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October 1, 2025

Mr. Jonathan Love, P.G.
Environmental Project Officer
Petroleum Tank Cleanup Section
Montana Department of Environmental Quality
P.O. Box 200901
Helena MT 59620-0901

RE: Remedial Investigation Work Plan for the Petroleum Release at the Town and Country Supply (Former Market Basket Store), 8014 South Frontage Road, Billings, Yellowstone County, Montana; Facility ID #56-08286 (TID #30228), Petroleum Release #2758, Work Plan #35045

Owner/ Responsible Party: Teresa Bidelman 3030 Wise Lane Billings, MT 59101 cenex24@msn.com

Consultant/ Work Plan Preparer: Pioneer Technical Services, Inc. Taylor Bienvenue, G.I.T. 2310 Broadwater Ave, Suite 1 Billings, MT 59102

tbienvenue@pioneer-technical.com

Dear Mr. Love:

On behalf of Terresa Bidelman, Pioneer Technical Services, Inc., prepared the following Remedial Investigation Work Plan and cost estimate for the Town and Country Supply (Former Market Basket Store) facility in Billings, Montana. As requested in correspondence from the Montana Department of Environmental Quality dated May 16, 2025, our scope of work and associated proposed costs are outlined in the attached work plan.

If you have any questions concerning this project or the proposed scope of work, please contact me at (406) 723-1931 or <a href="mailto:tbienvenue@pioneer-technical.com">tbienvenue@pioneer-technical.com</a>.

Sincerely,

Pioneer Technical Services, Inc.

Taylor Bienvenne

Taylor Bienvenue, GIT Project Scientist

Attachment 1: Figures

Attachment 2: Cost Estimate

cc: Mr. Charles L. Peterson, P.G., Pioneer Technical Services, Inc

Ms. Teresa Bidelman, Responsible Party Mr. Wes Burley, Town and Country Supply

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#### **EXECUTIVE SUMMARY**

The purpose of this document is to provide a Remedial Investigation Work Plan (work plan) for the Town and Country Supply facility (former Market Basket Store), Facility ID #56-08286, as requested in electronic correspondence from the Montana Department of Environmental Quality (DEQ) dated May 16, 2025. The purpose of the proposed work activities is to further determine the extent and magnitude of petroleum impacts to soil and groundwater at the Site, evaluate the status of petroleum-contaminated media associated with the release via groundwater monitoring, and prepare a Release Closure Plan (RCP) to identify and propose additional work needed to resolve the release.

The most recent groundwater monitoring event at the Site occurred in 2021 as part of a Phase II investigation (Pioneer, 2021). Findings from the 2021 Phase II investigation revealed that laboratory analytical data indicate that petroleum concentrations exist in the groundwater exceeding Montana's Risk-Based Screening Levels (RBSLs) (DEQ, 2024).

Discussions between DEQ, the responsible party, and Pioneer defined the scope of this work plan, which includes evaluation of the existing groundwater monitoring wells, soil boring and groundwater monitoring well installation, and semi-annual groundwater monitoring.

These recommended actions are included in this work plan, and upon completion of the relevant tasks, Pioneer will prepare a remedial investigation report detailing the evaluation of existing monitoring wells, advancement of soil borings and construction of monitoring wells, and the initial groundwater monitoring event. Following the remedial investigation, Pioneer will prepare a groundwater monitoring report detailing the results of the second groundwater monitoring event. For each report, an updated RCP will be appended. These activities are detailed in the following work plan.



#### 1 FACILITY SUMMARY AND CURRENT CONDITIONS

#### **Site Description**

The Town and Country facility (former Market Basket) is located at 8014 South Frontage Road, Billings, Yellowstone County, Montana. The Site is in a mixed agricultural and commercial area. The Site is on a level lot with an elevation of approximately 3,220 feet above mean sea level. The Site is bordered by South Frontage Road to the north, across from which is Interstate Highway 90, by Wise Lane to the east, across from which is a highway interchange, and by commercial property to the south and west. This area of Billings is served by public utility city services (e.g., potable water and sanitary and storm sewer systems). There is a domestic well located on the northwest corner of the subject property. The location of the Site is shown on the Location and Vicinity Map (Figure 1) and Site Map (Figure 2) in Attachment 1.

The Site is currently an active, recently constructed, retail gas and diesel service station and convenience store. The northeast portion of the Site hosts the infrastructure associated with retail gas and diesel operations. Per information available on the DEQ website, there are seven tanks on Site:

- One 8,000-gallon gasoline underground storage tank (UST), installed in 1995.
- One 4,000-gallon gasoline UST, installed in 1995.
- One 8,000-gallon diesel UST, installed in 2003.
- One 1,000-gallon diesel exhaust fluid UST, installed in 2022.
- One 8,000-gallon diesel UST, installed in 2022.
- One 4,000-gallon dyed diesel UST, installed in 2022.
- One 4,000-gallon diesel UST, installed in 2022.

