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Re: Remedial Investigation Work Plan for the Petroleum Release at Town Pump Inc. 417 N. Whitehall Street (East Side), Whitehall, Jefferson County, Montana; Facility ID 22-03645, TREADS ID 22528, Release 6639, Work Plan 34846

Section 1: Cover Letter

Per Montana Department of Environmental Quality (DEQ) requested work plan #34846, AJM Incorporated (AJM) has prepared the following work plan outlining the soil and groundwater investigation at the Town Pump in Whitehall, MT to determine the hydrocarbon impact extent from release #6639. This work plan illustrates the locations for up to 5 bore holes and the construction of 9 monitoring wells.

Town Pump Whitehall is located at 415 N. Whitehall Street, Whitehall, MT. The legal description for the site is Section 33 Township 2 North, Range 4 West.

Section 2: Facility History/Release Background

The current operator is Town Pump and has eleven active fuel systems, five gasoline underground storage tanks (UST) and six diesel USTs. The facility has a history as a fueling operation, beginning circa 1976 when underground storage tanks (USTs) were installed. During the operation of this fuel station, there has been a couple underground storage tank (UST) releases, all of which have been reported and addressed. Previous releases at this location include releases #3572 (resolved), #4955 (resolved), and #6242 (resolved). Release 6678 is on the west side of North Whitehall Street that is currently being resolved separately.

Surrounding land usage includes primarily commercial properties, residential properties, and undeveloped land. To the north, there are commercial properties and I90, to the east is Whitehall High School (approximately 500ft), to the south begins the residential area of Whitehall and west is an undeveloped hillside.

Section 3: Summary of Facility Conditions

Whitehall is located north of the Jefferson Rivers. Nearby well data sourced from the Groundwater Information Center (GWIC) show two wells Mayne (irrigations) and Cowdrey (domestic), view GWIC well logs in Appendix B. Information from these nearby wells indicate groundwater to be at approximately 10-12ft below ground surface (bgs). The soil characteristics include rocky clay from 0 to

12ft bgs and then sandy gravel once groundwater is reach. This demonstrates the likelihood of a semi-confined aquifer with a relatively fine clay cap. Groundwater flow is expected to be toward the Jefferson River to the southeast or toward Whitetail Deer Creek to the east. Groundwater fluctuation may be impacted by local irrigation activity.

Section 4: Work Plan Maps
See Appendix A for all work plan site maps.

Section 5: Objectives of Investigation
The purpose of this soil and groundwater investigation is to determine the extent and magnitude of the hydrocarbon impact near the recently removed fuel systems. Per the 30 Day Leak Report submitted by Paul Townsend, Town Pump Environmental Remediation Technician, on November 29, 2023, the main petroleum hydrocarbons found are near the piping trench and the diesel dispenser marked on Figure 2, Appendix A. Because of the local soil characteristics, it may be likely that the release was contained around the dispenser sump and piping trench because of tightly bound clay soils above a sandy, gravel aquifer occurring at 11ft bgs.

Therefore, AJM recommends conducting a soil boring investigation (Task 1) around the former piping and UST area on the east side of N Whitehall St, the installation of 5 groundwater monitoring well on both the east side of the road (Task 2), and four quarterly groundwater sampling events collected from all monitoring wells (Task 3).

Section 6: Minimum Work Plan Tasks
TASK 1 – SOIL BORING
Up to five soil borings are proposed around the trenching composition area and the diesel dispenser that reported the highest petroleum hydrocarbon concentrations in soil. These samples will be collected from the areas of most impact, determined by in field analysis using heated heat space sampling and a photoionization detector (PID), and another sample collected at the soil water interface. Up to two soil samples per boring will be collected with a total of 20 samples total, this includes two samples per well installation. Samples will be sent to an accredited laboratory under a Chain of Custody and within an ice cooler to be analyzed for volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH). A complete soil boring cost estimate, bid spec sheet, and contractor bids can be found in Appendix B.

TASK 2 – MONITORING WELL INSTALLATION
AJM proposes installing up to five (5) monitoring wells to determine groundwater characteristics. New monitoring wells will provide necessary information including petroleum hydrocarbon concentrations, groundwater flow and groundwater direction. Recommended wells include one upgradient well, three wells under the former fuel system impacted areas to determine highest groundwater impact concentrations and flow direction, and one downgradient well is recommended to evaluate the extent of the plume.

TASK 3 – GROUNDWATER SAMPLING
Once monitoring wells are constructed, AJM will develop each well with standard well development practices including surging and purging sediment from the well boring and casing. After the well has been established, samples will be collected and sent to an accredited laboratory for EPH and VPH from all monitoring wells and lead scavengers from monitoring wells nearest the former UST gasoline basin on the west side of the street.

EPH and VPH samples will be collected quarterly for the first year to determine the extent and magnitude of groundwater concentrations to provide a better understanding of the groundwater characteristics.

Section 7: Investigation Methods, Equipment, Technology, and Personnel

Utility Locate

Prior to soil boring, both public and private utility locates will be performed to help prevent damage to public and onsite utilities.

Soil Sample Collection

Up to 20 soil samples are proposed to be collect from soil borings and well installation borings up to 15ft bgs using a geo-probe rig. All samples will be collected following AJM's approved Quality Assurance Project Plan (QAPjP) on file with the DEQ with the established MDEQ Quality Assurance Plan (QAP).

