



MIDWAY MART

MODIFIED CORRECTIVE ACTION PLAN

ATTF CP-46



Midway Mart
3700 Pepperell Parkway
Opelika, Lee Co., AL
Fac ID 14327-081-006296
UST 07-11-06

PREPARED FOR

Saxon Oil Company
107-B South Ninth Street
Opelika, AL 36801

DATE

August 21, 2019

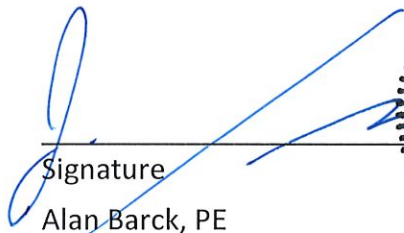
PREPARED BY


CDG Engineers & Associates, Inc.
1840 E. Three Notch St.
Andalusia, AL 36420

CERTIFICATION PAGE

"I hereby certify that, in my professional judgment, the components of this document and associated work satisfy the applicable requirements set forth in Chapter 335-6 of the ADEM Administrative Code, and are consistent with generally accepted professional consulting principles and practices. 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."

This document has been prepared based on historical site assessment data and has been prepared to address soil and groundwater contamination at the Midway Mart site (Facility Identification Number 14327-081-006296) in Opelika, Lee County, Alabama. The recommended action should not be construed to apply to any other site.


Signature
Alan Barck, PE
Registered PE in the State of Alabama
Registration No. 32719



The seal is circular with a dotted border. The text inside the seal reads: "ALABAMA LICENSED" at the top, "No. 32719 PROFESSIONAL" in the center, and "ENGINEER JAMES ALAN BARCK" at the bottom, flanked by two stars.

8-21-15
Date

PROJECT SUMMARY

The Midway Mart operates as a convenience store with fueling pumps located to the south of the store. On August 13, 1991 five underground storage tanks (USTs), three 6,000-gallon gasoline, one 1,000-gallon diesel, and one 550-gallon used oil tanks were closed and removed from the site. On August 21, 1991, three new 6,000-gallon gasoline USTs were installed at the site. The Alabama Tank Trust Fund (ATTF) responsible party for the Midway Mart site is Saxon Oil Company.

In October 2006, Saxon Oil Company conducted a routine tank and line tightness test at the Midway Mart and one of the product lines that served the western most fuel pump failed the tightness test. A UST Release Report Form (Initial Abatement Measures Report) was submitted to ADEM in November 2006. ADEM issued a Notification of Requirement to Conduct Investigative and Corrective Action and a Pre-Approved Cost Proposal (CP-1) to cover the costs associated with the Preliminary Investigation.

The CWA Group, Inc. (CWA) was initially engaged by the Saxon Oil Company to conduct various investigative and corrective actions on the property from April 2007 through January 2014. CWA installed a total of twenty Type II monitoring wells. Eighteen groundwater monitoring events were conducted by CWA between April 2007 and January 2014. The Corrective Action approach implemented by CWA involved the application of Remediation by Natural Attenuation Monitoring with Mobile Enhanced Multi-phase Extraction (MEME) events. Twenty-five MEME events were conducted between November 2008 and December 2013 under the direction of CWA. It was reported that from November 2008 through December 2013, approximately 1,771 lbs of hydrocarbons (287 gallons of gasoline) and 30,499 gallons of petroleum contaminated water has been removed from the site.

Seven of the off-site wells (MW-12, MW-13, MW-15, MW-17, MW-18, MW-19, and MW-20) installed by CWA have subsequently been determined to not be representative of groundwater impacts relating to the release at the Midway Mart site. Monitoring of these wells has been discontinued under the release incident UST07-11-06 as of October 2016.

In March 2014, Saxon Oil Company, Inc. transferred ATTF contractor responsibilities to CDG Engineers & Associates, Inc. (CDG). Since March 2014, site activities have included the continuation of groundwater monitoring with MEME events, and the installation of two

recovery wells (RW-1 and RW-2) at the Midway Mart site. In August 2018, CDG directed a high-resolution soil profile study (HRSPS) and a report was submitted to ADEM for review.

After the review of the HRSPS, ADEM requested that a Modified Corrective Action Plan be prepared for the site. The following report constitutes the Modified Corrective Action Plan developed as approved on May 21, 2019 under cost proposal CP-46.

SUMMARY OF PREVIOUSLY CONDUCTED CORRECTIVE ACTION

Between May 2017 and March 2018, four 8-hour and two 12-hour Mobile Enhanced Multiphase Extraction (MEME) events were conducted. The following table summarizes the results of the last six events:

Date	Length of Event (hrs.)	Total HC Removed (lbs.)	Equivalent HC (gal)	Total PCW Liquid (gal)
05/18/17	8	17.23	2.79	1,600
07/12/17	8	11.28	1.83	1,700
09/14/17	8	8.48	1.37	1,600
11/16/17	8	6.79	1.10	1,480
01/18/18	12	10.78	1.75	1,000
03/15/18	12	5.07	0.82	1,100
TOTALS	56	59.63	9.66	8,480

During the period between May 2017 and March 2018, the MEME events were successful in removing approximately 59.63 pounds of gasoline range hydrocarbons or the equivalent of 9.66 gallons of gasoline. Approximately 1.07 pounds of gasoline range hydrocarbons per hour were removed from the site.

REMEDIAL OBJECTIVES AND SITE CHARACTERIZATION

General Remedial Objectives

The general objectives of the corrective action activities for the facility are as follows:

- Ensure that the health and safety of all project personnel is maintained during remediation activities.
- Prevent hydrocarbon migration to sensitive receptors.

- Remove free product from the site subsurface, if present.
- Reduce adsorbed phase petroleum hydrocarbons from soils within the vadose and saturated zone, primarily in the source area, to below approved SSTLs.
- Reduce dissolved petroleum hydrocarbons from groundwater to below approved SSTLs.
- Accomplish these objectives within the proposed period of operation.

Vadose Zone Soil Characterization

A high-resolution soil profile study was conducted on August 13 through August 17, 2018 to define the depth and horizontal extent of the petroleum contaminated soils at the site to allow corrective action efforts to focus on those areas. Based on the soil borings, the primary area of impact exits along the northern edge of the UST tank pit. The depth of impact is generally 25 to 35 feet below ground surface and indicated by sample results that can be found in the high-resolution soil profile report dated September 2018. The COCs for the release at the site include benzene, toluene, ethylbenzene, total xylenes, methyl tert-butyl ether (BTEX/MTBE) constituents. The analytical results from the soil samples collected during the site characterization activities are summarized in the Tables included in Appendix A. The locations of the soil borings and the distribution of soil COC concentrations across the site are shown in Appendix B. The vadose zone soils are predominantly comprised of silty sand with an average porosity of 37%. The average volumetric moisture content within the vadose zone was measured to be 12.3%. Figures are included in Appendix B that show a cross-section of the site soils along the transect.

Aquifer Characterization

The analytical results of the groundwater samples, water levels, and free product thickness measurements collected during the site characterization activities are summarized in the Tables. The average historical depth to groundwater beneath the site is approximately 28.4 feet below ground surface (BGS). Based on the most recent groundwater level measurements collected during the July 10, 2019 sampling event, a potentiometric surface map was constructed for the site and is included in Appendix B. The general groundwater flow direction beneath the site is to the east. The hydraulic gradient (*i*) was approximately 0.03 according to measurements taken from selected monitoring wells on March 28, 2008.

Slug testing conducted during the Secondary Investigation activities indicated that the average hydraulic conductivity (*K*) of the site soils was approximately 1.0 E-4 cm/sec. Based

on these values, the anticipated Darcy velocity (Ki) of groundwater flow beneath the site would be approximately 94.62 cm/yr. Free product was last detected at the site in monitoring well MW-1 in December 2008. Using the analytical data from the July 10, 2019 groundwater sampling event, an iso-concentration map for benzene was constructed to represent the approximate extent of the current dissolved phase hydrocarbon plume and is included in Appendix B.

Exposure Assessment

An exposure assessment was conducted by The CWA Group, Inc. during the Alabama Risk Based Corrective Action (ARBCA) evaluation. The current land use site conceptual exposure model indicates that complete exposure pathways exist onsite for indoor and outdoor vapor inhalation from soil and groundwater for commercial and construction workers. Complete exposure pathways also exist for indoor and outdoor vapor inhalation from impacted groundwater for offsite residents, commercial workers, and construction workers. Future land use of the site and the surrounding area is expected to remain the same. There are no public wells located within one mile of the site or no private water supply wells identified within 1,000 feet of the facility.

Site-Specific Target Levels

To assess the risk to human health and the environment of the dissolved hydrocarbon plume associated with the Midway Mart site, an ARBCA Tier I/Tier II Evaluation was performed. Details of this evaluation are contained in a report submitted to ADEM in March 2008. Based on the ARBCA Tier II Evaluation, Site Specific Target Levels (SSTLs) were calculated for the various media (soil and groundwater) at the site. The SSTLs were established as Alternate Corrective Action Limits (ACALs) for site remediation. The SSTLs developed during this process are concentrations that, based on the site model, would not pose a significant risk to any recognized actual or potential receptors. The SSTLs for soil and groundwater are summarized in the following table.

Alternate Corrective Action Limits for Midway Mart						
Chemicals of Concern	Soil			Groundwater		
	Dermal Contact (mg/Kg)	On-site Indoor Inhalation (mg/Kg)	Off-Site Indoor Inhalation (mg/Kg)	Groundwater Resource Protection (mg/Kg)	On-site Indoor Inhalation (mg/L)	Off-Site Indoor Inhalation (mg/L)
Benzene	N/A	0.126	N/A	0.671	12	12
Toluene	N/A	46.4	N/A	134	526	526
Ethylbenzene	N/A	168	N/A	93.9	169	169
Xylenes	N/A	67.2	N/A	175	175	175
MTBE	N/A	589	N/A	2.68	23,700	23,700
Naphthalene	N/A	57.9s	N/A	2.68	31	31

A more detailed presentation of these values is provided in the March 2008 ARBCA Evaluation Report. A comparison of the SSTLs to the current and historical groundwater concentrations is provided in Appendix A. In addition, the SSTLs developed for Groundwater Resource Protection (GRP) for each of the site monitoring wells are presented in the Appendix A.

SUMMARY OF SITE CHARACTERIZATION

Soil Characterization Summary

The results of the geotechnical analyses indicate the following physical properties for the soils at the Midway Mart site:

- The vadose zone soils are comprised of silty sand.
- Soil has a porosity of 37%.
- Volumetric moisture content within the vadose zone was measured at 12.3%.
- Available porosity for vapor transport within the vadose zone is 24.7%.

Aquifer Characterization Summary

The results of the aquifer characterization at the site indicate the following physical properties for the unconfined groundwater zone beneath the site:

- The average depth to groundwater is 28.4 feet BGS.
- The average hydraulic conductivity within the saturated zone is 0.0001 cm/sec.
- The general groundwater flow beneath the site is to the east.
- The average hydraulic gradient across the site is 0.03 feet/feet.
- The calculated Darcy velocity for groundwater flow is 94.62 cm/yr.
- Measurable accumulations of free-phase product have been detected at the site in

monitoring well MW-1.

Exposure/Risk Assessment Summary

Based upon current and historical constituent concentrations and site physical properties, SSTLs were calculated for the site using the ARBCA process. The SSTLs have been approved as ACALs for the site. The ARBCA Evaluation indicates that there are complete exposure pathways for vapor inhalation from both groundwater on and off-site and soil on-site. The groundwater MTBE and Benzene concentrations have historically been above the GRP ACALs. In addition, accumulations of free product have historically been present at the site. The continued presence of dissolved hydrocarbon concentrations above the ACALs will require an active remediation approach.

REMEDATION RATIONALE AND APPROACH

Based upon current constituent concentrations and the risk assessment results, there are exceedances of the GRP ACALs for MTBE and Benzene. While there are GRP exceedances in the Benzene concentrations in some of the existing wells, these target levels were calculated assuming a hypothetical groundwater ingestion Point of Exposure (POE) 550 feet downgradient of the site. No groundwater ingestion POE is currently present nor is one likely to exist in the future given the location of the site within a well-developed urban area and the fact that a public water supply is available. Previously collected data and studies were reviewed to determine viable methodology to optimize the MEME/RNA activities that were currently approved in the CAP for the Midway Mart site.

After consideration of various methods and based on data collected during previous site characterization studies, the application of mobile air sparge events in conjunction with multiphase extraction technology and continuing with natural attenuation monitoring would be an effective remediation method to address the release at the Midway Mart site. CDG recommends the installation of an Air Sparge (AS) well within the source area to be utilized during the mobile air sparge events. The Air Sparging events will be conducted in conjunction with the MEME events conducted by a third-party vendor. CDG recommends using RW-1 for the extraction well. The Air Sparge events, along with the MEME events, would be anticipated to reduce the residual COC concentrations within the source area to levels below the proposed ACALs.

The proposed air sparge well will be completed with a hollow-stem auger to a depth of 45 feet bgs. The proposed AS well will be completed with one-inch diameter schedule 40 PVC and will be screened with a 2-foot section of porous media sparge point placed at a depth of 43 feet to 45 feet. Graded filter sand (0.45-0.55 mm) will be emplaced around the screen, and a bentonite pellet seal will be placed on top of the sand pack. The remainder of the annulus will be sealed with a cement grout mixture. Locking watertight caps will be placed in the top of each well and 8-inch manholes with bolt down covers will be installed over the casings in a flush mounted concrete pad.

Compressed air will be injected into the proposed AS point simultaneously with the extraction of soil vapor being accomplished through the MEME events. A cost proposal (CP-53) for the preparation of an Underground Injection Control (UIC) permit for injection of compressed air along with a cost proposal (CP-54) for the installation of the air sparge well (AS-1) will be prepared. The Air Sparge events, along with MEME events, are anticipated to rapidly reduce the COC concentrations within the source area to levels below the ACALs. Air Sparge events will be conducted monthly in conjunction with the MEME events, following the approval of the Modified CAP and the approval of the UIC permit.

MEME Events

CDG recommends that three 8-hour duration MEME events be conducted at the site during each tri-annual period in order to reduce dissolved hydrocarbon concentrations in the source area. Each 8-hour MEME event will be conducted using a mobile system operated by a third-party vendor. The primary objective will be vapor recovery and PCW removal, utilizing total fluids extraction from the well.

Air Sparge Events

CDG recommends that three 8-hour duration air sparge events be conducted at the site during each tri-annual period in order to reduce dissolved hydrocarbon concentrations in the source area by stripping the contaminants by volatilization. Each air sparge event will be conducted simultaneously with MEME events. The primary objective will be to increase the COC recovery rate and introduces oxygenated air to enhance bio degradation of the residual COC concentrations.

Natural Attenuation

Groundwater samples will be collected tri-annually from all site monitoring wells. The groundwater samples will be collected from the monitoring wells using new clean plastic bailers and transferred to 40 milliliter (mL) glass volatile organic analysis (VOA) vials preserved with hydrochloric acid (HCl) for BTEX, MTBE, and naphthalene analysis using EPA Method 8260B. During each groundwater sampling event, all wells will also be monitored for natural attenuation parameters (DO, pH, and ORP).

Once the COC concentrations are reduced to below the ACALs, corrective actions activities will be discontinued, and re-bound monitoring will be initiated. Should the COC concentrations remain above the ACALs after a two-year period, CDG will re-evaluate the corrective action plan. CDG will recommend the site for NFA status once remediation goals are met.

PROPOSED REPORTING REQUIREMENTS

CDG will submit reports in accordance with ADEM requirements. These reports will include the following:

Reporting of Natural Attenuation with MEME/Air Sparge Events Effectiveness

CDG proposes to submit tri-annual NAMR reports, which will summarize field activities and the progress of site groundwater constituent concentrations towards achieving approved corrective action levels. The following data will be included in each report: field activities performed, groundwater elevations, groundwater analytical results as compared to target levels, potentiometric surface maps, BTEX/MTBE contour maps, and MEME/Air Sparge data results. The reports will also include remediation effectiveness and recommendations concerning additional measures deemed necessary.

Request for Closure Evaluation of Corrective Action

This report will include data that demonstrates that remediation goals have been achieved and will request a status of No Further Action (NFA) for the site. Methods for abandonment of monitoring and recovery wells will be described.

Well Abandonment

This report will describe in detail the closure of the site and removal of all monitoring wells.

SCHEDULE OF IMPLEMENTATION

It is anticipated that the modified corrective action plan will begin with the first groundwater-monitoring event following the approval of the Modified CAP and the approval of the UIC permit. The following schedule indicates the timetable for major project events to be completed as part of this corrective action plan:

Time Following Cap Approval (months)	Project Event	Project Event Length
1	Well Installation	1 Week
1	UIC Permit	1 Week
0 – 24	Tri-annual groundwater monitoring, MEME/Air Sparge events, evaluation of performance, and recommendations for further corrective action if required	2 Years
25	Well abandonment; completion and submittal of final report if allowable by ADEM	2 Months

PROPOSED SAMPLING AND MONITORING ACTIVITIES

Following the approval of the modified CAP, groundwater samples will be collected tri-annually from all monitoring wells. The groundwater samples will be collected from the monitoring wells using new clean plastic bailers and transferred to 40 ml glass VOA vials preserved with HCl for BTEX/MTBE/Naphthalene analysis using Method 8260. All monitoring wells will also be sampled for natural attenuation parameters (DO, pH, and Redox) during the tri-annual events. The natural attenuation parameters will provide information concerning the recovery of the shallow aquifer down gradient of the release area.

A summary of the scheduled sampling points is presented below:

Sample Location & Medium	Sample Frequency	Sample Parameters
MW-1 through MW-11, MW-21, RW-1 and RW-2	Tri-annually	BTEX/MTBE (EPA Method 8260)
MW-1 through MW-11, MW-21, RW-1 and RW-2	Tri-annually	ORP, pH, DO (Field Methods)

Once the Modified CAP is approved, CDG proposes to prepare the UIC permit as proposed in CP-53. CDG will also submit additional cost proposals for the well installation and MEME/AS/GWM events.



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APPENDICES

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TABLES

A decorative graphic in the bottom right corner consisting of several overlapping triangles in shades of blue and dark blue, creating a geometric pattern.

APPENDIX A

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-1		
INSTALLATION DATE:	04/04/07	WELL DEPTH (FT BTOC):	34.0	SCREEN INTERVAL (FT):	24.0 - 34.0	CASING ELEV (FT ABOVE MSL):	759.30	WELL TYPE:	II
								DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

POTENTIOMETRIC ELEVATION SUMMARY				
MEASUREMENT DATE	DEPTH TO WATER (FT BTOC)	ELEVATION (FT ABOVE MSL)	FREE PRODUCT THICKNESS (FT)	PCW GALLONS REMOVED
04/04/07	28.58	730.72	-	-
10/16/07	30.52	728.78	-	-
12/13/07	31.03	728.27	-	-
03/13/08	29.88	729.42	-	-
06/27/08	29.38	729.92	-	-
09/25/08	30.39	728.91	-	-
12/17/08	30.08	729.29	0.09	-
04/06/09	29.55	729.75	-	-
06/30/09	28.15	731.15	-	-
11/30/09	28.21	731.09	-	-
05/06/11	28.75	730.55	-	-
08/15/11	28.60	730.70	-	-
01/13/12	29.40	729.90	-	-
05/30/12	27.70	731.60	-	-
09/24/12	28.18	731.12	-	-
02/27/13	29.14	730.16	-	-
06/17/13	28.07	731.23	-	-
01/31/14	28.25	731.05	-	-
07/09/14	26.85	732.45	-	-
11/25/14	28.02	731.28	-	-
04/03/15	27.63	731.67	-	-
06/02/15	27.04	732.26	-	-
07/28/15	26.60	732.70	-	-
12/01/15	26.71	732.59	-	-
07/13/16	26.77	732.53	-	-
10/27/16	27.72	731.58	-	-
02/07/17	28.28	731.02	-	-
06/14/17	27.21	732.09	-	-
10/19/17	24.18	735.12	-	-
02/26/18	26.22	733.08	-	3.0
06/28/18	24.64	734.66	-	4.0
10/16/18	25.08	734.22	-	3.0

INTRINSIC GROUNDWATER DATA SUMMARY			
SAMPLE DATE	DISSOLVED OXYGEN (mg/L)	pH	REDOX POTENTIAL (mV)
04/04/07	-	-	-
10/16/07	-	-	-
12/13/07	-	-	-
03/13/08	-	-	-
06/27/08	-	-	-
09/25/08	-	-	-
12/17/08	FREE PRODUCT (0.09 FT)		
04/06/09	4.50	5.7	-
06/30/09	0.80	5.5	-
11/30/09	-	-	-
05/06/11	3.50	5.4	-
08/15/11	0.80	5.6	-
01/13/12	-	5.4	-
05/30/12	-	4.9	-
09/24/12	-	5.3	-
02/27/13	1.60	5.4	-
06/17/13	1.04	5.1	-
01/31/14	1.57	5.8	-
07/09/14	-	-	-
11/25/14	-	-	-
04/03/15	-	-	-
06/02/15	-	-	-
07/28/15	-	-	-
12/01/15	-	-	-
07/13/16	-	-	-
10/27/16	-	-	-
02/07/17	-	-	-
06/14/17	-	-	-
10/19/17	-	-	-
02/26/18	-	-	-
06/28/18	2.79	5.9	124
10/16/18	1.02	5.3	82

