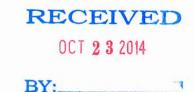
11/4/14 called Bill Cott. 2 pr mag for hum to call me. nelign





October 21, 2014

VIA ELECTRONIC MAIL

Ms. Nancy Ryan, Hydrogeologist Remediation and Redevelopment Wisconsin Department of Natural Resources 2300 North Dr. Martin Luther King, Jr. Drive Milwaukee, Wisconsin 53212-3128

> Re: Express Cleaners 3941 North Main Street Racine, Wisconsin BRRTS #02-52-547631

Dear Ms. Ryan:

This letter has been prepared to respond to your letter dated May 30, 2014. Consistent with the ERM proposal dated December 24, 2013 proposal, ERM continues to recommend insitu blending of soil with zero valent iron (ZVI) to reduce contaminant concentrations to levels in compliance with non-industrial direct contact standards. While these standards are being applied to the upper 4 feet of the soil, we will be blending to a depth of 6 to 8 feet, to access groundwater which is necessary for the ZVI process. By blending from the surface through that depth, we also treat the upper 4 to 6 feet of the aquifer and impart treatment capacity to treat contaminants brought up to shallow depths by a rise in the water table.

The Ehrlich Family Limited Partnership ("EFLP") will solicit bids for the demolition of the building's superstructure. For purposes of the DERF program, we are defining demolition to include primarily the superstructure. Testing has found the concrete slab to contain contaminants, and given the high and fluctuating water table we believe the lower extremities of the slab and foundation are contaminated and we are therefore characterizing demolition of the northernmost 60 feet of the floor slab and foundation as a remedial activity. However, in accordance with the EFLP's waste determination, additional testing will be used to delineate the contaminated portions of the concrete as hazardous waste. Segregation, handling and disposal of those contaminated materials will be a remedial activity, whereas handling and disposal of the uncontaminated concrete (solid waste) will be a demolition activity.

GONZALEZ SAGGIO & HARLAN LLP Attorneys at Law

www.gshllp.com

Affiliated with Gonzalez, Saggio and Harlan, L.L.C.

Milwaukee 111 East Wisconsin Avenue Suite 1000 Milwaukee, WI 53202 Tel (414) 277-8500 Fax (414) 277-8521
 Atlanta, GA
 In

 Boca Raton, FL
 Lo

 Boston, MA
 M

 Chicago, IL
 N

 Cleveland, OH
 N

Indianapolis, IN Los Angeles, CA Miami, FL Nashville, TN New York, NY Pasadena, CA Phoenix, AZ Washington, D.C. Wayne, NJ West Des Moines, IA

With respect to concrete, an initial assumption is being made that impacted concrete does not extend southward further than 60 feet from the north wall of the former dry cleaning facility. Samples of the concrete from that area are now being analyzed for verification and additional samples of deep footings will be collected during their removal. In the event that the concrete south of that 60 foot area is impacted, a request will be made for additional funding to remove the additional concrete as a remedial expense.

1. Please provide a copy of the Request for Proposals that was sent to consultants for Remedial Action bids.

Response: The Requests for Proposals are attached at Appendix A.

2. Please inform us as to whether a hazardous waste determination has been made for solid waste generated at the site.

Response: A hazardous waste determination has been prepared and is attached at Appendix B. Please note, a request for technical assistance is being prepared to request Department's "contained out" determination with respect to debris that will be generated during the course of the project. When additional testing is complete, we will request the Department's contained out determination. If a technical assistance request is <u>not</u> necessary to receive a contained out determination under the DERP program, please advise the undersigned.

3. Please confirm that it is the intent of EFLP to have the entire building demolished. EFLP can solicit bids for demolition of the building (separate from the remedial proposals) and the Department can approve up to \$15,000 as eligible for reimbursement under the DERF program as long as you provide sub-contractor bid/cost estimates. Demolition costs exceeding \$15,000 would not be approved.

Response: Demolition of the entire building will be necessary to fully access impacted soil beneath the building. It is the opinion of ERM that the entire building needs to be demolished rather than just the portion that overlies the impacted soil because the structure would not be stable with only partial demolition. Preliminary sampling of the concrete floor slab in the former dry cleaner area shows the concrete has been impacted by tetrachloroethene (see laboratory report and sample locations in Appendix C). Consequently, the demolition, segregation and disposal of the concrete slab and foundation are being considered part of the remediation process, rather than the demolition process. The remediation consultant has provided costs for slab demolition and slab based on the assumption it will be determined to be "contained out" and will not be a hazardous waste. The EFLP is obtaining new competitive bids for the demolition of the

ŧ

building superstructure.

4. ERM refers to Figure 1 as illustrating treatment areas, location of wells to be abandoned and location of replacement wells. The figure included in their December 2013 proposal does not indicate these items. They need to submit a figure identifying these locations.

Response: Attached at Appendix D is Figure 1, which has been modified to address your concerns. Wells that will require abandonment prior to soil mixing include MW-1, -2, -3, -4 and -8. These wells will be replaced after soil mixing is complete but prior to the commencement of the eight rounds of groundwater monitoring.

5. ERM needs to provide a more detailed cost estimate to show breakdown of ERM labor costs/task and details on subcontractor estimates. This would best be accomplished using the DERF linking spreadsheet.

Response: The DERF linking spreadsheet for ZVI is attached as Appendix E. Also attached, is a DERF linking spreadsheet for Cool-Ox, at Appendix F.

6. ERM's proposal must include more detail regarding how the soil amendments will be applied/mixed into soil.

Response: The zero valent iron (ZVI) will be mechanically blended into the soil. Please also refer to the following vendor's website for a video showing the process in action: http://www.redox-tech.com/News/new-soil-blender-debuts-in-cambridge-mass.html

7. The ERM proposal does not include costs associated with obtaining an injection permit from DNR which would be required under Ch. NR 140 Wis. Adm. Code for their proposed remedy.

Response: As shown on the DERF-linking spreadsheets at Appendices E and F, \$1,500 has been added for the permitting. The injection permit will consist of the approval for adding ZVI or Cool-Ox, as well as a WPDES permit, if required.

8. The ERM proposal does not include post remedial action soil sampling to confirm effectiveness of the remedy. It will be a requirement for case closure to know what residual contaminant levels are.

Response: As shown on the DERF-linking spreadsheets at Appendices E and F, fees for collecting and analyzing hand-augered soil samples have been added.

9. ERM does not provide sufficient information to justify not conducting a pilot test. They

ŗ

should provide references to cases where successful remediation has occurred using ZVl treatment or Cool-Ox for similar contaminants in similar geologic settings especially if not proposing a pilot study.

Response: Based on site conditions and considering that part of the remedial strategy is to construct a reactive curtain to treat groundwater, ERM has decided to proceed with the ZVI process. A bench-scale pilot test will be conducted using site soils. The bench-scale study will be used to confirm the effectiveness of ZVI at the site. This test will also help determine the optimal ZVI content for achieving the remedial objectives. In contrast, we believe a pilot test is not necessary for Cool-Ox based on available case studies, which are attached as Appendix F.

10. What is the "risk review"- what does it consist of? What criteria would they use to determine that the proposed treatment option is not appropriate? If they want to propose an alternate remedy, they must include a description of it and provide cost estimate for same. We would not approve the "risk review" costs without further detail on what the review is.

Response: This task has been removed from the cost estimate, and is being replaced with the bench-scale pilot test study. The appropriateness of the remedy will be determined based on the cost-effectiveness and estimated time required to achieve satisfactory reduction of contaminant concentrations. Specifically, EFLP believes a satisfactory reduction is one in which the actual remedial application at the property will reduce all soil concentrations to below all applicable RCLs and "contained out" concentrations within 12 months, and groundwater must show significant overall reducing trends in contaminant concentration within 12 months, and the entire contiguous contaminated area must be ready for natural attenuation closure and issuance of a VPLE Certificate of Completion within 24 months. If a pilot test is performed, the results of the pilot test will be extrapolated to determine whether a satisfactory reduction will result from the remedial method proposed.

11. Regarding your request for approval of one round of groundwater sampling beyond the ERM bid, costs associated with this work should be added to the total cost estimate for the selected remedy.

Response: These costs have been added to the DERF-linked spreadsheet at Appendices E and F. With respect to groundwater sampling, ERM and the EFLP understand that purge water can be applied to the surface of the ZVI remediation cells within the contiguous contaminated area ("AOC") without need for permit and without being deemed "disposal" or "placement;" and without making the remediation or the remediation site a RCRA corrective action, RCRA facility, a CERCLA site or a Wisconsin solid waste facility. ERM and the EFLP understand that all of the foregoing are possible under the NR 700 rules through application of the AOC concept in accordance with the One Cleanup MOU, as explained in the RR-705 Guidance and various communications between the Department and the US EPA, which are posted on the Department's web page for hazardous waste. All

> such purge water application would take place within the AOC. Moreover, the contaminated purge water would not be a waste as it would not be discarded but would be used for its natural qualities, would continue to serve its purpose of filling interstices between grains of soil within the treatment area, and would serve to facilitate both the transport of contamination to the treatment compound and the interaction of the treatment compound with contamination present within the AOC.

