THREE NOTCH GROUP

# PPBB C-STORE 101

## CAP DEVELOPMENT

## ATTF CP-10

April 21, 2025


PPBB C-Store 101
608 Fob James Dr & I-85
Valley, Chambers Co., AL
Fac ID 25418-017-010913
UST 23-04-02

**PREPARED FOR**

PPBB LLC
608 Fob James Drive
Valley, AL 36854

**PREPARED BY**

Three Notch Group
11 Court Square
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 PPBB C-Store 101 site (Facility Identification Number 25418-017-010913) in Valley, Chambers County, Alabama. The recommended action should not be construed to apply to any other site.


Signature

Alan Barck, PE

State of Alabama Registration No. 32719

4-25-25

Date

## SITE LOCATION AND HISTORY

The PPBB C-Store 101 facility is located at 608 Fob James Drive in Valley, Chambers County, Alabama. Topographically the site is in an area of moderate relief in east-central Chambers County. The site is in the Northeast ¼ of the Southwest ¼ of the Southwest ¼ of Section 11, Township 21 North, Range 28 East. The geographical coordinates are Latitude 32° 49' 15.89" North, Longitude 85° 12' 41.80" West.

The PPBB C-Store 101 facility is a commercial property that currently operates as a gasoline/diesel station and convenience store. The site has one 15,000-gallon diesel UST, one 12,000-gallon gasoline UST, and one 8,000-gallon gasoline UST currently in use, associated piping, and twelve product dispensers. The USTs are located west of the building. The Alabama Tank Trust Fund (ATTF) responsible party for the PPBB C-Store 101 is PPBB LLC.

The PPBB C-Store 101 facility is located at 608 Fob James Drive in Valley, Chambers County, Alabama. The facility is surrounded by commercial properties in an area of moderate relief in southeastern Chambers County. Electrical service is located above ground and is supplied by Alabama Power. All utility locations are illustrated in the Figures in Appendix B.

In Order to address the onsite dissolved hydrocarbon plume, ADEM requested that a Corrective Action Plan be prepared for the site. The following report constitutes the Corrective Action Plan developed as approved under cost proposal CP-10.

## SUMMARY OF PREVIOUS SITE INVESTIGATIONS

In January 2023, Harmon Engineering conducted a Line Closure at the site. Based on the results of the Line Closure, a Release Report Form was submitted to the Alabama Department of Environmental Management (ADEM). In a letter dated July 3, 2023, ADEM sent the responsible party, PPBB LLC, a Notification of Requirement to conduct Investigative and Corrective Actions. In a second letter dated July 3, 2023, ADEM issued a Notice of Alabama Tank Trust Fund Eligibility. In a third letter dated July 3, 2023, ADEM issued the Pre-Approved Cost Proposal (CP-01) for conducting Preliminary Investigation activities. On August 30, 2023, Three Notch Group (Three Notch) began conducting Preliminary Investigation activities at the site.

To date, a Preliminary Investigation, Secondary Investigation, a Mobile Enhanced Multi-Phase Extraction (MEME) event, and Well Installations have been conducted including installing a network of nineteen Type II monitoring wells and one Type III vertical delineation well at the site. An Alabama

Risk Based Corrective Action (ARBCA) Tier I/Tier II Evaluation was prepared and submitted to ADEM in December 2024 and was approved as stated in the ADEM letter dated January 8, 2025.

A Corrective Action (CA) Evaluation was prepared by Three Notch and submitted to ADEM in February 2025. The CA Evaluation recommended Remediation by Natural Attenuation (RNA) supplemented with MEME events. ADEM concurred with this recommendation and requested that a Corrective Action Plan (CAP) be developed for RNA with MEME events.

## SUMMARY OF PREVIOUSLY CONDUCTED CORRECTIVE ACTION

One 12-Hour MEME event was conducted at the site on April 17, 2024. During the 12-hour MEME event, the average soil vapor flow rate was calculated at 251.4 SCFM. Throughout the event, vapor concentration levels were recorded from both the influent and effluent sample ports. Approximately 16.27 pounds of carbon were removed (54.33 pounds of hydrocarbon, 8.82 equivalent gallons of gasoline). Additionally, 8.47 pounds of methane were recovered and thermally destroyed during the event. Approximately 75 gallons of PCW were recovered and transported to Sunoco, LLC located in Birmingham, Alabama, for disposal.

## REMEDIAL OBJECTIVES AND EXPOSURE ASSESSMENT

### 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.

### Exposure Assessment

An exposure assessment was conducted by Three Notch during the 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 workers. Complete exposure pathways also exist for indoor and outdoor vapor inhalation from soil and groundwater for commercial workers. Future land use of the site and the surrounding area is

expected to remain the same. There were no public or private water wells located within one mile of the site.

**Specific Remedial Objectives**

As part of the ARBCA Tier II evaluation process, Site Specific Target Levels (SSTLs) were calculated for the various media (soil and groundwater) at the site based upon the site exposure assessment. The SSTLs were calculated in the ARBCA evaluation conducted in December 2024 and were approved by ADEM on January 8, 2025. A summary of the approved Tier II SSTLs is presented in Appendix C

## RECENT MONITORING ACTIVITIES, RESULTS, AND COMPARISONS TO ACALS

ADEM requested the development of a CAP that would address both soil and groundwater contamination at the site. As part of the CAP development, current representative concentrations for the chemicals of concern (COC) are needed in the evaluation and design of a plan to effectively treat and reduce contaminants. The site has had multiple approved groundwater monitoring events and one MEME event conducted. The most recent groundwater monitoring event was completed on September 7, 2022. The following details the activities and results of the September 7, 2022, groundwater monitoring event.

**Groundwater Monitoring Activities**

Personnel from Three Notch mobilized to the site on February 21, 2025, to collect groundwater samples for Chemicals of Concern (COC), which include benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), and naphthalene analysis. Free product was detected at approximately 20.98-feet (ft) and 0.03-ft thickness in well MW-2. Free product was also detected at approximately 20.54-feet (ft) and 1.48-ft thickness in well MW-4. Based on the results from the February 21, 2025, groundwater monitoring event, the groundwater flow direction appears to be to the southwest.

**Laboratory Analysis Results**

Based on the most recent water level measurements, the shallow groundwater flow direction appears to be to the southwest. Historic and current water level measurements are presented in the Monitoring Point Data Summary Table (Appendix A). A potentiometric surface map and a groundwater constituent concentration and benzene contour map for the most recent groundwater monitoring event is presented in Appendix B. Laboratory analysis from the February 21, 2025, sampling event indicate BTEX/MTBE/Naphthalene concentrations above the approved

Groundwater Resource Protection (GRP) Site Specific Target Levels (SSTLs) in seven (MW-1 through MW-4, MW-9, MW-11, and MW-12) of the twenty monitoring wells. All COC concentrations were reported to be below the established SSTLs for Indoor Air Inhalation. The concentrations above the approved SSTLs are as follows:

| | COC | GRP SSTLs | Indoor Inhalation SSTLs | Concentration |
|---|---|---|---|---|
| MW-1 | Benzene | **0.408 mg/L** | **29 mg/L** | **0.763 mg/L** |
| MW-2 | Benzene | **0.408 mg/L** | **29 mg/L** | **14.8 mg/L** |
| MW-3 | Benzene | **0.404 mg/L** | **29 mg/L** | **6.87 mg/L** |
| MW-4 | Benzene | **0.404 mg/L** | **29 mg/L** | **7.16 mg/L** |
| MW-9 | Benzene | **0.408 mg/L** | **29 mg/L** | **1.55 mg/L** |
| MW-11 | Benzene | **0.252 mg/L** | **29 mg/L** | **1.48 mg/L** |
| MW-12 | Benzene | **0.239 mg/L** | **29 mg/L** | **0.587 mg/L** |

**Conclusions**

Based upon the February 2025 sampling event, the COC concentrations in monitoring wells (MW-1 through MW-4, MW-9, MW-11, and MW-12) exceeded the approved GRP SSTLs. All COC concentrations were reported to be below the established SSTLs for Indoor Air Inhalation. All other BTEX constituent concentrations were below the ARBCA Tier II SSTLs generated for each of the source wells and POCs.

Additionally, free product was observed in MW-2 (0.03 ft) and MW-4 (1.48) during the groundwater sampling event conducted on February 21, 2025. Additionally, free product was first observed in MW-2 and MW-4 on March 28, 2024.

## REMEDIATION RATIONALE AND APPROACH

Based upon current constituent concentrations and the risk assessment results, there are exceedances in the GRP SSTLs for groundwater BTEX/MTBE/Naphthalene constituents.

Full-scale technologies addressing both soil and groundwater were reviewed for applicability to the PPBB C-Store 101 site. The discussion is divided into media (soil and groundwater) and in situ/ex

situ technologies during the CAP Evaluation. Based on the CAP Evaluation, RNA with MEME was the recommended as the appropriate corrective action approach for the site.

In order to accelerate the reduction of dissolved hydrocarbon concentrations, Three Notch recommends that the RNA and MEME activities be initiated at the site. Because the COC concentrations observed do not warrant the installation of a dedicated remediation system, RNA in conjunction with monthly MEME events would be an effective means of achieving the sitespecific cleanup goals.

Natural attenuation is a passive remediation process by which dilution, volatilization, biodegradation, adsorption, and chemical reactivity are allowed to reduce contaminant concentrations to acceptable levels. As a general rule, decreasing trends indicate these natural attenuation processes are occurring and will likely continue to reduce the contaminant concentrations to below acceptable levels. Used in conjunction with MEME events, periodic groundwater sampling is conducted to monitor the natural attenuation process. If COC concentrations increase based on future monitoring results, the CAP approach should be re-evaluated.

## REMEDIATION RECOMMENDATION PLAN

To address the existing levels of groundwater contamination at the site, the following approach is recommended:

Four Recovery wells (RW-1 through RW-4) will be installed. The recovery wells will be constructed with 4-inch diameter Schedule 40 PVC risers expending from just below the ground surface to approximately five feet above the bottom of the boring. Approximately fifteen feet of screen (0.010-inch slotted) will be connected to the bottom of the solid riser. The risers and screen will be connected using threaded, flush-joint connections. The total depth of the recovery well will be approximately 35 feet bgs. The locations of the proposed recovery wells are illustrated in the Figures (Appendix B).

Graded filter sand will be placed in the boring annulus for each recovery well from the bottom of the boring to at least two feet above the top of the screen. A bentonite seal approximately two feet thick will be placed at the top of each sand pack. A cement/bentonite grout will be placed above the bentonite seal to within approximately one ft-bls.

The recovery wells will be set within 8-inch diameter steel manway covers surrounded by concrete pads. Construction details are shown in the Figures section (Appendix B).

Following the installation of the recovery wells, the corrective action approach involves allowing natural attenuation in combination with 8-hour MEME events to reduce contaminant concentrations to acceptable levels for site closure.

Quarterly groundwater monitoring events will be conducted for up to two years to monitor the natural attenuation progress toward the remediation goals. Monitoring wells will be sampled for BTEX, MTBE, and Naphthalene and for natural attenuation parameters (DO, pH, and ORP). Following four quarterly groundwater-monitoring events, Three Notch will recommend the site for No Further Action (NFA) status if remediation goals have been met. Should target levels continue to exceed the SSTLs in the source area after one year of monitoring and the contaminant plume maintains a stable or decreasing trend, groundwater monitoring would be continued. If COC concentrations increase based on future monitoring results, the CAP approach will be re-evaluated.

## PROPOSED REPORTING REQUIREMENTS

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

**Reporting of Natural Attenuation Effectiveness** - Three Notch proposes to submit quarterly 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, MEME event results, potentiometric surface maps, and BTEX and MTBE constituent concentration maps. 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 shows that remediation goals have been achieved and request a status of NFA. Methods for abandonment of monitoring and recovery wells will be described.

**Site Closure Report** - 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 proposed CAP will begin with the first groundwater monitoring and MEME event following the approval of the CAP. 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 |
|---|---|---|
| 0 – 24 | Quarterly groundwater monitoring and MEME events, evaluation of performance, and recommendations for further corrective action if required | 2 Years |
| 28 | Well abandonment; completion and submittal of final report | 4 Months |

## PROPOSED SITE ACTIVITIES

Following the approval of the CAP, monthly 8-hour duration MEME events will be conducted at the site. During the events groundwater and soil vapor will be extracted from recovery wells RW-1, RW-2, RW-3, and RW-4. The MEME events will be conducted using a mobile liquid ring MPE system operated by Three Notch Groupor a subcontractor. The MEME system have been approved by the ADEM for use at numerous locations in Alabama for free product recovery, emergency response, and pilot testing activities. Three Notch mobile MEME system operates with continuously monitored off-gas treatment (thermal destruction).

