Corrective Action Plan

PetroFix Remedial Fluid Injection

(Cost Proposal No. 30)

Rickey's Grocery

11542 County Road 49

Heflin, Cleburne County, Alabama

Facility ID No. 22329-029-015532

Incident No. UST15-05-02

TTL Project No. 690215-003

April 17, 2026

TTL

CERTIFICATION PAGE

I certify under penalty of law that I am a registered professional engineer or geologist experienced in hydrogeologic investigations. The plan described in this report was prepared by a geologist(s) or registered engineer(s) experienced in hydrogeologic investigations. The information submitted herein to the best of my knowledge and belief, is true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

Project: Corrective Action Plan (CP #30)
Rickey's Grocery
11542 County Road 49
Heflin, Cleburne County, Alabama
Facility I.D. No. 22329-029-015532
Incident No. UST15-05-02
TTL Project No. 690215-003

Signature

Sheryle G. Reeves, PE

Alabama Lic. No. 20128

4/17/2026
Date

Signature

Jennifer L. Simpson, PG

Alabama Lic. No. 1629

4/17/2026
Date

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1.0 Purpose

TTL, Inc. (TTL) has prepared this Corrective Action Plan (CAP), in accordance with Alabama Department of Environmental Management (ADEM) Cost Proposal (CP) #30. The remediation method to inject PetroFix colloidal activated carbon remedial fluid at the Rickey's Grocery Underground Storage Tank (UST) site was approved by the ADEM under CP #25. Remediation fluid injections are intended to address the continued elevated concentrations of dissolved hydrocarbons in the soil and groundwater associated with the historic release at the Rickey's Grocery UST site and adjoining property.

2.0 Introduction

Remediation by natural attenuation (RNA) with mobile-enhanced multi-phase extraction (MEME) events have been conducted at the Rickey's Grocery UST site since 2009, as part of ADEM-approved corrective action. MEME events have varied from eight to 24 hours each. At the recommendation of TTL in Corrective Action Effectiveness Report (CAER) CP #24, the ADEM agreed that a CAP Evaluation should be conducted. The method of remediation fluid injections presented in the CAP Evaluation was approved by the ADEM under CP #25 on January 9, 2026 (Appendix A). TTL, on behalf of tank owner Mrs. Cindy Herrell, has prepared this CAP for the Rickey's Grocery site in Heflin, Cleburne County, Alabama under ADEM CP #30. Based on the high-resolution site characterization study performed at the site in October 2017, the dissolved hydrocarbons found in the unsaturated and saturated soil and groundwater at the site appear to originate from one gasoline release originating from the on-site dispenser island. Free product has historically not been recorded at the site, although according to the August 2015 Corrective Action System Effectiveness Report submitted by PPM Consultants, Inc., source monitoring well MW-1 in May 2014, "appeared" to have contained free product.

3.0 Site Description

The Rickey's Grocery site lies in the southwest ¼, of the northeast ¼ of Section 16, Township 16 South, Range 12 East as shown on the Fruithurst, Alabama 7.5 Minute USGS Topographic Map (Photorevised 1980). The site is located at 11542 County Road 49, Cleburne County, Alabama (**Figure 1** of Appendix B).

The site contains a convenience store building, and one gasoline dispenser island. In July 2022, the gas station and convenience store were involved in a fire and are currently not operational. ***Several monitoring/recovery wells are not accessible due to trash/debris and unsafe structural conditions at the site. Current inaccessible wells include MW-3, MW-5, MW-4, MW-4D, RW-2, and RW-4.*** In April 2026, TTL spoke with the current property owner of the Rickey's Grocery site, Mr. Ali Hameed, on the telephone to discuss clearing the debris to gain access to the wells. Mr. Hameed explained the site is

currently for sale and site clearing is expected to be conducted by the buyer. Mr. Hameed stated there was no active interested buyer of the property.

The current tank pit consists of two 1,000-gallon USTs located northwest of the store. The tank pit previously consisted of three 1,000-gallon USTs (the third tank was emptied and filled with flowable fill (concrete) in February 2017 at the request of the ADEM). The land surface near the site is generally flat, but slopes northward. Surface runoff from the site appears to generally flow northeastward. A total of 31 monitoring/recovery wells (MW-1 through MW-4, MW-4D, MW-5 through MW-19, and RW-1 through RW-12) are present at the site. Monitoring well MW-19 is presumed to have been destroyed during a past major land clearing event. A site map showing monitoring/recovery well locations can be referenced on **Figure 2** of Appendix B.

Lithology under the site has been determined by soil borings advanced during the Preliminary and Secondary Investigations conducted by previous consultants, and an On-Site Secondary Investigation conducted by TTL. The site is located in the Northern Piedmont Upland physiographic province, which is characterized by metamorphosed sedimentary and igneous rocks. In general, the site is underlain by silty sand and silty clay, to about 17 feet below ground surface (BGS), and interbedded clay/shale layers to about 18 to 19 feet BGS. Logs of soil borings from previous site investigations are provided in Appendix C.

Based on information obtained during current and previous assessments conducted at the site, COC (chemical of concern) concentrations in soil and groundwater on and off-site are elevated, with the highest total BTEX concentrations in on-site soil being up to 1,090.7 mg/Kg (milligrams per kilogram December 2005); and the highest off-site concentration of total BTEX being 770 mg/Kg (October 2017). Based on groundwater sampling events performed at the site, the highest total BTEX concentration on-site was 65.7 mg/L (milligrams per liter), recorded at monitoring well MW-1 in May 2014 and the highest total BTEX concentration off-site was 279.5 mg/L, recorded at monitoring well MW-14 in July 2015 (Appendix D). The most recent groundwater monitoring report indicated the current highest total BTEX concentration on-site was 4.18 mg/L recorded at monitoring well MW-3 on October 18, 2024, and the highest total BTEX concentration off-site was 31.6 mg/L recorded at recovery well RW-11 on October 17, 2024.

Groundwater depths vary widely across the site and can range from about 2 to 15 feet BGS on-site, and from 1 to 14 feet BGS off-site. COC concentrations in groundwater remain elevated in off-site monitoring and recovery wells.

4.0 Summary of Previous Site Activities

Event Chronology

- Phase II Environmental Site Assessment (ESA), September 2005
- Preliminary Investigation, December 2005
- Off-Site Secondary Investigation, July 2006 through May 2007
- Alabama Risk-based Corrective Action (ARBCA) Evaluation Report, December 2007
- Pilot Test for Chemical Injection and Ozone System Installation, February through April 2009
- UST System Leak Test, May 2014
- Groundwater monitoring/MEME events, 2009 through August 2015
- On-Site Secondary Investigation, December 2015
- Groundwater monitoring with MEME events, December 2015 – October 2024
- In-Place Tank Closure, February 2017 (conducted by TTL)
- Subsurface High-Resolution Soil Investigation, October 2017
- Corrective Action Plan Evaluation February 2018
- Off-site recovery well installation (RW-6 through RW-12) August 2018

5.0 PetroFix Injections

PetroFix is a remedial fluid from Regenesis that uses colloidal activated carbon (CAC) particles (1-2 micrometers) to quickly adsorb and immobilize dissolved hydrocarbons. This small particle size differentiates PetroFix and increases surface area and adsorption speed compared to larger carbon particles. Integrated anaerobic electron acceptors also promote microbial biodegradation of hydrocarbons, providing long-term contaminant reduction and regeneration of the CAC.

PetroFix will be injected at low pressures through injection wells at the site, avoiding the need for fracturing and ensuring even distribution in aquifer flux zones. Because of the size of the plume, Regenesis recommends a series of permeable reactive barriers as the most cost-effective method of remediation. Barriers will be installed directly upgradient of recovery/monitoring wells at four locations: 1) MW-12 and MW-13, 2) RW-11, 3) MW-16, and 4) MW-15. Barriers implemented at monitoring wells MW-12 and MW-13 are closest to the source area. A barrier at recovery well RW-11 targets the most highly contaminated portion of the plume. A barrier at monitoring well MW-16 acts to contain the plume and prevent further migration, and a barrier at monitoring well MW-15 is designed to cut the distance between RW-11 and MW-16 and capture anything that has already migrated beyond RW-11. Sodium bicarbonate will be mixed in with the injectate as a pH buffer due to the

moderately acidic groundwater conditions that may limit bioremediation otherwise. Considering the limited vertical delineation and lack of knowledge about contamination flux rates, passive flux meters will be deployed at recovery well RW-11 before the PetroFix application.

On the first day of injections, Regenesis will inject PetroFix at 2-3 locations directly upgradient of or near a monitoring well and measure PetroFix concentrations in the well within 30 minutes of injection. Target concentrations are a few hundred to a few thousand mg/L. If concentrations are not detected, injection parameters will be reviewed (e.g., dilution volume, pressure, tip placement, rod tightness) and adjusted as needed. Total site injection activities for 17 injection points are expected to take two weeks to complete. A design and application proposal for PetroFix injection activities is provided by Regenesis in Appendix D.

Remedial Design Summary

Area	Barrier Length (ft)	Rows Per Barrier	Injection Points Per Barrier	Vertical Injection Interval (ft bgs)	PetroFix Amount (lbs)	Injection Volume Per Area (gallons)
RW-11	45	1	5	4 to 19	6,000	6,830
MW-16	25	1	3	3 to 13	800	2,684
MW-12 and MW-13	45	1	5	4 to 29	5,600	11,408
MW-15	37	1	4	3 to 18	2,800	5,704

6.0 Site Preparation

TTL will conduct a site visit to assess conditions including water access, injection well locating, staging area planning, clearing, and general site accessibility. TTL will obtain an Underground Injection Control permit from the ADEM prior to beginning injections. Injection wells will be constructed of 2-inch diameter PVC with 0.10-micron screens installed and developed at least two weeks before injections commence. A roll-off dumpster will be staged on site for any waste produced, and an ADEM Form 300 will be submitted to the ADEM for approval prior to waste disposal. Metered access to a nearby fire hydrant for PetroFix material mixing will be obtained from Cleburne Water prior to injection activities commencing. Since the last groundwater monitoring event was conducted in October 2024, TTL recommends conducting a groundwater monitoring event for all accessible monitoring/recovery wells at the site prior to beginning PetroFix injection activities to establish the most up-to-date pre-injection conditions. Costs associated with land clearing and pre-injection groundwater monitoring are included under a separate cost proposal (CP #31).

7.0 Post-Injection Groundwater Monitoring

Following the completion of PetroFix injections, TTL will return to the site to conduct groundwater monitoring events on a quarterly basis for at least one year to monitor remediation effectiveness. Associated costs for one year of quarterly groundwater monitoring are provided in separate cost proposals (CPs #33-36).

8.0 Schedule

Pending CAP approval, the first step will be to apply for the appropriate Underground Injection Control (UIC) permit with the ADEM for approval. Following obtaining a UIC permit, TTL will conduct a visit to assess site conditions and prepare the area including land clearing. After the site has been cleared, TTL will perform a groundwater monitoring event for all recovery/monitoring wells plus surface water locations at the site. Following groundwater monitoring, TTL will install and develop the 17 injection wells that will serve as the barriers depicted in the PetroFix-revised site layout map (Appendix D). After injection well installation and development activities are completed, PetroFix equipment staging and injection activities conducted by Regenesis personnel can begin. After PetroFix injections have been completed, TTL will perform quarterly groundwater monitoring at the site for one year.

9.0 Cost Estimate

As of the date of this CAP, the estimated cost breakdown for the described PetroFix injection activities is as follows:

1.	UIC Permit application and fee (CP #32)	$2,800.00
2.	Pre-injection groundwater monitoring event (CP #31)	$11,000.00
3.	Injection well installation (CP #32)	$38,300.00
4.	PetroFix injections and related costs (CP #32)	$206,000.00
5.	Four quarterly groundwater monitoring events (CPs #33-36)	$33,000.00
	Estimated Total	**$291,100.00**

APPENDIX A

ADEM CORRESPONDENCE

Edward F. Poolos
Director

Jeffery W. Kitchens
Deputy Director

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ▪ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

Kay Ivey
Governor

January 9, 2026

Ms. Cindy Herrell
Rickey's Grocery
265 County Road 682
Heflin, Alabama 36264

Dear Ms. Herrell:

RE: Approval of Cost Proposal 30 for Corrective Action Plan
Rickey's Grocery
11542 County Road 49
Heflin, Cleburne County, Alabama
Facility I.D. No. 22329-029-015532
UST Incident No. UST15-05-02
ADEM File Code: UST150502/CP30

Approval is granted for the above-referenced cost proposal in the amount of **$5,442.00**.

