitation range)
BRL	Below reporting limit	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	Narr	See case narrative
N	Analyte not NELAC certified	NC	Not confirmed
B	Analyte detected in the associated method blank	<	Less than Result value
>	Greater than Result value	J	Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Rem Con Work Order Number 1208K57

Checklist completed by [signature] 8/27/12
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 2.0 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes ✓ No __

Proceed with Standard TAT as per project history? Yes __ No __ Not Applicable ✓

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AlHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: Rem-Con, LLC
Project Name: L.B. Foster
Workorder: 1208K57

ANALYTICAL QC SUMMARY REPORT

BatchID: 165765

Sample ID: **MB-165765** Client ID: Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770494**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
2-Butanone	BRL	50	0	0	0	0	0	0	0	0	
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0	
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0	
Acetone	BRL	50	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon disulfide	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	10	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	10	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster
Workorder: 1208K57

ANALYTICAL QC SUMMARY REPORT

BatchID: 165765

Sample ID: **MB-165765** Client ID: Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770494**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Freon-113	BRL	10	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0	
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Styrene	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	43.86	0	50	0	87.7	67.4	123	0	0	0	
Surr: Dibromofluoromethane	48.28	0	50	0	96.6	75.5	128	0	0	0	
Surr: Toluene-d8	45.78	0	50	0	91.6	70	120	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster
Workorder: 1208K57

ANALYTICAL QC SUMMARY REPORT

BatchID: 165765

Sample ID: **LCS-165765** Client ID: Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770495**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	50.52	5.0	50	0	101	60	140	0	0	0	
Benzene	54.46	5.0	50	0	109	70	130	0	0	0	
Chlorobenzene	47.53	5.0	50	0	95.1	70	130	0	0	0	
Toluene	53.07	5.0	50	0	106	70	130	0	0	0	
Trichloroethene	50.76	5.0	50	0	102	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	50.04	0	50	0	100	67.4	123	0	0	0	
Surr: Dibromofluoromethane	50.02	0	50	0	100	75.5	128	0	0	0	
Surr: Toluene-d8	48.08	0	50	0	96.2	70	120	0	0	0	

Sample ID: **1208K57-001AMS** Client ID: **MW-14R** Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770498**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	478.0	50	500	0	95.6	50.1	179	0	0	0	
Benzene	505.0	50	500	0	101	61.2	150	0	0	0	
Chlorobenzene	456.6	50	500	0	91.3	72.1	140	0	0	0	
Toluene	489.5	50	500	0	97.9	58.7	154	0	0	0	
Trichloroethene	477.1	50	500	0	95.4	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	497.0	0	500	0	99.4	67.4	123	0	0	0	
Surr: Dibromofluoromethane	493.8	0	500	0	98.8	75.5	128	0	0	0	
Surr: Toluene-d8	473.2	0	500	0	94.6	70	120	0	0	0	

Sample ID: **1208K57-001AMSD** Client ID: **MW-14R** Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770499**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	452.5	50	500	0	90.5	50.1	179	478.0	5.48	23.3	
Benzene	504.8	50	500	0	101	61.2	150	505.0	0.04	19	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster
Workorder: 1208K57

ANALYTICAL QC SUMMARY REPORT

BatchID: 165765

Sample ID: **1208K57-001AMSD** Client ID: **MW-14R** Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770499**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	454.9	50	500	0	91	72.1	140	456.6	0.373	21.5	
Toluene	486.1	50	500	0	97.2	58.7	154	489.5	0.697	20	
Trichloroethene	477.4	50	500	0	95.5	68.3	149	477.1	0.063	17.7	
Surr: 4-Bromofluorobenzene	499.6	0	500	0	99.9	67.4	123	497.0	0	0	
Surr: Dibromofluoromethane	497.8	0	500	0	99.6	75.5	128	493.8	0	0	
Surr: Toluene-d8	473.5	0	500	0	94.7	70	120	473.2	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

APPENDIX 21

Environmental Covenant

After Recording Return to:

Georgia Environmental Protection Division
Response and Remediation Program
2 Martin Luther King, Jr. Drive, SE
Suite 1462 East
Atlanta, Georgia 30334

Environmental Covenant

This instrument is an Environmental Covenant executed pursuant to the Georgia Uniform Environmental Covenants Act, OCGA § 44-16-1, *et seq.* This Environmental Covenant subjects the Property identified below to the activity and/or use limitations specified in this document. The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded in accordance with OCGA § 44-16-8(a).

Fee Owner of Property/Grantor: The L.B. Foster Company
415 Holiday Drive
Pittsburgh, Pennsylvania 15220

Grantee/Holder: The L.B. Foster Company
415 Holiday drive
Pittsburgh, Pennsylvania 15220

Grantee/Entity with express power to enforce: State of Georgia
Department of Natural Resources
Environmental Protection Division
2 Martin Luther King Jr. Drive, SE
Suite 1152 East Tower
Atlanta, GA 30334

Other Parties with interest in the Property: none

Property:

The property subject to this Environmental Covenant is the Southern Pipe Coating Operation (Former) (hereinafter "Property"), located at 6420 Corley Road in Norcross, Gwinnett County, Georgia. Tax Parcel R6252 029 was conveyed on November 30, 1990 to The L.B. Foster Company recorded in Deed Book 6314, Page 127, Gwinnett County Records. The area is located in Land Lot 252 of the 6th District of Gwinnett County, Georgia. The Property is a 2.59 acre parcel that is zoned M-2 which restricts the use as industrial, office or warehouse and accessory uses and structures. A complete legal description of the area is attached as Exhibit A and a map of the area is attached as Exhibit B.

Tax Parcel Number(s):

R6252 029 of Gwinnett County, Georgia

Name and Location of Administrative Records:

The corrective action at the Property that is the subject of this Environmental Covenant is described in the following documents:

- Corrective Action Plan, March 26, 2007
- Compliance Status Report (CSR), January 14, 2008
- Response to CSR Comments, July 23, 2010
- Voluntary Remediation Program (VRP) CSR, November 1, 2012
- VRP CSR approval letter, XXXX XX, 201X

These documents are available at the following locations:

Georgia Environmental Protection Division
Response and Remediation Program
2 MLK Jr. Drive, SE, Suite 1462 East Tower
Atlanta, GA 30334
M-F 8:00 AM to 4:30 PM excluding state holidays

This Declaration of Covenant is made pursuant to the Georgia Uniform Environmental Covenants Act, O.C.G.A. § 44-16-1 *et seq*. by The L.B. Foster Company, its successors and assigns, and the State of Georgia, Department of Natural Resources, Environmental Protection Division (hereinafter "EPD"), its successors and assigns. This Environmental Covenant is required because a release of trichloroethene (TCE) and its degradation products occurred on the Property. TCE and its degradation products are "regulated substances" as defined under the Georgia Hazardous Site Response Act, O.C.G.A. § 12-8-90 *et seq.*, and the rules promulgated thereunder (hereinafter "HSRA" and "Rules", respectively). The Corrective Action consists of an institutional control (prohibiting the use or extraction of groundwater) to protect human health and the environment.

Grantor, The L.B. Foster Company (hereinafter "Foster"), hereby binds Grantor, its successors and assigns to the activity and use restriction for the Property identified herein and grants such other rights under this Environmental Covenant in favor of the EPD. EPD shall have full right of enforcement of the rights conveyed under this Environmental Covenant pursuant to HSRA, O.C.G.A. § 12-8-90 *et seq*., and the rules promulgated thereunder. Failure to timely enforce compliance with this Environmental Covenant or the use or activity limitation contained herein by any person shall not bar subsequent enforcement by such person and shall not be deemed a waiver of the person's right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall restrict EPD from excising any authority under applicable law.

Foster makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, pursuant to O.C.G.A. § 44-16-5(a); is perpetual, unless modified or terminated pursuant to the terms of this Covenant pursuant to O.C.G.A. § 44-16-9; and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereinafter "Owner"). Should a transfer or sale of the Property occur before such time as this Environmental Covenant has been amended or revoked then said Environmental Covenant shall be binding on the transferee(s) or purchaser(s).

The Environmental Covenant shall inure to the benefit of Foster, EPD, and their respective successors and assigns and shall be enforceable by the Director or his agents or assigns, Foster or its successors and assigns, and other party(ies) as provided for in O.C.G.A. § 44-16-11 in a court of competent jurisdiction.

Activity and/or Use Limitation(s)

1. Registry. Pursuant to O.C.G.A. § 44-16-12, this Environmental Covenant and any amendment or termination thereof, may be contained in EPD's registry for environmental covenants.

2. Notice. The Owner of the Property must give thirty (30) day advance written notice to EPD of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Corrective Action. The Owner of the Property must also give thirty (30) day advance written notice to EPD of the Owner's intent to change the use of the Property, apply for building permit(s), or propose any site work that would affect the Property.

3. Notice of Limitation in Future Conveyances. Each instrument hereafter conveying an interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of the Environmental Covenant.

4. Periodic Reporting. Annually, by no later than <date> following the effective date of this Environmental Covenant, the Owner shall submit to EPD an Annual Report stating whether or not the activity and use limitation in this Environmental Covenant is being abided by.

5. Groundwater Limitation. The use or extraction of groundwater beneath the Property for drinking water or for any other non-remedial purposes shall be prohibited.

6. Permanent Markers. Permanent markers set and maintained at every Property corner delineate the restricted area. Disturbance or removal of such markers is prohibited.

7. Right of Access. In addition to any rights already possessed by EPD, the Owner shall allow authorized representatives of EPD the right to enter the Property at reasonable times for the purpose of evaluating compliance with this Environmental Covenant.

8. Recording of Environmental Covenant and Proof of Notification. Within thirty (30) days after the date of the Director's signature, the Owner shall file this Environmental Covenant with the Recorders of Deeds for each County in which the Property is located, and send a file stamped copy of this Environmental Covenant to EPD within thirty (30) days of recording. Within that time period, the Owner shall also send a file-stamped copy to each of the following: (1) each person in possession of the real property subject to the covenant, (2) each municipality, county, consolidated government, or other unit of local government in which real property subject to the covenant is located, and (3) each owner in fee simple whose property abuts the property subject to the Environmental Covenant.

9. Termination or Modification. The Environmental Covenant shall remain in full force and effect in accordance with O.C.G.A. § 44-5-60, unless and until the Director determines that the Property is in compliance with the Type 1 Risk Reduction Standards, as defined in Georgia Rules of Hazardous Site Response (Rules) Section 391-3-19-.07, whereupon the Environmental Covenant may be amended or revoked in accordance with Section 391-3-19-08(7) of the Rules and O.C.G.A. § 44-16-1 *et seq.*

10. Severability. If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

11. No Property Interest Created in EPD. This Environmental Covenant does not in any way create any interest by EPD in the Property that is subject to the Environmental Covenant. Furthermore, the act of approving this Environmental Covenant does not in any way create any interest by EPD in the Property in accordance with O.C.G.A. § 44-16-3(b).

Representations and Warranties.

Grantor hereby represents and warrants to the other signatories hereto:

a) That the Grantor has the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder;
b) That the Grantor is the sole owner of the Property and holds fee simple title which is free, clear and unencumbered;
c) That the Grantor has identified all other parties that hold any interest (e.g., encumbrance) in the Property;
d) That this Environmental Covenant will not materially violate, contravene, or constitute a material default under any other agreement, document or instrument to which Grantor is a party, by which Grantor may be bound or affected;
e) That the Grantor has served each of the people or entities referenced in Activity 8 above with an identical copy of this Environmental Covenant in accordance with O.C.G.A. § 44-16-4(d).
f) That this Environmental Covenant will not materially violate or contravene any zoning law or other law regulating use of the Property; and
g) That this Environmental Covenant does not authorize a use of the Property that is otherwise prohibited by a recorded instrument that has priority over the Environmental Covenant.

Notices.

Any document or communication required to be sent pursuant to the terms of this Environmental Covenant shall be sent to the following persons:

Georgia Environmental Protection Division
Branch Chief
Land Protection Branch
2 Martin Luther King Jr. Drive SE
Suite 1154 East Tower
Atlanta, GA 30334

Grantor has caused this Environmental Covenant to be executed pursuant to The Georgia Uniform Environmental Covenants Act, on the _____ day of _____, 20___.

<NAME OF GRANTOR>

_____
[Name of Signatory]
[Title]

Dated: _____

<NAME OF HOLDER>

_____
[Name of Person Acknowledging Receipt]
[Title]

Dated: _____

STATE OF GEORGIA
ENVIRONMENTAL PROTECTION DIVISION

_____
[Name of Person Acknowledging Receipt]
[Title]

Dated: _____

CORPORATE ACKNOWLEDGMENT

STATE OF _____
COUNTY OF _____

On this _____ day of _____, 20__, I certify that _____ personally appeared before me, acknowledged that **he/she** is the _____ of the corporation that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed of said corporation, for the uses and purposes therein mentioned, and on oath stated that **he/she** was authorized to execute said instrument for said corporation.

_____
Notary Public in and for the State of
Georgia, residing at _____.
My appointment expires_____.

Exhibit A
Legal Description

LEGAL DESCRIPTION

ALL THAT TRACT OR PARCEL OF LAND lying and being in Land Lot 252 of the 6th Land District, Gwinnett County, Georgia, as shown on that certain plat for L.B. Foster Company, prepared by Q-B Engineering, Inc., bearing the seal of Gilbert E. Quinones, Georgia Registered Land Surveyor No. 2810, dated December 2, 2003, last revised August 31, 2004, being more particularly described as follows:

Commence at a point at the intersection of the northerly right-of-way line of Old Peachtree Road (a/k/a Peachtree Street) and the southeasterly right-of-way line of Curley Road (a/k/a Corley Road, f/k/a Jones Ferry Road), along the right-of-way of Curley Road (a/k/a Corley Road, f/k/a Jones Ferry Road) thence North 20 degrees 36 minutes 07 seconds East a distance of 425.57 feet to an iron pin set, thence North 27 degrees 19 minutes 44 seconds East a distance of 175.32 feet to an iron pin set, thence North 30 degrees 39 minutes 49 seconds East a distance of 294.52 feet to an iron pin set, thence North 42 degrees 41 minutes 20 seconds East a distance of 119.27 feet to an iron pin set, thence North 60 degrees 20 minutes 19 seconds East a distance of 332.86 feet to an iron pin set, thence North 49 degrees 16 minutes 14 seconds East a distance of 173.38 feet to an iron pin set, thence North 60 degrees 22 minutes 00 seconds East a distance of 220.17 feet to an iron pin set, said point being the **TRUE POINT OF BEGINNING**.

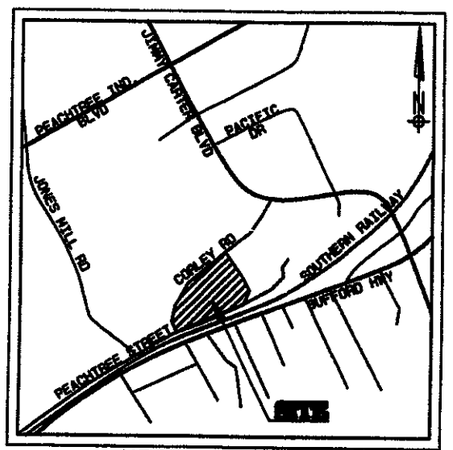
From said **TRUE POINT OF BEGINNING** thence North 60 degrees 22 minutes 00 seconds East a distance of 160.00 feet to an iron pin set, South 27 degrees 20 minutes 00 seconds East a distance of 124.01 feet to an iron pin set, thence South 31 degrees 43 minutes 06 seconds West a distance of 341.28 feet to an iron pin set, thence South 37 degrees 28 minutes 49 seconds West a distance of 549.70 feet to an iron pin set, thence South 72 degrees 37 minutes 55 seconds West a distance of 99.92 feet to an iron pin set, thence North 17 degrees 34 minutes 10 seconds West a distance of 57.92 feet to an iron pin set, thence North 37 degrees 28 minutes 49 seconds East a distance of 396.06 feet to an iron pin set, thence North 31 degrees 40 minutes 38 seconds East a distance of 198.75 feet to an iron pin set, thence North 37 degrees 33 minutes 21 seconds East a distance of 210.39 feet to an iron pin set, thence North 27 degrees 36 minutes 02 seconds West a distance of 92.50 feet to an iron pin set, such point being the **TRUE POINT OF BEGINNING**.

Exhibit B
Map

FINAL PLAT
FOR
6455 OLD PEACHTREE ROAD AND
6420 CORLEY ROAD

GENERAL NOTES

1. ENGINEER & SURVEYOR: Q-B ENGINEERING, INC.
   517 Cemetery Street
   P.O. Box 1508
   Norcross, Georgia 30091-1508
   (770) 449-8623
   (770) 449-1088 [FAX]
   Contact: Mr. Gilbert E. Quinones, P.E.
2. OWNER: L.B. FOSTER COMPANY.
   415 Holiday Drive
   Pittsburgh, PA 15220
   (412) 928-3492
   (412) 928-5696 [FAX]
   Contact: Mr. Steve Hart
3. THIS PROPERTY IS LOCATED IN LAND LOTS 245 AND 252 OF THE 6th LAND DISTRICT OF GWINNETT COUNTY, GEORGIA.
4. THIS PROPERTY IS ZONED M-2 (RZM-03-025) WITH THE FOLLOWING CONDITIONS TO RESTRICT THE USE OF THE PROPERTY AS FOLLOWS:
   A. INDUSTRIAL, OFFICE OR WAREHOUSE AND ACCESSORY USES AND STRUCTURES.
   B. OVESIZED SIGNS SHALL BE PROHIBITED.
5. THIS PROPERTY CONTAINS 28.269 ACRES, INCLUDING 1.202 ACRES OF R/W TO BE DEDICATED TO GWINNETT COUNTY.
6. GWINNETT COUNTY DOES NOT ENFORCE PROTECTIVE COVENANTS. IT IS THE RESPONSIBILITY OF THE OWNERS TO ENSURE COMPLIANCE WITH THE PROTECTIVE COVENANTS.
7. THIS FINAL PLAT CONTAINS 2 LOTS WITH A MINIMUM LOT AREA OF 1.00 ACRE.
8. SETBACK LINES: FRONT: 50'
   REAR: 15'
   SIDE: 20'
9. MINIMUM LOT WIDTH: 100 FEET.
10. MAXIMUM HEIGHT OR STORIES: 40 FEET.
11. NO RIGHT-OF-WAY RECORDS WERE FOUND FOR CORLEY ROAD. IT IS THEREFORE ASSUMED TO HAVE A STANDARD 30 FOOT PRESCRIPTIVE RIGHT-OF-WAY
12. BOUNDARY INFORMATION FROM A FIELD SURVEY PREPARED BY Q-B ENGINEERING, INC.
13. THIS PROPERTY IS NOT LOCATED WITHIN A FLOOD HAZARD AREA AS IDENTIFIED BY F.I.R.M. COMMUNITY PANEL NUMBER 130322 0166 B, REVISED JUNE 15, 1981.
14. ONE 1/2 INCH REBAR WAS SET AT EVERY LOT PROPERTY CORNER.
15. WATER AND SEWER SERVICE PROVIDED BY GWINNETT COUNTY.
16. GAS SERVICE PROVIDED BY ATLANTA GAS LIGHT COMPANY.
17. ELECTRICAL SERVICE PROVIDED BY JACKSON E.M.C.
18. TELEPHONE SERVICE PROVIDED BY SOUTHERN BELL COMPANY.