Prior to the event, static water levels in all site wells will be recorded. Applied vacuum in the extraction well and casing vacuums in the observation wells will be recorded periodically during testing (except when the unit is not attended). Water level and vacuum measurements, to determine the radius of influence, will be obtained periodically from observation wells. Measurements of flow and hydrocarbon concentrations will also be obtained periodically during the test. Field measurements will be obtained using a calibrated Flame Ionization Detector (FID) instrument. Hydrocarbon removal rates will be calculated and plotted.

Once per quarter, groundwater samples will be collected from all 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 in accordance with EPA Method 8260B. During each groundwater sampling event, all monitoring wells will also be sampled for natural attenuation

parameters (DO, pH, and ORP). The natural attenuation parameters will provide information concerning the recovery of the shallow aquifer down gradient of the release area.

The results of the proposed activities will be submitted to ADEM in the form of an RNA/MEME Report. The report will include conclusions regarding the effectiveness of the recovery activities performed and recommendations for future site activities.

# APPENDICES



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# TABLES

APPENDIX A

# Monitoring Point Data Summary Table

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-1** | | |
| INSTALLATION DATE: | 08/30/23 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 686.00 | 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 |
|---|---|---|---|---|
| 09/07/23 | 21.68 | 664.32 | - | 4.0 |
| 03/28/24 | 19.42 | 666.58 | - | 5.0 |
| 08/29/24 | 21.03 | 664.97 | - | 4.5 |
| 11/20/24 | 21.87 | 664.13 | - | 4.0 |
| 02/21/25 | 21.69 | 664.31 | - | 4.0 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 09/07/23 | 2.67 | 5.9 | 136 |
| 03/28/24 | 2.79 | 5.9 | 124 |
| 08/29/24 | 2.52 | 5.9 | 76 |
| 11/20/24 | 2.41 | 5.8 | 73 |
| 02/21/25 | 2.81 | 6.0 | 112 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-1** | |
| INSTALLATION DATE: | 08/30/23 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 686.00 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 09/07/23 | 0.02 | **3.06** | 0.456 | 0.559 | 1.11 | 5.185 | 0.044 |
| 03/28/24 | <0.020 | **1.96** | 0.041 | 0.463 | 0.938 | 3.402 | 0.086 |
| 08/29/24 | 0.02 | **1.910** | 0.122 | 0.493 | 0.448 | 2.973 | <0.020 |
| 11/20/24 | <0.020 | **1.040** | 0.021 | 0.091 | 0.105 | 1.257 | <0.020 |
| 02/21/25 | <0.020 | **0.763** | 0.020 | 0.119 | 0.165 | 1.067 | <0.020 |
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| GRP SSTLs: | **1.63** | **0.408** | **81.5** | **57.1** | **175** | | **1.63** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-2** | | |
|---|---|---|---|---|---|---|---|---|---|
| INSTALLATION DATE: | 08/30/23 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.52 | 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 |
|---|---|---|---|---|
| 09/07/23 | 21.09 | 664.43 | - | 4.5 |
| 03/28/24 | 19.31 | 666.22 | 0.02 | 5.5 |
| 08/29/24 | 20.63 | 664.89 | - | 4.5 |
| 11/20/24 | 21.45 | 664.07 | - | 4.5 |
| 02/21/25 | 21.01 | 664.53 | 0.03 | 4.5 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 09/07/23 | 1.96 | 5.8 | 79 |
| 03/28/24 | FREE PRODUCT (0.02 FT) | | |
| 08/29/24 | 2.46 | 5.9 | 29 |
| 11/20/24 | 2.49 | 5.9 | 46 |
| 02/21/25 | FREE PRODUCT (0.03 FT) | | |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-2** | |
| INSTALLATION DATE: | 08/30/23 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.52 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 09/07/23 | 0.70 | **14.3** | 27.0 | 5.72 | 27.2 | 74.22 | 1.13 |
| 03/28/24 | 0.60 | **14.1** | 12.1 | 5.54 | 21.1 | 52.84 | 0.665 |
| 08/29/24 | 0.58 | **20.6** | 3.80 | 8.81 | 32.3 | 65.51 | 0.793 |
| 11/20/24 | 0.45 | **17.4** | 8.22 | 5.61 | 22.0 | 53.23 | 0.619 |
| 02/21/25 | 0.273 | **14.8** | 7.79 | 5.25 | 18.3 | 46.14 | 0.589 |
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| GRP SSTLs: | **1.63** | **0.408** | **81.5** | **57.1** | **175** | **-** | **1.63** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-3** | | |
|---|---|---|---|---|---|---|---|---|---|
| INSTALLATION DATE: | 08/30/23 | WELL DEPTH (FT BTOC): | 30.8 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.46 | 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 |
|---|---|---|---|---|
| 09/07/23 | 21.48 | 663.98 | - | 4.5 |
| 03/28/24 | 14.54 | 670.92 | - | 5.5 |
| 08/29/24 | 20.96 | 664.50 | - | 5.0 |
| 11/20/24 | 22.22 | 663.24 | - | 4.5 |
| 02/21/25 | 21.42 | 664.04 | - | 4.5 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 09/07/23 | 2.84 | 6.1 | 124 |
| 03/28/24 | 2.82 | 5.8 | 107 |
| 08/29/24 | 2.63 | 5.9 | 42 |
| 11/20/24 | 2.71 | 5.9 | 27 |
| 02/21/25 | 2.56 | 5.8 | 67 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-3** | |
| INSTALLATION DATE: | 08/30/23 | WELL DEPTH (FT BTOC): | 30.8 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.46 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 09/07/23 | 0.205 | **5.75** | 22.4 | 5.33 | 24.5 | 57.98 | 1.08 |
| 03/28/24 | <0.200 | **3.07** | 3.05 | 1.42 | 5.88 | 13.42 | 0.28 |
| 08/29/24 | 0.595 | **9.70** | 19.1 | 7.55 | 33.4 | 69.75 | 0.832 |
| 11/20/24 | 0.369 | **10.5** | 27.6 | 22.6 | 102 | 162.7 | **4.86** |
| 02/21/25 | <0.200 | **6.87** | 12.7 | 5.67 | 26.9 | 52.1 | 0.762 |
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| GRP SSTLs: | **1.62** | **0.404** | **80.8** | **56.6** | **175** | **-** | **1.62** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-4** | | |
|---|---|---|---|---|---|---|---|---|---|
| INSTALLATION DATE: | 08/30/23 | WELL DEPTH (FT BTOC): | 30.3 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.48 | 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 |
|---|---|---|---|---|
| 09/07/23 | 21.24 | 664.24 | - | 4.5 |
| 03/28/24 | 19.08 | 666.41 | 0.02 | 5.5 |
| 08/29/24 | 20.82 | 664.69 | 0.04 | 4.5 |
| 11/20/24 | 22.10 | 663.43 | 0.07 | 4.0 |
| 02/21/25 | 22.02 | 664.56 | 1.48 | 4.0 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 09/07/23 | 2.49 | 5.9 | 112 |
| 03/28/24 | FREE PRODUCT (0.02 FT) | | |
| 08/29/24 | FREE PRODUCT (0.04 FT) | | |
| 11/20/24 | FREE PRODUCT (0.07 FT) | | |
| 02/21/25 | FREE PRODUCT (1.48 FT) | | |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-4** | |
| INSTALLATION DATE: | 08/30/23 | WELL DEPTH (FT BTOC): | 30.3 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.48 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 09/07/23 | 0.026 | **9.55** | 26.9 | 5.23 | 26.4 | 68.08 | 0.667 |
| 03/28/24 | <0.200 | **8.32** | 28.5 | 7.49 | 37.5 | 81.81 | 0.614 |
| 08/29/24 | <0.200 | **5.19** | 9.24 | 6.77 | 31.6 | 52.80 | 0.619 |
| 11/20/24 | <0.200 | **5.97** | 8.19 | 4.86 | 23.7 | 42.72 | 0.532 |
| 02/21/25 | <0.200 | **7.16** | 20.9 | 4.81 | 25.3 | 58.17 | 0.571 |
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| GRP SSTLs: | **1.62** | **0.404** | **80.8** | **56.6** | **175** | **-** | **1.62** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-5** | | |
| INSTALLATION DATE: | 03/18/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.59 | 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 |
|---|---|---|---|---|
| 03/28/24 | 19.57 | 666.02 | - | 5.0 |
| 08/29/24 | 20.01 | 665.58 | - | 5.0 |
| 11/20/24 | 22.44 | 663.15 | - | 4.0 |
| 02/21/25 | 21.64 | 663.95 | - | 4.0 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 03/28/24 | 2.97 | 5.8 | 77 |
| 08/29/24 | 2.72 | 5.9 | 83 |
| 11/20/24 | 2.63 | 5.9 | 79 |
| 02/21/25 | 2.69 | 5.8 | 72 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-5** | |
| INSTALLATION DATE: | 03/18/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.59 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 03/28/24 | 0.009 | **0.539** | 0.160 | 0.099 | 0.955 | 1.753 | 0.055 |
| 08/29/24 | 0.012 | 0.087 | 0.012 | 0.027 | 0.140 | 0.266 | 0.017 |
| 11/20/24 | <0.010 | **0.396** | 0.078 | 0.109 | 0.736 | 1.319 | 0.052 |
| 02/21/25 | <0.010 | 0.052 | <0.010 | 0.017 | 0.111 | 0.180 | 0.013 |
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| GRP SSTLs: | **1.18** | **0.296** | **59.2** | **41.5** | **175** | **-** | **1.18** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-6** | | |
| INSTALLATION DATE: | 03/18/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 686.44 | 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 |
|---|---|---|---|---|
| 03/28/24 | 20.04 | 666.40 | - | 5.0 |
| 08/29/24 | 21.52 | 664.92 | - | 4.0 |
| 11/20/24 | 22.38 | 664.06 | - | 4.0 |
| 02/21/25 | 22.29 | 664.15 | - | 4.0 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 03/28/24 | 2.76 | 5.9 | 64 |
| 08/29/24 | 2.54 | 5.8 | 62 |
| 11/20/24 | 2.69 | 6.0 | 60 |
| 02/21/25 | 2.89 | 5.9 | 119 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-6** | |
| INSTALLATION DATE: | 03/18/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 686.44 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 03/28/24 | <0.001 | <0.001 | <0.001 | <0.001 | 0.002 | 0.002 | <0.001 |
| 08/29/24 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | <0.001 |
| 11/20/24 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | <0.001 |
| 02/21/25 | <0.001 | <0.001 | 0.007 | 0.021 | 0.138 | 0.166 | 0.018 |
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| GRP SSTLs: | **1.18** | **0.296** | **59.2** | **41.5** | **175** | **-** | **1.18** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | MW-7 | | |
|---|---|---|---|---|---|---|---|---|---|
| INSTALLATION DATE: | 03/19/24 | WELL DEPTH (FT BTOC): | 30.5 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 686.08 | 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 |
|---|---|---|---|---|
| 03/28/24 | 19.69 | 666.39 | - | 5.0 |
| 08/29/24 | 20.94 | 665.14 | - | 4.5 |
| 11/20/24 | 21.42 | 664.66 | - | 4.5 |
| 02/21/25 | 22.01 | 664.07 | - | 4.0 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 03/28/24 | 3.12 | 5.9 | 127 |
| 08/29/24 | 2.71 | 5.9 | 51 |
| 11/20/24 | 2.55 | 6.0 | 63 |
| 02/21/25 | 3.29 | 6.0 | 131 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-7** | |
| INSTALLATION DATE: | 03/19/24 | WELL DEPTH (FT BTOC): | 30.5 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 686.08 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 03/28/24 | <0.001 | <0.001 | 0.001 | 0.001 | 0.009 | 0.011 | <0.001 |
| 08/29/24 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | <0.001 |
| 11/20/24 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | <0.001 |
| 02/21/25 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | <0.001 |
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| GRP SSTLs: | **1.53** | **0.382** | **76.4** | **53.5** | **175** | **-** | **1.53** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-8** | | |
| INSTALLATION DATE: | 03/19/24 | WELL DEPTH (FT BTOC): | 30.5 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 686.62 | 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 |
|---|---|---|---|---|
| 03/28/24 | 20.69 | 665.93 | - | 4.5 |
| 08/29/24 | 21.33 | 665.29 | - | 4.5 |
| 11/20/24 | 22.98 | 663.64 | - | 3.5 |
| 02/21/25 | 22.81 | 663.81 | - | 3.5 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 03/28/24 | 3.29 | 6.0 | 118 |
| 08/29/24 | 3.14 | 5.9 | 112 |
| 11/20/24 | 3.02 | 6.0 | 96 |
| 02/21/25 | 3.14 | 6.0 | 108 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-8** | |
| INSTALLATION DATE: | 03/19/24 | WELL DEPTH (FT BTOC): | 30.5 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 686.62 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 03/28/24 | <0.001 | 0.013 | 0.014 | 0.010 | 0.051 | 0.088 | 0.001 |
| 08/29/24 | 0.001 | 0.070 | <0.001 | <0.001 | 0.013 | 0.083 | <0.001 |
| 11/20/24 | <0.001 | 0.056 | <0.001 | <0.001 | 0.007 | 0.063 | <0.001 |
| 02/21/25 | <0.001 | 0.013 | <0.001 | <0.001 | 0.003 | 0.016 | <0.001 |
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| GRP SSTLs: | **1.49** | **0.371** | **74.3** | **52** | **175** | **-** | **1.49** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-9** | | |
| INSTALLATION DATE: | 03/19/24 | WELL DEPTH (FT BTOC): | 30.5 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 686.36 | 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 |
|---|---|---|---|---|
| 03/28/24 | 14.13 | 672.23 | - | 8.0 |
| 08/29/24 | 20.92 | 665.44 | - | 4.5 |
| 11/20/24 | 23.05 | 663.31 | - | 3.5 |
| 02/21/25 | 22.61 | 663.75 | - | 3.5 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 03/28/24 | 2.64 | 5.7 | 82 |
| 08/29/24 | 2.67 | 5.8 | 79 |
| 11/20/24 | 2.36 | 5.9 | 83 |
| 02/21/25 | 2.91 | 5.8 | 59 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-9** | |
| INSTALLATION DATE: | 03/19/24 | WELL DEPTH (FT BTOC): | 30.5 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 686.36 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 03/28/24 | 0.322 | **1.79** | 14.8 | 4.01 | 19.4 | 40.00 | 0.352 |
| 08/29/24 | 0.363 | **1.10** | 3.55 | 3.48 | 11.8 | 19.93 | 0.319 |
| 11/20/24 | 0.305 | **0.722** | 0.838 | 1.900 | 5.19 | 8.65 | 0.214 |
| 02/21/25 | 0.371 | **1.55** | 0.978 | 2.80 | 8.99 | 14.32 | 0.329 |
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| GRP SSTLs: | **1.63** | **0.408** | **81.5** | **57.1** | **175** | | **1.63** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | - | **31** |