The Department has the responsibility to deny any unreasonable costs which may be submitted for payment. Obligation of a given amount through approval of a cost proposal does not guarantee final reimbursement of that same amount. The payment request containing the costs approved on this Cost Proposal should be submitted within eighteen months of the date of this letter in order to receive reimbursement.

The Corrective Action Plan is due to the Department by **April 17, 2026.**

Should there be any questions regarding this matter, please contact me at (334) 270-5645 or by email at ckrafcheck@adem.alabama.gov.

Sincerely,

Chris Krafcheck

Chris Krafcheck, Hydrogeologist
Federal Funds Unit
UST Corrective Action Section
Groundwater Branch/Land Division

CLK/clk

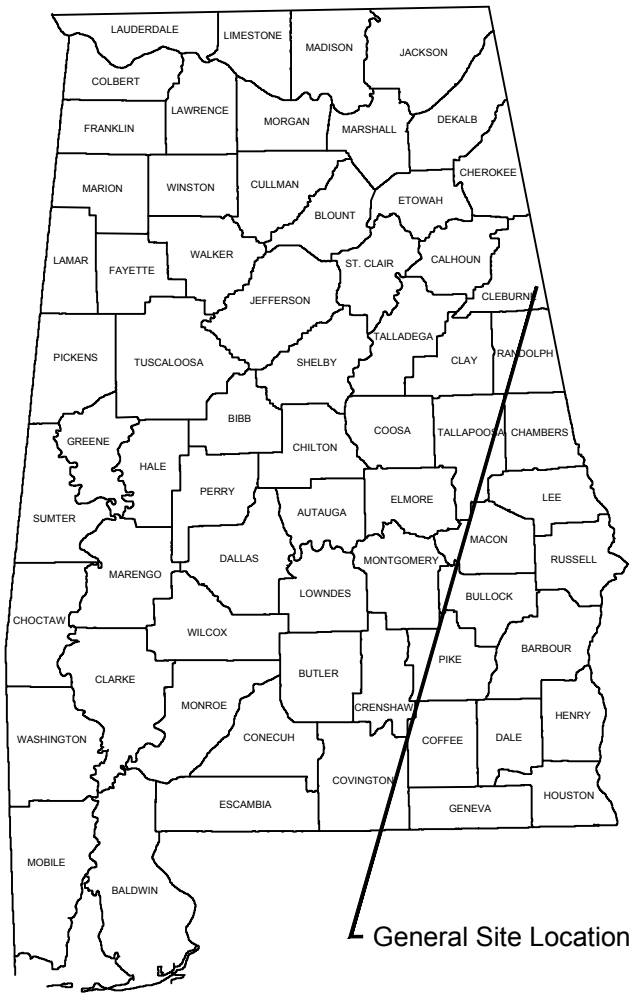
Birmingham Office
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

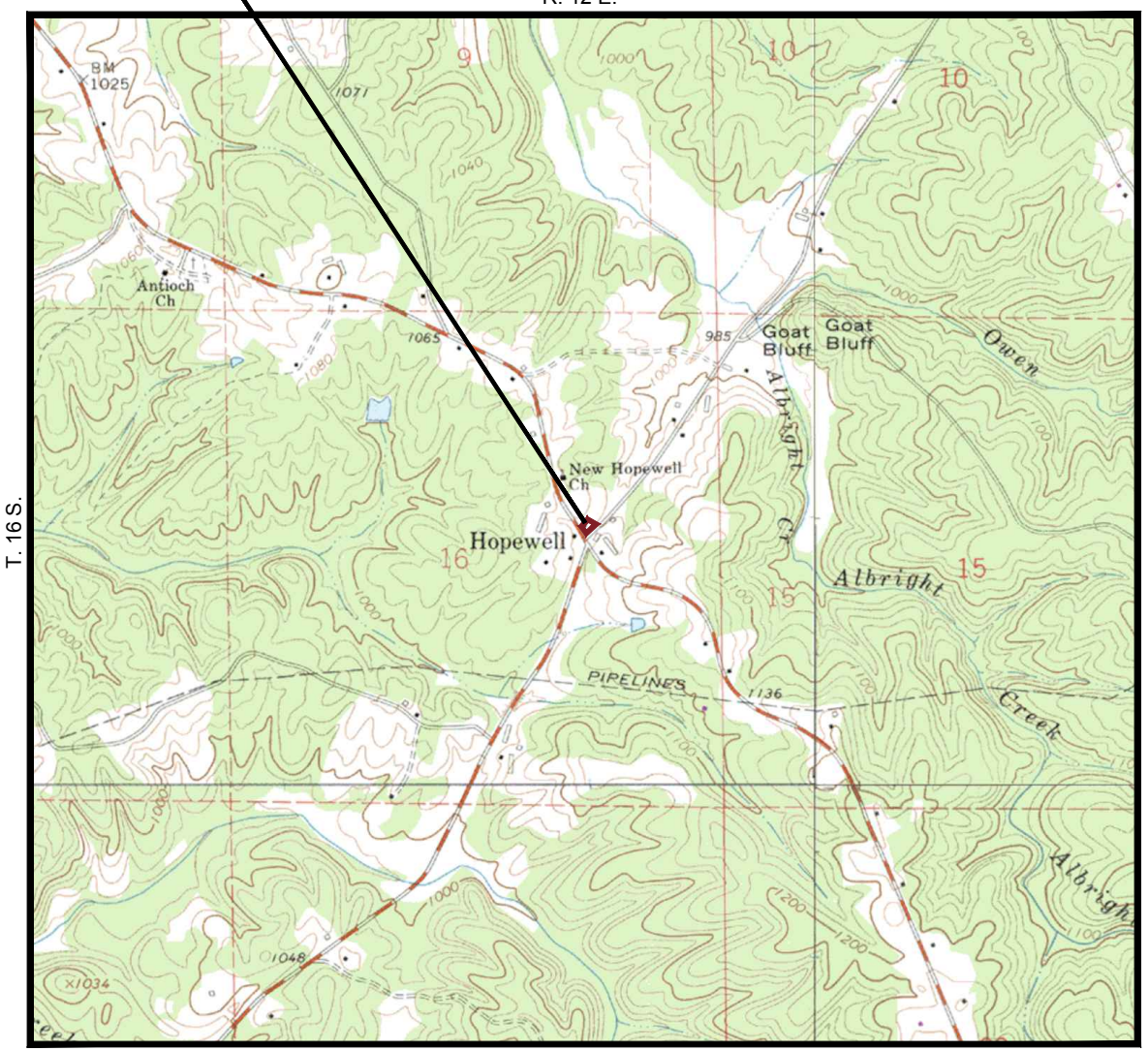
Decatur Office
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Coastal Office
1615 South Broad Street
Mobile, AL 36605
(251) 450-3400
(251) 479-2593 (FAX)

APPENDIX B

FIGURES





Source: USGS Fruithurst, Ala.. 7.5 Minute Quadrangle Map, 1966 (Photorevised 1980)
USGS Hightower, Ala. 7.5 Minute Quadrangle Map, 1966
USGS Talapoosa South, Ga.-Ala. 7.5 Minute Quadrangle Map, 1965 (Photorevised 1980)
USGS Bowden West, Ga.-Ala. 7.5 Minute Quadrangle Map, 1966 (Photorevised1980)

0′ 2000′

TTL

TTL PROJECT NO: 690215003
DATE: 03/24/2017

Figure 1. Topographic Location Map

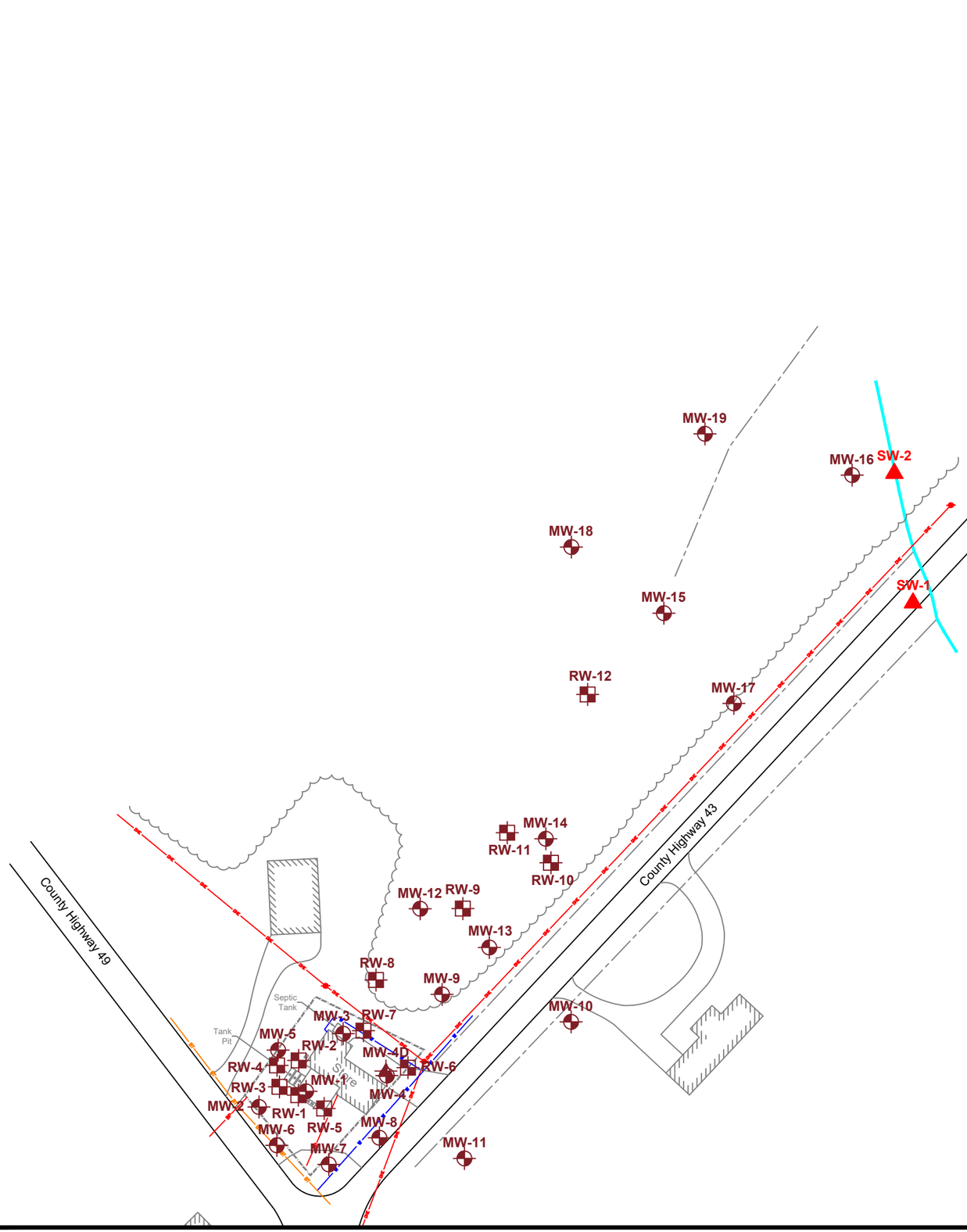
SW $\frac{1}{4}$ of the NE $\frac{1}{4}$, Sec. 16, T. 16 S., R. 12 E., of the Fruithurst, Ala. 7.5 Minute Quadrangle Map
Rickey's Grocery
11542 County Road 49
Heflin, Cleburne County, Alabama

Facility ID No. 22329-029-015532
Incident No. UST15-05-02

N

1" = 2000'
(Approximate)

\\10.1.9\Tuscaloosa Projects\2015\690215.Mont\003 Rickeys Grocery\Rickys Fig 1 Topo.dwg



LEGEND

N

- MW-19 — Monitoring Well Location and Identifier
- MW-4D — Deeper Monitoring Well Location and Identifier
- RW-5 — Recovery Well Location and Identifier
- SW-4 — Surface Water Sample Location and Identifier
- OHE — Overhead Electric Line
- BP — Underground Electric Line
- BT — Underground Telephone Line
- W — Water Line
- Ditch Centerline

0′ 100′ 200′

TTL

APPROXIMATE SCALE: 1" = 100'	TTL PROJECT NO.: 690215003
DRAWING PATH: C:\Users\dkofron\AppData\Local\Temp\AcPublish_13680\Groundwater Figures.dwg	
DATE CREATED: 03/24/2017	DATE REVISED: 07/31/2018
REVISION NUMBER: n/a	
DRAWN BY: MJC	CHECKED BY: MLL
SOURCE: Modified from site maps by PPM Consultants, Inc.	