VICINITY MAP
N.T.S.

COPY

FILED & RECORDED
CLERK SUPERIOR COURT
GWINNETT COUNTY GA
DATE 10-6-04 TIME 10:50
PLAT BOOK 106 PAGE 61
TOM LAWLER, CLERK

FINAL SURVEYOR'S CERTIFICATE

It is hereby certified that this plat is true and correct as to the property lines and all improvements shown thereon, and was prepared from an actual survey of the property made by me or under my supervision; that all monuments shown hereon actually exist, and their location, size, type and material are correctly shown. The field data upon wich this plat is based has a closure precision of one foot in 120,881 feet and an angular error of 5 seconds per angle point, and was adjusted using the Compass rule. This plat has been calculated for closure and is found to be accurate within one foot in 985,319 feet, and contains a total of 28.269 acres. The equipment used to obtain linear and angular measurements herein was a Sietz Set 4 total station and an electronic Data Collector.

Gilbert E. Quinones
Registered Land Surveyor
Ga. Reg. No. 2810

OWNERS ACKNOWLEDGEMENT AND DECLARATION

(STATE OF GEORGIA)
(COUNTY OF GWINNETT)
The owner of the land shown on this plat and whose name is subscribed thereto, and in person or through a duly authorized agent, acknowledges that this plat was made from an actual survey, and dedicated by this Declaration to the use of the public forever all streets, sewer collectors, lift stations, drains, easements, and other public facilities and appurtenances thereon shown, and transfers ownership of all public use areas in fee simple by deed, for the purposes therin expressed.

SUBDIVIDER L.B. Foster Company Steven E. Hart
DATE 10/12/2004

OWNER L.B. Foster Company Steven E. Hart
DATE 10/12/2004

FINAL PLAT APPROVAL FPL2004.00002

The director of the Departament of Planning and Development of Gwinnett County, Georgia, certifies that this plat complies with the Gwinnett County Zonning Resolution, Conditions of Zoning Approval, and the Gwinnett County Development Regulations as amended, and has been approved by all other affected County Departments, as appropiate. The Director hereby accepts on behalf of Gwinnett County the dedication of all public right-of-way and easements, and public water, sewer, storm drainage, and other public facilities and appurtenances shown thereon, subject to ratification by the Board of Commissioners of Gwinnett County. This plat is approved, subject to the provisions and requirements of the Development Performance and Maintainance Aggrement executed for this project between the Owner and Gwinnett County.

DATED THIS 11TH DAY OF OCTOBER 2004

Director, DESIGNEE
Department of Planning and Development
FOR PLATTING ONLY

DRAINAGE NOTE

Gwinnett County assumes no responsability for overflow or erosion of natural or artificial drains beyond the extent of the street right-of-way, or for the extension of culvert beyond the point shown on the approved and recorded subdivision plat.
Stream buffer easements are to remain in a natural and undisturbed condition.
Structures are not allowed in drainage easements.

GEORGIA REGISTERED No. 2810 PROFESSIONAL LAND SURVEYOR GILBERT E. QUINONES

GRAPHIC SCALE 1"=100'
0 100 200 300

Q-B ENGINEERING, INC.
517 Cemetery Street
P.O. Box 1508
Norcross, Georgia 30091-1508
(770) 449-8623
(770) 449-1088 [FAX]

Date Printed: 8/10/2004

FINAL PLAT FOR:
6455 OLD PEACHTREE ROAD AND 6420 CORLEY ROAD

L. B. FOSTER COMPANY
415 Holiday Drive
Pittsburg, Pennsylvania 15220
(412) 928-3492 (412) 928-5696 (fax)

REVISIONS		
NO.	DESCRIPTION	DATE
1	ADDED R/W TAKE	7/21/04

DATE: 12-02-2003
SCALE: 1" = 100'
DRAWN: D.R.
DESIGNED: G.E.Q.
CHECKED: G.E.Q.
LAND LOTS: 245 & 252
6TH LAND DISTRICT
GWINNETT COUNTY, GA.

SHEET 1 OF 2

DRAWING NO. 03-117-FP-1

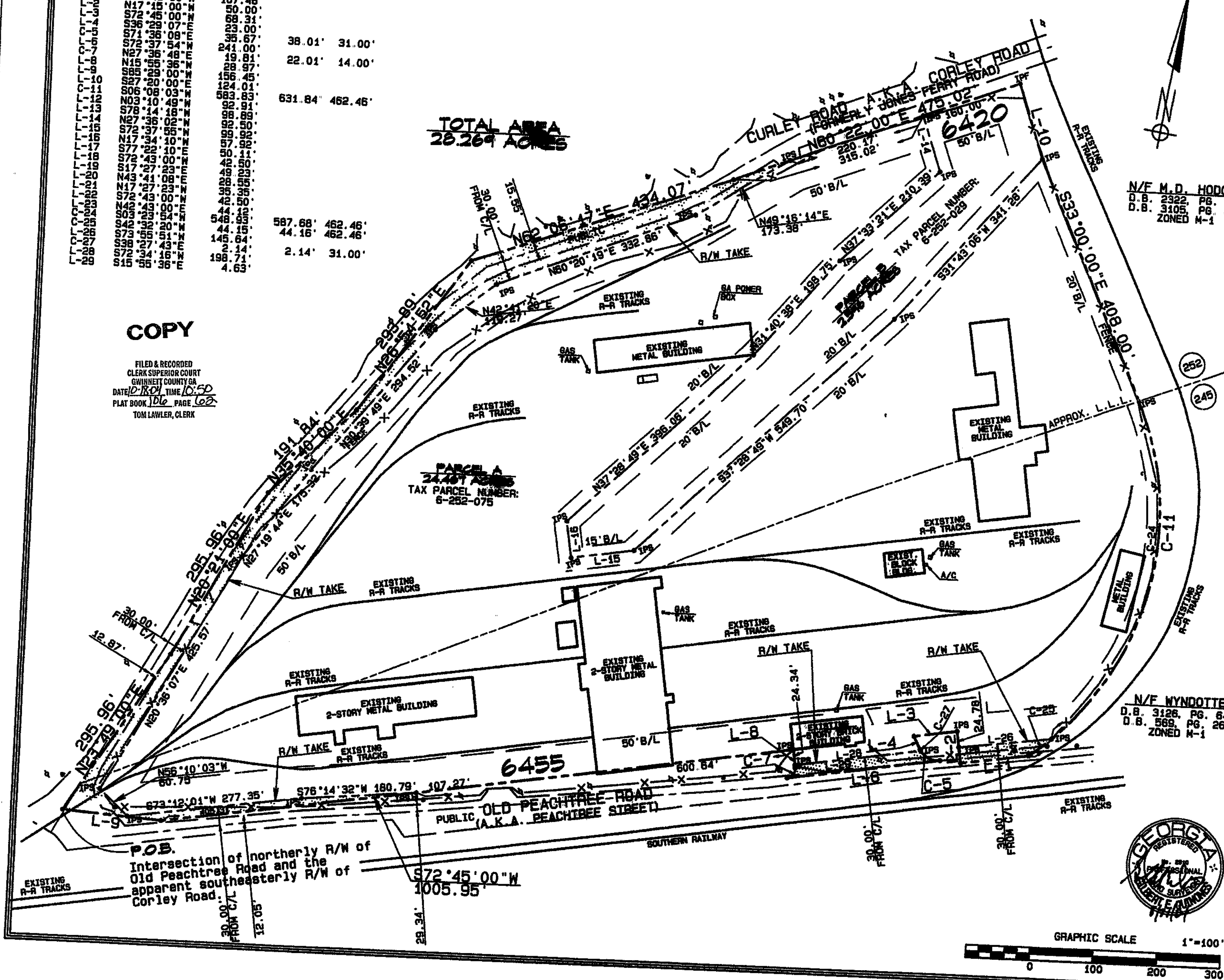
FILE: P:\Terramodel\03-all\03-117\03-117.prp

CURVE AND LINE TABLE

LINE	BEARING	DISTANCE	ARC	RADIUS
L-1	S72°45'00"W	107.46'		
L-2	N17°15'00"W	50.00'		
L-3	S72°45'00"W	68.31'		
L-4	S36°29'07"E	23.00'		
C-5	S71°36'08"E	35.67'	38.01'	31.00'
L-6	S72°37'54"W	241.00'		
C-7	N27°36'48"E	19.81'	22.01'	14.00'
L-8	N15°55'36"W	28.97'		
L-9	S85°29'00"W	156.45'		
L-10	S27°20'00"E	124.01'		
C-11	S06°08'03"W	583.83'	631.84'	462.46'
L-12	N03°10'49"W	92.91'		
L-13	S78°14'18"W	98.89'		
L-14	N27°36'02"W	92.50'		
L-15	S72°37'55"W	99.92'		
L-16	N17°34'10"W	57.92'		
L-17	S77°22'10"E	50.11'		
L-18	S72°43'00"W	42.50'		
L-19	S17°27'23"E	49.23'		
L-20	N43°41'08"E	28.55'		
L-21	N17°27'23"W	35.35'		
L-22	S72°43'00"W	42.50'		
L-23	N42°43'00"E	44.12'		
C-24	S03°23'54"W	548.93'	587.68'	462.46'
C-25	S42°32'20"W	44.15'	44.16'	462.46'
L-26	S73°55'51"W	145.64'		
C-27	S38°27'43"E	2.14'	2.14'	31.00'
L-28	S72°34'16"W	198.71'		
L-29	S15°55'36"E	4.63'		

COPY

FILED & RECORDED
CLERK SUPERIOR COURT
GWINNETT COUNTY GA
DATE 10-18-04 TIME 10:50
PLAT BOOK 106 PAGE 62
TOM LAWLER, CLERK



Q-B ENGINEERING, INC.
517 Cemetery Street
P.O. Box 1508
Norcross, Georgia 30091-1508
(770) 449-8623
(770) 449-1088 [FAX]

Date Printed: 10/6/2004

FINAL PLAT FOR:
6455 OLD PEACHTREE ROAD AND 6420 CORLEY ROAD

L. B. FOSTER COMPANY
415 Holiday Drive
Pittsburg, Pennsylvania, 15220
(412) 928-3492 (412) 928-5696 (fax)

REVISIONS

NO.	DESCRIPTION	DATE
1	CLIENT'S COMMENTS	2/19/03
2	ADDED R/W TAKE	7/21/04
3	CHANGED PARCEL NO.	8/31/04

DATE: 12-02-2003
SCALE: 1" = 100'
DRAWN: D.R.
DESIGNED: G.E.Q.
CHECKED: G.E.Q.
LAND LOTS: 245 & 252
6TH LAND DISTRICT
GWINNETT COUNTY, GA.

SHEET 2 OF 2

DRAWING NO. 03-117-FP-2

FILE: P:\Terramodel\03-all\03-117\03-117.pro

APPENDIX 22

Groundwater Modeling Report
EPA's BIOCHLOR Natural Attenuation Decision Support System
Version 2.2

BIOCHLOR MODELING REPORT

Former Southern Pipe Coating Operation
6420 Corley Road, Norcross, GA 30071
HSI ID No. 10757
November 1, 2012

BIOCHLOR is a screening model that simulates remediation by natural attenuation (RNA) of dissolved solvents in groundwater. The software, programmed in the Microsoft™ Excel spreadsheet environment and based on the Domenico analytical solute transport model, has the ability to simulate 1-D advection, 3-D dispersion, linear adsorption, and biotransformation via reductive dechlorination (the dominant biotransformation process at most chlorinated solvent sites). Dissolved solvent degradation is assumed to follow a sequential first order decay process.

BIOCHLOR includes three different model types:

1. Solute transport without decay;
2. Solute transport with biotransformation modeled as a sequential first-order decay process; and
3. Solute transport with biotransformation modeled as a sequential first-order decay process with 2 different reaction zones (i.e., each zone has a different set of rate coefficient values).

Anaerobic dechlorination is assumed to be occurring due to the historic presence of TCE daughter products. As there is a limited data set available, the most conservative model using solute transport without decay has been utilized to determine contaminant fate and transport and to determine Alternative Concentration Levels (ACL).

The objective of constructing the models is to determine the concentration and time frame when dissolved phase TCE in groundwater reaches the nearest identified downgradient potential points of exposure (POE) as defined further below.

Model Construction Assumptions

The models are constructed with the following assumptions, and the model input data is presented in the attached table.

- The models are constructed to predict the effects of residual contamination at the site as historic source removal actions and groundwater remediation via AI/SEV from approximately May 2004 to May 2009.

- Only TCE is addressed.
- Only the overburden groundwater aquifer is modeled.
- A simulation time, defined as period of time since the expected contaminant release date, has been defined as 2 years to mimic the time period since July 14, 2010, when the last post-remediation monitoring non-detect sample was collected at MW-14R.
- Only one monitoring well, MW-14R, has detectable TCE concentrations.
- Anaerobic dechlorination is assumed to be occurring due to the presence of daughter products of TCE.
- Sections 1, 2, 3 - All Advection and Adsorption parameters are either site specific or acceptable Georgia peer reviewed literature values used for modeling.
- Section 4 - Biotransformation rates are consistent with BIOCHLOR literature values and are not minimum or maximum expected values, extreme variations in values did not effect the results of the modeling.
- Section 5 - General Parameters include an initial simulation time of 2 years from "release", a model width of 50 feet (no significance), and initial modeled length of 100 feet to assist in determining at what point the edge of the plume (TCE of 0.005 mg/L) is observed.
- Section 6 - Source Data is using a continuous single planar source as a most conservative option. Currently, the source area (MW-14R) data set is too small to determine a reasonable source decay rate. Source thickness is 25 feet (maximum groundwater table thickness), source area width is 10 feet, and maximum TCE concentration observed since system shutdown is 0.014 mg/L.
- Section 7 - Field Data entered from August 27, 2012 sampling event. The model makes indistinguishable variances between a Method Detection Limit (MDL) of 0.00038 mg/L and 0.001 mg/L. A copy of the August 27, 2012 MDL report is enclosed as an appendix to this report.

In addition, the following point of exposure (POE) definitions are used:

- POE-1 is 1,050 feet. Distance is the GEPD theoretical 1,000 feet from the edge of the theoretical plume determined to be 50 feet from MW-14R;
- POE-2 is 1,850 feet. Distance from the edge of the plume to Crooked Creek, the nearest receptor. Please note the GA In-Stream Water Quality Standard (GA-ISWQS) for TCE is 0.03 mg/L; and
- POE-3 is 1,938 feet. Distance from source to edge of property line (938 feet) plus 1,000 feet from the property line.

Models Included

Ten models were run to determine TCE concentrations at various times and locations.

1. Model Name: Edge of Plume
   Purpose: Determine the location of the delineated edge of the TCE plume, defined as the downgradient location where the TCE concentration is 0.005 mg/L. For TCE, this level is, both, the Type 1 RRS and the EPA & GEPD Maximum Contaminant Level for Drinking Water (MCL).
   Result: Delineated edge of plume is 50 feet downgradient of MW-14R.

2. Model Name: POE-1
   Purpose: Determine the TCE concentration 1000 feet downgradient from the delineated edge of plume.
   Result: Not Detected

3. Model Name: POE-1 + 10 YRS
   Purpose: Determine TCE concentration at POE-1 after 10 years.
   Result: Not Detected

4. Model Name: POE-1 + 20 YRS
   Purpose: Determine TCE concentration at POE-1 after 20 years.
   Result: Not detected

5. Model Name: POE-1 + 30 YRS
   Purpose: Determine TCE concentration at POE-1 after 30 years.
   Result: TCE Concentration = 0.001 mg/L

6. Model Name: POE-1 + 100 YRS
   Purpose: Determine TCE concentration at POE-1 after 100 years.
   Results: TCE Concentration = 0.001 mg/L

7. Model Name: POE-2 + 100 YRS
   Purpose: Determine TCE concentration at Crooked Creek located 1800 feet from edge of plume after 100 years.
   Results: TCE Concentration = 0.001 mg/L

8. Model Name: POE-3 + 100 YRS
   Purpose: Determine TCE concentration 1000 feet from the Property Line (1,938 feet) after 100 years.
   Result: TCE Concentration = 0.001 mg/L

9. Model Name: ACL-POE-1 + 100 YRS
   Purpose: Determine TCE concentration at MW-14R required to yield TCE concentration at the MCL (0.005 mg/L) at POE-1 (1000 feet from the edge of plume) after 100 years.
   Result: TCE Concentration at MW-14R = 0.06 mg/L

10. Model Name: ACL-POE-3+100 YRS
    Purpose: Determine TCE Concentration at MW-14R required to yield TCE concentration at the MCL (0.005 mg/L) at POE-3 (1000 feet from the property line) after 100 years.
    Results: TCE Concentration at MW-14R = 0.08 mg/L at MW-14R

Model(s) Summation

Using the most conservative No Degradation models:

- The groundwater MCL for TCE is never exceeded off-site using the current concentrations observed at MW-14R.
- The groundwater MCL for TCE is never observed at any receptor point using the current concentrations observed at MW-14R.
- The groundwater MCL for TCE remains within approximately 100 feet of the source area after 100 years using the current concentrations observed at MW-14R.
- An alternative concentration level (ACL) of 0.06 mg/L at monitoring well MW-14R was determined at which the concentration of 0.005 mg/L may be observed at POE-1 (1000 feet from edge of plume) after 100 years.
- An ACL of 0.08 mg/L at monitoring well MW-14R was determined at which the concentration of 0.005 mg/L may be observed at POE-3 (1000 feet from property line) after 100 years.