# Monitoring Point Data Summary Table

| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | MW-10 | | |
|---|---|---|---|---|---|---|---|---|---|
| INSTALLATION DATE: | 03/19/24 | WELL DEPTH (FT BTOC): | 30.5 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.29 | 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 |
|---|---|---|---|---|
| 03/28/24 | 19.99 | 665.30 | - | 5.0 |
| 08/29/24 | 20.64 | 664.65 | - | 4.5 |
| 11/20/24 | 22.63 | 662.66 | - | 4.0 |
| 02/21/25 | 21.71 | 663.58 | - | 4.0 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 03/28/24 | 2.91 | 5.9 | 143 |
| 08/29/24 | 2.51 | 5.9 | 64 |
| 11/20/24 | 2.78 | 6.0 | 52 |
| 02/21/25 | 3.31 | 6.0 | 123 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-10** | |
| INSTALLATION DATE: | 03/19/24 | WELL DEPTH (FT BTOC): | 30.5 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.29 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 03/28/24 | 0.031 | 0.102 | 0.042 | 0.303 | 1.09 | 1.537 | 0.104 |
| 08/29/24 | 0.061 | 0.024 | <0.020 | <0.020 | <0.020 | 0.024 | <0.020 |
| 11/20/24 | 0.069 | <0.020 | <0.020 | <0.020 | <0.020 | BDL | <0.020 |
| 02/21/25 | 0.051 | <0.020 | <0.020 | <0.020 | <0.020 | BDL | <0.020 |
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| GRP SSTLs: | **1.28** | **0.319** | **63.9** | **44.7** | **175** | **-** | **1.28** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-11** | | |
| INSTALLATION DATE: | 03/18/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 684.03 | 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 |
|---|---|---|---|---|
| 03/28/24 | 18.69 | 665.34 | - | 5.0 |
| 08/29/24 | 19.82 | 664.21 | - | 4.5 |
| 11/20/24 | 23.95 | 660.08 | - | 3.0 |
| 02/21/25 | 20.44 | 663.59 | - | 4.5 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 03/28/24 | 2.44 | 6.0 | 87 |
| 08/29/24 | 2.94 | 6.0 | 124 |
| 11/20/24 | 2.86 | 6.0 | 130 |
| 02/21/25 | 1.98 | 5.7 | 48 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-11** | |
| INSTALLATION DATE: | 03/18/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 684.03 | 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 |
|---|---|---|---|---|---|---|---|
| 03/28/24 | 0.420 | **4.33** | 21.5 | 5.11 | 26.0 | 56.94 | 0.507 |
| 08/29/24 | 0.961 | **8.52** | 19.6 | 4.22 | 20.4 | 52.74 | 0.290 |
| 11/20/24 | <0.200 | 0.215 | 0.534 | 0.529 | 2.07 | 3.348 | <0.200 |
| 02/21/25 | <0.200 | **1.48** | 2.19 | 1.71 | 8.58 | 13.96 | <0.200 |
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| GRP SSTLs: | **1.01** | **0.252** | **50.3** | **35.2** | **175** | **-** | **1.01** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-12** | | |
| INSTALLATION DATE: | 03/18/24 | WELL DEPTH (FT BTOC): | 30.5 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 684.82 | 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 |
|---|---|---|---|---|
| 03/28/24 | 19.13 | 665.69 | - | 5.5 |
| 08/29/24 | 20.43 | 664.39 | - | 5.0 |
| 11/20/24 | 21.90 | 662.92 | - | 4.0 |
| 02/21/25 | 21.02 | 663.80 | - | 4.5 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 03/28/24 | 2.87 | 6.0 | 132 |
| 08/29/24 | 3.22 | 6.0 | 136 |
| 11/20/24 | 3.17 | 6.1 | 142 |
| 02/21/25 | 2.72 | 5.8 | 82 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-12** | |
| INSTALLATION DATE: | 03/18/24 | WELL DEPTH (FT BTOC): | 30.5 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 684.82 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 03/28/24 | 0.042 | **2.00** | 0.658 | 2.14 | 11.3 | 16.098 | 0.301 |
| 08/29/24 | <0.200 | **1.94** | 0.221 | 1.91 | 10.7 | 14.771 | 0.417 |
| 11/20/24 | <0.200 | **1.38** | <0.200 | 1.78 | 5.09 | 8.250 | 0.279 |
| 02/21/25 | <0.200 | **0.587** | <0.200 | 1.04 | 2.44 | 4.067 | 0.252 |
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| GRP SSTLs: | **0.957** | **0.239** | **47.9** | **33.5** | **175** | **-** | **0.957** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-13** | | |
| INSTALLATION DATE: | 07/15/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.53 | 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 |
|---|---|---|---|---|
| 08/29/24 | 22.21 | 663.32 | - | 3.5 |
| 11/20/24 | 23.79 | 661.74 | - | 3.0 |
| 02/21/25 | 23.09 | 662.44 | - | 3.5 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 08/29/24 | 2.79 | 6.0 | 87 |
| 11/20/24 | 2.91 | 6.0 | 77 |
| 02/21/25 | 3.17 | 6.0 | 128 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-13** | |
| INSTALLATION DATE: | 07/15/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.53 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 08/29/24 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | <0.001 |
| 11/20/24 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | <0.001 |
| 02/21/25 | <0.001 | <0.001 | 0.003 | 0.009 | 0.078 | 0.090 | 0.038 |
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| GRP SSTLs: | **0.474** | **0.119** | **23.7** | **16.6** | **175** | **-** | **0.474** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-14** | | |
| INSTALLATION DATE: | 07/16/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.80 | 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 |
|---|---|---|---|---|
| 08/29/24 | 20.23 | 665.57 | - | 5.0 |
| 02/21/25 | 21.01 | 664.79 | - | 4.5 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 08/29/24 | 3.42 | 6.1 | 132 |
| 02/21/25 | 3.12 | 6.0 | 121 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-14** | |
| INSTALLATION DATE: | 07/16/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.80 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 08/29/24 | <0.001 | <0.001 | <0.001 | <0.001 | 0.037 | 0.037 | 0.007 |
| 11/20/24 | NOT SAMPLED | | | | | | |
| 02/21/25 | <0.001 | <0.001 | <0.001 | <0.001 | 0.020 | 0.020 | 0.004 |
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| GRP SSTLs: | **1.09** | **0.273** | **54.7** | **38.3** | **175** | **-** | **1.09** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-15** | | |
| INSTALLATION DATE: | 07/16/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.56 | 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 |
|---|---|---|---|---|
| 08/29/24 | 20.72 | 664.84 | - | 4.5 |
| 11/20/24 | 22.23 | 663.33 | - | 4.0 |
| 02/21/25 | 21.76 | 663.80 | - | 4.0 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 08/29/24 | 3.31 | 6.1 | 107 |
| 11/20/24 | 3.28 | 6.0 | 119 |
| 02/21/25 | 3.09 | 6.0 | 99 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-15** | |
| INSTALLATION DATE: | 07/16/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 685.56 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 08/29/24 | <0.001 | <0.001 | <0.001 | <0.001 | 0.020 | 0.020 | 0.020 |
| 11/20/24 | <0.001 | <0.001 | <0.001 | <0.001 | 0.018 | 0.018 | 0.020 |
| 02/21/25 | <0.001 | <0.001 | <0.001 | <0.001 | 0.008 | 0.008 | 0.010 |
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| GRP SSTLs: | **0.851** | **0.213** | **42.6** | **29.8** | **175** | **-** | **0.851** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-16** | | |
| INSTALLATION DATE: | 07/16/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 684.97 | 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 |
|---|---|---|---|---|
| 08/29/24 | 20.73 | 664.24 | - | 4.5 |
| 11/20/24 | 22.24 | 662.73 | - | 4.0 |
| 02/21/25 | 19.82 | 665.15 | - | 5.0 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 08/29/24 | 3.54 | 6.1 | 146 |
| 11/20/24 | 3.37 | 6.1 | 122 |
| 02/21/25 | 3.37 | 6.1 | 142 |

# Monitoring Point Data Summary Table

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|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-16** | |
| INSTALLATION DATE: | 07/16/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 684.97 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 08/29/24 | <0.001 | 0.001 | <0.001 | <0.001 | <0.001 | 0.001 | 0.012 |
| 11/20/24 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | 0.014 |
| 02/21/25 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | 0.011 |
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| GRP SSTLs: | **1.06** | **0.265** | **52.9** | **37** | **175** | **-** | **1.06** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-17** | | |
| INSTALLATION DATE: | 07/16/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 679.97 | 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 |
|---|---|---|---|---|
| 08/29/24 | 17.34 | 662.63 | - | 5.5 |
| 11/20/24 | 18.87 | 661.10 | - | 5.0 |
| 02/21/25 | 18.03 | 661.94 | - | 5.0 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 08/29/24 | 2.87 | 6.0 | 98 |
| 11/20/24 | 2.96 | 6.0 | 108 |
| 02/21/25 | 2.79 | 5.9 | 97 |

# Monitoring Point Data Summary Table

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-17** | |
| INSTALLATION DATE: | 07/16/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 679.97 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 08/29/24 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | <0.001 |
| 11/20/24 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | <0.001 |
| 02/21/25 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | 0.001 |
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| GRP SSTLs: | **0.418** | **0.104** | **20.9** | **14.6** | **175** | **-** | **0.418** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-18** | | |
| INSTALLATION DATE: | 07/16/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 681.57 | 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 |
|---|---|---|---|---|
| 08/29/24 | 18.94 | 662.63 | - | 5.5 |
| 11/20/24 | 21.80 | 659.77 | - | 4.0 |
| 02/21/25 | 19.11 | 662.46 | - | 5.5 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 08/29/24 | 3.33 | 6.1 | 127 |
| 11/20/24 | 3.12 | 6.0 | 136 |
| 02/21/25 | 3.21 | 6.0 | 136 |

# Monitoring Point Data Summary Table

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-18** | |
| INSTALLATION DATE: | 07/16/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 681.57 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 08/29/24 | 0.016 | 0.015 | 0.001 | 0.003 | 0.036 | 0.055 | 0.023 |
| 11/20/24 | 0.017 | 0.016 | <0.001 | 0.001 | 0.014 | 0.031 | 0.01 |
| 02/21/25 | 0.014 | 0.010 | <0.001 | 0.005 | 0.035 | 0.050 | 0.011 |
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| GRP SSTLs: | **0.654** | **0.163** | **32.7** | **22.9** | **175** | **-** | **0.654** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-19** | | |
| INSTALLATION DATE: | 07/15/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 657.91 | 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 |
|---|---|---|---|---|
| 08/29/24 | 15.21 | 642.70 | - | 6.0 |
| 11/20/24 | 16.84 | 641.07 | - | 5.0 |
| 02/21/25 | 15.36 | 642.55 | - | 6.0 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 08/29/24 | 3.28 | 5.9 | 118 |
| 11/20/24 | 3.15 | 5.8 | 131 |
| 02/21/25 | 2.65 | 5.9 | 94 |