Figure 2. Site Map

Rickey's Grocery

11542 County Road 49

Heflin, Cleburne County, Alabama

Facility ID No. 22329-029-015532
Incident No. UST15-05-02

APPENDIX C

BORING LOGS

TTL
geotechnical • analytical • materials • environmental

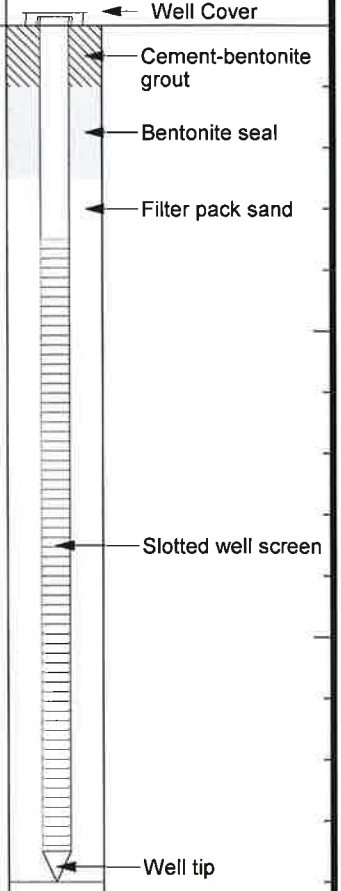
CINDY HERRELL
RICKEY'S GROCERY

LOG OF WELL RW-2 & WELL CONSTRUCTION

PROJECT NUMBER	690215-003	**PROFESSIONAL**	MLL
LOCATION	Heflin, AL	**DATE(S) DRILLED**	12/7/2015 - 12/7/2015
DRILLING COMPANY	TTL, Inc.	**CASING DIA./TYPE**	4" PVC
DRILLER	D. Campbell	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	4¼" Hollow Stem Auger w/5' Continuous Sampler	**FILTER PACK TYPE**	20-40 Graded Filter Sand
		TOP OF CASING	Ft. AMSL
REMARKS	Sampled on 12-7-15, at 5 ft BGS @ 1010, and at 9 ft BGS @1015.	**GROUND ELEVATION**	1050.86 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SM	0-4	75	0 0 0 0	SILTY SAND, yellowish red, (5YR 4/6), with organics.	
5		CL	4-9	100	0.2 5.0 0.3 0 0	SILTY CLAY, Mottled, yellow (5Y 8/8) with yellowish red (5YR 5/8) with some mica. Slight odor @ 5 feet BGS.	
10			9-14	100	0	Wet @ 10 feet BGS	
						BORING TERMINATED AT 14 FEET.	

WELL DIAGRAM



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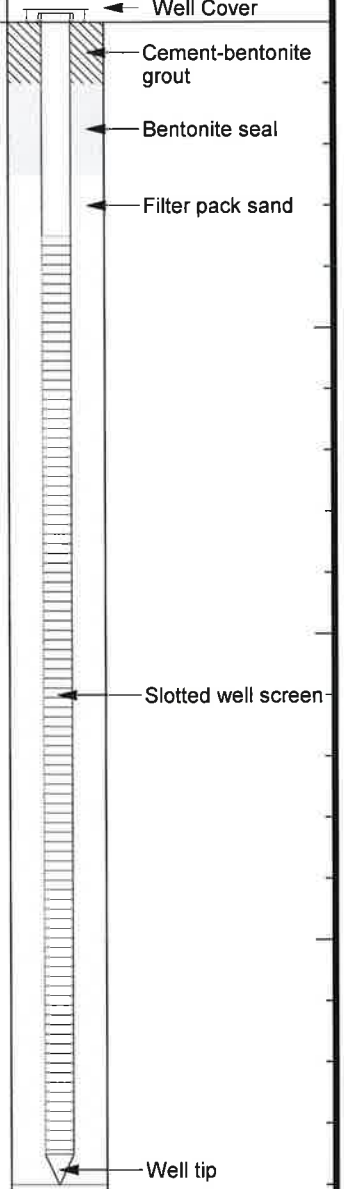
CINDY HERRELL
RICKEY'S GROCERY

LOG OF WELL RW-3 & WELL CONSTRUCTION

PROJECT NUMBER	690215-003	**PROFESSIONAL**	MLL
LOCATION	Heflin, AL	**DATE(S) DRILLED**	12/7/2015 - 12/7/2015
DRILLING COMPANY	TTL, Inc.	**CASING DIA./TYPE**	4" PVC
DRILLER	D. Campbell	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	4¼" Hollow Stem Auger w/5' Continuous Sampler	**FILTER PACK TYPE**	20-40 Graded Filter Sand
		TOP OF CASING	Ft. AMSL
REMARKS	Sampled on 12-7-15, at 9 ft BGS @1150.	**GROUND ELEVATION**	1050.86 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SM	0-4	100	0 0 0	SILTY SAND, dark yellowish brown, (10YR 4/4)	
		CL			0	SILTY CLAY, yellowish brown (10YR 5/8).	
5		CL	4-9	100	0 0 0 0 0	SILTY CLAY, strong brown (7.5YR 5/8), with very strong brown (7.5YR 2.5/2) SILTY CLAY, MOTTLED, yellow (5Y 8/8) with yellowish red (5YR 5/8) strong brown (7.5YR 5/8)	
10		CL	9-14	100	0	Wet @ 10 ft BGS	
15		CL	14-19	100		SILTY CLAY, interbeded with shale layers, gray Gley 1 (6/N), with mica	
						BORING TERMINATED AT 19 FEET.	

WELL DIAGRAM



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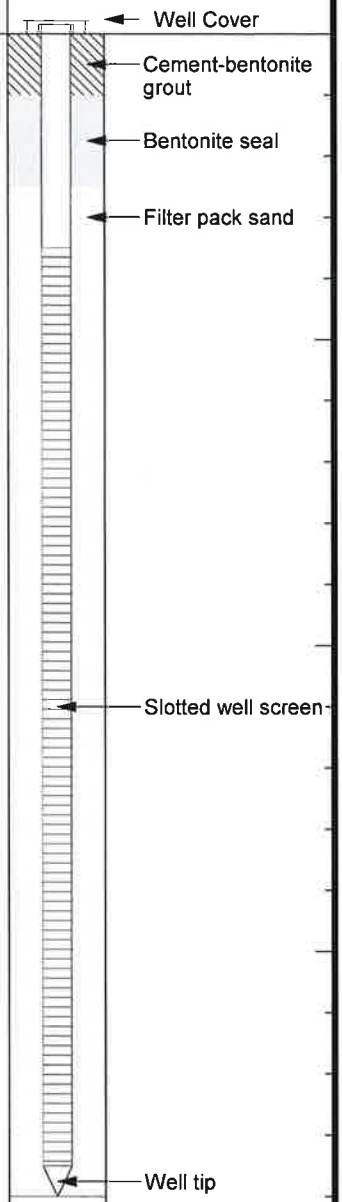
CINDY HERRELL
RICKEY'S GROCERY

LOG OF WELL RW-4 & WELL CONSTRUCTION

PROJECT NUMBER	690215-003	**PROFESSIONAL**	MLL
LOCATION	Heflin, AL	**DATE(S) DRILLED**	12/7/2015 - 12/7/2015
DRILLING COMPANY	TTL, Inc.	**CASING DIA./TYPE**	4" PVC
DRILLER	D. Campbell	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	4¼" Hollow Stem Auger w/5' Continuous Sampler	**FILTER PACK TYPE**	20-40 Graded Filter Sand
		TOP OF CASING	Ft. AMSL
REMARKS	Sampled on 12-7-15, at 9 ft BGS @1505.	**GROUND ELEVATION**	1050.86 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SM	0-4	100	0 0 0 0	SILTY SAND, dark yellowish brown, (10YR 4/4)	
5		SM	4-9	100	0 0 0 0 0	SILTY SAND, gravel, brown (7.5YR 4/4). SILTY CLAY, MOTTLED, yellowish red (5YR 4/6), with yellowish brown (10YR 5/8)	
10		CL	9-14	100	0	Wet @ 10 ft BGS	
15		CL	14-19	100		SILTY CLAY, interbeded with shale layers, gray Gley 1 (6/N), with mica	
						BORING TERMINATED AT 19 FEET.	

WELL DIAGRAM



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TTL
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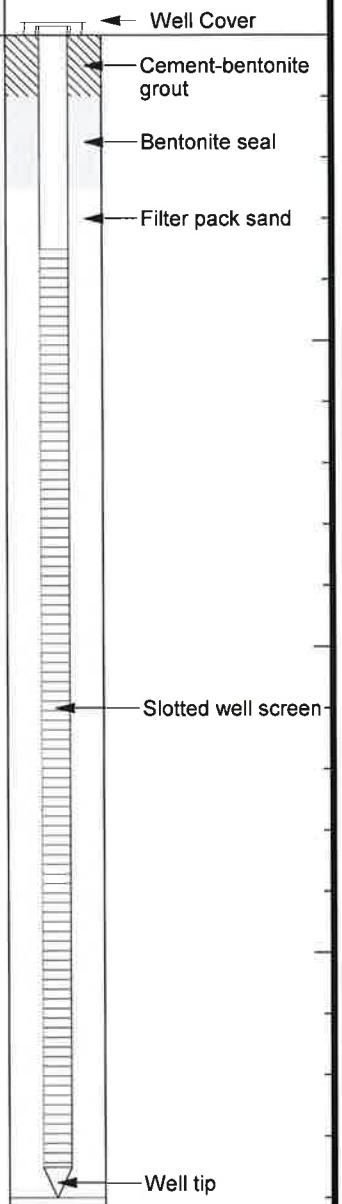
CINDY HERRELL
RICKEY'S GROCERY

LOG OF WELL RW-5 & WELL CONSTRUCTION

PROJECT NUMBER	690215-003	**PROFESSIONAL**	MLL
LOCATION	Heflin, AL	**DATE(S) DRILLED**	12/7/2015 - 12/7/2015
DRILLING COMPANY	TTL, Inc.	**CASING DIA./TYPE**	4" PVC
DRILLER	D. Campbell	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	4¼" Hollow Stem Auger w/5' Continuous Sampler	**FILTER PACK TYPE**	20-40 Graded Filter Sand
		TOP OF CASING	Ft. AMSL
REMARKS	Sampled on 12-7-15, at 4 ft BGS @1640, and 9 ft BGS @1650.	**GROUND ELEVATION**	1050.86 Ft. AMSL
		DEPTH TO WATER	
		WATER ELEVATION	

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		SM	0-4	75	0	SILTY SAND, dark olive brown, with gravel and organics (2.5Y 3/3)	
					0		
					0		
					0		
		SM	4-9	100	3.0	SILTY SAND, med-sized gravel, dark olive brown (2.5Y 3/3).	
5					1.0	Wet-Perched water table @ 5ft BGS	
		CL			0	SILTY CLAY, dark olive brown (2.5Y 3/3), with gravely sand and organics	
					0		
					0		
		CL	9-14	100	0	SILTY CLAY, MOTTLED yellow (5Y 8/8) with yellowish red (5YR 5/8) with mica	
10						Wet @ 10.5 ft BGS	
			14-19	100			
15							
		CL				SILTY CLAY, interbeded with shale layers, gray Gley 1 (6/N), with mica	
						BORING TERMINATED AT 19 FEET.	

WELL DIAGRAM



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CINDY HERRELL
RICKEY'S GROCERY

ALEXANDER CITY, AL

LOG OF WELL RW-6 & WELL CONSTRUCTION

PROJECT NUMBER	690215-003 CP13	**PROFESSIONAL**	M.Lucas
LOCATION	Alexander City, AL	**DATE(S) DRILLED**	8/27/2019 - 8/27/2019
DRILLING COMPANY	TTL, Inc.	**CASING DIA./TYPE**	4" PVC
DRILLER	D. Campbell	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	4¼" Hollow Stem Auger w/5' Continuous Sampler	**FILTER PACK TYPE**	20-40 Graded Filter Sand
		TOP OF CASING	1047.93 Ft. AMSL
REMARKS	Little to no hydrocarbon odor.	**GROUND ELEVATION**	1048.29 Ft. AMSL
		DEPTH TO WATER	9.20 Ft. BGS
		WATER ELEVATION	1038.73 Ft. AMSL

DEPTH (feet)	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION
0	CL-ML			0	CLAY; Silty. Brown (7.5YR 4/2). With some organics, grass, and trace gravel.
				4	
				2	
				1.3	SILT; Reddish yellow (7.5YR 7/8) with red mottles (2.5YR 5/8). Micaceous. No odor.
5	ML	5-10		1.7	
				1.5	
				1.0	
				4.5	
				63	SILT; with interbedded weathered phyllite layers. Micaceous. Slight hydrocarbon odor. SAT @ 15 feet BGS.
10	ML	10-15		2.6	
				1.2	
				9.4	
				25	
15				17	
	SHALE	15-20		12	Layered shale/phyllite layers with some mineral staining. With some SILT; light yellowish brown (2.5Y 6/4) @ 25 feet BGS.
				21	
				12	
				16	
20				45	
		20-25		3.8	
				3.0	
				18	
				12	
25				0	
		25-30		0	
				0	
				0	
				0	
30				0	
				0	
				0	
				0	
				0	
35				0	BORING TERMINATED AT 35 FEET.