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-1		
INSTALLATION DATE:	04/04/07	WELL DEPTH (FT BTOC):	34.0	SCREEN INTERVAL (FT):	24.0 - 34.0	CASING ELEV (FT ABOVE MSL):	759.30	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
04/04/07	0.6800	1.2000	2.4000	0.5000	3.0000	7.1000	-
10/16/07	1.2000	2.3000	1.7000	0.2200	1.7000	5.9200	-
12/13/07	1.6000	4.0000	3.9000	0.0410	2.7000	10.6410	-
03/13/08	1.9000	5.4000	8.3000	0.9700	5.6000	20.2700	-
06/27/08	1.4000	3.2000	7.4000	0.8200	4.9000	16.3200	-
09/25/08	2.2000	6.9000	20.0000	1.8000	10.0000	38.7000	-
11/01/08	CA VIA MEME						
12/17/08	NOT SAMPLED FREE PRODUCT (0.09 FT)						
04/06/09	3.6000	6.8000	20.0000	2.5000	14.0000	43.3000	-
06/30/09	1.6000	3.5000	11.0000	1.8000	11.0000	27.3000	-
11/04/09	1.7000	7.5000	11.0000	2.0000	32.0000	52.5000	-
05/06/11	1.1000	2.3000	7.7000	1.6000	9.9000	21.5000	-
08/15/11	1.4000	1.8000	7.3000	1.7000	12.0000	22.8000	-
01/13/12	2.8000	2.7000	6.8000	1.3000	8.0000	18.8000	-
05/30/12	1.0000	1.5000	5.2000	1.0000	9.2000	16.9000	-
09/24/12	1.0000	1.5000	4.6000	0.8300	7.3000	14.2300	-
02/27/13	1.8000	1.8000	4.5000	0.9800	6.3000	13.5800	-
06/17/13	0.7700	1.3000	3.4000	0.8800	8.2000	13.7800	-
01/31/14	1.3000	1.4000	4.1000	0.8100	8.1000	14.4100	-
07/09/14	2.5800	3.1041	7.5229	1.1021	8.6528	20.3819	0.9401
11/25/14	2.7188	4.5849	12.2347	2.1648	15.0635	34.0479	2.1190
04/03/15	2.3011	4.3472	10.0429	1.1270	10.5882	26.1053	1.1441
07/28/15	2.3500	2.9700	6.5800	1.1800	9.4300	20.1600	1.1800
12/01/15	2.7155	5.0771	11.1793	1.7327	12.1097	30.0988	1.7966
07/13/16	0.2175	0.3198	1.1170	0.2638	1.7522	3.4528	0.3706
10/27/16	1.7213	3.1137	8.8079	1.5011	11.0380	24.4607	1.2793
02/07/17	0.9744	2.5044	6.7952	1.4214	13.1853	23.9063	1.3975
06/14/17	0.2460	0.5656	2.2968	0.5973	5.0321	8.4918	0.6995
10/19/17	0.1474	0.4299	1.4866	0.3756	3.0995	5.3916	0.3147
02/26/18	0.2350	0.8339	2.5550	0.6193	4.5742	8.5824	0.4571
06/28/18	0.0712	0.2874	1.0745	0.4635	3.1837	5.0091	0.4313
10/16/18	3.9802	6.6143	17.2344	1.8803	12.4419	38.1709	1.0958
02/26/19	3.4083	4.8959	13.3532	1.7797	11.0952	31.1240	0.8776

Monitoring Point Data Summary Table

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INSTALLATION DATE:	04/04/07	WELL DEPTH (FT BTOC):	34.0	SCREEN INTERVAL (FT):	24.0 - 34.0	CASING ELEV (FT ABOVE MSL):	759.30	WELL TYPE:	II
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Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
07/10/19	2.7344	4.7747	11.6401	1.6516	10.9898	29.0562	0.8623
GRP SSTLs:	2.68	0.671	134	93.9	175	-	2.68
Onsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-2		
INSTALLATION DATE:	04/04/07	WELL DEPTH (FT BTOC):	34.0	SCREEN INTERVAL (FT):	24.0 - 34.0	CASING ELEV (FT ABOVE MSL):	757.53	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

POTENTIOMETRIC ELEVATION SUMMARY				
MEASUREMENT DATE	DEPTH TO WATER (FT BTOC)	ELEVATION (FT ABOVE MSL)	FREE PRODUCT THICKNESS (FT)	PCW GALLONS REMOVED
04/04/07	26.88	730.65	-	-
10/16/07	29.49	728.04	-	-
12/13/07	31.16	726.37	-	-
03/13/08	28.36	729.17	-	-
06/27/08	27.92	729.61	-	-
09/25/08	29.25	728.28	-	-
12/17/08	30.40	727.13	-	-
04/06/09	27.53	730.00	-	-
06/30/09	25.40	732.13	-	-
11/30/09	25.46	732.07	-	-
05/06/11	26.90	730.63	-	-
08/15/11	26.13	731.40	-	-
01/13/12	27.73	729.80	-	-
05/30/12	25.80	731.73	-	-
09/24/12	26.32	731.21	-	-
02/27/13	27.15	730.38	-	-
06/17/13	26.08	731.45	-	-
01/31/14	26.19	731.34	-	-
04/03/15	25.50	732.03	-	-
06/02/15	24.57	732.96	-	-
07/28/15	23.98	733.55	-	-
07/13/16	23.90	733.63	-	-
10/27/16	26.04	731.49	-	-
10/19/17	22.74	734.79	-	-
02/26/18	23.51	734.02	-	-
06/28/18	22.94	734.59	-	-
10/16/18	23.63	733.90	-	4.0
02/26/19	22.71	734.82	-	5.0

INTRINSIC GROUNDWATER DATA SUMMARY			
SAMPLE DATE	DISSOLVED OXYGEN (mg/L)	pH	REDOX POTENTIAL (mV)
04/04/07	-	-	-
10/16/07	-	-	-
12/13/07	-	-	-
03/13/08	-	-	-
06/27/08	-	-	-
09/25/08	-	-	-
12/17/08	-	-	-
04/06/09	3.20	5.1	-
06/30/09	2.20	4.8	-
11/30/09	-	-	-
05/06/11	1.80	4.7	-
08/15/11	1.82	5.0	-
01/13/12	-	4.7	-
05/30/12	-	4.4	-
09/24/12	-	4.9	-
02/27/13	-	-	-
06/17/13	2.41	4.4	-
01/31/14	2.30	5.4	-
04/03/15	1.88	5.2	191
06/02/15	2.49	5.4	196
07/28/15	-	-	-
07/13/16	-	-	-
10/27/16	2.24	5.8	187
10/19/17	-	-	-
02/26/18	-	-	-
06/28/18	-	-	-
10/16/18	2.91	6.0	133
02/26/19	3.39	5.9	126

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-2		
INSTALLATION DATE:	04/04/07	WELL DEPTH (FT BTOC):	34.0	SCREEN INTERVAL (FT):	24.0 - 34.0	CASING ELEV (FT ABOVE MSL):	757.53	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
04/04/07	0.0280	0.3200	0.0043	0.0015	0.1000	0.4258	-
10/16/07	0.0600	0.5400	0.0069	0.0011	0.1200	0.6680	-
12/13/07	0.0500	0.5600	0.0032	0.0004	0.1100	0.6736	-
03/13/08	0.0590	0.6400	0.0024	0.0008	0.1200	0.7632	-
06/27/08	0.0720	0.5200	0.0012	<0.0010	0.1400	0.6612	-
09/25/08	0.0520	0.6300	0.0017	0.0010	0.1500	0.7827	-
11/01/08	CA VIA MEME						
12/17/08	0.0610	0.7800	2.5000	1.2000	6.6000	11.0800	-
04/06/09	0.0210	0.5100	0.1300	0.1200	0.7100	1.4700	-
06/30/09	0.0049	0.1000	0.0014	0.0036	0.0390	0.1440	-
11/04/09	0.0061	0.4200	<0.0010	0.0017	0.0830	0.5047	-
05/06/11	0.0200	0.2100	<0.0010	<0.0010	0.0270	0.2370	-
08/15/11	0.0240	0.0790	<0.0010	<0.0010	0.0320	0.1110	-
01/13/12	0.0290	0.0052	<0.0010	<0.0010	0.0029	0.0081	-
05/30/12	0.0057	0.0075	<0.0010	<0.0010	0.0072	0.0147	-
09/24/12	0.0200	0.0160	0.0006	<0.0010	0.0190	0.0356	-
02/27/13	NOT SAMPLED						
06/17/13	0.0029	<0.00100	<0.00100	<0.00100	<0.0020	BDL	-
01/31/14	0.0098	<0.00100	<0.00100	<0.00100	<0.0020	BDL	-
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	0.0063	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/28/15	0.0015	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
10/27/16	0.0081	<0.0010	<0.0010	<0.0010	0.0011	0.0011	<0.0010
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	<0.0010	0.0010	0.0059	0.0017	0.0122	0.0208	0.0015
02/26/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLS:	2.68	0.671	134	93.9	175	-	2.68
Onsite SSTLS:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart		UST NUMBER:	07-11-06	WELL ID:	MW-3			
INSTALLATION DATE:	04/04/07	WELL DEPTH (FT BTOC):	33.8	SCREEN INTERVAL (FT):	23.8 - 33.8	CASING ELEV (FT ABOVE MSL):	758.32	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

POTENTIOMETRIC ELEVATION SUMMARY				
MEASUREMENT DATE	DEPTH TO WATER (FT BTOC)	ELEVATION (FT ABOVE MSL)	FREE PRODUCT THICKNESS (FT)	PCW GALLONS REMOVED
04/04/07	26.64	731.68	-	-
10/16/07	28.90	729.42	-	-
12/13/07	29.54	728.78	-	-
03/13/08	28.09	730.23	-	-
06/27/08	27.60	730.72	-	-
09/25/08	28.74	729.58	-	-
12/17/08	29.42	728.90	-	-
04/06/09	27.73	730.59	-	-
06/30/09	25.88	732.44	-	-
11/30/09	25.94	732.38	-	-
05/06/11	26.94	731.38	-	-
08/15/11	26.72	731.60	-	-
01/13/12	27.71	730.61	-	-
05/30/12	25.80	732.52	-	-
09/24/12	26.49	731.83	-	-
02/27/13	27.41	730.91	-	-
06/17/13	26.15	732.17	-	-
01/31/14	26.52	731.80	-	-
04/03/15	25.70	732.62	-	-
06/02/15	24.92	733.40	-	-
07/28/15	24.40	733.92	-	-
07/13/16	24.37	733.95	-	-
10/27/16	26.04	732.28	-	-
10/19/17	23.14	735.18	-	-
02/26/18	23.92	734.40	-	-
06/28/18	23.31	735.01	-	-
10/16/18	23.82	734.50	-	4.0
02/26/19	22.36	735.96	-	4.0

INTRINSIC GROUNDWATER DATA SUMMARY			
SAMPLE DATE	DISSOLVED OXYGEN (mg/L)	pH	REDOX POTENTIAL (mV)
04/04/07	-	-	-
10/16/07	-	-	-
12/13/07	-	-	-
03/13/08	-	-	-
06/27/08	-	-	-
09/25/08	-	-	-
12/17/08	-	-	-
04/06/09	3.10	5.2	-
06/30/09	1.50	5.1	-
11/30/09	-	-	-
05/06/11	1.80	5.2	-
08/15/11	0.85	5.3	-
01/13/12	-	5.2	-
05/30/12	-	4.8	-
09/24/12	-	5.1	-
02/27/13	2.27	4.7	-
06/17/13	4.35	5.7	-
01/31/14	-	-	-
04/03/15	1.54	5.7	143
06/02/15	-	-	-
07/28/15	1.87	5.6	219
07/13/16	-	-	-
10/27/16	1.63	5.7	211
10/19/17	-	-	-
02/26/18	-	-	-
06/28/18	-	-	-
10/16/18	0.94	5.8	181
02/26/19	2.64	5.7	76

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-3		
INSTALLATION DATE:	04/04/07	WELL DEPTH (FT BTOC):	33.8	SCREEN INTERVAL (FT):	23.8 - 33.8	CASING ELEV (FT ABOVE MSL):	758.32	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
04/04/07	0.0430	0.3800	0.0054	0.0340	0.0670	0.4864	-
10/16/07	0.1100	0.6600	0.0140	0.0009	0.0860	0.7609	-
12/13/07	0.0990	0.3600	0.0180	0.0012	0.0870	0.4662	-
03/13/08	0.0990	0.5100	<0.0010	<0.0010	0.0410	0.5510	-
06/27/08	0.0620	0.4400	0.0037	<0.0010	0.0530	0.4967	-
09/25/08	0.0910	0.5300	0.0160	0.0010	0.0970	0.6440	-
11/01/08	CA VIA MEME						
12/17/08	0.1400	0.4800	0.0034	0.0032	0.0410	0.5276	-
04/06/09	0.0970	0.3000	0.0010	<0.0010	0.0280	0.3290	-
06/30/09	0.0980	0.8700	0.0570	0.3900	2.0000	3.3170	-
11/04/09	0.1200	1.2000	0.0026	<0.0010	0.1000	1.3026	-
05/06/11	0.1200	0.1800	<0.0010	<0.0010	0.0068	0.1868	-
08/15/11	0.2000	0.1700	<0.0010	<0.0010	0.0099	0.1799	-
01/13/12	0.1900	0.1000	<0.0010	<0.0010	0.0063	0.1063	-
05/30/12	0.1600	0.1000	<0.0010	<0.0010	0.0210	0.1210	-
09/24/12	0.2000	0.0710	0.0007	<0.0010	0.0076	0.0793	-
02/27/13	NOT SAMPLED						
06/17/13	0.1200	0.0084	<0.0010	<0.0010	0.0038	0.0122	-
01/31/14	0.1200	0.0084	<0.0010	<0.0010	<0.0010	0.0084	-
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	0.1500	0.0132	<0.0010	<0.0010	0.0012	0.0144	<0.0010
07/28/15	0.1128	0.0101	<0.0010	<0.0010	<0.0010	0.0101	<0.0010
10/27/16	0.0596	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	0.0403	0.0010	<0.0010	<0.0010	<0.0010	0.0010	<0.0010
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	0.0057	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/19	0.0026	0.0277	<0.0010	<0.0010	0.0065	0.0341	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLs:	2.68	0.671	134	93.9	175	-	2.68
Onsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-4		
INSTALLATION DATE:	04/04/07	WELL DEPTH (FT BTOC):	34.1	SCREEN INTERVAL (FT):	24.1 - 34.1	CASING ELEV (FT ABOVE MSL):	758.29	WELL TYPE:	II
							DIAMETER (IN):	2	

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

POTENTIOMETRIC ELEVATION SUMMARY				
MEASUREMENT DATE	DEPTH TO WATER (FT BTOC)	ELEVATION (FT ABOVE MSL)	FREE PRODUCT THICKNESS (FT)	PCW GALLONS REMOVED
04/04/07	25.90	732.39	-	-
10/16/07	28.09	730.20	-	-
12/13/07	28.76	729.53	-	-
03/13/08	27.36	730.93	-	-
06/27/08	26.81	731.48	-	-
09/25/08	27.97	730.32	-	-
12/17/08	28.67	729.62	-	-
04/06/09	26.99	731.30	-	-
06/30/09	25.02	733.27	-	-
11/30/09	25.08	733.21	-	-
05/06/11	26.16	732.13	-	-
08/15/11	29.84	728.45	-	-
01/13/12	26.93	731.36	-	-
05/30/12	24.87	733.42	-	-
09/24/12	25.70	732.59	-	-
02/27/13	26.65	731.64	-	-
06/17/13	25.33	732.96	-	-
01/31/14	25.64	732.65	-	-
07/09/14	23.75	734.54	-	-
11/25/14	25.47	732.82	-	-
04/03/15	24.89	733.40	-	-
06/02/15	23.98	734.31	-	-
07/28/15	23.33	734.96	-	-
12/01/15	23.70	734.59	-	-
07/13/16	23.17	735.12	-	-
10/27/16	25.05	733.24	-	-
02/07/17	25.24	733.05	-	-
06/14/17	23.87	734.42	-	-
10/19/17	21.98	736.31	-	-
02/26/18	22.94	735.35	-	4.0
06/28/18	22.34	735.95	-	4.0
10/16/18	27.71	730.58	-	2.0

INTRINSIC GROUNDWATER DATA SUMMARY			
SAMPLE DATE	DISSOLVED OXYGEN (mg/L)	pH	REDOX POTENTIAL (mV)
04/04/07	-	-	-
10/16/07	-	-	-
12/13/07	-	-	-
03/13/08	-	-	-
06/27/08	-	-	-
09/25/08	-	-	-
12/17/08	-	-	-
04/06/09	4.60	5.6	-
06/30/09	0.60	5.5	-
11/30/09	-	-	-
05/06/11	2.50	5.6	-
08/15/11	0.69	5.7	-
01/13/12	-	5.2	-
05/30/12	-	5.3	-
09/24/12	-	5.3	-
02/27/13	2.20	5.4	-
06/17/13	2.18	4.6	-
01/31/14	1.70	6.1	-
07/09/14	-	-	-
11/25/14	-	-	-
04/03/15	-	-	-
06/02/15	-	-	-
07/28/15	-	-	-
12/01/15	-	-	-
07/13/16	-	-	-
10/27/16	-	-	-
02/07/17	-	-	-
06/14/17	-	-	-
10/19/17	-	-	-
02/26/18	-	-	-
06/28/18	3.42	6.1	147
10/16/18	1.49	5.6	23

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart		UST NUMBER:	07-11-06	WELL ID:	MW-4			
INSTALLATION DATE:	04/04/07	WELL DEPTH (FT BTOC):	34.1	SCREEN INTERVAL (FT):	24.1 - 34.1	CASING ELEV (FT ABOVE MSL):	758.29	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
04/04/07	0.0940	0.4300	0.1600	0.0340	0.4400	1.0640	-
10/16/07	0.2400	1.2000	0.2200	0.0290	1.0000	2.4490	-
12/13/07	0.1600	0.7300	0.4100	0.0330	0.4700	1.6430	-
03/13/08	0.1100	0.5000	0.1200	0.0073	0.2800	0.9073	-
06/27/08	0.1700	0.7000	0.1600	0.0310	0.5700	1.4610	-
09/25/08	0.1500	1.0000	0.5600	0.6300	0.7200	2.9100	-
11/01/08	CA VIA MEME						
12/17/08	0.1100	0.3500	0.0800	0.0013	0.1600	0.5913	-
04/06/09	0.1700	0.9100	0.2100	0.0064	0.5600	1.6864	-
06/30/09	0.5100	1.8000	0.2700	0.0350	1.2000	3.3050	-
11/04/09	0.3300	1.5000	0.1900	0.0290	0.9300	2.6490	-
05/06/11	0.5300	1.9000	0.1400	0.0800	1.4000	3.5200	-
08/15/11	0.8900	2.1000	0.2100	0.1200	1.8000	4.2300	-
01/13/12	0.4400	1.5000	0.3000	0.0430	0.6200	2.4630	-
05/30/12	0.5100	1.4000	0.0600	0.0670	0.3800	1.9070	-
09/24/12	0.6700	1.6000	0.1300	0.0970	0.5700	2.3970	-
02/27/13	0.2100	0.5700	0.2200	0.0140	0.2000	1.0040	-
06/17/13	0.2800	0.8800	0.0310	0.0110	0.2300	1.1520	-
01/31/14	0.4200	0.8800	0.0210	0.0670	0.3000	1.2680	-
07/09/14	0.8854	1.7866	0.0687	0.1920	0.6677	2.7150	0.0361
11/25/14	1.3277	1.7580	0.0626	0.2682	1.1383	3.2271	0.1130
04/03/15	0.8707	1.6011	0.0911	0.2813	0.6041	2.5776	0.0243
07/28/15	1.7900	2.7100	0.0714	0.3980	1.2300	4.4094	0.0686
12/01/15	0.2035	0.3744	0.0073	0.0761	0.1520	0.6098	0.0081
07/13/16	0.3389	0.4415	0.1921	0.0996	0.2287	0.9619	0.0200
10/27/16	1.4270	2.4791	0.0349	0.3566	1.2431	4.1137	0.0443
02/07/17	0.7970	1.2926	<0.0500	0.2174	0.8945	2.4045	<0.0500
06/14/17	0.1138	0.1144	0.0014	0.0204	0.0117	0.1479	0.0012
10/19/17	0.2738	0.3581	0.0466	0.0593	0.0766	0.5406	0.0066
02/26/18	0.1345	0.0822	0.0044	0.0126	0.0257	0.1249	<0.0025
06/28/18	0.3234	0.3314	0.0194	0.0768	0.1478	0.5754	0.0068
10/16/18	0.1554	0.1173	0.0048	0.0205	0.0172	0.1598	0.0076
02/26/19	0.1059	0.0403	0.0012	0.0050	0.0013	0.0478	0.0010

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-5		
INSTALLATION DATE:	01/07/08	WELL DEPTH (FT BTOC):	36.0	SCREEN INTERVAL (FT):	24.0 -36.0	CASING ELEV (FT ABOVE MSL):	755.30	WELL TYPE:	II
								DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

POTENTIOMETRIC ELEVATION SUMMARY				
MEASUREMENT DATE	DEPTH TO WATER (FT BTOC)	ELEVATION (FT ABOVE MSL)	FREE PRODUCT THICKNESS (FT)	PCW GALLONS REMOVED
01/08/08	30.83	724.47	-	-
03/13/08	29.20	726.10	-	-
06/27/08	29.30	726.00	-	-
09/25/08	30.29	725.01	-	-
12/17/08	30.58	724.72	-	-
04/06/09	28.42	726.88	-	-
11/30/09	26.81	728.49	-	-
05/06/11	28.36	726.94	-	-
08/15/11	27.88	727.42	-	-
01/13/12	28.95	726.35	-	-
05/30/12	27.30	728.00	-	-
09/24/12	27.87	727.43	-	-
02/27/13	28.32	726.98	-	-
06/17/13	27.62	727.68	-	-
01/31/14	27.99	727.31	-	-
04/03/15	27.41	727.89	-	-
06/02/15	26.68	728.62	-	-
07/28/15	26.37	728.93	-	-
07/13/16	26.35	728.95	-	-
10/27/16	28.92	726.38	-	-
02/07/17	28.48	726.82	-	-
10/19/17	25.33	729.97	-	-
02/26/18	25.76	729.54	-	-
06/28/18	25.27	730.03	-	-
10/16/18	26.32	728.98	-	4.0
02/26/19	24.44	730.86	-	5.0

INTRINSIC GROUNDWATER DATA SUMMARY			
SAMPLE DATE	DISSOLVED OXYGEN (mg/L)	pH	REDOX POTENTIAL (mV)
01/08/08	-	-	-
03/13/08	-	-	-
06/27/08	-	-	-
09/25/08	-	-	-
12/17/08	-	-	-
04/06/09	-	-	-
11/30/09	-	-	-
05/06/11	4.70	5.0	-
08/15/11	-	-	-
01/13/12	-	-	-
05/30/12	-	-	-
09/24/12	-	4.9	-
02/27/13	-	-	-
06/17/13	5.29	4.6	-
01/31/14	5.12	5.6	-
04/03/15	1.42	5.6	87
06/02/15	-	-	-
07/28/15	1.67	5.2	159
07/13/16	-	-	-
10/27/16	1.53	5.5	165
02/07/17	-	-	-
10/19/17	-	-	-
02/26/18	-	-	-
06/28/18	-	-	-
10/16/18	3.12	5.8	214
02/26/19	2.39	6.0	118.0