# Monitoring Point Data Summary Table

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **MW-19** | |
| INSTALLATION DATE: | 07/15/24 | WELL DEPTH (FT BTOC): | 30.0 | SCREEN LENGTH (FT): | 15 | CASING ELEV (FT ABOVE MSL): | 657.91 | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 08/29/24 | <0.001 | 0.012 | 1.02 | 0.43 | 2.49 | 3.952 | 0.106 |
| 11/20/24 | <0.025 | **0.122** | **10.9** | 2.41 | 15.1 | 28.532 | **0.485** |
| 02/21/25 | <0.100 | <0.100 | 2.08 | 0.782 | 5.62 | 8.482 | 0.179 |
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| GRP SSTLs: | **0.207** | **0.0517** | **10.3** | **7.24** | **103** | **-** | **0.207** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **VW-1** | | |
| INSTALLATION DATE: | 03/19/24 | WELL DEPTH (FT BTOC): | 44.0 | SCREEN LENGTH (FT): | 2 | CASING ELEV (FT ABOVE MSL): | 685.30 | 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 |
|---|---|---|---|---|
| 03/28/24 | 19.31 | 665.99 | - | 12.0 |
| 08/29/24 | 20.81 | 664.49 | - | 13.5 |
| 11/20/24 | 22.05 | 663.25 | - | 10.5 |
| 02/21/25 | 21.12 | 664.18 | - | 11.0 |

## INTRINSIC GROUNDWATER DATA SUMMARY

| SAMPLE DATE | DISSOLVED OXYGEN (mg/L) | pH | REDOX POTENTIAL (mV) |
|---|---|---|---|
| 03/28/24 | 3.41 | 6.3 | 169 |
| 08/29/24 | 3.39 | 6.3 | 147 |
| 11/20/24 | 3.10 | 6.2 | 120 |
| 02/21/25 | 3.52 | 6.3 | 149 |

# Monitoring Point Data Summary Table

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **VW-1** | |
| INSTALLATION DATE: | 03/19/24 | WELL DEPTH (FT BTOC): | 44.0 | SCREEN LENGTH (FT): | | CASING ELEV (FT ABOVE MSL): | | WELL TYPE: II<br>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 |
|---|---|---|---|---|---|---|---|
| 03/28/24 | 0.018 | 0.048 | 0.018 | 0.093 | 0.332 | 0.491 | 0.029 |
| 08/29/24 | 0.046 | 0.014 | 0.001 | 0.003 | 0.020 | 0.038 | 0.005 |
| 11/20/24 | 0.042 | 0.012 | 0.002 | 0.005 | 0.021 | 0.040 | 0.022 |
| 02/21/25 | 0.046 | 0.008 | <0.001 | 0.001 | 0.009 | 0.018 | 0.011 |
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| GRP SSTLs: | **1.42** | **0.355** | **71.1** | **49.7** | **175** | **-** | **1.42** |
| Inhalation SSTLs: | **48000** | **29** | **526** | **169** | **175** | **-** | **31** |

# Monitoring Point Data Summary Table

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SITE NAME: | PPBB C-Store | | | UST NUMBER: | 23-04-02 | WELL ID: | **Carbon Effluent** | |
| INSTALLATION DATE: | - | WELL DEPTH (FT BTOC): | - | SCREEN LENGTH (FT): | - | CASING ELEV (FT ABOVE MSL): | - | WELL TYPE: - DIAMETER (IN): - |

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

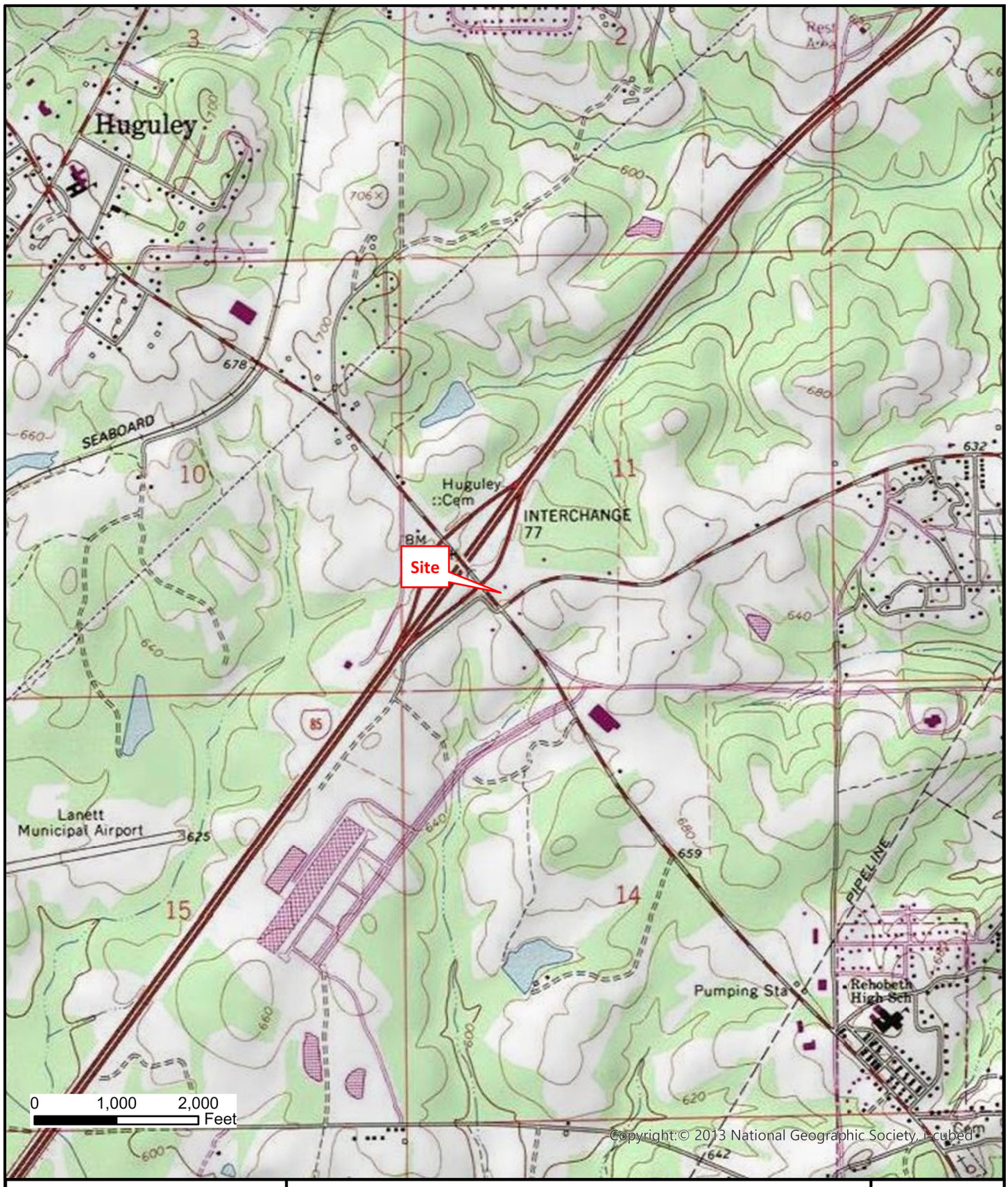
## GROUNDWATER ANALYTICAL SUMMARY (mg/L)

| SAMPLE DATE | MTBE | BENZENE | TOLUENE | ETHYLBENZENE | TOTAL XYLENES | TOTAL BTEX | NAPHTHALENE |
|---|---|---|---|---|---|---|---|
| 09/07/23 | <0.010 | 0.634 | 0.093 | 0.118 | 0.234 | 1.079 | 0.010 |
| 03/28/24 | NOT SAMPLED | | | | | | |
| 08/29/24 | 0.007 | 0.005 | 0.001 | 0.002 | 0.007 | 0.015 | <0.001 |
| 11/20/24 | 0.009 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | <0.001 |
| 02/21/25 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | BDL | <0.001 |