The samples will be collected from the sampling core of the geo-probe drilling system via typical clear plastic sleeves. Using olfactory, visual and photoionizing detector readings (heated head space), two soil samples from each borehole may be collected. The anticipated depths to collect soil samples will be between 2-12ft. These depths will allow for proper analysis following the Montana DEQ. Up twenty (20) samples may be collected and delivered to an accredited laboratory for extractable and volatile petroleum hydrocarbons (EPH and VPH).

Decontamination protocol will be used between each sample collection to mitigate any cross contamination between samples. Samples will be immediately placed on ice, documented using a laboratory approved chain of custody (COC) and sent to an accredited laboratory for petroleum constituent analysis as required by the Montana Risk-Based Corrective Action Guidance for Petroleum Site maps showing site location and approximate well boring locations can be found in Appendix A.

Groundwater Monitoring Well Construction

An auger rig will be used to construct wells to 25 feet bgs (or 10 feet beyond first water contact as applicable) in the approximate locations shown on Figure 2 and the monitoring wells will be constructed as follows:

- Slotted 2-inch flush-threaded sch 40 casing with 0.02 slot from 20 to 5 feet bgs.
- Solid flush-threaded casing from 5 to 1-foot bgs.
- 10/20 Colorado silica sand from bottom of borehole to 4 feet bgs.
- Bentonite from 4 to 2 feet bgs, sand to 1-foot bgs.
- 8" steel well box cemented in place.
- Locking caps will be placed on each well.

Monitoring wells will be developed after well construction to purge silt and sediment ensuring a viable sample can be sent to an accredited laboratory. A downhole 2-stage submersible pump will be used to develop the wells to remove silt and sands. This will include surging the tubing and removing both water and silt from the 2-inch diameter wells until water flow has cleared to less than 10 Nephelometric Turbidity Units (NTU). Purged groundwater may need to be stored in 55-gallon drums for appropriate disposal of water. It is predicted that 50 gallons of water will be purged from each well.

A Professional Land Survey (PLS) company will be contracted to conduct a survey of the area and tie-in well head elevations into a local USGS benchmark. Street curbs along with both underground and overhead utilities, fuel system lines and buildings will also be incorporated into the PLS work. This will provide AJM with A-CAD figures so that groundwater flow direction and gradient can be

calculated along with potential future work at the facility and prevent damage to underground utilities.

Groundwater Sampling
Four groundwater sampling events will occur quarterly for the first year with the production of three interim data submittals after each event and a final groundwater monitoring report after the final sampling event. During sample events, static water levels and field parameter data will be obtained from all wells listed. During well purging, the data collection will include temperature, pH, dissolved oxygen, conductivity, turbidity and ORP. Once the above parameters are within the range of Montana DEQ guidance document specifications, groundwater samplings will be collected. Sampling will be conducted in the 2-inch wells with a peristaltic pump with low flow controller. When using the peristaltic pump, new 1/4-inch HDPE tubing will be used. Appropriate labeling, cooling, and chain of custody protocols will be followed. Samples will be delivered under chain of custody to an accredited laboratory for analysis.

All water produced from this sampling process will be allowed to evaporate on the asphalt and no on-site storage is currently planned. Should significant sheen or free phase product be observed, the DEQ and PTRCB will be contacted to determine course of action. All non-dedicated equipment used for purging, sampling, or depth measurements will be decontaminated with an Alconox wash solution, followed by a distilled water triple rinse prior to each use.

Section 8: Scheduling and Reporting

REPORT WRITING
Following the collection of soil samples and the construction of groundwater monitoring wells, an Abbreviate Soil Boring and Monitoring Well Installation Report (AR-03) will be submitted to the DEQ. Following each groundwater sampling event, an Interim Data Submittal will be produced. After the collection of the four sample rounds, a Remedial Investigation Report (RIR-01) will be submitted including the following:

- Discussion of soil and groundwater investigative methods and results.
- Evaluation of the available soil and groundwater data to assess the need for intrusive investigation of potential exposure pathways (e.g., vapor intrusion, utility corridor, etc.).
- Conclusions and recommendations of remedial action(s) required to resolve the release.
- Cumulative soil and groundwater data tables.
- Append boring logs, well completion diagrams, groundwater field forms, laboratory analytical data, completed Data Validation Summary Forms, and the Release Closure Plan.
- The Report will follow all guidelines found on the Montana DEQ under the Guidance dropdown at the PTCS webpage.
- The report will include data reported under an AR-03 Abbreviated Soil Boring and Groundwater Monitoring Well Installation Report and groundwater monitoring data from the initial sample event.
- A Release Closure Plan will be created.

Work discussed in this work plan is estimated to be completed April 2026. A cost estimate for the soil boring, monitoring well, sampling and report writing have been completed for the above-described work and can be found in Appendix B. Work at Whitehall Town Pump can begin upon written approval by the DEQ. Please do not hesitate to call if there are any questions or if we can provide any additional information.

Sincerely,

Lars Heinstedt

AJM Incorporated
Lars Heinstedt, Staff Scientist

Dennis Franks

AJM Incorporated
Dennis Franks, President

Section 9: Appendices for Work Plan

Appendix A

Site Location
Site Map

Figure 1
Town Pump Whitehall
Whitehall, Jefferson County, Montana

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Figure 2
Town Pump Whitehall
Soil Boring and Monitoring Well Locations

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