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart	UST NUMBER:	07-11-06	WELL ID:	MW-5
INSTALLATION DATE:	01/07/08	WELL DEPTH (FT BTOC):	36.0	SCREEN INTERVAL (FT):	24.0 -36.0
				CASING ELEV (FT ABOVE MSL):	755.30
				WELL TYPE:	II
				DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
01/08/08	<0.0010	<0.0010	<0.0050	<0.0010	0.0007	0.0007	-
03/13/08	<0.0010	0.0029	<0.0020	<0.0010	0.0009	0.0038	-
06/27/08	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
09/25/08	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
11/01/08	CA VIA MEME						
12/17/08	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
04/06/09	NOT SAMPLED						
06/30/09	NOT SAMPLED						
05/06/11	<0.0030	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
09/24/12	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
02/27/13	NOT SAMPLED						
06/17/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
01/31/14	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/28/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
10/27/16	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLs:	0.674	0.169	33.7	23.6	175	-	0.674
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-6		
INSTALLATION DATE:	01/07/08	WELL DEPTH (FT BTOC):	35.2	SCREEN INTERVAL (FT):	25.2 - 35.2	CASING ELEV (FT ABOVE MSL):	756.74	WELL TYPE:	II
								DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

POTENTIOMETRIC ELEVATION SUMMARY				
MEASUREMENT DATE	DEPTH TO WATER (FT BTOC)	ELEVATION (FT ABOVE MSL)	FREE PRODUCT THICKNESS (FT)	PCW GALLONS REMOVED
01/08/08	31.44	725.30	-	-
03/13/08	30.02	726.72	-	-
06/27/08	29.91	726.83	-	-
09/25/08	30.78	725.96	-	-
12/17/08	31.18	725.56	-	-
04/06/09	29.50	727.24	-	-
06/30/09	27.38	729.36	-	-
11/30/09	27.49	729.25	-	-
05/06/11	29.00	727.74	-	-
08/15/11	28.68	728.06	-	-
01/13/12	29.60	727.14	-	-
05/30/12	27.71	729.03	-	-
09/24/12	28.45	728.29	-	-
02/27/13	29.04	727.70	-	-
06/17/13	28.35	728.39	-	-
01/31/14	28.46	728.28	-	-
07/09/14	27.20	729.54	-	-
11/25/14	29.02	727.72	-	-
04/03/15	28.06	728.68	-	-
06/02/15	27.34	729.40	-	-
07/28/15	27.00	729.74	-	-
07/13/16	26.96	729.78	-	-
10/27/16	28.63	728.11	-	-
02/07/17	28.71	728.03	-	-
10/19/17	25.72	731.02	-	-
02/26/18	26.32	730.42	-	-
06/28/18	25.87	730.87	-	-
10/16/18	26.48	730.26	-	3.0
02/26/19	24.87	731.87	-	4.0

INTRINSIC GROUNDWATER DATA SUMMARY			
SAMPLE DATE	DISSOLVED OXYGEN (mg/L)	pH	REDOX POTENTIAL (mV)
01/08/08	-	-	-
03/13/08	-	-	-
06/27/08	-	-	-
09/25/08	-	-	-
12/17/08	-	-	-
04/06/09	3.60	6.0	-
06/30/09	1.80	5.8	-
11/30/09	-	-	-
05/06/11	1.60	5.8	-
08/15/11	1.01	6.0	-
01/13/12	-	5.6	-
05/30/12	-	5.6	-
09/24/12	-	5.4	-
02/27/13	1.88	5.9	-
06/17/13	2.34	5.5	-
01/31/14	2.65	6.4	-
07/09/14	8.52	5.9	124
11/25/14	-	-	-
04/03/15	-	-	-
06/02/15	-	-	-
07/28/15	1.46	5.6	150
07/13/16	-	-	-
10/27/16	1.87	5.9	178
02/07/17	-	-	-
10/19/17	-	-	-
02/26/18	-	-	-
06/28/18	-	-	-
10/16/18	2.84	5.9	210
02/26/19	3.57	5.8	49

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-6		
INSTALLATION DATE:	01/07/08	WELL DEPTH (FT BTOC):	35.2	SCREEN INTERVAL (FT):	25.2 - 35.2	CASING ELEV (FT ABOVE MSL):	756.74	WELL TYPE:	II
								DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
01/08/08	1.1000	2.4000	0.3300	0.0680	2.1000	4.8980	-
03/13/08	1.0000	2.8000	0.2600	0.0520	2.2000	5.3120	-
06/27/08	0.8500	2.3000	0.2700	0.0970	1.7000	4.3670	-
09/25/08	1.2000	4.2000	1.1000	0.3500	3.7800	9.4300	-
11/01/08	CA VIA MEME						
12/17/08	1.2000	3.9000	0.7700	0.6100	4.6000	9.8800	-
04/06/09	0.8800	3.2000	0.2500	0.2100	2.6000	6.2600	-
06/30/09	0.6200	2.4000	0.1900	0.0960	1.3000	3.9860	-
11/04/09	0.5800	3.2000	0.3200	0.1600	3.0000	6.6800	-
05/06/11	0.4900	1.3000	0.0410	0.0720	2.9000	4.3130	-
08/15/11	0.5400	1.1000	0.0550	0.0960	2.0000	3.2510	-
01/13/12	0.4700	1.3000	0.0430	1.5000	2.8900	5.7330	-
05/30/12	0.1500	0.3600	0.0090	0.0220	0.2500	0.6410	-
09/24/12	0.1800	0.3700	0.0160	0.0400	0.7700	1.1960	-
02/27/13	0.3100	0.4400	0.0210	0.0510	0.7500	1.2620	-
06/17/13	0.3300	0.4300	0.0160	0.0410	0.5400	1.0270	-
01/31/14	0.3500	0.4000	0.0200	0.1000	0.8700	1.3900	-
07/09/14	0.0081	0.0096	<0.0010	0.0018	0.0070	0.0184	-
11/25/14	0.3373	0.2921	0.0262	0.1670	0.5999	1.0852	-
04/03/15	0.0965	0.0310	<0.0010	0.0017	0.0456	0.0783	-
07/28/15	0.0025	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
10/27/16	0.1732	0.2030	0.0042	0.0704	0.0756	0.3532	-
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLS:	0.504	0.126	25.2	17.6	175	-	0.504
Offsite SSTLS:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-7		
INSTALLATION DATE:	08/15/07	WELL DEPTH (FT BTOC):	34.0	SCREEN INTERVAL (FT):	24.0 - 34.0	CASING ELEV (FT ABOVE MSL):	760.03	WELL TYPE:	II
								DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

POTENTIOMETRIC ELEVATION SUMMARY				
MEASUREMENT DATE	DEPTH TO WATER (FT BTOC)	ELEVATION (FT ABOVE MSL)	FREE PRODUCT THICKNESS (FT)	PCW GALLONS REMOVED
08/17/07	29.42	730.61	-	-
12/13/07	30.68	729.35	-	-
03/13/08	29.52	730.51	-	-
06/27/08	28.83	731.20	-	-
09/25/08	29.88	730.15	-	-
12/17/08	30.61	729.42	-	-
04/06/09	29.36	730.67	-	-
11/30/09	29.42	730.61	-	-
05/06/11	28.24	731.79	-	-
08/15/11	28.12	731.91	-	-
01/13/12	29.01	731.02	-	-
05/30/12	27.11	732.92	-	-
09/24/12	27.78	732.25	-	-
02/27/13	28.85	731.18	-	-
06/17/13	27.68	732.35	-	-
01/31/14	27.66	732.37	-	-
04/03/15	26.99	733.04	-	-
06/02/15	26.12	733.91	-	-
07/28/15	25.72	734.31	-	-
07/13/16	25.09	734.94	-	-
10/27/16	26.79	733.24	-	-
06/14/17	25.92	734.11	-	-
10/19/17	24.44	735.59	-	-
02/26/18	25.14	734.89	-	-
06/28/18	24.39	735.64	-	-
10/16/18	23.84	736.19	-	4.0
02/26/19	23.63	736.40	-	4.0

INTRINSIC GROUNDWATER DATA SUMMARY			
SAMPLE DATE	DISSOLVED OXYGEN (mg/L)	pH	REDOX POTENTIAL (mV)
08/17/07	-	-	-
12/13/07	-	-	-
03/13/08	-	-	-
06/27/08	-	-	-
09/25/08	-	-	-
12/17/08	-	-	-
04/06/09	-	-	-
11/30/09	-	-	-
05/06/11	2.30	5.0	-
08/15/11	-	-	-
01/13/12	-	-	-
05/30/12	-	-	-
09/24/12	-	4.9	-
02/27/13	-	-	-
06/17/13	4.00	4.6	-
01/31/14	4.10	5.4	-
04/03/15	1.69	5.3	206
06/02/15	-	-	-
07/28/15	1.59	5.8	229
07/13/16	-	-	-
10/27/16	1.71	5.6	226
06/14/17	-	-	-
10/19/17	-	-	-
02/26/18	-	-	-
06/28/18	-	-	-
10/16/18	4.51	6.1	254
02/26/19	3.31	6.0	145

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-7		
INSTALLATION DATE:	08/15/07	WELL DEPTH (FT BTOC):	34.0	SCREEN INTERVAL (FT):	24.0 - 34.0	CASING ELEV (FT ABOVE MSL):	760.03	WELL TYPE:	II
							DIAMETER (IN):	2	

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
08/17/07	0.0200	0.0180	0.4300	0.2400	1.4000	2.0880	-
12/13/07	0.0560	0.0360	0.2100	0.1800	1.1000	1.5260	-
03/13/08	0.0300	0.0360	0.7800	0.4700	2.7000	3.9860	-
06/27/08	<0.0010	0.0039	0.0850	0.1500	0.9500	1.1889	-
09/25/08	<0.0010	0.0015	0.0220	0.1200	0.7900	0.9335	-
11/01/08	CA VIA MEME						
12/17/08	<0.0010	0.0017	0.0085	0.0470	0.4100	0.4672	-
04/06/09	NOT SAMPLED						
05/06/11	<0.0050	<0.0010	<0.0010	0.0005	0.0007	0.0012	-
09/24/12	<0.0050	<0.0010	<0.0010	<0.0010	0.0014	0.0014	-
02/27/13	NOT SAMPLED						
06/17/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
01/31/14	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/28/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
10/27/16	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLs:	1.65	0.412	82.4	57.7	175	-	1.65
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-8		
INSTALLATION DATE:	08/15/07	WELL DEPTH (FT BTOC):	34.4	SCREEN INTERVAL (FT):	24.4 - 34.4	CASING ELEV (FT ABOVE MSL):	759.55	WELL TYPE:	II
							DIAMETER (IN):	2	

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

POTENTIOMETRIC ELEVATION SUMMARY				
MEASUREMENT DATE	DEPTH TO WATER (FT BTOC)	ELEVATION (FT ABOVE MSL)	FREE PRODUCT THICKNESS (FT)	PCW GALLONS REMOVED
08/17/07	27.99	731.56	-	-
12/13/07	29.30	730.25	-	-
03/13/08	28.15	731.40	-	-
06/27/08	DRY			
09/25/08	28.50	731.05	-	-
12/17/08	29.30	730.25	-	-
04/06/09	27.80	731.75	-	-
06/30/09	26.72	732.83	-	-
11/30/09	26.78	732.77	-	-
05/06/11	26.85	732.70	-	-
08/15/11	26.58	732.97	-	-
01/13/12	27.62	731.93	-	-
05/30/12	25.69	733.86	-	-
09/24/12	26.26	733.29	-	-
02/27/13	27.44	732.11	-	-
06/17/13	26.05	733.50	-	-
01/31/14	26.21	733.34	-	-
07/09/14	24.38	735.17	-	-
11/25/14	25.79	733.76	-	-
04/03/15	25.47	734.08	-	-
06/02/15	24.57	734.98	-	-
07/28/15	23.30	736.25	-	-
07/13/16	23.41	736.14	-	-
10/27/16	25.25	734.30	-	-
06/14/17	24.26	735.29	-	-
10/19/17	22.40	737.15	-	-
02/26/18	23.35	736.20	-	-
06/28/18	22.57	736.98	-	-
10/16/18	22.88	736.67	-	4.0
02/26/19	21.91	737.64	-	5.0

INTRINSIC GROUNDWATER DATA SUMMARY			
SAMPLE DATE	DISSOLVED OXYGEN (mg/L)	pH	REDOX POTENTIAL (mV)
08/17/07	-	-	-
12/13/07	-	-	-
03/13/08	-	-	-
06/27/08	DRY		
09/25/08	-	-	-
12/17/08	-	-	-
04/06/09	4.20	5.5	-
06/30/09	1.20	5.7	-
11/30/09	-	-	-
05/06/11	0.90	5.4	-
08/15/11	0.46	5.7	-
01/13/12	-	5.0	-
05/30/12	-	5.4	-
09/24/12	-	5.2	-
02/27/13	2.28	5.3	-
06/17/13	1.34	5.0	-
01/31/14	1.81	5.9	-
07/09/14	-	-	-
11/25/14	-	-	-
04/03/15	-	-	-
06/02/15	-	-	-
07/28/15	2.71	5.3	184
07/13/16	-	-	-
10/27/16	2.12	5.4	199
06/14/17	-	-	-
10/19/17	-	-	-
02/26/18	-	-	-
06/28/18	-	-	-
10/16/18	2.12	5.80	46.0
02/26/18	3.61	6.10	137.0

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-8		
INSTALLATION DATE:	08/15/07	WELL DEPTH (FT BTOC):	34.4	SCREEN INTERVAL (FT):	24.4 - 34.4	CASING ELEV (FT ABOVE MSL):	759.55	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
06/30/09	0.1100	0.5400	0.8600	0.2700	1.1000	2.7700	-
11/04/09	0.0710	0.6100	1.0000	0.2500	1.0000	2.8600	-
05/06/11	0.0350	0.4800	0.6300	0.1900	0.7400	2.0400	-
08/15/11	0.0250	0.2100	0.3800	0.0610	0.3600	1.0110	-
01/13/12	0.0180	0.3000	0.1900	0.0920	0.4200	1.0020	-
05/30/12	0.0160	0.4600	0.1400	0.1800	0.5500	1.3300	-
09/24/12	0.0140	0.4400	0.1400	0.1500	0.5200	1.2500	-
02/27/13	0.0076	0.1600	0.0310	0.0390	0.1300	0.3600	-
06/17/13	0.0093	0.3200	0.0700	0.1000	0.2100	0.7000	-
01/31/14	0.0071	0.2400	0.1400	0.0860	0.2400	0.7060	-
07/09/14	0.0010	0.0136	0.4917	0.0639	0.2306	0.7998	-
11/25/14	0.0066	0.1263	0.0219	0.0945	0.2157	0.4584	-
04/03/15	0.0058	0.0928	0.0099	0.1173	0.1474	0.3674	-
07/28/15	0.0053	0.0662	0.0070	0.1417	0.1029	0.3178	-
10/27/16	<0.0010	0.0073	0.0042	0.0239	0.0172	0.0526	-
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	<0.0010	0.0122	0.0017	0.0267	0.0018	0.0424	<0.0010
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	0.0013	<0.0010
02/26/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLs:	2.68	0.671	134	93.9	175	-	2.68
Onsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-9		
INSTALLATION DATE:	08/15/07	WELL DEPTH (FT BTOC):	34.0	SCREEN INTERVAL (FT):	24.0 - 34.0	CASING ELEV (FT ABOVE MSL):	759.20	WELL TYPE:	II
								DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

POTENTIOMETRIC ELEVATION SUMMARY				
MEASUREMENT DATE	DEPTH TO WATER (FT BTOC)	ELEVATION (FT ABOVE MSL)	FREE PRODUCT THICKNESS (FT)	PCW GALLONS REMOVED
08/17/07	27.73	731.47	-	-
12/13/07	29.05	730.15	-	-
03/13/08	27.73	731.47	-	-
06/27/08	27.11	732.09	-	-
09/25/08	28.23	730.97	-	-
12/17/08	29.01	730.19	-	-
04/06/09	27.38	731.82	-	-
06/30/09	25.30	733.90	-	-
11/30/09	25.36	733.84	-	-
05/06/11	26.46	732.74	-	-
08/15/11	26.14	733.06	-	-
01/13/12	26.77	732.43	-	-
05/30/12	24.82	734.38	-	-
09/24/12	25.85	733.35	-	-
02/27/13	27.00	732.20	-	-
06/17/13	25.61	733.59	-	-
01/31/14	25.91	733.29	-	-
04/03/15	25.02	734.18	-	-
06/02/15	24.12	735.08	-	-
07/28/15	23.32	735.88	-	-
07/13/16	23.32	735.88	-	-
10/27/16	25.07	734.13	-	-
10/19/17	22.14	737.06	-	-
02/26/18	23.13	736.07	-	-
06/28/18	22.51	736.69	-	-
10/16/18	22.72	736.48	-	4.0
02/26/19	21.78	737.42	-	5.0

INTRINSIC GROUNDWATER DATA SUMMARY			
SAMPLE DATE	DISSOLVED OXYGEN (mg/L)	pH	REDOX POTENTIAL (mV)
08/17/07	-	-	-
12/13/07	-	-	-
03/13/08	-	-	-
06/27/08	-	-	-
09/25/08	-	-	-
12/17/08	-	-	-
04/06/09	2.70	5.2	-
06/30/09	2.00	5.5	-
11/30/09	-	-	-
05/06/11	1.40	5.1	-
08/15/11	-	-	-
01/13/12	-	-	-
05/30/12	-	-	-
09/24/12	-	5.3	-
02/27/13	-	-	-
06/17/13	2.64	4.6	-
01/31/14	1.65	5.7	-
04/03/15	1.36	5.1	99
06/02/15	-	-	-
07/28/15	2.36	5.5	175
07/13/16	-	-	-
10/27/16	2.20	5.1	171
10/19/17	-	-	-
02/26/18	-	-	-
06/28/18	-	-	-
10/16/18	3.39	5.6	-27.0
02/26/19	2.46	5.9	129.0

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-9		
INSTALLATION DATE:	08/15/07	WELL DEPTH (FT BTOC):	34.0	SCREEN INTERVAL (FT):	24.0 - 34.0	CASING ELEV (FT ABOVE MSL):	759.20	WELL TYPE:	II
								DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
08/17/07	0.0045	0.0350	0.0320	0.0020	0.0380	0.1070	-
12/13/07	0.0220	0.0440	0.0100	0.0008	0.0180	0.0728	-
03/13/08	0.0110	0.0920	0.0170	<0.0010	0.0370	0.1460	-
06/27/08	<0.0010	0.1400	0.0430	<0.0010	0.0900	0.2730	-
09/25/08	<0.0010	0.1400	0.0360	<0.0010	0.0540	0.2300	-
11/01/08	CA VIA MEME						
12/17/08	<0.0010	0.0780	0.0068	0.0006	0.0190	0.1044	-
04/06/09	<0.0050	0.0750	0.0110	<0.0010	0.0290	0.1150	-
06/30/09	<0.0050	0.1500	0.0063	<0.0010	0.0750	0.2313	-
11/04/09	0.0018	0.0930	0.0049	<0.0010	0.0620	0.1599	-
05/06/11	<0.0050	0.0450	<0.0010	<0.0010	0.0013	0.0463	-
09/24/12	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
02/27/13	NOT SAMPLED						
06/17/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
01/31/14	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
07/28/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
10/27/16	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLs:	2.68	0.671	134	93.9	175	-	2.68
Onsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-10		
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	34.8	SCREEN INTERVAL (FT):	24.8 - 34.8	CASING ELEV (FT ABOVE MSL):	764.09	WELL TYPE:	II
								DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
09/25/08	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
11/01/08	CA VIA MEME						
12/17/08	<0.0010	<0.0010	0.0009	<0.0010	0.0038	0.0047	-
04/06/09	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
06/30/09	NOT SAMPLED						
05/06/11	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
09/24/12	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
02/27/13	NOT SAMPLED						
06/17/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
01/31/14	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/28/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
10/27/16	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLs:	2.68	0.671	134	93.9	175	-	2.68
Onsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart	UST NUMBER:	07-11-06	WELL ID:	MW-11				
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	29.3	SCREEN INTERVAL (FT):	19.3 - 29.3	CASING ELEV (FT ABOVE MSL):	750.02	WELL TYPE:	II
						DIAMETER (IN):	2		

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
09/25/08	NOT SAMPLED (DRY)						
11/01/08	CA VIA MEME						
12/17/08	NOT SAMPLED (DRY)						
04/06/09	NOT SAMPLED						
06/30/09	NOT SAMPLED						
05/06/11	NOT SAMPLED (DRY)						
09/24/12	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
02/27/13	NOT SAMPLED						
06/17/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
01/31/14	NOT SAMPLED						
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	NOT SAMPLED (DRY)						
07/28/15	NOT SAMPLED (DRY)						
10/27/16	NOT SAMPLED (DRY)						
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLs:	-	-	-	-	-	-	-
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-12		
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	29.9	SCREEN INTERVAL (FT):	19.9 - 29.9	CASING ELEV (FT ABOVE MSL):	748.44	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
09/25/08	<0.0010	1.2000	0.6900	0.0960	0.4800	2.4660	-
11/01/08	CA VIA MEME						
12/17/08	<0.0010	2.5000	0.9000	0.2100	1.2000	4.8100	-
04/06/09	<0.0050	1.2000	0.3600	0.1500	0.6500	2.3600	-
06/30/09	<0.0050	1.4000	0.4900	0.1600	0.7400	2.7900	-
11/04/09	<0.0050	2.5000	1.1000	0.3000	1.8000	5.7000	-
05/06/11	<0.0050	3.1000	1.1000	0.3500	1.3000	5.8500	-
08/15/11	<0.0050	2.6000	1.2000	0.5900	3.0000	7.3900	-
01/13/12	<0.1000	9.3000	6.6000	1.2000	6.1000	23.2000	-
05/30/12	<0.1000	4.3000	2.7000	0.7000	3.1000	10.8000	-
09/24/12	<0.0050	5.0000	3.9000	0.7800	3.9000	13.5800	-
02/27/13	<0.0050	3.1000	2.7000	0.6100	3.3000	9.7100	-
06/17/13	0.0011	3.8000	2.9000	0.5700	2.4000	9.6700	-
01/31/14	<0.0050	4.2000	3.5000	0.6700	2.9000	11.2700	-
07/09/14	0.0100	<0.010	0.8784	0.1878	0.2296	1.2958	0.0877
11/25/14	<0.005	0.9894	0.4923	0.3670	1.6904	3.5391	0.2548
04/03/15	<0.0100	0.4300	0.0153	0.1006	0.0690	0.6149	0.0359
07/28/15	<0.0040	0.9353	0.0057	0.1787	0.1216	1.2413	0.0721
12/01/15	<0.0025	0.2550	<0.0025	0.0518	0.0036	0.3104	0.0219
07/13/16	<0.0010	0.0343	<0.0010	0.0920	0.0015	0.1278	0.0229
10/27/16	<0.0010	0.0921	0.0010	0.0721	0.0042	0.1694	0.0242
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	NOT SAMPLED						
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	NOT SAMPLED						
02/26/19	NOT SAMPLED						
07/10/19	NOT SAMPLED						
GRP SSTLs:	-	-	-	-	-	-	-
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart	UST NUMBER:	07-11-06	WELL ID:	MW-13
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	29.1	SCREEN INTERVAL (FT):	14.1 - 29.1
		CASING ELEV (FT ABOVE MSL):	752.20	WELL TYPE:	II
				DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
09/18/09	NOT SAMPLED						
05/06/11	NOT SAMPLED FREE PRODUCT (1.73 FT)						
08/15/11	NOT SAMPLED FREE PRODUCT (0.10 FT)						
01/13/12	NOT SAMPLED FREE PRODUCT (0.12 FT)						
05/30/12	<2.5000	17.0000	38.0000	3.6000	18.0000	76.6000	-
09/24/12	NOT SAMPLED FREE PRODUCT (0.41 FT)						
02/27/13	NOT SAMPLED FREE PRODUCT (0.02 FT)						
06/17/13	<2.5000	14.0000	33.0000	2.5000	14.0000	63.5000	-
01/31/14	NOT SAMPLED FREE PRODUCT (0.06 FT)						
07/09/14	<0.2500	11.1225	34.8037	3.8723	27.5829	77.3814	1.2195
11/25/14	<0.2500	20.8940	45.1395	15.3912	93.3967	174.8214	8.3674
04/03/15	<0.4000	16.9597	37.7213	3.1601	18.9899	76.8310	1.0197
07/28/15	<0.1000	16.2000	42.0000	2.9300	21.1000	82.2300	1.8500
12/01/15	NOT SAMPLED						
07/13/16	<0.4000	16.4600	42.9305	5.2024	32.3243	96.9172	1.2852
10/27/16	<0.4000	17.6411	45.8988	5.0998	32.8493	101.4890	1.6457
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	NOT SAMPLED						
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	NOT SAMPLED						
02/26/19	NOT SAMPLED						
07/10/19	NOT SAMPLED						
GRP SSTLs:	-	-	-	-	-	-	-
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart	UST NUMBER:	07-11-06	WELL ID:	MW-14				
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	29.5	SCREEN INTERVAL (FT):	14.5 - 29.5	CASING ELEV (FT ABOVE MSL):	748.32	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)

SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
09/18/09	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
05/06/11	NOT SAMPLED						
01/18/12	NOT SAMPLED						
10/19/17	NOT SAMPLED						
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	NOT SAMPLED						
02/26/19	NOT SAMPLED						
07/10/19	NOT SAMPLED						
GRP SSTLs:	-	-	-	-	-	-	-
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart	UST NUMBER:	07-11-06	WELL ID:	MW-15				
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	29.3	SCREEN INTERVAL (FT):	14.3 - 29.3	CASING ELEV (FT ABOVE MSL):	746.04	WELL TYPE:	II
								DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
09/18/09	<0.0050	0.0230	0.0025	0.0012	0.0590	0.0857	-
05/06/11	<0.0050	0.4600	0.1600	0.0650	0.6900	1.3750	-
09/24/12	<0.0050	0.0540	<0.0010	<0.0010	0.0360	0.0900	-
02/27/13	<0.0050	0.0260	0.0076	<0.0010	0.0170	0.0506	-
06/17/13	<0.0050	0.0220	0.0018	0.0008	0.0150	0.0396	-
01/31/14	<0.0050	0.0024	<0.0010	<0.0010	<0.0010	0.0024	-
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
07/28/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
10/27/16	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	NOT SAMPLED						
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	NOT SAMPLED						
02/26/19	NOT SAMPLED						
07/10/19	NOT SAMPLED						
GRP SSTLs:	-	-	-	-	-	-	-
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-16		
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	29.3	SCREEN INTERVAL (FT):	14.3 - 29.3	CASING ELEV (FT ABOVE MSL):	743.50	WELL TYPE:	II
								DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
09/18/09	0.0021	0.0012	0.0067	0.0014	0.0081	0.0174	-
05/06/11	<0.0050	0.0013	<0.0010	<0.0010	<0.002	0.0013	-
09/24/12	<0.0050	<0.0010	<0.0010	<0.0010	<0.002	BDL	-
02/27/13	NOT SAMPLED						
06/17/13	<0.0050	<0.0010	<0.0010	<0.0020	<0.0020	BDL	-
01/31/14	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
07/09/14						BDL	-
11/25/14						BDL	-
04/03/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/28/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
10/27/16	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/07/17						BDL	-
06/14/17						BDL	-
10/19/17	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLs:	-	-	-	-	-	-	-
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart	UST NUMBER:	07-11-06	WELL ID:	MW-17
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	29.5	SCREEN INTERVAL (FT):	19.5 - 29.5
		CASING ELEV (FT ABOVE MSL):	754.89	WELL TYPE:	II
				DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
11/30/09	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
05/06/11	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
09/24/12	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
02/27/13	NOT SAMPLED						
06/17/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
01/31/14	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
07/28/15	<0.0010	0.0093	0.0541	0.0140	0.1260	0.2034	-
10/27/16	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	-
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	NOT SAMPLED						
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	NOT SAMPLED						
02/26/19	NOT SAMPLED						
07/10/19	NOT SAMPLED						
GRP SSTLs:	-	-	-	-	-	-	-
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	MW-18		
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	34.1	SCREEN INTERVAL (FT):	24.1 - 34.1	CASING ELEV (FT ABOVE MSL):	750.13	WELL TYPE:	II
							DIAMETER (IN):	2	

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
11/30/09	0.0100	2.9000	2.6000	0.5100	2.9000	8.9100	-
05/06/11	0.0069	2.5000	1.8000	0.4700	2.6000	7.3700	-
08/15/11	0.0080	1.8000	1.3000	0.3800	2.3000	5.7800	-
01/13/12	0.0042	0.4800	0.1600	0.0700	0.3500	1.0600	-
05/30/12	0.0053	1.6700	0.9190	0.2460	1.5800	4.4150	-
09/24/12	0.0036	2.1000	1.3000	0.3400	1.7000	5.4400	-
02/27/13	0.0036	0.9100	0.4500	0.1600	0.8300	2.3500	-
06/17/13	0.0032	1.9000	1.1000	0.2700	1.7000	4.9700	-
01/31/14	0.0043	1.3000	0.6900	0.2300	1.3000	3.5200	-
07/09/14	<0.0130	1.6761	1.0771	0.3459	1.8391	4.9382	0.0682
11/25/14	<0.0100	1.9632	3.5157	1.2265	9.1525	15.8579	0.8249
04/03/15	<0.0125	1.4943	0.8405	0.2961	1.5900	4.2209	0.0627
07/28/15	0.0028	1.4700	0.9390	0.3060	1.7400	4.4550	0.0792
12/01/15	<0.0100	1.6314	0.9272	0.3447	1.8215	4.7248	0.0701
07/13/16	<0.0100	1.4757	0.8264	0.3172	1.6665	4.2858	0.0888
10/27/16	<0.0100	1.4786	0.9178	0.3347	1.7498	4.4809	0.1027
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	NOT SAMPLED						
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	NOT SAMPLED						
02/26/19	NOT SAMPLED						
07/10/19	NOT SAMPLED						
GRP SSTLs:	-	-	-	-	-	-	-
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart	UST NUMBER:	07-11-06	WELL ID:	MW-19				
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	29.5	SCREEN INTERVAL (FT):	19.5 - 29.5	CASING ELEV (FT ABOVE MSL):	752.91	WELL TYPE:	II
								DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
11/30/09	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
05/06/11	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
09/24/12	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
02/27/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
06/17/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
01/31/14	<0.0050	0.0005	0.0007	<0.0010	<0.0020	0.0012	-
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	0.0012
07/28/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
10/27/16	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	NOT SAMPLED						
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	NOT SAMPLED						
02/26/19	NOT SAMPLED						
07/10/19	NOT SAMPLED						
GRP SSTLs:	-	-	-	-	-	-	-
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart	UST NUMBER:	07-11-06	WELL ID:	MW-20
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	29.5	SCREEN INTERVAL (FT):	19.5 - 29.5
		CASING ELEV (FT ABOVE MSL):	744.54	WELL TYPE:	II
				DIAMETER (IN):	2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
11/30/09	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
05/06/11	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
09/24/12	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
02/27/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
06/17/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
01/31/14	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/28/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
10/27/16	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	NOT SAMPLED						
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	NOT SAMPLED						
02/26/19	NOT SAMPLED						
07/10/19	NOT SAMPLED						
GRP SSTLs:	-	-	-	-	-	-	-
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart	UST NUMBER:	07-11-06	WELL ID:	MW-21				
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	29.5	SCREEN INTERVAL (FT):	19.5 - 29.5	CASING ELEV (FT ABOVE MSL):	762.81	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
11/30/09	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
05/06/11	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
09/24/12	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
02/27/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
06/17/13	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
01/31/14	<0.0050	<0.0010	<0.0010	<0.0010	<0.0020	BDL	-
07/09/14	NOT SAMPLED						
11/25/14	NOT SAMPLED						
04/03/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/28/15	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
10/27/16	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/07/17	NOT SAMPLED						
06/14/17	NOT SAMPLED						
10/19/17	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/18	NOT SAMPLED						
06/28/18	NOT SAMPLED						
10/16/18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLs:	-	-	-	-	-	-	-
Offsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart		UST NUMBER:	07-11-06	WELL ID:	RW-1	
INSTALLATION DATE:	06/01/15	WELL DEPTH (FT BTOC):	34.7	SCREEN INTERVAL (FT):	19.7 - 34.7	CASING ELEV (FT ABOVE MSL):	WELL TYPE: II DIAMETER (IN): 4

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
07/28/15	1.5458	2.3352	5.5691	0.8228	7.7650	16.4921	1.0043
12/01/15	2.1567	3.7180	9.6842	1.4925	10.5142	25.4089	1.0462
07/13/16	1.4381	2.9022	7.5385	1.2032	7.1905	18.8344	0.5654
10/27/16	0.6472	1.7621	5.3056	0.7798	5.3500	13.1975	0.4414
02/07/17	0.5951	2.3289	7.4442	0.8658	8.8404	19.4793	0.7067
06/14/17	1.0956	1.9891	8.1358	1.1575	9.3220	20.6044	0.7116
10/19/17	2.0520	3.5859	11.3548	1.2804	9.2902	25.5113	0.5290
02/26/18	2.1858	5.7487	16.4615	1.8462	12.5861	36.6425	0.8257
06/28/18	2.3867	3.9716	12.1174	1.5640	10.0533	27.7063	0.7970
10/16/18	4.0780	6.9095	20.1688	2.4173	14.1040	43.5996	1.0104
02/26/19	4.1194	6.7839	20.5881	2.7169	14.8880	44.9769	0.9608
07/10/19	3.1284	5.8700	16.9447	1.9648	11.7181	36.4976	0.8300
GRP SSTLs:	2.68	0.671	134	93.9	175	-	2.68
Onsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart			UST NUMBER:	07-11-06	WELL ID:	RW-2		
INSTALLATION DATE:	06/01/15	WELL DEPTH (FT BTOC):	34.6	SCREEN INTERVAL (FT):	19.6 - 34.6	CASING ELEV (FT ABOVE MSL):	WELL TYPE:	II	
							DIAMETER (IN):	4	

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
11/01/08	CA VIA MEME						
07/28/15	2.7302	2.7453	0.1613	0.3846	0.7176	4.0088	0.1814
12/01/15	3.6933	3.6650	0.2648	0.6650	0.7362	5.3310	0.2059
07/13/16	0.6032	0.5844	0.0399	0.0409	0.1055	0.7707	<0.0250
10/27/16	2.2847	1.7644	0.0311	0.4516	0.0922	2.3393	0.0647
02/07/17	1.7569	0.2235	<0.0250	0.1135	<0.0250	0.3370	<0.0250
06/14/17	1.3832	0.6597	<0.0200	0.1293	0.0221	0.8111	<0.0200
10/19/17	0.3250	0.0854	<0.0050	0.0106	<0.0050	0.0960	<0.0050
02/26/18	0.2294	0.0470	<0.0025	0.0165	<0.0025	0.0635	<0.0025
06/28/18	0.2187	0.0249	<0.0025	0.0156	<0.0025	0.0405	<0.0025
10/16/18	0.2972	0.0563	0.0064	0.0182	0.0065	0.0874	0.0018
02/26/19	0.0920	0.0275	0.0081	0.0035	0.0047	0.0437	<0.0010
07/10/19	NOT SAMPLED						
GRP SSTLs:	2.68	0.671	134	93.9	175	-	2.68
Onsite SSTLs:	23,700	12	526	169	175	-	31

Monitoring Point Data Summary Table

SITE NAME:	Midway Mart		UST NUMBER:	07-11-06	WELL ID:	Carbon Effluent	
INSTALLATION DATE:	-	WELL DEPTH (FT BTOC):	-	SCREEN INTERVAL (FT):	-	CASING ELEV (FT ABOVE MSL):	-
						WELL TYPE:	-
						DIAMETER (IN):	-

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
02/26/18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
06/28/18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
10/16/18	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
02/26/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
07/10/19	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	BDL	<0.0010
ISLs:	0.02	0.005	1	0.7	10	-	0.02

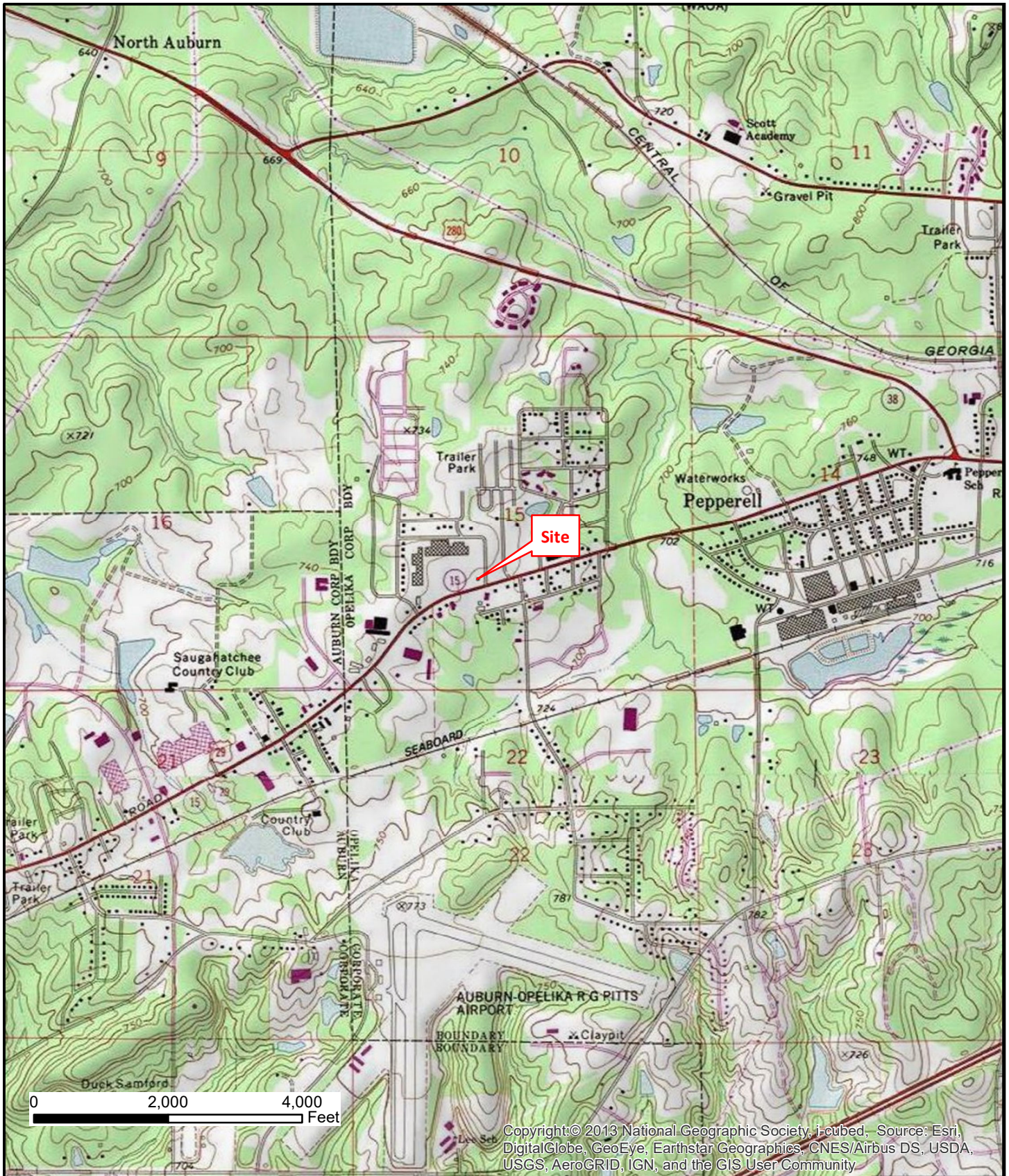


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FIGURES

A decorative graphic element in the bottom right corner, consisting of a white diamond shape with dark blue and brown triangular accents at its corners.

APPENDIX B



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Site Location USGS Topographic Map

Midway Mart
3700 Pepperell Parkway
Opelika, Lee County, AL





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Land Use Map

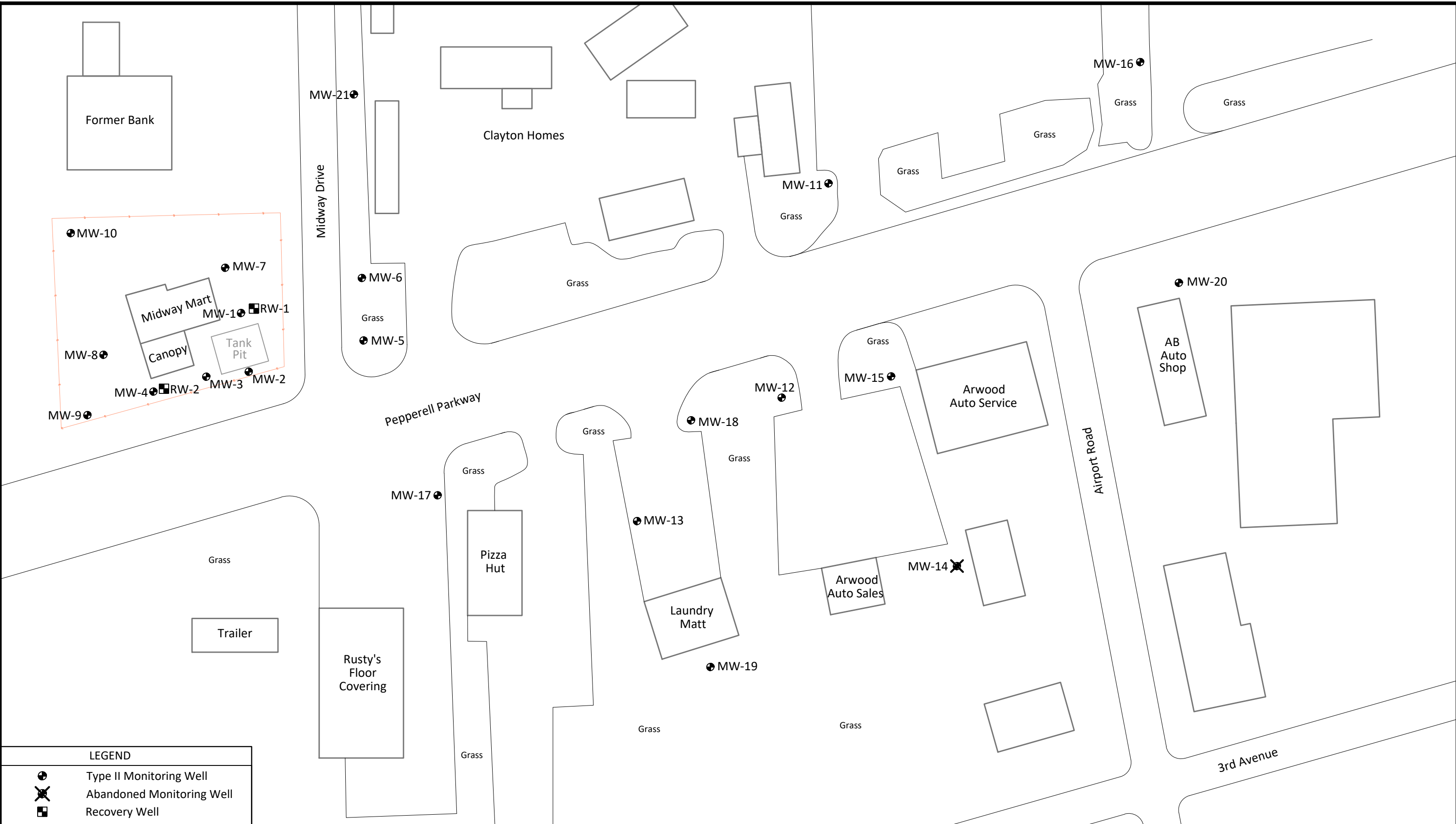
Midway Mart
 3700 Pepperell Parkway
 Opelika, Lee County, AL