> Nancy, under separate cover, I am requesting technical assistance in the form of a meeting to discuss the Department's satisfaction with and response to this letter and the proposed remediation. Rather than issue a written response to this letter, kindly contact me to set a date for that meeting. At the conclusion of that meeting, we can discuss the appropriate response to this letter.

> > Very truly yours,

William P. Scott

WPS/sv

James C. Small cc:

Appendix A

| G | 10 | ١Z | A | LE | Z |
|---|----|----|---|----|---|
| S | A | G | G | 1 | 0 |
| Н | A | R | L | A | N |

November 20, 2013

VIA ELECTRONIC MAIL

James Bannantine Geosyntec 10200 North Port Washington Road Suite 200 Mequon, Wisconsin 53092 JBannantine@Geosyntec.com

RE: Request for Updated DERP Proposal – Former Express Cleaners, 3941 N. Main Street, Racine, Wisconsin (the "Property")

Dear Jim:

You are receiving this letter because your company formerly provided a proposal for remediation of the above-referenced Property. Since that time, our client, the Ehrlich Family Limited Partnership, the owner of the Property, has been negotiating with S.C. Johnson & Son with respect to the cleanup of the adjacent property, located just east of the Property, with street address 3936 North Bay Avenue. This November, our client purchased that adjacent property, so now our options for remediating the site are not constrained. Consequently, we are inviting you, along with two other consultants, to submit a revised or updated proposal for the remediation and the demolition work.

Your updated proposal need not be constrained by your previous proposal but should address current regulations, remedial methods, proposed schedule and costs. Regarding the remediation, we ask that you state the cleanup objective(s) and the time required to achieve the objective(s). If your proposal would render the soil unsuitable for building construction, please discuss the location, severity and duration of such limitations.

In addition, we ask that you comment on the benefits of removing the northern portion of the building, in terms of providing greater access to contaminated soil and groundwater for purposes of investigation, removal and/or treatment of contaminated soil and groundwater. The dry cleaning machine was located in the northern part of the building. We recently analyzed three cores from the concrete floor in the dry cleaning area, and the core location map and laboratory reports are attached. The concrete slab in that area is contaminated and underlain by contaminated soil and groundwater. If removing the northern portion of the building is beneficial to achieving any of your cleanup objectives, then we want you to provide a bid for demolition of the entire building. We understand that NR 169 will allow reimbursement of up to \$15,000 of those costs.

GONZALEZ SAGGIO & HARLAN LLP Attorneys at Law

 Milwaukee

 111 East Wiscortsin Avenue

 Suite 1000

 Withwaukee, Wir 53202

 Tel (414) 277-8500

 Fax (414) 277-8521

 Atlanta, GA
 Indianapolis, IN

 Boca Raton, FL
 Los Angeles, CA

 Boston, MA
 Nashville, TN

 Chicago, IL
 New York, NY

 Cleveland, OH
 Phoenix, AZ

Stamford, CT Washington, D.C. Wayne, NJ West Des Moines, IA

Affiliated with Gonzalez, Saggio and Harlan, L.L.

www.gshllp.com

James Bannantine Geosyntec November 20, 2013 Page 2

To make the demolition bidding uniform, we would like line-item costs on the following demolition tasks:

Demolish building and dispose at a landfill Remove footings and concrete floors, and backfill as necessary Remove exterior concrete and asphalt Perform sewer, water and utility disconnects Supply and erect temporary fencing as required or appropriate Supply and erect silt fencing as required or appropriate Obtain all necessary permits Supply and perform backfill as necessary throughout the property Other miscellaneous costs, as necessary

To aid in obtaining bids for building demolition, I have attached copies of the asbestos inspection and abatement documentation.

We request that sealed bids be submitted to the following:

William P. Scott Gonzalez, Saggio & Harlan 111 East Wisconsin Avenue, Suite 1000 Milwaukee, WI 53202

Ms. Nancy Ryan Wisconsin Department of Natural Resources 2300 Dr. Martin Luther King Jr. Dr. Milwaukee, WI 53212

We request that bids be provided no later than close of business on Wednesday, December 18, 2013.

If you have any questions or no longer have the background materials on the site, please contact me.

Sincerely yours,

jaen ! Alt William P. Scott

Enclosures



November 20, 2013

VIA ELECTRONIC MAIL

David DeCourcy-Bower ERM 700 W Virginia Street Suite 601 Milwaukee, Wisconsin 53204 David.DeCourcy-Bower@erm.com

RE: Request for Updated DERP Proposal – Former Express Cleaners, 3941 N. Main Street, Racine, Wisconsin (the "Property")

Dear David:

You are receiving this letter because your company formerly provided a proposal for remediation of the above-referenced Property. Since that time, our client, the Ehrlich Family Limited Partnership, the owner of the Property, has been negotiating with S.C. Johnson & Son with respect to the cleanup of the adjacent property, located just east of the Property, with street address 3936 North Bay Avenue. This November, our client purchased that adjacent property, so now our options for remediating the site are not constrained. Consequently, we are inviting you, along with two other consultants, to submit a revised or updated proposal for the remediation and the demolition work.

Your updated proposal need not be constrained by your previous proposal but should address current regulations, remedial methods, proposed schedule and costs. Regarding the remediation, we ask that you state the cleanup objective(s) and the time required to achieve the objective(s). If your proposal would render the soil unsuitable for building construction, please discuss the location, severity and duration of such limitations.

In addition, we ask that you comment on the benefits of removing the northern portion of the building, in terms of providing greater access to contaminated soil and groundwater for purposes of investigation, removal and/or treatment of contaminated soil and groundwater. The dry cleaning machine was located in the northern part of the building. We recently analyzed three cores from the concrete floor in the dry cleaning area, and the core location map and laboratory reports are attached. The concrete slab in that area is contaminated and underlain by contaminated soil and groundwater. If removing the northern portion of the building is beneficial to achieving any of your cleanup objectives, then we want you to provide a bid for demolition of the entire building. We understand that NR 169 will allow reimbursement of up to \$15,000 of those costs.

GONZALEZ SAGGIO & HARLAN LLP Attorneys at Law Milwaukee 111 East Wisconsin Avenue Suite 1000 Miłwaukee, WI 53202 Tel (414) 277-8500 Fax (414) 277 8521
 Atlanta, GA
 Indianapolis, IN

 Boca Raton, FL
 Los Angeles, CA

 Boston, MA
 Nashville, TN

 Chicago, IL
 New York, NY

 Cleveland, OH
 Phoenix, AZ

Stamford, CT Washington, D.C. Wayne, NJ West Des Moines, IA

Allilialed with Gonzalez, Saggio and Harlan, L.L.C.

www.gshllp.com

David DeCourcy-Bower ERM November 20, 2013 Page 2

To make the demolition bidding uniform, we would like line-item costs on the following demolition tasks:

Demolish building and dispose at a landfill Remove footings and concrete floors, and backfill as necessary Remove exterior concrete and asphalt Perform sewer, water and utility disconnects Supply and erect temporary fencing as required or appropriate Supply and erect silt fencing as required or appropriate Obtain all necessary permits Supply and perform backfill as necessary throughout the property Other miscellaneous costs, as necessary

To aid in obtaining bids for building demolition, I have attached copies of the asbestos inspection and abatement documentation.

We request that sealed bids be submitted to the following:

William P. Scott Gonzalez, Saggio & Harlan 111 East Wisconsin Avenue, Suite 1000 Milwaukee, WI 53202

Ms. Nancy Ryan Wisconsin Department of Natural Resources 2300 Dr. Martin Luther King Jr. Dr. Milwaukee, WI 53212

We request that bids be provided no later than close of business on Wednesday, December 18, 2013.

If you have any questions or no longer have the background materials on the site, please contact me.

Sincerely yours,

Vian X fatt William P. Scott

Enclosures

| G | 10 | ١Z | A | LE | Z | Name of Street, or other street, or othe |
|---|----|----|---|----|---|--|
| S | A | G | G | I | 0 | |
| Н | A | R | L | A | N | |

November 20, 2013

VIA ELECTRONIC MAIL

Stuart J. Gross Stantec 12075 North Corporate Parkway, Suite 210 Mequon, Wisconsin 53092 stu.gross@stantec.com

RE: **Request for Updated DERP Proposal – Former Express Cleaners,** 3941 N. Main Street, Racine, Wisconsin (the "Property")

Dear Stuart:

You are receiving this letter because your company formerly provided a proposal for remediation of the above-referenced Property. Since that time, our client, the Ehrlich Family Limited Partnership, the owner of the Property, has been negotiating with S.C. Johnson & Son with respect to the cleanup of the adjacent property, located just east of the Property, with street address 3936 North Bay Avenue. This November, our client purchased that adjacent property, so now our options for remediating the site are not constrained. Consequently, we are inviting you, along with two other consultants, to submit a revised or updated proposal for the remediation and the demolition work.

Your updated proposal need not be constrained by your previous proposal but should address current regulations, remedial methods, proposed schedule and costs. Regarding the remediation, we ask that you state the cleanup objective(s) and the time required to achieve the objective(s). If your proposal would render the soil unsuitable for building construction, please discuss the location, severity and duration of such limitations.