No model was presented, but an ACL of 0.4 mg/L at monitoring well MW-14R was determined at which the GA-ISWQS of 0.30 mg/L for TCE was observed at POE-3 (1000 feet from property line) after 100 years.

MODEL INPUT DATA

Input Parameters for BIOCHLOR v.2.2 (Newell et al, 2000, 2002)
Former Southern Pipe Coating Operation
6420 Corley Road, Norcross, GA 30071
November 1, 2012

Input Parameter	Symbol	Initial Value	Adjusted Value	Unit	Remarks
1. ADVECTION					
Seepage velocity	**Vs**	173.2	173.2	ft/yr	Calculated in BIOCHLOR spreadsheet
Hydraulic conductivity	**K**	2.79E-03	2.79E-03	cm/sec	Slug test data from MW-13 adjacent to area
Hydraulic gradient	**i**	0.012	0.012	ft/ft	Calculated from contours MW-14R to MW-29 on August 27, 2012
Porosity	**n**	0.2	0.2	dim. less	Estimated value for Georgia soils (EPD)
2. DISPERSION					
Longitudinal dispersivity	**alpha x**	10	10	ft	Estimated plume length - Calculated in BIOCHLOR spreadsheet
Transverse dispersivity	**alpha y**	0.1	0.1	ft	Calculated in BIOCHLOR spreadsheet
Vertical dispersivity	**alpha z**	1.00E-99	1.00E-99	ft	Calculated in BIOCHLOR spreadsheet
3. ADSORPTION					
Retardation Factor	**R**	3.93	3.93	dim.less	Calculated in BIOCHLOR spreadsheet
Soil Bulk Density	**rho**	1.5	1.5	kg/L	From EPD USTMPT CAP-A Guidance Figure 5
Partition Coefficient	**Koc**			L/kg	PCE-426, TCE-130, DCE-125, VC-30, ETH-302
Fraction Organic Carbon	**foc**	0.003	0.003	dim.less	EPD's default value at 0.3%
4. BIOTRANSFORMATION					
ZONE 1					
1st Order Decay Coefficient or	**lamda**	**t-half**	**t-half**	year	Not critical in determination due to constant source and
Solute half-life					assumption of no decay.
PCE - TCE				year	Not a contaminant of concern at this site
TCE-DCE	0.693	1	1	year	Conservative value from BioChlor literature
DCE-VC	2.772	0.25	0.25	year	Conservative value from BioChlor literature
VC-ETH	2.31	0.3	0.3	year	Conservative value from BioChlor literature

MODEL INPUT DATA

Input Parameters for BIOCHLOR v.2.2 (Newell et al, 2000, 2002)
Former Southern Pipe Coating Operation
6420 Corley Road, Norcross, GA 30071
November 1, 2012

Input Parameter	Symbol	Value	Adjusted Value	Unit	Remarks
5. GENERAL					
Model Area Length	POE-1	1,050	1,050	ft	Site Map - Theoretical edge of plume is 50 feet from MW-14R
	POE-2	1,850	1,850	ft	Edge of plume plus 1,000 feet
	POE-3	1,938	1,938	ft	1000 feet from property boundary
Model Area Width		50	50	ft	Estimated from CSR investigation
Simulation Time		2	1,+10,+30, +100	yr	Due to active remediation, estimated from time of system
					shut down in June 2009 - 12 yrs, 22 yrs, 32 yrs, 102 yrs
6. SOURCE DATA					
Source Thickness in Sat. Zone		25	25	ft	Historic groundwater elevation data to bedrock
Source Option				1/yr	Constant Single Planar
Source area width		10	10	ft	
PCE concentration at source					Not a contaminant of concern at this site
TCE concentration at source		0.014	0.014	mg/L	Highest concentration since remediation shut down
DCE concentration at source		0.014	0.014	mg/L	Highest concentration since remediation shut down
VC concentration at source		0.00069	0.018	mg/L	Highest concentration since remediation shut down - MDL
Ethene concentration at source		0	0	mg/L	
7. FIELD DATA FOR COMPARISON	**Conc. (mg/L)**	**Distance from Source (feet)**			
MW-14R- TCE	**0.014**	**0**			Probable TCE source area (same as historical source area)
MW-21 - TCE	**<0.00038**	**264**			
MW-29 - TCE	**<0.00038**	**516**			
Point of Exposure - POE-1	0.005	1,050			Edge of plume to Theorectical 1,000 feet
Point of Exposure - POE-2	0.005	1,850			Edge of plume to Crooked Creek
Point of Exposure - POE-3	0.005	1,938			Source to property line plus 1,000 feet
Distance		938			Source to property line

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

LB Foster
Edge of Plume
Run Name

Data Input Instructions:
115 → 1. Enter value directly....or
or
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C
(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	173.2	(ft/yr)
or			
Hydraulic Conductivity	K	2.8E-03	(cm/sec)
Hydraulic Gradient	i	0.012	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R
or

Soil Bulk Density, rho	1.5	(kg/L)		
FractionOrganicCarbon, foc	3.0E-3	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	10.59	(-)
TCE	130	(L/kg)	3.93	(-)
DCE	125	(L/kg)	3.81	(-)
VC	30	(L/kg)	1.67	(-)
ETH	302	(L/kg)	7.80	(-)
Common R (used in model)* =			**3.93**	

4. BIOTRANSFORMATION

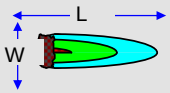
-1st Order Decay Coefficient*

	λ (1/yr)	half-life (yrs)	Yield
Zone 1			
PCE → TCE	0.000		0.79
TCE → DCE	0.693	1.00	0.74
DCE → VC	2.772	0.25	0.64
VC → ETH	2.310	0.30	0.45
Zone 2	λ (1/yr)	half-life (yrs)	
PCE → TCE	0.000		
TCE → DCE	0.000		
DCE → VC	0.000		
VC → ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	2	(yr)
Modeled Area Width*	50	(ft)
Modeled Area Length*	100	(ft)
Zone 1 Length*	100	(ft)
Zone 2 Length*	0	(ft)



Zone 2= L - Zone 1

6. SOURCE DATA

TYPE: Continuous Single Planar

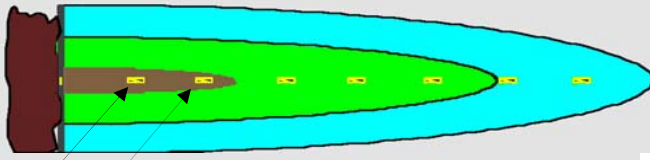
Source Options

Source Thickness in Sat. Zone* 25 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE		0
TCE	.014	0
DCE	.014	0
VC	.001	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

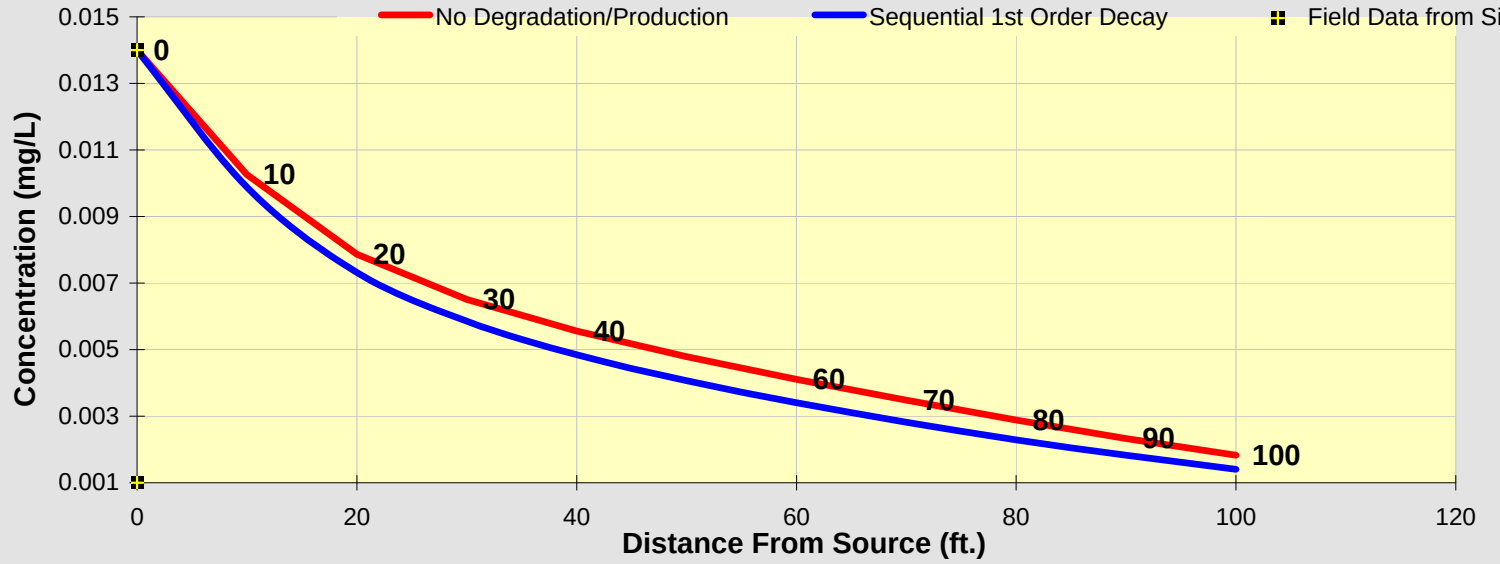
PCE Conc. (mg/L)											
TCE Conc. (mg/L)	.014	.001	.001								
DCE Conc. (mg/L)	.014	.028	.015								
VC Conc. (mg/L)	0.0	.001	.001								
ETH Conc. (mg/L)	0.0	.0	.0								
Distance from Source (ft)	0										
Date Data Collected	2012										

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | RUN ARRAY | Help | Restore Formulas | RESET | SEE OUTPUT | Paste Example

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

TCE	Distance from Source (ft)										
	0	10	20	30	40	50	60	70	80	90	100
No Degradation	0.014	0.010	0.008	0.007	0.006	0.005	0.004	0.003	0.003	0.002	0.002
Biotransformation	0.0140	0.010	0.007	0.006	0.005	0.004	0.003	0.003	0.002	0.002	0.001
	Monitoring Well Locations (ft)										
	0										
Field Data from Site	0.014	0.001	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

2.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

LB Foster
POE-1
Run Name

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	173.2	(ft/yr)
or			
Hydraulic Conductivity	K	2.8E-03	(cm/sec)
Hydraulic Gradient	i	0.012	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R

or

Soil Bulk Density, rho	1.5	(kg/L)		
FractionOrganicCarbon, foc	3.0E-3	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	10.59	(-)
TCE	130	(L/kg)	3.93	(-)
DCE	125	(L/kg)	3.81	(-)
VC	30	(L/kg)	1.67	(-)
ETH	302	(L/kg)	7.80	(-)
Common R (used in model)* =			**3.93**	

4. BIOTRANSFORMATION

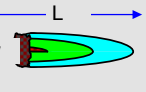
-1st Order Decay Coefficient*

	λ (1/yr)	half-life (yrs)	Yield
Zone 1			
PCE → TCE	0.000		0.79
TCE → DCE	0.693	1.00	0.74
DCE → VC	2.772	0.25	0.64
VC → ETH	2.310	0.30	0.45
Zone 2	λ (1/yr)	half-life (yrs)	
PCE → TCE	0.000		
TCE → DCE	0.000		
DCE → VC	0.000		
VC → ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	2	(yr)
Modeled Area Width*	50	(ft)
Modeled Area Length*	1050	(ft)
Zone 1 Length*	1050	(ft)
Zone 2 Length*	0	(ft)



Zone 2= L - Zone 1

6. SOURCE DATA

TYPE: Continuous Single Planar

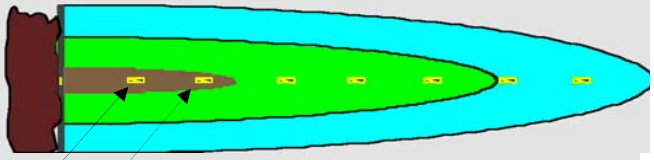
Source Options

Source Thickness in Sat. Zone* 25 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE		0
TCE	.014	0
DCE	.014	0
VC	.001	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)											
TCE Conc. (mg/L)	.014	.001	.001								
DCE Conc. (mg/L)	.014	.028	.015								
VC Conc. (mg/L)	0.0	.001	.001								
ETH Conc. (mg/L)	0.0	.0	.0								
Distance from Source (ft)	0	264	516								
Date Data Collected	2012										

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | **RUN ARRAY**

Help | Restore Formulas | RESET

SEE OUTPUT | Paste Example

Data Input Instructions:

115 → 1. Enter value directly....or
or
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C

(To restore formulas, hit "Restore Formulas" button)

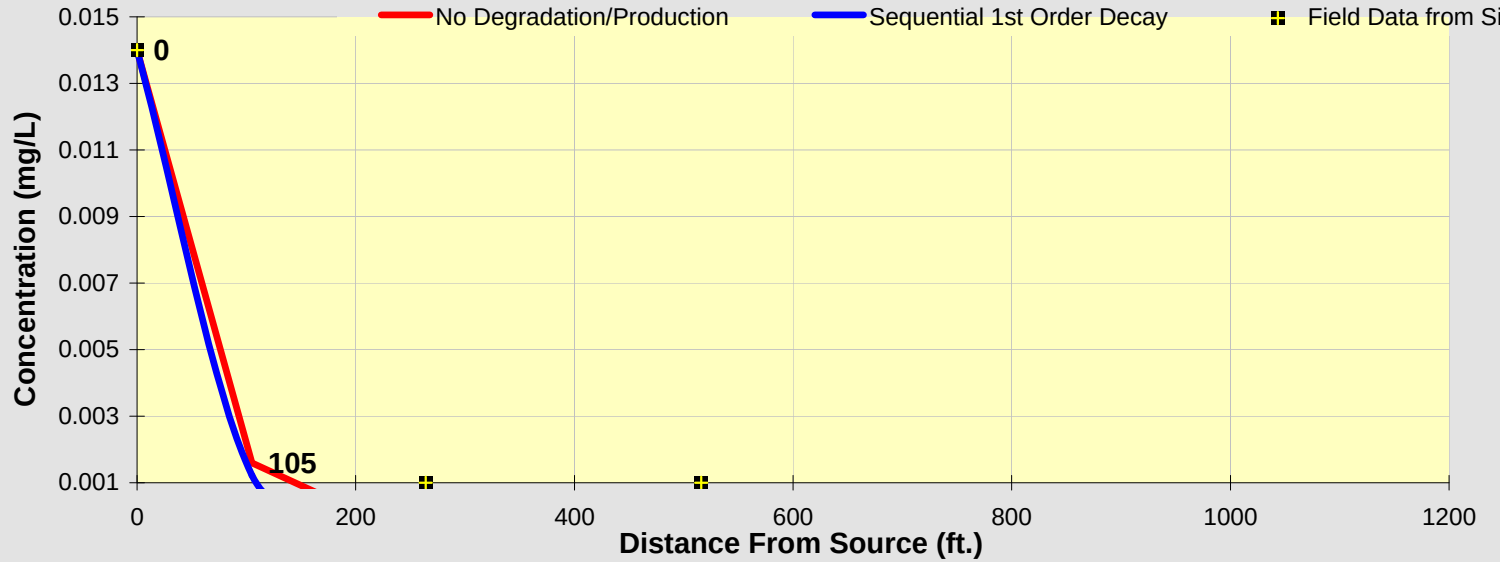
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

TCE	Distance from Source (ft)										
	0	105	210	315	420	525	630	735	840	945	1050
No Degradation	0.014	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0140	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

	Monitoring Well Locations (ft)										
	0	264	516								
Field Data from Site	0.014	0.001	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

2.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

LB Foster
POE-1+10 YRS
Run Name

Data Input Instructions:
115 → 1. Enter value directly....or
or
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C
(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	173.2	(ft/yr)
or			
Hydraulic Conductivity	K	2.8E-03	(cm/sec)
Hydraulic Gradient	i	0.012	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R
or

	Koc		R	
Soil Bulk Density, rho	1.5	(kg/L)		
FractionOrganicCarbon, foc	3.0E-3	(-)		
Partition Coefficient				
PCE	426	(L/kg)	10.59	(-)
TCE	130	(L/kg)	3.93	(-)
DCE	125	(L/kg)	3.81	(-)
VC	30	(L/kg)	1.67	(-)
ETH	302	(L/kg)	7.80	(-)
Common R (used in model)* =			**3.93**	

4. BIOTRANSFORMATION

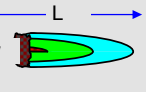
-1st Order Decay Coefficient*

	λ (1/yr)	half-life (yrs)	Yield
Zone 1			
PCE → TCE	0.000		0.79
TCE → DCE	0.693	1.00	0.74
DCE → VC	2.772	0.25	0.64
VC → ETH	2.310	0.30	0.45
Zone 2	λ (1/yr)	half-life (yrs)	
PCE → TCE	0.000		
TCE → DCE	0.000		
DCE → VC	0.000		
VC → ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	12	(yr)
Modeled Area Width*	50	(ft)
Modeled Area Length*	1050	(ft)
Zone 1 Length*	1050	(ft)
Zone 2 Length*	0	(ft)



