Rec 1/17/11
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3/24/11 (99)

NR 169 Remedial Action Bid
The Laundry Basket DERF Project
Luck, WI

WDNR BRRTS# 02-49-544893

January 14, 2011

MSA PROFESSIONAL SERVICES
More ideas. Better solutions.

MSA
PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL
DEVELOPMENT • ENVIRONMENTAL

January 14, 2011

Lois and Ardell Baldwin
517 4th Street
Luck, WI 54853

Phil Richards
Wisconsin Dept. of Natural Resources
875 S 4th Avenue
Park Falls, WI 54552-1130

Re: NR 169 Remedial Action Bid
The Laundry Basket DERF Project
300 South Main Street, Luck, WI 54853
WDNR BRRTS # 02-49-544893

Dear Lois and Phil;

It's been a long road, that began in March 2006 with the investigation of the former leaking underground storage tanks (LUSTs), that leads us to today with the submittal of this NR169 Remedial Action Bid for the Laundry Basket property. MSA Professional Services, Inc. (MSA) has appreciated the opportunity to work with both of you to move this project through two different investigations (petroleum and chlorinated solvent) and two separate reimbursement programs (PECFA and DERF), and the challenges that both have presented along the way and that have been met.

Our experience with this project and all the nuances of ownership and history make MSA invaluable as you progress through this project. We have the intimate knowledge of the hydrogeology of this project and bioaugmentation which are vital to the success of the site remediation.

Enclosed within this proposal are the required components of the Dry Cleaner Environmental Response Fund (DERF) and NR169 Wisconsin Administrative Code. The Remedial Action Options Report (RAOR) that contains MSA's recommended remedial action to clean up the site is included in the attachments. We have selected a team of hydrogeologists and engineers to provide all the required services to move this project forward.

We look forward to assisting you with this project and continuing our relationships. Our proven experience will be of great benefit in achieving the site cleanup goals. Please contact me at (800) 844-7854 if you have any questions.

Sincerely,

MSA Professional Services, Inc.

Brian Hegge
Environmental Program Manager

BH:kh

Table of Contents

CORPORATE INFORMATION

Company Information

FIRM PROFILE

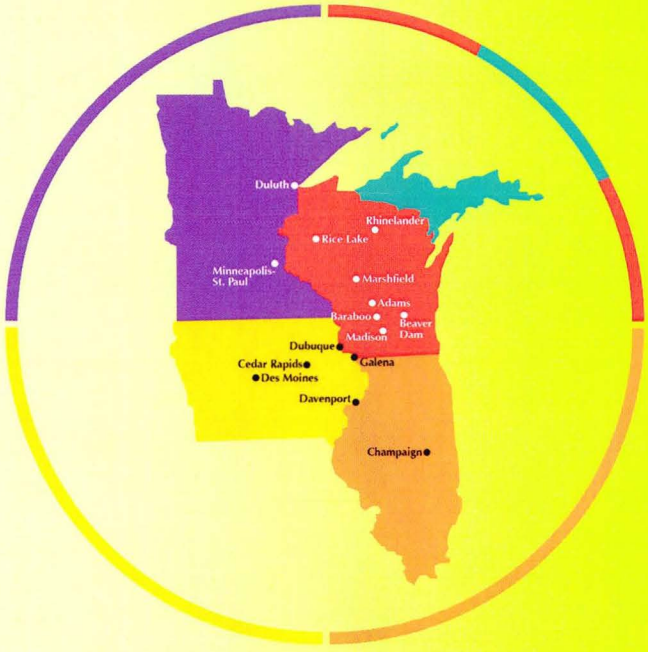
As a full service consulting firm, MSA Professional Services is all about "creating communities that work." Our team of specialists focuses on meeting the needs of our clients and achieving their goals. We strive to provide superior client service, building long-term relationships with our clients and to bring them ***More ideas and Better solutions.*** We help our clients solve today's complex and multi-faceted challenges by providing the right expertise at the right time.

With historic roots reaching back to the 1930's, MSA was incorporated in 1962 and has steadily expanded to a workforce of approximately 300 professionals located at 15 offices throughout the Upper Midwest. MSA's staff includes engineers, architects, planners, GIS specialists, surveyors, and environmental scientists. We provide municipal, industrial, and private clients with innovative, customer focused solutions to address a wide variety of engineering and consulting needs.

MSA's staff of 318 employees are available to support you through 15 locations throughout the Midwest: Dubuque, Cedar Rapids, Davenport, and Des Moines, Iowa, Adams, Baraboo, Beaver Dam, Madison, Marshfield, Rhinelander, and Rice Lake, Wisconsin; ; Champaign, and Galena, Illinois; and Duluth and St. Paul, Minnesota. The MSA team consists of engineers, architects, planners, surveyors, GIS specialists, and environmental scientists. We're your answer for cost-effective engineering and consulting with full-service technical depth.

MSA PROFESSIONAL SERVICES, INC.
RHINELANDER OFFICE
1835 N. Stevens Street
Rhinelander, WI 55401-2163
T-800.844.7854, 715.362.3244
F-715.362.4116
Contact: Brian Hegge
T-715.362.3244, ext. 131
E: bhegge@msa-ps.com
W –www.msa-ps.com

Discipline	Number
Administration	59
Aeronautical Engineer	3
Architect	7
CADD Technician	21
Certified Soil Tester	1
Civil Engineer	77
Construction Inspector	7
Environmental Engineer	19
Environmental Scientist	19
GIS	5
Hydraulic Engineer	1
Hydrologists	2
Information Services	4
Land Surveyors	15
Mechanical Engineer	1
Planners: Urban & Regional	12
Structural Engineer	5
Technician/Analyst	39
Transportation Engineer	22
Water Resources Engineer	3
TOTAL	318



QUALIFICATIONS

Qualifications

Consultants Ability to Complete Project

This proposal is written to comply with the Wisconsin Department of Natural Resources (WDNR) requirements for maintaining eligibility for the Dry Cleaner Environmental Response Fund (DERF). As required under NR 169.23(3) (b) MSA makes the following statements.

1. *We have been fully informed about the project scope and have the experience to analyze alternatives and design the most suitable response action.* MSA is fully informed about the project's scope and site conditions as a result of conducting both the petroleum and chlorinated solvent site investigations for the property.

2. *MSA will provide the necessary staff and facilities for all the phases of planning, design, construction and operation.* MSA has the experience and ability to analyze remedial alternatives and design the most suitable response action consistent with technical and economic feasibility, environmental statutes and rules, restoration timeframes and the latest technical advances.

3. *MSA will provide qualified technical reviewers to advise the owner and work toward remedial goals.* We will provide the necessary staff for all phases of planning, design, construction, and operation. MSA has qualified technical reviewers and will provide project management that will keep you advised on technical and regulatory matters and work toward the planned remediation goals.

4. *MSA will perform all services in an ethical, professional and timely manner.*

In accordance with NR169.23(9)(a), MSA hereby certifies,

1. *MSA's consultant and contracted services will comply with NR 700 to 728.*

2. *Upon request, MSA will make available to the department for inspection and copying all documents and records related to the contract services.*

3. *MSA did not prepare bid in collusion with any other consultant submitting a bid on the site.*

Certification of Insurance

MSA's insurance certificates are included in Appendix 2. MSAs maximum deductible is $250,000; which is more than the $25,000 maximum deductible requested by NR169.23(9(b). MSA will provide financial statements for proof of financial responsibility for the amount of the deductible if requested.

MSA TEAM CONCEPT

MSA Team Concept

MSA approaches each project by assigning a team of professionals that is structured based upon the specific project needs. Listed below are the key personnel and brief description of project assignments that MSA will dedicate to the Laundry Basket project. Additional project staff will be assigned as needed and will include field technicians, scientists, surveyors and support staff. Resumes are included in Appendix 1

BRIAN HEGGE - TEAM LEADER/PROJECT MANAGER

Mr. Hegge has been involved with the Laundry Basket projects from the beginning and will continue to serve as the Principal contact and Project Manager for the this project. Brian has over 31 years of experience conducting environmental projects having performed several hundred Phase I, II & III ESAs at private, governmental, industrial and commercial facilities, reviewed the operations and waste handling practices for the purpose of identifying potential environmental problems, including asbestos, PCBs, wetlands, USTs, and radon, and verified compliance with state and federal regulations (RCRA, CERCLA, LUST, etc.).

JAYNE ENGLEBERT, P.G. – SENIOR PROJECT HYDROGEOLOGIST

Jayne Englebert is a Senior Hydrogeologist at MSA and has 28 years of experience managing projects and providing technical expertise for geologic and hydrogeologic characterization, drilling programs to delineate contaminant plumes, and aquifer characterization testing through in-field analysis, hydrogeologic calculations, and numerical groundwater modeling. She has conducted operation and monitoring oversight of remedial systems, evaluated system effectiveness, and prepared reports of emissions and system performance to regulatory agencies. Ms. Englebert has attended workshops and seminars for specialized training in soil and groundwater modeling for risk assessment and soil clean-up level evaluation; remediation by natural attenuation; and analytical tools for designing subsurface gas extraction and control systems.

KRISTI DUBOIS, P.E. – REMEDIAL ACTION ENGINEER

Kristi Dubois has designed over 30 remediation systems including in situ air sparging, soil vapor extraction, groundwater extraction, dual phase extraction, and free petroleum product removal for the remediation of agrochemical, chlorinated and petroleum contaminated soil and groundwater. Ms. DuBois also has supervised the excavation of petroleum and fertilizer contaminated soil at numerous sites throughout Wisconsin.

PROJECT EXPERIENCE

Project Experience

MSA has designed and implemented many different types of remediation technologies and an evaluation of appropriate technologies. Our evaluation includes technologies based upon costs and upon the ability of the technology to meet the cleanup objectives. Remedial Action Option Analysis (feasibility studies) are performed to consider the remedial options and provide recommendations and cost estimates for the design, installation, and operation of the remedial system. The following is a list of the remediation technologies for which MSA has direct experience.

- **Oxygen Release Compound (ORC)**
- **Biopile Construction and Maintenance**
- **Groundwater Cutoff Walls**
- **Permeable Reactive Barriers**
- **Active & Passive Free Product Recovery**
- **Dual Phase Groundwater Extraction**
- **Groundwater Air Sparge Systems**
- **Air Strippers**
- **Soil Vapor Extraction**
- **Landspreading of Soil**
- **Incineration**
- **Lead (Soil) Stabilization**
- **Bioventing**
- **Carbon Treatment**
- **Geosynthetic Liner Cap Design**
- **Thermal Desorption**
- **Landfilling**
- **Bioremediation**
- **Waste Excavation and Relocation**
- **Natural Attenuation**

MSA has been working on the following chlorinated solvent (dry cleaning) facilities over the past several years. Brief descriptions of the services MSA has provided are also included.