WATER LEVEL & DATE: ▽ 08/27/2019

WELL DIAGRAM: Well Cover; Cement-Bentonite Grout; Bentonite Seal; Filter Sand Pack; Slottled Well Screen; Well Tip

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CINDY HERRELL
RICKEY'S GROCERY

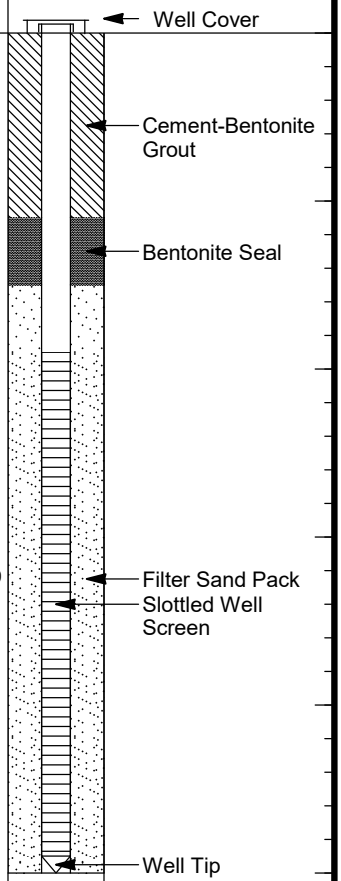
ALEXANDER CITY, AL

LOG OF WELL RW-7 & WELL CONSTRUCTION

PROJECT NUMBER	690215-003 CP13	**PROFESSIONAL**	M.Lucas
LOCATION	Alexander City, AL	**DATE(S) DRILLED**	8/27/2019 - 8/27/2019
DRILLING COMPANY	TTL, Inc.	**CASING DIA./TYPE**	4" PVC
DRILLER	D. Campbell	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	4¼" Hollow Stem Auger w/5' Continuous Sampler	**FILTER PACK TYPE**	20-40 Graded Filter Sand
		TOP OF CASING	1046.19 Ft. AMSL
REMARKS	Very strong hydrocarbon odor through out boring with staining.	**GROUND ELEVATION**	1046.59 Ft. AMSL
		DEPTH TO WATER	11.00 Ft. BGS
		WATER ELEVATION	1035.19 Ft. AMSL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		ML			0	SILT; Clayey. Brown (7.5YR 4/2). With some organics, grass.	
					0	CLAY; Silty; Reddish yellow (7.5YR 7/8) with red mottles (2.5YR 5/8). Very strong hydrocarbon odor and staining starting @ 5 feet BGS. Quartz inclusions starting @ 8 feet BGS.	
					0		
					0		
5		CL-ML	5-10		6.5		
					564		
					1094		
					1420		
					1662	Layers of weathered shale/phyllite; parallel orientation; with some SILT; red (2.5YR 5/8) and light reddish gray (2.5YR 7/1).	
10			10-15		1300		▽
					1400		
					1350		
		SHALE			1600		
					400	Staining and strong odor continues with depth.	
15			15-20		840		
					742	SAT @ 16 feet BGS.	▽ 08/27/2019
					900		
					1505		
					50	SILT; interbedded with shale/phyllite layers. With some CLAY light reddish gray (2.5YR 7/1). With quartz cobbles. Staining and strong odor continues to TD.	
20		ML/CH			180		
					24		
					49		
					40		
					35		
25					30	BORING TERMINATED AT 25 FEET.	

WELL DIAGRAM



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CINDY HERRELL
RICKEY'S GROCERY

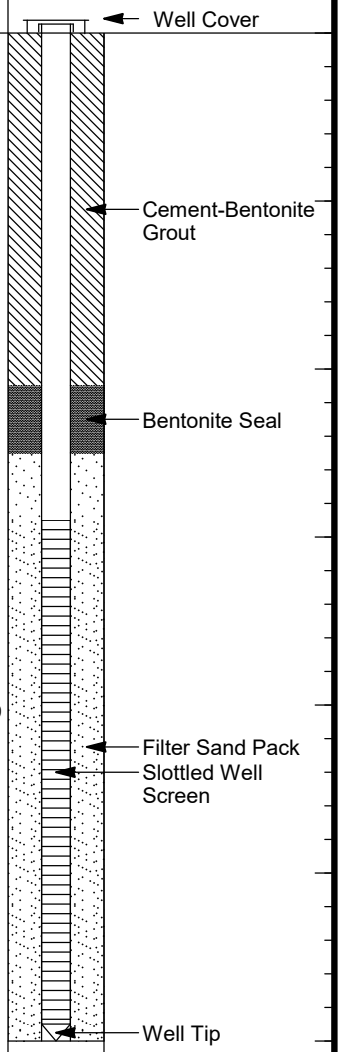
ALEXANDER CITY, AL

LOG OF WELL RW-8 & WELL CONSTRUCTION

PROJECT NUMBER	690215-003 CP13	**PROFESSIONAL**	M.Lucas
LOCATION	Alexander City, AL	**DATE(S) DRILLED**	8/28/2019 - 8/28/2019
DRILLING COMPANY	TTL, Inc.	**CASING DIA./TYPE**	4" PVC
DRILLER	D. Campbell	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	4¼" Hollow Stem Auger w/5' Continuous Sampler	**FILTER PACK TYPE**	20-40 Graded Filter Sand
		TOP OF CASING	1046.47 Ft. AMSL
REMARKS	Installed north of conex box.	**GROUND ELEVATION**	1046.75 Ft. AMSL
		DEPTH TO WATER	11.10 Ft. BGS
		WATER ELEVATION	1035.37 Ft. AMSL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
						No Recovery	
					0	SILT; Clayey; Reddish yellow (7.5YR 7/8) with red mottles (2.5YR 5/8). Micaceous. No odor.	
					0		
					0		
					0		
5		ML	5-10		219	Moderate hydrocarbon odors starts @ 5 feet BGS.	
					20		
					405		
					900	Color change; mottles of light gray (2.5Y 7/1) and weak red (5R 4/3).	
10					830		
			10-15		1823	SILT; with interbedded phyllite; same color as above.	
					1773		
					1545		
					1575	black mineral staining @ 13 feet BGS; Moist @ 14 feet BGS.	
15					1486		
			15-20		498		
		ML			395		
					308		
					258		
					64		
20			20-25		21	SAT @ 20 feet BGS. Weak odor below water table.	▽ 08/28/2019
					15		
					14		
					18		
					11	SILT; with CLAY; interbedded with shale/phyllite layers. light yellowish brown (2.5Y 6/4); with black streaks. Micaceous. Preferred orientation of micas.	
25		ML/CH			7.8		
					3		
					5.3		
					5		
					6		
30					4.2	BORING TERMINATED AT 30 FEET.	

WELL DIAGRAM



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CINDY HERRELL
RICKEY'S GROCERY

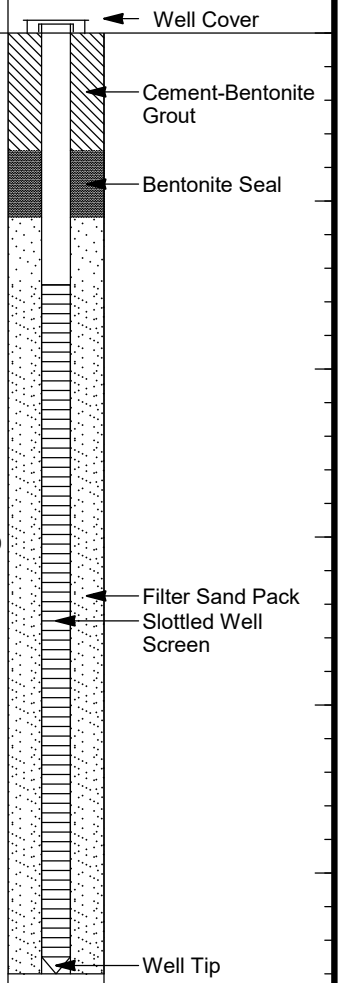
ALEXANDER CITY, AL

LOG OF WELL RW-9 & WELL CONSTRUCTION

PROJECT NUMBER	690215-003 CP13	**PROFESSIONAL**	M.Lucas
LOCATION	Alexander City, AL	**DATE(S) DRILLED**	8/28/2019 - 8/28/2019
DRILLING COMPANY	TTL, Inc.	**CASING DIA./TYPE**	4" PVC
DRILLER	D. Campbell	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	4¼" Hollow Stem Auger w/5' Continuous Sampler	**FILTER PACK TYPE**	20-40 Graded Filter Sand
		TOP OF CASING	1040.79 Ft. AMSL
REMARKS	Very strong hydrocarbon odor starting from 9 feet BGS; No odor after SAT (20 feet BGS).	**GROUND ELEVATION**	1041.21 Ft. AMSL
		DEPTH TO WATER	8.60 Ft. BGS
		WATER ELEVATION	1032.19 Ft. AMSL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
		CL-ML	1-5		0	CLAY; Silty; reddish yellow (7.5YR 7/8) with mottles of red (2.5YR 5/8). Medium to oversized cobbles of hard rock (quartzite and granite).	
					0		
					0		
					0	SILT; Same color as above; moderate hydrocarbon odor.	
5		ML	5-10		8.3		
					74		
					848		
					1641		▼
10					1606	Strong hydrocarbon odor @ 9 feet BGS; with color change to light yellowish brown (2.5Y 6/4).	
			10-15		1524		
					1331		
					1480		
					930		
					879	SAPROLITE; (weathered phyllite layers) with some SILT. light yellowish brown (2.5Y 6/4).	
15			15-20		845	SAT @ 15 feet BGS.	▽ 08/28/2019
					736		
					721		
					130		
					50		
20		SAPROLITE	20-25		59	No odor below 20 feet BGS. Color change of weak red (5R 4/3).	
					6.6		
					52		
					22		
					26		
25			25-30		560		
					54		
					126		
					18		
					607		
					4	Boring advanced to 30 feet BGS. Well set at 28 feet BGS. BORING TERMINATED AT 28 FEET.	

WELL DIAGRAM



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CINDY HERRELL
RICKEY'S GROCERY

ALEXANDER CITY, AL

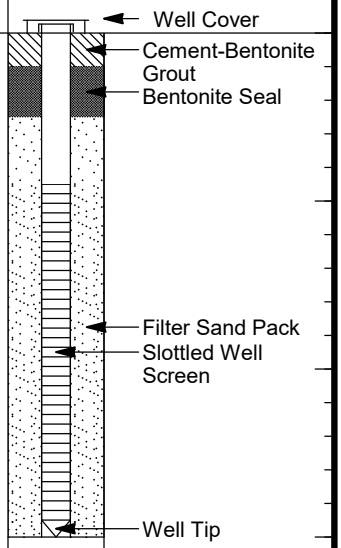
LOG OF WELL RW-10 & WELL CONSTRUCTION

PROJECT NUMBER	690215-003 CP13	**PROFESSIONAL**	M.Lucas
LOCATION	Alexander City, AL	**DATE(S) DRILLED**	8/28/2019 - 8/28/2019
DRILLING COMPANY	TTL, Inc.	**CASING DIA./TYPE**	4" PVC
DRILLER	D. Campbell	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	4¼" Hollow Stem Auger w/5' Continuous Sampler	**FILTER PACK TYPE**	20-40 Graded Filter Sand
		TOP OF CASING	1036.91Ft. AMSL
REMARKS	Poor recovery, but still strong hydrocarbon odor and elevated PID.	**GROUND ELEVATION**	1037.31 Ft. AMSL
		DEPTH TO WATER	9.75 Ft. BGS
		WATER ELEVATION	1027.16 Ft. AMSL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION
		VOID	1-5		0	No Recovery
		CL			10.8 6.4	CLAY; Silty; brown (7.5YR 4/2); with medium to oversized cobbles of quartzite; organics, grass, and organic odor.
					4.0	No Recovery
5		VOID	5-10		8	
		CL			1313 1445	SILT; Clayey. reddish yellow (7.5YR 7/8) with mottles of red (2.5YR 5/8); moderate odor.
10		VOID	10-15			No Recovery
		CL			1700	SILT; Clayey. reddish yellow (7.5YR 7/8) with mottles of red (2.5YR 5/8); moist @ 15 feet BGS.
15					1760	BORING TERMINATED AT 15 FEET.