THREE NOTCH GROUP

# FIGURES

APPENDIX B

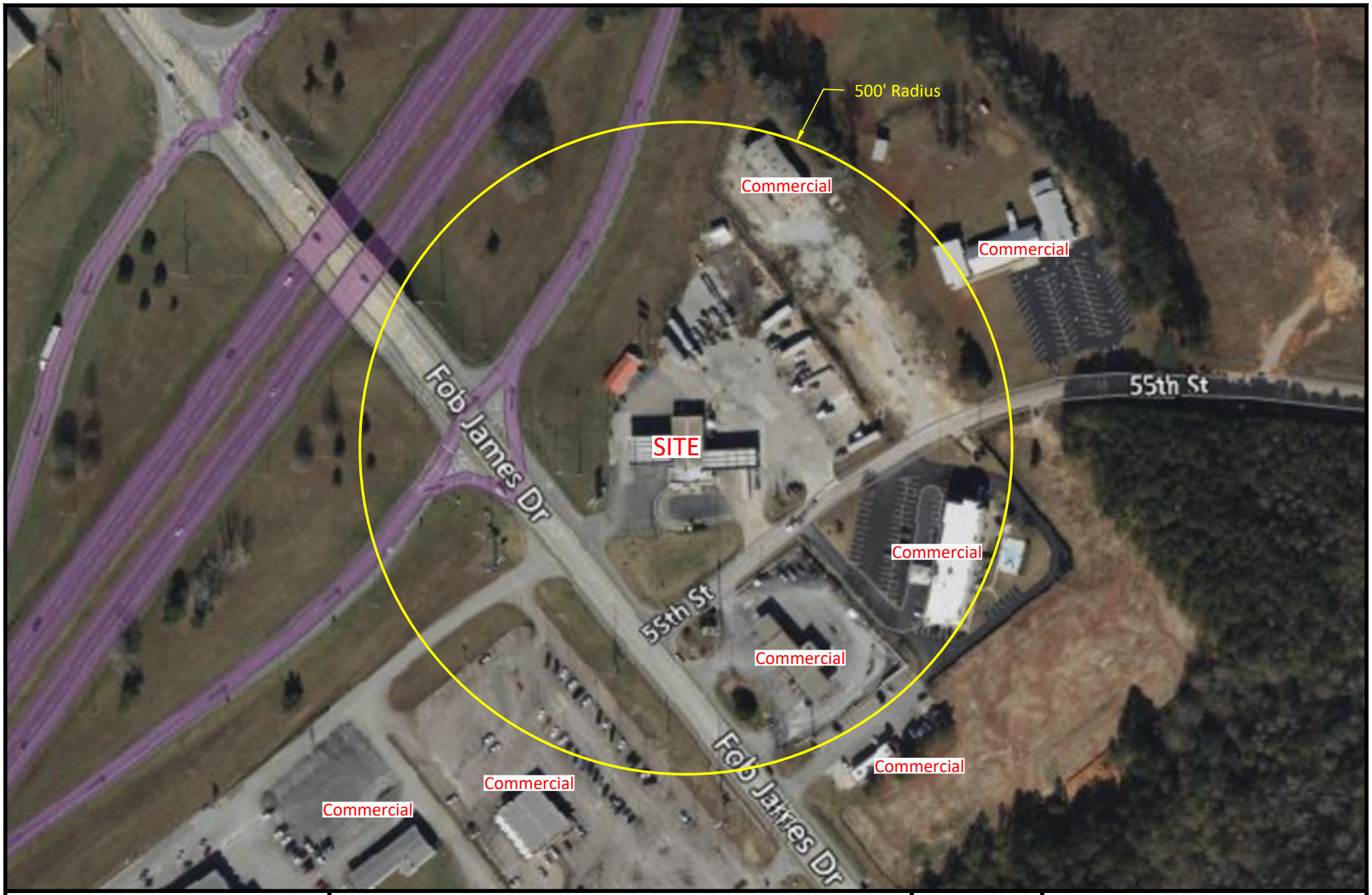



THREE NOTCH GROUP

Site Location USGS Topographic Map

PPBB C-Store 101
608 Fob James Drive
Valley, Chambers County, Alabama

N



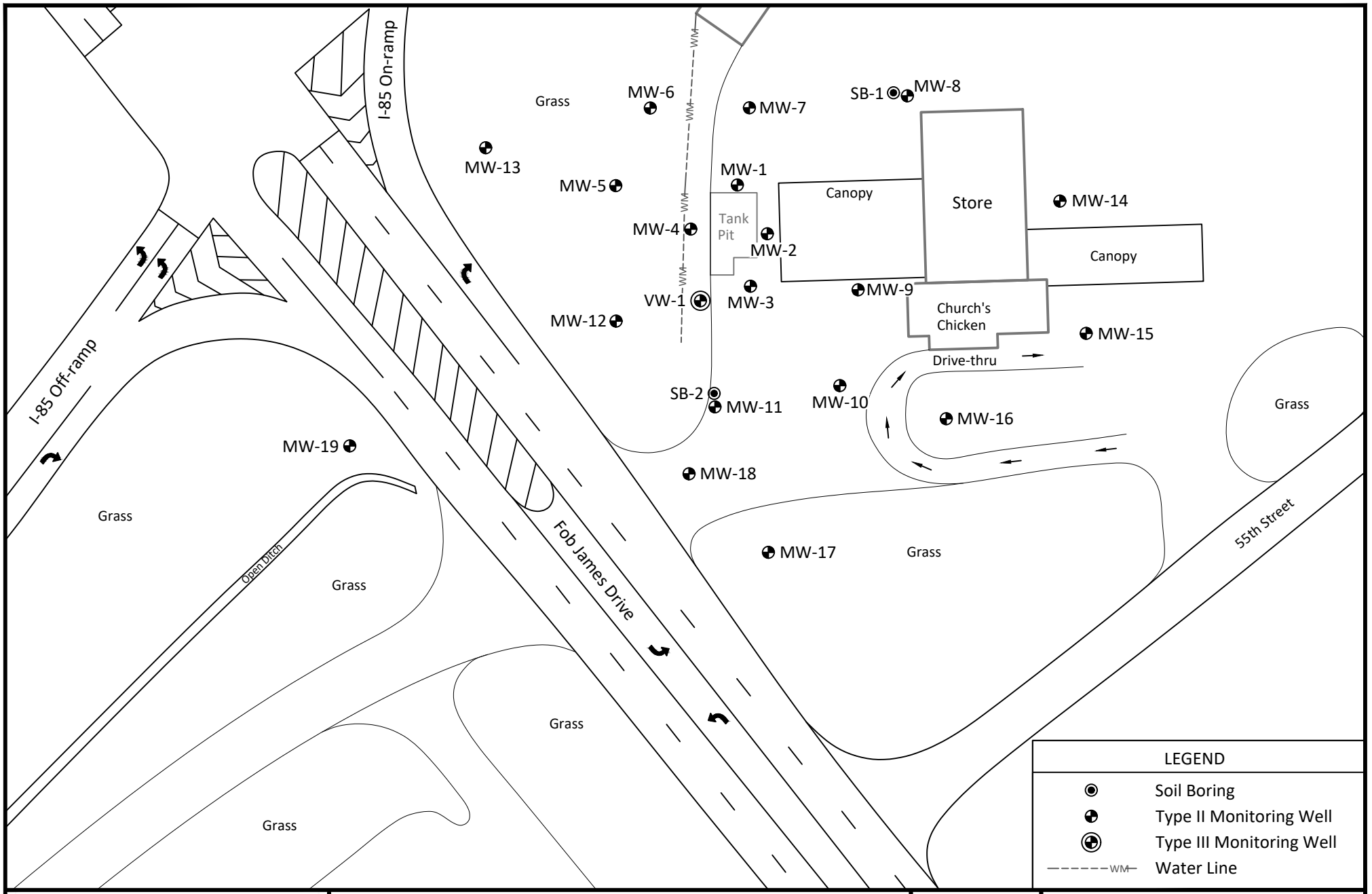

THREE NOTCH GROUP

Land Use Map

PPBB C-Store 101
608 Fob James Drive
Valley, Chambers County, Alabama

Approximate Scale in Feet

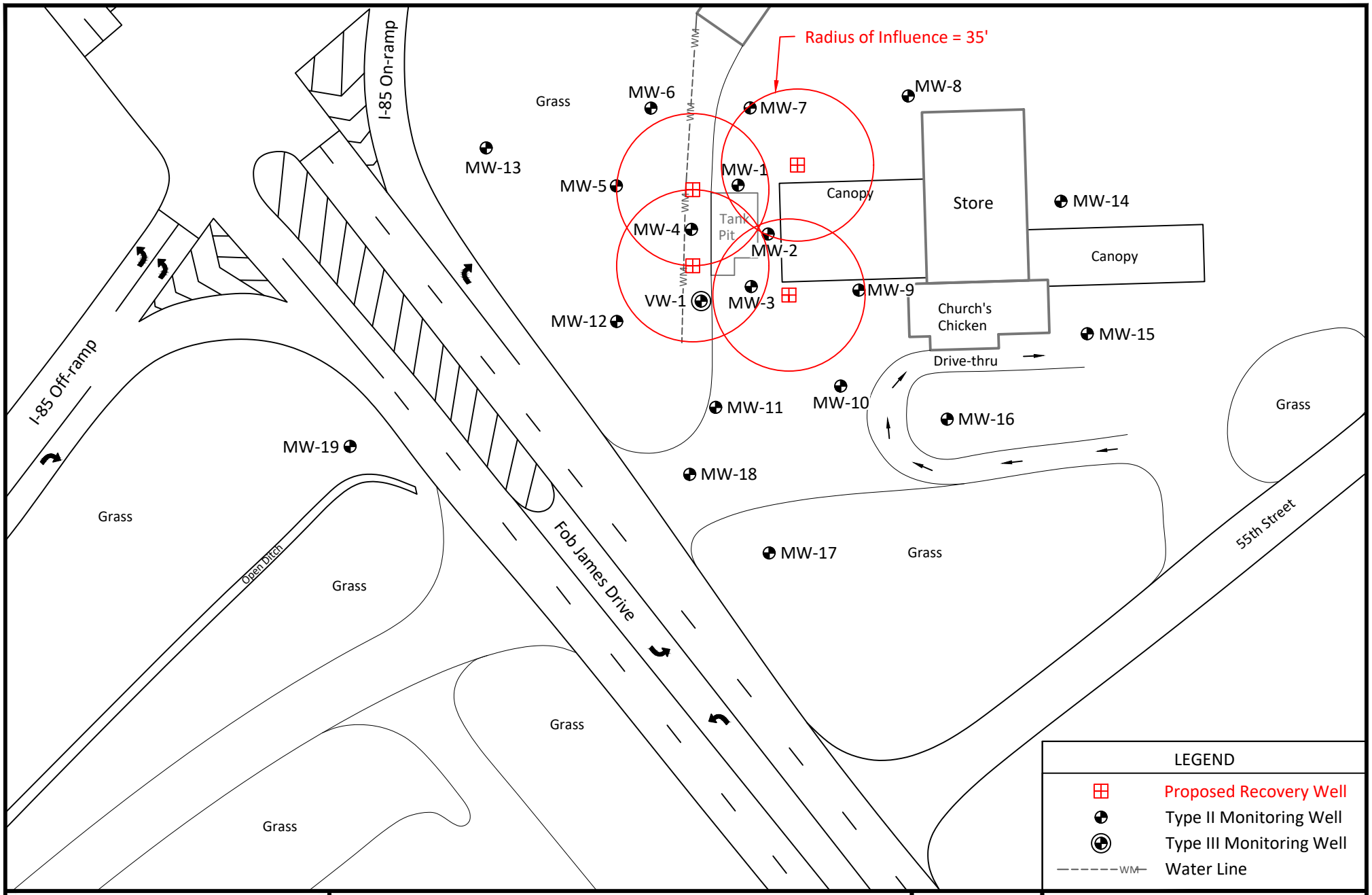
0 200 400




THREE NOTCH GROUP

Site Map with Utility and Well Locations

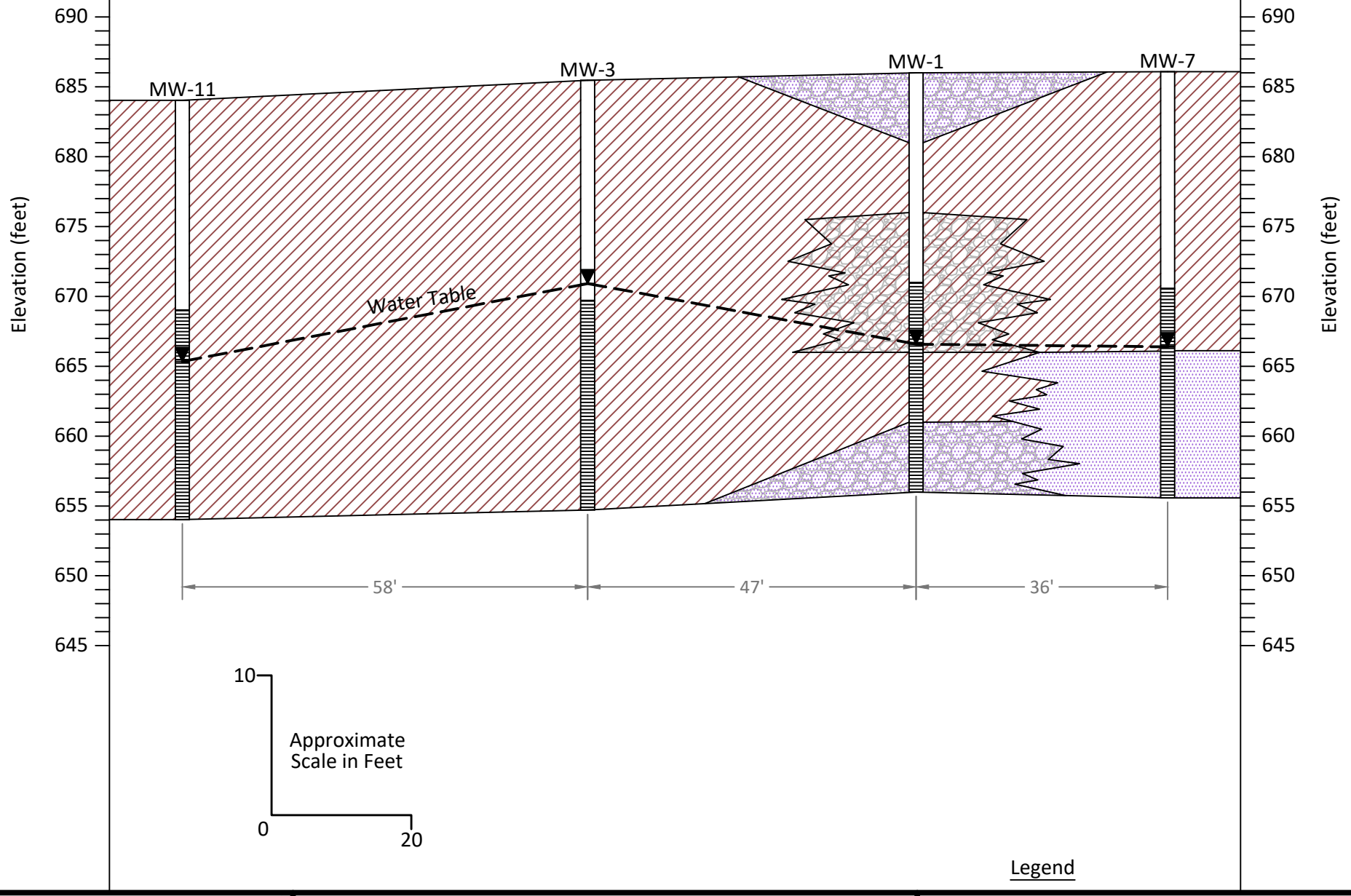
PPBB C-Store 101
608 Fob James Drive
Valley, Chambers County, Alabama