- **Beaver Cleaners**, Beaver Dam, Wisconsin- Conducted site scoping activities and the site investigation of the property.
- **Band Box Cleaners**, Beaver Dam, Wisconsin- Conducted site scoping activities and the site investigation of the property.
- **Portage Cleaners**, Portage, Wisconsin- Conducted the site scoping activities and the site investigation of the property.
- **The Laundry Basket**, Luck, Wisconsin- Conducted the site investigation of the petroleum and chlorinated releases on the property.
- **Badger Cleaners**, Baraboo, Wisconsin - Conducted site Scoping activities.
- **Weber Cleaners**, Richland Center, Wisconsin-Conducted site scoping activities.
- **Former Minocqua Cleaners**, Minocqua, Wisconsin-Remedial Action In Progress that includes groundwater monitoring, groundwater remediation system enhancements, and remediation by enhanced reductive dechlorination.
- **Former Quick Cleaners**, Marshfield, Wisconsin-Site investigation in progress.
- **Lees Cleaners**, Rice Lake, Wisconsin – Site investigation in progress.

REMEDIAL ACTION PLAN

Remedial Action Plan

Remedial Action Options Report

MSA has prepared a Remedial Action Options Report (RAOR) included in Appendix 3 of this proposal. The RAOR includes required information outlined in NR169.23(6) (a) through (d).

In summary, MSAs recommended remedial action is focused on mitigating vapors to reduce risks to the building occupants and augmentation of the groundwater contamination plume to increase the degradation of the chlorinated solvent plume and subsequently reduce the time to document decreasing groundwater contaminant concentrations.

Project Cost Estimate

The estimated cost to complete the scope of work outlined in our RAOR is $96,300. Detailed spreadsheet of the costs by category including unit costs is presented in **Table 1** which is included in Appendix 4.

MSA's costs will be based on time and materials spent working on the project in accordance with this NR 169 Remedial Action Bid proposal. Our Fee Schedule is attached to the enclosed Agreement for Environmental Consulting Services included in Appendix 5. Commodity services (drilling, laboratory analysis, construction services, etc.) will be provided by independent vendors. Costs for those services will be based on competitive bidding.

MSA will not exceed our proposed budget for the scope of work discussed herein provided that the site conditions are not different than what has been portrayed. If additional services are required, MSA will submit cost estimates for the additional services and will perform the additional services when authorization to proceed is obtained from our client. MSA and contracted services will comply with the applicable chapters of Wis. Adm. Code NR 169 and NR 700 rule series. MSA staff meets the requirements of NR 712, Wis. Adm. Code.

Additional proposal-specific conditions are summarized below.

1. Meetings with WDNR staff, outside of normal telephone conversations and field interactions, are not included in the attached project budget. Any meetings requested by WDNR would be invoiced on a time-and-material basis in accordance with our Fee Schedule.

2. Subcontractor markups are not reimbursable under the DERF program and therefore MSA assumes that the Client will contract directly with subcontractors to avoid the subcontractor markups if the services are contracted by MSA. At MSAs discretion, we may enter into subcontractor agreements for some services, and in those instances, MSA will not charge the Client for subcontractor markups.

3. Electrical costs for the operation of the remedial system are not included in our cost estimate.

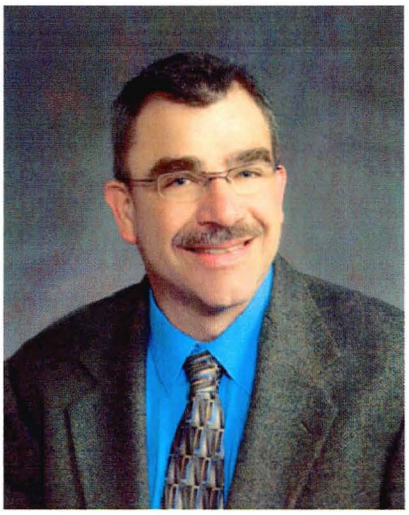
4. WDNR review and GIS registry fees are illustrated as an ineligible DERF cost in Table 1.

MSA's work will be performed in a manner to maximize your DERF eligibility. We will notify you immediately of potentially ineligible cost prior to incurring these costs.

APPENDIX 1

Resumes

Appendix 1



BRIAN J. HEGGE, P.H.

ENVIRONMENTAL PROGRAM MANAGER
QUALITY ASSURANCE/QUALITY CONTROL

EXPERIENCE

Mr. Hegge is responsible for the overall direction of the Environmental Services program and also manages and conducts remedial investigations, feasibility studies, and site remediation for leaking underground storage tank sites and industrial sites. He also performs environmental audits for property transfers and other commercial and industrial sites requiring soil and groundwater investigations and remediations.

Mr. Hegge has served as Project Manager on LUST projects in Minnesota and Wisconsin that included the initial site assessment, UST closure and reporting requirements at former and existing convenience stores, petroleum bulk facilities, municipal garages, and industrial sites. The projects have utilized approaches including soil gas studies, hollow-stem auger drilling methods, and GeoProbe sampling methods. Mr. Hegge currently manages projects at MSA contracted to the MPCA under MSA's Petroleum-Only Master Services Contract.

Mr. Hegge has performed Phase I and II environmental audits at various industrial and commercial facilities, reviewed the operations and waste handling practices for the purpose of identifying potential environmental problems, including asbestos, PCBs, wetlands, USTs, and radon, and verified compliance with state and federal regulations (RCRA, CERCLA, LUST, etc.). He developed recommendations and conducted Phase II audits to further evaluate the environmental liabilities of the facilities. The Phase II audits included sampling and analysis, engineering diagnostics, and cost engineering for recommended remedial actions.

RELEVANT EXPERIENCE

- The Laundry Basket, Petroleum Release, Luck, WI– Project manager for the investigation and closure of PEVFA eligible project.
- The Laundry Basket, Chlorinated Solvent Release, Luck, WI-Project manager for the investigation of a DERF eligible dry cleaning facility.
- Lees Cleaners, Chlorinated Solvent Release, Rice Lake, WI-Project manager for the investigation of a DERF eligible dry cleaning facility.
- Harmony County Cooperative, Agrochemical Release, Unity, WI-Project manager for the investigation of a ACCP eligible facility.
- MPCA Petroleum-Only Contract-Project manager for several state–LUST projects.

EDUCATION

B.S., Water Resources/Limnology, University of Wisconsin-Stevens Point

AREAS OF EXPERTISE

- Solid and Hazardous Waste Landfill Monitoring/Investigations
- Environmental Site Assessments for Property Transactions
- Leaking Storage Tank Remediations
- Regulatory Compliance
- Asbestos and Lead Inspection
- Brownfields
- Federal SUPERFUND Remedial Investigations/Feasibility Studies
- Agricultural Fertilizer and Pesticide Remedial ActionsQuality Control, Laboratory and Sampling Methods

PROFESSIONAL AFFILIATION

Certified Asbestos Inspector, WI, AII-4464

Professional Hydrologist, WI, 54-111

Wisconsin Groundwater Association

Federation of Environmental Technologist

EDUCATION

M.S., Geology
University of Minnesota-Duluth

B.S., Geology
University of Wisconsin-Oshkosh

AREAS OF EXPERTISE

- Soil and Groundwater Contamination Studies
- Soil and Groundwater Treatment System Monitoring
- Geologic Investigations
- Phase I and II Environmental Site Assessments

PROFESSIONAL AFFILIATION

Professional Geologist, WI, 54

Certified Professional Geologist, MN, 30281

Wisconsin Ground Water Association

Minnesota Ground Water Association

National Ground Water Association

American Institute of Professional Geologists (CPG #8907)

JAYNE A. ENGLEBERT, P.G., C.P.G.

SENIOR HYDROGEOLOGIST

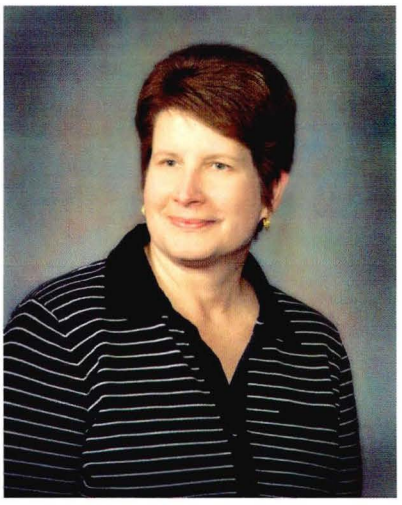
EXPERIENCE

As a senior hydrogeologist for the Environmental Program, Ms. Englebert oversees and leads all aspects of project planning and coordination that include client communications, directing site investigations, field sampling coordination, technical report writing, communication with regulatory agencies, remedial action planning, and remedial action implementation. In addition to project management, she also provides technical expertise for geologic and hydrogeologic characterization, designs and supervises drilling programs to delineate contaminant plumes, and performs aquifer characterization testing through in-field analysis, hydrogeologic calculations, and numerical groundwater modeling. In addition to site investigations, she has conducted operation and monitoring oversight of remedial systems, evaluated system effectiveness, and prepared reports of emissions and system performance to regulatory agencies.

Ms. Englebert has conducted Phase I and Phase II Environmental Site Assessments for commercial, residential, and industrial properties throughout the Midwest. Ms. Englebert is MSA's technical specialist for ESAs completed in conformance with the scope and limitations of ASTM Practice E 1527-05. Ms. Englebert is a certified asbestos inspector in Iowa and Wisconsin, a certified lead paint inspector in Wisconsin, and has been trained in mold sampling.

RELEVANT EXPERIENCE

- Band Box Cleaners, Beaver Dam, WI—Site Investigation, Vapor Sampling, Sub-slab System Installation
- Quick Cleaners, Marshfield, WI—Site Investigation
- Hanger Cleaners, Marshfield, WI—Site Investigation
- Weber's Cleaners, Richland Center, WI-Site Scoping Investigation
- United Cooperative – Portage Bulk Plant, Portage, WI
- Midwest Industrial Fuels, LaCrosse, WI
- Production Enterprises, Ashippun, WI
- Harmony Cooperative – Spencer Bulk Facility, Spencer, WI (Site Investigation, Excavation, Groundwater Monitoring)
- United Cooperative – Baraboo Fertilizer Facility, Baraboo, WI
- Hustler Hotel, Hustler, WI (Site Investigation, Remedial Action Implementation, Site Closure)



EDUCATION

B.S., Civil Engineering
University of Nevada-Las Vegas
Associates Degree, Environmental Health
Milwaukee Area Technical College-Milwaukee

WDNR Construction Erosion Control & Storm Water Pollution Prevention Training Sessions
FET Spill Prevention Control and Countermeasure Plans (SPCC)
WasteCap Accredited Professional in Construction and Demolition Debris Recycling

AREAS OF EXPERTISE

- Brownfield Building Demolition & Site Remediation
- Remediation System Design
- Spill Prevention, Control and Countermeasure (SPCC) Plans
- Storm Water Pollution Prevention Plans (SWPPP)
- Industrial WPDES Permit Applications

PROFESSIONAL AFFILIATION

Professional Engineer, WI, 0031561

Society of Women Engineers

Federation of Environmental Technologists

Wisconsin Groundwater Association

KRISTI L. DUBOIS, P.E.

SENIOR PROJECT ENGINEER

EXPERIENCE

Ms. DuBois has designed numerious remediation systems including in situ air sparging, soil vapor extraction, groundwater extraction, dual phase extraction, and free petroleum product removal for the remediation of petroleum contaminated soil and groundwater. Ms. DuBois also has supervised the excavation of petroleum and fertilizer contaminated soil at numerous sites throughout Wisconsin.

Ms. DuBois has prepared numerous spill prevention, control and countermeasure plans and storm water pollution prevention plans in accordance with state and federal regulations. She has also prepared storm water permit applications for various facilities.