WATER LEVEL & DATE

WELL DIAGRAM



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CINDY HERRELL
RICKEY'S GROCERY

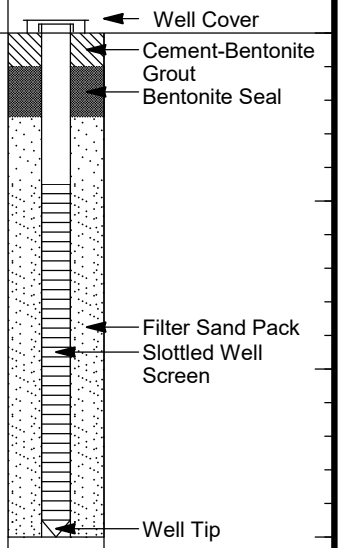
ALEXANDER CITY, AL

LOG OF WELL RW-11 & WELL CONSTRUCTION

PROJECT NUMBER	690215-003 CP13	**PROFESSIONAL**	M.Lucas
LOCATION	Alexander City, AL	**DATE(S) DRILLED**	8/28/2019 - 8/28/2019
DRILLING COMPANY	TTL, Inc.	**CASING DIA./TYPE**	4" PVC
DRILLER	D. Campbell	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	4¼" Hollow Stem Auger w/5' Continuous Sampler	**FILTER PACK TYPE**	20-40 Graded Filter Sand
		TOP OF CASING	1036.91Ft. AMSL
REMARKS	Strong hydrocarbon odor from 8-9 feet BGS.	**GROUND ELEVATION**	1037.11 Ft. AMSL
		DEPTH TO WATER	9.75 Ft. BGS
		WATER ELEVATION	1027.16 Ft. AMSL

DEPTH (feet)	GRAPHIC LOG	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION	WATER LEVEL & DATE
			1-5		4.4	CLAY; Silty; dark yellowish brown (10YR 4/4); with strong brown (7.5YR 5/8); grass, organics	
					10.2		
					17		
		CL-ML			12	with cobbles of quartzite @ 4 feet BGS.	
5			5-10		4		
					72		
					44		
					407	SILT; Clayey. same color as above; strong hydrocarbon odor from 8-9 feet BGS. Moist @ 9 feet BGS.	
10		ML			1326		▼
			10-15		1300		
					1067		
					1528	SILT; Sandy; dark yellowish brown (10YR 4/4); with red (7.5R 5/8).	
		ML			1625		
					1283	SAT @ 14 feet BGS.	
15					1420	BORING TERMINATED AT 15 FEET.	

WELL DIAGRAM



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CINDY HERRELL
RICKEY'S GROCERY

ALEXANDER CITY, AL

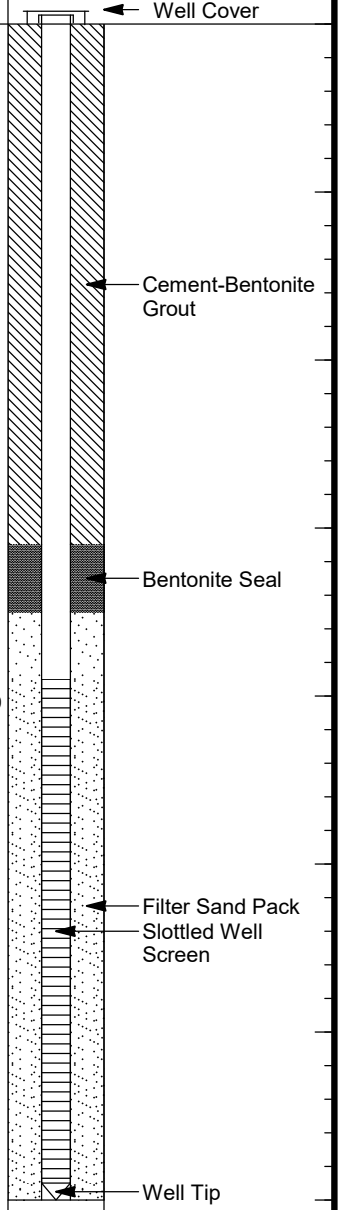
LOG OF WELL RW-12 & WELL CONSTRUCTION

PROJECT NUMBER	690215-003 CP13	**PROFESSIONAL**	M.Lucas
LOCATION	Alexander City, AL	**DATE(S) DRILLED**	8/29/2019 - 8/29/2019
DRILLING COMPANY	TTL, Inc.	**CASING DIA./TYPE**	4" PVC
DRILLER	D. Campbell	**SCREEN SLOT/TYPE**	0.010-in. slotted PVC
DRILLING METHOD	4¼" Hollow Stem Auger w/5' Continuous Sampler	**FILTER PACK TYPE**	20-40 Graded Filter Sand
		TOP OF CASING	1033.41Ft. AMSL
REMARKS	Light hydrocarbon odor under water table. Still have elevated PID in SAT zone.	**GROUND ELEVATION**	1033.51 Ft. AMSL
		DEPTH TO WATER	11.00 Ft. BGS
		WATER ELEVATION	1022.41 Ft. AMSL

DEPTH (feet)	U.S.C.S.	SAMPLE INTERVAL (feet)	SAMPLE % RECOVERY	SAMPLE PID (ppm)	LITHOLOGIC DESCRIPTION
0	ML	1-5		0	SILT; brown (7.5YR 4/2); with organics.
				0	CLAY; Silty; Reddish yellow (7.5YR 7/8) with mottles of red (2.5YR 5/8), light olive gray (5Y 6/2), and dark gray (5Y 4/1). With cobbles of quartzite. Moist @ 9 feet BGS.
				0	
5	CL-ML	5-10		6.3	
				17.8	
				21.3	
				136	
10	ML			482	SILT; with interbedded weathered phyllite layers. Micaceous. Slight hydrocarbon odor. SAT @ 15 feet BGS.
		10-15		267	
				520	
				528	
				490	
15				460	
		15-20		683	Layered shale/phyllite layers with some mineral staining. With some SILT; light yellowish brown (2.5Y 6/4) @ 25 feet BGS.
				1167	
				802	
				393	
20				390	
		20-25		54	
				40	
				108	
				65	
25	SHALE			188	
		25-30		211	
				93	
				52	
				73	
				63	
30		30-35		165	
				35	
				56	
				44	
35				34	
				53	BORING TERMINATED AT 35 FEET.

WATER LEVEL & DATE: ▽ 08/29/2019

WELL DIAGRAM



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APPENDIX D

PetroFix Proposal

REGENESIS®

PROJECT NAME

Rickey's Grocery

Design and Application Proposal

11542 Co Rd 49, Heflin, AL 36264

PREPARED FOR

TTL
Jennifer Simpson
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PREPARED BY

REGENESIS
Will Mohan
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April 06, 2026

PROJECT SUMMARY

REGENESIS is pleased to present TTL with a budgetary remedial design and cost range estimate for the Rickey's Grocery project. This budgetary proposal is intended for evaluation and planning purposes. We look forward to providing a comprehensive, detailed proposal once you have reviewed this information and confirmed that our approach aligns with your remedial goals.

Project Drivers and Goals

The subject site, located at 11542 County Rd 49, Heflin, AL, is impacted by gasoline range petroleum hydrocarbons, with contamination extent mobilizing off-site towards downgradient surface water bodies. Regulatory agencies require remediation to prevent further migration and protection of these waterbodies.

Key drivers and challenges for this remediation effort include:

- Regulatory Compliance—To avoid regulatory action, the site must comply with ADEM site specific standards.
- Plume Migration Risk—Groundwater flow transports contaminants off-site, increasing liability and requiring immediate mitigation.
- Funding Requirements – This project is funded through state trust fund, necessitating cost-effective, field-proven solutions.

Proposed Solution

To achieve your project goals, REGENESIS proposes an integrated treatment strategy using PetroFix remedial fluid—an innovative solution designed specifically for petroleum-contaminated sites. This strategy combines rapid stabilization of petroleum hydrocarbon plumes with enhanced biodegradation and cradle-to-grave remediation support:

- **Rapid Petroleum Stabilization:** PetroFix rapidly interacts with petroleum compounds, stabilizing them to limit migration and create favorable conditions for biodegradation.
- **Enhanced Biodegradation:** The unique formulation of PetroFix stimulates native microbial activity, accelerating the breakdown of petroleum constituents into benign end products.
- **Enhanced Distribution Efficiency:** Utilizing low-pressure injection, PetroFix achieves superior subsurface distribution, ensuring uniform treatment across the contaminated zone and maximizing overall remediation effectiveness.
- **Sustained Remediation Performance:** Engineered for longevity, PetroFix delivers continuous treatment over multiple years, ensuring that both initial and residual petroleum contaminants are effectively managed for long-term site recovery.

Because of the size of the plume a series of barriers are recommended as the most cost-effective method of remediation. Barriers positioned near RW-11 and MW-16 should be prioritized. A barrier around RW-11 targets the most highly contaminated portion of the plume, while a a barrier at MW-16 acts as a barrier containing the plume and preventing further migration. Additional barriers are suggested near MW-12 and MW-13 as being nearer to the source area, and MW-15 to cut the distance between RW-11 and MW-16 in after and capture anything that has already migrated beyond RW-11. REGENESIS recommends that sodium bicarbonate be mixed in with the injectate as a pH buffer, due to the moderately acidic groundwater conditions that may limit bioremediation otherwise. Considering the limited vertical delineation and lack of knowledge about contamination flux rates, REGENESIS recommends the deployment of Passive Flux Meters at RW-11 before the PetroFix application.

This proposal's technology overview and resource sections provide more specific information on PetroFix.

Design Explanation

Generally speaking, REGENESIS recommends the use of direct push methods for the application of reagents when site conditions are favorable. Recently, REGENESIS has performed several injections in and around Heflin, AL. All of these injections in the Heflin area when attempted to be applied via direct push technology experienced difficulty achieving the designed vertical depth and/or achieving flow of reagents at the desired vertical depths. In all cases, switching the application method to an injection well application allowed the injection to proceed without significant issue.

If the application of reagents by direct push is desired on this site, REGENESIS recommends testing at least five (5) injection locations across the site to determine the capability of direct push methods to achieve and apply reagents to monitor injection flow rates and pressures at the targeted depths.

Treatment Area Explanation

The two permeable reactive barriers labeled as "Priority Barriers" in this proposal represent the minimum scope of work to observe remediation in the area of the greatest level of contamination and to contain further plume migration. The two additional treatment areas labeled "Optional Barriers" would allow for faster treatment of the plume, treatment over a larger area, and a more aggressive treatment most capable of remediating the plume and preventing breakthrough at the downgradient MW-16 priority barrier.