THREE NOTCH GROUP

Proposed Recovery Well Locations Map

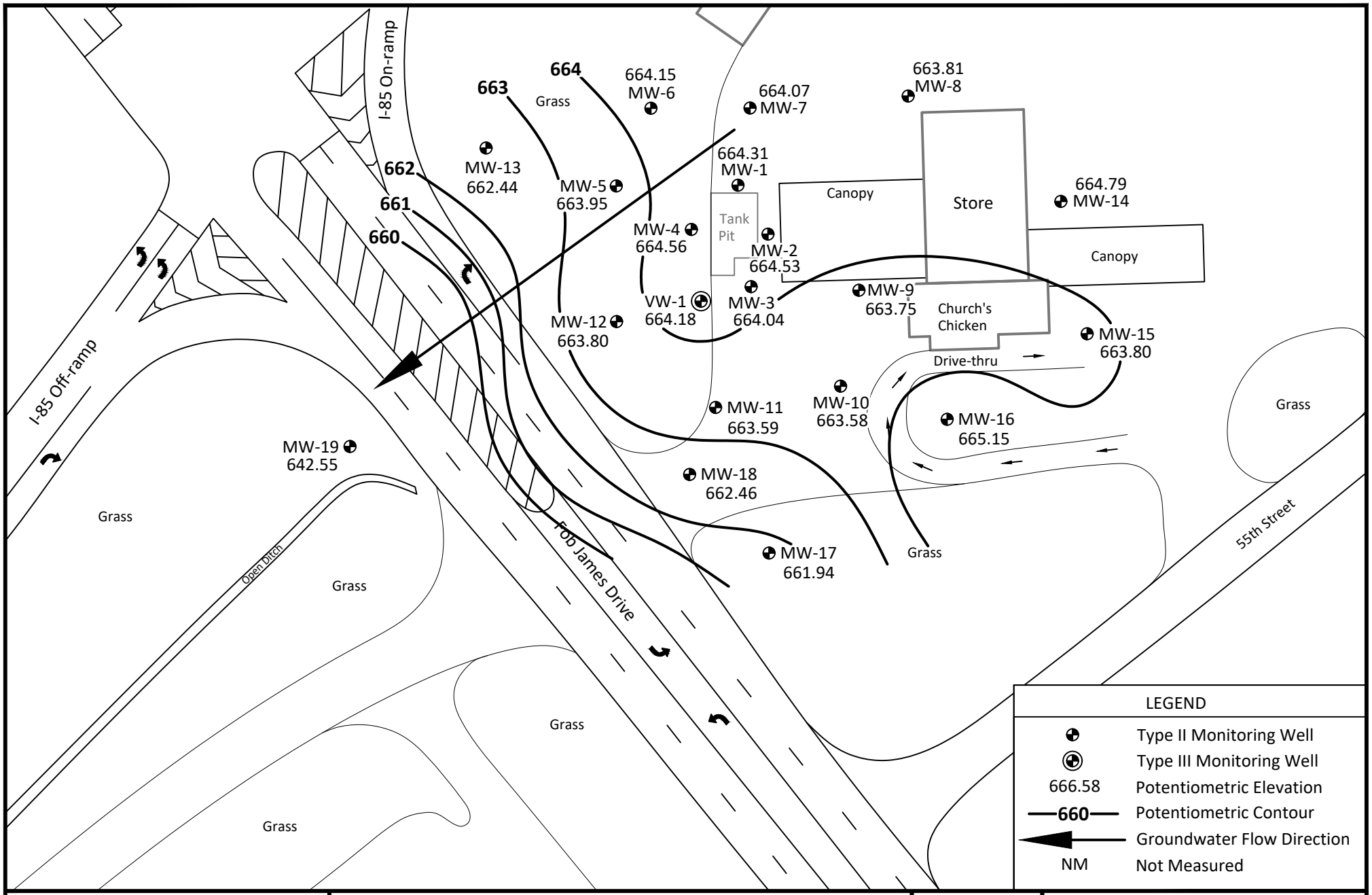
PPBB C-Store 101
608 Fob James Drive
Valley, Chambers County, Alabama

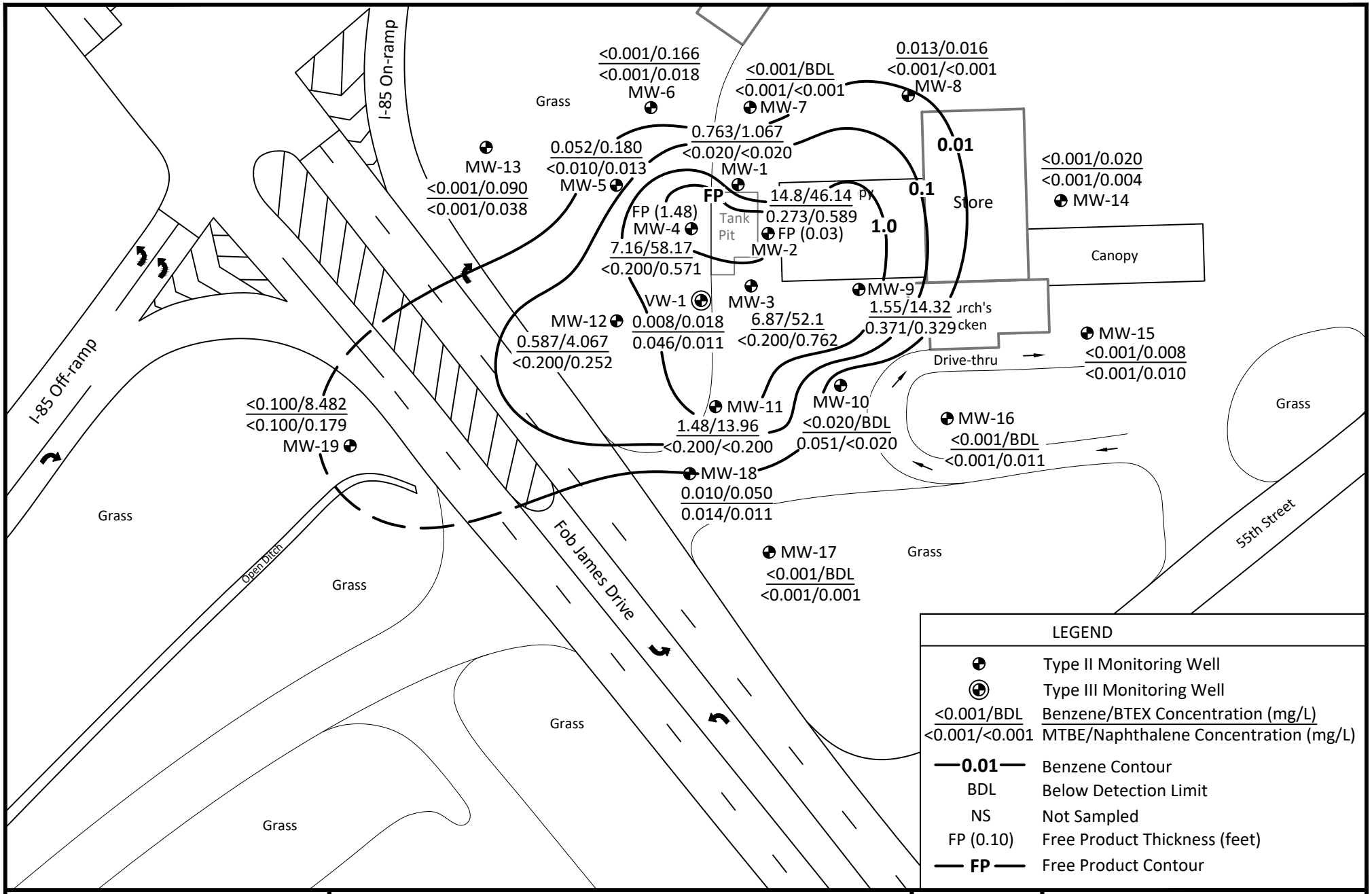



THREE NOTCH GROUP

Lithologic Cross-Section

PPBB C-Store 101
608 Fob James Drive
Valley, Chambers County, Alabama

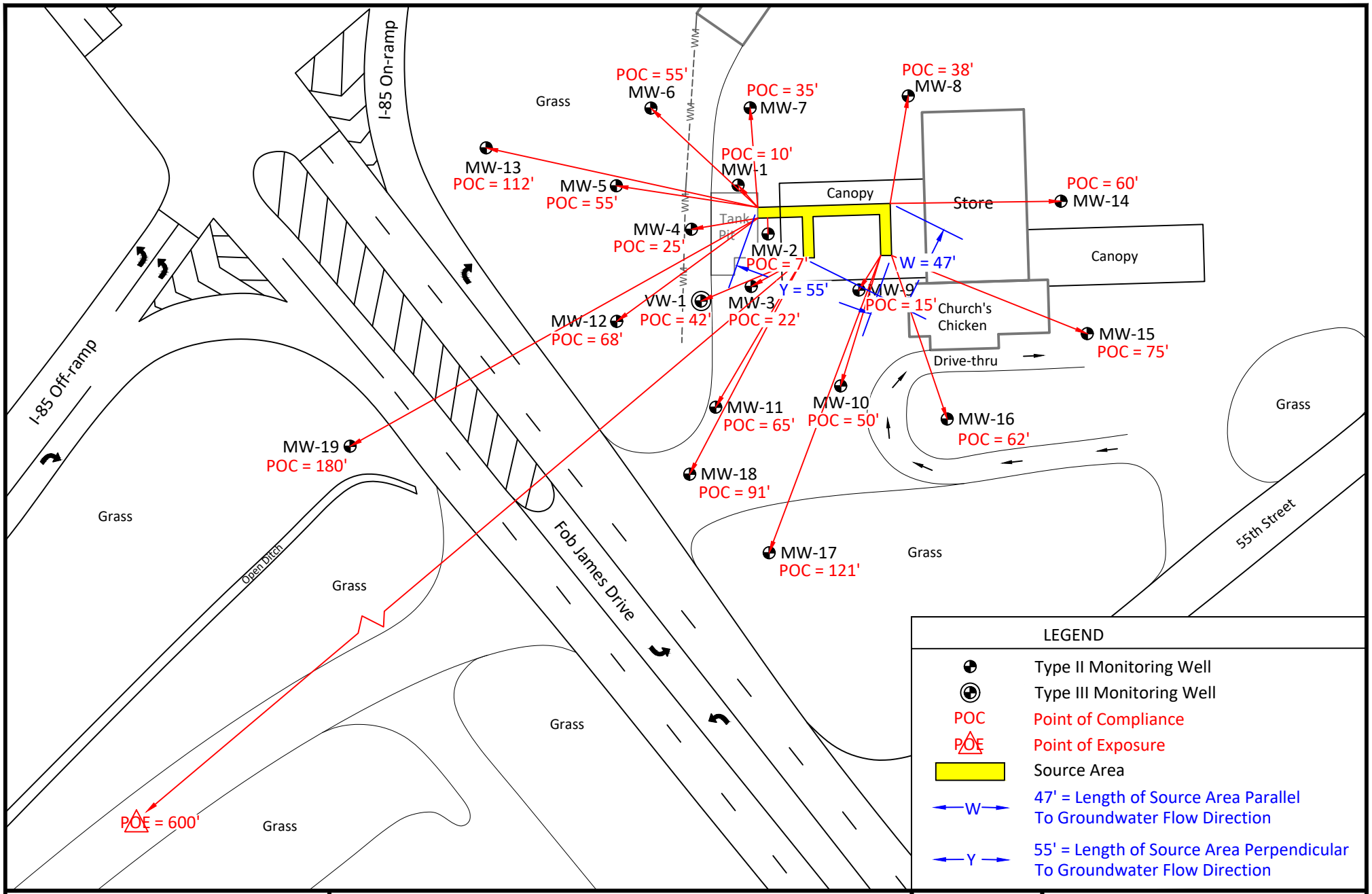

I-85 On-ramp
I-85 Off-ramp
Fob James Drive
55th Street
Open Ditch
664
663
662
661
660
664.15
MW-6
664.07
MW-7
663.81
MW-8
MW-13
662.44
MW-5
663.95
664.31
MW-1
664.79
MW-14
Canopy
Store
Tank
Pit
MW-4
664.56
MW-2
664.53
Canopy
MW-9
663.75
Church's
Chicken
VW-1
664.18
MW-3
664.04
MW-12
663.80
MW-15
663.80
Drive-thru
MW-10
663.58
MW-11
663.59
MW-16
665.15
MW-19
642.55
MW-18
662.46
MW-17
661.94
Grass
LEGEND
Type II Monitoring Well
Type III Monitoring Well
666.58 Potentiometric Elevation
660 Potentiometric Contour
Groundwater Flow Direction
NM Not Measured
THREE NOTCH GROUP
Potentiometric Surface Map
February 21, 2025
PPBB C-Store 101
608 Fob James Drive
Valley, Chambers County, Alabama
Approximate Scale in Feet
0
50
100