Zone 2= L - Zone 1

6. SOURCE DATA

TYPE: Continuous Single Planar

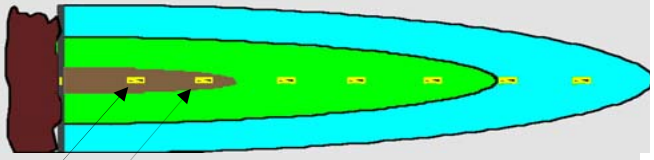
Source Options

Source Thickness in Sat. Zone* 25 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE		0
TCE	.014	0
DCE	.014	0
VC	.001	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)											
TCE Conc. (mg/L)	.014	.001	.001								
DCE Conc. (mg/L)	.014	.028	.015								
VC Conc. (mg/L)	0.0	.001	.001								
ETH Conc. (mg/L)	0.0	.0	.0								
Distance from Source (ft)	0	264	516								
Date Data Collected	2012										

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | RUN ARRAY

Help | Restore Formulas | RESET

SEE OUTPUT | Paste Example

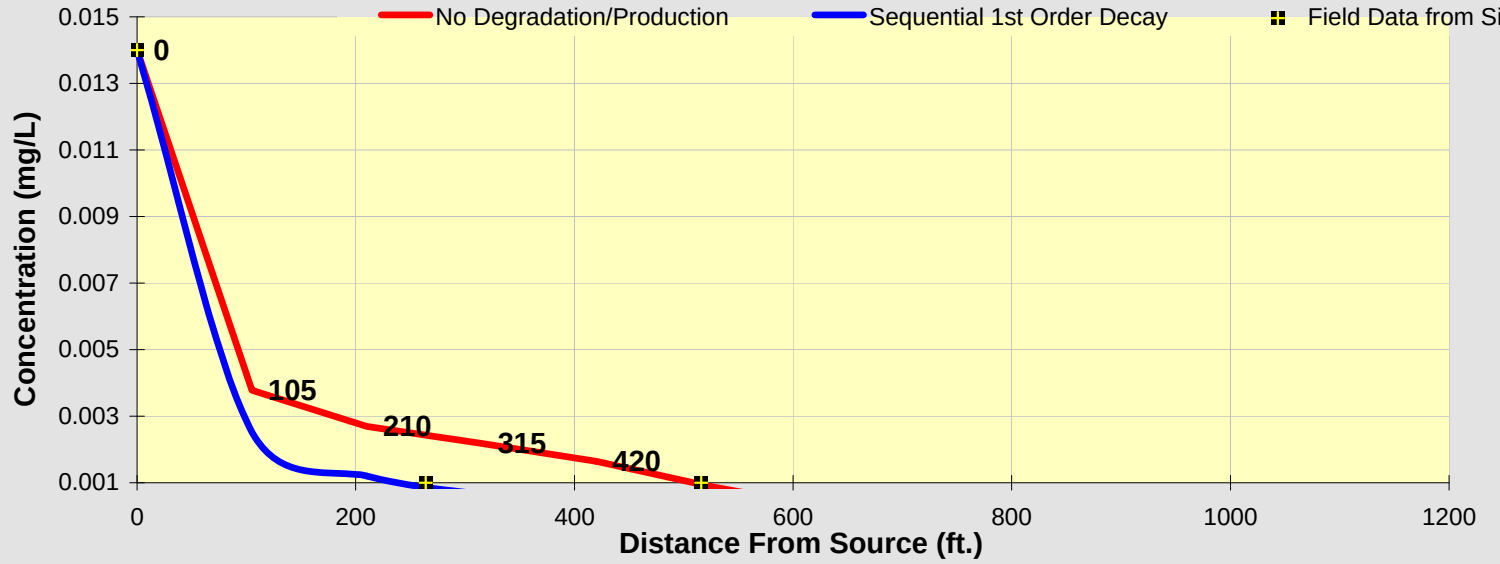
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

TCE	0	105	210	315	420	525	630	735	840	945	1050
No Degradation	0.014	0.004	0.003	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000
Biotransformation	0.0140	0.003	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Monitoring Well Locations (ft)

	0	264	516								
Field Data from Site	0.014	0.001	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

12.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

LB Foster
POE-1+20 YRS
Run Name

Data Input Instructions:
115 → 1. Enter value directly....or
or
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C
(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	173.2	(ft/yr)
or			
Hydraulic Conductivity	K	2.8E-03	(cm/sec)
Hydraulic Gradient	i	0.012	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R
or

Soil Bulk Density, rho	1.5	(kg/L)		
FractionOrganicCarbon, foc	3.0E-3	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	10.59	(-)
TCE	130	(L/kg)	3.93	(-)
DCE	125	(L/kg)	3.81	(-)
VC	30	(L/kg)	1.67	(-)
ETH	302	(L/kg)	7.80	(-)
Common R (used in model)* =			**3.93**	

4. BIOTRANSFORMATION

-1st Order Decay Coefficient*

Zone 1	λ (1/yr)	half-life (yrs)	Yield
PCE → TCE	0.000		0.79
TCE → DCE	0.693	1.00	0.74
DCE → VC	2.772	0.25	0.64
VC → ETH	2.310	0.30	0.45
Zone 2	λ (1/yr)	half-life (yrs)	
PCE → TCE	0.000		
TCE → DCE	0.000		
DCE → VC	0.000		
VC → ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	22	(yr)
Modeled Area Width*	50	(ft)
Modeled Area Length*	1050	(ft)
Zone 1 Length*	1050	(ft)
Zone 2 Length*	0	(ft)

L, W

Zone 2= L - Zone 1

6. SOURCE DATA

TYPE: Continuous Single Planar

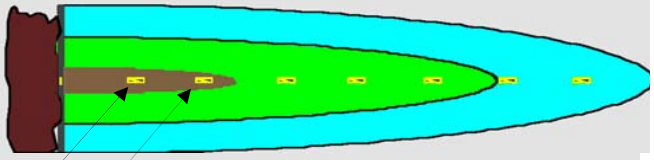
Source Options

Source Thickness in Sat. Zone* 25 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE		0
TCE	.014	0
DCE	.014	0
VC	.001	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)											
TCE Conc. (mg/L)	.014	.001	.001								
DCE Conc. (mg/L)	.014	.028	.015								
VC Conc. (mg/L)	0.0	.001	.001								
ETH Conc. (mg/L)	0.0	.0	.0								
Distance from Source (ft)	0	264	516								
Date Data Collected	2012										

8. CHOOSE TYPE OF OUTPUT TO SEE:

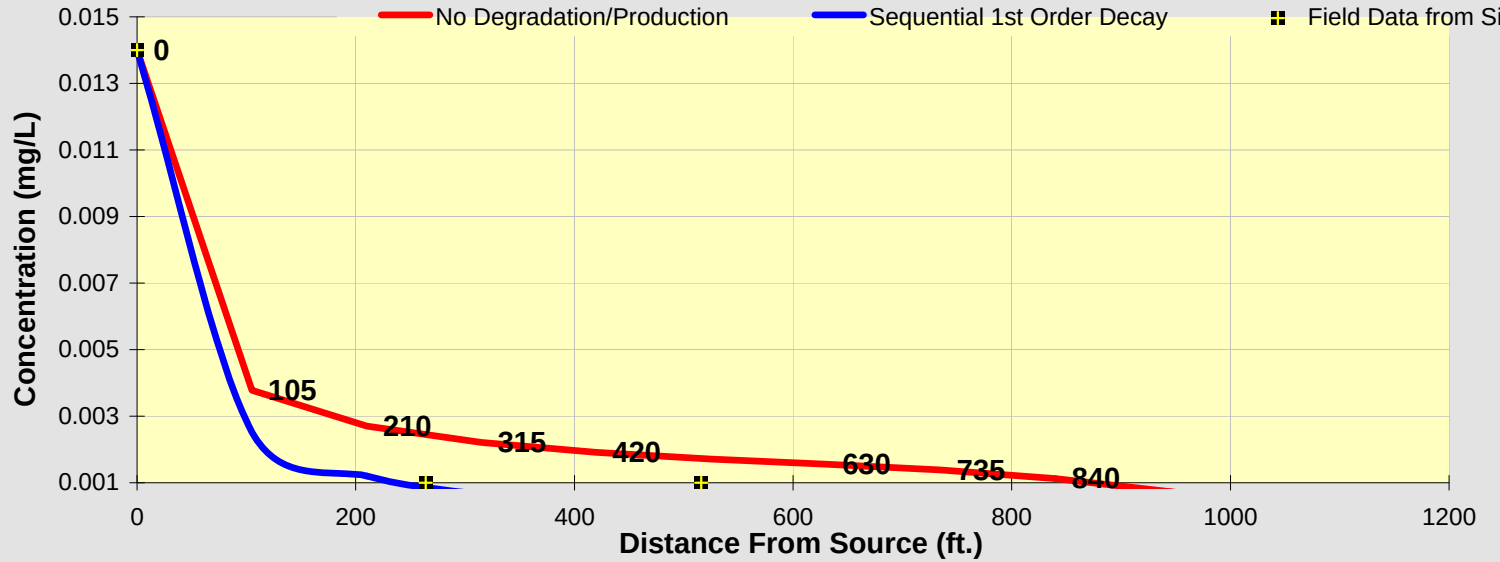
RUN CENTERLINE | **RUN ARRAY**

Help | Restore Formulas | RESET

SEE OUTPUT | Paste Example

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

TCE	Distance from Source (ft)										
	0	105	210	315	420	525	630	735	840	945	1050
No Degradation	0.014	0.004	0.003	0.002	0.002	0.002	0.002	0.001	0.001	0.001	0.000
Biotransformation	0.0140	0.003	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	0	264	516								
Field Data from Site	0.014	0.001	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

22.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

LB Foster
POE-1+30 YRS
Run Name

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	173.2	(ft/yr)
or			
Hydraulic Conductivity	K	2.8E-03	(cm/sec)
Hydraulic Gradient	i	0.012	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R

or

Soil Bulk Density, rho	1.5	(kg/L)		
FractionOrganicCarbon, foc	3.0E-3	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	10.59	(-)
TCE	130	(L/kg)	3.93	(-)
DCE	125	(L/kg)	3.81	(-)
VC	30	(L/kg)	1.67	(-)
ETH	302	(L/kg)	7.80	(-)
Common R (used in model)* =			**3.93**	

4. BIOTRANSFORMATION

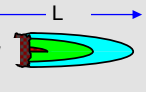
-1st Order Decay Coefficient*

	λ (1/yr)	half-life (yrs)	Yield
Zone 1			
PCE → TCE	0.000		0.79
TCE → DCE	0.693	1.00	0.74
DCE → VC	2.772	0.25	0.64
VC → ETH	2.310	0.30	0.45
Zone 2	λ (1/yr)	half-life (yrs)	
PCE → TCE	0.000		
TCE → DCE	0.000		
DCE → VC	0.000		
VC → ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	32	(yr)
Modeled Area Width*	50	(ft)
Modeled Area Length*	1050	(ft)
Zone 1 Length*	1050	(ft)
Zone 2 Length*	0	(ft)



Zone 2= L - Zone 1

6. SOURCE DATA

TYPE: Continuous Single Planar

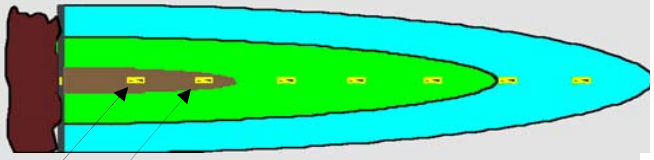
Source Options

Source Thickness in Sat. Zone* 25 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE		0
TCE	.014	0
DCE	.014	0
VC	.001	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)											
TCE Conc. (mg/L)	.014	.001	.001								
DCE Conc. (mg/L)	.014	.028	.015								
VC Conc. (mg/L)	0.0	.001	.001								
ETH Conc. (mg/L)	0.0	.0	.0								
Distance from Source (ft)	0	264	516								
Date Data Collected	2012										

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | **RUN ARRAY**

Help | Restore Formulas | RESET

SEE OUTPUT | Paste Example

Data Input Instructions:

115 → 1. Enter value directly....or
or ↑
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C

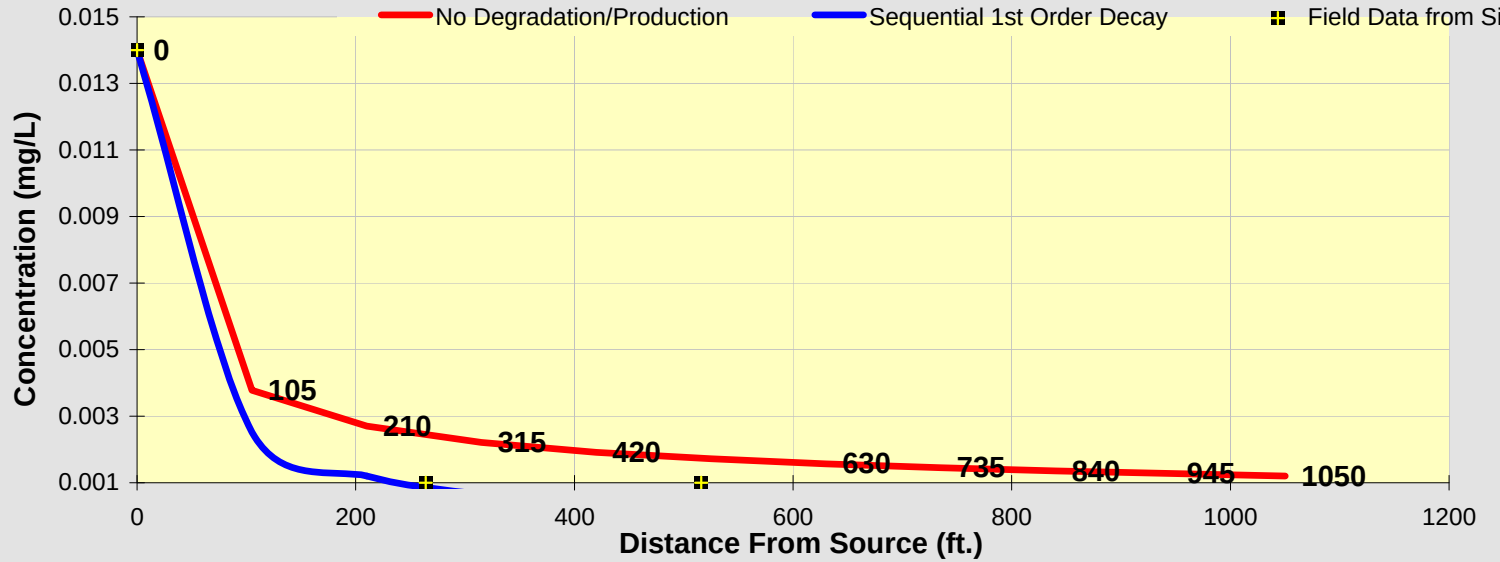
(To restore formulas, hit "Restore Formulas" button)

Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

TCE	Distance from Source (ft)										
	0	105	210	315	420	525	630	735	840	945	1050
No Degradation	0.014	0.004	0.003	0.002	0.002	0.002	0.002	0.001	0.001	0.001	0.001
Biotransformation	0.0140	0.003	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	0	264	516								
Field Data from Site	0.014	0.001	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

32.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

LB Foster
POE-1+100 YRS
Run Name

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	173.2	(ft/yr)
or			
Hydraulic Conductivity	K	2.8E-03	(cm/sec)
Hydraulic Gradient	i	0.012	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R

or

Soil Bulk Density, rho	1.5	(kg/L)		
FractionOrganicCarbon, foc	3.0E-3	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	10.59	(-)
TCE	130	(L/kg)	3.93	(-)
DCE	125	(L/kg)	3.81	(-)
VC	30	(L/kg)	1.67	(-)
ETH	302	(L/kg)	7.80	(-)
Common R (used in model)* =			**3.93**	

4. BIOTRANSFORMATION

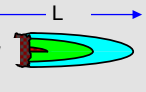
-1st Order Decay Coefficient*

	λ (1/yr)	half-life (yrs)	Yield
Zone 1			
PCE → TCE	0.000		0.79
TCE → DCE	0.693	1.00	0.74
DCE → VC	2.772	0.25	0.64
VC → ETH	2.310	0.30	0.45
Zone 2	λ (1/yr)	half-life (yrs)	
PCE → TCE	0.000		
TCE → DCE	0.000		
DCE → VC	0.000		
VC → ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	102	(yr)
Modeled Area Width*	50	(ft)
Modeled Area Length*	1050	(ft)
Zone 1 Length*	1050	(ft)
Zone 2 Length*	0	(ft)



Zone 2= L - Zone 1

6. SOURCE DATA

TYPE: Continuous Single Planar

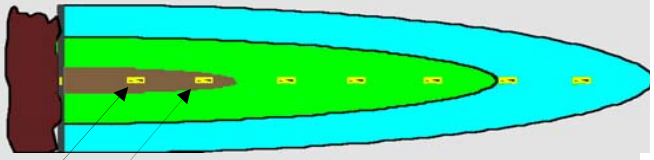
Source Options

Source Thickness in Sat. Zone* 25 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE		0
TCE	.014	0
DCE	.014	0
VC	.001	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)											
TCE Conc. (mg/L)	.014	.001	.001								
DCE Conc. (mg/L)	.014	.028	.015								
VC Conc. (mg/L)	0.0	.001	.001								
ETH Conc. (mg/L)	0.0	.0	.0								
Distance from Source (ft)	0	264	516								
Date Data Collected	2012										

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | **RUN ARRAY**

Help | Restore Formulas | RESET

SEE OUTPUT | Paste Example

Data Input Instructions:

115 → 1. Enter value directly....or
↑ *or*
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C

(To restore formulas, hit "Restore Formulas" button)

Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

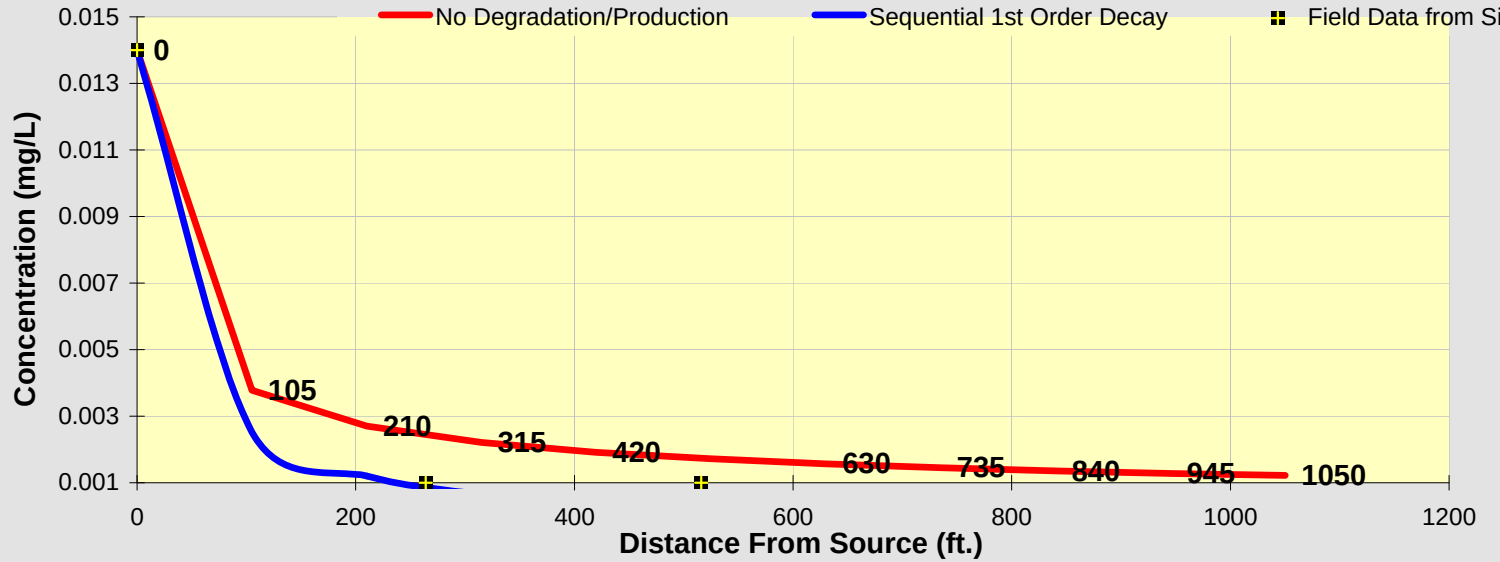
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

TCE	0	105	210	315	420	525	630	735	840	945	1050
No Degradation	0.014	0.004	0.003	0.002	0.002	0.002	0.002	0.001	0.001	0.001	0.001
Biotransformation	0.0140	0.003	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Monitoring Well Locations (ft)

	0	264	516								
Field Data from Site	0.014	0.001	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

102.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

LB Foster
POE-2+100 YRS
Run Name

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	173.2	(ft/yr)
or			
Hydraulic Conductivity	K	2.8E-03	(cm/sec)
Hydraulic Gradient	i	0.012	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R

or

Soil Bulk Density, rho	1.5	(kg/L)		
FractionOrganicCarbon, foc	3.0E-3	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	10.59	(-)
TCE	130	(L/kg)	3.93	(-)
DCE	125	(L/kg)	3.81	(-)
VC	30	(L/kg)	1.67	(-)
ETH	302	(L/kg)	7.80	(-)
Common R (used in model)* =			**3.93**	

4. BIOTRANSFORMATION

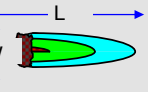
-1st Order Decay Coefficient*

	λ (1/yr)	half-life (yrs)	Yield
Zone 1			
PCE → TCE	0.000		0.79
TCE → DCE	0.693	1.00	0.74
DCE → VC	2.772	0.25	0.64
VC → ETH	2.310	0.30	0.45
Zone 2	λ (1/yr)	half-life (yrs)	
PCE → TCE	0.000		
TCE → DCE	0.000		
DCE → VC	0.000		
VC → ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	102	(yr)
Modeled Area Width*	50	(ft)
Modeled Area Length*	1850	(ft)
Zone 1 Length*	1850	(ft)
Zone 2 Length*	0	(ft)



Zone 2= L - Zone 1

6. SOURCE DATA

TYPE: Continuous Single Planar

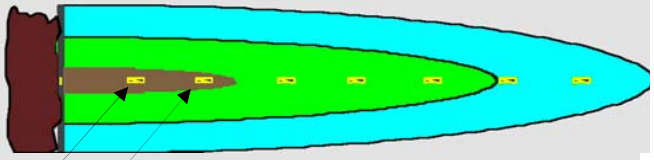
Source Options

Source Thickness in Sat. Zone* 25 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE		0
TCE	.014	0
DCE	.014	0
VC	.001	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)											
TCE Conc. (mg/L)	.014	.001	.001								
DCE Conc. (mg/L)	.014	.028	.015								
VC Conc. (mg/L)	0.0	.001	.001								
ETH Conc. (mg/L)	0.0	.0	.0								
Distance from Source (ft)	0	264	516								
Date Data Collected	2012										

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | **RUN ARRAY**

Help | Restore Formulas | RESET

SEE OUTPUT | Paste Example

Data Input Instructions:

115 → 1. Enter value directly....or
↑ *or*
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C

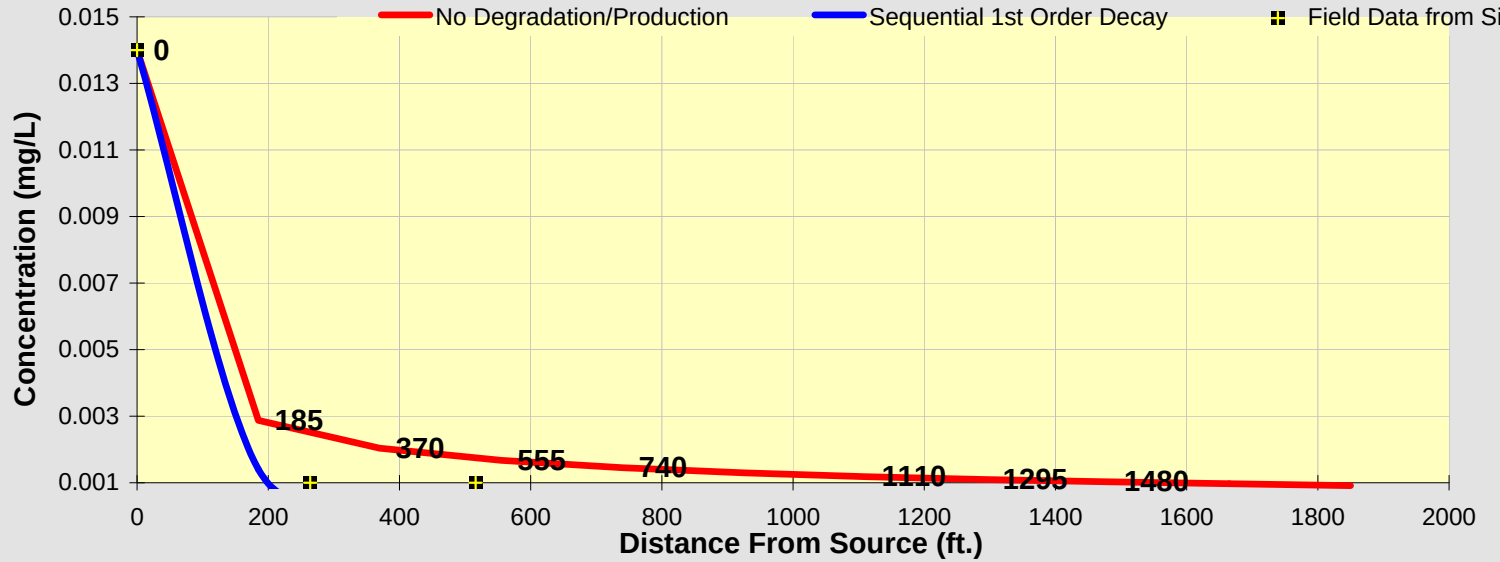
(To restore formulas, hit "Restore Formulas" button)

Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

TCE	Distance from Source (ft)										
	0	185	370	555	740	925	1110	1295	1480	1665	1850
No Degradation	0.014	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Biotransformation	0.0140	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	0	264	516								
Field Data from Site	0.014	0.001	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

102.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

LB Foster
POE-3+100 YRS
Run Name

Data Input Instructions:
115 → 1. Enter value directly....or
or
0.02 2. Calculate by filling in gray cells. Press Enter, then C
(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	173.2	(ft/yr)
or			
Hydraulic Conductivity	K	2.8E-03	(cm/sec)
Hydraulic Gradient	i	0.012	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R
or

Soil Bulk Density, rho	1.5	(kg/L)		
FractionOrganicCarbon, foc	3.0E-3	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	10.59	(-)
TCE	130	(L/kg)	3.93	(-)
DCE	125	(L/kg)	3.81	(-)
VC	30	(L/kg)	1.67	(-)
ETH	302	(L/kg)	7.80	(-)
Common R (used in model)* =			**3.93**	

4. BIOTRANSFORMATION

-1st Order Decay Coefficient*

	λ (1/yr)	half-life (yrs)	Yield
Zone 1			
PCE → TCE	0.000		0.79
TCE → DCE	0.693	1.00	0.74
DCE → VC	2.772	0.25	0.64
VC → ETH	2.310	0.30	0.45
Zone 2	λ (1/yr)	half-life (yrs)	
PCE → TCE	0.000		
TCE → DCE	0.000		
DCE → VC	0.000		
VC → ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	102	(yr)
Modeled Area Width*	50	(ft)
Modeled Area Length*	1938	(ft)
Zone 1 Length*	1938	(ft)
Zone 2 Length*	0	(ft)

L, W

Zone 2= L - Zone 1

6. SOURCE DATA

TYPE: Continuous Single Planar

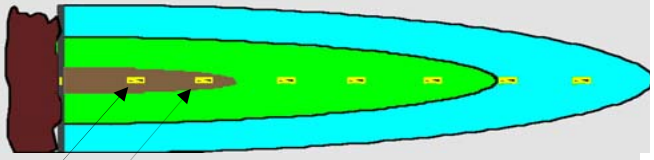
Source Options

Source Thickness in Sat. Zone* 25 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE		0
TCE	.014	0
DCE	.014	0
VC	.001	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)											
TCE Conc. (mg/L)	.014	.001	.001								
DCE Conc. (mg/L)	.014	.028	.015								
VC Conc. (mg/L)	0.0	.001	.001								
ETH Conc. (mg/L)	0.0	.0	.0								
Distance from Source (ft)	0	264	516								
Date Data Collected	2012										

8. CHOOSE TYPE OF OUTPUT TO SEE:

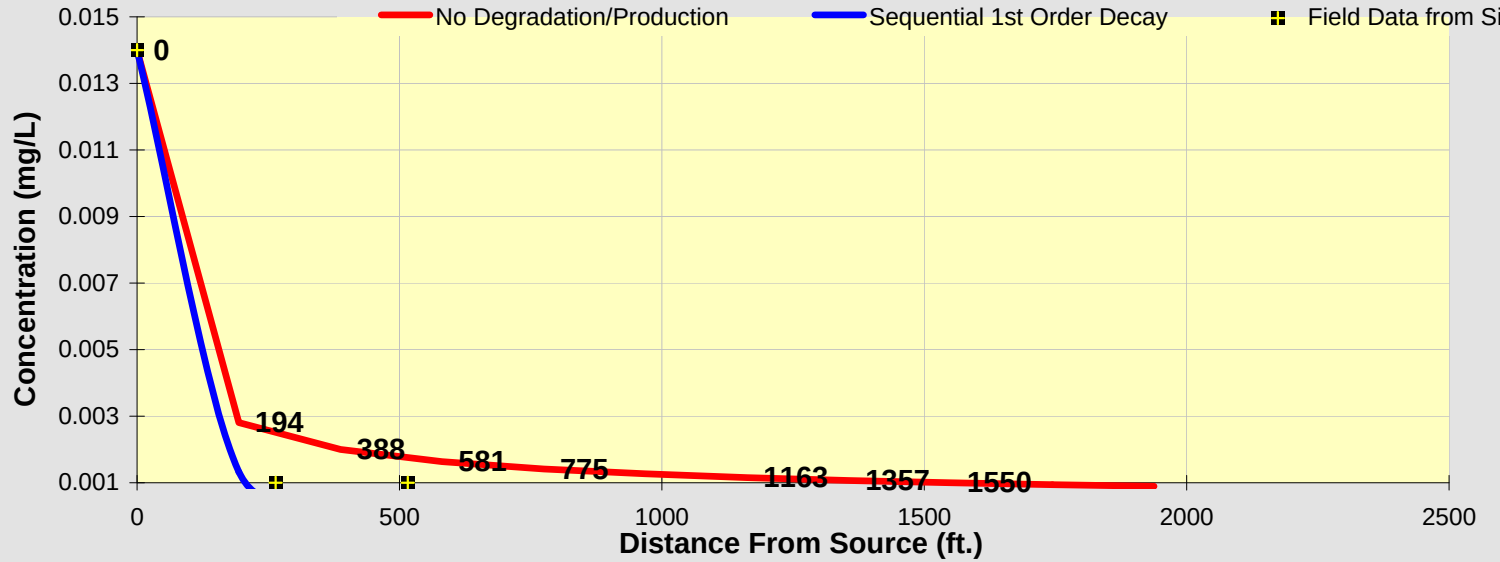
RUN CENTERLINE | RUN ARRAY

Help | Restore Formulas | RESET

SEE OUTPUT | Paste Example

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

TCE	Distance from Source (ft)										
	0	194	388	581	775	969	1163	1357	1550	1744	1938
No Degradation	0.014	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Biotransformation	0.0140	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	0	264	516								
Field Data from Site	0.014	0.001	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

102.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

LB Foster
ACL - POE-1+100 YRS
Run Name

Data Input Instructions:
115 → 1. Enter value directly....or
or
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C
(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	173.2	(ft/yr)
or			
Hydraulic Conductivity	K	2.8E-03	(cm/sec)
Hydraulic Gradient	i	0.012	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R
or

	Koc		R	
Soil Bulk Density, rho	1.5	(kg/L)		
FractionOrganicCarbon, foc	3.0E-3	(-)		
Partition Coefficient				
PCE	426	(L/kg)	10.59	(-)
TCE	130	(L/kg)	3.93	(-)
DCE	125	(L/kg)	3.81	(-)
VC	30	(L/kg)	1.67	(-)
ETH	302	(L/kg)	7.80	(-)
Common R (used in model)* =			**3.93**	

4. BIOTRANSFORMATION

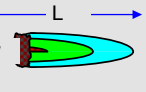
-1st Order Decay Coefficient*

	λ (1/yr)	half-life (yrs)	Yield
Zone 1			
PCE → TCE	0.000		0.79
TCE → DCE	0.693	1.00	0.74
DCE → VC	2.772	0.25	0.64
VC → ETH	2.310	0.30	0.45
Zone 2	λ (1/yr)	half-life (yrs)	
PCE → TCE	0.000		
TCE → DCE	0.000		
DCE → VC	0.000		
VC → ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	102	(yr)
Modeled Area Width*	50	(ft)
Modeled Area Length*	1050	(ft)
Zone 1 Length*	1050	(ft)
Zone 2 Length*	0	(ft)



Zone 2= L - Zone 1

6. SOURCE DATA

TYPE: Continuous Single Planar

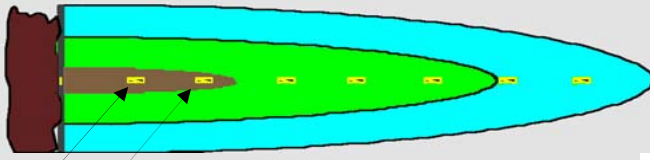
Source Options

Source Thickness in Sat. Zone* 25 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE		0
TCE	.06	0
DCE	.014	0
VC	.001	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)											
TCE Conc. (mg/L)	.014	.001	.001								
DCE Conc. (mg/L)	.014	.028	.015								
VC Conc. (mg/L)	0.0	.001	.001								
ETH Conc. (mg/L)	0.0	.0	.0								
Distance from Source (ft)	0	264	516								
Date Data Collected	2012										

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE | RUN ARRAY

Help | Restore Formulas | RESET

SEE OUTPUT | Paste Example

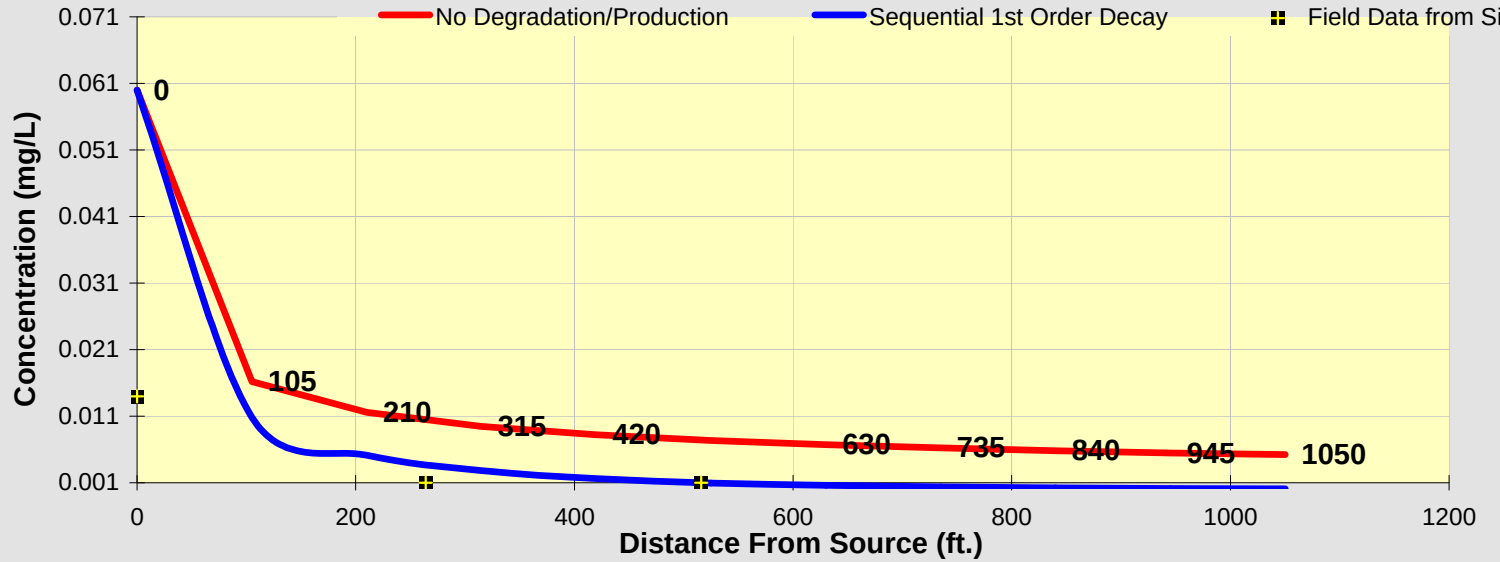
DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

Distance from Source (ft)

TCE	0	105	210	315	420	525	630	735	840	945	1050
No Degradation	0.060	0.016	0.012	0.009	0.008	0.007	0.007	0.006	0.006	0.005	0.005
Biotransformation	0.0600	0.011	0.005	0.003	0.002	0.001	0.001	0.000	0.000	0.000	0.000

Monitoring Well Locations (ft)

	0	264	516								
Field Data from Site	0.014	0.001	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

102.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

BIOCHLOR Natural Attenuation Decision Support System

Version 2.2
Excel 2000

LB Foster
ACL - POE-3+100 YRS
Run Name

Data Input Instructions:
115 → 1. Enter value directly....or
or
0.02 → 2. Calculate by filling in gray cells. Press Enter, then C
(To restore formulas, hit "Restore Formulas" button)
Variable* → Data used directly in model.