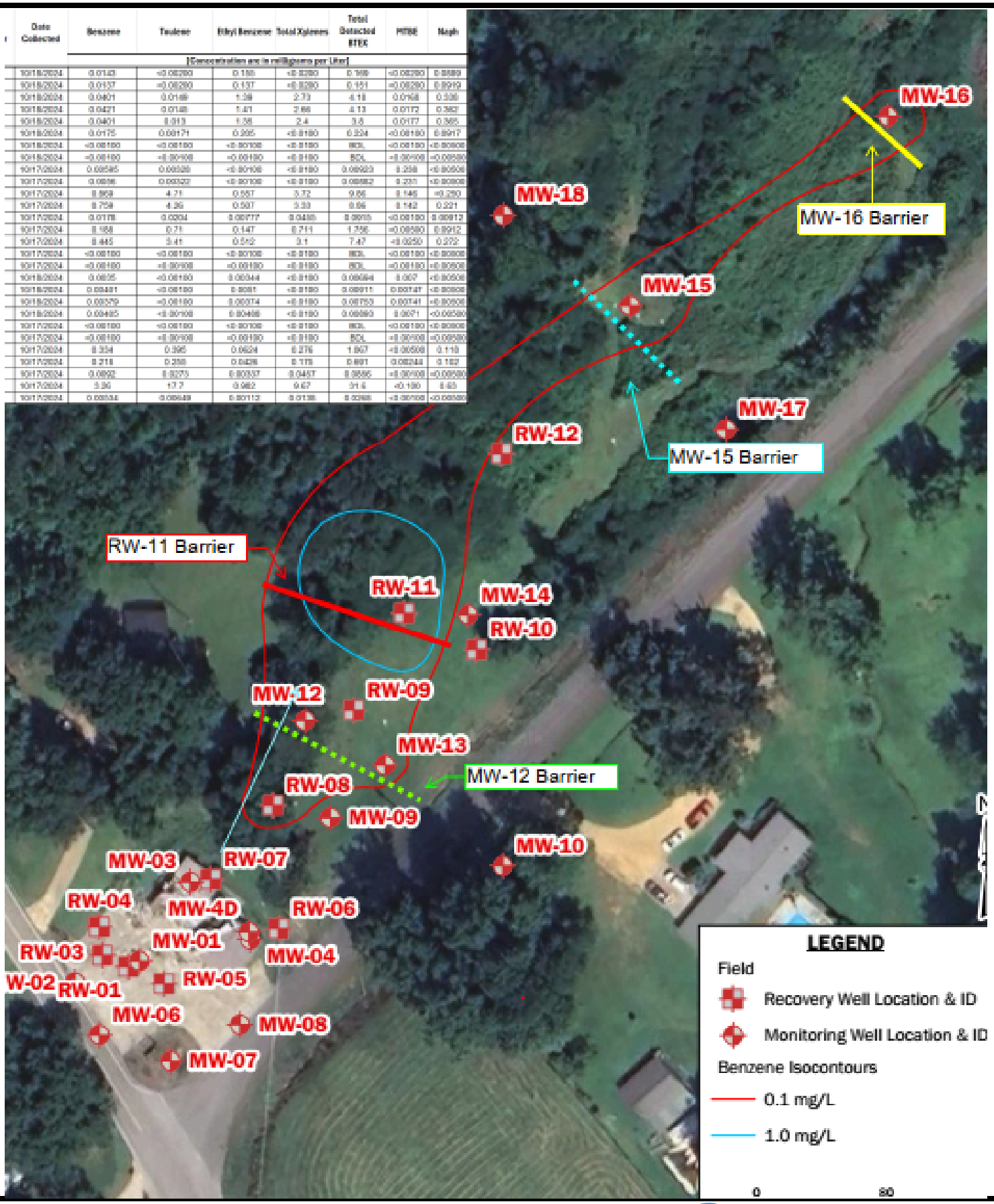
Key Project Assumptions

Design Assumptions

- **Groundwater Flow:** TTL is responsible for determining the groundwater flow direction to guide the placement and orientation of the proposed treatment zones, ensuring they are positioned effectively throughout the hydrologic cycle.
- **Groundwater Flow Rate:** Assumed to flow towards the northeast at an unknown rate. This remedial design assumed a seepage velocity of 350 feet per year. REGENESIS recommends the deployment of a Passive Flux Meter from EnviroFlux be deployed in RW-11 from 4.5-14.5 ft. We recommend performing this testing between the months of February and October. Flux meters should be left in the well for two (2) weeks, then returned to EnviroFlux for Analysis.
- **Groundwater Elevation**: Seasonal high depth to groundwater is not shallower/deeper than 3 to 4 feet below ground surface (bgs.) depending on location.
- **Contaminant Trends:** The design assumes that the concentration trend for hydrocarbons are slowly increasing as the plume migrates.
- **Compatibility of Treatments:** The design assumes no incompatible treatments have been or will be applied in proximity to the proposed treatment zone.

Application Assumptions

- **Site Access:** All injection points are accessible, and no subsurface obstructions (e.g., utilities, debris) are expected.
- **Injection Parameters:** Injection flow rates will be maintained between 25-60 psi to avoid surfacing or unplanned migration and achieve the desired ROIs.
- **Conductivity:** The treatment zone is assumed to be hydraulically conductive for uniform reagent distribution.
- **Reagent Compatibility:** The Injection assumes moderately acidic conditions that would reduce the effectiveness of the chosen reagents. Sodium bicarbonate is suggested as an additive to buffer the pH.
- **Injection Point Positioning:** Injection points should be arranged to ensure that performance monitoring wells are located directly downgradient of an injection point and at a distance $\leq$ 0.5x the injection distance within rows.
- **Injection Well Application:** All injection locations use injection wells based on multiple injections performed by REGENESIS within the region.
- **Field Distribution Check**: On Day 1, we recommend injecting PetroFix at 2–3 locations directly upgradient of, or near, a monitoring well or observation piezometer. Measure PetroFix concentrations in the well immediately after injection, ideally within 30 minutes. Target concentrations are a few hundred to a few thousand mg/L. Each PetroFix shipment includes a field kit for rapid concentration measurement. If concentrations are not detected, review injection parameters (e.g., dilution volume, pressure, tip placement, rod tightness) and adjust as needed. For guidance, consult REGENESIS or refer to the application documents (see resource section at the end of the proposal).



Rickey's Grocery

TTL

April 06, 2026

Figure 1-Treatment Area Map

REGENESIS

Technology-Based Solutions for the Environment

REMEDIAL DESIGN SUMMARY

Area Name	Barrier Length (feet)	Rows Per Barrier	Injection Points Per Barrier	Vertical Injection Interval (ft bgs)	PetroFix Amount (pounds)	Injection Volume Per Area (gallons)
RW-11	**45**	1	5	4 to 19	6,000	6,830
MW-16	**25**	1	3	3 to 13	800	2,684
MW-12 and MW-13 Barrier	**45**	1	5	4 to 29	5,600	11,408
MW-15	**37**	1	4	3 to 18	2,800	5,704

REGENESIS

PetroFix Application Summary
Barrier Estimate

Rickey's Grocery

RW-11

PetroFIX Remediation Fluid

PetroFix Amount	6,000 lb
Electron Acceptor Amount	300 lb
Barrier Length	45 ft
Delivery Points	5
Point Spacing Within Rows	11.0 ft
Point Spacing Between Rows	N/A ft
Number Of Barrier Rows	1
Top of Treatment Interval	4.0 ft bgs
Bottom of Treatment Interval	19.0 ft bgs
Treatment Area	585 ft^2
PetroFix Dose Within Barrier	18.5 lb/yd^3

Total Volume	6,830 gal
Product Volume	614 gal
Water Volume	6,216 gal
Injection Volume Per Point	1,366 gal
Injection Volume Per Vertical Foot	91 gal
Product/Point	122.8 gal
Water/Point	1,243.2 gal
Soil Type	Fine >75% Silt/Clay
Effective Pore Volume Fill %	69%

Mix Tank Volume*	275 gal
Dilution Factor	9.5 x
PetroFix per Mix Tank	24.7 gal
Water per Mix Tank	250.3 gal
Electron Acceptor per Mix Tank	12.1 lb
Number of Batches Required	24.8

**Adjust tank volume to that used in field.*

AREA NOTES

Apply with 750 lbs of NaHCO3

PetroFix Application Summary
Barrier Estimate

Rickey's Grocery

MW-16

PetroFix Amount	800 lb
Electron Acceptor Amount	40 lb
Barrier Length	25 ft
Delivery Points	3
Point Spacing Within Rows	10.0 ft
Point Spacing Between Rows	N/A ft
Number Of Barrier Rows	1
Top of Treatment Interval	3.0 ft bgs
Bottom of Treatment Interval	13.0 ft bgs
Treatment Area	325 ft^2
PetroFix Dose Within Barrier	6.6 lb/yd^3

Total Volume	2,684 gal
Product Volume	82 gal
Water Volume	2,602 gal
Injection Volume Per Point	895 gal
Injection Volume Per Vertical Foot	89 gal
Product/Point	27.3 gal
Water/Point	867.4 gal
Soil Type	Fine >75% Silt/Clay
Effective Pore Volume Fill %	74%

Mix Tank Volume*	275 gal
Dilution Factor	28.0 x
PetroFix per Mix Tank	8.4 gal
Water per Mix Tank	266.6 gal
Electron Acceptor per Mix Tank	4.1 lb
Number of Batches Required	9.8

**Adjust tank volume to that used in field.*

AREA NOTES

Mix in 300 lbs od NaHCO3

PetroFix Application Summary
Barrier Estimate
Rickey's Grocery
MW-12 and MW-13 Barrier

PetroFix Amount	5,600 lb
Electron Acceptor Amount	280 lb
Barrier Length	45 ft
Delivery Points	5
Point Spacing Within Rows	11.0 ft
Point Spacing Between Rows	N/A ft
Number Of Barrier Rows	1
Top of Treatment Interval	4.0 ft bgs
Bottom of Treatment Interval	29.0 ft bgs
Treatment Area	585 ft^2
PetroFix Dose Within Barrier	10.3 lb/yd^3

Total Volume	11,408 gal
Product Volume	573 gal
Water Volume	10,835 gal
Injection Volume Per Point	2,282 gal
Injection Volume Per Vertical Foot	91 gal
Product/Point	114.6 gal
Water/Point	2,166.9 gal
Soil Type	Fine >75% Silt/Clay
Effective Pore Volume Fill %	70%

Mix Tank Volume*	275 gal
Dilution Factor	17.0 x
PetroFix per Mix Tank	13.8 gal
Water per Mix Tank	261.2 gal
Electron Acceptor per Mix Tank	6.7 lb
Number of Batches Required	41.5

**Adjust tank volume to that used in field.*

AREA NOTES

Mix with 1,250 lbs of NaHCO3.

PetroFix Application Summary
Barrier Estimate

Rickey's Grocery

MW-15

PetroFix Amount	**2,800 lb**
Electron Acceptor Amount	140 lb
Barrier Length	37 ft
Delivery Points	4
Point Spacing Within Rows	11.0 ft
Point Spacing Between Rows	N/A ft
Number Of Barrier Rows	1
Top of Treatment Interval	3.0 ft bgs
Bottom of Treatment Interval	18.0 ft bgs
Treatment Area	481 ft^2
PetroFix Dose Within Barrier	10.5 lb/yd^3

Total Volume	**5,704 gal**
Product Volume	287 gal
Water Volume	5,417 gal
Injection Volume Per Point	1,426 gal
Injection Volume Per Vertical Foot	95 gal
Product/Point	71.6 gal
Water/Point	1,354.3 gal
Soil Type	Fine >75% Silt/Clay
Effective Pore Volume Fill %	70%

Mix Tank Volume*	**275 gal**
Dilution Factor	17.0 x
PetroFix per Mix Tank	13.8 gal
Water per Mix Tank	261.2 gal
Electron Acceptor per Mix Tank	6.7 lb
Number of Batches Required	20.7

**Adjust tank volume to that used in field.*

AREA NOTES

Mix with 650 lbs of NaHCO3

RRS Statement of Qualifications

RRS provides turn-key remediation planning, design, and application services. RRS field scientists are college degreed professionals who understand the details of each remediation design, the conceptual site model, the remediation chemistry being applied, the significance of the designed amendment dosing and achieving subsurface distribution, and how a breakdown of any one of these and other factors can result in poor remediation performance. They have the unique background and experience to understand the significance of modifications made in the field.

RRS' direct management of the injection program optimizes the design and ultimately, the overall remedy performance. No one has more professional experience handling and applying *in situ* remediation products than RRS personnel.

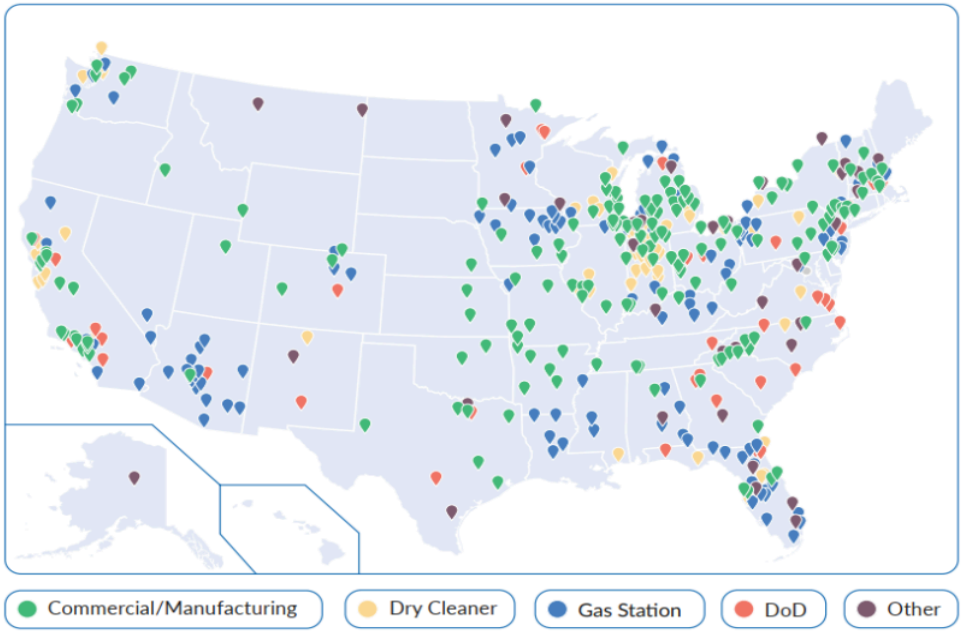
RRS has been offering industry-leading application services combined with excellence in field activity management for over a decade. We succeed by meeting the cleanup objectives established by the environmental engineering firms who contract our services. To produce this outcome, we employ field-experienced, disciplined, and dedicated project teams who work with our clients to address the unique requirements of each project site. Astute technical insight and timely, direct, and honest communication are hallmarks of RRS. Our reputation for meeting or exceeding clients' objectives has been proven in project successes throughout North America.