THREE NOTCH GROUP

Groundwater Analytical and Benzene Contour Map
February 21, 2025

PPBB C-Store 101
608 Fob James Drive
Valley, Chambers County, Alabama

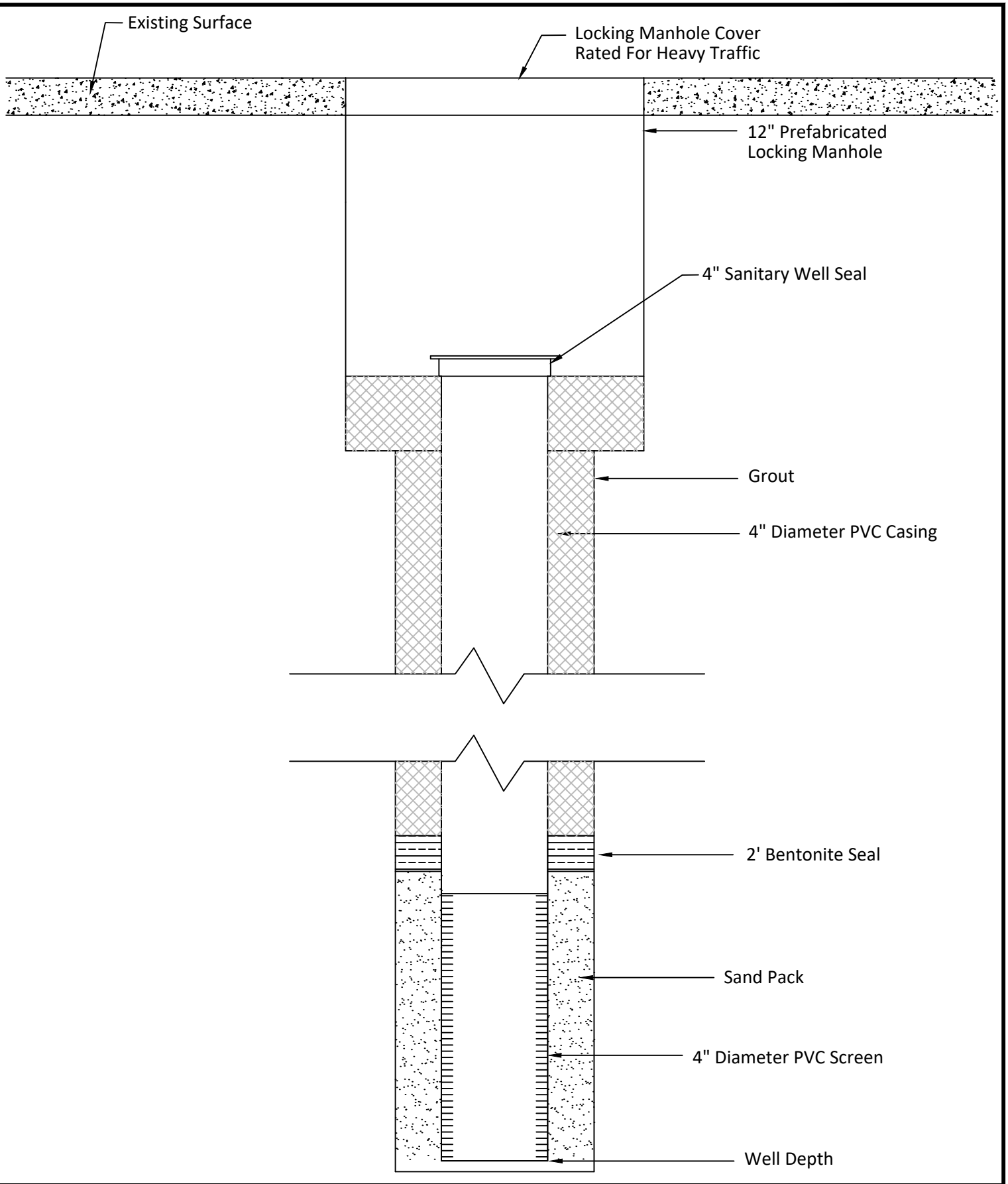



THREE NOTCH GROUP

Map Identifying POE and POCs

PPBB C-Store 101
608 Fob James Drive
Valley, Chambers County, Alabama

Approximate Scale in Feet
0 50 100

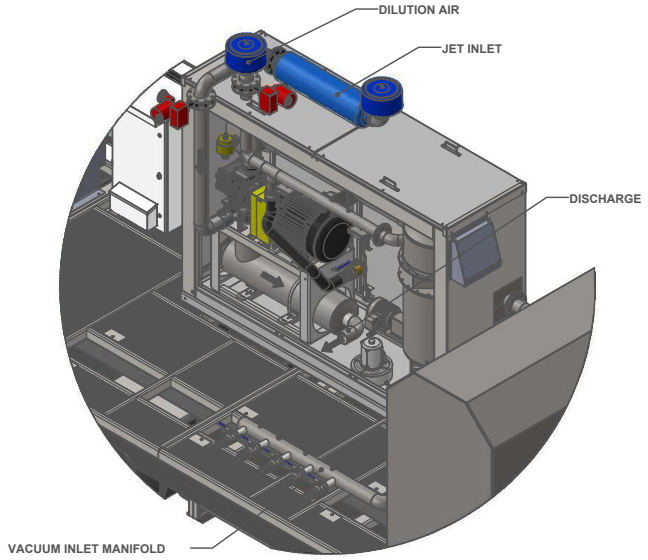


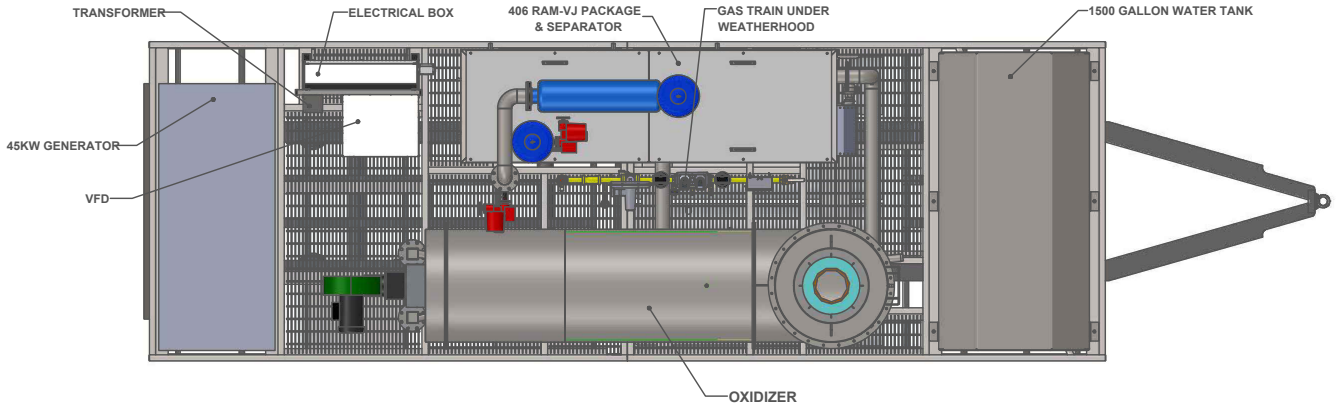

THREE NOTCH GROUP

Recovery Well Construction Detail

PPBB C-Store 101
608 Fob James Drive
Valley, Chambers County, Alabama

NOT TO SCALE




cdge.com

# MEME Trailer Diagram

THREE NOTCH GROUP

# APPROVED ARBCA

# SSTLS

APPENDIX C

| ARBCA SUMMARY REPORT | | | | | | | | | | FORM NO. 29a |
|---|---|---|---|---|---|---|---|---|---|---|
| **UST Incident No(s):** UST 23-04-02 | | | | | | **Facility ID:** 25418-017-010913 | | | | |
| **Date Form Completed:** 10-Dec-24 | | | | | | **Form Completed By:** Michael Kotar | | | | |

## TIER 2 ON-SITE TARGET LEVELS FOR INHALATION AND INGESTION

**NOTE:** The SSTLs listed for each route of exposure are the minimum SSTLs for all the receptors for that particular route of exposure. The Tier 2 on-site target levels are the minimum SSTLs of all routes of exposures within each medium.

| CHEMICALS OF CONCERN | SURFICIAL SOIL | | SUBSURFACE SOIL | | | GROUNDWATER | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Outdoor Inhalation, Ingestion, & Dermal Contact [mg/kg] | **On-Site Tier 2 Target Levels** [mg/kg] | Indoor Inhalation [mg/kg] | Outdoor Inhalation [mg/kg] | **On-Site Tier 2 Target Levels** [mg/kg] | Indoor Inhalation [mg/L] | Outdoor Inhalation [mg/L] | Ingestion of Water [mg/L] | **On-Site Tier 2 Target Levels** [mg/L] |
| **ORGANICS** | | | | | | | | | |
| Benzene | 220 | **220** | 0.09 | 0.816 | **0.09** | 29 | 1750 | NA | **29** |
| Toluene | 132 | **132** | 12.2 | 111 | **12.2** | 526 | 526 | NA | **526** |
| Ethylbenzene | 54.4 | **54.4** | 40.4 | 54.4 | **40.4** | 169 | 168 | NA | **168** |
| Xylenes (Total) | 63.1 | **63.1** | 15.1 | 63.1 | **15.1** | 175 | 175 | NA | **175** |
| MtBE | 377 | **377** | 338 | 3070 | **338** | 48000 | 48000 | NA | **48000** |
| Anthracene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Benzo(a)anthracene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Benzo(a)pyrene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Benzo(b)fluoranthene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Benzo(g,h,i)perylene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Benzo(k)fluoranthene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Chrysene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Fluoranthene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Fluorene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Naphthalene | 39.2 | **39.2** | 10.2 | 39.2 | **10.2** | 31 | 31 | NA | **31** |
| Phenanthrene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Pyrene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| **METALS** | | | | | | | | | |
| Arsenic | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Barium | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Cadmium | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Chromium VI | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Lead | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Zinc | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |

**NOTE:**
NA: Not Available

| ARBCA SUMMARY REPORT | | | | | | | | | FORM NO. 29b |
|---|---|---|---|---|---|---|---|---|---|
| **UST Incident No(s):** UST 23-04-02 | | | | | | **Facility ID:** 25418-017-010913 | | | |
| **Date Form Completed:** 10-Dec-24 | | | | | | **Form Completed By:** Michael Kotar | | | |

## TIER 2 OFF-SITE TARGET LEVELS FOR INHALATION AND INGESTION

**NOTE:** The SSTLs listed for each route of exposure are the minimum SSTLs for all the receptors for that particular route of exposure. The Tier 2 off-site target levels are the minimum SSTLs of all routes of exposures within each medium.

| CHEMICALS OF CONCERN | SURFICIAL SOIL | | SUBSURFACE SOIL | | | GROUNDWATER | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Outdoor Inhalation, Ingestion, & Dermal Contact [mg/kg] | **Off-Site Tier 2 Target Levels** [mg/kg] | Indoor Inhalation [mg/kg] | Outdoor Inhalation [mg/kg] | **Off-Site Tier 2 Target Levels** [mg/kg] | Indoor Inhalation [mg/L] | Outdoor Inhalation [mg/L] | Ingestion of Water [mg/L] | **Off-Site Tier 2 Target Levels** [mg/L] |
| **ORGANICS** | | | | | | | | | |
| Benzene | 220 | **220** | 0.09 | 0.816 | **0.09** | 29 | 1750 | NA | **29** |
| Toluene | 132 | **132** | 12.2 | 111 | **12.2** | 526 | 526 | NA | **526** |
| Ethylbenzene | 54.4 | **54.4** | 40.4 | 54.4 | **40.4** | 169 | 168 | NA | **168** |
| Xylenes (Total) | 63.1 | **63.1** | 15.1 | 63.1 | **15.1** | 175 | 175 | NA | **175** |
| MtBE | 377 | **377** | 338 | 3070 | **338** | 48000 | 48000 | NA | **48000** |
| Anthracene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Benzo(a)anthracene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Benzo(a)pyrene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Benzo(b)fluoranthene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Benzo(g,h,i)perylene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Benzo(k)fluoranthene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Chrysene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Fluoranthene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Fluorene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Naphthalene | 39.2 | **39.2** | 10.2 | 39.2 | **10.2** | 31 | 31 | NA | **31** |
| Phenanthrene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Pyrene | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| **METALS** | | | | | | | | | |
| Arsenic | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Barium | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Cadmium | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Chromium VI | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Lead | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |
| Zinc | NA | **NA** | NA | NA | **NA** | NA | NA | NA | **NA** |

**NOTE:**
NA: Not Available

THREE NOTCH GROUP

# 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 Three Notch Group, Inc. (Three Notch) 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 Three Notch 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 Three Notch 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:

**$l = w - d$** (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 into 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 processed and treated through a portable carbon unit prior to being released onsite. Any PCW with free product or strong odors will be containerized and transported to the Three Notch facility where it will be disposed of at an approved facility.

**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 volatile organics, including Benzene, Toluene, Ethylbenzene, Total Xylenes, Methyl-tert-butyl-ether, and Naphthalene (BTEX/MTBE/Naph) analysis 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 Three Notch 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/Naph (volatile) analysis. The preservation employed for BTEX/MTBE/Naph (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 Three Notch 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 Three Notch by common carrier or are dropped off by a laboratory representative. Upon receipt of the kits, Three Notch 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. Three Notch 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 Three Notch 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 Three Notch 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 Three Notch. 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 Three Notch 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 Three Notch, 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.

THREE NOTCH GROUP

# SITE HEALTH AND SAFETY PLAN

APPENDIX E

# Site Health and Safety Plan

**PPBB C-Store 101**
**608 Fob James Dr.**
**Valley, Chambers County, Alabama**
**Facility ID No. 25418-017-010913**
**UST No. 23-04-02**

*Prepared For:*
**PPBB LLC.**
**608 Fob James Dr.**
**Valley, Alabama 36854**

*Prepared By:*
**Three Notch Group, Inc.**
**11 Court Square**
**Andalusia, Alabama 36421**

## *Table of Contents*

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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 Three Notch Group, Inc. (Three Notch) for the PPBB C-Store 101 facility located in Valley, Chambers 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 Three Notch 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 Three Notch 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. Three Notch 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. Three Notch 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 my 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.

## *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 hazardous 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 hazardous 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 form 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, Three Notch 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 OHSA.