Test if Biotransformation is Occurring → Natural Attenuation Screening Protocol

TYPE OF CHLORINATED SOLVENT: Ethenes ◉ Ethanes ○

1. ADVECTION

Seepage Velocity*	Vs	173.2	(ft/yr)
or			
Hydraulic Conductivity	K	2.8E-03	(cm/sec)
Hydraulic Gradient	i	0.012	(ft/ft)
Effective Porosity	n	0.2	(-)

2. DISPERSION

Alpha x*	10	(ft)
(Alpha y) / (Alpha x)*	0.1	(-)
(Alpha z) / (Alpha x)*	1.E-99	(-)

Calc. Alpha x

3. ADSORPTION

Retardation Factor* → R
or

Soil Bulk Density, rho	1.5	(kg/L)		
FractionOrganicCarbon, foc	3.0E-3	(-)		
Partition Coefficient	Koc			
PCE	426	(L/kg)	10.59	(-)
TCE	130	(L/kg)	3.93	(-)
DCE	125	(L/kg)	3.81	(-)
VC	30	(L/kg)	1.67	(-)
ETH	302	(L/kg)	7.80	(-)
Common R (used in model)* =			**3.93**	

4. BIOTRANSFORMATION

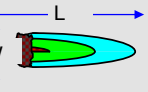
-1st Order Decay Coefficient*

Zone 1	λ (1/yr)	half-life (yrs)	Yield
PCE → TCE	0.000		0.79
TCE → DCE	0.693	1.00	0.74
DCE → VC	2.772	0.25	0.64
VC → ETH	2.310	0.30	0.45
Zone 2	λ (1/yr)	half-life (yrs)	
PCE → TCE	0.000		
TCE → DCE	0.000		
DCE → VC	0.000		
VC → ETH	0.000		

λ HELP

5. GENERAL

Simulation Time*	102	(yr)
Modeled Area Width*	50	(ft)
Modeled Area Length*	1938	(ft)
Zone 1 Length*	1938	(ft)
Zone 2 Length*	0	(ft)



Zone 2= L - Zone 1

6. SOURCE DATA

TYPE: Continuous Single Planar

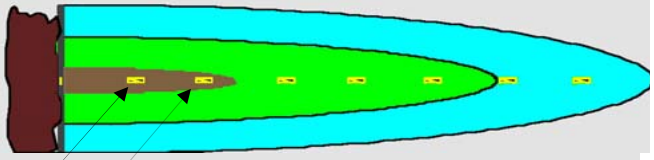
Source Options

Source Thickness in Sat. Zone* 25 (ft)

Width* (ft) Y1: 10

Conc. (mg/L)*	C1	k_s* (1/yr)
PCE		0
TCE	.08	0
DCE	.014	0
VC	.001	0
ETH		0

Vertical Plane Source: Determine Source Well Location and Input Solvent Concentrations



View of Plume Looking Down

Observed Centerline Conc. at Monitoring Wells

7. FIELD DATA FOR COMPARISON

PCE Conc. (mg/L)											
TCE Conc. (mg/L)	.014	.001	.001								
DCE Conc. (mg/L)	.014	.028	.015								
VC Conc. (mg/L)	0.0	.001	.001								
ETH Conc. (mg/L)	0.0	.0	.0								
Distance from Source (ft)	0	264	516								
Date Data Collected	2012										

8. CHOOSE TYPE OF OUTPUT TO SEE:

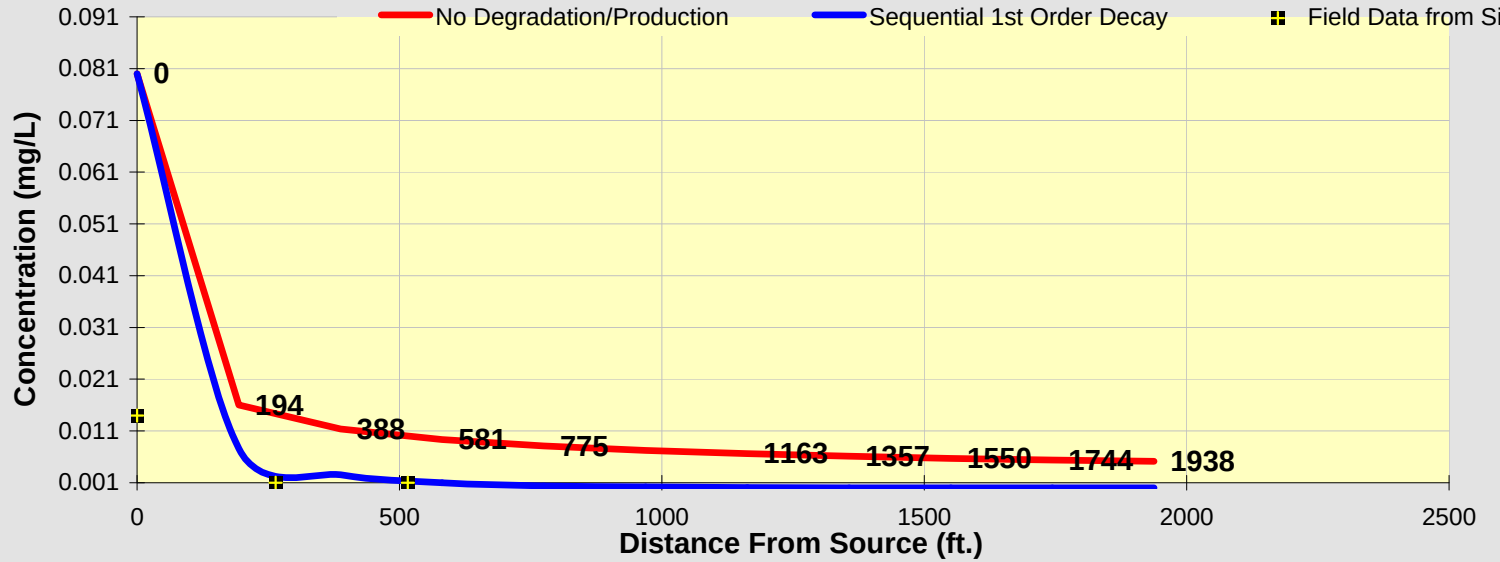
RUN CENTERLINE | **RUN ARRAY**

Help | Restore Formulas | RESET

SEE OUTPUT | Paste Example

DISSOLVED CHLORINATED SOLVENT CONCENTRATIONS ALONG PLUME CENTERLINE (mg/L) at Z=0

TCE	Distance from Source (ft)										
	0	194	388	581	775	969	1163	1357	1550	1744	1938
No Degradation	0.080	0.016	0.011	0.009	0.008	0.007	0.007	0.006	0.006	0.005	0.005
Biotransformation	0.0800	0.008	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Monitoring Well Locations (ft)										
	0	264	516								
Field Data from Site	0.014	0.001	0.001								



See PCE

See TCE

See DCE

See VC

See ETH

Prepare Animation

Time:

102.0 Years

Log ⟺ Linear

Return to Input

To All

To Array

APPENDIX

Certified Laboratory Report
MDL Version
August 2012

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

AES

October 15, 2012

Brent Cortelloni
Rem-Con, LLC
5262 Belle Wood Court
Buford GA 30518

TEL: (770) 271-4628
FAX: (770) 271-8944

RE: L.B. Foster

Dear Brent Cortelloni: Order No: 1208K57

Analytical Environmental Services, Inc. received 6 samples on 8/27/2012 3:50:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.
AES' certifications are as follows:
-NELAC/Florida Certification number E87582 for analysis of Environmental Water, soil/hazardous waste, and Drinking Water Microbiology, effective 07/01/12-06/30/13.
-AIHA Certification ID #100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) effective until 09/01/13.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Mirzeta Kararic

Mirzeta Kararic
Project Manager

Revision 10/15/2012

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3785 Presidential Parkway, Atlanta GA 30340-3704

AES TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1208K57

Date: _____ Page _____ of _____

COMPANY: REM-CON / BC

ADDRESS:

PHONE:

FAX:

SAMPLED BY: D. Castellon / J. Schuller

SIGNATURE:

ANALYSIS REQUESTED

TCL VOCs

Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.

#	SAMPLE ID	SAMPLED DATE	SAMPLED TIME	Grab	Composite	Matrix (See codes)	PRESERVATION (See codes)	REMARKS	No # of Containers
1	MW-14R	8-27-12	1510	X		GW	X		
2	MW-21		1355						
3	MW-29		1255						
4	Rinsate		—	—					
5	Duplicate		—	—					
6	Trip Blank		—	—		—		48-hr T/A	
7									
8									
9									
10									
11									
12									
13									
14									

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME
1:	8/27/12 1550	1:	8/27/12 1550
2:		2:	
3:		3:	

SPECIAL INSTRUCTIONS/COMMENTS:

SHIPMENT METHOD

OUT / / VIA:

IN / VIA:

CLIENT FedEx UPS MAIL COURIER

GREYHOUND OTHER_____

PROJECT INFORMATION

PROJECT NAME: L.B. Foster

PROJECT #: RL-110

SITE ADDRESS:

SEND REPORT TO: Contacts

INVOICE TO:
(IF DIFFERENT FROM ABOVE)

QUOTE #:_____ PO#:_____

RECEIPT

Total # of Containers

Turnaround Time Request

- ○ Standard 5 Business Days
- ⊘ 2 Business Day Rush
- ○ Next Business Day Rush
- ○ Same Day Rush (auth req.)
- ○ Other _____

STATE PROGRAM (if any): _____

E-mail? Y / N; Fax? Y / N

DATA PACKAGE: I II III IV

SAMPLES RECEIVED AFTER 3PM OR SATURDAY ARE CONSIDERED AS RECEIVED ON THE NEXT BUSINESS DAY; IF NO TAT IS MARKED ON COC AES WILL PROCEED AS STANDARD TAT.
SAMPLES ARE DISPOSED OF 30 DAYS AFTER COMPLETION OF REPORT UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Page 2 of 2

Analytical Environmental Services, Inc

Date: 15-Oct-12

Client: Rem-Con, LLC
Project: L.B. Foster
Lab ID: 1208K57

Case Narrative

Samples are reported to MDL with "J" qualifiers per Deborah Romanowski on 10/15/12.