Further information on what sets RRS apart is provided in the following technical resources:

- RRS: Performance Driven, Results Based
- The RRS Difference
- RRS Project Experience

With decades of application experience, RRS is strategically located across the country to mobilize and assist on a wide range of sites throughout the US.

RRS consistently completes over 100 Projects annually across the US. For a current map of projects completed please click th



RRS Scope of Services

RRS, as part of its role, will operate under the guidance of TTL to execute the remedial actions in the field, employing the chosen remediation methodologies. The collaboration between RRS and TTL will entail joint responsibilities in carrying out this scope of services. The distribution of responsibilities is elaborated upon in this section as well as under the Assumptions/Qualification segment.

Site Preparation and Setup

RRS will commence work with an initial health and safety site orientation with all personnel present for the site work. A site reconnaissance will be conducted to familiarize the project site and treatment area as part of the site orientation. Notable observations will include vehicle and pedestrian traffic, proximity to sensitive receptors, visual confirmation of private and public utilities located within the treatment area, location of the water source, and product staging area. Once complete, the injection and support equipment will be staged and secured at the most optimal location to conduct the work. Additional site preparation and setup activities may be required based on the final scope of work that are not included here.

At the outset of each day, RRS will convene a safety tailgate meeting to discuss the day's objectives, procedures, and assigned roles and review health and safety concerns. All personnel on-site will be required to participate and acknowledge the information discussed prior to commencing that day's work activities. This proposal's health and safety section provides additional information regarding our health and safety mindset. All on-site personnel will comply with the Occupational Safety and Health Administration (OSHA) 1910.120 HAZWOPER training requirements.

General Means and Methods

A custom-built injection system (see below) will be utilized to handle and deliver the remediation technologies into the contaminated soil and groundwater. The system is designed to mix and provide the remediation solution at the specified solution concentration while allowing our experienced personnel to make on-site modifications to the design if needed.

RRS will be outfitted with the appropriate means to connect to the injection wells (i.e., NPT threaded connections, mechanical flow through packers, etc.). To the extent practical, active injection locations will be spread out over the work area to limit overfilling of the aquifer's pore volume, resulting in unnecessary surfacing of the remediation solution. These procedures may be modified in the field based on observations of the injected remediation technologies.

Pressure, flow rate, and overall volume will be closely monitored and digitally recorded for each injection interval. Simultaneous injections at multiple locations may be performed to enhance efficiencies on-site. RRS will vigilantly monitor the injection locations and surroundings for any surfacing indications, and a spill response kit will remain on standby.

Reagent Distribution Monitoring

Throughout the application, real-time data will be collected and analyzed to corroborate design assumptions and the dispersion of reagents in the subsurface. Depending on the remedial agent applied, the gathered and analyzed data may encompass groundwater quality parameters (e.g., pH, conductivity, Dissolved Oxygen (DO), Oxidation-Reduction Potential (ORP), etc.), measurements of water table depth, visual indicators observed via groundwater or soil samples, and in-field concentration tests of injected substances. This data collection is typically conducted during the application process when operating within 10 feet of appropriately screened monitoring wells, temporary piezometers, and/or temporary groundwater boring locations.

Guided by the collected information, the project team may introduce adjustments to the remediation design to enhance the injection application's efficacy. These adjustments might involve alterations in injection concentrations and volume per location.

Application Summary Report Deliverable

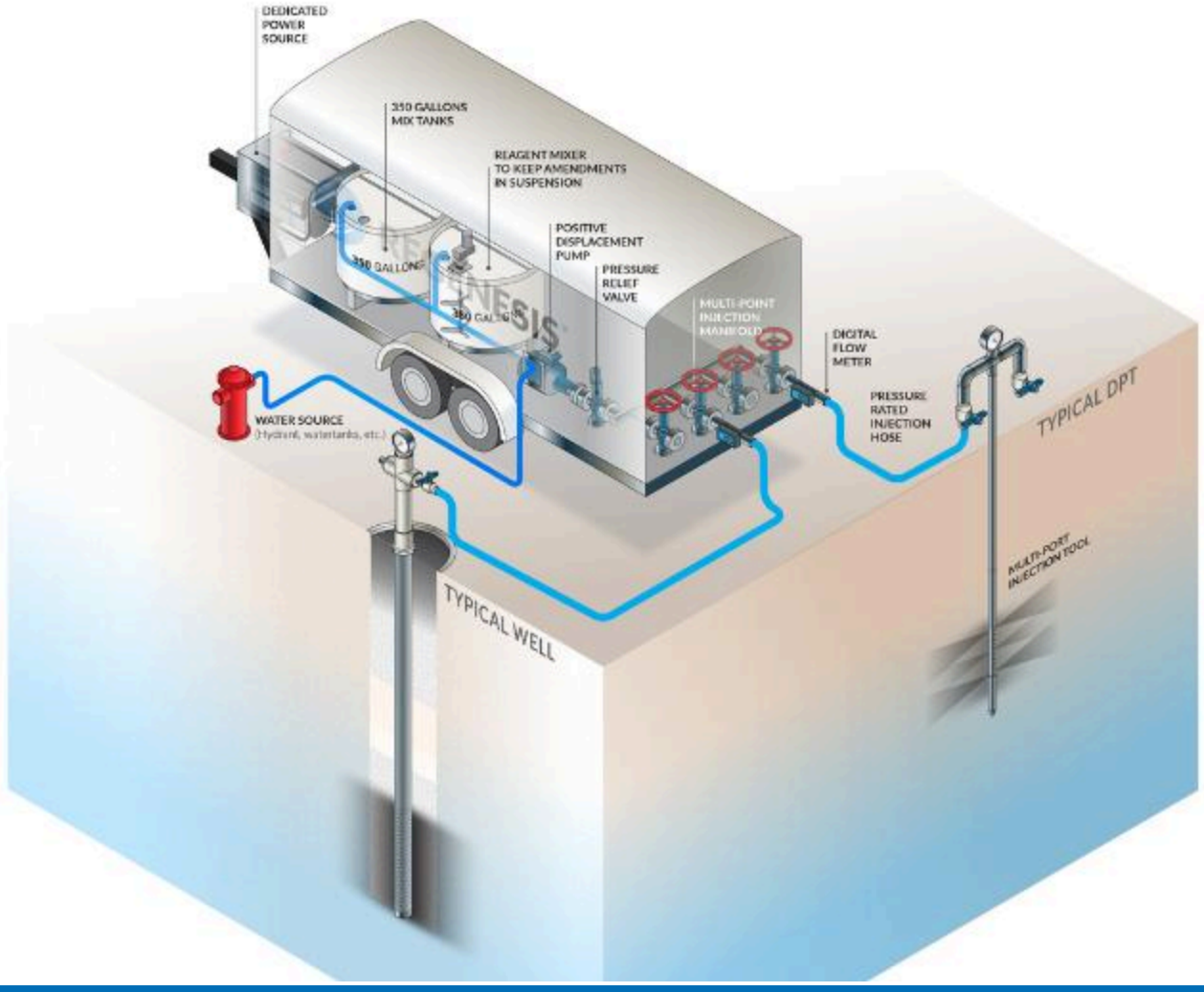
Upon the conclusion of the injection operation, RRS will demobilize all equipment and personnel from the site. A comprehensive injection summary report, encompassing details of injection points (interval depths, injection pressure/flow rates, reagent volume, time elapsed, and surfacing occurrences), on-site observations, and any notable information, will be prepared and submitted to TTL.

Injection Application Equipment

The remediation technologies will be prepared and applied via an RRS custom injection trailer(s) (see image below). Each injection trailer is fully enclosed and contains mixing tanks, pumps, and a delivery system equipped for direct connection to downhole injection tooling or injection wells. In short, each trailer has the following components:

- Flow and pressure transducers to ensure accuracy and safety
- Complete drain conical mixing tanks
- Vortex/Cyclone mixer
- Application pump
- Multiple fluid delivery lines
- Self-sufficient, dedicated power
- Slip-resistant and chemical-resistant flooring
- Backflow prevention
- Pressure bypass controls
- Emergency eyewash and First-Aid station

Overhead view of injection trailer dimensions



The application pump is a multiple diaphragm positive displacement pump specifically designed to prevent pulsation of the remediation chemistry during application. It can deliver the remediation solution at pressures of up to 250 pounds per square inch (psi) and flow rates of up to 20 gallons per minute (gpm) to address any potential hydraulic limitations.

To maintain and control the desired application pressures and flow rates, mechanisms capable of sustaining pressures from 0 to 250 psi and injection flow rates from 0 to 20 gpm per injection point are installed. Safety bypass mechanisms are included to release back pressure if injection pressures exceed commonly accepted application ranges.

Our delivery system can dispense the remediation chemistry through up to four separate delivery lines simultaneously. Each line is monitored by highly accurate pressure and flow transducers during the injection application at all times. Each delivery line can extend more than 100 linear feet beyond the injection trailer, which reduces the need to move the trailer from one location to another. Additional line extensions can be added to further increase the trailer's operational range without relocating it.

The remediation chemistry solutions are prepared in two (2) 350-gallon conical tanks configured with chemically resistant materials. A vortex/cyclone mixer mounted to the mixing tanks rated with a liquid movement of 1800 gpm in water is outfitted with a shaft and propellers capable of sustaining a homogenous mixture.

These trailers are purpose-built to maximize efficiency on-site and have been designed based on years of experience. From large to small, RRS is able to scale appropriately to deliver the same level of services from corner dry cleaners to 100-acre automotive manufacturing facilities.

>1,000
Injection applications completed

100+
Applications per year

290
Days per year injecting

Project Responsibilities

RRS will work with TTL to implement the scope of work associated with the application of the selected remediation technologies. Responsibilities for the implementation of this project will be shared between RRS and TTL. Responsibilities for each are listed below and further under the Assumptions/Qualifications section.

RRS Responsibilities:

- RRS will provide and ship the specified quantities of the remediation technologies to the site address provided by TTL. RRS will coordinate with TTL prior to any shipment of product.
- RRS will provide qualified and experienced 40-hour HAZWOPER-certified personnel to implement and manage the remediation application scope of work.
- RRS will take delivery of the remediation technology and stage inside a secure location where the material will not be affected by inclement weather and is accessible by forklift or other equivalent means.
- RRS will provide the means to maneuver the product around the site (forklift or equivalent) as needed during the application activities.
- RRS will provide a custom-built injection system and other miscellaneous support equipment to handle, prepare, and apply the remediation technologies during the application process.
- RRS will provide the appropriate means to connect to each of the injection wells (i.e., NPT threaded connections, mechanical flow through packers, etc.).
- RRS will perform site reconnaissance and pre-application activities that include H&S orientation, sensitive receptor identification and protection, treatment area identification, and equipment staging.
- RRS will prepare a site-specific health and safety plan.
- RRS will provide site safety equipment, including cones and caution tape, to delineate the immediate work area while making efforts to limit the impact on business operations at the site.
- RRS will perform real-time reagent distribution diagnostics during injection activities to allow for field modifications, as needed, to ensure optimal results.
- RRS will monitor the injection flow rates and pressures and observe signs of reagent surfacing around active injection areas. If surfacing is detected, RRS will stop or slow down injection activities at that location to stop additional surfacing and remove/vacuum up recoverable surfaced fluid.
- RRS will work directly with our design team to fill any data gaps identified during the injection application, thereby more effectively maintaining the project objectives and goals.
- RRS will generate a detailed injection summary report upon completion of the injection event. Items to be incorporated will include injection depths, material quantities, injection flow rates and pressures, an injection location map, implementation pictures, and other noteworthy field observations.