The addition of USTs in 2022 was part of Site reconstruction as the property transitioned from Market Basket to the current occupant, Town and Country. There are currently two dispenser canopies on Site. One canopy consists of two fuel dispensers, and the other has four. The Site is mostly covered by buildings and concrete or asphalt with some grassy landscaped areas.

#### **Facility History and Release Background**

Gasoline USTs were installed at the property in 1975 (McDevitt, 2002). The first USTs consisted of a 1,000-gallon unleaded gasoline and 500-gallon premium gasoline. A release was discovered in 1995 during removal of the tanks and assigned Release #2758. The 500-gallon tank was pitted and perforated, and the 1,000-gallon tank was pitted. Approximately 200 cubic yards of contaminated soil were removed from the tank basin. Petroleum impacts were observed to at least 21 feet below ground surface (bgs), and no groundwater was encountered during the excavations (McDevitt, 2002). A 1997 Site investigation found elevated benzene levels in the groundwater (the average concentration was 677 micrograms per liter [ $\mu$ g/L]) downgradient of the former UST basin. Approximately 2 inches of free product was found downgradient of the UST basin in 2001.



The first monitoring well (MW-1) was installed in 1998. Three monitoring wells (MW-2, MW-3, and MW-4) were installed in 2002 (McDevitt, 2002). Monitoring well MW-1 was abandoned in 2003. Monitoring wells MW-1A, which was installed to replace MW-1, and MW-5 and MW-6 were installed in 2003. Monitoring well MW-4 was abandoned on March 9, 2005 (McDevitt, 2011). Groundwater monitoring at the Site has been conducted infrequently between 1998 and 2011. After 2011, the next groundwater monitoring event to be conducted was part of a Phase II investigation completed on March 26, 2021. This monitoring event indicated volatile petroleum hydrocarbon (VPH) constituents still persist in MW-5, located north of the northeast dispenser canopy. Monitoring well MW-1A was not able to be located during this groundwater monitoring event (Pioneer, 2021).

#### 2 OBJECTIVES OF CORRECTIVE ACTION WORK PLAN

The primary objective of this work plan is to determine the current extent and magnitude of petroleum impacts to soil and groundwater and to recommend remediation work required to clean up and resolve the release.

#### 3 Proposed Scope of Services

In summary, this work plan involves completing an assessment of all monitoring wells associated with the release to determine if repairs, replacement, or abandonment is necessary, completing the required maintenance, installing groundwater monitoring wells to fill data gaps within the well network, conducting two groundwater monitoring events, and preparing a remedial investigation report and a groundwater monitoring report appended with a RCP upon completion of all activities. These activities are detailed in this work plan.

Specifically, this work plan proposes the following actions to achieve these goals:

- Complete a groundwater monitoring well inventory of all facility monitoring wells and complete abandonment/replacement of any damaged and unusable groundwater monitoring wells, as needed.
- Install soil borings and new monitoring wells to determine the extent and magnitude of petroleum contamination in soil and groundwater.
- Perform semi-annual groundwater monitoring to determine both high and low groundwater conditions.
- Validate all laboratory analytical data using DEQ's Data Validation Summary Form.
- Discuss work plan tasks and results with DEQ's project manager; any modifications required to complete the work plan objectives will be submitted and agreed upon.
- Prepare and submit a remedial investigation report detailing the results of the investigation and first groundwater monitoring event.
- Prepare a RCP and discuss the results with DEQ's project manager.



- Prepare and submit one groundwater monitoring report detailing the methods and results of the second semi-annual groundwater monitoring event completed under this work plan.
- Work plan and reports will be submitted electronically following the Petroleum Tank Cleanup Section submittal requirements.

These investigation activities will be used to delineate the magnitude and extent of the release in order to resolve Release #2758. As requested by DEQ, Pioneer proposes the following scope of work:

- Task 1: Project Management and Planning.
- Task 2: Well Assessment, Repair, and Abandonment.
- Task 3: Soil Boring and Groundwater Monitoring Well Installation.
- Task 4: Surveying.
- Task 5: Semi-Annual Groundwater Monitoring.
- Task 6: Reporting.

The following sections describe each task for the proposed work along with Pioneer's cost estimate and proposed schedule.