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-14R
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 3:10:00 PM
Lab ID:	1208K57-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.40	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,1,2,2-Tetrachloroethane	BRL		0.18	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,1-Dichloroethane	BRL		0.19	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,1-Dichloroethene	BRL		0.79	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,2,4-Trichlorobenzene	BRL		0.30	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,2-Dibromo-3-chloropropane	BRL		0.78	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,2-Dibromoethane	BRL		0.32	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,2-Dichlorobenzene	BRL		0.27	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,2-Dichloroethane	BRL		0.22	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,2-Dichloropropane	BRL		0.29	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,3-Dichlorobenzene	BRL		0.17	5.0	ug/L	165765	1	08/29/2012 13:47	NP
1,4-Dichlorobenzene	BRL		0.20	5.0	ug/L	165765	1	08/29/2012 13:47	NP
2-Butanone	BRL		1.3	50	ug/L	165765	1	08/29/2012 13:47	NP
2-Hexanone	BRL		0.46	10	ug/L	165765	1	08/29/2012 13:47	NP
4-Methyl-2-pentanone	BRL		0.39	10	ug/L	165765	1	08/29/2012 13:47	NP
Acetone	BRL		2.0	50	ug/L	165765	1	08/29/2012 13:47	NP
Benzene	BRL		0.41	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Bromodichloromethane	BRL		0.20	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Bromoform	BRL		0.32	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Bromomethane	BRL		0.52	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Carbon disulfide	BRL		1.5	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Carbon tetrachloride	BRL		0.53	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Chlorobenzene	BRL		0.15	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Chloroethane	BRL		0.69	10	ug/L	165765	1	08/29/2012 13:47	NP
Chloroform	BRL		0.23	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Chloromethane	BRL		0.49	10	ug/L	165765	1	08/29/2012 13:47	NP
cis-1,2-Dichloroethene	14		0.31	5.0	ug/L	165765	1	08/29/2012 13:47	NP
cis-1,3-Dichloropropene	BRL		0.54	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Cyclohexane	BRL		0.25	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Dibromochloromethane	BRL		0.51	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Dichlorodifluoromethane	BRL		1.2	10	ug/L	165765	1	08/29/2012 13:47	NP
Ethylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Freon-113	BRL		0.77	10	ug/L	165765	1	08/29/2012 13:47	NP
Isopropylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/29/2012 13:47	NP
m,p-Xylene	1.6	J	0.72	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Methyl acetate	BRL		0.62	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Methyl tert-butyl ether	BRL		0.35	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Methylcyclohexane	BRL		0.70	5.0	ug/L	165765	1	08/29/2012 13:47	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-14R
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 3:10:00 PM
Lab ID:	1208K57-001	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B					**(SW5030B)**				
Methylene chloride	BRL		2.3	5.0	ug/L	165765	1	08/29/2012 13:47	NP
o-Xylene	2.3	J	0.42	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Styrene	BRL		0.64	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Tetrachloroethene	BRL		0.47	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Toluene	BRL		0.30	5.0	ug/L	165765	1	08/29/2012 13:47	NP
trans-1,2-Dichloroethene	4.5	J	0.47	5.0	ug/L	165765	1	08/29/2012 13:47	NP
trans-1,3-Dichloropropene	BRL		0.56	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Trichloroethene	14		0.38	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Trichlorofluoromethane	BRL		1.1	5.0	ug/L	165765	1	08/29/2012 13:47	NP
Vinyl chloride	BRL		0.69	2.0	ug/L	165765	1	08/29/2012 13:47	NP
Surr: 4-Bromofluorobenzene	101		0	67.4-123	%REC	165765	1	08/29/2012 13:47	NP
Surr: Dibromofluoromethane	115		0	75.5-128	%REC	165765	1	08/29/2012 13:47	NP
Surr: Toluene-d8	97.5		0	70-120	%REC	165765	1	08/29/2012 13:47	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-21
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 1:55:00 PM
Lab ID:	1208K57-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.40	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,1,2,2-Tetrachloroethane	BRL		0.18	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,1-Dichloroethane	BRL		0.19	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,1-Dichloroethene	BRL		0.79	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,2,4-Trichlorobenzene	BRL		0.30	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,2-Dibromo-3-chloropropane	BRL		0.78	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,2-Dibromoethane	BRL		0.32	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,2-Dichlorobenzene	BRL		0.27	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,2-Dichloroethane	BRL		0.22	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,2-Dichloropropane	BRL		0.29	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,3-Dichlorobenzene	BRL		0.17	5.0	ug/L	165765	1	08/28/2012 21:27	DB
1,4-Dichlorobenzene	BRL		0.20	5.0	ug/L	165765	1	08/28/2012 21:27	DB
2-Butanone	BRL		1.3	50	ug/L	165765	1	08/28/2012 21:27	DB
2-Hexanone	BRL		0.46	10	ug/L	165765	1	08/28/2012 21:27	DB
4-Methyl-2-pentanone	BRL		0.39	10	ug/L	165765	1	08/28/2012 21:27	DB
Acetone	BRL		2.0	50	ug/L	165765	1	08/28/2012 21:27	DB
Benzene	BRL		0.41	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Bromodichloromethane	BRL		0.20	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Bromoform	BRL		0.32	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Bromomethane	BRL		0.52	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Carbon disulfide	BRL		1.5	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Carbon tetrachloride	BRL		0.53	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Chlorobenzene	BRL		0.15	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Chloroethane	BRL		0.69	10	ug/L	165765	1	08/28/2012 21:27	DB
Chloroform	BRL		0.23	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Chloromethane	BRL		0.49	10	ug/L	165765	1	08/28/2012 21:27	DB
cis-1,2-Dichloroethene	28		0.31	5.0	ug/L	165765	1	08/28/2012 21:27	DB
cis-1,3-Dichloropropene	BRL		0.54	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Cyclohexane	BRL		0.25	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Dibromochloromethane	BRL		0.51	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Dichlorodifluoromethane	BRL		1.2	10	ug/L	165765	1	08/28/2012 21:27	DB
Ethylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Freon-113	BRL		0.77	10	ug/L	165765	1	08/28/2012 21:27	DB
Isopropylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/28/2012 21:27	DB
m,p-Xylene	BRL		0.72	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Methyl acetate	BRL		0.62	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Methyl tert-butyl ether	BRL		0.35	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Methylcyclohexane	BRL		0.70	5.0	ug/L	165765	1	08/28/2012 21:27	DB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-21
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 1:55:00 PM
Lab ID:	1208K57-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		2.3	5.0	ug/L	165765	1	08/28/2012 21:27	DB
o-Xylene	BRL		0.42	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Styrene	BRL		0.64	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Tetrachloroethene	BRL		0.47	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Toluene	BRL		0.30	5.0	ug/L	165765	1	08/28/2012 21:27	DB
trans-1,2-Dichloroethene	2.5	J	0.47	5.0	ug/L	165765	1	08/28/2012 21:27	DB
trans-1,3-Dichloropropene	BRL		0.56	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Trichloroethene	BRL		0.38	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Trichlorofluoromethane	BRL		1.1	5.0	ug/L	165765	1	08/28/2012 21:27	DB
Vinyl chloride	BRL		0.69	2.0	ug/L	165765	1	08/28/2012 21:27	DB
Surr: 4-Bromofluorobenzene	87		0	67.4-123	%REC	165765	1	08/28/2012 21:27	DB
Surr: Dibromofluoromethane	99		0	75.5-128	%REC	165765	1	08/28/2012 21:27	DB
Surr: Toluene-d8	91.6		0	70-120	%REC	165765	1	08/28/2012 21:27	DB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-29
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 12:55:00 PM
Lab ID:	1208K57-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.40	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,1,2,2-Tetrachloroethane	BRL		0.18	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,1-Dichloroethane	BRL		0.19	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,1-Dichloroethene	BRL		0.79	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,2,4-Trichlorobenzene	BRL		0.30	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,2-Dibromo-3-chloropropane	BRL		0.78	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,2-Dibromoethane	BRL		0.32	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,2-Dichlorobenzene	BRL		0.27	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,2-Dichloroethane	BRL		0.22	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,2-Dichloropropane	BRL		0.29	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,3-Dichlorobenzene	BRL		0.17	5.0	ug/L	165765	1	08/28/2012 21:56	DB
1,4-Dichlorobenzene	BRL		0.20	5.0	ug/L	165765	1	08/28/2012 21:56	DB
2-Butanone	BRL		1.3	50	ug/L	165765	1	08/28/2012 21:56	DB
2-Hexanone	BRL		0.46	10	ug/L	165765	1	08/28/2012 21:56	DB
4-Methyl-2-pentanone	BRL		0.39	10	ug/L	165765	1	08/28/2012 21:56	DB
Acetone	BRL		2.0	50	ug/L	165765	1	08/28/2012 21:56	DB
Benzene	BRL		0.41	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Bromodichloromethane	BRL		0.20	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Bromoform	BRL		0.32	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Bromomethane	BRL		0.52	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Carbon disulfide	BRL		1.5	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Carbon tetrachloride	BRL		0.53	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Chlorobenzene	BRL		0.15	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Chloroethane	BRL		0.69	10	ug/L	165765	1	08/28/2012 21:56	DB
Chloroform	BRL		0.23	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Chloromethane	BRL		0.49	10	ug/L	165765	1	08/28/2012 21:56	DB
cis-1,2-Dichloroethene	15		0.31	5.0	ug/L	165765	1	08/28/2012 21:56	DB
cis-1,3-Dichloropropene	BRL		0.54	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Cyclohexane	BRL		0.25	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Dibromochloromethane	BRL		0.51	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Dichlorodifluoromethane	BRL		1.2	10	ug/L	165765	1	08/28/2012 21:56	DB
Ethylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Freon-113	BRL		0.77	10	ug/L	165765	1	08/28/2012 21:56	DB
Isopropylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/28/2012 21:56	DB
m,p-Xylene	BRL		0.72	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Methyl acetate	BRL		0.62	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Methyl tert-butyl ether	BRL		0.35	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Methylcyclohexane	BRL		0.70	5.0	ug/L	165765	1	08/28/2012 21:56	DB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	MW-29
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012 12:55:00 PM
Lab ID:	1208K57-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		2.3	5.0	ug/L	165765	1	08/28/2012 21:56	DB
o-Xylene	BRL		0.42	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Styrene	BRL		0.64	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Tetrachloroethene	BRL		0.47	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Toluene	BRL		0.30	5.0	ug/L	165765	1	08/28/2012 21:56	DB
trans-1,2-Dichloroethene	BRL		0.47	5.0	ug/L	165765	1	08/28/2012 21:56	DB
trans-1,3-Dichloropropene	BRL		0.56	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Trichloroethene	BRL		0.38	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Trichlorofluoromethane	BRL		1.1	5.0	ug/L	165765	1	08/28/2012 21:56	DB
Vinyl chloride	BRL		0.69	2.0	ug/L	165765	1	08/28/2012 21:56	DB
Surr: 4-Bromofluorobenzene	88		0	67.4-123	%REC	165765	1	08/28/2012 21:56	DB
Surr: Dibromofluoromethane	99.3		0	75.5-128	%REC	165765	1	08/28/2012 21:56	DB
Surr: Toluene-d8	92.8		0	70-120	%REC	165765	1	08/28/2012 21:56	DB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	RINSATE
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.40	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,1,2,2-Tetrachloroethane	BRL		0.18	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,1-Dichloroethane	BRL		0.19	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,1-Dichloroethene	BRL		0.79	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,2,4-Trichlorobenzene	BRL		0.30	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,2-Dibromo-3-chloropropane	BRL		0.78	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,2-Dibromoethane	BRL		0.32	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,2-Dichlorobenzene	BRL		0.27	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,2-Dichloroethane	BRL		0.22	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,2-Dichloropropane	BRL		0.29	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,3-Dichlorobenzene	BRL		0.17	5.0	ug/L	165765	1	08/29/2012 14:16	NP
1,4-Dichlorobenzene	BRL		0.20	5.0	ug/L	165765	1	08/29/2012 14:16	NP
2-Butanone	BRL		1.3	50	ug/L	165765	1	08/29/2012 14:16	NP
2-Hexanone	BRL		0.46	10	ug/L	165765	1	08/29/2012 14:16	NP
4-Methyl-2-pentanone	BRL		0.39	10	ug/L	165765	1	08/29/2012 14:16	NP
Acetone	BRL		2.0	50	ug/L	165765	1	08/29/2012 14:16	NP
Benzene	BRL		0.41	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Bromodichloromethane	BRL		0.20	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Bromoform	BRL		0.32	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Bromomethane	BRL		0.52	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Carbon disulfide	BRL		1.5	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Carbon tetrachloride	BRL		0.53	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Chlorobenzene	BRL		0.15	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Chloroethane	BRL		0.69	10	ug/L	165765	1	08/29/2012 14:16	NP
Chloroform	BRL		0.23	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Chloromethane	BRL		0.49	10	ug/L	165765	1	08/29/2012 14:16	NP
cis-1,2-Dichloroethene	BRL		0.31	5.0	ug/L	165765	1	08/29/2012 14:16	NP
cis-1,3-Dichloropropene	BRL		0.54	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Cyclohexane	BRL		0.25	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Dibromochloromethane	BRL		0.51	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Dichlorodifluoromethane	BRL		1.2	10	ug/L	165765	1	08/29/2012 14:16	NP
Ethylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Freon-113	BRL		0.77	10	ug/L	165765	1	08/29/2012 14:16	NP
Isopropylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/29/2012 14:16	NP
m,p-Xylene	BRL		0.72	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Methyl acetate	BRL		0.62	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Methyl tert-butyl ether	BRL		0.35	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Methylcyclohexane	BRL		0.70	5.0	ug/L	165765	1	08/29/2012 14:16	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	RINSATE
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		2.3	5.0	ug/L	165765	1	08/29/2012 14:16	NP
o-Xylene	BRL		0.42	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Styrene	BRL		0.64	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Tetrachloroethene	BRL		0.47	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Toluene	BRL		0.30	5.0	ug/L	165765	1	08/29/2012 14:16	NP
trans-1,2-Dichloroethene	BRL		0.47	5.0	ug/L	165765	1	08/29/2012 14:16	NP
trans-1,3-Dichloropropene	BRL		0.56	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Trichloroethene	BRL		0.38	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Trichlorofluoromethane	BRL		1.1	5.0	ug/L	165765	1	08/29/2012 14:16	NP
Vinyl chloride	BRL		0.69	2.0	ug/L	165765	1	08/29/2012 14:16	NP
Surr: 4-Bromofluorobenzene	98.7		0	67.4-123	%REC	165765	1	08/29/2012 14:16	NP
Surr: Dibromofluoromethane	113		0	75.5-128	%REC	165765	1	08/29/2012 14:16	NP
Surr: Toluene-d8	98.3		0	70-120	%REC	165765	1	08/29/2012 14:16	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	DUPLICATE
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.40	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,1,2,2-Tetrachloroethane	BRL		0.18	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,1-Dichloroethane	BRL		0.19	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,1-Dichloroethene	BRL		0.79	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,2,4-Trichlorobenzene	BRL		0.30	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,2-Dibromo-3-chloropropane	BRL		0.78	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,2-Dibromoethane	BRL		0.32	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,2-Dichlorobenzene	BRL		0.27	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,2-Dichloroethane	BRL		0.22	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,2-Dichloropropane	BRL		0.29	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,3-Dichlorobenzene	BRL		0.17	5.0	ug/L	165765	1	08/29/2012 14:45	NP
1,4-Dichlorobenzene	BRL		0.20	5.0	ug/L	165765	1	08/29/2012 14:45	NP
2-Butanone	BRL		1.3	50	ug/L	165765	1	08/29/2012 14:45	NP
2-Hexanone	BRL		0.46	10	ug/L	165765	1	08/29/2012 14:45	NP
4-Methyl-2-pentanone	BRL		0.39	10	ug/L	165765	1	08/29/2012 14:45	NP
Acetone	BRL		2.0	50	ug/L	165765	1	08/29/2012 14:45	NP
Benzene	BRL		0.41	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Bromodichloromethane	BRL		0.20	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Bromoform	BRL		0.32	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Bromomethane	BRL		0.52	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Carbon disulfide	BRL		1.5	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Carbon tetrachloride	BRL		0.53	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Chlorobenzene	BRL		0.15	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Chloroethane	BRL		0.69	10	ug/L	165765	1	08/29/2012 14:45	NP
Chloroform	BRL		0.23	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Chloromethane	BRL		0.49	10	ug/L	165765	1	08/29/2012 14:45	NP
cis-1,2-Dichloroethene	14		0.31	5.0	ug/L	165765	1	08/29/2012 14:45	NP
cis-1,3-Dichloropropene	BRL		0.54	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Cyclohexane	BRL		0.25	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Dibromochloromethane	BRL		0.51	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Dichlorodifluoromethane	BRL		1.2	10	ug/L	165765	1	08/29/2012 14:45	NP
Ethylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Freon-113	BRL		0.77	10	ug/L	165765	1	08/29/2012 14:45	NP
Isopropylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/29/2012 14:45	NP
m,p-Xylene	BRL		0.72	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Methyl acetate	BRL		0.62	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Methyl tert-butyl ether	BRL		0.35	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Methylcyclohexane	BRL		0.70	5.0	ug/L	165765	1	08/29/2012 14:45	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	DUPLICATE
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-005	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		2.3	5.0	ug/L	165765	1	08/29/2012 14:45	NP
o-Xylene	BRL		0.42	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Styrene	BRL		0.64	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Tetrachloroethene	BRL		0.47	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Toluene	BRL		0.30	5.0	ug/L	165765	1	08/29/2012 14:45	NP
trans-1,2-Dichloroethene	BRL		0.47	5.0	ug/L	165765	1	08/29/2012 14:45	NP
trans-1,3-Dichloropropene	BRL		0.56	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Trichloroethene	BRL		0.38	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Trichlorofluoromethane	BRL		1.1	5.0	ug/L	165765	1	08/29/2012 14:45	NP
Vinyl chloride	BRL		0.69	2.0	ug/L	165765	1	08/29/2012 14:45	NP
Surr: 4-Bromofluorobenzene	96.9		0	67.4-123	%REC	165765	1	08/29/2012 14:45	NP
Surr: Dibromofluoromethane	111		0	75.5-128	%REC	165765	1	08/29/2012 14:45	NP
Surr: Toluene-d8	98.9		0	70-120	%REC	165765	1	08/29/2012 14:45	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	TRIP BLANK
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-006	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
1,1,1-Trichloroethane	BRL		0.40	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,1,2,2-Tetrachloroethane	BRL		0.18	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,1,2-Trichloroethane	BRL		0.38	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,1-Dichloroethane	BRL		0.19	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,1-Dichloroethene	BRL		0.79	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,2,4-Trichlorobenzene	BRL		0.30	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,2-Dibromo-3-chloropropane	BRL		0.78	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,2-Dibromoethane	BRL		0.32	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,2-Dichlorobenzene	BRL		0.27	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,2-Dichloroethane	BRL		0.22	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,2-Dichloropropane	BRL		0.29	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,3-Dichlorobenzene	BRL		0.17	5.0	ug/L	165765	1	08/29/2012 13:18	NP
1,4-Dichlorobenzene	BRL		0.20	5.0	ug/L	165765	1	08/29/2012 13:18	NP
2-Butanone	BRL		1.3	50	ug/L	165765	1	08/29/2012 13:18	NP
2-Hexanone	BRL		0.46	10	ug/L	165765	1	08/29/2012 13:18	NP
4-Methyl-2-pentanone	BRL		0.39	10	ug/L	165765	1	08/29/2012 13:18	NP
Acetone	BRL		2.0	50	ug/L	165765	1	08/29/2012 13:18	NP
Benzene	BRL		0.41	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Bromodichloromethane	BRL		0.20	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Bromoform	BRL		0.32	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Bromomethane	BRL		0.52	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Carbon disulfide	BRL		1.5	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Carbon tetrachloride	BRL		0.53	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Chlorobenzene	BRL		0.15	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Chloroethane	BRL		0.69	10	ug/L	165765	1	08/29/2012 13:18	NP
Chloroform	BRL		0.23	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Chloromethane	BRL		0.49	10	ug/L	165765	1	08/29/2012 13:18	NP
cis-1,2-Dichloroethene	BRL		0.31	5.0	ug/L	165765	1	08/29/2012 13:18	NP
cis-1,3-Dichloropropene	BRL		0.54	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Cyclohexane	BRL		0.25	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Dibromochloromethane	BRL		0.51	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Dichlorodifluoromethane	BRL		1.2	10	ug/L	165765	1	08/29/2012 13:18	NP
Ethylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Freon-113	BRL		0.77	10	ug/L	165765	1	08/29/2012 13:18	NP
Isopropylbenzene	BRL		0.37	5.0	ug/L	165765	1	08/29/2012 13:18	NP
m,p-Xylene	BRL		0.72	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Methyl acetate	BRL		0.62	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Methyl tert-butyl ether	BRL		0.35	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Methylcyclohexane	BRL		0.70	5.0	ug/L	165765	1	08/29/2012 13:18	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 15-Oct-12

Client:	Rem-Con, LLC	**Client Sample ID:**	TRIP BLANK
Project Name:	L.B. Foster	**Collection Date:**	8/27/2012
Lab ID:	1208K57-006	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				**(SW5030B)**					
Methylene chloride	BRL		2.3	5.0	ug/L	165765	1	08/29/2012 13:18	NP
o-Xylene	BRL		0.42	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Styrene	BRL		0.64	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Tetrachloroethene	BRL		0.47	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Toluene	2.9	J	0.30	5.0	ug/L	165765	1	08/29/2012 13:18	NP
trans-1,2-Dichloroethene	BRL		0.47	5.0	ug/L	165765	1	08/29/2012 13:18	NP
trans-1,3-Dichloropropene	BRL		0.56	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Trichloroethene	BRL		0.38	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Trichlorofluoromethane	1.2	J	1.1	5.0	ug/L	165765	1	08/29/2012 13:18	NP
Vinyl chloride	BRL		0.69	2.0	ug/L	165765	1	08/29/2012 13:18	NP
Surr: 4-Bromofluorobenzene	97.6		0	67.4-123	%REC	165765	1	08/29/2012 13:18	NP
Surr: Dibromofluoromethane	117		0	75.5-128	%REC	165765	1	08/29/2012 13:18	NP
Surr: Toluene-d8	98		0	70-120	%REC	165765	1	08/29/2012 13:18	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Rem Con Work Order Number 1208K57

Checklist completed by [signature] 8/27/12
Signature Date

Carrier name: FedEx __ UPS __ Courier __ Client __ US Mail ✓ Other _____

Shipping container/cooler in good condition?	Yes ✓	No __	Not Present __
Custody seals intact on shipping container/cooler?	Yes __	No __	Not Present ✓
Custody seals intact on sample bottles?	Yes __	No __	Not Present ✓
Container/Temp Blank temperature in compliance? (4°C±2)*	Yes ✓	No __	

Cooler #1 2.0 Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present?	Yes ✓	No __
Chain of custody signed when relinquished and received?	Yes ✓	No __
Chain of custody agrees with sample labels?	Yes ✓	No __
Samples in proper container/bottle?	Yes ✓	No __
Sample containers intact?	Yes ✓	No __
Sufficient sample volume for indicated test?	Yes ✓	No __
All samples received within holding time?	Yes ✓	No __
Was TAT marked on the COC?	Yes ✓	No __
Proceed with Standard TAT as per project history?	Yes __	No __ Not Applicable ✓
Water - VOA vials have zero headspace?	No VOA vials submitted __	Yes ✓ No __
Water - pH acceptable upon receipt?	Yes ✓	No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: Rem-Con, LLC
Project Name: L.B. Foster
Workorder: 1208K57