In addition, Ms. DuBois has been the engineer of record on several brownfield demolition projects and is a WasteCap accredited professional in construction and demolition debris recycling.

RELEVANT EXPERIENCE

- Fairbanks Morse Engine, Beloit, WI- Diesel Remediation System Design, SPCC, SWPPP, WPDES Permit Application
- St. Clare Hospital, Baraboo, WI - Fuel Oil Remediation System Design
- Grede Foundries, Reedsburg, WI – SPCC, SWPPP
- BEST Biodiesel, Cashton Containment System Design, SPCC< SWPPP
- Band Box, Beaver Cleaners, Beaver Dam, WI Remedial Action Options Analyses
- Fairbanks Morse Engine, Beloit, WI- Diesel Remediation System Design
- Moritz Tire, Rhinelander, WI - Dual Phase Extraction System Design
- St. Clare Hospital, Baraboo, WI - Fuel Oil Remediation System Design
- Southern WI, Monroe, WI - Co-op Soil Vapor/Groundwater Extraction System Design
- Meier Loomer, Madison, WI - Soil Vapor Extraction System Design
- Former Sterling Oil, DeSoto, WI - Contaminated Soil Excavation & Soil Vapor Extraction system Design
- Lyles Spur Station, Tomah, WI - Soil Vapor Extraction/In-Situ Air Sparging System Design
- Federation Cooperative, Black River Falls, WI - Soil Vapor Extraction/ In-Situ Air Sparging System Design
- Barnes Automotive, Barnes, WI - Groundwater/Soil Vapor Extraction System Design
- Kwik Trip, Neillsville, WI - Dual Phase Extraction System Design

APPENDIX 2

Insurance Certificates

Appendix 2

ACORD

CERTIFICATE OF LIABILITY INSURANCE

OP ID RN

DATE (MM/DD/YYYY) 01/12/11

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Johnson Insurance - Madison 525 Junction Road Madison WI 53717 Phone:608-203-3880 Fax:877-254-8586	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	PRODUCER CUSTOMER ID #: MSAPR-1	

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
MSA Professional Services Inc. 1230 South Blvd. Baraboo WI 53913	INSURER A : CNA Insurance	20427C
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	☐ ☐ CLAIMS-MADE ☐ OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	☐ POLICY ☐ PRO-JECT ☐ LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ ALL OWNED AUTOS						BODILY INJURY (Per accident)	$
	☐ SCHEDULED AUTOS						PROPERTY DAMAGE (Per accident)	$
	☐ HIRED AUTOS							$
	☐ NON-OWNED AUTOS							$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DEDUCTIBLE							$
	☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						WC STATU-TORY LIMITS ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ N/A (Mandatory in NH)						E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	Prof Liability			AEH254011455	02/01/10	02/01/11	Ea Claim	$5,000,000
							Aggregate	$5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
Claims Made Policy - Environmental Coverage Included.

CERTIFICATE HOLDER

LAUNDRY

The Laundry Basket
Lois Baldwin
300 S Main St
Luck WI 54853

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2009/09)

ACORD CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 01/11/2011

PRODUCER (608)356-6606 FAX (608)356-9022
Don-Rick, Inc.
313 Oak Street
P.O. Box 528
Baraboo, WI 53913

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED MSA PROFESSIONAL SERVICES INC
1230 S BOULEVARD
BARABOO, WI 53913

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: Regent Ins. Co. (48-0770)	24449
INSURER B: General Casualty (48-0770)	24414
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS		
A		GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY X PRO-JECT LOC	CCS 0417634	06/30/2010	06/30/2011	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ $ $ $ $ $	1,000,000 100,000 5,000 1,000,000 2,000,000 2,000,000
A		AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS X Comprehensive-$250 X Collision-$500	CBA 0417634	06/30/2010	06/30/2011	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $	1,000,000
		GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ $ $	
B		EXCESS/UMBRELLA LIABILITY X OCCUR CLAIMS MADE DEDUCTIBLE X RETENTION $ 0	CCU 0417634	06/30/2010	06/30/2011	EACH OCCURRENCE AGGREGATE	$ $	5,000,000 5,000,000
A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	CWC 0417634	06/30/2010	06/30/2011	WC STATU-TORY LIMITS X OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $	500,000 500,000 500,000
		OTHER						

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

CERTIFICATE HOLDER

The Laundry Basket
Lois Baldwin
300 South Main Street
Luck, WI 54853

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
Wendy Gerken/WSG

ACORD 25 (2001/08)

APPENDIX 3

Remedial Action Options Report (RAOR)

REMEDIAL ACTION OPTIONS REPORT

The Laundry Basket
300 South Main Street, Luck, WI 54853

January 13, 2011

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EXECUTIVE SUMMARY

MSA Professional Services, Inc. (MSA) has prepared this Remedial Action Options Report (RAOR) to accompany MSAs NR 169 Remedial Action Bid proposal for the Laundry Basket DERF Project in accordance with WAC NR 722. This RAOR includes a brief summary of the existing conditions, a discussion of possible remedial actions, and recommends a specific remedial action.

BACKGROUND INFORMATION

Project Title:	The Laundry Basket DERF Project
Site Address:	300 South Main Street, Luck, WI 54853
Responsible Party:	Ms. Lois Baldwin 517 4th Street, Luck, WI 54421 (715) 472-2410
Name of Person(s) Preparing the Report:	Jayne Englebert, P.G. Kristi Du Bois, P.E. MSA Professional Services, Inc. 1230 South Boulevard, Baraboo, WI 53913 (608) 356-2771
Regulatory Status of Site:	Open
WDNR BRRTs #:	02-49-544893

SUMMARY OF SITE CONDITIONS

SITE HISTORY AND DESCRIPTION

The Laundry Basket is located at 300 South Main Street in the Village of Luck. The site location is shown on Figure 1. The site layout is shown on Figure 2.

The site is a former gas station and drycleaner on the west side of the Village of Luck. Surrounding land use is mixed commercial. Two underground petroleum storage tanks were removed from the site in approximately 1973. The drycleaner equipment was removed from the property in 2009. It is unknown how long the property operated as a gas station or drycleaner. The site is currently an active laundromat and ice cream parlor. The laundromat (and former drycleaner) portion of the building does not have a basement and has a concrete slab on grade construction. The ice cream parlor portion of the building has a partial basement.

GEOLOGY AND HYDROGEOLOGY

Soil at the site consists of sand and silty sand to at least 10.5 feet below ground surface (bgs). The depth to groundwater is approximately 6.5 ft bgs, ranging from 6 to 7 feet during the site investigation (SI). The water table groundwater flow direction is generally to the west. Groundwater flow in the deeper piezometer wells is also to the west-southwest.

Relatively slight downward vertical gradients were measured at piezometer nests during the SI. The average downward vertical gradient on July 14, 2009 was -0.005 ft /ft, which was typical during the SI.

A pump down test was conducted at well PZ-1 and MW-2 to determine the hydraulic conductivity of the aquifer on May 2, 2007. The test results were analyzed using the Aqtesolv program from Geraghty and Miller and the Bouwer-Rice method for unconfined aquifers. Well MW-2 is typical of most of the wells at the site, in that it cannot be bailed dry during sampling. The hydraulic conductivity at this well calculated to be 3.2×10^{-3} cm/sec. Two tests were also conducted at PZ-1 (Slug-In and Slug-Out), screened from 35 to 40 feet below grade. The average hydraulic conductivity at this well was determined to be 5.25×10^{-3} cm/sec.

Transmissivity was calculated using the K value from MW-2 assuming a minimum and maximum thickness of 5 and 100 feet respectively. These estimates were based on published data and well logs reviewed for the area. Transmissivity values were calculated to be between 45 ft^2 /day and 907 ft^2/day.

Groundwater velocity was also calculated for horizontal flow. The hydraulic gradient interpreted between flow lines was 0.001. The resulting velocity was calculated to be 13.14 ft/year.

SITE INVESTIGATION SUMMARY

Analytical data was collected from nine soil borings and 24 monitoring wells to evaluate the vertical and horizontal regions of contamination. Chlorinated compounds were discovered during the petroleum release site investigation and are co-mingled with petroleum product. As a result, a separate tracking

number was assigned by the WDNR for the petroleum and chlorinated compound contamination and this report will only address the solvent release.

Tetrachloroethylene (PCE) soil contamination exceeding site specific residual contaminant level (RCL) for the groundwater pathway were detected at 7 soil borings on the source property. The extent of the unsaturated soil contamination appears to be limited to the area near the Laundry Basket building. The PCE soil contamination did not exceed the site specific direct contact RCLs for ingestion, inhalation of dust, or inhalation of vapors.

PCE vapors exceeding the EPA Target Shallow Soil Vapor Concentration were detected at all 6 vapor probes, including the probe located off the source property.

Three chlorinated solvents typically associated with drycleaning operations, PCE, trichloroethylene (TCE), and cis-1,2-dichloroethene (DCE), were detected in the groundwater at concentrations exceeding the NR 140 ES. The extent of the groundwater contaminant plume was defined during the SI.

Site investigation activities did not provide any evidence that would indicate the utilities located in Main Street (sanitary sewer, water) would provide a preferential pathway for groundwater contamination.

There were no private water supply wells identified within 100 ft. of the site and no public water supply wells within 1,000 ft.

In conclusion, the following risks were identified during the site investigation:

Soil

- PCE soil concentrations did not exceed the site specific non-industrial direct contact RCLs for the ingestion, inhalation of dust, and inhalation of volatiles exposure pathways.

- The PCE concentrations in unsaturated soil exceeded the groundwater pathway RCL of 0.006 mg/Kg at borings P-2, SB-2, SB-5, SB-7, SB-9, HA-1, and HA-2. These samples were collected primarily in the water table smear zone, and may be representative of groundwater contamination.

Groundwater

- Concentrations of PCE, TCE, and cis 1,2-DCE were detected in the groundwater at concentrations exceeding the NR 140 ES.

Soil Vapor Sampling

- The following six compounds exceeded the EPA's Target Shallow Soil Vapor Concentrations in samples from one or more vapor probes: benzene, ethylbenzene, methylene chloride, PCE, trichloroethlylene (TCE), and 1,2,4-trimethylbenzene (TMB).

- PCE vapor concentrations exceeded the EPA Target Shallow Soil Vapor Concentration of 8.1 $\mu g/m^3$ in six of the soil vapor samples. The highest concentrations were detected in sub-slab samples from probes VP-2 and VP-3, collected from within the Laundry Basket building. PCE vapors exceeding the EPA Target Shallow Soil Concentration were also detected at VP-1 located on the north side of 3rd Avenue, and VP-5 and VP-6, located along the south property boundary.

The sample results indicate PCE vapors in the soil extend off the Laundry Basket property to the west and to the south.

Indoor Air Sampling

- Indoor air samples were collected from three locations in July 2010. The sample locations included the basement of the ice cream parlor, an "outdoor" sample in the foyer leading into the laundromat, and in the storeroom area of the Laundromat approximately 8 feet from the former drycleaner equipment location. Tetrachloroethylene concentrations of 466 and 1,530 ug/m^3 were detected in the basement and storeroom samples, exceeding the indoor air quality limit of 20.8 ug/m^3 for this compound.

