

April 23, 2024

Ms. Daphne Ryan  
Petroleum Tank Cleanup Section  
Montana Department of Environmental Quality  
P.O. Box 200901  
Helena, MT 59600-0901

Re: Corrective Action Work Plan  
Helena Town Pump #4,  
2900 North Montana Avenue,  
Helena, Lewis & Clark County, Montana  
Facility ID 56-13846, Release 6658

Dear Ms. Ryan:

This letter presents a work plan, submitted on behalf of Town Pump, for the Helena Town Pump #4 facility located at 2900 North Montana Avenue in Helena, Montana (Site). A Site location map is shown on Figure 1 and a Site layout map is shown on Figure 2. Olympus Technical Services (Olympus) has prepared this work plan following discussions with the Department of Environmental Quality (DEQ) after a release of diesel fuel was discovered during removal of the petroleum tank system on March 18, 2024. An initial investigation was conducted by Olympus on March 20, 2024, and field screening was conducted with a photoionization detector (PID). The highest PID response measured during the soil excavation to a depth of 4.5 feet was 19 parts per million (ppm). DEQ was consulted during the excavation and the soil was approved to use as backfill, with the understanding that if the analytical soil results were above the RBSLs, the soil would need to be excavated and hauled offsite for disposal. Based on field screening results, no soil was hauled offsite and was used to backfill the excavation at Dispensers 1/2 and 9/10. Soil confirmation samples collected from the excavation limits on March 20, 2024 were below the Direct Contact Construction Risk-Based Screening Level (RBSL). The release was confirmed by closure soil sample analytical results collected by Mile High Petroleum on March 18, 2023 and reported by Energy Laboratories (Energy) on April 10, 2024. Soil analytical results are provided as Table 1. DEQ has requested that the impacted soil used as backfill below the former diesel dispensers (Dispensers 1/2 and 9/10) be excavated and disposed offsite. This work plan presents a detailed scope of work and cost estimate for excavation of the impacted soil.

## **Scope of Work**

### ***Soil Excavation***

The proposed scope of work includes the excavation of petroleum impacted soil below the former diesel fuel dispenser. The location of the proposed excavation is shown on Figure 3. Olympus will excavate soil to a depth of approximately 5 feet bgs in an area approximately 5 feet by 10 feet, based on the initial investigation conducted in March 2024. Field screening of soil using a PID will be conducted to guide the excavation activities.

Prior to excavation activities, utility lines will be located by the Montana public One-Call system. The former petroleum system was removed in February and March 2024 as part of the reconstruction and remodeling of the facility. New underground storage tanks (USTs) and dispenser islands were installed approximately 100 feet north of the former dispenser island and no soil impacts were observed during installation.

The excavation limits will be sampled in accordance with the DEQ Enforcement Soil Sampling Guidance for Small Sites, which will include confirmation soil sample sets of one 5-point composite soil sample to be submitted for extractable petroleum hydrocarbons (EPH) screen analysis and two discrete soil samples to be submitted for volatile petroleum hydrocarbon (VPH) analysis. One confirmation soil sample set will be collected for each 625 square feet of excavation floor, as well as one confirmation soil sample set for every 25 linear feet of sidewall for excavations greater than 2 feet deep. The excavation is not anticipated to be greater than 5 feet deep based on confirmation soil sampling conducted on March 20, 2024.

Soil samples will be collected into laboratory-supplied containers, stored on ice, and submitted under chain-of-custody to Energy Laboratories of Helena, Montana for VPH and EPH screen analysis.

Clean imported fill from approximately 0 to 2 feet below ground surface (bgs) will be stockpiled separately and used as backfill. All soil will be field screened with a PID. Soil below 2 feet bgs and any soil with a PID response above 5 ppm will be transported to Lewis & Clark County Landfill for disposal. Olympus estimates that approximately 9 cubic yards (13.5 tons) of soil may be removed from the Site and replaced with an imported  $\frac{3}{4}$ -inch minus gravel mix. Backfill material will be imported from Helena Sand and Gravel of Helena, Montana. The backfill will be compacted in 6-inch lifts using a trench compactor. The excavation will be capped with asphalt cover by an independent contractor upon completion of the backfill and compaction.

### ***Temporary Piezometer Installation***

One soil sample collected on March 18, 2024 exceeded the leaching to groundwater RBSL for C11-C22 aromatics. One temporary piezometer will be installed at the source area to evaluate if a release to groundwater occurred at the Site. Groundwater is assumed to be between 20 and 25 feet bgs, based on nearby monitoring wells. The piezometer will be advanced to a depth approximately 5 feet below the groundwater interface using direct-push technology and constructed of 1-inch PVC with a 10-foot slotted screen. Groundwater will be purged using a peristaltic pump under low-flow groundwater sampling procedures, and one grab groundwater sample will be collected into laboratory-supplied containers, stored on ice, and submitted under chain-of-custody procedures to Energy for VPH and EPH screen analysis. The temporary piezometer will be removed after the groundwater sample is collected, backfilled with bentonite crumbles, and capped by asphalt.