ANALYTICAL QC SUMMARY REPORT

BatchID: 165765

Sample ID: **MB-165765** Client ID: Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770494**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2,2-Tetrachloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1,2-Trichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,1-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2,4-Trichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromo-3-chloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dibromoethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloroethane	BRL	5.0	0	0	0	0	0	0	0	0	
1,2-Dichloropropane	BRL	5.0	0	0	0	0	0	0	0	0	
1,3-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
1,4-Dichlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
2-Butanone	BRL	50	0	0	0	0	0	0	0	0	
2-Hexanone	BRL	10	0	0	0	0	0	0	0	0	
4-Methyl-2-pentanone	BRL	10	0	0	0	0	0	0	0	0	
Acetone	BRL	50	0	0	0	0	0	0	0	0	
Benzene	BRL	5.0	0	0	0	0	0	0	0	0	
Bromodichloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Bromoform	BRL	5.0	0	0	0	0	0	0	0	0	
Bromomethane	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon disulfide	BRL	5.0	0	0	0	0	0	0	0	0	
Carbon tetrachloride	BRL	5.0	0	0	0	0	0	0	0	0	
Chlorobenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Chloroethane	BRL	10	0	0	0	0	0	0	0	0	
Chloroform	BRL	5.0	0	0	0	0	0	0	0	0	
Chloromethane	BRL	10	0	0	0	0	0	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster
Workorder: 1208K57

ANALYTICAL QC SUMMARY REPORT

BatchID: 165765

Sample ID: **MB-165765** Client ID: Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **MBLK** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770494**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
cis-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Cyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Dibromochloromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Dichlorodifluoromethane	BRL	10	0	0	0	0	0	0	0	0	
Ethylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
Freon-113	BRL	10	0	0	0	0	0	0	0	0	
Isopropylbenzene	BRL	5.0	0	0	0	0	0	0	0	0	
m,p-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl acetate	BRL	5.0	0	0	0	0	0	0	0	0	
Methyl tert-butyl ether	BRL	5.0	0	0	0	0	0	0	0	0	
Methylcyclohexane	BRL	5.0	0	0	0	0	0	0	0	0	
Methylene chloride	BRL	5.0	0	0	0	0	0	0	0	0	
o-Xylene	BRL	5.0	0	0	0	0	0	0	0	0	
Styrene	BRL	5.0	0	0	0	0	0	0	0	0	
Tetrachloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Toluene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,2-Dichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
trans-1,3-Dichloropropene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichloroethene	BRL	5.0	0	0	0	0	0	0	0	0	
Trichlorofluoromethane	BRL	5.0	0	0	0	0	0	0	0	0	
Vinyl chloride	BRL	2.0	0	0	0	0	0	0	0	0	
Surr: 4-Bromofluorobenzene	43.86	0	50	0	87.7	67.4	123	0	0	0	
Surr: Dibromofluoromethane	48.28	0	50	0	96.6	75.5	128	0	0	0	
Surr: Toluene-d8	45.78	0	50	0	91.6	70	120	0	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster
Workorder: 1208K57

ANALYTICAL QC SUMMARY REPORT

BatchID: 165765

Sample ID: **LCS-165765** Client ID: Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **LCS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770495**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	50.52	5.0	50	0	101	60	140	0	0	0	
Benzene	54.46	5.0	50	0	109	70	130	0	0	0	
Chlorobenzene	47.53	5.0	50	0	95.1	70	130	0	0	0	
Toluene	53.07	5.0	50	0	106	70	130	0	0	0	
Trichloroethene	50.76	5.0	50	0	102	70	130	0	0	0	
Surr: 4-Bromofluorobenzene	50.04	0	50	0	100	67.4	123	0	0	0	
Surr: Dibromofluoromethane	50.02	0	50	0	100	75.5	128	0	0	0	
Surr: Toluene-d8	48.08	0	50	0	96.2	70	120	0	0	0	

Sample ID: **1208K57-001AMS** Client ID: **MW-14R** Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **MS** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770498**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	478.0	50	500	0	95.6	50.1	179	0	0	0	
Benzene	505.0	50	500	0	101	61.2	150	0	0	0	
Chlorobenzene	456.6	50	500	0	91.3	72.1	140	0	0	0	
Toluene	489.5	50	500	0	97.9	58.7	154	0	0	0	
Trichloroethene	477.1	50	500	0	95.4	68.3	149	0	0	0	
Surr: 4-Bromofluorobenzene	497.0	0	500	0	99.4	67.4	123	0	0	0	
Surr: Dibromofluoromethane	493.8	0	500	0	98.8	75.5	128	0	0	0	
Surr: Toluene-d8	473.2	0	500	0	94.6	70	120	0	0	0	

Sample ID: **1208K57-001AMSD** Client ID: **MW-14R** Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770499**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
1,1-Dichloroethene	452.5	50	500	0	90.5	50.1	179	478.0	5.48	23.3	
Benzene	504.8	50	500	0	101	61.2	150	505.0	0.04	19	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Rem-Con, LLC
Project Name: L.B. Foster
Workorder: 1208K57

ANALYTICAL QC SUMMARY REPORT

BatchID: 165765

Sample ID: **1208K57-001AMSD** Client ID: **MW-14R** Units: **ug/L** Prep Date: **08/28/2012** Run No: **227841**
SampleType: **MSD** TestCode: **TCL VOLATILE ORGANICS SW8260B** BatchID: **165765** Analysis Date: **08/28/2012** Seq No: **4770499**

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Chlorobenzene	454.9	50	500	0	91	72.1	140	456.6	0.373	21.5	
Toluene	486.1	50	500	0	97.2	58.7	154	489.5	0.697	20	
Trichloroethene	477.4	50	500	0	95.5	68.3	149	477.1	0.063	17.7	
Surr: 4-Bromofluorobenzene	499.6	0	500	0	99.9	67.4	123	497.0	0	0	
Surr: Dibromofluoromethane	497.8	0	500	0	99.6	75.5	128	493.8	0	0	
Surr: Toluene-d8	473.5	0	500	0	94.7	70	120	473.2	0	0	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

APPENDIX 23

Vapor Intrusion Screening
EPA's Vapor Intrusion Screening Level (VISL) Calculator
Version 2.0, May RSLs

VAPOR INTRUSION SCREENING
Former Southern Pipe Coating Operation, HSI #10757
November 1, 2012

The TCE in groundwater was screened for Vapor Intrusion using EPA's Vapor Intrusion Screening Level (VISL) Calculator, Version 2.0, May 2012 RSLs. This conceptual model assumes a groundwater source of volatile vapors that diffuse upwards through unsaturated soils towards the surface and into buildings. It uses empirically-based "generic" conservative attenuation factors that generally reflect worst-case conditions.

The calculator was run for the commercial (non-residential) exposure scenario and with the target risk for carcinogens of 10^{-5} (consistent with GEPD risk assessment guidance). The VISL calculated Target Indoor Air Concentration (C_{ia}) is 8.8 micrograms per cubic meter (ug/m^3) and the Target Groundwater Concentration (C_{gw}) is 22 micrograms per liter (ug/l or ppb). Comparatively, the VISL Calculated C_{ia} for TCE is 5.64 ug/m^3 for the Site C_{gw} of 14 ug/l of TCE. Since the maximum Site levels are below the VISL calculated target levels, the vapor intrusion pathway is indicated to not pose an unacceptable level of risk to human health. No further vapor intrusion assessment is necessary.

The pertinent VISL calculator pages follow.

OSWER VAPOR INTRUSION ASSESSMENT
Vapor Intrusion Screening Level (VISL) Calculator Version 2.0, May 2012 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1.00E-05	Enter target risk for carcinogens
Target Hazard Quotient for Non-Carcinogens	THQ	1	Enter target hazard quotient for non-carcinogens
Average Groundwater Temperature (°C)	Tgw	25	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

	CAS	Chemical Name	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Soil Source?	Is Chemical Sufficiently Volatile and Toxic to Pose Inhalation Risk Via Vapor Intrusion from Groundwater Source?	Target Indoor Air Conc. @ TCR = 10E-06 or THQ = 1	Toxicity Basis	Target Sub-Slab and Exterior Soil Gas Conc. @ TCR = 10E-06 or THQ = 1	Target Ground Water Conc. @ TCR = 10E-06 or THQ = 1	Is Target Ground Water Conc. < MCL?	Temperature for Groundwater Vapor Conc.	Lower Explosive Limit**	LEL Source	Inhalation Unit Risk	IUR Source*	Reference Concentration	RFC Source*	Mutagenic Indicator	Target Indoor Air Conc. for Carcinogens @ TCR = 10E-06	Target Indoor Air Conc. for Non-Carcinogens @ THQ = 1
			Cvp > Cia,target/AFss?	Cvp > Cia,target/AFgw?	MIN(Cia,c;Cia,nc)		Csg	Cgw	Cgw<MCL?	Tgw or 25	LEL		IUR		RfC		i	Cia,c	Cia,nc
			Yes/No	Yes/No	(ug/m^3)	C/NC	(ug/m^3)	(ug/L)	Yes/No (MCL ug/L)	C	(% by vol)		(ug/m^3)$^{-1}$		(mg/m^3)			(ug/m^3)	(ug/m^3)
x	79-01-6	Trichloroethylene	Yes	Yes	8.8E+00	NC	8.8E+01	2.2E+01	No (5)	25	8	N	see note	I	2.00E-03	I	TCE	3.0E+01	8.8E+00

Notes:

(1) **Inhalation Pathway Exposure Parameters (RME):**

Exposure Scenario	Units	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario in cell E5) Symbol	Selected (based on scenario in cell E5) Value
Averaging time for carcinogens	(yrs)	ATc_R	70	ATc_C	70	ATc	70
Averaging time for non-carcinogens	(yrs)	ATnc_R	30	ATnc_C	25	ATnc	25
Exposure duration	(yrs)	ED_R	30	ED_C	25	ED	25
Exposure frequency	(days/yr)	EF_R	350	EF_C	250	EF	250
Exposure time	(hr/day)	ET_R	24	ET_C	8	ET	8

(2) **Generic Attenuation Factors:**

Source Medium of Vapors		Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario in cell E5) Symbol	Selected (based on scenario in cell E5) Value
Groundwater	(-)	AFgw_R	0.001	AFgw_C	0.001	AFgw	0.001
Sub-Slab and Exterior Soil Gas	(-)	AFss_R	0.1	AFss_C	0.1	AFss	0.1

(3) **Formulas**

Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

(4) **Special Case Chemicals**

Trichloroethylene

	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario in cell E5) Symbol	Selected (based on scenario in cell E5) Value
mIURTCE	mIURTCE_R	1.00E-06	mIURTCE_C	0.00E+00	mIURTCE	0.00E+00
IURTCE	IURTCE_R	3.10E-06	IURTCE_C	4.10E-06	IURTCE	4.10E-06

Mutagenic Chemicals — The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration (years)	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 30 years	14	1

Mutagenic-mode-of-action (MMOA) adjustment factor 25 This factor is used in the equations for mutagenic chemicals.

Vinyl Chloride — See the Navigation Guide equation for Cia,c for vinyl chloride.

Notation:

NVT = Not sufficiently volatile and/or toxic to pose inhalation risk in selected exposure scenario for the indicated medium
C = Carcinogenic
NC = Non-carcinogenic
I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: http://www.epa.gov/iris/subst/index.html
P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: http://hhpprtv.ornl.gov/pprtv.shtml
A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: http://www.atsdr.cdc.gov/mrls/index.html
CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at:
H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: http://epa-heast.ornl.gov/heast.shtml
S = See RSL User Guide, Section 5
X = PPRTV Appendix
E = The Engineering ToolBox. Available online at http://www.engineeringtoolbox.com/explosive-concentration-limits-d_423.html
N = Centers for Disease Control and Prevention (CDC) National Institute for Occupational Safety and Health (NIOSH). Pocket Guide to Chemical Hazards. Available online at:
M = Chemical-specific MSDS
Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).
VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
Yellow highlighting indicates site-specific parameters that may be edited by the user.
Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
**Lower explosive limit is the minimum concentration of the compound in air (% by volume) that is needed for the gas to ignite and explode.

OSWER VAPOR INTRUSION ASSESSMENT
Groundwater Concentration to Indoor Air Concentration (GWC-IAC) Calculator Version 2.0, May 2012 RSLs

Parameter	Symbol	Value	Instructions
Exposure Scenario	Scenario	Commercial	Select residential or commercial scenario from pull down list
Target Risk for Carcinogens	TCR	1.00E-05	Enter target risk for carcinogens (for comparison to the calculated VI carcinogenic risk in column F)
Target Hazard Quotient for Non-Carcinogens	THQ	1	Enter target hazard quotient for non-carcinogens (for comparison to the calculated VI hazard in column G)
Average Groundwater Temperature (°C)	Tgw	25	Enter average of the stabilized groundwater temperature to correct Henry's Law Constant for groundwater target concentrations

CAS	Chemical Name	Site Groundwater Concentration Cgw (ug/L)	Calculated Indoor Air Concentration Cia (ug/m^3)	VI Carcinogenic Risk CR	VI Hazard HQ	Inhalation Unit Risk IUR ($(ug/m^3)^{-1}$)	IUR Source*	Reference Concentration RfC (mg/m^3)	RFC Source*	Mutagenic Indicator i
79-01-6	Trichloroethylene	1.4E+01	5.64E+00	1.9E-06	6.4E-01	see note	I	2.00E-03	I	TCE

Notes:

(1) **Inhalation Pathway Exposure Parameters (RME):**

Exposure Scenario	Units	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Averaging time for carcinogens	(yrs)	ATc_R_GW	70	ATc_C_GW	70	ATc_GW	70
Averaging time for non-carcinogens	(yrs)	ATnc_R_GW	30	ATnc_C_GW	25	Atnc_GW	25
Exposure duration	(yrs)	ED_R_GW	30	ED_C_GW	25	ED_GW	25
Exposure frequency	(days/yr)	EF_R_GW	350	EF_C_GW	250	EF_GW	250
Exposure time	(hr/day)	ET_R_GW	24	ET_C_GW	8	ET_GW	8

(2) **Generic Attenuation Factors:**

Source Medium of Vapors	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
Groundwater (-)	AFgw_R_GW	0.001	AFgw_C_GW	0.001	AFgw_GW	0.001
Sub-Slab and Exterior Soil Gas (-)	AFss_R_GW	0.1	AFss_C_GW	0.1	AFss_GW	0.1

(3) **Formulas**

Cia, target = MIN(Cia,c; Cia,nc)
Cia,c (ug/m3) = TCR x ATc x (365 days/yr) x (24 hrs/day) / (ED x EF x ET x IUR)
Cia,nc (ug/m3) = THQ x ATnc x (365 days/yr) x (24 hrs/day) x RfC x (1000 ug/mg) / (ED x EF x ET)

(4) **Special Case Chemicals**

Trichloroethylene

	Residential Symbol	Residential Value	Commercial Symbol	Commercial Value	Selected (based on scenario) Symbol	Selected (based on scenario) Value
mIURTCE	mIURTCE_R_GW	1.00E-06	mIURTCE_C_GW	0.00E+00	mIURTCE_GW	0.00E+00
IURTCE	IURTCE_R_GW	3.10E-06	IURTCE_C_GW	4.10E-06	IURTCE_GW	4.10E-06

Mutagenic Chemicals — The exposure durations and age-dependent adjustment factors for mutagenic-mode-of-action are listed in the table below:

Note: This section applies to trichloroethylene and other mutagenic chemicals, but not to vinyl chloride.

Age Cohort	Exposure Duration	Age-dependent adjustment factor
0 - 2 years	2	10
2 - 6 years	4	3
6 - 16 years	10	3
16 - 30 years	14	1

Mutagenic-mode-of-action (MMOA) adjustment factor 25 — This factor is used in the equations for mutagenic chemicals.

Vinyl Chloride — See the Navigation Guide equation for Cia,c for vinyl chloride.

Notation:

I = IRIS: EPA Integrated Risk Information System (IRIS). Available online at: http://www.epa.gov/iris/subst/index.html
P = PPRTV. EPA Provisional Peer Reviewed Toxicity Values (PPRTVs). Available online at: http://hhpprtv.ornl.gov/pprtv.shtml
A = Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Levels (MRLs). Available online at: http://www.atsdr.cdc.gov/mrls/index.html
CA = California Environmental Protection Agency/Office of Environmental Health Hazard Assessment assessments. Available online at: http://www.oehha.ca.gov/risk/ChemicalDB/index.asp
H = HEAST. EPA Superfund Health Effects Assessment Summary Tables (HEAST) database. Available online at: http://epa-heast.ornl.gov/heast.shtml
S = See RSL User Guide, Section 5
X = PPRTV Appendix
Mut = Chemical acts according to the mutagenic-mode-of-action, special exposure parameters apply (see footnote (4) above).
VC = Special exposure equation for vinyl chloride applies (see Navigation Guide for equation).
TCE = Special mutagenic and non-mutagenic IURs for trichloroethylene apply (see footnote (4) above).
Yellow highlighting indicates site-specific parameters that may be edited by the user.
Blue highlighting indicates exposure factors that are based on Risk Assessment Guidance for Superfund (RAGS) or EPA vapor intrusion guidance, which generally should not be changed.
Pink highlighting indicates VI carcinogenic risk greater than the target risk for carcinogens (TCR) or VI Hazard greater than or equal to the target hazard quotient for non-carcinogens (THQ).

APPENDIX 24

P.G. Oversight Records

P.G. Oversight Records

Record of Work Performed by the Georgia Registered Professional Geologist since the previous VRP submittal

Former Southern Pipe Coating Operation, HSI ID No. 10757
6420 Corley Road
Norcross, Georgia 30071

Month	Number of Hours John O. Schwaller, P.G. GA Registration No. 1617	Description of Services/Activities
June 2012	14.0	Post-remediation GW monitoring execution, records, reporting
August 2012	11.0	Post-remediation GW monitoring execution, records, reporting
September 2012	13.0	Initial set-up and runs of fate and transport modeling; Prepare draft report and exhibits
October 2012	24.0	Finalize fate and transport modeling, report and figures; Complete CSR reviews