Potential Receptors

No private wells are located within 100 feet of the site. There are three Village of Luck wells which are located more than 1,000 feet down gradient from the release site. Modeling to determine the risk the groundwater contamination poses to the closest Village of Luck well is discussed in detail in a later section.

The property is currently an active laundromat and ice cream parlor. There is a basement under the west half of the building. The lot directly south of the site is currently a computer business. The Luck Lumber Company is located to the north of this site and their warehouse is to the east. Vapors were detected in sub-slab sampling at the ice cream parlor and Laundromat onsite. No offsite sub-slab vapor samples were collected. Due to the decrease in groundwater contamination offsite, MSA does not believe there is an indoor air quality risk to adjacent properties, except for the possibility of vapor intrusion into the computer store to the south of the Laundry Basket as discussed later in this report.

REMCHLOR MODEL OF LAUNDRY BASKET CHLORINATED SOLVENT RELEASE

The Remediation Evaluation Model for Chlorinated Solvents (REMChlor) was used to evaluate the PCE plume at the Laundry Basket site. The plume was evaluated to assess if Municipal Well #2 would potentially be impacted by the PCE groundwater plume.

Three simulations were performed to evaluate the PCE plume. The first simulation was based on site data and standard assumptions. Since no source area was defined during the site investigation (but is assumed to be in the vicinity of the former drycleaning equipment), an estimated source area concentration was used. The second simulation doubled the estimate of mass of PCE in the source zone. The third simulation increased the transverse dispersivity (α_y) from the standard 0.1 to 0.5, to provide a conservative plume width.

The model results indicate that Municipal Well #2 should not be impacted by the PCE plume at the Laundry Basket site. The assumptions are presented below. The modeling results showing the maximum width of the plume are attached. The results are summarized below.

Test 1 Assumptions

Source Concentration, 0.0048 g/L	Site data
Mass (Kg), 165	Estimated from unsaturated soil contamination
Gamma, 1	Suggest to be between 0.5 to 2
Source Remediation, 0	Evaluating no source area remediation
Retardation Factor, 2.74	Estimated using $R= 1+ (Kd*\rho)/n$
Source Decay, 0	Conservative estimate
Sigmav, 0.45	This sets α_x at 0.1 of plume length.
Alphay, 0.1	This sets α_y at 0.1 of α_x.
Alphaz, 0.01	This sets α_z at 0.01 of α_x.
Plume decay rates, program defaults	
Component yields, program defaults	
Time, 100 Years simulation	

Test 1 Results

The PCE plume maximum was reached at 80 years, and was approximately 32 meters wide and 190 meters long. The TCE plume maximum was reached at 100 years, and was approximately 48 meters wide and 350 meters long. The DCE plume maximum was reached at 100 years, and was approximately 32 meters wide and 320 meters long. The VC plume maximum was reached at 100 years, and was approximately 48 meters wide and over 500 meters long.

Test 2 Assumptions

Source Concentration, 0.0048 g/L	Site data
Mass (Kg), 330	Conservative Estimate of soil contamination
Gamma, 1	Suggest to be between 0.5 to 2
Source Remediation, 0	Evaluating no source area remediation
Retardation Factor, 2.74	Estimated using $R= 1+ (Kd*\rho)/n$
Source Decay, 0	Conservative estimate
Sigmav, 0.45	This sets α_x at 0.1 of plume length.

Alphay, 0.1	This sets α_y at 0.1 of α_x.
Alphaz, 0.01	This sets α_z at 0.01 of α_x.
Plume decay rates, program defaults	
Component yields, program defaults	
Time, 100 Years simulation	

Test 2 Results

The PCE plume maximum was reached at 100 years, and was approximately 32 meters wide and 200 meters long. The TCE plume maximum was reached at 100 years, and was approximately 48 meters wide and over 360 meters long. The DCE plume maximum was reached at 100 years, and was approximately 32 meters wide and 330 meters long. The VC plume maximum was reached at 100 years, and was approximately 48 meters wide and over 500 meters long.

Test 3 Assumptions

Source Concentration, 0.0048 g/L	Site data
Mass (Kg), 330	Conservative Estimate of soil contamination
Gamma, 1	Suggest to be between 0.5 to 2
Source Remediation, 0	Evaluating no source area remediation
Retardation Factor, 2.74	Estimated using $R= 1+ (Kd*\rho)/n$
Source Decay, 0	Conservative estimate
Sigmav, 0.45	This sets α_x at 0.1 of plume length.
Alphay, 0.5	This sets α_y at 0.1 of α_x.
Alphaz, 0.01	This sets α_z at 0.01 of α_x.
Plume decay rates, program defaults	
Component yields, program defaults	
Time, 100 Years simulation	

Test 3 Results

The PCE plume maximum was reached at 100 years, and was approximately 48 meters wide and 200 meters long. The TCE plume maximum was reached at 100 years, and was approximately 76 meters wide and over 340 meters long. The DCE plume maximum was reached at 100 years, and was approximately 48 meters wide and 290 meters long. The VC plume maximum was reached at 100 years, and was approximately 90 meters wide and over 500 meters long.

Conclusion

Municipal Well #2 is located approximately 1,100 ft (335 meters) west (downgradient) and 800 ft (245 meters) north (sidegradient). Even using the most conservative simulation with twice the mass in the source area, and a transverse dispersivity of 0.5, the widest the plume should get is 45 meters (150 ft) north of the centerline of the plume. The plume of PCE and its breakdown compounds should not impact Municipal Well #2, based on the REMChlor Model results.

IDENTIFICATION AND EVALUATION OF REMEDIAL ACTION OPTIONS

In accordance with WAC NR 722.05, responsible parties shall select an appropriate remedial action or combination of remedial actions for implementation. Responsible parties are required to document evaluation of a remedial option or combination of options which would utilize recycling or treatment technologies that destroy or detoxify contaminants rather than transfer the contaminants to another media. Remedial actions were identified for further evaluation that would be reasonably likely to be feasible, based on the hazardous substances present; media contaminated and site characteristics in accordance with WAC NR 722.09.

OPTIONS FOR SOIL REMEDIATION

Soil samples were not obtained directly beneath an existing dry cleaning machine (now removed). For purposes of remedial action option evaluation, the soil beneath the former machine is assumed to be the source of contamination at the site. Options considered for remediation of the unsaturated source zone soil are as follows:

1. Excavation. Assuming the source of the contamination is directly beneath the former dry cleaning machine, this soil is inaccessible for excavation. The building is still in use as a Laundromat and ice cream shop. If future sampling determines that soil with a direct contact exceedance is present, it will need to be addressed when the building is torn down at a future date. This option was not carried forward.

2. In-situ Chemical Oxidation. The continued use of the building prevents delivery of chemical oxidants to the source area. The location of the former dry cleaning machine prevents access as it is surrounded by walls and a service counter. This option was not carried forward.

3. Soil Vapor Extraction (SVE). Based on experience at similar sites with shallow groundwater, SVE is likely to require seasonal operation due to freezing of conveyance piping placed in the frost zone. The cost of installing an SVE system was considered to be greater than the benefit due to limited operation of the system. In addition, this option transfers contaminants to another medium. This option was not carried forward.

4. Sequestration of Contaminant Mass. An emerging strategy for source area treatment is the injection of low solubility hydrophobic material such as vegetable oil directly into the source zone for sequestration of contaminant mass. Long-term contaminant destruction is achieved by providing a carbon source to stimulate anaerobic dechlorination. Ultimately the oil will degrade and contaminant mass will be released from the oil back into an environment that is optimal for anaerobic dechlorination to occur (AFCEE 2004). The strategy is being evaluated by the Environmental Security Technology Certification Program (ESTCP) and no documentation on test results is yet available; therefore, this option was not carried forward. This may be an option in the future when more information is available.

5. No Action. In accordance with WAC NR 720.09(2)(a), contaminated soil must be restored in compliance with WAC NR 720. Natural attenuation would eventually reduce risk at this site; however, lack of action does not address the public health issues associated with vapor intrusion at this site. Monitored natural attenuation is generally chosen as a polishing technique after other remedial measures have been accomplished.

OPTIONS FOR VAPOR INTRUSION

The following options were evaluated for vapor intrusion in the Laundry Basket building. All three options were carried forward as follows:

- Use floor sealant and concrete repair to seal the concrete under the former dry cleaning machine to prevent vapors from the saturated concrete from entering the laundromat facility.
- Vapor intrusion into the former dry cleaning facility (laundromat) will be mitigated with a sub-slab depressurization system. Sub-slab depressurization may not be feasible for the ice cream shop portion of the building due to the proximity of the water table. During vapor sampling it was noted that the basement walls and floor were wet. For purposes of option evaluation, however, this was retained as an option. Three separate sub-slab systems were proposed (beneath former dry cleaning machine, laundromat, and ice cream shop).
- The sub-slab depressurization system will remove vapors from under the former dry cleaning machine area. In addition, a hand auger will be used to install a 2-inch slotted PVC pipe to a depth of 8 feet to remove vapors from the source area under the former dry cleaning machine.

OPTIONS FOR GROUNDWATER REMEDIATION

Groundwater concentrations at this site consistently exceed State enforcement standards. Due to the shallow groundwater, the contamination presents a threat of vapor migration into the Laundry Basket building and potentially the computer store to the south. Vapor intrusion is being mitigated in the Laundry Basket building with a sub-slab depressurization system as discussed earlier.

The following options were evaluated for remediation of the groundwater at this site:

1. Enhanced Anaerobic Bioremediation. Enhanced reductive dechlorination of PCE has been successfully used at former dry cleaner sites that are similar to the Laundry Basket site using whey substrate. Whey is readily available from local dairies. The Wisconsin Department of Natural Resources (Hank Kuehling) indicated that monitoring data has shown anaerobic conditions in response to injection events at sites with similar geology.

   It is possible that enhancements would have to be added after the first injection to adjust pH and provide bioaugmentation and wells would need to be redeveloped due to biofouling. Whey substrate would be delivered via tanker truck from the Burnett Dairy Coop. The whey would be injected into eight permanent injection wells in the initial injection event. Three temporary geoprobe points may be used in a second injection based on an evaluation of the results from the first injection. This option does not transfer contaminants to another media and was carried forward.

2. Groundwater Pump and Treat. Groundwater pumping and treatment has been shown to be a long term remediation option with high operation and maintenance costs. It also transfers pollutants to another media and was not carried forward as an option.

3. No Action. WAC NR 722.09(2)(b) requires groundwater to be restored in accordance with preventive action limits to the extent that is economically and technically feasible. This option was not carried forward.

CONCLUSION

Based on this evaluation, MSA has determined that the most cost-effective combination of methods to protect public health at this site is:

- Groundwater remediation using enhanced anaerobic bioremediation – whey substrate injection
- Sub-slab vapor system installation

This work will be followed by two years of groundwater monitoring to determine the effectiveness of the above combined remedial strategies to reduce the groundwater contamination. A more detailed scope of work outlining these steps follows.

SCOPE OF WORK FOR PROPOSED REMEDIAL ACTION

GROUNDWATER REMEDIATION USING ENHANCED ANAEROBIC BIOREMEDIATION

Eight permanent injection wells would be installed to complete the first injection event. The need for three additional temporary wells would be evaluated for the second injection event. The temporary wells would be used to inject whey substrate to the area between the Laundry Basket building and computer building to the south. The width of this area renders it inaccessible to the size geoprobe capable of installing permanent wells.