Approximate Scale in Feet



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LEGEND

-  Type II Monitoring Well
-  Abandoned Monitoring Well
-  Recovery Well



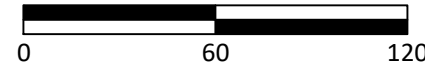
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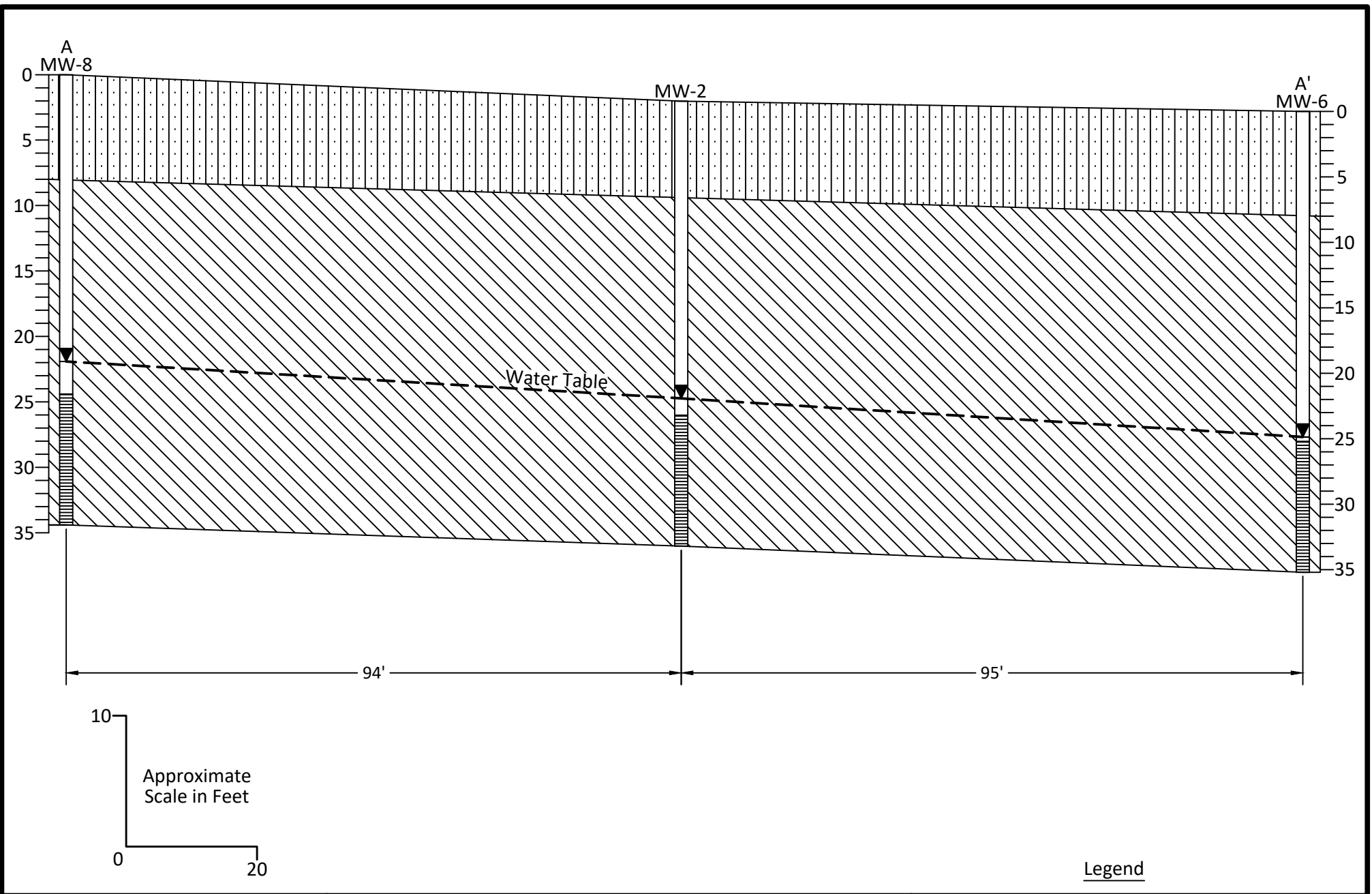
Site Map with Well Locations

Midway Mart
3700 Pepperell Parkway
Opelika, Lee County, AL



Approximate Scale in Feet

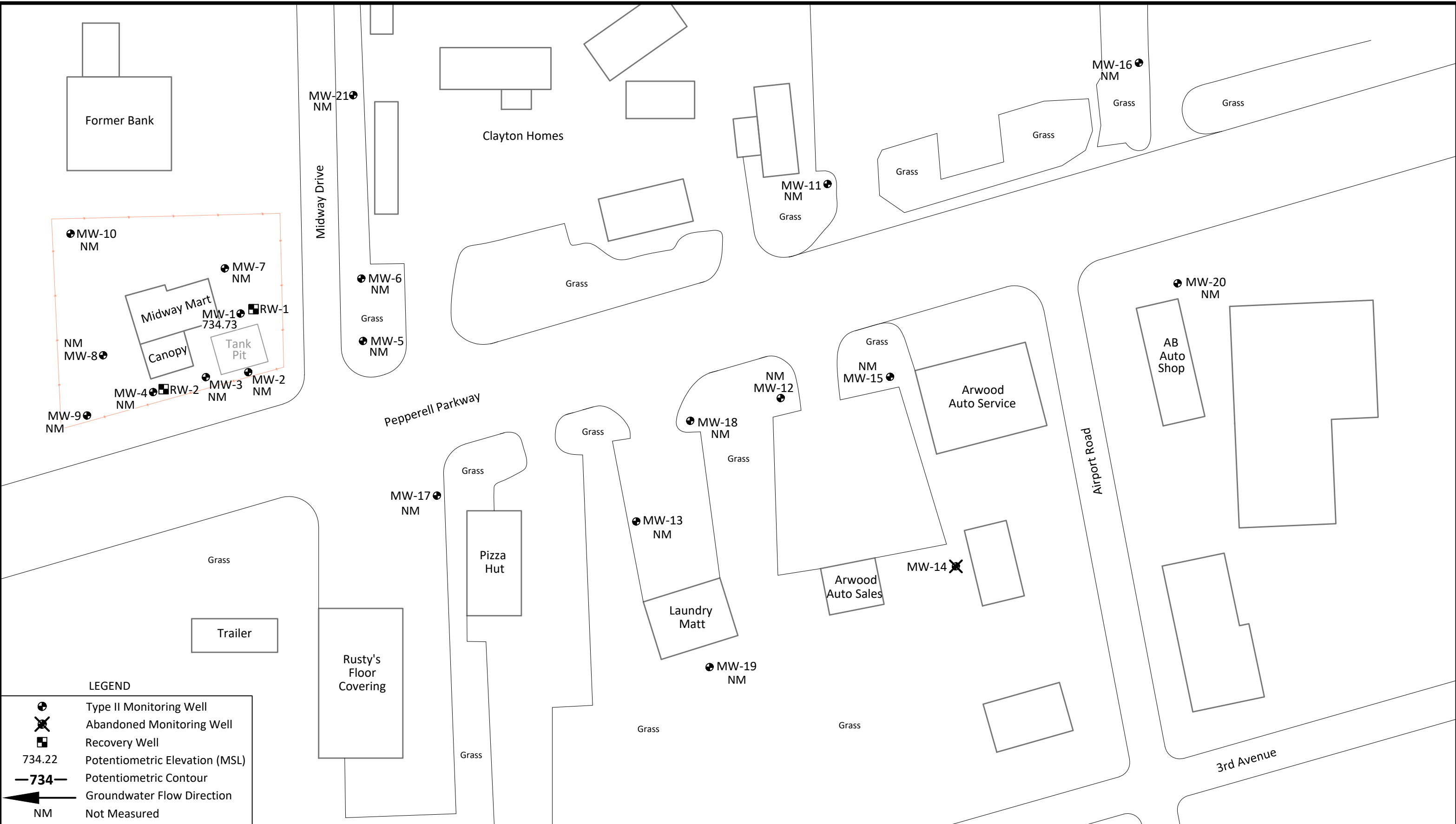








Lithologic Cross-Section A-A'

Midway Mart
 3700 Pepperell Parkway
 Opelika, Lee County, AL

- Legend**
-  Silty Sand
 -  Sandy Clay
 -  Screened Interval
 -  Groundwater Level

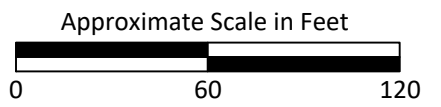


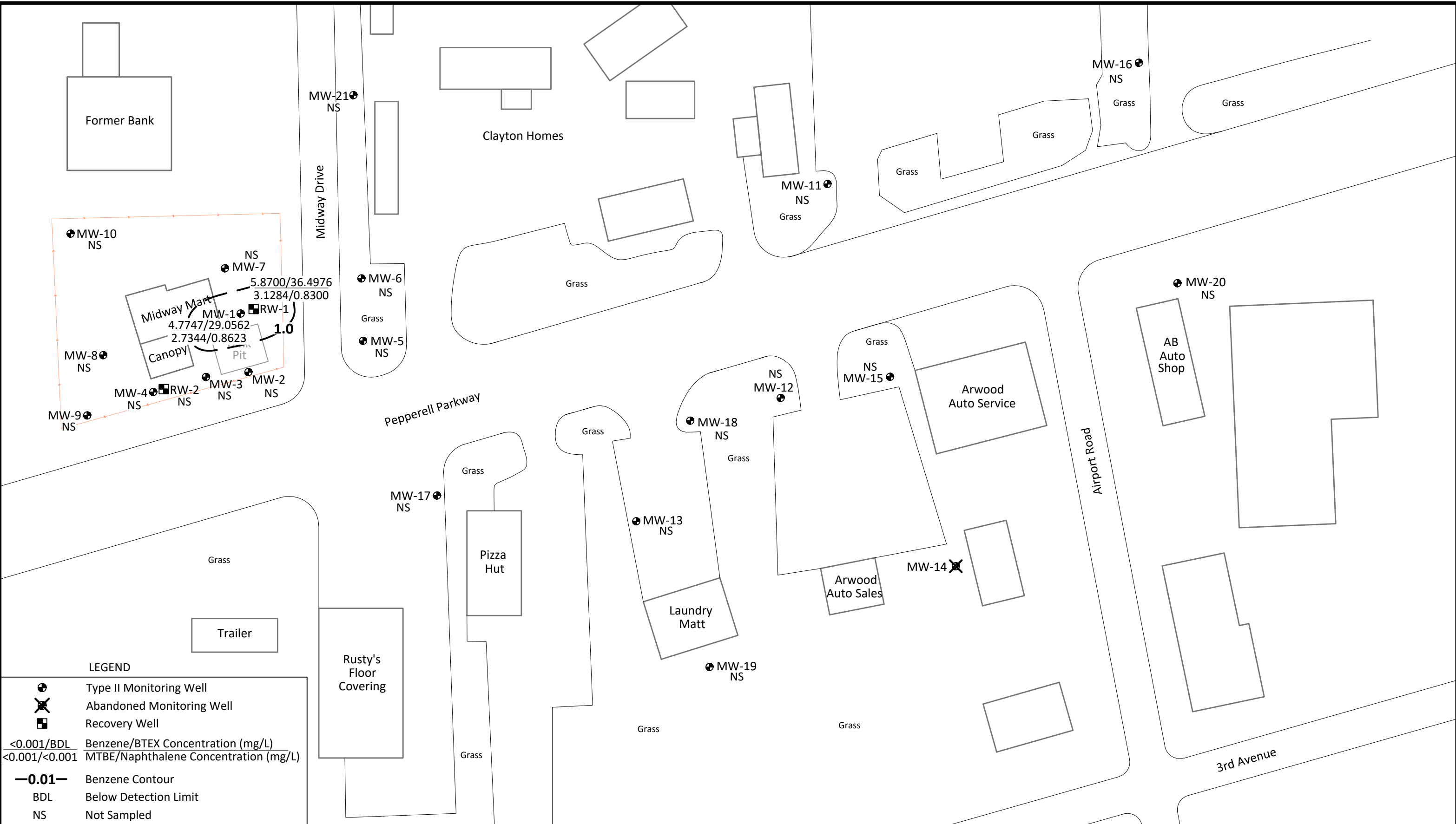
LEGEND

-  Type II Monitoring Well
-  Abandoned Monitoring Well
-  Recovery Well
- 734.22 Potentiometric Elevation (MSL)
- 734- Potentiometric Contour
-  Groundwater Flow Direction
- NM Not Measured

Potentiometric Surface Map
July 10, 2019

Midway Mart
3700 Pepperell Parkway
Opelika, Lee County, AL





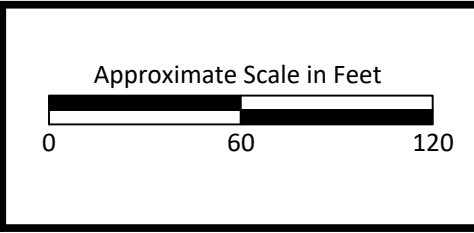
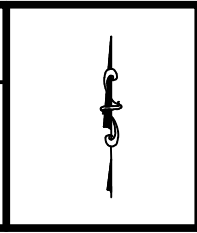
LEGEND

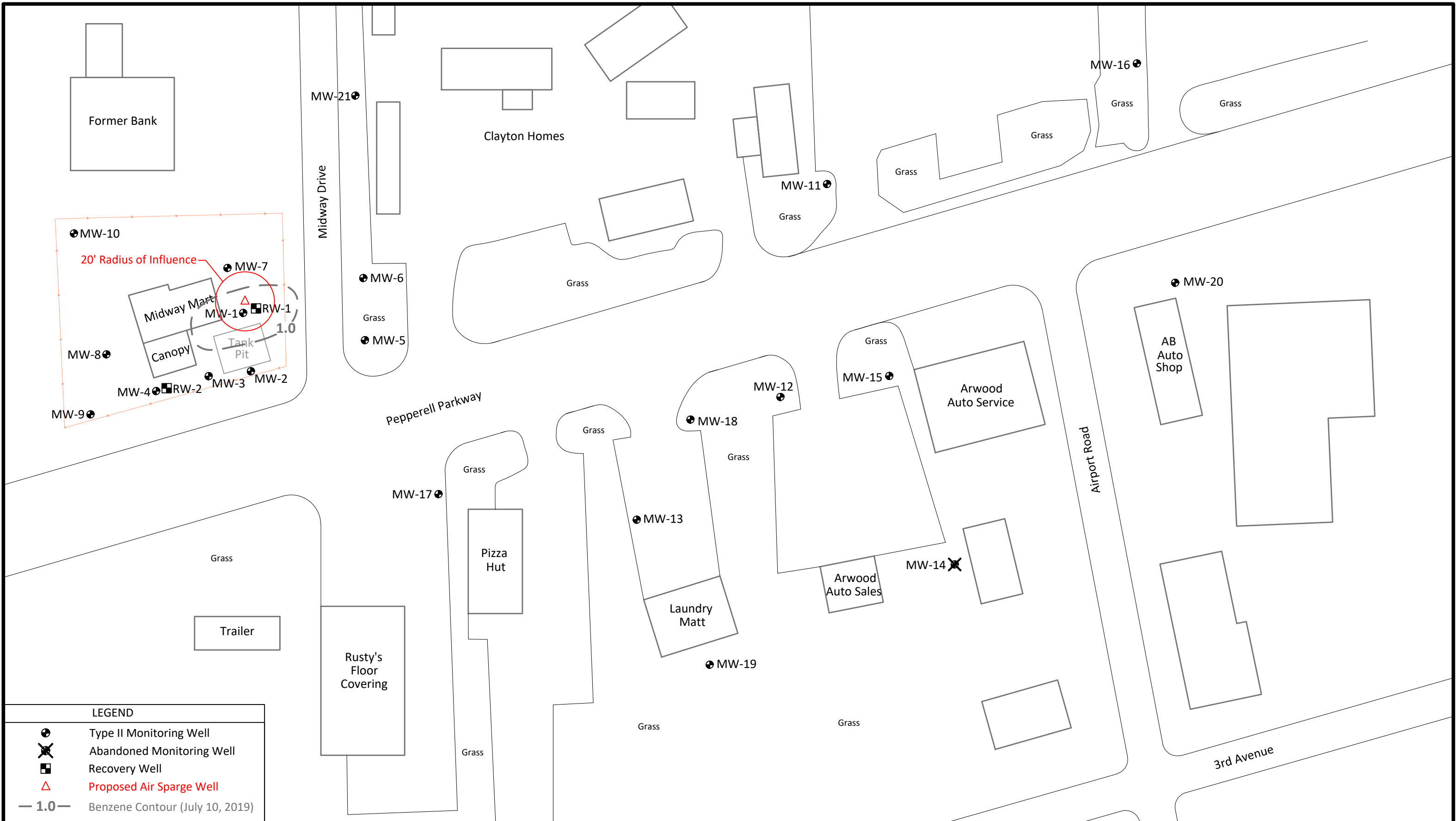
	Type II Monitoring Well
	Abandoned Monitoring Well
	Recovery Well
$<0.001/\text{BDL}$	Benzene/BTEX Concentration (mg/L)
$<0.001/<0.001$	MTBE/Naphthalene Concentration (mg/L)
—0.01—	Benzene Contour
BDL	Below Detection Limit
NS	Not Sampled



Groundwater Analytical and Benzene Contour Map
July 10, 2019

Midway Mart
3700 Pepperell Parkway
Opelika, Lee County, AL



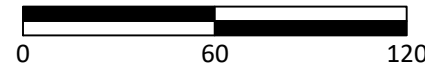


Site Map with Proposed Sparge Point Location

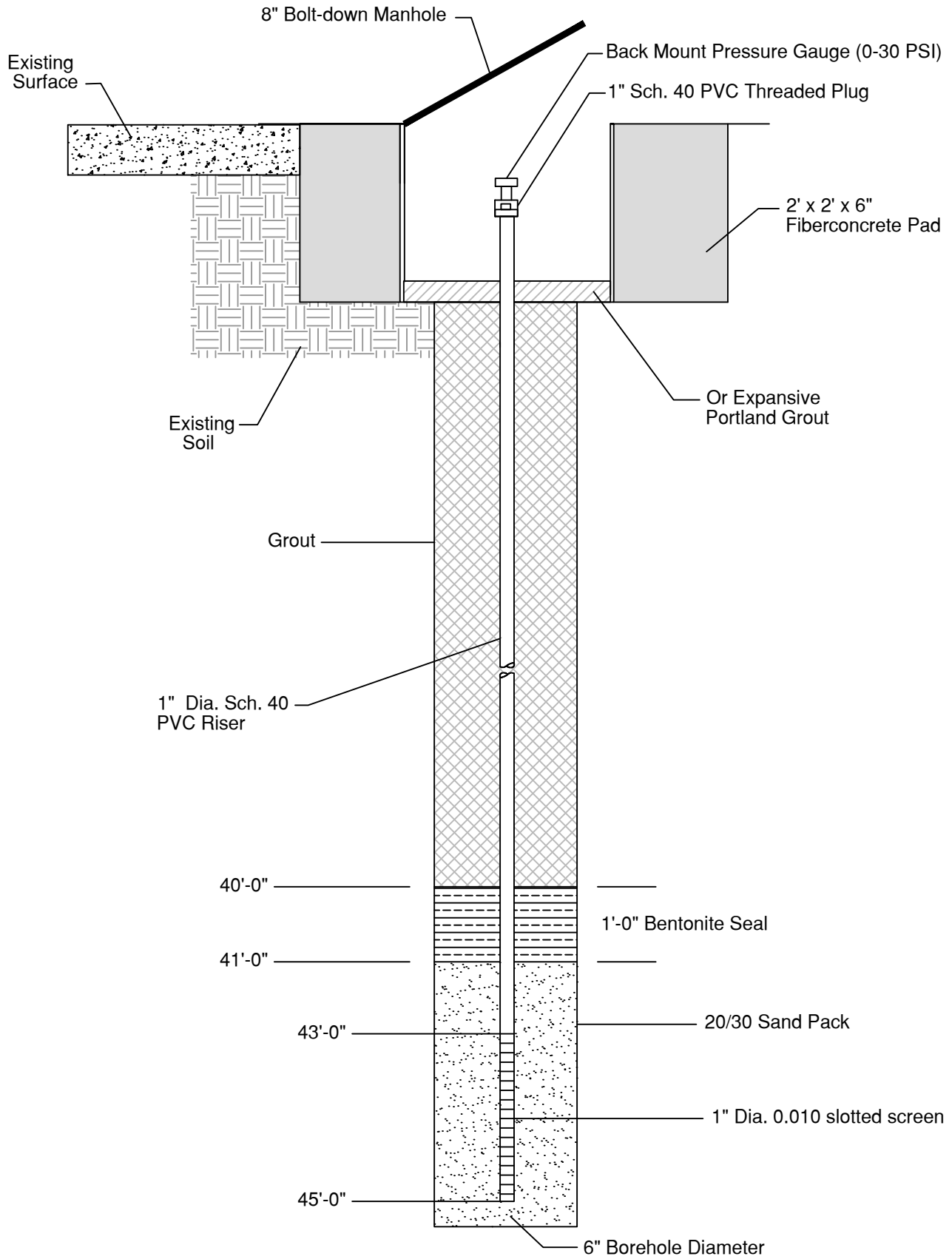
Midway Mart
 3700 Pepperell Parkway
 Opelika, Lee County, AL



Approximate Scale in Feet



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Air Sparge Well Construction Detail

Midway Mart
 3700 Pepperell Parkway
 Opelika, Lee County, AL

Not to Scale



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APPROVED ARBCA SSTLs

A decorative graphic in the bottom right corner consisting of a white diamond shape with dark blue and grey triangular accents at its corners.

APPENDIX C

SITE-SPECIFIC TARGET LEVELS FOR A COMMERCIAL WORKER

CHEMICALS OF CONCERN	AIR INHALATION		SURFICIAL SOIL				SUBSURFACE SOIL				GROUNDWATER		
	Indoor [mg/m ³ -air]	Outdoor [mg/m ³ -air]	Ingestion, Inhalation (Vapor Emissions and Particulates), and Dermal Contact [mg/kg]		Indoor Inhalation of Vapor Emissions [mg/kg]		Outdoor Inhalation of Vapor Emissions [mg/kg]		Indoor Inhalation of Vapor Emissions [mg/L]		Outdoor Inhalation of Vapor Emissions [mg/L]		Ingestion of Water [mg/L]
ORGANICS													
Benzene	7.07E-03	7.07E-03	3.96E+01	2.60E-01	6.62E+00	1.20E+01	1.75E+03	5.00E-03					
Toluene	7.49E-01	7.49E-01	4.87E+02	4.64E+01	4.87E+02	5.26E+02	5.26E+02	1.00E+00					
Ethylbenzene	1.98E+00	1.98E+00	2.21E+02	1.68E+02	2.21E+02	1.69E+02	1.69E+02	7.00E-01					
Xylenes (mixed)	5.86E-01	5.86E-01	2.73E+02	6.72E+01	2.73E+02	1.75E+02	1.75E+02	1.00E+01					
Methyl-tert-butyl-ether (MTBE)*	5.86E+00	5.86E+00	3.93E+02	5.89E+02	7.06E+03	2.37E+04	4.80E+04	2.00E-02					
Anthracene	2.04E+00	2.04E+00	5.92E+00	5.92E+00	5.92E+00	4.34E-02	4.34E-02	4.34E-02					
Benzo(a)anthracene	3.13E-04	3.13E-04	1.95E+01	1.95E+01	1.95E+01	9.40E-03	9.40E-03	1.17E-03					
Benzo(a)pyrene	3.13E-05	3.13E-05	2.24E+00	9.10E+00	9.10E+00	1.62E-03	1.62E-03	2.00E-04					
Benzo(b)fluoranthene	3.13E-04	3.13E-04	1.07E+01	1.07E+01	1.07E+01	1.50E-03	1.50E-03	1.17E-03					
Benzo(g,h,i)perylene	2.04E-01	2.04E-01	6.41E+00	6.41E+00	6.41E+00	7.00E-04	7.00E-04	7.00E-04					
Benzo(k)fluoranthene	3.13E-04	3.13E-04	5.71E+00	5.71E+00	5.71E+00	8.00E-04	8.00E-04	8.00E-04					
Chrysene	3.13E-02	3.13E-02	3.69E+00	3.69E+00	3.69E+00	1.60E-03	1.60E-03	1.60E-03					
Fluoranthene	2.73E-01	2.73E-01	5.87E+01	5.87E+01	5.87E+01	2.06E-01	2.06E-01	2.06E-01					
Fluorene	2.73E-01	2.73E-01	8.87E+01	8.87E+01	8.87E+01	1.98E+00	1.98E+00	1.46E+00					
Naphthalene	6.13E-03	6.13E-03	2.16E+02	5.79E+01	2.16E+02	3.10E+01	3.10E+01	2.00E-02					
Phenanthrene	2.04E-01	2.04E-01	8.19E+01	8.19E+01	8.19E+01	1.00E+00	1.00E+00	1.00E+00					
Pyrene	2.04E-01	2.04E-01	5.33E+01	5.33E+01	5.33E+01	1.35E-01	1.35E-01	1.35E-01					
METALS													
Arsenic	1.27E-05	1.27E-05	3.63E+01	NA	NA	NA	NA	5.00E-02					
Barium	9.74E-04	9.74E-04	1.36E+05	NA	NA	NA	NA	2.00E+00					
Cadmium	3.03E-05	3.03E-05	9.73E+02	NA	NA	NA	NA	5.00E-03					
Chromium VI	4.54E-06	4.54E-06	5.83E+03	NA	NA	NA	NA	1.00E-01					
Lead	NA	NA	4.0E+02	NA	NA	NA	NA	1.50E-02					
Zinc	6.81E-02	6.81E-02	5.84E+05	NA	NA	NA	NA	2.00E+00					

NC: Pathway is not complete

*: Calculated RBSLs exceeded saturated soil concentration and hence saturated soil concentrations are listed RBSLs.