In addition, we ask that you comment on the benefits of removing the northern portion of the building. in terms of providing greater access to contaminated soil and groundwater for purposes of investigation, removal and/or treatment of contaminated soil and groundwater. The dry cleaning machine was located in the northern part of the building. We recently analyzed three cores from the concrete floor in the dry cleaning area, and the core location map and laboratory reports are attached. The concrete slab in that area is contaminated and underlain by contaminated soil and groundwater. If removing the northern portion of the building is beneficial to achieving any of your cleanup objectives, then we want you to provide a bid for demolition of the entire building. We understand that NR 169 will allow reimbursement of up to \$15,000 of those costs.

GONZALEZ SAGGIO & HARLAN LLP Attorneys at Law



Milwaukee 111 Fast Wisconsin Avenue Suite 1000 Milwaukee, WI 53202 Tel (414) 277-8500 Fax (414) 277-8521

Atlanta, GA Boca Raton, FL Los Angeles, CA Washington, D.C. Boston, MA Nashville, TN Chicago, IL New York, NY Cleveland, OH Phoenix, AZ

Indianapolis, IN Stamford, CT Wayne, NJ West Des Moines, IA Stuart J. Gross Stantec November 20, 2013 Page 2

To make the demolition bidding uniform, we would like line-item costs on the following demolition tasks:

1

Demolish building and dispose at a landfill Remove footings and concrete floors, and backfill as necessary Remove exterior concrete and asphalt Perform sewer, water and utility disconnects Supply and erect temporary fencing as required or appropriate Supply and erect silt fencing as required or appropriate Obtain all necessary permits Supply and perform backfill as necessary throughout the property Other miscellaneous costs, as necessary

To aid in obtaining bids for building demolition, I have attached copies of the asbestos inspection and abatement documentation.

We request that sealed bids be submitted to the following:

William P. Scott Gonzalez, Saggio & Harlan 111 East Wisconsin Avenue, Suite 1000 Milwaukee, WI 53202

Ms. Nancy Ryan Wisconsin Department of Natural Resources 2300 Dr. Martin Luther King Jr. Dr. Milwaukee, WI 53212

We request that bids be provided no later than close of business on Wednesday, December 18, 2013.

If you have any questions or no longer have the background materials on the site, please contact me.

Sincerely yours,

illian & gut William P. Scott

Enclosures

Appendix B

WASTE DETERMINATION

3941 N. Main Street, Racine, Wisconsin

For the purposes of this waste determination, the Ehrlich Family Limited Partnership ("EFLP") assumes that a release of spent dry cleaning solvent containing more than 10% tetrachloroethene ("PCE") occurred at the Main Street property at some time in the past. This assumption is based on (i) the knowledge that a dry cleaning establishment formerly operated at in the northernmost section of the building at the property, (ii) the presence of PCE (but not other chlorinated solvents) in the concrete floor slab at the former location of a piece of dry cleaning equipment and (iii) the presence soil and groundwater under and in the vicinity of the former dry cleaning location that are contaminated with PCE and common breakdown products of PCE.

Contaminated Debris

- F

Concrete in a portion of the floor slab in the former dry cleaning location at the property is contaminated with PCE. One of three core samples through the 6-inch slab tested positive for PCE (84 micro-grams/Kg). The contaminated concrete is not a solid waste and therefore is not a hazardous waste, even if it is contaminated with an assumed listed hazardous waste, because it has not been disposed of and is serving its intended purposes. However, when the concrete is broken and removed to allow access to the contaminated soil below, the broken concrete that is contaminated will be F002 'hazardous debris' waste by application of the mixture rule. Additional testing of concrete samples being performed and will be used to segregate the concrete into hazardous debris and non-hazardous debris. A hazardous waste manifest and generator report would be prepared for all hazardous debris if the WDNR does not agree with the EFLP that, considering the extent of contamination, the contaminated debris is no longer contaminated with hazardous waste. The EFLP will formally request the WDNR to make a Contained Out Determination with respect to the hazardous debris, in the form of request for technical assistance pursuant to s. NR 661.03(6)(b), Wis. Admin. Code. If the Contained Out Determination finds the debris in no longer contaminated with hazardous waste, the contaminated debris would be disposed off-site as solid waste at a licensed facility and no hazardous waste manifest and no hazardous waste generator report would be prepared. Alternatively, if the WDNR would approve beneficial reuse of the concrete, it would be crushed and reused for road construction, rather than disposed as solid waste.

Contaminated Media

The contaminated soil and groundwater at the property and within the contiguous contaminated area ("AOC") are <u>not</u> solid waste, and therefore are <u>not</u> hazardous waste, even if they are contaminated with assumed listed hazardous wastes. An in-situ remedial approach is proposed to address the contaminated soil and the groundwater -- no excavation of impacted soil is anticipated. The proposed in-situ mixing of remediation compound with soil and groundwater will <u>not</u> convert the soil and groundwater to waste because each media would not be disposed of

and would continue to serve its purpose. Post-remedial sampling and analysis will demonstrate the effectiveness of the in-situ treatment. The remedial treatment is expected to reduce soil concentrations of the various solvents (PCE, TCE, DCE, VC) to far less than the respective contained-out value and toxicity characteristic value that would apply if the soil was a waste.

1.

Although no off-site transport of excavated soil is currently anticipated, following satisfactory post-remedial testing the EFLP will request a 'Contained Out Determination' for the remediated soil and groundwater, to facilitate future redevelopment of the property. The EFLP understands that even if a 'Contained Out Determination' finds the soil and groundwater do not contain a listed hazardous waste, any soil removed would for transport outside the AOC would need to be tested for toxicity to determine whether it was a toxicity characteristic hazardous waste. As a contingency, if for some reason soil is excavated from the AOC for removal for removal from the AOC before completion of satisfactory post-remedial testing, it will be segregated into suitable covered containers and tested to ensure that it meets both the applicable contained-out and toxicity characteristic standards before it is removed from the property.

Remedial Option - Contingent Waste Determination

Soil excavation is not proposed and therefore is optional. If soil excavation were performed, the excavated soil would not be removed from the contiguous area of contamination ("AOC"). If contaminated soil was excavated, it would be relocated within the AOC. Such movement of contaminated soil would not constitute "placement" for purposes of RCRA and would not constitute "disposal" under Wisconsin law. If this optional soil excavation is approved by WDNR, contaminated soil from the AOC could be consolidated within the AOC for treatment by moving some contaminated soil from a portion of the 2936 North Bay Drive property to the Main Street property, where soil amendment would be added and the amended soil would be combined and mixed with contaminated soil being treated in-situ at the Main Street property. Based on case studies, the treatment is expected to reduce contaminant concentrations to less than the "contained out" values for contaminated media. Post-remedial sampling and analysis would demonstrate the effectiveness of the treatment. No hazardous waste manifest or generator report would be prepared. Such excavation and movement of soil will not occur unless the Department allows the movement under the NR 700 Rules without creation of any RCRA or solid waste facility and performs a Contained Out Determination in recognition that the added soil amendment will treat the soil to below contained out standards, based on results of the pilot test performed for the overall site remediation. If this option is pursued, a change order would be sought to cover the cost of the excavation and additional soil amendment.

2



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Chicago 2417 Bond Street University Park, IL 60484 Tel: (708)534-5200

TestAmerica Job ID: 500-62697-1 Client Project/Site: Express Cleaners

For:

..... LINKS

Review your project results through

Total Access

Have a Question?

Ask-

The

www.testamericainc.com

Visit us at:

Expert

RJN Environmental Services LLC 4631 County Road A Oregon, Wisconsin 53575

Attn: Robert J Nauta

Sanda frederik

Authorized for release by: 9/23/2013 5:00:35 PM

Sandie Fredrick, Project Manager I sandie.fredrick@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



1

.

٠

Table of Contents

| Cover Page | 1 |
|-----------------------|----|
| Table of Contents | 2 |
| Case Narrative | 3 |
| Detection Summary | 4 |
| Method Summary | 5 |
| Sample Summary | 6 |
| Client Sample Results | 7 |
| Definitions | 8 |
| QC Association | 9 |
| Surrogate Summary | 10 |
| QC Sample Results | 11 |
| Chronicle | 13 |
| Certification Summary | 14 |
| Chain of Custody | 15 |
| Receipt Checklists | 16 |



TestAmerica Job ID: 500-62697-1

Job ID: 500-62697-1

Laboratory: TestAmerica Chicago

Narrative

1

Job Narrative 500-62697-1

Comments

No additional comments.

Receipt

The samples were received on 9/10/2013 9:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC/MS VOA

Method(s) 5030B: The extract was prepared from a 2 oz. jar more than 48 hours after sampling. Core 1 (500-62697-1), Core 2 (500-62697-2), Core 3 (500-62697-3).

No other analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

Detection Summary

Client: RJN Environmental Services LLC Project/Site: Express Cleaners TestAmerica Job ID: 500-62697-1

Í

4

| Client Sample ID: Core 1 | | | | | | Lab | Sample I | D: 500-62697-1 |
|--------------------------|--------|-----------|----|-----|-------|-----------|-----------|----------------|
| No Detections. | | | | | | | | |
| Client Sample ID: Core 2 | | | | | | Lab | Sample I | D: 500-62697-2 |
| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac D | | Prep Type |
| Tetrachloroethene | 84 | | 55 | 9.2 | ug/Kg | 50 🌣 | 8260B | Total/NA |
| Client Sample ID: Core 3 | | | | | | Lab | Sample II | D: 500-62697-3 |
| No Detections. | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

This Detection Summary does not include radiochemical test results.