The initial injection event would demonstrate the ability of enhanced in situ bioremediation to stimulate complete dechlorination of chlorinated aromatic hydrocarbons. The goal of the injections is to reduce or eliminate vapor intrusion from contaminated groundwater and soil in the area of the release.

This phase includes the following tasks:

- Prepare and submit a Design Report in accordance with WAC NR 724.09.
- Conduct pre-injection groundwater sampling to characterize dissolved oxygen, total organic carbon, pH, methane-ethane-ethene, iron, nitrate, sulfate and alkalinity.
- Conduct groundwater sampling prior to injection from 17 monitoring wells. Two years of quarterly groundwater sampling and will be conducted on a reduced number of wells.
- Install eight permanent injection wells. Permanent wells will be 2-inches in diameter and 20 feet deep with 0.030 slot screens. The screened portion of the well will be placed two feet below the water table elevation, from approximately 10 to 20 ft below ground surface. The top of screen elevation can be adjusted in the field.
- A local dairy, Burnett Dairy Cooperative will provide delivery and injection of whey. Injection of 10,000 gallons of whey substrate (5,000 gallons per day for two days) would be used for injections. The co-op can evaporate and concentrate the whey to increase the lactose content; however, this also increases the solids content, so the whey will not be concentrated (see Appendix for analyses).
- Obtain a soil sample from beneath the former dry cleaning machine and evaluate chlorinated aliphatic hydrocarbons (CAHs), fractional organic carbon, and grain size analysis. Previous vapor sampling established a public health risk, so it will not be repeated in the suspected source zone.
- Install a sub-slab depressurization unit in the Laundry Basket and Ice Cream shop (three separate units).
- Obtain an indoor air sample (EPA Method TO-15) for vapor intrusion from the computer store adjacent to the Laundry Basket to determine if a public health risk exists in that building.
- Conduct post injection groundwater sampling to characterize dissolved oxygen, total organic carbon, pH, methane-ethane-ethene, iron, nitrate, sulfate and alkalinity.
- Evaluate data for reducing conditions and rebound. Prepare a Construction Documentation Report to document sub-slab depressurization unit installation, well installation, and injection and sampling results in accordance with WAC NR 724.15. Propose an additional injection event (and evaluate need for three additional temporary wells). Determine the need for bioaugmentation/amendment addition and propose addition of amendments if needed.
- Complete one more injection event on a six month interval.
- Perform two post sub-slab depressurization installation air samples (EPA Method TO-15) at an interval of six months and one year in the onsite building.

PERMITS

- DNR review and approval of injection well and injection plan ($500 DNR review fee).
- Wisconsin Pollutant Discharge Elimination System permit for injection of whey into subsurface.
- Building permit for construction of sub-slab depressurization systems.

INJECTION EVENTS/GROUNDWATER MONITORING SCHEDULE

This proposal includes groundwater sampling as outlined below:

Action	Timeline
Groundwater Sampling Prior to Injection	Month 1
Whey Substrate Injection	Month 1
Quarterly Sampling	Month 3
Evaluate Data	Month 4
Whey Substrate Injection	Month 6
Quarterly Sampling	Month 9
Annual Sampling	Month 12
Quarterly Sampling	Month 15
Quarterly Sampling	Month 18
Quarterly Sampling	Month 21
Annual Sampling	Month 24
Evaluate Site Closure	Month 25

CLOSURE

Once remediation goals are achieved, MSA will request closure of the site. The closure phase of this site includes the following:

- Prepare request for site closure and submit to the DNR.
- Upon closure of the site costs will be determined to abandon monitoring and injection wells.

ANTICIPATED SCHEDULE

The anticipated project schedule is listed in the table below.

Task	Anticipated Completion Date*
Submittal of the Remedial Action Proposal	January 2011
WDNR/Client authorization	February 2011
Installation of injection wells	March 2011
Installation of sub-slab system, concrete floor sealant, groundwater sampling	March 2011
Injection #1	May 2011
Const. Documentation/Status Report	July 2011
Injection #2	November 2011
DNR Status Report	December 2011
Evaluate Closure	June 2013
Well Abandonment	July 2013
Final Closure	August 2013
Final DERF Claim Submittal	August 2013

*Anticipated completion dates are contingent upon DNR and client review time and approvals, and the schedules of MSA, laboratory, and subcontractors.

REFERENCES

1. Principles and Practices of Enhanced Anaerobic Bioremediation of Chlorinated Solvents, AFCEE, August 2004.

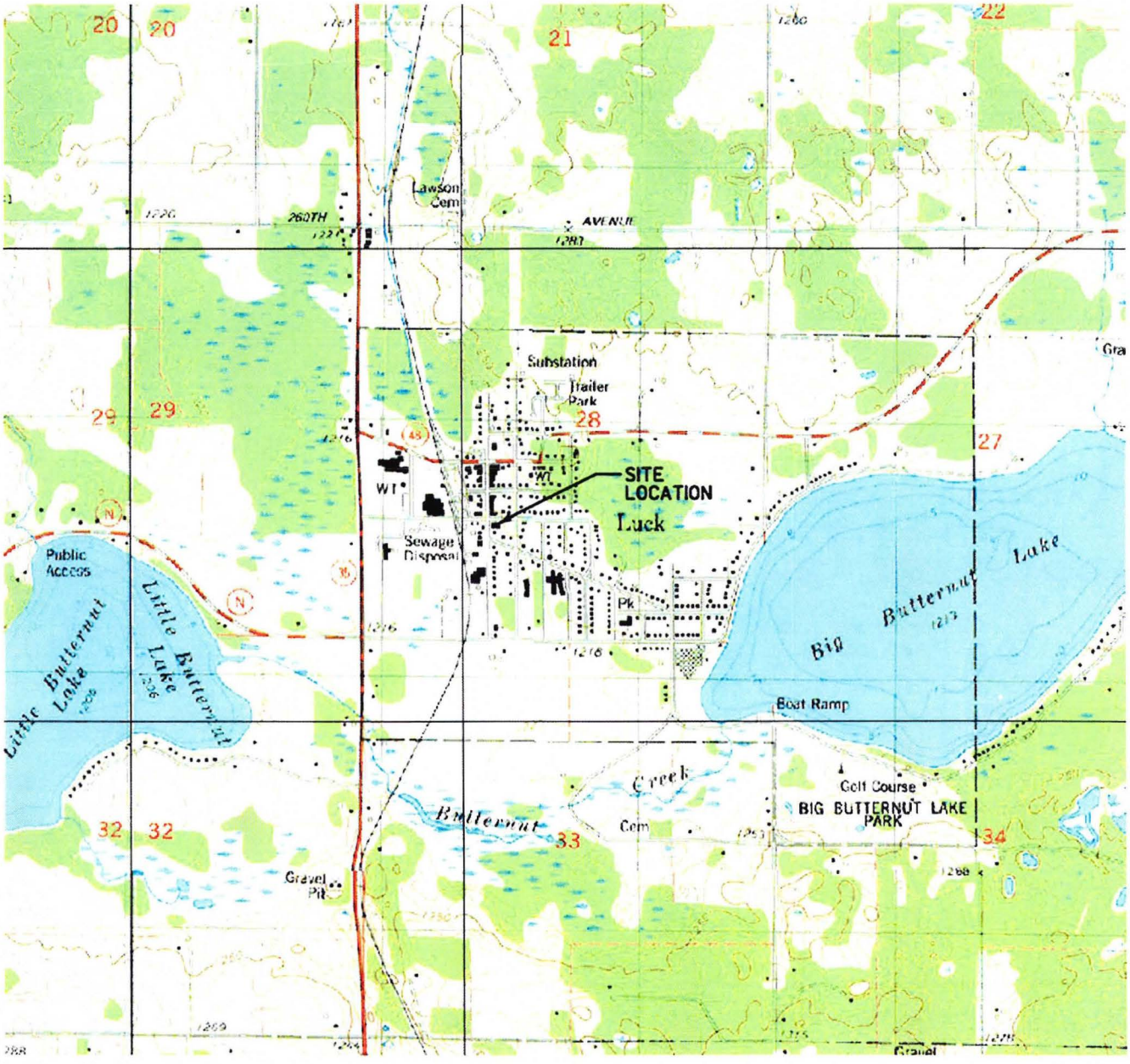
2. Evaluation of the Role of Dehalococcoides Organisms in the Natural Attenuation of Chlorinated Ethylenes in Ground Water, EPA, 2005

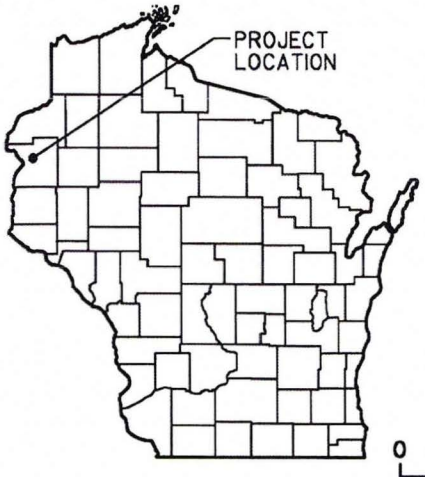
3. Loading Rates and Impacts of Substrate Delivery for Enhanced Anaerobic Bioremediation, ESTCP Project ER-0627.

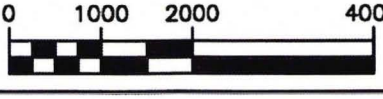
4. Site Investigation Report (Chlorinated Solvent Release), MSA, February 2010.