#: Calculated RBSLs exceeded pure component water solubility and hence water solubilities are listed as RBSLs.

Soil concentrations are presented on a dry weight basis.

NA: Not Applicable

4

SITE-SPECIFIC TARGET LEVELS FOR A CONSTRUCTION WORKER

CHEMICALS OF CONCERN	AIR INHALEATION		SURFICIAL SOIL		SUBSURFACE SOIL		GROUNDWATER	
	Indoor	Outdoor	Ingestion, Inhalation (Vapor Emissions and Particulates) and Dermal Contact		Indoor Inhalation of Vapor Emissions	Outdoor Inhalation of Vapor Emissions	Indoor Inhalation of Vapor Emissions	Outdoor Inhalation of Vapor Emissions
	[mg/m ³ -air]	[mg/m ³ -air]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/kg]	[mg/L]	[mg/L]
ORGANICS								
Benzene	1.16E-02	1.16E-02	2.21E+02	4.26E-01	1.08E+01	1.97E+01	1.75E+03	#
Toluene	7.49E-01	7.49E-01	4.87E+02	4.64E+01	4.87E+02	5.26E+02	5.26E+02	#
Ethylbenzene	1.98E+00	1.98E+00	2.21E+02	1.68E+02	2.21E+02	1.69E+02	1.69E+02	#
Xylenes (mixed)	5.86E-01	5.86E-01	2.73E+02	6.72E+01	2.73E+02	1.75E+02	1.75E+02	#
Methyl-tert-butyl-ether (MTBE)*	5.86E+00	5.86E+00	3.77E+02	5.89E+02	7.06E+03	2.37E+04	4.80E+04	#
Anthracene	2.04E+00	2.04E+00	5.92E+00	5.92E+00	5.92E+00	4.34E-02	4.34E-02	#
Benzo(a)anthracene	7.82E-03	7.82E-03	1.95E+01	1.95E+01	1.95E+01	9.40E-03	9.40E-03	#
Benzo(a)pyrene	7.82E-04	7.82E-04	9.10E+00	9.10E+00	9.10E+00	1.62E-03	1.62E-03	#
Benzo(b)fluoranthene	7.82E-03	7.82E-03	1.07E+01	1.07E+01	1.07E+01	1.50E-03	1.50E-03	#
Benzo(g,h,i)perylene	2.04E-01	2.04E-01	6.41E+00	6.41E+00	6.41E+00	7.00E-04	7.00E-04	#
Benzo(k)fluoranthene	7.82E-03	7.82E-03	5.71E+00	5.71E+00	5.71E+00	8.00E-04	8.00E-04	#
Chrysene	7.82E-01	7.82E-01	3.69E+00	3.69E+00	3.69E+00	1.60E-03	1.60E-03	#
Fluoranthene	2.73E-01	2.73E-01	5.87E+01	5.87E+01	5.87E+01	2.06E-01	2.06E-01	#
Fluorene	2.73E-01	2.73E-01	8.87E+01	8.87E+01	8.87E+01	1.98E+00	1.98E+00	#
Naphthalene	6.13E-03	6.13E-03	2.07E+02	5.79E+01	2.16E+02	3.10E+01	3.10E+01	#
Phenanthrene	2.04E-01	2.04E-01	8.19E+01	8.19E+01	8.19E+01	1.00E+00	1.00E+00	#
Pyrene	2.04E-01	2.04E-01	5.33E+01	5.33E+01	5.33E+01	1.35E-01	1.35E-01	#
METALS								
Arsenic	3.17E-04	3.17E-04	2.99E+02	NA	NA	NA	NA	NA
Barium	9.74E-04	9.74E-04	4.09E+03	NA	NA	NA	NA	NA
Cadmium	7.57E-04	7.57E-04	4.99E+02	NA	NA	NA	NA	NA
Chromium VI	1.36E-05	1.36E-05	5.95E+01	NA	NA	NA	NA	NA
Lead	NA	NA	4.00E+02	NA	NA	NA	NA	NA
Zinc	6.81E-02	6.81E-02	1.51E+05	NA	NA	NA	NA	NA

NA: Not Applicable

—: Not a chemical of concern

NC: Pathway is not complete

*: Calculated RBSLs exceeded saturated soil concentration and hence saturated soil concentrations are listed RBSLs.

#: Calculated RBSLs exceeded pure component water solubility and hence water solubilities are listed as RBSLs.

Soil concentrations are presented on a dry weight basis.

5

GROUNDWATER RESOURCE PROTECTION

Parameter	Symbol	Unit	Tier 1 Values	Values Used	Source
SITE PARAMETERS:					
Distance from the Downgradient Edge of the Groundwater Source to the Point of Exposure (Xpoe)	Xpoe	ft	variable	550	Site-specific
Longitudinal Dispersivity	α_x	ft	variable	55.000	Calculated
Transverse Dispersivity	α_y	ft	variable	18.333	Calculated
Vertical Dispersivity	α_z	ft	variable	2.750	Calculated
Distance from the Downgradient Edge of the Groundwater Source to the Point of Compliance (Xpoc)	Xpoc	ft	variable	88	Site-specific
Longitudinal Dispersivity	α_x	ft	variable	8.800	Calculated
Transverse Dispersivity	α_y	ft	variable	2.933	Calculated
Vertical Dispersivity	α_z	ft	variable	0.440	Calculated

Note: The input values in red are calculated and cannot be changed.

MW:

(6)

GROUNDWATER RESOURCE PROTECTION - WITHOUT BIODEGRADATION

B1-Y
M01-Y

CHEMICALS OF CONCERN	Target Groundwater Conc. at POE [mg/L]	Dry Leaching Factor to Groundwater (LF _{gw})	User Specified Unsaturated Zone DAF	Saturated Zone DAF for POC	Saturated Zone DAF for POE	Allowable Soil Conc. Protective of GW at the POE [mg/kg]	Allowable GW Conc.	
							at a POE Protective of a POE [mg/L]	at the Source Protective of a POE [mg/L]
ORGANICS								
Benzene	5.00E-03	1.08E+00	1	3.98E+00	1.34E+02	6.19E-01	1.69E-01	6.71E-01
Toluene	1.00E+00	5.45E-01	1	3.98E+00	1.34E+02	2.46E+02	3.37E+01	1.34E+02
Ethylbenzene	7.00E-01	3.87E-01	1	3.98E+00	1.34E+02	2.21E+02	2.36E+01	9.39E+01
Xylenes (mixed)	1.00E+01	3.24E-01	1	3.98E+00	1.34E+02	2.73E+02	1.75E+02	1.75E+02
Methyl-tert-butyl-ether (MTBE)*	2.00E-02	3.44E+00	1	3.98E+00	1.34E+02	7.81E-01	6.74E-01	2.68E+00
Anthracene	4.34E-02	3.70E-03	1	3.98E+00	1.34E+02	5.92E+00	4.34E-02	4.34E-02
Benzo(a)anthracene	1.17E-03	2.43E-04	1	3.98E+00	1.34E+02	1.95E+01	9.40E-03	9.40E-03
Benzo(a)pyrene	2.00E-04	8.99E-05	1	3.98E+00	1.34E+02	9.10E+00	1.62E-03	1.62E-03
Benzo(b)fluoranthene	1.17E-03	7.08E-05	1	3.98E+00	1.34E+02	1.07E+01	1.50E-03	1.50E-03
Benzo(g,h,i)perylene	7.00E-04	5.51E-05	1	3.98E+00	1.34E+02	6.41E+00	7.00E-04	7.00E-04
Benzo(k)fluoranthene	8.00E-04	7.08E-05	1	3.98E+00	1.34E+02	5.71E+00	8.00E-04	8.00E-04
Chrysene	1.60E-03	2.19E-04	1	3.98E+00	1.34E+02	3.69E+00	1.60E-03	1.60E-03
Fluoranthene	2.06E-01	1.77E-03	1	3.98E+00	1.34E+02	5.87E+01	2.06E-01	2.06E-01
Fluorene	1.46E+00	1.13E-02	1	3.98E+00	1.34E+02	8.87E+01	1.98E+00	1.98E+00
Naphthalene	2.00E-02	7.24E-02	1	3.98E+00	1.34E+02	3.71E+01	6.74E-01	2.68E+00
Phenanthrene	1.00E+00	6.17E-03	1	3.98E+00	1.34E+02	8.19E+01	1.00E+00	1.00E+00
Pyrene	1.35E-01	1.28E-03	1	3.98E+00	1.34E+02	5.33E+01	1.35E-01	1.35E-01
METALS								
Arsenic	5.00E-02	7.87E-03	1	3.98E+00	1.34E+02	8.52E+02	1.69E+00	6.71E+00
Barium	2.00E+00	1.23E-02	1	3.98E+00	1.34E+02	2.18E+04	6.74E+01	2.68E+02
Cadmium	5.00E-03	6.73E-03	1	3.98E+00	1.34E+02	9.97E+01	1.69E-01	6.71E-01
Chromium VI	1.00E-01	2.65E-02	1	3.98E+00	1.34E+02	5.06E+02	3.37E+00	1.34E+01
Lead	1.50E-02	4.14E-03	1	3.98E+00	1.34E+02	4.86E+02	5.06E-01	2.01E+00
Zinc	2.00E+00	8.14E-03	1	3.98E+00	1.34E+02	3.30E+04	6.74E+01	2.68E+02

*: Calculated concentrations exceeded saturated soil concentration and hence saturated soil concentrations protective of groundwater.
 #: Calculated concentrations exceeded pure component water solubility and hence water solubilities are listed as allowable groundwater concentrations at the POE and/or POC.
 Soil concentrations are presented on a dry weight basis.
 NA: Not available

M05



GROUNDWATER RESOURCE PROTECTION

Parameter	Symbol	Unit	Tier 1 Values	Values Used	Source
SITE PARAMETERS:					
Distance from the Downgradient Edge of the Groundwater Source to the Point of Exposure (Xpoe)	Xpoe	ft	variable	550	Site-specific
Longitudinal Dispersivity	α_x	ft	variable	55.000	Calculated
Transverse Dispersivity	α_y	ft	variable	18.333	Calculated
Vertical Dispersivity	α_z	ft	variable	2.750	Calculated
Distance from the Downgradient Edge of the Groundwater Source to the Point of Compliance (Xpoc)	Xpoc	ft	variable	104	Site-specific
Longitudinal Dispersivity	α_x	ft	variable	10.400	Calculated
Transverse Dispersivity	α_y	ft	variable	3.467	Calculated
Vertical Dispersivity	α_z	ft	variable	0.520	Calculated

Note: The input values in red are calculated and cannot be changed.

MW

8

GROUNDWATER RESOURCE PROTECTION - WITHOUT BIODEGRADATION

61-4
MW6
MW1-4

CHEMICALS OF CONCERN	Target Groundwater Conc. at POE [mg/L]	Dry Leaching Factor to Groundwater (L _{rw})	User Specified Unsaturated Zone DAF [-]	Saturated Zone DAF		Allowable Soil Conc. Protective of GW at the POE [mg/kg]	Allowable GW Conc.	
				for POC	for POE		at a POC Protective of a POE [mg/L]	at the Source Protective of a POE [mg/L]
ORGANICS								
Benzene	5.00E-03	1.08E+00	1	1.04	1.34E+02	6.19E-01	1.26E-01	6.71E-01
Toluene	1.00E+00	5.45E-01	1	550	1.34E+02	2.46E+02	2.52E+01	1.34E+02
Ethylbenzene	7.00E-01	3.87E-01	1		1.34E+02	2.21E+02	1.76E+01	9.39E+01
Xylenes (mixed)	1.00E+01	3.24E-01	1		1.34E+02	2.79E+02	1.75E+02	1.75E+02
Methyl-tert-butyl-ether (MTBE)*	2.00E-02	3.44E+00	1		1.34E+02	7.81E-01	5.04E-01	2.68E+00
Anthracene	4.34E-02	3.70E-03	1		1.34E+02	5.92E+00	4.34E-02	4.34E-02
Benzo(a)anthracene	1.17E-03	2.43E-04	1		1.34E+02	1.95E+01	9.40E-03	9.40E-03
Benzo(a)pyrene	2.00E-04	8.99E-05	1		1.34E+02	9.10E+00	1.62E-03	1.62E-03
Benzo(b)fluoranthene	1.17E-03	7.08E-05	1		1.34E+02	1.07E+01	1.50E-03	1.50E-03
Benzo(g,h,i)perylene	7.00E-04	5.51E-05	1		1.34E+02	6.41E+00	7.00E-04	7.00E-04
Benzo(k)fluoranthene	8.00E-04	7.08E-05	1		1.34E+02	5.71E+00	8.00E-04	8.00E-04
Chrysene	1.60E-03	2.19E-04	1		1.34E+02	3.69E+00	1.60E-03	1.60E-03
Fluoranthene	2.06E-01	1.77E-03	1		1.34E+02	5.87E+01	2.06E-01	2.06E-01
Fluorene	1.46E+00	1.13E-02	1		1.34E+02	8.87E+01	1.98E+00	1.98E+00
Naphthalene	2.00E-02	7.24E-02	1		1.34E+02	3.71E+01	5.04E-01	2.68E+00
Phenanthrene	1.00E+00	6.17E-03	1		1.34E+02	8.19E+01	1.00E+00	1.00E+00
Pyrene	1.35E-01	1.28E-03	1		1.34E+02	5.33E+01	1.35E-01	1.35E-01
METALS								
Arsenic	5.00E-02	7.87E-03	1		1.34E+02	8.52E+02	1.26E+00	6.71E+00
Barium	2.00E+00	1.23E-02	1		1.34E+02	2.18E+04	5.04E+01	2.68E+02
Cadmium	5.00E-03	6.73E-03	1		1.34E+02	9.97E+01	1.26E-01	6.71E-01
Chromium VI	1.00E-01	2.65E-02	1		1.34E+02	5.06E+02	2.52E+00	1.34E+01
Lead	1.50E-02	4.14E-03	1		1.34E+02	4.86E+02	3.78E-01	2.01E+00
Zinc	2.00E+00	8.14E-03	1		1.34E+02	3.30E+04	5.04E+01	2.68E+02

*: Calculated concentrations exceeded saturated soil concentration and hence saturated soil concentrations are listed soil concentrations protective of groundwater.

#: Calculated concentrations exceeded pure component water solubility and hence water solubilities are listed as allowable groundwater concentrations at the POE and/or POC.

Soil concentrations are presented on a dry weight basis.

NA: Not available

MW6

9

GROUNDWATER RESOURCE PROTECTION

Parameter	Symbol	Unit	Tier 1 Values	Values Used	Source
SITE PARAMETERS:					
Distance from the Downgradient Edge of the Groundwater Source to the Point of Exposure (Xpoe)	Xpoe	ft	variable	550	Site-specific
Longitudinal Dispersivity	α_x	ft	variable	55.000	Calculated
Transverse Dispersivity	α_y	ft	variable	18.333	Calculated
Vertical Dispersivity	α_z	ft	variable	2.750	Calculated
Distance from the Downgradient Edge of the Groundwater Source to the Point of Compliance (Xpoc)	Xpoc	ft	variable	48	Site-specific
Longitudinal Dispersivity	α_x	ft	variable	4.800	Calculated
Transverse Dispersivity	α_y	ft	variable	1.600	Calculated
Vertical Dispersivity	α_z	ft	variable	0.240	Calculated

Note: The input values in red are calculated and cannot be changed.

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GROUNDWATER RESOURCE PROTECTION - WITHOUT BIODEGRADATION

BI-Y
MW1-Y

CHEMICALS OF CONCERN	Target Groundwater Conc. at POE [mg/L]	Dry Leaching Factor to Groundwater (LF _{SW})	User Specified Unsaturated Zone DAF	Saturated Zone DAF		Allowable Soil Conc. Protective of GW at the POE [mg/kg]	Allowable GW Conc. at a POC Protective of a POE [mg/L]	Allowable GW Conc. at the Source Protective of a POE [mg/L]
				for POC	for POE			
ORGANICS								
Benzene	5.00E-03	1.08E+00	1	1.63E+00	1.34E+02	6.19E-01	4.12E-01	6.71E-01
Toluene	1.00E+00	5.45E-01	1	1.63E+00	1.34E+02	2.46E+02	8.24E+01	1.34E+02
Ethylbenzene	7.00E-01	3.87E-01	1	1.63E+00	1.34E+02	2.21E+02	5.77E+01	9.39E+01
Xylenes (mixed)	1.00E+01	3.24E-01	1	1.63E+00	1.34E+02	2.73E+02	1.75E+02	1.75E+02
Methyl-tert-butyl-ether (MTBE)*	2.00E-02	3.44E+00	1	1.63E+00	1.34E+02	7.81E-01	1.65E+00	2.68E+00
Anthracene	4.34E-02	3.70E-03	1	1.63E+00	1.34E+02	5.92E+00	4.34E-02	4.34E-02
Benzo(a)anthracene	1.17E-03	2.43E-04	1	1.63E+00	1.34E+02	1.95E+01	9.40E-03	9.40E-03
Benzo(a)pyrene	2.00E-04	8.99E-05	1	1.63E+00	1.34E+02	9.10E+00	1.62E-03	1.62E-03
Benzo(b)fluoranthene	1.17E-03	7.08E-05	1	1.63E+00	1.34E+02	1.07E+01	1.50E-03	1.50E-03
Benzo(g,h,i)perylene	7.00E-04	5.51E-05	1	1.63E+00	1.34E+02	6.41E+00	7.00E-04	7.00E-04
Benzo(k)fluoranthene	8.00E-04	7.08E-05	1	1.63E+00	1.34E+02	5.71E+00	8.00E-04	8.00E-04
Chrysene	1.60E-03	2.19E-04	1	1.63E+00	1.34E+02	3.69E+00	1.60E-03	1.60E-03
Fluoranthene	2.06E-01	1.77E-03	1	1.63E+00	1.34E+02	5.87E+01	2.06E-01	2.06E-01
Fluorene	1.46E+00	1.13E-02	1	1.63E+00	1.34E+02	8.87E+01	1.98E+00	1.98E+00
Naphthalene	2.00E-02	7.24E-02	1	1.63E+00	1.34E+02	3.71E+01	1.65E+00	2.68E+00
Phenanthrene	1.00E+00	6.17E-03	1	1.63E+00	1.34E+02	8.19E+01	1.00E+00	1.00E+00
Pyrene	1.35E-01	1.28E-03	1	1.63E+00	1.34E+02	5.33E+01	1.35E-01	1.35E-01
METALS								
Arsenic	5.00E-02	7.87E-03	1	1.63E+00	1.34E+02	8.52E+02	4.12E+00	6.71E+00
Barium	2.00E+00	1.23E-02	1	1.63E+00	1.34E+02	2.18E+04	1.65E+02	2.68E+02
Cadmium	5.00E-03	6.73E-03	1	1.63E+00	1.34E+02	9.97E+01	4.12E-01	6.71E-01
Chromium VI	1.00E-01	2.65E-02	1	1.63E+00	1.34E+02	5.06E+02	8.24E+00	1.34E+01
Lead	1.50E-02	4.14E-03	1	1.63E+00	1.34E+02	4.86E+02	1.24E+00	2.01E+00
Zinc	2.00E+00	8.14E-03	1	1.63E+00	1.34E+02	3.30E+04	1.65E+02	2.68E+02

*: Calculated concentrations exceeded saturated soil concentration and hence saturated soil concentrations protective of groundwater.
 #: Calculated concentrations exceeded pure component water solubility and hence water solubilities are listed as allowable groundwater concentrations at the POE and/or POC.
 NA: Not available

MW7

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QUALITY ASSURANCE / QUALITY CONTROL PLAN

APPENDIX D

QA/QC MONITORING/SAMPLING PLAN

FIELD ACTIVITIES

Air Sampling

Air samples are collected utilizing an air sampling pump system or Summa canister. The pump is primed, prior to collection of each sample, to displace any trapped air or gases with the targeted air make-up. The air is drawn in and exits through polyethylene tubing. The sample is collected directly into and stored in a Tedlar air/gas sampling bag or Summa canister. The sample bag or canister is provided to CDG by the analytical laboratory. The air sampling pump system is also used to extract air/gases from a vacuum and drive them into a field-screening instrument. The air sample collection and screening protocols are described below.

Air Screening

Air screening is conducted to provide a field indication of the levels of hydrocarbon gases in vapor phase. The air/gases are screened with an organic vapor analyzer, equipped with a methane filter (as applicable). The field instrument is field calibrated to a gas standard of known concentration. Field air/gas samples are screened at ambient conditions and the data recorded. The field screening test form contains the following information:

- Project name (client and location);
- Data table number;
- Personnel collecting samples;
- Field screening instrument used and I.D. number;
- Calibration information;
- Description of field screening method;
- Sample identification information; and
- Screening data, including time collected/screened, ambient temperature/results.

Air Sampling Protocols

Air samples designated for laboratory analysis are collected in Tedlar bags or a Summa canister. The sample bags or canister are provided to CDG directly by the analytical laboratory. If Tedlar bags are used, two Tedlar bags are filled for each sample, in the event the bags are damaged during shipment. Upon collection, each sample bag is immediately placed in a cooler or other secure shipping container, following laboratory instructions and appropriate chain of custody documentation. The samples are sent direct to the laboratory via overnight carrier or are picked up from the CDG office by a representative of the laboratory.