#### 3.1 Task 1 – Project Management and Planning

Task 1 Project Management and Planning work will include:

- Preparing a work plan and cost estimate.
- Coordinating utility locates.
- Project scheduling.
- Preparing a Health and Safety Plan.
- Coordinating with subcontractors, owners, and regulators.
- Site work preparation.

Pioneer will notify 811 for utility locates prior to drilling activities. Pioneer field personnel will document the locations of marked underground and aboveground utilities on the figures provided with the final report.

#### 3.2 Task 2 – Well Assessment, Repair, and Abandonment

Under this task, Pioneer will inventory and assess all facility monitoring wells (MW-1A, MW-2, MW-3, MW-5, and MW-6) prior to proceeding with Task 3.



### 3.3 Task 3 – Soil Boring and Groundwater Monitoring Well Installation

The work plan includes advancing eight soil borings and constructing six of these soil borings into monitoring wells. Pioneer is proposing advancing four soil borings in the vicinity of the identified source area, and four additional borings down-gradient of the source area. Six of the eight borings will be constructed into monitoring wells based on field data and consultation with the DEQ. The Site Map (Figure 2 in Attachment 1) shows the location of the proposed soil borings.

The anticipated total depth of the monitoring wells is 27 feet bgs. This is based on groundwater measured at 18 to 23 feet bgs at the Site. Pioneer will advance the soil borings using Pioneer's direct-push Geoprobe® drill rig and associated equipment to conduct the soil investigation. Using a direct-push drill rig will minimize Site disturbance, minimize the amount of investigation derived waste (cuttings), and allow access for drilling near and around the existing Site infrastructure.

Final boring locations will be determined in the field after consulting the Montana DEQ project manager and will be based on accessibility, underground utilities, the presence of unforeseen impedances, or other factors.

For the groundwater monitoring well installation phase, the team will use the Geoprobe® drill rig to construct the monitoring wells. The monitoring wells will be constructed with 2-inchdiameter, schedule 40 polyvinyl chloride (PVC) pipe. All well screens and piping will be delivered to the Site factory wrapped. Each well will be constructed using a prepack well screen consisting of 0.010-inch, factory-slotted PVC screen covered with a 65-mesh stainless steel screen and filled with 20/40 mesh silica sand. The wells will be screened from 17 to 27 feet bgs. The remainder of the borehole will be completed with PVC riser pipe to grade. The annular space between the prepack well screen and the borehole will have 0.10- to 0.20-inch sand completion to 1 foot above the screen, and the remaining annular space between the well casing and the borehole will have a bentonite seal. The wells will be secured with flush mount bolt-down covers set in concrete. The newly constructed wells will be developed after construction. Each well will be considered developed once clear of sediment or after being pumped with a submersible pump or surface pump for 1 hour.

A Pioneer geologist will supervise drilling operations and be present to collect, screen, and log soil types. Soil samples will be collected at continuous intervals, and personnel will log the soil type and consistencies and document any visible signs of petroleum impacts. Standard headspace readings will be collected using a photoionization detector (PID) meter. A portion of each soil sample will be placed into an airtight container, labeled, and allowed sufficient time for the hydrocarbons, if present, to volatilize. After the equilibration period, each sample will be scanned with a PID meter by inserting the sampling probe into the headspace of the container.



The PID readings from each soil sample collected from each borehole will be reviewed and recorded. The sample with the highest reading or with other signs indicating petroleum impacts will be selected for laboratory analysis. In addition to the sample with highest presumed petroleum impact, analytical samples will also be collected at the groundwater interface for each boring. A maximum of two soil samples from each boring and one duplicate sample will be submitted for laboratory analysis for a total of 17 submitted soil samples. The selected samples will be placed into a laboratory-supplied container, labeled, stored on ice, and submitted to Energy Laboratories, Inc. (Energy) in Billings, Montana, for VPH and extractable petroleum hydrocarbon (EPH) screen analyses. If the EPH screen result for soil is greater than 200 milligrams per kilogram, the sample will be submitted for EPH fractionation analysis without polycyclic aromatic hydrocarbons (PAHs). For this work plan, we are assuming that half of the samples will require EPH fractionation. Chain of custody documentation will accompany the samples.

#### 3.4 Task 4 – Surveying

Following well installation and development, the new wells will be surveyed by a licensed surveyor, and the top of casings will be determined to be within 0.01 feet of mean sea level. The survey crew will also survey nearby structures, utilities, Site features, and appurtenances.