5. Vapor Intrusion Letter Report, MSA, 2010.

FIGURES







Luck Quadrangle
Wisconsin - Polk County
7.5 minute series (Topographic)
Contour Interval = 10 feet

FIGURE 1

SITE LOCATION MAP

LAUNDRY BASKET
LUCK, WISCONSIN

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL
DEVELOPMENT • ENVIRONMENTAL
1835 N. Stevens St. Rhinelander, WI 54501
715-362-3244 1-800-844-7854 Fax: 715-362-4116

F.B.		PROJECT	
DRAWN BY	CAR	DATE	7/07
CHECKED BY	DA	SCALE	AS SHOWN

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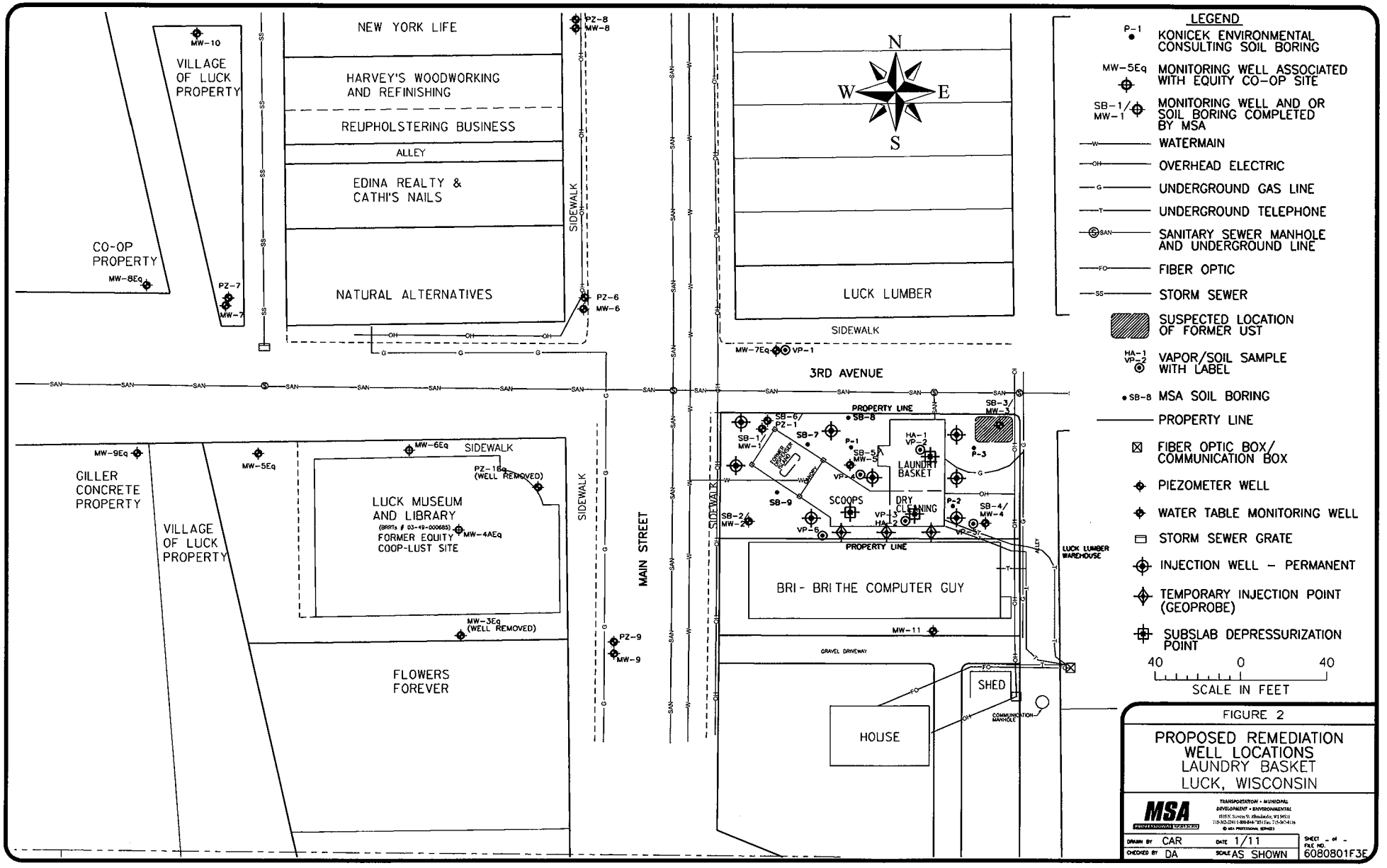

FIGURE 2

PROPOSED REMEDIATION WELL LOCATIONS
LAUNDRY BASKET
LUCK, WISCONSIN

MSA PROFESSIONAL SERVICES
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CHECKED BY DA | SCALE AS SHOWN

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APPENDIX

Burnett Dairy Cooperative
Grantsburg, WI
Earl Wilson, Manager
715-689-2468, ext. 2102

Raw whey lactose concentration varies. Raw whey is sent through ultrafiltration to remove protein. Unconcentrated whey coming off the UF machine is 10% solids, 9% lactose, 1% ash, 0.5% protein. Whey can be evaporated and concentrated to increase lactose, but also increases solids. Concentrated whey is 25% solids, 18% lactose, 2% ash, and 1% protein.

Truckload is 5,000 gallons. Dairy charges $400 for a load of whey, $200 for delivery and $20 per hour for standby.

APPENDIX 4

Table 1

Table 1
Remedial Action Bid, Laundry Basket, 300 South Main Street, Luck, Wisconsin
BRRTS # 02-49-544893
January 14, 2011

Descriptions	Principal	Project Manager	Sr. Hydro/Eng/Sci	Project Hydro/Eng/Sci	Staff Hydro/Eng/Sci	Env. Spec.	Tech Support	Clerical	Expenses	DERF Ineligible Costs	TOTAL	Comments
Pre-Construction Documents and Permits		10	80				12	8		$500	$9,620	DNR Permit Review Fee
Pre-Injection Groundwater Characterization and One Round of Sampling from 17 wells		2		8		20			$3,500		$5,600	Analytical Laboratory
Installation of Injection Wells		2	10			30			$11,900		$14,860	Well Installation Contractor, Soil Disposal
Two Whey Injection Events		10	60			60			$4,200		$14,500	Injection Contractor and Whey Delivery
Installation of Active Subslab Depressurization System		2	4		24	24			$5,000		$8,740	Subslab Supplies, Floor Sealing, Soil Disposal
Collect Soil Sample and Conduct Indoor and Two Post Depressurization Installation Air Samples		2				20			$1,800		$3,260	Analytical Laboratory
Two Years of Groundwater Monitoring		32	40			120	8	8	$15,000		$30,840	Analytical Laboratory, Purge Water Disposal
Construction Documentation Report		8	24				8	8			$4,080	
Case Closure Costs		8	32				8	8		$1,200	$4,800	DNR Review, GIS Fees, does not include well abandonment
TOTAL HOURS		76	250	8	24	274	36	32	700			
LABOR RATE	$150	$130	$90	$80	$70	$60	$60	$50				
TOTAL COST	$0	$9,880	$22,500	$640	$1,680	$16,440	$2,160	$1,600	**$41,400**	$1,700	**$96,300**	

54900/41400

APPENDIX 5

Contracts

Environmental Consulting Services Agreement

MSA PROFESSIONAL SERVICES
TRANSPORTATION · MUNICIPAL
DEVELOPMENT · ENVIRONMENTAL

This AGREEMENT ("Agreement") is made on January 14, 2011, by and between THE LAUNDRY BASKET (OWNER) and MSA PROFESSIONAL SERVICES, INC. (MSA), Rhinelander, which agree as follows:

Scope of Services: MSA shall provide the scope of professional environmental consulting services for the OWNER, directly or indirectly, indicated in the letter proposal dated January 14, 2011 ("Services"). Any changes or additions to the Scope of Services shall be made by written amendment to this Agreement by MSA and OWNER.

Terms and Conditions: All Services performed by MSA pursuant to this Agreement shall be performed in accordance with, and MSA's and OWNER's obligations shall be governed by, the General Terms and Conditions attached hereto and incorporated herein by this reference. Any attachments or exhibits referenced in this Agreement are made part of this Agreement.

Authorization: MSA will commence performance of the Services on this project upon OWNER's written authorization. OWNER's written authorization is provided and acknowledged by the signatures of MSA's and OWNER's authorized representatives below. By signing this Agreement below, each of the undersigned parties represent and warrant that he or she has full right, power and authority to execute this Agreement and bind his or her respective party to the terms and conditions hereof. A copy of this fully-executed Agreement shall be returned for MSA's files.

Survival: The General Terms and Conditions incorporated into this Agreement shall survive the completion of the Services performed hereunder or the termination of this Agreement for any cause.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement and intend to be bound thereby.

THE LAUNDRY BASKET

_____
Lois & Ardell Baldwin
Owner

Date:_____

517 S Fourth St
Luck, WI 54853-9045
Phone: (715) 472-2410
Fax:

MSA PROFESSIONAL SERVICES, INC.

_____
Brian Hegge
Program Manager

Date:_____

1835 North Stevens Street
Rhinelander, WI 54501
Phone: (715) 362-3244 x131
Fax: (715) 362-4116

1. The quoted fees and scope of services constitute the best estimate of the fees and tasks required to perform the services as defined. This agreement upon execution by both parties hereto, can be amended only by written instrument signed by both parties. For those projects involving conceptual or process development service, activities often cannot be fully defined during initial planning. As the project progresses, facts uncovered may reveal a change in direction which may alter the scope. MSA will promptly inform the OWNER in writing of such situations so that changes in this agreement can be made as required.

2. MSA will bill the OWNER monthly with net payment due upon receipt. Past due balances shall be subject to an interest charge at a rate of 12% per year from said thirtieth day. In addition, MSA may, after giving seven days written notice, suspend service under any agreement until the OWNER has paid in full all amounts due for services rendered and expenses incurred, including the interest charge on past due invoices.

3. Costs and schedule commitments shall be subject to change for delays caused by the OWNER's failure to provide specified facilities or information or for delays caused by unpredictable occurrences including, without limitation, fires, floods, riots, strikes, unavailability of labor or materials, delays or defaults, by suppliers of materials or services, process shutdowns, acts of God or the public enemy, or acts of regulations of any governmental agency. Temporary delays of services caused by any of the above which result in additional costs beyond those outlined may require renegotiation of this agreement.

4. MSA intends to serve as the OWNER's professional representative for those services as defined in this agreement, and to provide advice and consultation to the OWNER as a professional. Any opinions of probable project costs, reviews and observations, and other decisions made by MSA for the OWNER are rendered on the basis of experience and qualifications and represents the professional judgment of MSA. However, MSA cannot and does not guarantee that proposals, bid or actual project or construction costs will not vary from the opinion of probable cost prepared by it.

5. This agreement shall not be construed as giving MSA, the responsibility or authority to direct or supervise construction means, methods, techniques, sequence, or procedures of construction selected by the contractors or subcontractors or the safety precautions and programs incident to the work of the contractors or subcontractors.

6. In conducting the services, MSA will apply present professional, engineering and/or scientific judgment, and use a level of effort consistent with current professional standards in the same or similar locality under similar circumstances in performing the Services. The OWNER acknowledges that "current professional standards" shall mean the standard for professional services, measured as of the time those services are rendered, and not according to later standards, if such later standards purport to impose a higher degree of care upon MSA.

MSA does not make any warranty or guarantee, expressed or implied, nor have any agreement or contract for services subject to the provisions of any uniform commercial code. Similarly, MSA will not accept those terms and conditions offered by the OWNER in its purchase order, requisition, or notice of authorization to proceed, except as set forth herein or expressly agreed to in writing. Written acknowledgement of receipt, or the actual performance of services subsequent to receipt of such purchase order, requisition, or notice of authorization to proceed is specifically deemed not to constitute acceptance of any terms or conditions contrary to those set forth herein.

7. MSA shall make visits to the site at intervals appropriate to the various stages of construction as MSA deems necessary in order to observe as an experienced and qualified design professional the progress and quality of the various aspects of Contractor's work.

The purpose of MSA's visits to and representation at the site will be to enable MSA to better carry out the duties and responsibilities assigned to and undertaken by MSA during the Construction Phase, and, in addition, by the exercise of MSA's efforts as an experienced and qualified design professional, to provide for OWNER a greater degree of confidence that the completed work of Contractor will conform in general to the Contract Documents and that the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents has been implemented and preserved by Contractor. On the other hand, MSA shall not, during such visits or as a result of such observations of Contractor's work in progress, supervise, direct or have control over Contractor's work nor shall MSA have authority over or responsibility for the means, methods, techniques, sequences or procedures of construction selected by Contractor, for safety precautions and programs incident to the work of Contractor or for any failure of Contractor to comply with laws, rules, regulations, ordinances, codes or orders applicable to Contractor's furnishing and performing the work. Accordingly, MSA neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform its work in accordance with the Contract Documents.