TestAmerica Job ID: 500-62697-1

| Method | Method Description | Protocol | Laboratory |
|----------|------------------------------------|----------|------------|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| Moisture | Percent Moisture | EPA | TAL CHI |

Protocol References:

4

1

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

5

TestAmerica Job ID: 500-62697-1

1

7

5

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 500-62697-1 | Core 1 | Solid | 09/09/13 10:15 | 09/10/13 09:10 |
| 500-62697-2 | Core 2 | Solid | 09/09/13 10:30 | 09/10/13 09:10 |
| 500-62697-3 | Core 3 | Solid | 09/09/13 10:45 | 09/10/13 09:10 |

1

TestAmerica Job ID: 500-62697-1

09/13/13 20:41 09/16/13 17:44

Lab Sample ID: 500-62697-3

50

Matrix: Solid

Percent Solids: 94.0

| Client Sample ID: Core 1 | | | | | | | Lab Sam | ple ID: 500-6 | 2697-1 | |
|--------------------------------|---------------|-----------|----------|-----|-------|----|----------------------|----------------|----------|--|
| Date Collected: 09/09/13 10:15 | | | | | | | | | x: Solid | |
| Date Received: 09/10/13 09:10 | | | | | | | Percent Solids: 95.6 | | | |
| Method: 8260B - Volatile Orga | nic Compounds | (GC/MS) | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac | |
| Tetrachloroethene | <9.1 | | 55 | 9.1 | ug/Kg | \$ | 09/13/13 20:41 | 09/16/13 17:20 | 60 | |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac | |
| 1,2-Dichloroethane-d4 (Surr) | 110 | | 75 - 125 | | | | 09/13/13 20:41 | 09/16/13 17:20 | 50 | |
| Toluene-d8 (Surr) | 97 | | 75 - 120 | | | | 09/13/13 20:41 | 09/16/13 17:20 | 50 | |
| 4-Bromofluorobenzene (Surr) | 106 | | 75 - 120 | | | | 09/13/13 20:41 | 09/16/13 17:20 | 50 | |
| Dibromofluoromethane | 84 | | 75 - 120 | | | | 09/13/13 20:41 | 09/16/13 17:20 | 50 | |
| Client Sample ID: Core 2 | | | | | | | Lab Sam | ple ID: 500-6 | 2697-2 | |
| Date Collected: 09/09/13 10:30 | | | | | | | | Matri | x: Solid | |
| Date Received: 09/10/13 09:10 | | | | | | | | Percent Soli | ds: 95.1 | |
| Method: 8260B - Volatile Orga | nic Compounds | (GC/MS) | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac | |
| Tetrachloroethene | 84 | | 55 | 9.2 | ug/Kg | \$ | 09/13/13 20:41 | 09/16/13 17:44 | 50 | |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac | |
| 1,2-Dichloroethane-d4 (Surr) | 109 | | 75 - 125 | | | | 09/13/13 20:41 | 09/16/13 17:44 | 50 | |
| Toluene-d8 (Surr) | 99 | | 75 - 120 | | | | 09/13/13 20:41 | 09/16/13 17:44 | 50 | |
| 4-Bromofluorobenzene (Surr) | 102 | | 75 - 120 | | | | 09/13/13 20:41 | 09/16/13 17:44 | 50 | |
| | | | | | | | | | | |

Client Sample ID: Core 3

Dibromofluoromethane

Date Collected: 09/09/13 10:45

Date Received: 09/10/13 09:10

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|----|----------------|----------------|---------|
| Tetrachloroethene | <9.4 | | 57 | 9.4 | ug/Kg | \$ | 09/13/13 20:41 | 09/16/13 18:09 | 50 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 110 | | 75 - 125 | | | | 09/13/13 20:41 | 09/16/13 18:09 | 50 |
| Toluene-d8 (Surr) | 98 | | 75 - 120 | | | | 09/13/13 20:41 | 09/16/13 18:09 | 50 |
| 4-Bromofluorobenzene (Surr) | 103 | | 75 - 120 | | | | 09/13/13 20:41 | 09/16/13 18:09 | 50 |
| Dibromofluoromethane | 83 | | 75 - 120 | | | | 09/13/13 20:41 | 09/16/13 18:09 | 50 |

75 - 120

85

Definitions/Glossary

Client: RJN Environmental Services LLC Project/Site: Express Cleaners

TestAmerica Job ID: 500-62697-1

1

8

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| a | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| MDA | Minimum detectable activity |
| EDL | Estimated Detection Limit |
| MDC | Minimum detectable concentration |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| NC | Not Calculated |
| ND | Not detected at the reporting limit (or MDL or EDL if shown) |
| PQL | Practical Quantitation Limit |
| QC | Quality Control |
| RER | Relative error ratio |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

GC/MS VOA

ŝ

| Prep Batc | h: 202204 |
|-----------|-----------|
|-----------|-----------|

| ab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|--|--|--|---|--|
| 00-62697-1 | Core 1 | Total/NA | Solid | 5030B | |
| 00-62697-2 | Core 2 | Total/NA | Solid | 5030B | |
| 500-62697-3 | Core 3 | Total/NA | Solid | 5030B | |
| 00-62697-3 MS | Core 3 | Total/NA | Solid | 5030B | |
| 00-62697-3 MSD | Core 3 | Total/NA | Solid | 5030B | |
| .B3 500-202204/11-A LB3 | Method Blank | Total/NA | Solid | 5030B | |
| CS 500-202204/12-A | Lab Control Sample | Total/NA | Solid | 5030B | |
| alysis Batch: 202708 | | | | | |
| | | | | | |
| ab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
| • | Client Sample ID Core 1 | Prep Type Total/NA | Matrix Solid | Method 8260B | Prep Batch 202204 |
| 00-62697-1 | | | | | |
| 00-62697-1 00-62697-2 | Core 1 | Total/NA | Solid | 82608 | 202204 |
| 00-62697-1 00-62697-2 00-62697-3 | Core 1 Core 2 | Total/NA Total/NA | Solid Solid | 8260B 8260B | 202204 202204 |
| 00-62697-1 00-62697-2 00-62697-3 00-62697-3 MS | Core 1 Core 2 Core 3 | Total/NA Total/NA Total/NA | Solid Solid Solid | 8260B 8260B 8260B | 202204 202204 202204 |
| 00-62697-1 00-62697-2 00-62697-3 00-62697-3 MS 00-62697-3 MSD | Core 1 Core 2 Core 3 Core 3 | Total/NA Total/NA Total/NA Total/NA | Solid Solid Solid Solid | 8260B 8260B 8260B 8260B | 202204 202204 202204 202204 |
| 00-62697-1 00-62697-2 00-62697-3 00-62697-3 MS 00-62697-3 MSD B3 500-202204/11-A LB3 | Core 1 Core 2 Core 3 Core 3 Core 3 | Total/NA Total/NA Total/NA Total/NA Total/NA | Solid Solid Solid Solid Solid | 8260B 8260B 8260B 8260B 8260B 8260B | 202204 202204 202204 202204 202204 202204 |
| Lab Sample ID 500-62697-1 500-62697-2 500-62697-3 500-62697-3 MS 500-62697-3 MSD LB3 500-202204/11-A LB3 LCS 500-202204/12-A LCS 500-202708/4 | Core 1 Core 2 Core 3 Core 3 Core 3 Method Blank | Total/NA Total/NA Total/NA Total/NA Total/NA | Solid Solid Solid Solid Solid Solid | 8260B 8260B 8260B 8260B 8260B 8260B 8260B | 202204 202204 202204 202204 202204 202204 202204 |

General Chemistry

Analysis Batch: 202316

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|----------|------------|
| 500-62697-1 | Core 1 | Total/NA | Solid | Moisture | |
| 500-62697-2 | Core 2 | Total/NA | Solid | Moisture | |
| 500-62697-3 | Core 3 | Total/NA | Solid | Moisture | |

Method: 8260B - Volatile Organic Compounds (GC/MS)

| latrix: Solid | | | | | | Prep Type: Total/N |
|-------------------------|--------------------|----------|----------|------------|-----------------------|--------------------|
| | | | | Percent Su | rogate Recovery (Acce | ptance Limits) |
| | | 12DCE | TOL | BFB | DBFM | |
| Lab Sample ID | Client Sample ID | (75-125) | (75-120) | (75-120) | (75-120) | |
| 500-62697-1 | Core 1 | 110 | 97 | 106 | 84 | |
| 500-62697-2 | Core 2 | 109 | 99 | 102 | 85 | |
| 500-62697-3 | Core 3 | 110 | 98 | 103 | 83 | |
| 500-62697-3 MS | Core 3 | 109 | 96 | 98 | 88 | |
| 500-62697-3 MSD | Core 3 | 111 | 95 | 99 | 90 | |
| LB3 500-202204/11-A LB3 | Method Blank | 110 | 97 | 103 | 88 | |
| LCS 500-202204/12-A | Lab Control Sample | 109 | 94 | 101 | 95 | |
| LCS 500-202708/4 | Lab Control Sample | 101 | 94 | 97 | 92 | |
| MB 500-202708/6 | Method Blank | 110 | 94 | 104 | 91 | |
| | | | | | | |