#### 3.5 Task 5 – Semi-Annual Groundwater Monitoring

This work plan proposes performing two groundwater monitoring events. The first event will be conducted at least one week after the new monitoring wells are developed. The second event will be conducted 6 months after the first monitoring event. During each event, Pioneer will collect groundwater samples from the newly installed monitoring wells. For each event, Pioneer will gauge and purge the wells prior to collecting groundwater samples. Pioneer will attempt to complete the sample events in conjunction with the typically high and low groundwater conditions.

Prior to groundwater sample collection, Pioneer will gauge each of the six monitoring wells for the presence of light non-aqueous phase liquid (LNAPL). Each well will be gauged using an electronic interface probe capable of detecting water or LNAPL hydrocarbons to within 0.01 feet. If the well does not contain LNAPL, the sampling team will collect groundwater samples. If LNAPL is detected, the team will not collect any samples, will note the conditions on a field data sheet, and notify the DEQ project manager.

The groundwater samples will be collected according to the DEQ's low-flow sampling guidance (DEQ, 2018). To ensure representative groundwater samples are collected, Pioneer will monitor the water quality parameters for the following intrinsic bioremediation indicators (IBIs) and allow them to stabilize during the purging process prior to sample collection: temperature (plus or minus 3%), pH (plus or minus 0.1), dissolved oxygen (plus or minus 10%), specific conductivity (plus or minus 3%), oxidation reduction potential (plus or minus 10 millivolts), and



turbidity (plus or minus 10%). The wells will be gauged at each field parameter monitoring interval with a water level meter to ensure that excessive drawdown (plus or minus 0.3 feet) does not occur prior to sampling.

Pioneer will collect the groundwater samples with a peristaltic or bladder pump and disposable tubing and transfer the samples to the appropriate laboratory containers. New, decontaminated containers will be supplied by the laboratory prior to sample collection. Groundwater samples from all six monitoring wells will be submitted for laboratory analyses of VPH and EPH screen. For the purpose of this work plan, it is assumed that half of the EPH samples will require EPH fractionation without PAHs.

Analysis of groundwater samples will be in accordance with DEQ's *Risk-Based Corrective Action* (*RBCA*) Guidance for Petroleum Releases (DEQ, 2024). One field duplicate sample will be collected during each sampling event. Each sample container will be preserved as directed by the laboratory, labeled, and packaged on ice. The samples will be hand delivered to Energy in Billings, Montana. Chain of custody documentation will accompany the samples.

Purge water generated during the sampling activities will be infiltrated into the grassy areas available at the Site in accordance with Montana DEQ standards.

After the first sampling event, Pioneer will analyze the results and determine if the on-site domestic well should be sampled. After analyzing the results and consultation with the DEQ, and if it is deemed necessary to sample the domestic well, Pioneer will submit a Form 8 and collect a sample of the domestic well during the second semi-annual monitoring event.

#### 3.6 Task 6 – Reporting

Following evaluation of the existing wells, advancement of the soil borings, construction of the new monitoring wells, and an initial groundwater monitoring event, Pioneer will prepare and submit a remedial investigation report according to DEQ's Montana Remedial Investigation Guidance for Petroleum Releases (DEQ, 2017). The report will include:

- Updated Site maps illustrating the locations of the new and existing monitoring wells, underground utilities, and surface features.
- Cumulative tables summarizing field data and laboratory analytical data for both soil and groundwater.
- Laboratory analytical reports for soil and groundwater samples.
- Logs, field data sheets, and related field data.
- Laboratory data validation.
- Recommendations relevant for further investigation or remedial action.
- Data validation forms.
- Newly created RCP.



Following the second semi-annual groundwater sampling event, Pioneer will analyze the results and compile and submit a groundwater monitoring report in accordance with the DEQ's *Montana Groundwater Monitoring Work Plan and Report Guidance for Petroleum Releases* (DEQ, 2021) that will include the following:

- Discussion of the monitoring method results, deviations from the approved work plan, assessment of attenuation rates (on-Site and off-Site), recommendations, and conclusions.
- Cumulative groundwater data tables.
- Updated Site features and potentiometric surface maps.
- Appended groundwater monitoring field forms, laboratory analytical data, and completed data validation summary forms.
- Update RCP.

All reports will be submitted electronically following the Petroleum Tank Clean-Up Section submittal requirements.

#### **4** Cost Estimate

A detailed cost estimate to perform this scope of work is presented on the worksheet in Attachment 2.