8. This Agreement shall commence upon execution and shall remain in effect until terminated by either party, at such party's discretion, on not less than thirty (30) days' advance written notice. The effective date of the termination is the thirtieth day after the non-terminating party's receipt of the notice of termination. If MSA terminates the Agreement, the OWNER may, at its option, extend the terms of this Agreement to the extent necessary for MSA to complete any services that were ordered prior to the effective date of termination. If OWNER terminates this Agreement, OWNER shall pay MSA for all services performed prior to MSA's receipt of the notice of termination and for all work performed and/or expenses incurred by MSA in terminating Services begun after MSA's receipt of the termination notice. Termination hereunder shall operate to discharge only those obligations which are executory by either party on and after the effective date of termination. These General Terms and Conditions shall survive the completion of the services performed hereunder or the Termination of this Agreement for any cause.

This agreement cannot be changed or terminated orally. No waiver of compliance with any provision or condition hereof should be effective unless agreed in writing and duly executed by the parties hereto.

9. The OWNER agrees to clarify and define project requirements and to provide such legal, accounting and insurance counseling services as may be required for the project.

10. If, due to MSA's error, any required or necessary item or component of the project is omitted from the construction documents, MSA's liability shall be limited to the reasonable costs of correction of the construction, less what OWNER'S cost of including the omitted item or component in the original construction would have been had the item or component not been omitted. It is intended by this provision that MSA will not be responsible for any cost or expense that provides betterment, upgrade, or enhancement of the project.

11. OWNER acknowledges and agrees that MSA has had no role in generating, treating, storing, or disposing of hazardous substances or materials which may be present at the project site, and MSA has not benefited from the processes that produced such hazardous substances or materials. Any hazardous substances or materials encountered by or associated with Services provided by MSA on the project shall at no time be or become the property of MSA. MSA shall not be deemed to possess or control any hazardous substance or material at any time; arrangements for the treatment, storage, transport, or disposal of any hazardous substances or materials, which shall be made by MSA, are made solely and exclusively on OWNER's behalf for OWNER's benefit and at OWNER's direction. Nothing contained within this Agreement shall be construed or interpreted as requiring MSA to assume the status of a generator, storer, treater, or disposal facility as defined in any federal, state, or local statute, regulation, or rule governing treatment, storage, transport, and/or disposal of hazardous substances or materials.

All samples of hazardous substances, materials or contaminants are the property and responsibility of OWNER and shall be returned to OWNER at the end of a project for proper disposal. Alternate arrangements to ship such samples directly to a licensed disposal facility may be made at OWNER's request and expense and subject to this subparagraph.

12. MSA will maintain insurance coverage for: Worker's Compensation, General Liability, and Professional Liability. MSA will

provide information as to specific limits upon written request. If the OWNER requires coverages or limits in addition to those in effect as of the date of the agreement, premiums for additional insurance shall be paid by the OWNER. The liability of MSA to the OWNER for any indemnity commitments, or for any damages arising in any way out of performance of this contract is limited to such insurance coverages and amount which MSA has in effect.

13. Reuse of any documents and/or services pertaining to this project by the OWNER or extensions of this project or on any other project shall be at the OWNER's sole risk. The OWNER agrees to defend, indemnify, and hold harmless MSA for all claims, damages, and expenses including attorneys' fees and costs arising out of such reuse of the documents and/or services by the OWNER or by others acting through the OWNER.

14. To the fullest extent permitted by law, MSA shall indemnify and hold harmless, OWNER, and OWNER's officers, directors, members, partners, agents, consultants, and employees (hereinafter "OWNER") from reasonable claims, costs, losses, and damages arising out of or relating to the PROJECT, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of MSA or MSA's officers, directors, members, partners, agents, employees, or Consultants (hereinafter "MSA"). In no event shall this indemnity agreement apply to claims between the OWNER and MSA. This indemnity agreement applies solely to claims of third parties. Furthermore, in no event shall this indemnity agreement apply to claims that MSA is responsible for attorneys' fees. This agreement does not give rise to any duty on the part of MSA to defend the OWNER on any claim arising under this agreement.

To the fullest extent permitted by law, OWNER shall indemnify and hold harmless, MSA, and MSA's officers, directors, members, partners, agents, consultants, and employees (hereinafter "MSA") from reasonable claims, costs, losses, and damages arising out of or relating to the PROJECT, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of the OWNER or the OWNER's officers, directors, members, partners, agents, employees, or Consultants (hereinafter "OWNER"). In no event shall this indemnity agreement apply to claims between MSA and the OWNER. This indemnity agreement applies solely to claims of third parties. Furthermore, in no event shall this indemnity agreement apply to claims that the OWNER is responsible for attorneys' fees. This agreement does not give rise to any duty on the part of the OWNER to defend MSA on any claim arising under this agreement.

To the fullest extent permitted by law, MSA's total liability to OWNER and anyone claiming by, through, or under OWNER for any cost, loss or damages caused in part or by the negligence of MSA and in part by the negligence of OWNER or any other negligent entity or individual, shall not exceed the percentage share that MSA's negligence bears to the total negligence of OWNER, MSA, and all other negligent entities and individuals.

15. OWNER and MSA desire to resolve any disputes or areas of disagreement involving the subject matter of this Agreement by a mechanism that facilitates resolution of disputes by negotiation rather than by litigation. OWNER and MSA also acknowledge that issues and problems may arise after execution of this Agreement which were not anticipated or are not resolved by specific provisions in this Agreement. Accordingly, both OWNER and MSA will endeavor to settle all controversies, claims, counterclaims, disputes, and other matters in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect, unless OWNER and MSA mutually agree otherwise. Demand for mediation shall be filed in writing with the other party to this Agreement. A demand for mediation shall be made within a reasonable time after the claim, dispute or other matter in question has arisen. In no event shall the demand for mediation be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations. Neither demand for mediation nor any term of this Dispute Resolution clause shall prevent the filing of a legal action where failing to do so may bar the action because of the applicable statute of limitations. If despite the good faith efforts of OWNER and MSA any controversy, claim, counterclaim, dispute, or other matter is not resolved through negotiation or mediation, OWNER and MSA agree and consent that such matter may be resolved through legal action in any state or federal court having jurisdiction.

16. This agreement shall be construed and interpreted in accordance with the laws of the State of Wisconsin.

17. OWNER hereby irrevocably submits to the jurisdiction of the state courts of the State of Wisconsin for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement. OWNER further consents that the venue for any legal proceedings related to this Agreement shall be, at MSA's option, Sauk County, Wisconsin, or any county in which MSA has an office.

18. OWNER ACKNOWLEDGES AND AGREES THAT THE INFORMATION DEVELOPED OR IDENTIFIED BY MSA PURSUANT TO THIS AGREEMENT MAY TRIGGER FOR THE OWNER OBLIGATIONS UNDER LOCAL, STATE OR FEDERAL ORDINANCES, LAWS, RULES OR REGULATIONS TO REPORT THE DISCOVERY OF CONDITIONS TO LOCAL, STATE OR FEDERAL REGULATORY OR GOVERNMENTAL AUTHORITIES. OWNER ACKNOWLEDGES THAT MSA DOES NOT PROVIDE ANY ADVICE, RECOMMENDATION OR CONCLUSION REGARDING THE REPORTABLE NATURE OF ANY OF THE FINDINGS OR OBSERVATIONS RESULTING FROM THE PERFORMANCE OF SERVICES HEREUNDER. THE DETERMINATION OF THE OWNER'S REPORTING REQUIREMENTS OR OBLIGATIONS UNDER LAW IS A LEGAL CONCLUSION FOR WHICH MSA ASSUMES NO RESPONSIBILITY AND ABOUT WHICH MSA PROVIDES NO OPINION, CONCLUSION, FINDING OR CERTIFICATION. OWNER ACKNOWLEDGES AND AGREES THAT OWNER MUST SEEK THE ADVICE OF LEGAL COUNSEL TO DETERMINE OWNER'S OBLIGATIONS SHOULD ENVIRONMENTAL RELEASES OR CONDITIONS BE IDENTIFIED.

19. MSA shall perform its Services under this Agreement in accordance with laws and regulations in effect at the time of execution of this Agreement. OWNER shall retain responsibility for compliance with all laws and regulations applicable to its property, employees, and operations, including but not limited to: the reporting of any hazardous substance releases, disclosing information to protect employees and public health, applying for and obtaining required permits or licenses, submitting reports, providing a safe work place, and providing the proper management of wastes and hazardous substances and materials.

20. All data, documents, reports and other information relating directly or indirectly to the Services shall be supplied by MSA to the OWNER for the OWNER's sole and exclusive use in connection with the evaluation of property. All such data, reports, and other information shall be held in confidence for the aforementioned use only to the extent allowable by law. Data, documents and reports prepared by MSA pursuant to this Agreement are prepared for the exclusive use of the OWNER and not for use or reliance upon by any third-party. Any third-party necessarily has different interests, purposes, concerns, and motives than the OWNER with regard to such documents and reports. Therefore, use of such documents by any third-party is expressly prohibited without the joint written authorization of the OWNER and MSA, which shall necessarily include the precondition that the third-party agree to accept the terms and conditions of this Agreement, including the limitation of liability and indemnification protections. Data, documents and reports prepared by MSA pursuant to this Agreement are intended to be presented and reproduced only in their entirety, complete with all supporting data, assumptions, limitations, and, if applicable, recommendations. Such documents shall not be used by OWNER or any party in any form other than in their entirety and all abridged or altered versions are prohibited.

21. OWNER shall assist MSA in performance of the Services hereunder by placing at MSA's disposal all available documents and information pertinent to the Services, including, but not limited to, those that relate to the identity, location, quantity, nature, or characteristics of any hazardous substance or waste at, on, or under the site. In addition, OWNER shall furnish or cause to be furnished such other reports, data, studies, plans, specifications, documents, and other information on surface and subsurface site conditions required by MSA for performance of its Services.

The OWNER shall furnish information identifying utility types and locations, and other manmade objects beneath the surface. MSA shall take reasonable precautions to avoid damaging the utilities and objects

in conjunction with activities performed with its Services. OWNER shall approve the work plan and Scope of Services. OWNER agrees to waive any claim against MSA and to indemnify, defend, (by counsel of MSA's choice) and hold harmless MSA and its subcontractors, consultants, agents, officers, directors, and employees from any claim or liability for injury or loss, cost, fee or expense arising from damaged utilities or other objects that were not called to MSA's attention or which were not properly located on plans and information furnished to MSA. OWNER shall continue to supply to Consultant all material information and documents in its possession, custody or control known to OWNER and material to the Site and the Services, including the location of subterranean structures and conditions such as, but not limited to, pipes, tanks and telephone cables. OWNER will give prompt notice to Consultant whenever it becomes actually aware of any development that materially and adversely affects the scope or timing of the Services.

22. The OWNER will furnish right-of-entry and complete access for MSA, its subcontractors, consultants, agents, officers, directors and employees to such property as may be necessary for MSA to perform the Services under this Agreement. MSA will take reasonable precautions to minimize damage to the property caused by MSA's equipment, but has not included in MSA's fee the cost of restoration of damage which may result from MSA's operations. If the OWNER requires MSA to restore property to its former condition, the costs associated with restoration will be added to MSA's fee.