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

E 2

٩,

9

| lethod: 8260B - Volatile O | rganic Cor | mpound | s (GC/MS) | | | | | | | | | | |
|---|------------|-----------------------|-------------|-------|-------|--------|-------|------|-------------------|-------|---|---------|---------------|
| Lab Sample ID: LB3 500-20220 | 4/11-A LB3 | | | | | | | | Clie | nt Sa | ample ID: | | |
| Matrix: Solid | | | | | | | | | | | Prep T | | |
| Analysis Batch: 202708 | | | | | | | | | | | Prep E | Batch: | 202204 |
| A contract | | LB3 LB3 | | - | | | | - | - | | | | |
| Analyte | | esult Quali | lier | RL | | Unit | | D | Prepar | - | Analyz | - | Dil Fac |
| Tetrachloroethene | | <8.4 | | 50 | 8.4 | ug/Kg | | C | 9/13/13 | 20:45 | 09/16/13 | 18:34 | 50 |
| Currente . | %Baaa | LB3 LB3 verv Quali | For Limite | | | | | | Dropor | - | A = = (1 = 1) | | 011 5 |
| Surrogate 1,2-Dichloroethane-d4 (Surr) | %Reco | 110 Quan | fier Limits | | | | | | Prepar 9/13/13 | | Analyz 09/16/13 | | Dil Fac 50 |
| Toluene-d8 (Surr) | | 97 | 75-12 | | | | | | 9/13/13 | | | | 50 |
| 4-Bromofluorobenzene (Surr) | | 103 | 75 - 12 | | | | | | 9/13/13 | | | | |
| | | 88 | | | | | | | | | | | 50 |
| Dibromofluoromethane | | 88 | 75 - 12 | 20 | | | | 6 | 9/13/13 | 20:45 | 09/16/13 | 18:34 | 50 |
| Lab Sample ID: LCS 500-20220 | 4/12-A | | | | | | | Clie | ent San | nple | ID: Lab Co | ontrol | Sample |
| Matrix: Solid | | | | | | | | | | | Prep T | ype: T | otal/NA |
| Analysis Batch: 202708 | | | | | | | | | | | Prep E | Batch: | 202204 |
| | | | Spike | LCS | LCS | | | | | | %Rec. | | |
| Analyte | | | Added | Resul | t Qua | lifler | Unit | | D %R | ec | Limits | | |
| Tetrachloroethene | | | 2500 | 2380 |) | | ug/Kg | | | 95 | 70 - 123 | | |
| | LCS | LCS | | | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 109 | | 75 - 125 | | | | | | | | | | |
| Toluene-d8 (Surr) | 94 | | 75 - 120 | | | | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 101 | | 75 - 120 | | | | | | | | | | |
| Dibromofluoromethane | 95 | | 75 - 120 | | | | | | | | | | |
| Lab Sample ID: 500-62697-3 M Matrix: Solid Analysis Batch: 202708 | Sample | Sample | Spike | MS | S MS | | | | | | Client Sam Prep T Prep E %Rec. | ype: T | |
| Analyte | Result | Qualifier | Added | Resul | t Qua | lifler | Unit | | D %R | ec | Limits | | |
| Tetrachloroethene | <9.4 | | 2830 | 3130 | 0 | | ug/Kg | | [☆] 1 | 11 | 70 - 123 | | |
| | MS | MS | | | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 109 | | 75 - 125 | | | | | | | | | | |
| Toluene-d8 (Surr) | 96 | | 75 - 120 | | | | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 98 | | 75 - 120 | | | | | | | | | | |
| Dibromofluoromethane | 88 | | 75 - 120 | | | | | | | | | | |
| Lab Sample ID: 500-62697-3 M | SD | | | | | | | | | c | lient Sam | nle ID: | Core 3 |
| Matrix: Solid | | | | | | | | | | | Prep T | | |
| Analysis Batch: 202708 | | | | | | | | | | | | | 202204 |
| | Sample | Sample | Spike | MSC | MSC |) | | | | | %Rec. | Jacom | RPD |
| Analyte | | Qualifier | Added | Resul | t Qua | lifier | Unit | | D %R | ec | Limits | RPD | |
| Tetrachloroethene | <9.4 | | 2830 | 2870 | | | ug/Kg | | | 01 | 70 - 123 | 9 | |
| | | | | | | | | | | | | | |
| | MSD | | | | | | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 111 | | 75 - 125 | | | | | | | | | | |
| Toluene-d8 (Surr) | 95 | | 75 - 120 | | | | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 99 | | 75 - 120 | | | | | | | | | | |
| Dibromofluoromethane | 90 | | 75 - 120 | | | | | | | | | | |

TestAmerica Job ID: 500-62697-1

Ē

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

| Lab Sample ID: MB 500-202708/0 Matrix: Solid Analysis Batch: 202708 | 6 | мв | мв | | | | | | | C | lient S | ample ID: Metho Prep Type: T | |
|---|-----------|-------|-----------|----------|--------|------|-------|-------|------|-------|---------|---------------------------------|---------|
| Analyte | Re | | Qualifier | RL | | MDL | Unit | | D | Pre | pared | Analyzed | Dil Fac |
| Tetrachloroethene | < | 0.17 | | 1.0 | | 0.17 | ug/Kg | | | _ | | 09/16/13 10:45 | 1 |
| | | MB | MB | | | | | | | | | | |
| Surrogate | %Reco | very | Qualifier | Limits | | | | | | Pre | pared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | | 110 | | 75 - 125 | | | | | | - | | 09/16/13 10:45 | 1 |
| Toluen e d 8 (Surr) | | 94 | | 75 - 120 | | | | | | | | 09/16/13 10:45 | 1 |
| 4-Bromofluorobenzene (Surr) | | 104 | | 75 - 120 | | | | | | | | 09/16/13 10:45 | 1 |
| Dibromofluoromethane | | 91 | | 75 - 120 | | | | | | | | 09/16/13 10:45 | 1 |
| Lab Sample ID: LCS 500-202708 | 14 | | | | | | | | Clie | ent S | Sample | ID: Lab Control | Sample |
| Matrix: Solid | | | | | | | | | | | | Prep Type: T | otal/NA |
| Analysis Batch: 202708 | | | | Spike | LCS | LCS | | | | | | %Rec. | |
| Analyte | | | | Added | Result | | ifler | Unit | | D | %Rec | Limits | |
| Tetrachloroethene | | | _ | 50.0 | 51.6 | | | ug/Kg | | | 103 | 70 - 123 | |
| | LCS | LCS | | | | | | | | | | | |
| Surrogate | %Recovery | Quali | fier | Limits | | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | 101 | | | 75 - 125 | | | | | | | | | |
| Toluene-d8 (Surr) | 94 | | | 75 - 120 | | | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 97 | | | 75 - 120 | | | | | | | | | |
| Dibromofluoromethane | 92 | | | 75 - 120 | | | | | | | | | |

٦,

| Client Samp | le ID: Core | 1 | | | | | | Lab Sample | e ID: 500-62697-1 |
|--------------------|---|----------|-----|----------|--------|----------------|---------|------------|--|
| ate Collected | : 09/09/13 10:1 | 15 | | | | | | | Matrix: Solid |
| Date Received | : 09/10/13 09:1 | 0 | | | | | | | Percent Solids: 95.6 |
| | Batch | Batch | | Dilution | Batch | Prepared | | | |
| Prep Type | Туре | Method | Run | Factor | Number | or Analyzed | Analyst | Lab | |
| Total/NA | Prep | 5030B | | | 202204 | 09/13/13 20:41 | WRE | TAL CHI | |
| Total/NA | Analysis | 8260B | | 50 | 202708 | 09/16/13 17:20 | BDA | TAL CHI | |
| Total/NA | Analysis | Moisture | | 1 | 202316 | 09/12/13 09:08 | CMV | TAL CHI | |
| ate Collected | le ID: Core 2 : 09/09/13 10:3 : 09/10/13 09:1 | 30 | | | | | | | e ID: 500-62697-2 Matrix: Solid Percent Solids: 95.1 |
| | Batch | Batch | | Dilution | Batch | Prepared | | | |
| Prep Type | Type | Method | Run | Factor | Number | or Analyzed | Analyst | Lab | |
| Total/NA | Prep | 5030B | | | 202204 | 09/13/13 20:41 | WRE | TAL CHI | |
| Total/NA | Analysis | 8260B | | 50 | 202708 | 09/16/13 17:44 | BDA | TAL CHI | |
| Total/NA | Analysis | Moisture | | 1 | 202316 | 09/12/13 09:08 | CMV | TAL CHI | |
| Client Samp | le ID: Core | 3 | | | | | | Lab Sample | e ID: 500-62697-3 |
| Date Collected | : 09/09/13 10:4 | 45 | | | | | | | Matrix: Solid |
| Date Received | : 09/10/13 09:1 | 0 | | | | | | | Percent Solids: 94.0 |
| | | | | Dilution | | | | | |

| | Batch | Batch | | Dilution | Batch | Prepared | | |
|-----------|----------|----------|-----|----------|--------|----------------|---------|---------|
| Prep Type | Туре | Method | Run | Factor | Number | or Analyzed | Analyst | Lab |
| Total/NA | Prep | 5030B | | | 202204 | 09/13/13 20:41 | WRE | TAL CHI |
| Total/NA | Analysis | 8260B | | 50 | 202708 | 09/16/13 18:09 | BDA | TAL CHI |
| Total/NA | Analysis | Moisture | | 1 | 202316 | 09/12/13 09:08 | CMV | TAL CHI |