Groundwater Monitoring/Sampling Activity Protocols

Groundwater monitoring/sampling includes the following associated activities:

- 1) Measurement for the presence of free product;
- 2) Measurement of static water level;
- 3) Calculation of standing water volume (in well);
- 4) Sample collection; and
- 5) Equipment decontamination.

Groundwater sampling parameters are recorded in the field on a monitor well sampling record form. The details for each of the above referenced monitoring/sampling activities are described in the following sections.

Free Product Detection and Measurement

The presence of free product is measured prior to free product recovery and purging/sampling the selected monitor well. Free product is detected/measured using a hydrocarbon/water interface probe. The probe is lowered slowly into the well until an instrument tone is heard (a constant tone indicates that free product is present, and an intermittent tone indicates that water is present). The point at which a constant tone is first heard is considered the top of free product. The measurement from the top of the PVC well casing to the top of free product is recorded. The measurement is checked at least twice. The probe is then slowly lowered further into the well until an intermittent tone is heard (indicating that the probe has passed through the free product layer into the underlying groundwater interval). Once the intermittent tone is encountered, the probe is slowly raised until the constant tone is again indicated. This point is considered the interface between the floating free product layer and the groundwater table. The measurement from the top of the PVC casing to the interface is recorded. This measurement is also checked at least twice.

The free product thickness is determined by calculating the difference between the measurement to the top of free product and the measurement to the free product/water interface (the interface probe measures free product and water levels to an accuracy of 0.01 feet). If free product is identified by the interface probe, a clear bailer is lowered into the well to collect a sample for visual confirmation of the free product. Remarks regarding visual characteristics of the free product are recorded (black, clear, colored, etc.).

Calculation of Standing Water Volume

The standing water volume in a monitor well is calculated using the equation:

$v = 3.14 \times r^2 \times l$ (where v = well volume, r = well radius, and l = length of the column of water in the well).

The column of water in the well can be calculated using the equation:

$I = w - d$ (where w = distance from the top of casing to the bottom of the well and d = distance from the top of casing to the top of the water).

Well Evacuation

Well evacuation is initiated after the static water level is measured and the standing water volume has been calculated. Well evacuation is conducted by either using a new disposable (single-use) bailer, a well-dedicated PVC bailer, or a surface mounted pneumatic operated diaphragm pump (a diaphragm pump is only used in deep wells (greater than 25 feet) or in wells that yield such large volumes that hand-bailing is not practical).

Well evacuation with a bailer is performed by attaching a new nylon line to the bailer, and then lowering the bailer in to the well until the bailer is submerged. The bailer is then retrieved from the well in such a manner that the bailer and nylon line do not contact the ground or surrounding vegetation (to prevent contaminating the bailer or line). The water removed from the well is poured into a graduated bucket so that the amount of water removed can be determined. This procedure is repeated until three well volumes of water are removed, or until the well is purged dry. For wells that recharge very slowly, the purge water is limited to one well volume. The volume of groundwater purged from each well will be recorded.

Well evacuation with a diaphragm pump is conducted by lowering disposable tubing (hose) into the well, to sufficient depth. For deeper wells, a PVC pipe, equipped with a foot valve (to stage-lift the water out of the well) will be employed. The piping will be well-dedicated to prevent cross-contamination. Pumping will be performed until at least three well volumes are recovered (purge volume will be recorded).

Petroleum contaminated water (PCW) purged from wells in conjunction with groundwater monitoring/sampling activities will be containerized on-site in labeled 55-gallon drums. PCW will be removed periodically from the site to an appropriate disposal/treatment/recycling facility approved by the ADEM. Records will be maintained as to the volume of PCW accumulated at the site, and identification labels will be affixed to PCW containers. Prior to disposal, samples will be collected and analyzed as required by the ADEM and the disposal/treatment/recycling facility. No waste will be removed from the site without ADEM knowledge/approval.

Groundwater Sample Collection

Groundwater samples are collected from monitor wells not containing free product, unless otherwise directed by the ADEM. Groundwater sampling is performed using a new disposable bailer for each sampled well. The disposable bailers are purchased in individually wrapped packages and are not opened until ready to use. Once opened, the bailers are attached to a length of new nylon string. The bailer and string are not allowed to touch the ground or vegetation and are disposed of after each well.

Sampling is accomplished by slowly lowering the bailer into the well to a depth where the bailer is almost completely submerged. The bailer is then slowly retrieved from the well to minimize agitation of the sample. Once collected, the water sample is immediately transferred (poured slowly to minimize agitation and formation of air bubbles) into the designated sample containers.

Groundwater samples collected for BTEX/MTBE and naphthalene analysis (volatile organics) are transferred very slowly down the inside of the sample vial to avoid aeration. The sample vials, consisting of 40 ml glass with a Teflon septum cap, are shipped to CDG directly from the analytical laboratory. The groundwater sample is added to the vial until a convex meniscus is formed across the top of the vial. The Teflon septum cap is placed on the vial and the vial is upended to check for trapped air bubbles. If bubbles are present, the sample container is opened, and topped off again until an air-free sample is obtained. If the vial cannot be closed "air-free" after three tries, it is discarded. Two samples are collected for each BTEX/MTBE (volatile) analysis. The preservation employed for BTEX/MTBE (volatile) analysis will include either of the following (depending on holding time constraints):

- Cool collected sample to 4°C and maintain (7 day holding time), or
- Add 4 drops concentrated HCl to sample vial (typically the acid is pre-added by the laboratory to the sample vial) and then cool sample to 4°C and maintain (14 day holding time).

Immediately following collection of each groundwater sample, the sample is labeled, placed in bubble pack (to prevent the glass vial from breaking during shipping), and stored in a well-iced ice chest. Each sample label includes the site location, sample identification number, name of collector, date/time of collection, and parameter(s) requested.

Following collection of all samples, the iced chest will be sealed and transported to the laboratory following appropriate chain of custody protocols (refer to description of Chain of Custody protocols provided below).

Decontamination of Groundwater Sampling Equipment

All equipment used for groundwater sampling is either well-dedicated or is used only once and disposed of. As a result, cleaning/decontamination of sampling equipment is minimal.

QA/QC PROCEDURES DISCUSSION

Chain of Custody

Sample custody begins with the subcontracted laboratory when sample kits are prepared and shipped for CDG use at a specified project location. Responsibility for

sample container materials and preparation lies with the subcontracted laboratory. Sample containers and kits are normally shipped to CDG by common carrier or are dropped off by a laboratory representative. Upon receipt of the kits, CDG personnel complete an inventory of the contents to confirm that the containers, etc. are adequate for the number of wells and specified analytes. Sample bottles may be pre-labeled and contain the proper preservative. The individual sample vials and/or other sample containers are not opened until used in the field. CDG will secure the sample kits inside the office until the specific sampling project is to be performed.

The samples remain in the custody of the CDG representative until delivered to the subcontract laboratory or dispatched via common carrier for shipment to the laboratory. In cases where samples leave the direct control of CDG personnel, such as shipment to a laboratory by a common carrier (FedEx, UPS, etc.), a seal will be provided on the shipping container or individual sample bottles to ensure that the samples have not been opened or otherwise disturbed during transportation.

To establish and maintain the documentation necessary to trace sample possession from the time of collection, a chain of custody record will be completed and will accompany every sample. The record contains the following types of information:

- Sample number
- Signature of collector
- Date and time of collection
- Sample type (soil, groundwater, air, etc.)
- Identification of well
- Number of containers
- Parameters requested for analysis
- Required detection limit
- Signature of person(s) involved in the chain of possession.

Field QA/QC Program

Various types of field blanks are collected to verify that the sample collection and handling process has not affected the quality or integrity of the samples.

- 1) Trip Blanks – A trip blank is a field blank that is transported from the laboratory to the sampling site, handled in the same manner as other samples, and then returned to the laboratory for analysis in determining QA/QC of sample handling procedures. The trip blank is prepared in the laboratory with distilled/organic free water and is utilized at a frequency of 1 trip blank for each cooler (or other shipping container) used to transport samples from the laboratory to the field and back to the laboratory.

- 2) Duplicate Sample – Duplicate samples are collected simultaneously from the same source, under identical conditions, into separate sample containers. These samples provide a check on the sampling techniques as well as laboratory equipment. Duplicate samples are only collected on groundwater samples at a frequency of one sample per sampling event.

The results of the analysis of the blanks will not be used to correct the groundwater data. If contaminants are found in the blanks, an attempt to identify the source of contamination will be initiated and corrective action, including re-sampling if necessary, will be evaluated.

After completing a sampling program, the field data package (field logs, calibration records, chain of custody forms, etc.) will be reviewed for completeness and accuracy. Some of the items considered in the Field Data Package Validation Procedure include but are not limited to the following:

- A completeness review of field data contained on water and soil sampling logs;
- A verification that sampler blanks were properly prepared, identified, and analyzed;
- A check on field analyses for equipment calibration and condition; and
- A review of chain of custody forms for proper completion, signatures of field personnel and the laboratory sample custodian, and dates.

Laboratory QA/QC Program

The selection of a contract laboratory can be directed either by the client or by CDG. In either case, the selection is typically based upon several facts, including cost; laboratory certification; quality data and reporting; and turn around time. The most critical factor in the selection of an analytical laboratory by CDG is the quality of data and reporting provided by the laboratory. Typically, the results of analytical laboratory testing dictate the activities conducted at a site. The activities conducted when selecting a laboratory include discussions with current and past customers, discussions with regulators, and review of laboratory QA/QC practices.

The normal turn around for samples will be two weeks for most samples. Prior to contracting a laboratory to conduct analysis, an estimate of the turn around time is obtained. If the expected turn around is in excess of three weeks, then a backup laboratory is contacted to determine their availability. A decision of which laboratory to use in a particular instance is made on a case-by-case basis.

Once an analytical report is received by CDG, validation of the analytical data package will be performed. The Analytical Data Package Validation procedure will include but is not limited to the following:

- A comparison of the Data Package to the reporting level requirements designed for the project, to ensure completeness;
- A comparison of sampling dates, sample extraction dates, and analysis dates to determine if samples were extracted and/or analyzed within the proper holding times' as failure in this area may render the data unusable;
- A review of analytical methods and required detection limits to verify that they agree with set standards; as failure in this area may render the data unusable;
- A review of sample blanks to evaluate possible sources of contamination. The preparation techniques and frequencies, and the analytical results (if appropriate) will be considered; and
- A review of blanks (trip blanks, reagent blanks, method blanks, and extraction blanks) to assure that they are contamination free at the lowest possible detection limit. All blank contaminants must be explained or the data applicable to those blanks will be labeled suspect and may only be sufficient for qualitative purposes.
- A review of detection limits, to ensure sample results are accurate to below the levels specified as ADEM Initial Screening Levels.
- A review of data "qualifiers" reported by the laboratory for significance to the results.



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SITE HEALTH AND SAFETY PLAN

APPENDIX E

Site Health and Safety Plan

**Midway Mart
3700 Pepperell Parkway
Opelika, Lee County, Alabama
Facility ID No. 14327-081-006296
UST No. 07-11-06**

***Prepared For:*
Saxon Oil Company
P.O. Box 2467
Opelika, Alabama 36803**

***Prepared By:*
CDG Engineers & Associates, Inc.
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1.0 Introduction

This Health and Safety Plan (HASP) has been prepared specifically for corrective action activities to be conducted by CDG Engineers & Associates, Inc. (CDG) for the Midway Mart facility located in Opelika, Lee County, Alabama. These activities include all fieldwork necessary to conduct soil and groundwater remediation of petroleum hydrocarbons at the site.

2.0 Purpose

This HASP describes the preventative measures, person protection, and safety procedures to be followed by CDG personnel and subcontractors during all field activities. The HASP has been prepared in accordance with and meets the requirements of the Occupation Safety and Health Administration (OSHA) General Safety Standards for industry under 29 CFR 1910 and construction under 29 CFR 1926, the joint NIOSH/OSHA/USCG/EPA, *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*, dated October 1985, and NFPA Safety Guidelines. Should any unexpected conditions arise, the HASP will be amended to accommodate site specific conditions.

3.0 Key Personnel and Responsibilities

All CDG personnel have received an initial 40-hour HAZWOPER certification, which is updated annually through an 8-hour refresher course. This training course meets the requirements of the OSHA 29 CFR 1910.120 standards. CDG personnel assigned to the project include:

NAME	TITLE	RESPONSIBILITIES
David Dailey or Alan Barck	Professional Engineer/ Corporate HSO	Overall management of entire project from beginning to completion. Responsible for preparation and implementation of the HASP and reporting of all hazard incidents to appropriate enforcement agencies. Coordinates and oversees all field activities.
April Harrelson	Project Manager / Site HSO	Performs all field activities and is responsible for recognizing site hazards and reporting hazard incidents to Corporate HSO.

4.0 Scope of Work

Work to be performed will include installation and excavation activities.

4.1 Installation Activities

Installation activities generally involve preparing the site for installation activities and also the construction of the MPVE unit onsite. More specifically this will include:

- Preparing the site for work to be performed
- Saw-cutting concrete surface, excavating, and installing well vaults
- Installing polyvinyl chloride (PVC) extraction piping and subsurface utility lines
- Installing piping connections from extraction piping to wellhead
- Overseeing placing and leveling of remediation system
- Completing all piping connections from extraction and utility lines to remediation unit
- Completing all electrical connections
- Installing concrete block security fence
- Inspecting rotation on all electric motors
- Inspecting PVC piping, extraction lines, treatment system, and associated connections for leaks at start up

4.2 Operation and Maintenance Activities

Subsequent to the construction and installation of the MPVE unit, the unit must periodically undergo inspections or maintenance. CDG field personnel will inspect the unit on a weekly basis, taking certain instrument readings necessary to determine the progress of the remediation being performed at that particular site. Maintenance of the unit is performed on an as needed basis. The following applies to operation and maintenance activities associated with the MPVE unit:

- Inspecting proper working condition of telemetry system
- Lubricating motors
- Inspecting piping for leaks
- Inspecting belts on Liquid Ring Vacuum Pump (LRVP) system
- Periodic cleaning of equipment and components
- Periodic inspections of electrical connections
- Measuring induced vacuum in on site monitoring wells
- Removing silt and sludge buildup from knockout pot air stripper, filtration system and other system components
- Measuring air flow from MPVE unit

- Measuring liquid levels in wells
- Sampling effluent for discharge parameters
- Measuring volume of liquids removed and discharged

5.0 Chemical Hazards

When conducting the aforementioned corrective action activities, the primary chemicals of concern are gasoline.

5.1 Gasoline and Diesel

Gasoline and diesel are substances to be potentially encountered in the soil and groundwater at the site. Gasoline components include benzene, toluene, ethylbenzene, and xylenes (BTEX). Diesel components may include anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, fluorene, naphthalene, phenanthrene, and pyrene.

5.2 Hazard Identification

During the corrective action activities, many hazards or potential hazards may be encountered when dealing with gasoline or diesel. This section serves as a guideline in recognizing hazards associated with these chemicals that exist or may potentially arise during field activities. Recognition is the first step in eliminating exposure to these hazards.

Occasionally methyl-tertiary butyl ether (MTBE) is encountered. MTBE has been used since 1979 as an oxygenate to gasoline in order to decrease carbon monoxide production in cars, particularly older model cars; however, MTBE has been determined to be a potential carcinogen. MTBE has low taste and odor thresholds, which can make a water supply non-potable even at low concentrations.

Exposure to MTBE will only be seen through exposure to gasoline containing MTBE and the effects of gasoline containing MTBE are relatively similar to gasoline not containing MTBE. The following are hazards associated with exposure to gasoline:

- Contact may irritate or burn the skin and eyes and absorption through the skin may be poisonous
- Vapors may be poisonous if inhaled and are irritating to the respiratory tract
- Vapors are an explosion hazard and may travel to a source of ignition and produce flashback
- A gasoline fire may produce irritating and poisonous gases
- Gasoline and diesel are flammable/combustible materials that may be ignited by heat, sparks, or flames, and a gasoline container may explode when exposed to heat or fire

The primary hazard associated with exposure to gasoline is the inhalation of vapors. The Material Safety Data Sheets (MSDS's) are presented in Attachment A.

5.3 Hazard Prevention

Preventing exposure to chemical hazards generally requires the use of personal protective equipment (PPE). Level D equipment will provide the protection necessary to prevent exposure to these hazards. Level D equipment is discussed further in Section 10.1, Personal Protective Equipment.

5.4 Symptoms and First Aid Procedures

Many of the constituents found in gasoline and diesel act as central nervous system (CNS) depressants. The following table includes first aid measures for CNS depressants, which affect a person through inhalation (breathing), dermal (skin), or ingestion (mouth) exposure. In addition, the eye can be very sensitive to exposure to chemicals and is therefore included in the following table:

ROUTES OF EXPOSURE	SYMPTOMS	TREATMENT
Inhalation	Dizziness, nausea, lack of coordination, headache, irregular and rapid breathing, weakness, loss of consciousness, coma	Bring victim to fresh air. Rinse eyes or throat with plenty of water, if irritated. If symptoms are severe (victim vomits, is very dizzy or groggy, etc.), evacuate to hospital. Be prepared to administer CPR if certified. Monitor victim for at least 48 hours.
Dermal	Irritation, rash, or burning	Flush affected area with water for at least 15 minutes. Apply clean dressing and get medical attention.
Ingestion	Dizziness, nausea with stomach, cramps, loss of consciousness, coma	Evacuate victim to hospital. Do not induce vomiting.
Eye	Redness, irritation, pain, impaired vision	Flush with an abundant amount of water for at least 15 minutes. If severe, seek medical attention immediately.

6.0 Equipment/Operational Hazards

The following sections will address the hazards, preventative measures, and first aid procedures associated with the drill rig, backhoes, and other heavy equipment. The drill rig used during these field activities generally requires the use of augers for probing. These augers are designed to rotate in a circular motion while being forced downward through the soil. Field personnel are required to assemble and disassemble these parts. Contact with these rotating parts is one recognized hazard. In addition, the machinery also contains parts that become increasingly heated during operation.

6.1 Hazard Identification

There are several hazards associated with use of any type of drill rig and heavy machinery while performing corrective action activities. Generally during these field operations, the general public may become fascinated with the operation and approach the work area. All unauthorized personnel are required to remain 100 feet away from the work area. The site HSO officer will be responsible for keeping all unauthorized personnel away from the work area. The hazards associated with the use of a drill rig or other heavy machinery is as follows:

- Gasoline vapors from nearby dispensers can potentially enter the diesel-operated engine thereby causing fire/explosion hazards
- Rotating augers may catch onto gloves or clothing thereby pulling hands arms into the rotating machinery
- Drilling equipment may rupture hydraulic hoses thereby releasing hydraulic fluids
- Engine and exhaust system of an engine are extremely hot during and following operation
- Potential contact with overhead and underground utilities
- Open excavations/boreholes can be the source of trips and falls
- Digging machinery such as backhoes may puncture subsurface utilities
- Operators of heavy machinery may be unable to locate pedestrians near the operating equipment; therefore, all field personnel are to remain with eye contact of the operator at all times during operation

6.2 Hazard Prevention

Hazards associated with heavy machinery can easily be avoided with additional planning. The key to avoiding these hazards includes being familiar with the equipment and the process. In addition, being familiar with and implementing the precautionary measures listed below may reduce or eliminate the risks of a hazardous situation.

- Wear hard hat when working near or around the machinery
- Wear safety glasses when performing maintenance to machinery or power tools
- Shut down the machine engine when repairing or adjusting equipment
- Prevent accidental starting of engine during maintenance procedures by removing or tagging ignition key
- Block wheels or lower leveling jacks and set hand brakes to prevent equipment from moving during drilling procedures
- When possible, release all pressure on hydraulic systems, drilling fluid systems, , and air pressure systems of heavy machinery prior to performing maintenance
- Know the location of the emergency shut-off switch for all equipment
- Avoid contact with engine or exhaust system of engine following its operation
- Avoid using gasoline or other volatile/flammable liquids as a cleaning agent on or around heavy machinery
- Replace all caps, filler plugs, protective guards or panels, and high-pressure hose clamps, chains or cables moved during maintenance prior to excavation

- Avoid wearing rings or jewelry during drilling or installation procedures
- Be aware of all overhead and underground utilities
- Avoid alcohol or other CNS depressants or stimulants prior to excavation
- Avoid contact with equipment parts during freezing weather. Freezing of moist skin to metal can occur almost instantaneously
- Shut all field operations during an electrical storm
- Do not operate heavy equipment within 20 feet of overhead power lines

6.3 Symptoms and First Aid Procedure

Hazards associated with heavy equipment were identified in Section 6.1. Unlike hazards associated with temperature or chemicals, symptoms will not be apparent with these types of hazards. In addition, these hazards will occur rapidly as opposed to over a period of time. Due to the size and composition of hydraulic vehicles, exposure to these hazards will range from extremely serious to life-threatening; therefore, CDG requires that exposed field personnel seek medical attention at the nearest medical facility and the Project Manager be notified immediately. A site location map to the nearest hospital is presented in Attachment B.

7.0 Temperature Hazards

Another hazard associated with corrective action activities involves working in extreme weather conditions. Temperatures in the Southeast USA during the spring, summer, and occasionally the fall seasons can vary from mild to extremely hot. During this season, extra precautions are necessary to prevent hazards associated with elevated temperatures, which result in various forms of heat stress. In addition, the Southeast is known for its rather mild winter condition; however, on occasion, the Southeast may experience freezing conditions; therefore, precautions are also necessary to prevent hazards associated with these extreme temperatures.

7.1 Heat

As stated in OSHA's regulatory guidelines for heat exposure operations involving high air temperatures, radiant heat sources, high humidity, direct physical contact with hot objects, or strenuous physical activities have a high potential for inducing heat stress. Additional factors to consider in the determination of heat stress on an individual include age, weight, degree of physical fitness, degree of acclimatization, metabolism, use of alcohol or drugs, and a variety of medical conditions such as hypertension (high blood pressure). The following sections will identify the hazards associated with heat stress, the measures needed in order to prevent exposure to these hazards, and first aid procedures in the event exposure to these hazards should occur.

7.1.1 Hazard Identification

Heat stress is a major hazard, especially for workers wearing protective clothing. Depending on the ambient conditions and the work being performed, heat stress can occur very rapidly- within as little as 15 minutes. The key to preventing excessive heat stress is educating personnel on the hazards associated with working in heat and the benefits of implementing proper controls and work practices. The hazards associated with heat stress range from heat fatigue (mild discomfort) to heat stroke (extreme danger, which may result in death, and are discussed in the following sections.