### ***Schedule***

Soil excavation beneath the former diesel dispenser pumps would ideally begin in April 2024, upon DEQ approval of this work plan. The excavation and backfill activities are expected to be completed in one day. Asphalt patching is not included in this work plan and will be scheduled by Town Pump directly to coincide with other construction activities anticipated at the Site. Town Pump will restrict access to the former pump island area during construction activities for public and worker safety.

### **Remedial Investigation Report**

Olympus will submit a Remedial Investigation (RI) report with a summary of the excavation activities, tabulated soil and groundwater analytical results, disposal documentation, analytical laboratory reports, data validation summary forms, maps showing sample locations and nearby utility locations, and conclusions and recommendations. The RI will include a receptor survey in accordance with the DEQ RI Guidance to evaluate potential migration pathways. The survey will include a description of adjacent building usage and foundation type; utility corridor location, depth, and construction; groundwater wells within one-half mile usage and depth; and surface water within one mile of the Site. A comprehensive map of receptor locations and a release closure plan will be included in the RI report.

### **Cost Estimate**

A detailed time and materials cost estimate is attached, but invoices will reflect actual hours, equipment, and quantities used.

Olympus appreciates the opportunity to assist you with this project. Site work will commence upon approval of the work plan by DEQ. The excavation is tentatively scheduled for the week of April 22, 2024. Please call me at 406-443-3087 with comments or questions regarding the proposed scope of work or the project.