23. The Scope of Services may not be adequate to identify environmental hazards or problems, even if performed in accordance with "current professional standards", and, therefore, MSA cannot guarantee the accuracy of results or conclusions relating thereto.

Information provided to MSA by individuals familiar and/or associated with the property and/or facility, or adjacent land parcels and/or facilities, that is the subject of this Agreement has been accepted by MSA in good faith and is assumed to be accurate. Similarly, information provided to MSA by database search services or via governmental or regulatory records or databases, has been accepted by MSA in good faith and is assumed to be accurate. OWNER has neither requested nor paid MSA to independently verify the truthfulness, accuracy or completeness of the information provided to MSA by database search services, governmental or regulatory records or databases, or by individuals. MSA assumes no responsibility for and provides no certification, warranty or guarantee of the truthfulness, validity, accuracy or completeness of governmental or regulatory records or databases, database search services, or information provided by others to MSA.

MSA's findings, opinions, conclusions and recommendations are based on the actually observed conditions and operations at the property or facility on the specific date or dates of the site tour. OWNER acknowledges that conditions that limit visual observation, such as the presence of snow, thick vegetation, pavement, or structures may interfere with the identification of possible environmental factors or conditions. Hidden or concealed conditions, subsurface conditions, subsequent changes to those conditions actually observed, or incomplete disclosure by others to MSA of past or present activities at, upon or beneath the property or facility, may alter MSA's findings, opinions, conclusions and recommendations. MSA does not accept, and specifically disavows any responsibility or liability for environmental conditions at the property or facility which currently exist, formerly existed, or may exist in the future.

OWNER acknowledges that the OWNER has approved the scope of services and the level of effort for MSA to undertake and, therefore, has determined the corresponding degree of uncertainty as acceptable for the OWNER's purposes. The scope of any sampling or assessment performed by MSA hereunder is limited to the sampling and laboratory analysis of soil and/or groundwater only in certain selected locations. This sampling is intended to investigate the potential for the presence of contaminants in the immediate vicinity of the sampling point or location. Laboratory analysis is only performed for those parameters identified as potential contaminants prior to conducting the sampling or assessment. MSA assumes no responsibility for and expresses no opinion, finding, conclusion or recommendation regarding the presence or absence of any compounds or contaminants for which no such sampling or laboratory analysis was requested or performed. OWNER acknowledges that OWNER has neither requested nor paid MSA to sample and test for compounds or contaminants other than those identified herein.

24. Neither party shall assign this Agreement or any part hereof without the prior written consent of the other party. Any assignment not made in accordance with this Agreement shall be void.

25. AS REQUIRED BY THE WISCONSIN CONSTRUCTION LIEN LAW, MSA PROFESSIONAL SERVICES, INC. HEREBY NOTIFIES OWNER THAT PERSONS OR COMPANIES FURNISHING LABOR OR MATERIALS FOR THE CONSTRUCTION ON OWNER'S LAND MAY HAVE LIEN RIGHTS ON THAT LAND AND ON THE BUILDINGS ON THAT LAND IF THEY ARE NOT PAID FOR SUCH LABOR OR MATERIALS. THOSE ENTITLED TO LIEN RIGHTS, IN ADDITION TO MSA PROFESSIONAL SERVICES, INC., ARE THOSE WHO CONTRACT DIRECTLY WITH THE OWNER OR THOSE WHO GIVE THE OWNER NOTICE WITHIN 60 DAYS AFTER THEY FIRST FURNISH LABOR OR MATERIALS FOR THE CONSTRUCTION. ACCORDINGLY, OWNER PROBABLY WILL RECEIVE NOTICES FROM THOSE WHO FURNISH LABOR OR MATERIALS FOR THE CONSTRUCTION AND SHOULD GIVE A COPY OF EACH NOTICE RECEIVED TO THE MORTGAGE LENDER, IF ANY, MSA PROFRESSIONAL SERVICES, INC. AGREES TO COOPERATE WITH THE OWNER AND THE LENDER, IF ANY, TO SEE THAT ALL POTENTIAL LIEN CLAIMANTS ARE DULY PAID.

26. This agreement contains the entire understanding between the parties on the subject matter hereof and no representations. Inducements, promises or agreements not embodied herein (unless agreed in writing duly executed) shall be of any force or effect, and this agreement supersedes any other prior understanding entered into between the parties on the subject matter hereto.

ATTACHMENT A:
Payment and Compensation

Payment for MSA's services will be for time and materials spent on the project. The rate schedule for MSA's services is set forth below. The rate schedule is subject to annual rate adjustments not to exceed 10% per year.

MSA will submit invoices to the client monthly or after completion of the scope of services. Invoices will show charges based on the unit costs on MSA's rate schedule or the unit cost on the appropriate competitive bid obtained for subcontracted services. Bills are due and payable on receipt. Past due balances shall be subject to an interest charge at a rate of 12% per year from said thirtieth day.

There will be charges for any changes, alterations, or extras deviating from the original scope of services.

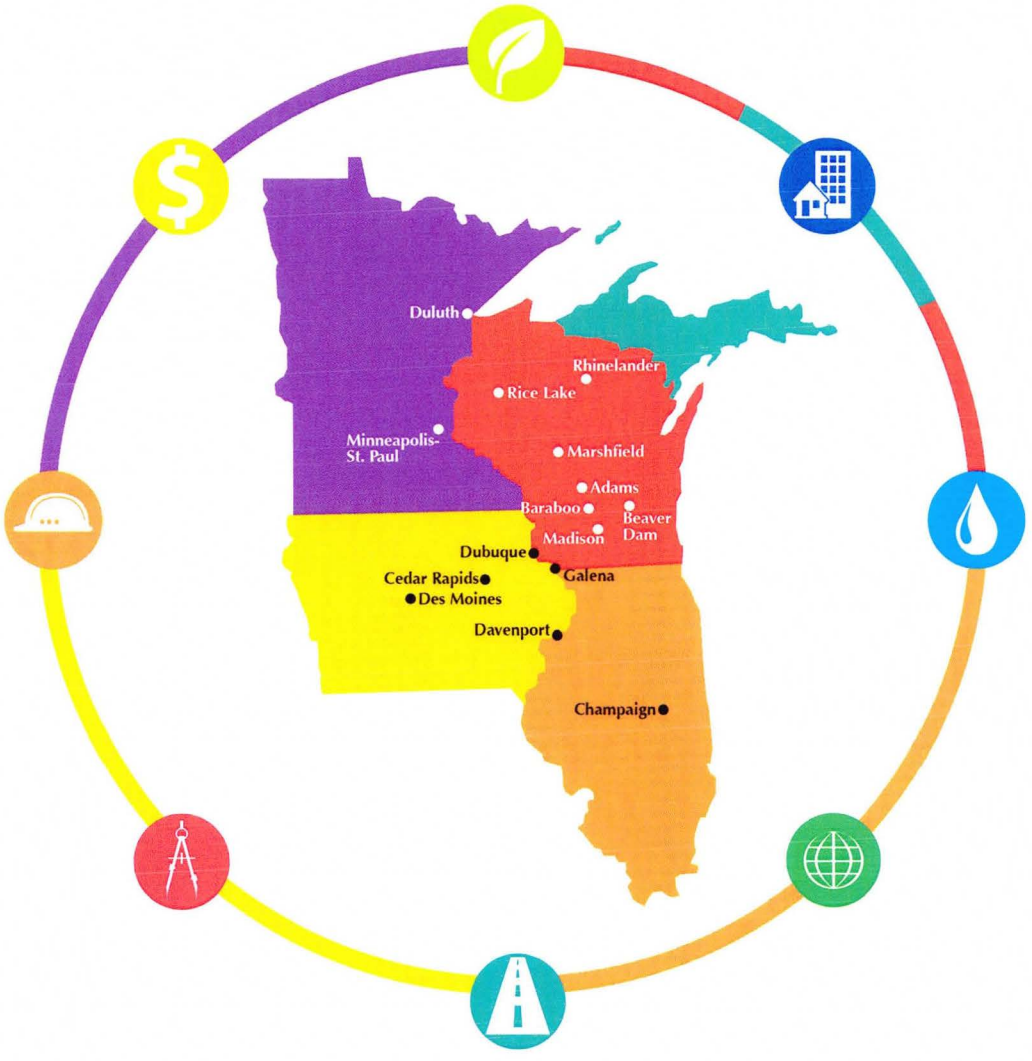
RATE SCHEDULE

CLASSIFICATION	RATE
Non-technical Support Staff	$50/hour
Technical Support Staff	$60/hour
Environmental Specialist	$60/hour
Staff Hydrogeologist/Engineer/Scientist	$70/hour
Project Hydrogeologist/Engineer/Scientist	$80/hour
Senior Hydrogeologist/Engineer/Scientist	$90/hour
Project Manager	$130/hour
Principal	$150/hour
EXPENSES	
Mileage	$0.51/mile
Miscellaneous Field Equipment	Current Unit Rate Schedule
SUBCONTRACTED SERVICES	
Cost + 10%	

MSA PROFESSIONAL SERVICES

EQUIPMENT & SUPPLIES FY08

Vehicle Mileage		Unit	Daily Rate
	Personal Automobiles / Pickup Trucks	Current IRS	
	Service Vehicles	Current IRS	50.00
Equipment			
	PID/FID	DAY	75.00
	Electronic Scale	DAY	25.00
	DO Meter	DAY	47.00
	Water Level Meter	DAY	21.00
	Oil/Water Interface	DAY	70.00
	pH, Cond, Temp	DAY	20.00
	Vapor sampling pump	DAY	55.00
	Air Compressor	DAY	40.00
	Datalogger (inc. transducers)	DAY	125.00
	Filtering Apparatus	DAY	22.00
	Generator	DAY	40.00
	Submersible well pump	DAY	55.00
	Laser level survey	DAY	100.00
	Metal detector	DAY	47.00
	Peristaltic Pump	DAY	40.00
	Power auger	DAY	100.00
	Surge block	DAY	30.00
	Water chemical test kit	DAY	70.00
	Zero contamination sampler	DAY	30.00
	Mine Safety Portable Gas Meters	DAY	75.00
	Quanta G - Hydrolab (DO, pH, Cond, Temp)	DAY	67.00
Supplies		**Unit**	**Unit Rate**
	Expansion Caps	EA	5.00
	PVC Disposable Bailers	EA	5.00
	Filter, capsule	EA	15.00
	Padlocks	EA	10.00



MSA Offices

Wisconsin

Adams	608.339.3808
Baraboo	800.362.4504
Beaver Dam	800.552.6330
Madison	800.446.0679
Marshfield	877.204.0572
Rhinelander	800.844.7854
Rice Lake	888.869.1215

Minnesota

Duluth	800.777.7380
Oakdale	866.452.9454

Iowa

Cedar Rapids	319.364.4773
Davenport	866.732.6321
Des Moines	800.844.4122
Dubuque	888.869.1214

Illinois

Champaign	877.352.0081
Galena	888.672.0003

NR 169 Remedial Action Bid
The Laundry Basket DERF Project
Luck, WI

WDNR BRRTS# 02-49-544893

January 14, 2011