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica Job ID: 500-62697-1

î

13

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date | |
|---------------------|---------------|------------|------------------|-----------------|--|
| Alabama | State Program | 4 | 40461 | 04-30-14 | |
| California | NELAP | 9 | 01132CA | 04-30-14 | |
| Georgia | State Program | 4 | N/A | 04-30-14 | |
| Hawaii | State Program | 9 | N/A | 04-30-14 | |
| Illinois | NELAP | 5 | 100201 | 04-30-14 | |
| Indiana | State Program | 5 | C-IL-02 | 04-30-14 | |
| lowa | State Program | 7 | 82 | 05-01-14 | |
| Kansas | NELAP | 7 | E-10161 | 10-31-13 | |
| Kentucky | State Program | 4 | 90023 | 12-31-13 | |
| Kentucky (UST) | State Program | 4 | 66 | 04-30-14 | |
| Louisiana | NELAP | 6 | 30720 | 06-30-14 | |
| Massachusetts | State Program | 1 | M-IL035 | 06-30-14 | |
| Mississippi | State Program | 4 | N/A | 04-30-14 | |
| North Carolina DENR | State Program | 4 | 291 | 12-31-13 | |
| North Dakota | State Program | 8 | R-194 | 04-30-14 | |
| Oklahoma | State Program | 6 | 8908 | 08-31-14 | |
| South Carolina | State Program | 4 | 77001 | 09-30-13 * | |
| Texas | NELAP | 6 | T104704252-09-TX | 02-28-14 | |
| USDA | Federal | | P330-12-00038 | 02-06-15 | |
| Wisconsin | State Program | 5 | 999580010 | 08-31-14 | |
| Wyoming | State Program | 8 | 8TMS-Q | 04-30-14 | |

* Expired certification is currently pending renewal and is considered valid.

| TELEADER IN ENVIRONM 2417 Bond Street, University P Phose: 708.534.5200 Fast | ENTAL TF | Con Con Add Add Phó | ress: <u>46</u> ress: <u>OR</u> ne: <u>608</u> . | N EN 31 Cou | 17A 1. 546 1 Nry Ro. A WI 53575 | Bill To Contact: Address: Address: Phone: Fax: POtt/Reference | (optional) | | Chain of Custody Recor Lab Job #: 500-62697 Chain of Custody Number: Page of Temperature *C of Cooler: 2.4 | | | |
|--|-------------------|---------------------------------|--|------------------------------|--|---|--------------|-----------------|--|---|--|--|
| RIN ENV. SYC | Cilient Project # | | | Preservative | 8 | | | | | Preservative Key 1. HCL, Cool to 4* | | |
| lect Name XPRESS CLEAP Ject Location/State D/ mpler NAUTA | Lab Project # | | | Parameter | 25 | | | | | 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 6. NaOH/Zh, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other | | |
| Sample ID | | San Date | ipling Time | # of Containers Mathix | P | | | | | Comments | | |
| Core 1 | | 9/9 | 1015 | 10 | x | | | | | CONICRETS CORES | | |
| CORE Z | | | 1030 | 10 | x | | | | | 17 | | |
| Core 3 | | 11 | 1045 | | ~ | | | | | 1" | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| naround Time Required (Buainess Days) 1 Day2 Days5 Days queeled Due Dats | 7 Days 🗶 10 Days | _ 15 Days | Other | Sample Dispo | | aposal by Lab | Archive for | Months (A fee m | l l | are retained longer than 1 month) | | |
| Row Mart | RIN 91 | 19/13 | 141 | line 5 | Received By | et com | | 8 19/13 | Time | Leb Courier | | |
| Inquished By Co | npany | Date | | Time Time | Received By C | Com | pany pany | Date | Time Time | Shipped Fx | | |
| Matrix Key W - Wastewater SE - Sedim - Water SO - Soll - Soli L - Leachai - Studge Wi - Wipe 5 - Miscellaneous DW - Drink - Oli O - Other - Air | 9 | nments | | | 1 | | Lab Comme | ents: | d. | | | |

\$ *

Login Sample Receipt Checklist

Client: RJN Environmental Services LLC

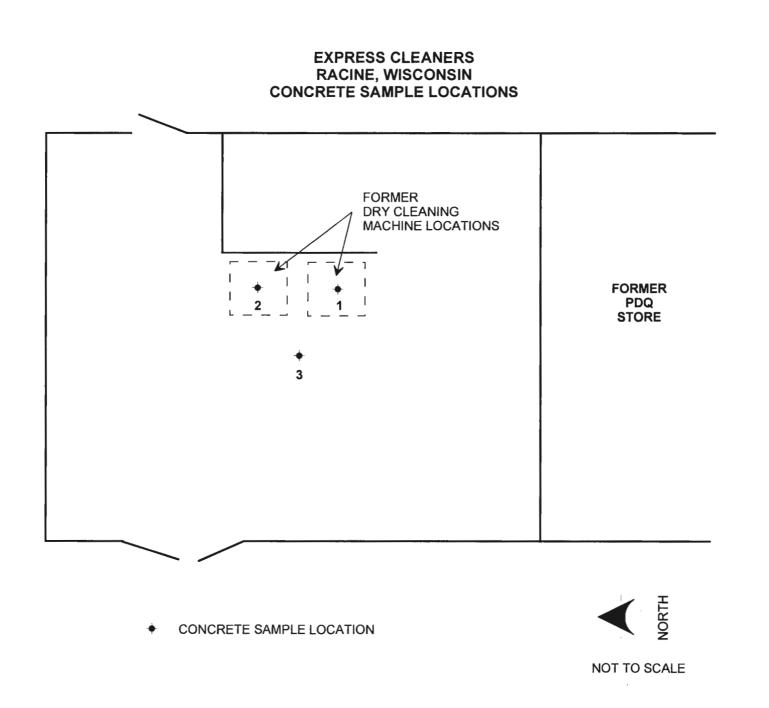
Login Number: 62697 List Number: 1 Creator: Lunt, Jeff T

| Question | Answer | Comment |
|---|--------|---------|
| Radioactivity wasn't checked or is = background as measured by a survey<br meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | 2.4 |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