#### *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.<br>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.<br>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.<br>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.<br>Immediately remove any protective clothing.<br>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.<br>Transfer to medical facility.<br>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, Three Notch 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 Three Notch suspects the utility to exist, Three Notch 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 Electrocution*

### *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 Three Notch. Three Notch will notify local utility companies to provide a site inspection and mark any existing subsurface electrical lines. In addition, Three Notch 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 Three Notch and should be kept in all company vehicles. If field personnel are aware of their allergic reactions to insect bites, Three Notch 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 know 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 area 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 exists
- 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 Three Notch 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. Three Notch requires that the work area be posted with “NO SMOKING” signs in an attempt to prevent fires from occurring; however, as a secondary precaution Three Notch 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 Three Notch personnel will be notified of the incident as soon as possible.

## *11.1 Notification/Reporting Procedures*

In the event of an emergency, Three Notch 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 Three Notch 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. Three Notch 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, Three Notch 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. Three Notch 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, Three Notch 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 | City of Georgiana | 334-376-2800 |

| | | |
|---|---|---|
| Police Department | Valley PD | 334-756-5200 |
| Ambulance | City of Valley EMS | 334-756-5761 |
| Hospital | EAMC | 334-756-9180 |
| Corporate HSO | Alan Barck | 334-222-9431 |
| Project Manager | April Harrelson | 334-222-9431 |
| EPA RCRA-Superfund Hotline | | 800-424-9346 |
| Chemtrec (24 hours) | | 800-424-9300 |
| Bureau of Explosives (24 hours) | | 202-293-4048 |
| Centers for Disease Control (Biological Agents) | | 404-633-5353 |
| National Response Center | | 800-424-8802 |

## *Medical Facility*

Name of Hospital: East Alabama Medical Center

Address: 4800 48th Street, Valley, Alabama

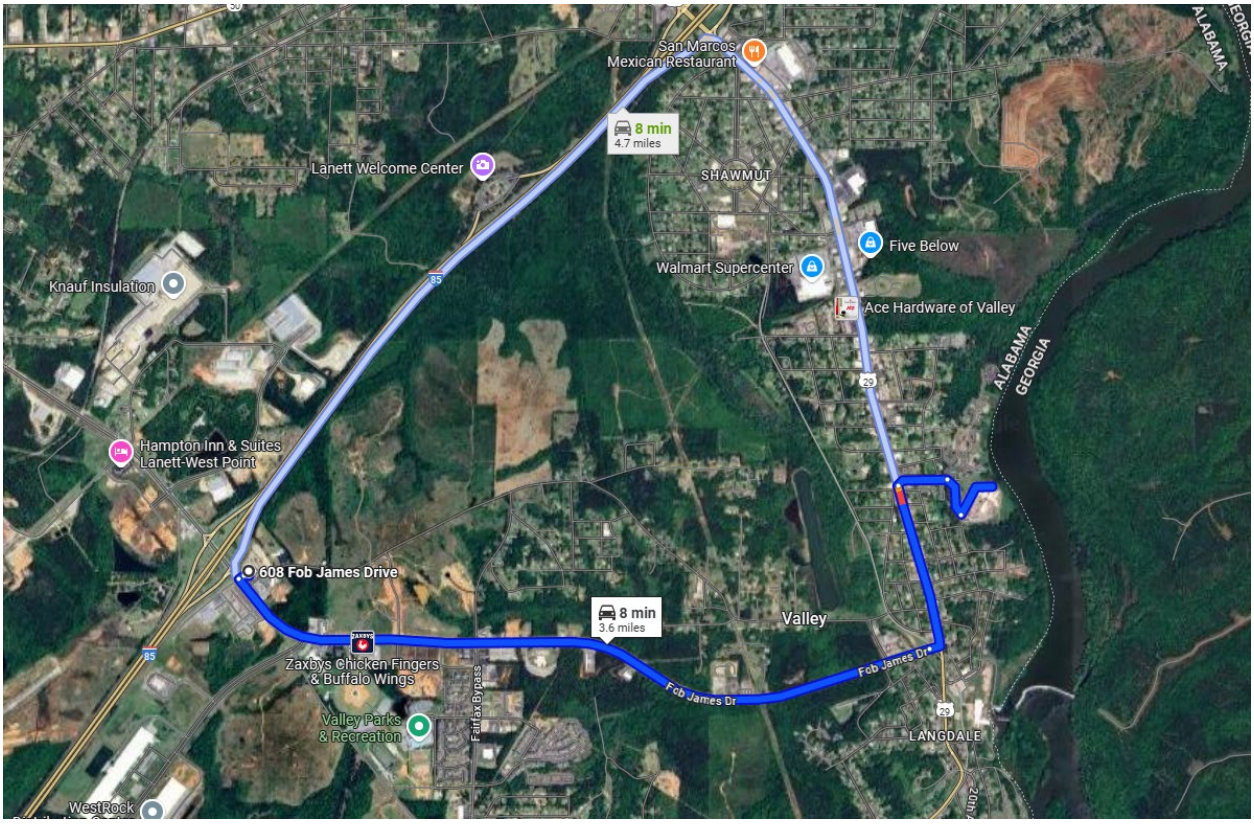
Phone: 334-756-9180

Route to Hospital: Head west and turn left toward Fob James Drive then turn left onto Fob James Drive and go 2.5 miles. Turn left onto 20th Ave and go 0.6 mile. Turn right onto 48th St and to 0.1 mile. Turn left to stay on 48th St. and destination will be on the right.

Travel Time from Site: 8 minutes

Distance to Hospital: 3.6 miles

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


San Marcos
Mexican Restaurant
8 min
4.7 miles
Lanett Welcome Center
SHAWMUT
Five Below
Walmart Supercenter
Knauf Insulation
Ace Hardware of Valley
ALABAMA
GEORGIA
Hampton Inn & Suites
Lanett-West Point
608 Fob James Drive
8 min
3.6 miles
Valley
Zaxbys Chicken Fingers
& Buffalo Wings
Fob James Dr
Valley Parks
& Recreation
Fairfax Bypass
LANGDALE
WestRock

# UST RELEASE FACT SHEET

GENERAL INFORMATION:

SITE NAME: PPBB C-Store 101
ADDRESS: 608 Fob James Drive
Valley, Chambers County, Alabama

FACILITY I.D. NO.: 25418-017-010913
INCIDENT NO.: UST23-04-02

RESULTS OF EXPOSURE ASSESSMENT:

| | |
|---|---|
| How many private drinking water wells are located within 1,000 ft. of site? | 1 |
| How many public water supply wells are located within 1 mile of the site? | 0 |
| Have any drinking water supply wells been impacted by contamination from this release? | No |
| Is there an imminent threat of contamination to any drinking water wells? | { } Yes {X} No |
| Have vapors or contaminated groundwater posed a threat to the public? | { } Yes {X} No |
| Are any underground utilities impacted or imminently threatened by the release? | { } Yes {X} No |
| Have surface waters been impacted by the release? | { } Yes {X} No |
| Is there an imminent threat of contamination to surface waters? | { } Yes {X} No |
| What is the type of surrounding population? | Commercial |

CONTAMINATION DESCRIPTION:

Type of contamination at site: {X} Gasoline, { } Diesel, { } Waste Oil
{ } Kerosene, { } Other _____

Free product present in wells? {X} Yes { } No Maximum thickness measured: 1.48 ft. in MW-4 (2/21/25)

Maximum BTEX concentrations measured in soil: 21.303 mg/L in MW-3 (08/30/23)

Maximum BTEX or PAH concentrations measured in groundwater: 81.81 mg/L in MW-4 (03/28/24)

ADEM GROUNDWATER BRANCH
UST SITE CLASSIFICATION SYSTEM
CHECKLIST

Please read all of the following statements and mark either yes or no if the statement applies to your site. If you have conducted a Preliminary or Secondary Investigation, all questions should be answered. Closure site assessment reports may not provide you with all the necessary information but answer the statements with the knowledge obtained during the closure site assessment.

| | |
|---|---|
| SITE NAME: | PPBB C- Store 101 |
| SITE ADDRESS: | 608 Fob James Drive |
| | Valley, Chamber County, AL |
| FACILITY I.D. NO.: | 25418-017-010913 |
| UST INCIDENT NO.: | UST23-04-02 |
| OWNER NAME: | PPBB LLC |
| OWNER ADDRESS: | 608 Fob James Drive |
| | Valley, AL 36854 |
| NAME & ADDRESS OF PERSON COMPLETING THIS FORM: | April Harrelson, Project Manager |
| | Thee Notch Group, Inc. |
| | 11 Court Square |
| | Andalusia, AL 36420 |

| ***CLASSIFICATION*** | ***DESCRIPTION*** | ***YES*** | ***NO*** |
|---|---|---|---|
| CLASS A | IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR | | |
| A.1 | Vapor concentrations at or approaching explosive levels that could cause health effects, are present in a residence or building. | ☐ | ☒ |
| A.2 | Vapor concentrations at or approaching explosive levels are present in subsurface utility system(s), but no buildings or residences are impacted. | ☐ | ☒ |
| CLASS B | IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR | | |
| B.1 | An active public water supply well, public water supply line or public surface water intake is impacted or immediately threatened. | ☐ | ☒ |
| B.2 | An active domestic water supply well, domestic water supply line or domestic surface water intake is impacted or immediately threatened. | ☐ | ☒ |
| B.3 | The release is located within a designated Wellhead Protection Area I. | ☐ | ☒ |
| CLASS C | IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR | | |
| C.1 | Ambient vapor/particulate concentrations exceed concentrations of concern from an acute exposure, or safety viewpoint. | ☐ | ☒ |
| C.2 | Free product is present on the groundwater, at ground surface, on surface water bodies, in utilities other than water supply lines, or in surface water runoff. | ☒ | ☐ |

| *CLASSIFICATION* | *DESCRIPTION* | *YES* | *NO* |
|---|---|---|---|
| CLASS D | SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| D.1 | There is a potential for explosive levels, or concentrations of vapors that could cause acute effects, to accumulate in a residence or other building. | ☐ | ☒ |
| D.2 | A non-potable water supply well is impacted or immediately threatened. | ☐ | ☒ |
| D.3 | Shallow contaminated surface soils are open to public access, and dwellings, parks, playgrounds, day care centers, schools or similar use facilities are within 500 feet of those soils. | ☐ | ☒ |
| CLASS E | SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| E.1 | A sensitive habitat or sensitive resources (sport fish, economically important species, threatened and endangered species, etc.) are impacted and affected. | ☐ | ☒ |
| CLASS F | SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| F.1 | Groundwater is impacted, and a public well is located within 1 mile of the site. | ☐ | ☒ |
| F.2 | Groundwater is impacted and a domestic well is located within 1,000 feet of the site. | ☒ | ☐ |
| F.3 | Contaminated soils and/or groundwater are located within designated Wellhead Protection Areas (Areas II or III). | ☐ | ☒ |
| CLASS G | SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| G.1 | Contaminated soils and/or groundwater are located within areas vulnerable to contamination from surface sources. | ☐ | ☒ |
| GLASS H | SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| H.1 | Impacted surface water, storm water or groundwater discharges within 500 feet of a surface water body used for human drinking water, whole body water-contact sports, or habitat to a protected or listed endangered plant and animal species. | ☐ | ☒ |
| CLASS I | LONG TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS | | |
| I.1. | Site has contaminated soils and/or groundwater but does not meet any of the above-mentioned criteria. | ☐ | ☒ |

***ADDITIONAL COMMENTS:***

**Complete the classification evaluation questions listed above. Upon completion, determine the highest rank of the site (A.1 is the highest rank) based on the statements answered with a yes.**

| Enter the determined classification ranking: | C.2 |
|---|---|

THREE NOTCH GROUP

# TASKS PERFORMANCE SUMMARY

APPENDIX F

# TASK PERFORMANCE SUMMARY

**CAP Development**
**PPBB C-Store 101**
**608 Fob James Drive**
**Valley, Chambers County, Alabama**

| Task Completed by Personnel/Title: | Project Management | Work Plan Preparation/ Review | Cost Proposal Preparation/ Review | Field Work | Data Interpretation/ Tabulations | Drafting | Report Preparation/ Review | Payment Request Preparation/ Review |
|---|---|---|---|---|---|---|---|---|
| Alan Barck, PE | | X | | | | | X | |
| April Harrelson, Project Manager | PM | PM | PM | | PM | | PM | PM |
| Ray Hollinghead, Drafter | | | | | | X | | |
| Karen Moore, Administrative Assistant | | | | | X | | | |
| Megan Sasser, Administrative Assisstant | | | X | | | | | |
| Kim Ballard, Administrative Assistant | | | X | | | | | X |
| Leigh Caylor, Administrative Assistant | | | X | | | | X | X |
| Michelle Wilson, Administrative Assistant | | | | | | | | |
| Patricia Horwath, Administrative Assistant | | | 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