TTL Responsibilities:

- TTL will coordinate project schedule and remediation technology order with REGENESIS to ensure adequate shipping and mobilization time.
- TTL will coordinate site access with property owner to coincide with project schedule and identify a secure product staging area.
- TTL will provide a water source (e.g., water truck or tank) capable of producing at least 30 gpm for the duration of the project within 300 ft. of the project staging area, at no cost to RRS.
- TTL will install the injection wells prior to RRS mobilization and be screened at the appropriate interval to target the treatment zone. TTL will construct the injection wells with the appropriate diameter, screen length, slot size, and borehole annulus material to successfully target the treatment zone.
- TTL will procure any necessary permits needed to complete the project including right of way, UIC and municipal.
- TTL is responsible for all soil, air and groundwater sampling and analysis.
- Should surfaced/short-circuited remediation technology material need to be containerized, TTL is responsible for the classification, transportation and disposal of the waste.
- TTL will provide a depth to water meter and multiprobe with low-flow pump and a flow-through cell capable of reaching the water table and well screen interval while on-site for injection activities.
- TTL will provide access to a restroom during on-site hours.
- All empty product containers will be the responsibility of TTL for proper disposal/recycling. General refuse will be collected and disposed of in a TTL provided refuse container on-site.
- Any traffic control requirement beyond providing cones and caution tape is the responsibility of TTL.

RRS Assumptions and Qualifications

In generating this proposal, RRS relied upon professional judgment and site-specific information provided by others. Using this information as input, we performed calculations based upon known chemical and geologic relationships to estimate product quantities and subsurface placement required to achieve the remedial goals. The attached design summary tables specify the assumptions used to complete the remedial design. We request that these modeling input assumptions be verified by your firm before injection. Other assumptions and qualifications are as follows:

- The product and services cost outlined will be valid for 60 days from the proposal date. If beyond 60 days, RRS reserves the right to update the cost.
- The freight charges included for product delivery above are estimated at the time of proposal generation. Actual freight charges are neither set nor guaranteed by RRS and are calculated when the product order is placed. This price may vary from what is estimated above. Actual freight charges for product delivery will be invoiced.
- Freight delivery time frames cannot be guaranteed and RRS will not be responsible for any delays or increased costs associated with those delays.
- If applicable, sales tax charges for product, freight, and services are considered estimated at the time of proposal submittal. The appropriate sales tax category (i.e., product, freight, and services) and actual sales tax rate are finalized at the time of invoice and may change from date of proposal submittal.
- RRS will have access to the site for equipment operation and secure storage of materials and equipment throughout the project duration. Access to each work area location will be clear and free of obstructions. RRS also assumes the injection system can be staged within 80 feet of the furthest injection point location.
- For safety reasons, access to the treatment area will be limited to RRS and TTL personnel.
- RRS is not responsible for treatment chemistry infiltration into undesired locations beyond our visible control. The remediation design and injection procedures contain the necessary precautions to minimize the likelihood of surfacing of the treatment chemistry.
- RRS personnel will have access to the site for work up to 12 hours per day, Monday through Friday (daylight hours). However, the standard workday does not exceed 10 hours, with travel time Monday through Friday. A 10-hour workday does not mean 10 hours on-site and/or injection pumping. Additional charges may apply for work completed on Saturday and Sunday.
- RRS is not responsible for damage to unmarked utilities and subsurface structures. TTL will review as-built drawings with RRS and confirm clearance prior to injection activities and the remedial fluids being distributed throughout the subsurface.
- Pricing and work schedule assume union labor and prevailing wages (Davis-Bacon) are not required.
- Ground surface restoration costs have not been included. Additional charges will apply if surface restoration is needed.
- Site conditions can change over time and should be monitored post-injection. RRS is not responsible for changing site conditions after completing the scope of work and demobilizing. Such changes include but are not limited to changes related to applicable borehole abandonment (i.e., swelling of backfill material), surface restoration, well conditions, and on-site utilities.

Health and Safety Plan

RRS is committed to providing a safe and healthy working environment for all on-site employees, including TTLs and contractors on-site. Before mobilization, RRS will develop a site-specific Health and Safety Plan (HASP) and designate an on-site safety officer. All personnel on-site are required to participate in daily safety tailgate meetings to proactively identify potential hazards and mitigate risks to the full extent possible.

In addition to the hours of rigorous safety training courses all personnel are required to complete, RRS also incorporates a behavior-based safety program by utilizing our DoneSafe mobile application (app) interface on every site. This app encourages our personnel to actively search for potential on-site risks and document mitigation actions. The effectiveness of our safety program can be seen in our industry-leading Experience Modification Rating (EMR) listed in table below.

Year	Total Hours	EMR
2025	176,464	0.71
2024	193,337	0.72
2023	193,433	0.67
2022	189,458	0.73

RRS safety tailgate meetings and HASP will include the following:

- Site map .
- List of personnel and contact information for employees on-site and supporting the project.
- Route to the nearest occupational treatment facility and hospital along with contact information.
- Job Hazard Analysis (JHA) detailing each job task on-site with its potential hazards and best practices to avoid those hazards.
- Description and hazards of the contaminants of concern (COC) with appropriate Personal Protection Equipment (PPE) requirements.
- List and description of REGENESIS chemicals on-site including a Safety Data Sheet (SDS) for each chemical.
- Checklist of site safety equipment including fire extinguishers, eyewash station, first aid kit, spill prevention kit and any site-specific equipment needed.
- Daily tailgate safety meeting sheet with identified hazards and risks associated with the site and job tasks for that day, along with shared learning observations from the previous day.

Pricing

Below is the cost estimate to provide the remediation technologies and execute the scope of work provided in this proposal.

Description	Subtotal
Remediation Products* and Services 15,200 lbs. of PetroFix, 760 lbs. of EA Blend and Application Services for 9-day injection	$159,540.93
Total	**$159,540.93**

*NaHCO3 not included

The cost provided above is inclusive of all products, estimated product freight, product mixing, injection services as outlined within this proposal, tax, and materials to complete the work. We will submit invoice(s) when the product ships and upon project completion or end of the calendar month for RRS services. **Payment terms are Net 30 days upon invoice submittal. Should payment terms be extended beyond 30 days, finance charges may be applied.**

Please note that this pricing is contingent upon the completion of this scope of work without delays or work stoppages once mobilization occurs. RRS has allotted one (1) day to accept product and nine (9) on-site working days (10-hr days, Monday through Friday). RRS believes the scope of work provided above can be completed in this timeframe proposed, however, if the project is delayed due to circumstances beyond our control, RRS will utilize a daily rate of $5,500.00 plus applicable tax to the invoice price. Should the project be completed ahead of schedule, a portion of the daily rate may be credited to the final invoice after review. RRS reserves the right to modify the design and associated cost if additional information gathered warrants modification.

COST ESTIMATE DISCLAIMER: The cost listed assumes conditions set forth within the proposed scope of work and assumptions and qualifications. Changes to either could impact the final cost of the project. This may include final shipping arrangements, sales tax, or application-related tasks such as product storage and handling, access to water, etc. If the items listed need to be modified, please contact REGENESIS for further evaluation.

REGENESIS developed this Scope of Work in reliance upon the data and professional judgments provided by those who completed the earlier environmental site assessment(s) and in reliance upon REGENESIS' prior experience on similar project sites. The fees and charges associated with the Scope of Work were generated through REGENESIS' proprietary formulas and thus may not conform to billing guidelines, constraints, or other limits on fees. REGENESIS does not seek reimbursement directly from any government agency or any governmental reimbursement fund (the "Government"). In any circumstance where REGENESIS may serve as a supplier or subcontractor to an entity that seeks reimbursement from the Government for all or part of the services performed or products provided by REGENESIS, it is the sole responsibility of the entity seeking reimbursement to ensure the Scope of Work and associated charges are in compliance with and acceptable to the Government before submission. When serving as a supplier or subcontractor to an entity that seeks reimbursement from Government, REGENESIS does not knowingly present or cause to be presented any claim for payment to the government.

PROFESSIONAL JUDGEMENT: In generating this estimate, REGENESIS relied upon professional judgment and site-specific information provided by others. Using this information as input, we performed calculations based upon the known chemical and geologic relationships to generate an estimate of the mass of product and subsurface placement required to effect the remediation of the site.

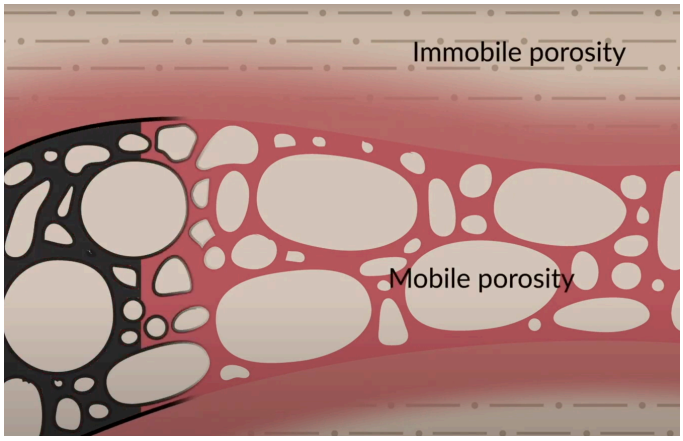
PetroFix® Technology Overview

PetroFix uses colloidal activated carbon (CAC) particles (1-2 micrometers) to quickly adsorb and immobilize dissolved hydrocarbons. This small particle size differentiates PetroFix and increases surface area and adsorption speed compared to larger carbon particles. Integrated anaerobic electron acceptors also promote microbial biodegradation of hydrocarbons, providing long-term contaminant reduction and regeneration of the CAC. PetroFix is versatile for various applications, including source and plume treatment, excavation polishing, and barrier applications.

Features and Benefits:

- **Rapid and Sustained Treatment**: Quickly captures hydrocarbons and supports ongoing biodegradation to prevent rebound.
- **Low-Pressure Application**: PetroFix is injected at low pressures, avoiding the need for fracturing and ensuring even distribution in aquifer flux zones.
- **Ease of Use and Safety**: Shipped as a ready-to-use liquid, avoiding handling risks of powders, and simplifying application.
- **Mitigation of Back-Diffusion and Rebound**: Immobilizes hydrocarbons and supports biodegradation to address back-diffusion.
- **Comprehensive Support**: Offers extensive resources and customer support from design to post-application evaluation.

Hyperlinked YouTube Overview of PetroFix



PetroFix® Resources

Media:

- PetroFix Case Studies: Over 25 case studies in varied conditions. Use search or pull-downs on this weblink to identify case studies of interest.
- **PetroFix Webinars:** Webinars highlighting performance and best practices at PetroFix sites.
- **PetroFix - An Animated Overview:** An animated explanation of how PetroFix works in groundwater.

Product Literature:

- **PetroFix Spec Sheet:** Summary of specifications and properties of PetroFix.
- **PetroFix 'Mini-Brochure':** A concise brochure highlighting the features and benefits of PetroFix.

Application Instructions:

- Direct Push Application Instructions: Instructions for using direct push injection equipment.
- **Excavation Application Guidance:** Instructions for applying PetroFix within excavation sites.
- **Well Application Guidance:** Procedures for administering PetroFix via wells.

Safety Data Sheets:

- **PetroFix SDS:** Safety data sheet detailing handling and safety information for PetroFix.
- **Electron Acceptor Blend SDS:** Safety data sheet for the electron acceptor blend used with PetroFix.
- **Electron Acceptor Blend Nitrate-Free SDS:** Safety data sheet for the nitrate-free electron acceptor blend.

Technical Bulletins:

- PetroFix Performance Monitoring Parameters: Key parameters for monitoring the performance of PetroFix applications.
- **PetroFix Freezing and Hot Weather Handling Technical Memo:** Guidance on managing PetroFix under hot and cold weather conditions.
- Colloidal Activated Carbon Groundwater Sampling Guidance: Best practices for sampling groundwater containing colloidal activated carbon.
- **Well Flushing Technical Bulletin:** Procedures for flushing wells post-PetroFix application to ensure optimal performance.
- **Nitrate/Sulfate Addition and Syntrophic Biodegradation:** This paper provides insights into the role of nitrate and sulfate in enhancing biodegradation processes.
- Laboratory and Field Results Documenting The Biodegradation of Contaminants From Colloidal Activated Carbon (CAC): Summary of work documenting biodegradation of contaminants with colloidal carbon.

Acknowledgement

This scope and associated costs are budgetary and should not be considered final. Listed below are the next steps to secure a final design and cost estimate from REGENESIS.

Steps to Final Design and Scope of Work

1. Signature notifying REGENESIS to proceed with final design.
2. REGENESIS technical team contacts TTL to review final scope of work and provide detailed design and cost estimate
3. Provide Detailed Remediation Services Scope of Work, if applicable.
4. Confirm Implementation Schedule
5. Submit Detailed Design and Cost Estimate to TTL for review and final approval

Signature below confirms signee accepts this preliminary scope of work and would like REGENESIS to proceed with a detailed design and cost estimate.

SIGNATURE
Jennifer Simpson

Not yet accepted

TTL | Jennifer Simpson, Project Professional