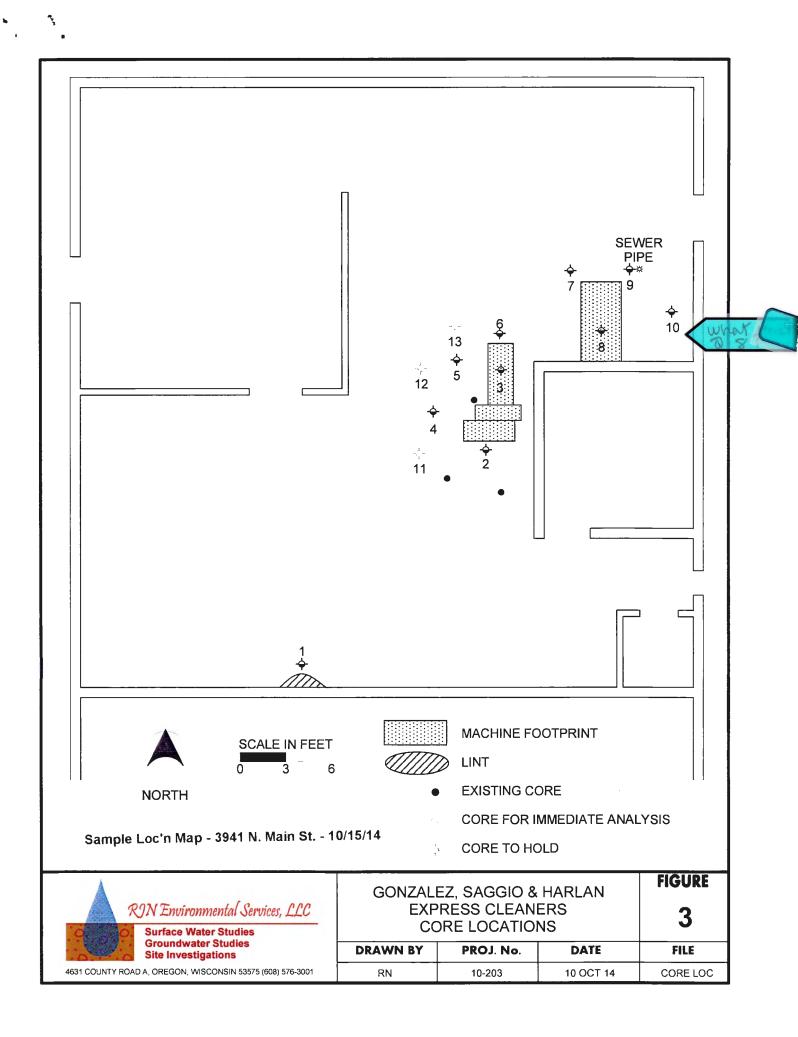
Job Number: 500-62697-1

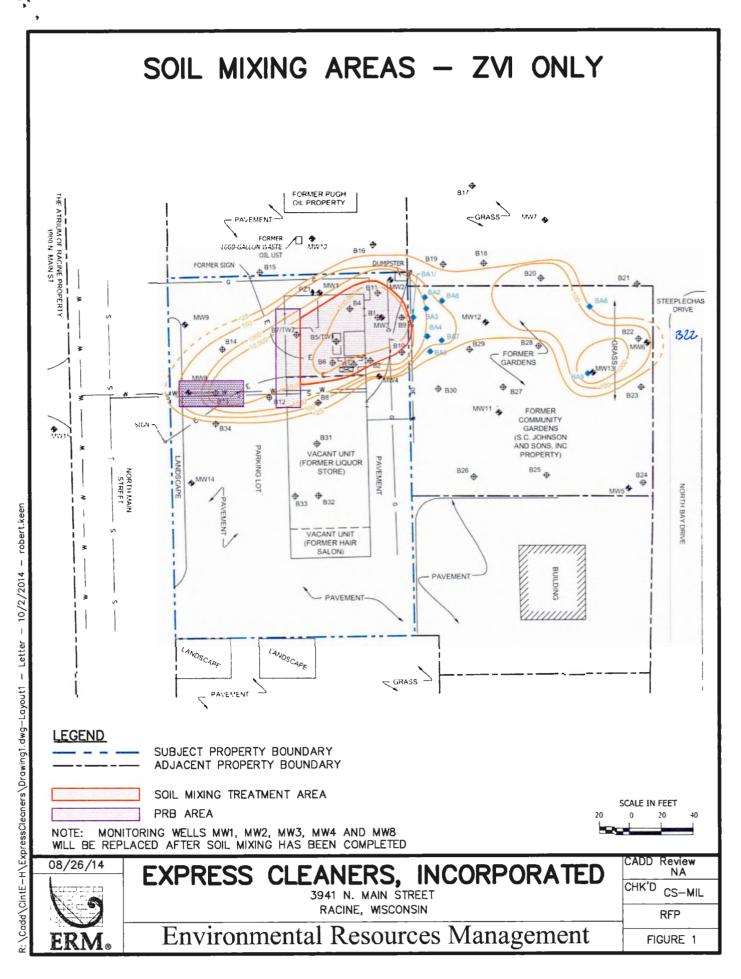
f.

15



......





Site Name: Express Cleaners (ZVI) BRRTS #: 02-52-547631

Type of Action: Site Remediation

Dry Cleaner Environmental Response Program Reimbursement Cost Detail Linking Spreadsheet Form 4400-214D (R 08/12)

| TASKS | B | UDGET | | | Martin Starty | A CONTRACTOR OF | DER | F COST BRE | AKOUT (this c | laim) | and the Address | Sector Sector | | |
|---|--------------------------|-------|-----------------------------|------------------------------------|----------------------------|---|-----------------------------------|---------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--|--------------------------|
| Bid / Budgeted Description | Bid / Budgeted Amount | NSERT | Total Approved Budget | Previous Claims (If applicable) | A Soil Investigation | B Soil Remediation | C Groundwater Investigation | D Groundwater Remediation | E Air/Vapor Investigation | F Air/Vapor Remediation | G Lab & Other Analysis | H Miscellaneous Costs | Budget Remaining Use (-) to indicate cost over-run | % Task Complete, Remarks |
| Consultant Costs | | 1715 | | | | 1000 | | 1100 | Contraction of the second | the second second | and prime superiors. | | | |
| Pilot/Bench test | \$ 3,500 00 | \$ - | | | | \$ 3,500.00 | | | | | 1 | | | |
| Remedial action implementation | \$ 40,050.00 | | | | | \$ 40,050.00 | | | | | | | | |
| Post-remediation groundwater monitoring | \$ 34,720.00 | | | | | | \$ 34,720.00 | | | | | | | |
| Site closure report | \$ 8,040.00 | | | | | | | | | | | \$ 8,040.00 | | |
| Expenses | \$ 15,150.00 | | | | | \$ 6,470.00 | \$ 8,650.00 | | | | | \$ 30.00 | | |
| Pre-remediation groundwater sampling | \$ 4,340.00 | | 1 | | | | \$ 4,340.00 | | | | | | | |
| Post-remediation soil sampling | \$ 3,500.00 | | | | | \$ 3,500.00 | | | | | | | | |
| Mixing area slab and foundation removal/disposal (non-haz) | \$ 4,900.00 | | 1 | | - | \$ 4,900.00 | | | | | | | | |
| M+= | | | | - | | | | | | | | | | |
| Consultant Cost Total | \$ 114,200.00 | \$ - | | \$. | | | | | | | | | | |
| Sub-Contractor Costs | | | | | | | | | | | | | | |
| Drilling | \$ 7,020.00 | S - | 1 | | | \$ 7,020.00 | | | | | | | | |
| Utility locator | \$ 1,620.00 | | | | | \$ 1,620.00 | | | | | | | | |
| Laboratory | \$ 9,620.00 | | | | | | | | | | \$ 9,620.00 | | | |
| Remediation contractor | \$ 118,200.00 | | | | | \$ 118,200.00 | | | | | | | | |
| WDNR fees | \$ 1,500.00 | | | | | \$ 750.00 | | | | | | \$ 750.00 | | |
| Waste contractor | \$ 650.00 | | | | | | \$ 650.00 | | | | | | | |
| Slab and foundation removal/disposal contractor (non-haz) | \$ 18,900.00 | | | | | \$ 18,900.00 | | | | | | | | |
| Pilot/Bench test | \$ 6,500.00 | | | 1 | | \$ 6,500.00 | | | | | | | | |
| Sub-Contractor Cost Total | \$ 164,010.00 | 3 - | 1 | \$. | | | | | | | - | | | |
| DERF ELIGIBLE SUB-TOTALS | \$ 278,210.00 | 5. | | s - | \$. | \$ 211,410.00 | \$ 48,360.00 | s - | \$ - | \$ - | \$ 9,620.00 | \$ 8,820.00 | \$. | |

heck Numbers

Appendix E

٠,

| TASKS | BU | UDGET | | | and strates of | With Land and | DER | F COST BRE | AKOUT (this cl | laim) | Street States | 21.04.000 | and the first state | |
|---|--------------------------|-------|-----------------------------|------------------------------------|----------------------------|--------------------------|-----------------------------------|---------------------------------|---------------------------------|-------------------------------|------------------------------|-----------------------------|--|-------------------------|
| Bid / Budgeted Description | Bid / Budgeted Amount | NELFT | Total Approved Budget | Previous Claims (If applicable) | A Soil Investigation | B Soil Remediation | C Groundwater Investigation | D Groundwater Remediation | E Air/Vapor Investigation | F Air/Vapor Remediation | G Lab & Other Analysis | H Miscellaneous Costs | Budget Remaining Use (-) to Indicate cost over-run | % Task Complete, Remark |
| Consultant Costs | 19 | | | Contraction and the | and the second second | | | | Contraction of the second | Mark Market and | CHE CONTRACTOR | and the second second | | |
| Pilot/Bench test | \$ 3,500.00 | S - | | | | \$ 3,500.00 | | | | | 1 | | | |
| temedial action implementation | \$ 40,050.00 | - | | | | \$ 40,050.00 | | | | | - | | | |
| ost-remediation groundwater monitoring | \$ 34,720.00 | | | | | | \$ 34,720.00 | | | | 10000 | | | |
| ite closure report | \$ 8,040.00 | | | | | | | | | | | \$ 8,040.00 | | |
| xpenses | \$ 15,150.00 | 1 | | | | \$ 6,470.00 | \$ 8,650.00 | hard a state of the | | | | \$ 30.00 | | |
| re-remediation groundwater sampling | \$ 4,340.00 | | 1 | | | | \$ 4,340.00 | | | | - | | | |
| Post-remediation soil sampling | \$ 3,500.00 | | | | | \$ 3,500.00 | | | | | | | | |
| Mixing area slab and foundation ernoval/disposal (non-haz) | \$ 4,900.00 | | | | | \$ 4,900.00 | | | | | | | | |
| Consultant Cost Total | \$ 114,200.00 | \$ - | | \$ - | - | | | | | | | | | |
| ub-Contractor Costs | | | | | | | | | | | | | | |
| Drilling | \$ 7,020.00 | \$ - | | | | \$ 7.020.00 | | | | | | | | |
| Itility locator | \$ 1,620.00 | - | | | | \$ 1,620.00 | | | | | | | | |
| aboratory | \$ 9,620.00 | | | | | | | | | | \$ 9,620.00 | | 1 | |
| temediation contractor | \$ 69,382.00 | | | | | \$ 69,382.00 | | | | | | | | |
| VDNR fees | \$ 1,500.00 | | | | | \$ 750.00 | | | | | | \$ 750.00 | | |
| aste contractor | \$ 650.00 | | | | | | \$ 650.00 | | | | | | | |
| Slab and foundation removal/disposal contractor (non-haz) | \$ 18,900.00 | | | | | \$ 18,900.00 | | | | | | | | |
| ilot/Bench test | \$ 6,500.00 | | | | | \$ 6 500 00 | | | | | | | | |
| Sub-Contractor Cost Total | \$ 115,192.00 | \$ - | | \$. | | | | | | | | | | |
| DERF ELIGIBLE SUB-TOTALS | \$ 229,392.00 | | | 5 - | s - | \$ 162,592.00 | \$ 48,360.00 | s . | 5 - | \$. | \$ 9,620.00 | \$ 8,820.00 | s . | |