#### 5 SCHEDULES

Pioneer proposes to perform and complete an evaluation of the existing groundwater monitoring wells and abandon or repair as necessary (Task 2), groundwater monitoring well installation (Task 3), surveying (Task 4), and first round of groundwater sampling (Task 5), during the fall of 2025. The second groundwater sampling event will be completed six months after the initial investigation (Task 5). The remedial investigation and groundwater monitoring reports will be completed and submitted within 45 days of receipt of all laboratory analytical reports for groundwater samples. The full duration of the project is approximately 14 months, and the final report will be issued sometime in the summer of 2026.



#### 6 REFERENCES

- DEQ, 2017. Montana Remedial Investigation Guidance for Petroleum Releases. Montana
  Department of Environmental Quality. October 2017. <a href="https://deq.mt.gov/files/Land/LUST/Documents/downloadables/RI">https://deq.mt.gov/files/Land/LUST/Documents/downloadables/RI</a> Guidance Draft 3Oct17.pdf.
- DEQ, 2018. Groundwater Sampling Guidance. Montana Department of Environmental Quality.

  March 2018.

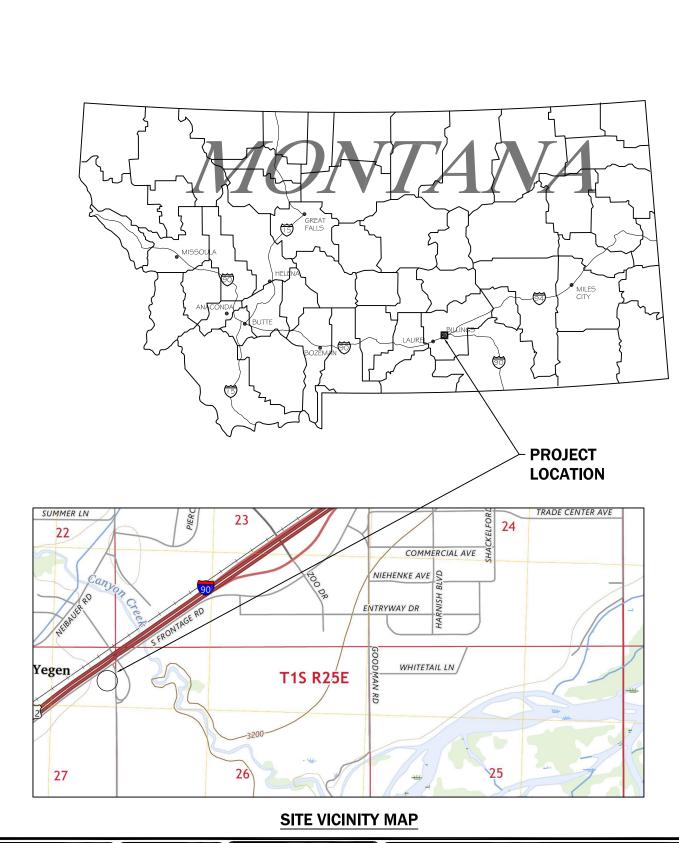
  <a href="https://deq.mt.gov/files/Land/LUST/Documents/downloadables/GWSamplingGuidance-FINAL.pdf">https://deq.mt.gov/files/Land/LUST/Documents/downloadables/GWSamplingGuidance-FINAL.pdf</a>
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- McDevitt, 2002. Remedial Investigation Report, Market Basket in Billings, MT. McDevitt Associates, Inc. November 21, 2002.
- McDevitt, 2011. Annual Groundwater Monitoring Report, Market Basket in Billings, MT. McDevitt Associates, Inc. April 14, 2011.
- Pioneer, 2021. Limited Phase II Environmental Site Assessment, Market Basket, 8014 Laurel Frontage Road, aka 2551 Wise Lane, Billings, Montana 59101. Prepared for Town and Country Supply Association. Prepared by Pioneer Technical Services, Inc. April 23, 2021.



## Attachment 1 Figures

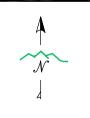
Figure 1. Location and Vicinity Map

Figure 2. Site Map



#### DEQ FACILITY ID: 56-08286 RELEASE NUMBER: 2758 WORK PLAN NUMBER: 35045

TOWN AND COUNTRY (FORMER MARKET BASKET STORE) 8014 SOUTH FRONTAGE ROAD BILLINGS, MONTANA 5910



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TOWN AND COUNTRY SUPPLY (FORMER MARKET BASEKET) SITE LOCATION AND VICINITY MAP

DATE: AUGUST 2025







PROPOSED SOIL BORING LOCATION



DOMESTIC WELL

HISTORIC GROUNDWATER FLOW DIRECTION



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# (406) 782-5177

#### FIGURE 2

**TOWN AND COUNTRY** SUPPLY (FORMER MARKET BASKET) SITE MAP

DATE: SEPTEMBER 2025