7.1.1.1 Heat Fatigue

Heat fatigue occurs due to a lack of acclimatization (adjusting one's tolerance to work in elevated temperatures). Acclimatization is a gradual process. This process should include all field personnel being permitted to work in elevated temperatures in specified increments. On a daily basis, the maximum allowable work period should gradually be increased until the worker is able to perform his/her duties more proficiently under these conditions. The use of an acclimatization program is recommended in the regulatory guidelines established by OSHA.

7.1.1.2 Heat Rash

Heat rash (prickly heat) is the most common heat stress factor and may result from continuous exposure to heat or humid air where the skin remains wet due to lack of evaporation. Under these conditions, sweat ducts become plugged, and a skin rash appears, generally in areas where clothing is restrictive. This uncomfortable rash can be prevented by resting in a cool place during breaks and by implementing good daily personal hygiene.

7.1.1.3 Heat Collapse

Heat collapse is commonly referred to as "fainting." Fainting generally occurs when the brain does not receive enough oxygen. As a result of this condition, the exposed individual may lose consciousness. Heat collapse is rapid and unpredictable; therefore, acclimatization is an important factor in preventing this condition.

7.1.1.4 Heat Cramps

Heat cramps are muscular spasms, which usually occur in the abdomen or limbs due to loss of electrolytes following profuse sweating. Cramps are caused by either too much or too little salt intake. During the sweating process, salt exits the body; therefore, without the proper replenishment, the body experiences an electrolyte imbalance thereby inducing heat cramps. Thirst cannot be relied upon as a guide to the need for water. When working in hot environments, water must be replenished every 15 to 20 minutes.

7.1.1.5 Heat Exhaustion

Heat exhaustion is a result of overexertion in hot or warm weather. It is highly possible for an onsite worker to experience heat exhaustion due to the use of worker-protective coveralls, boots, gloves, and respirator protection, even when ambient temperatures are mild. Fainting may also occur with heat exhaustion. This can become an extreme hazard if operating heavy machinery.

Caution: Individuals with heart problems or on a “low sodium” diet who work in these environments should consult a physician and Corporate HSO prior to working in these conditions.

7.1.1.6 Heat Stroke

Heat stroke is the most severe form of heat stress. The body’s temperature control system is maintained through sweat production. Perspiration is a cooling process for the body and keeps the body core temperature within a stable range. During heat stroke, sweat production is inhibited and the body temperature begins to rapidly rise. Brain damage and death may occur if body core temperature is extremely elevated and is not reduced.

7.1.2 Hazard Prevention

Hazards associated with temperature extremes can also be prevented with additional planning and preparation. The hazards associated with temperature can range from heat fatigue to heat stroke as described previously in Section 7.1.1. Measures to ensure the prevention of temperature hazards are as follows:

- Adhere to acclimatization process by exposing field personnel to progressively longer periods of time in hot environments.
- Schedule work for early morning or evening during warm weather
- Work in shifts; limit exposure time of personnel and allow frequent breaks
- Have cool liquids at an Exclusion Zone border for exposed personnel to continuously replace body fluids. As stated in the previous section, OSHA recommends that fluids, preferably water and/or a water-electrolyte solution be replenished every 15 to 20 minutes.
- Avoid caffeine and alcoholic beverages both during work hours and 24 hours prior to performing field activities

The site HSO or designee should continually monitor personnel for signs of heat stress. If any signs of heat disorders are apparent, all field personnel must immediately rest and replenish fluids until body core temperature is lowered and remains stable.

7.1.3 Symptoms and First Aid Procedures

As discussed previously in Section 7.1.1, hazards associated with heat stress range from heat fatigue to heat stroke. Taking precautionary measures to ensure that personnel are not exposed to extreme temperatures for

long periods of time can prevent these hazards. First aid measures for heat fatigue, heat rash, and heat collapse include taking frequent breaks so that the body core temperature can cool down. The following table includes first aid measures for signs of overexposure to heat.

TEMPERATURE HAZARDS	SYMPTOMS	TREATMENT
Heat Fatigue	Impaired performance of skilled sensorimotor, mental or vigilance jobs	No known treatment. Victim should be placed under cooler conditions until body core temperature lowers.
Heat Rash	Rash due to plugged sweat ducts, generally where clothing is restrictive	Keep dry towels or paper towels at the site to dry skin when excessive sweating occurs. Rash usually disappears when affected individual returns to cooler environment.
Heat Collapse	Loss of consciousness	Attempt to awaken individual. Relocate victim to a cooler area until body core temperature lowers and replenish fluids. Victim should rest for a few days.
Heat Cramps	Uncontrollable muscle spasms	Apply warm, moist heat and pressure to reduce pain. Give electrolyte drinks by mouth. Victim should intake additional potassium (Bananas are good potassium source).
Heat Exhaustion	Pale, clammy skin, profuse perspiration, weakness, headache, and nausea	Get victim into shade or cooler place. Immediately remove any protective clothing. Victim should drink plenty of fluids. Victim should lie down with feet raised. Fan and cool victim with wet compresses. If vomiting occurs, transport to hospital. Victim should rest for a few days.
Heat Stroke	Pale, dry skin due to lack of perspiration, weakness, unconsciousness	Immediately take precautions to cool body core temperature by removing clothing and sponging body with cool water, or placing in tub of cool water until temperature is lowered sufficiently (102°F). Stop cooling and observe victim for 10 minutes. Once temperature remains lowered, dry person off. Use fans or air conditioning, if available. Do not give the victim stimulants. Transfer to medical facility. Under no condition is the victim to be left unattended unless authorized by a physician.

8.0 Explosion/Electrocution Hazards

As stated previously in Section 4.1, extensive efforts are made in order to determine the location of subsurface utilities prior to corrective action activities. Efforts are made to obtain the location of underground utilities through the Line Locator Services, and utility companies are notified in advance to perform a site inspection and utility marking; however, the potential for a subsurface utility to go unnoticed exists. Therefore, the hazards associated with exposure to these utilities are identified and preventative measures and first aid procedures are discussed further in the following sections.

8.1 Explosion

Primarily when dealing with subsurface utilities, two potentially life-threatening hazards exist. The first hazard identified in association with subsurface utilities during excavation activities are discussed further in the following section.

8.1.1 Hazard Identification

The main hazard associated with puncturing a subsurface utility gas line is explosion. By releasing gas (usually natural gas, which is generally methane gas or propane gas) into the atmosphere, explosive conditions are favorable; therefore, ignition sources must be immediately eliminated in the event a gas release occurs. Due to the flammability of gasoline, ignition sources will be minimized; however, the engines are needed during field activities. Therefore, the only alternative to reducing the explosion hazard is to stop the release as soon as possible. However, when dealing with gases under pressure, the volatilization process may occur at such a rapid speed that an explosive situation is inevitable.

8.1.2 Hazard Prevention

Preventative measures are ensured prior to field activities. These measures generally encompass locating subsurface utilities. In addition, CDG will request local utility companies to perform site inspections and mark all subsurface utilities. In addition to this notification, if a particular subsurface utility is not identified and CDG suspects the utility to exist, CDG will take additional precautionary measures to ensure the suspected utility does not exist. These measures generally include locating utility meter boxes, etc. In addition, a field technician or subcontractor will generally probe the ground with a small rod in order to possibly identify the existence of subsurface utilities. This is conducted usually when machinery reaches 2-3 feet below the ground surface (ft-bgs).

8.2 Electrocutation

8.2.1 Hazard Identification

The main hazard associated with puncturing a subsurface electrical line or coming into contact with an overhead power line is electrocution. When dealing with electricity, all things are classified as either conductors or insulators. Conductors allow electricity to pass through them while insulators prevent electricity to pass through. Examples of conductors are metals, wood, and water, and examples of insulators are rubber and PVC. Humans are also classified as conductors; therefore, contact with electrical sources can be fatal.

Because the heavy machinery is metal, which has been classified as one of the best sources of electrical conduction, contact with exposed electrical lines will allow current to flow. The National Electrical Code (NEC) has determined that 20 milliamps (mA) of current can be fatal. For comparison, a common household circuit breaker may conduct 15, 20, or 30 amps of electrical current.

8.2.2 Hazard Prevention

As stated previously in Section 8.1.2, preventative measures to locate subsurface and overhead electrical lines prior to corrective action activities are required by CDG. CDG will notify local utility companies to provide a site inspection and mark any existing subsurface electrical lines. In addition, CDG will contact the local power provider to insulate overhead lines if necessary. When dealing with the electrical components of the dewatering system, the following precautionary measures may prevent exposure to electrocution:

- Avoid contact with exposed connections/wiring and other related components
- If unfamiliar with the system, do not attempt contact with any component
- Call the Project Manager if unsure of any connections associated with the operations of the system.

8.2.3 Symptoms and First Aid Procedures

As discussed previously in Section 8.2.1, the hazard associated with puncturing subsurface electrical utilities and contacting electrical components of dewatering system is electrocution. The primary route of exposure is contact. The transmission of electricity is allowed because the metal equipment serves as a conductor for electrical current. Symptoms and treatment for exposure to electrical current is presented in the following table:

Caution: NEVER attempt to dislodge or remove someone that is contacting a high voltage line Use an insulating material (PVC) to release the victim from the electrocution source.

9.0 Miscellaneous Hazards

The last hazard identified when performing corrective action activities has been classified as miscellaneous hazards due to the variety of these hazards. These hazards generally are nothing more than nuisances and with additional planning should be entirely avoidable; however, there are instances in which exposure to these hazards will occur. Therefore, these hazards are identified and preventative measures and first aid procedures are discussed in further detail in the following sections.

9.1 Hazard Identification

Occasionally, exposure to common nuisances may potentially result in a life-threatening situation. For example, a wasp or bee sting for some individuals only causes irritation or localized soreness; however, to others with little tolerance for wasp or bee venom, an allergic reaction can result which could potentially lead to death if not treated immediately. Therefore, allergic reactions to these insects have been identified as a potential hazard. In addition to the insects, contact with black widow spiders (red hourglass), brown recluse spiders (violin shape on back), and snakes are also potential hazard.

9.2 Hazard Prevention

Prevention, with regards to miscellaneous hazards, is more difficult to plan ahead. Generally, prior to conducting corrective action activities, the primary location for the activities has been established; therefore, barricades such as cones and company vehicles can be placed around the work area to prevent exposure to incoming and ongoing vehicles. However, the limitation to using cones is that they are often small and unnoticeable to drivers once inside the vehicles; therefore, the best prevention with regards to this miscellaneous hazard is to constantly be aware of your surroundings. This preventative measure can also be applied to exposure to insects, snakes, and spiders. Be aware of your surrounding when working around dark, secluded areas such as cracks and crevices, where snakes, spiders, and mice like to hide.

9.3 Symptoms and First Aid Procedures

If an employee or subcontractor shows any signs of an allergic reaction (anaphylactic shock, hives, or difficulty breathing) to a sting or bite, immediately seek medical attention at the nearest hospital. In the event that an operating vehicle strikes a person, seek medical attention immediately. In the meantime, a first aid kit and eye wash bottle will be provided by CDG and should be kept in all company vehicles. If field personnel are aware of their allergic reactions to insect bites, CDG requires that medication be kept on hand during field activities and at least one other field technician be made aware of the medication in the event of an allergic reaction should occur.

10.0 Additional Precautions

Additional precautions have been implemented in order to ensure overall safety for all field personnel. The safety protocols listed in this segment are to be considered the minimum requirements to be met by all field personnel engaging in corrective action activities.

10.1 Personal Protective Equipment

PPE is the most effective measure to prevent exposure to chemical hazards. There are four levels of PPE protection ranging from Level A to Level D equipment. Level A protection serves as the most conservative protective equipment, and Level D protection serves as the least conservative protective equipment. These levels are described further in the following table:

LEVELS OF PPE PROTECTION	PPE REQUIREMENTS
Level A	Worn when the highest level of respiratory, skin, and eye protection is necessary.
Level B	Worn when the highest level of respiratory protection is needed, but a lesser level of skin protection is necessary.
Level C	Worn when the criteria for using air-purifying respirators are met, and a lesser level of skin protection is necessary.
Level D	Refers to work conducted without respiratory protection. This level should be used only when the atmosphere contains no known or suspected airborne chemical or radiological contaminants and oxygen concentrations are between 19.5 % and 23.0%

Level D protective clothing, as indicated below, shall be considered the minimum requirements for installation and excavation operations:

- Hard hat
- Coveralls*
- Non permeable gloves
- Steel-toe, non-permeable boots
- Hearing protection*
- Safety goggles (chemical)*

*These items are mandatory on an “as needed” basis. Generally, normal site conditions do not warrant the use of this equipment; however, under certain conditions where large amounts of free product are encountered, the issue of coveralls and safety goggles may be warranted. Safety goggles and hearing protection are mandatory when near the drill rig to reduce stress on the ear and also prevent objects from the soil or drill rig from lodging in the eye.

Equipment may be upgraded to Level C depending on the site conditions and/or monitoring results. Level C protection, in addition to Level D protection, includes the following:

- Rubber/chemical resistant outer gloves
- Face-shield if splash hazards exist
- Outer disposable booties
- Half-mask respirator

10.2 Signs, Signals, and Barricades

As stated previously in Section 9.1, corrective action activities are generally conducted at retail gasoline facilities and convenience stores, and are therefore, high traffic areas. All CDG field personnel must be aware of his/her surroundings at all times. In addition, the items listed below will be provided to secure the area in order to protect all field personnel as well as the general public.

- Utilize barricades to protect workers, pedestrians and vehicles from work activities
- Post area for “NO SMOKING”
- Utilize cones to protect workers from incoming and ongoing vehicles

10.3 Fire Protection and Prevention

As stated previously in Section 5.1, gasoline is a highly flammable substance. CDG requires that the work area be posted with “NO SMOKING” signs in an attempt to prevent fires from occurring; however, as a secondary precaution CDG plans to implement the following:

- Maintain a 20 lb. ABC Dry Chemical fire extinguisher on site at all times
- Eliminate ALL ignition sources in the vicinity of any releases
- The contractor will clean up all small spills using absorbent materials or by pumping

10.4 Storage and Decontamination

During the corrective action activities, impacted soils will be encountered. Groundwater will be treated and pumped to an NPDES outfall. Contaminated soil will be temporarily stored until transported for disposal. Decontamination procedures will be implemented should chemical exposure occur. The procedures are detailed below:

- Avoid contact with liquid gasoline or diesel
- Place contaminated soil on visqueen and cover once removed from the excavation
- Change any product contaminated soil immediately
- Wash any contaminated skin surfaces immediately with soap and water

Caution: All personnel are required to wash hands at the completion of work, before and after restroom use and before eating in order to prevent dermal contact with or ingestion of contaminants encountered during field activities.

11.0 Emergency Contingency Plan

If an incident occurs that requires declaring an emergency, all personnel will assemble at a designated emergency meeting location for further instruction. Arrangement for decontamination, evacuation and/or transport will be made at that time. The client and appropriate CDG personnel will be notified of the incident as soon as possible.

11.1 Notification/Reporting Procedures

In the event of an emergency, CDG Project Manager will be notified as soon as possible regarding the nature of the incident and emergency service contact will be notified as needed (see Section 11.7, Contingency Contacts). It is the responsibility of the Site HSO to report all incidents to the CDG Corporate HSO so that the required reporting procedures may be implemented.

11.2 Hazardous Substance Release

In the event that potentially hazardous substances migrate from the work zone and potentially endanger unprotected personnel or the community all on site activities will cease until the release is brought under control. CDG will immediately notify the proper authorities so that they may be able to ensure that public health and safety is maintained throughout this process event to the extent of evacuation if necessary.

11.3 Personnel Injury

In the event of an injury, all personnel will assemble at the designated emergency meeting location. The Site HSO, prior to the beginning of filed activities should designate this location. If the injured person is immobile one or more persons should remain nearby to provide any necessary first aid techniques. If medical help is necessary, the Site HSO will summon the appropriate assistance for transportation to the nearest medical facility. Due to the potential for these situations, CDG recommends that at least one qualified person be CPR/First Aid certified.

11.4 Evacuation Plan

Gasoline and diesel are flammable substances; therefore, a fire/explosion potential exists during the excavation activities. In the event of an onsite evacuation, the following plan will be implemented:

- A signal consisting of one continuous blast of a vehicle or air horn will be used
- All personnel will immediately evacuate the area and report to the designated emergency meeting location for further instruction

11.5 Spill Prevention and Response

In the event of a leak or spill, the area will be blocked using barricades, and the spill contained until absorbed and removed by authorized personnel. Unauthorized persons will be denied access to the area until all spills have been removed and field operations completed. CDG will follow prescribed procedures for reporting and responding to large releases by notifying the National Response Center (see Section 11.7). All materials will be disposed of according to regulatory guidelines.

11.6 Emergency Communication

In the event of an emergency situation, the following standard hand signals will be used onsite as a means of communication:

- Hand gripping throat (cannot breathe)
- Grip partner’s wrist or both hands around waist- (leave area immediately)
- Hands on top of head- (need assistance)
- Thumbs up- (OK, I am all right, I understand)
- Thumbs down- (No, negative)

11.7 Contingency Contacts

In the event of an emergency, CDG has provided several emergency contacts. These contacts, along with phone numbers, are listed in the following table. The Site HSO will be responsible for the notification of these contacts in the event of an emergency.

AGENCY	CONTACT	TELEPHONE NO.
Fire Department		911
Police Department		911
Ambulance		911
Hospital		1-334-749-3411
Corporate HSO	David Dailey or Alan Barck	1-205-403-2600 or 1-334-222-9431
Project Manager	April Harrelson	1-334-222-9431
EPA RCRA-Superfund Hotline		1-800-424-9346
Chemtech (24 hours)		1-800-424-9300
Bureau of Explosives (24 hours)		1-202-293-4048
Centers for Disease Control (Biological Agents)		1-404-633-5353
National Response Center		1-800-424-8802

Medical Facility

Name of Hospital: East Alabama Medical Center

Address: 2000 Pepperell Parkway, Opelika, Alabama 36801

Phone: 334-749-3411

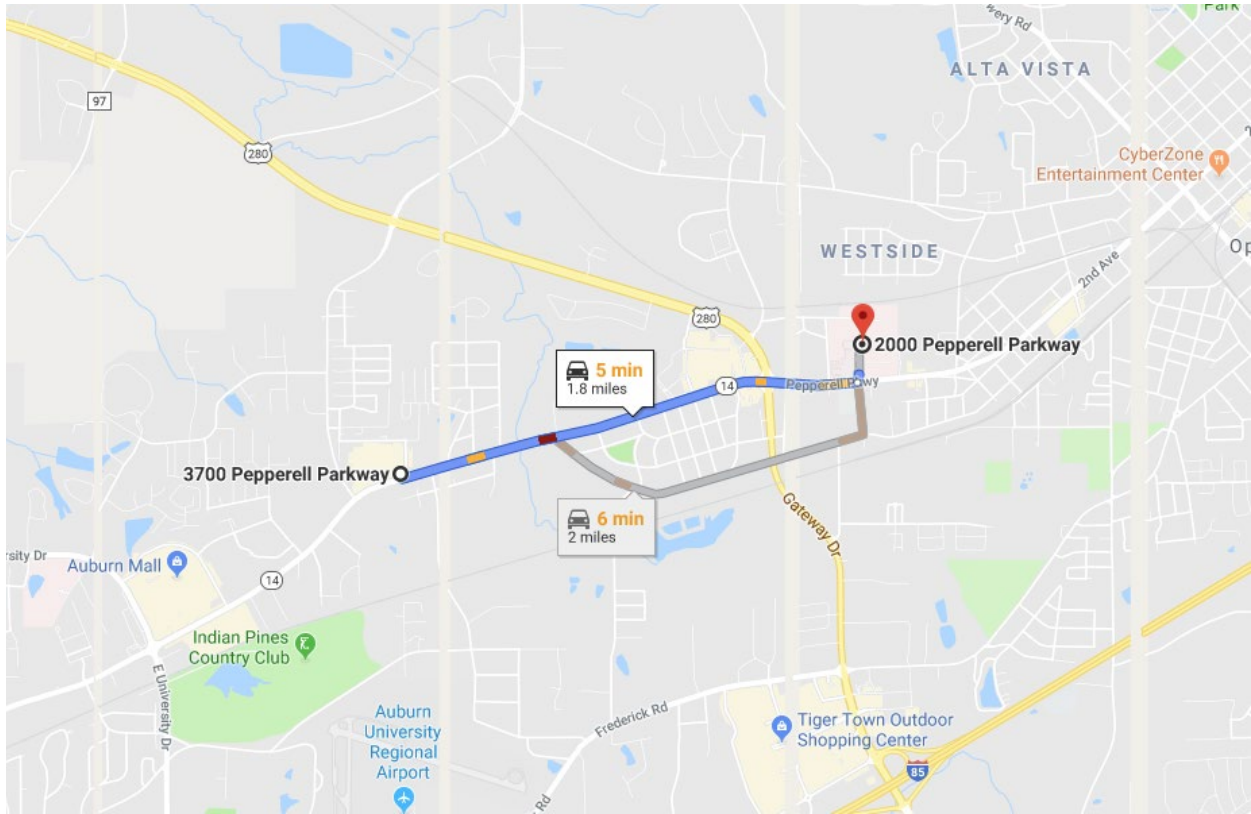
Route to Hospital: See attached map with driving directions.

Travel Time from Site: 5 minutes

Distance to Hospital: 1.8 miles

Name/Number of 24-hour Ambulance Service: 911

In cases of construction accidents, rapid notification to OSHA is required.





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TASKS PERFORMANCE SUMMARY

A decorative graphic in the bottom right corner consisting of several overlapping triangles in shades of dark blue and brown, forming a larger triangular shape.

APPENDIX F

TASK PERFORMANCE SUMMARY

Modified CAP Activities, CP-46
Midway Mart
3700 Pepperell Parkway
Opelika, Lee County, Alabama

Task Completed by Personnel/Title:	Griffin Gatschet, P.G.	James Alan Barck, P.G./P.E.	April Harrelson, Project Manager	Ray Hollinghead, Drafter	Leigh Caylor, Administrative Assistant	Kim Ballard, Administrative Assistant	Patricia Horwath, Administrative Assistant
Project Management			X				
Work Plan Preparation/Review			X				
Cost Proposal Preparation/Review	X		X			X	
Field Work		X	X				
Data Interpretation/Tabulations			X				
Drafting				X			
Report Preparation/Review		X	X			X	X
Payment Request Preparation/Review	X		X		X	X	X

Notes:

DO=Drilling Oversight

BL=Boring Log Description/Soil Classification

WG=Well Gauging

GSC=Groundwater Sample Collection

MEME=MEME Oversight

PM=Project Management

O&M=Routine Operation & Maintenance

HRS=High Resolution Study

VM=Vapor Monitoring

FC=Fan Check