| INVOICE GRAND TOTAL | | \$ | |
|---------------------|--|----|--|
| Non-DERF Cost Total | | \$ | |
| | | | |

k Numbers

¥ 1



October 22, 2014

VIA ELECTRONIC & U.S. MAIL

Ms. Nancy Ryan, Hydrogeologist Remediation and Redevelopment Wisconsin Department of Natural Resources 2300 North Dr. Martin Luther King, Jr. Drive Milwaukee, Wisconsin 53212-3128

> Re: Express Cleaners 3941 North Main Street Racine, Wisconsin BRRTS #02-52-547631

Dear Ms. Ryan:

. 8. 1

This letter provides Appendix G that should have accompanied by my letter to you dated October 21, 2014. Appendix G was inadvertently omitted as the result of a typographic error in the last line of my response to Item 9, on page 4 of that letter, where Appendix F should have said Appendix G. Accordingly, I attach Appendix G, which consists of the vendor's case study of the Cool-Ox product on soil and groundwater at a dry cleaner location and a summary of an independent case study of the effectiveness of Cool-Ox in soil at a location in Madison, Wisconsin.

Very truly yours,

William P. Scott

WPS/sv

Enclosures

cc: James C. Small GONZALEZ SAGGIO & HARLAN LLP Attorneys at Law

www.gshllp.com

Affiliated with Gonzalez, Saggio and Harlan, L.L.C.

Milwaukee Suite 1000 Milwaukee, WI 53202 Tet (414) 277-8500 Fax (414) 277-8521 Atlanta, GA Boca Raton, FL Boston, MA Chicago, IL Cleveland, OH

Indianapolis, IN Los Angeles, CA Miami, FL Nashville, TN New York, NY

Pasadena, CA Phoenix, AZ Washington, D.C. Wayne, NJ West Des Moines, IA Appendix G



MEMORANDUM

| TO: Nancy Ryan | FROM: Bob Nauta |
|--------------------------------------|------------------------|
| PROJECT: Madison-Kipp | DATE: October 22, 2014 |
| SUBJECT: Cool-Ox Injection for CVOCs | |

I have successfully used the Cool-Ox injection process on several sites, including the Madison-Kipp site, which has tetrachloroethene as the primary contaminant of concern. In the late summer of 2005, I was working at Kipp on a Cool-Ox injection in a loading dock area that was known to have very high concentrations of PCE in soil. The injection spanned the depth of 0 to 8 feet below ground surface. After injection, I collected samples at locations adjacent to the three samples that had yielded the highest pre-injection concentrations. Samples were collected 2 weeks after injection. They were collected approximately 6 inches from the previous samples and at the same depth. The Cool-Ox contractor was not told where the sample locations were, and therefore did not apply more product to those areas than he did in others. The pre- and post-injection concentrations for PCE are presented in the Table 1, below. The data for the daughter products is not immediately available, but were comparable to the reductions seen for PCE.

| Sample No. | PCE mg/kg | | |
|------------|---------------|----------------|--|
| | Pre-Injection | Post-Injection | |
| BE-2 | 487 | 0.22 | |
| BE-13 | 782 | 1.3 | |
| BE-7 | 708 | 3.2 | |

It should be noted that the Madison-Kipp site has both clay and sand strata, so the project included soil conditions comparable to those at the Express Cleaners site.





CASE HISTORY[©]

Work Summary (Site History)

CHS-0005 (Perchloroethylene)

Probable off-site migration of dissolved perchloroethylene was the remedial action driver for this confidential client. Repeated releases of recycled perc over several years from a dry cleaning operation were complicated by the presence of smeared naphtha, along with oil and diesel range hydrocarbons. Action by the State required the property owner to address the problem immediately. It was concluded that chemical oxidation could provide the quickest most effective solution. Permanganate was ruled out because of the presence of hydrocarbons and Fenton peroxide was considered to reactive because much of the plume was located beneath the building. The recently developed Cool-Ox[™] Technology was selected because of its effectiveness at treating mixed contaminants and its greater safety. Five weeks after completing injections of the sources, perc levels decreased to below residential levels for soil.

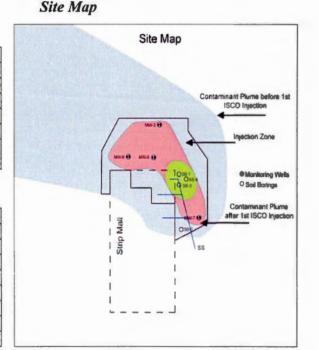
Project at a Glance

Site 0005 - Site Information

| Type of site | Former Drycleaner | | |
|--------------------|--|--|--|
| Contaminants | Recycled Perchloroethylene | | |
| Work Scope | Inject Oxidizer | | |
| Media Treated | Soil & Groundwater | | |
| Soil Type | Dense Clay over claystone | | |
| Groundwater Depth | 14 fbgs | | |
| Remedial Objective | Locate and mitigate soil sources and reduce perc concentrations in GW | | |

Site 0005 - Application Information

| Technology Selected | Chemical Oxidation | | |
|------------------------------|----------------------------|--|--|
| Application Method | DPT Probe Rod | | |
| Area Treated | 9,520 square feet | | |
| Vertical Interval | 0 to 24 feet bgs = 24 feet | | |
| Injection Point (IP) Spacing | 6 feet | | |
| Media Volume Treated | 8,460 cubic yards | | |
| Number of Injection Points | 265 | | |
| Oxidizer Volume | 29,700 gal | | |
| Oxidizer per IP | 112 gal | | |



The green area on the site map depicts the extent of soil contaminants exceeding MCLs prior to the first Cool-Ox[™] injection. During the injection work, free product was observed in several of the injection points in this area. However, post injection sampling data revealed that all soil contaminant concentrations had been reduced to levels below maximum concentrations for site closure. Groundwater (blue area prior to treatment) samples collected 18 months after the Cool-Ox[™] injection, revealed that contaminant concentrations exceeding MCL closure levels had been reduced to the area depicted in red. During the injection work high concentrations of hydrocarbons (light oils) were also discovered. These were confined mainly to the green area on the Site Map.

Current Status

The Cool- Ox^{TM} application successfully located all soil sources and reduced soil levels to less than those required by the state agency for residential standards. Groundwater is currently monitored on a quarterly basis. The site is under evaluation to ascertain future remedial needs if any.

CASE HISTORY Results

| Groundwater Samples | Pre ⁽¹⁾ Injection Samples | 30 day Post Injection Samples | 18 months Post Injection Samples |
|------------------------|--|--|---|
| MW-CL2 | 1,300 | 340 | 830 |
| MW-CL7 | 8,100 | 4,800 | 710 |
| MW-CL8 | 8,300 | 5,400 | 1,400 |
| MW-CL9 | 2,700 | 320 | 300 |

(PCE)

06/24/03

1,700

320

120

110

59

12

05/28/03

3,800,000

2,900

NS

120

NS

0

Site 0005- Contaminant Data-GW (PCE)

⁽¹⁾ All data reported in μ g/L

Depth

4'

11"

4'

11'

4'

11'

⁽¹⁾ All data reported in $\mu g/Kg$

Soil

Boring

SB-1

SB-2

SB-3

Site 0005- Contaminant Data-Soil

07/09/02

14,000,000

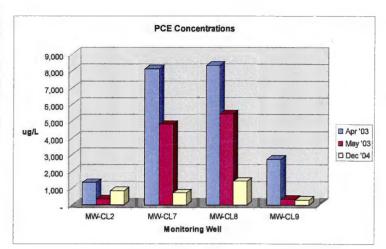
1,500,000

280,000

1,700,000

5,000

1.100



Soil Analytical Data ug/kg 14,000,000 12,000,000 10,000,000 July '02 May '03 8,000,000 🗆 June '03 6,000,000 4,000,000 June '03 2,000,000 July '02 0 11' 4' 11' 4 11 4' SB-1 SB-2 SB-3 Soil Boring

Contact: Jeff Citrone – Higgins & Associates, LLC

DeepEarth Technologies, Inc. - 12635 Kroll Drive - Alsip, IL 60803 - tech@deepearthtech.com (877) 266-5691

This document is a copyright of DeepEarth Technologies, Inc. - all rights reserved.

The remarkal solution for the one was designed and remarked by a 1971 Principal.