Sincerely,

*Olympus Technical Services, Inc.*

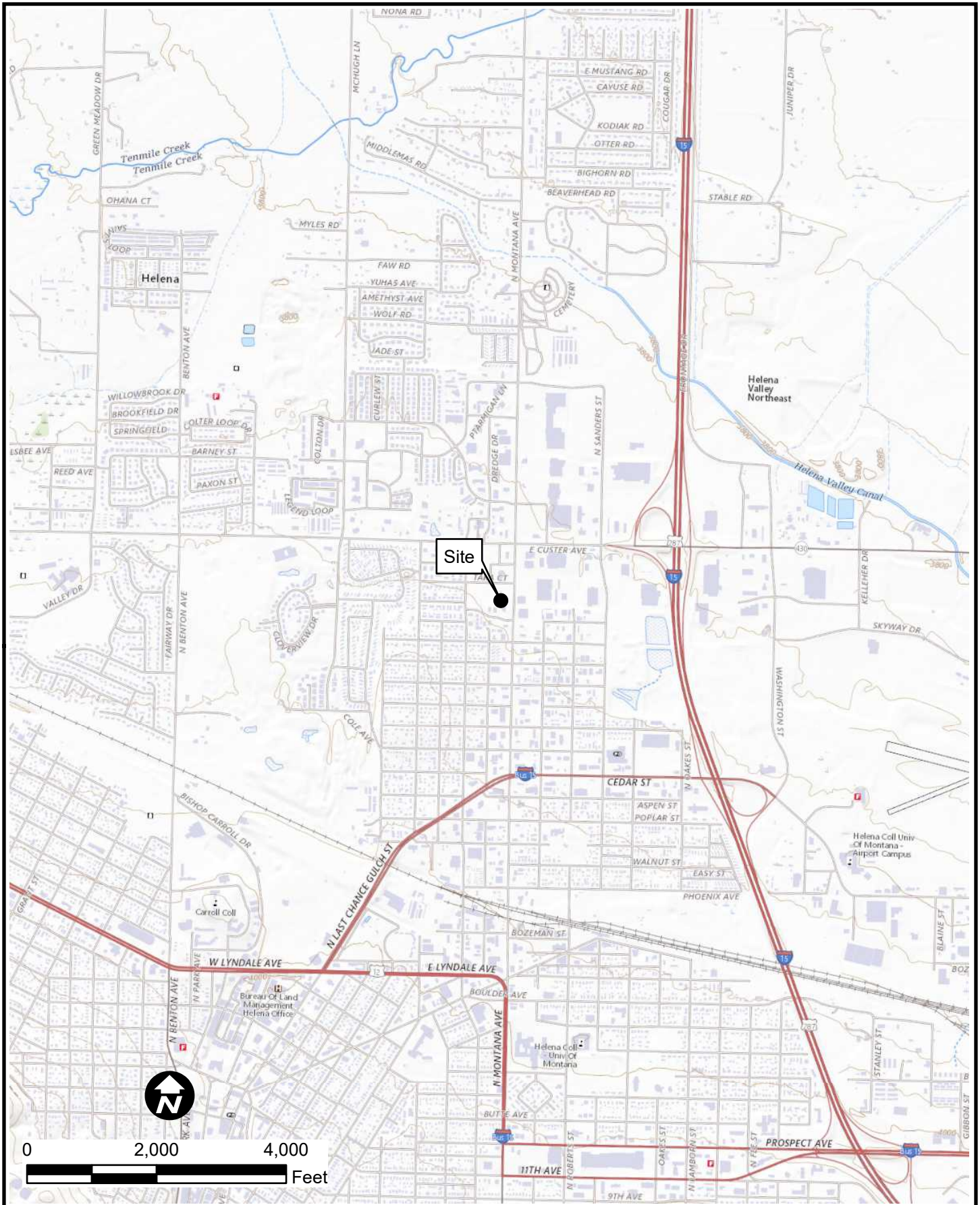


Diane Tackett, PG  
Project Geologist



Kevin S. Rauch, P.E.  
Principal Engineer

Attachments: Figures 1, 2 & 3, Table 1, and Detailed Cost Estimate

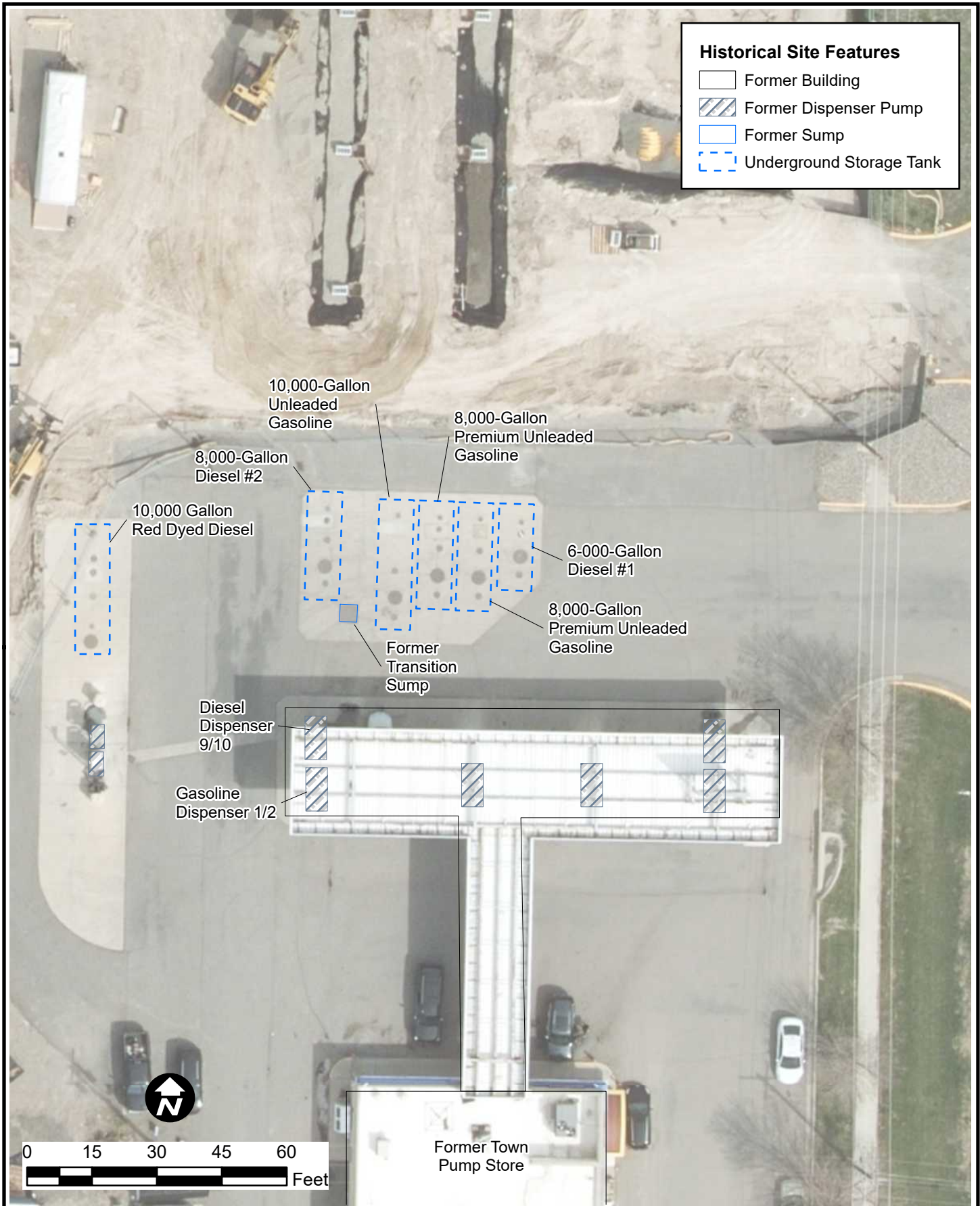


**Olympus Technical Services, Inc.**

Site Location Map  
Town Pump #4  
Helena, Montana

FIGURE  
1

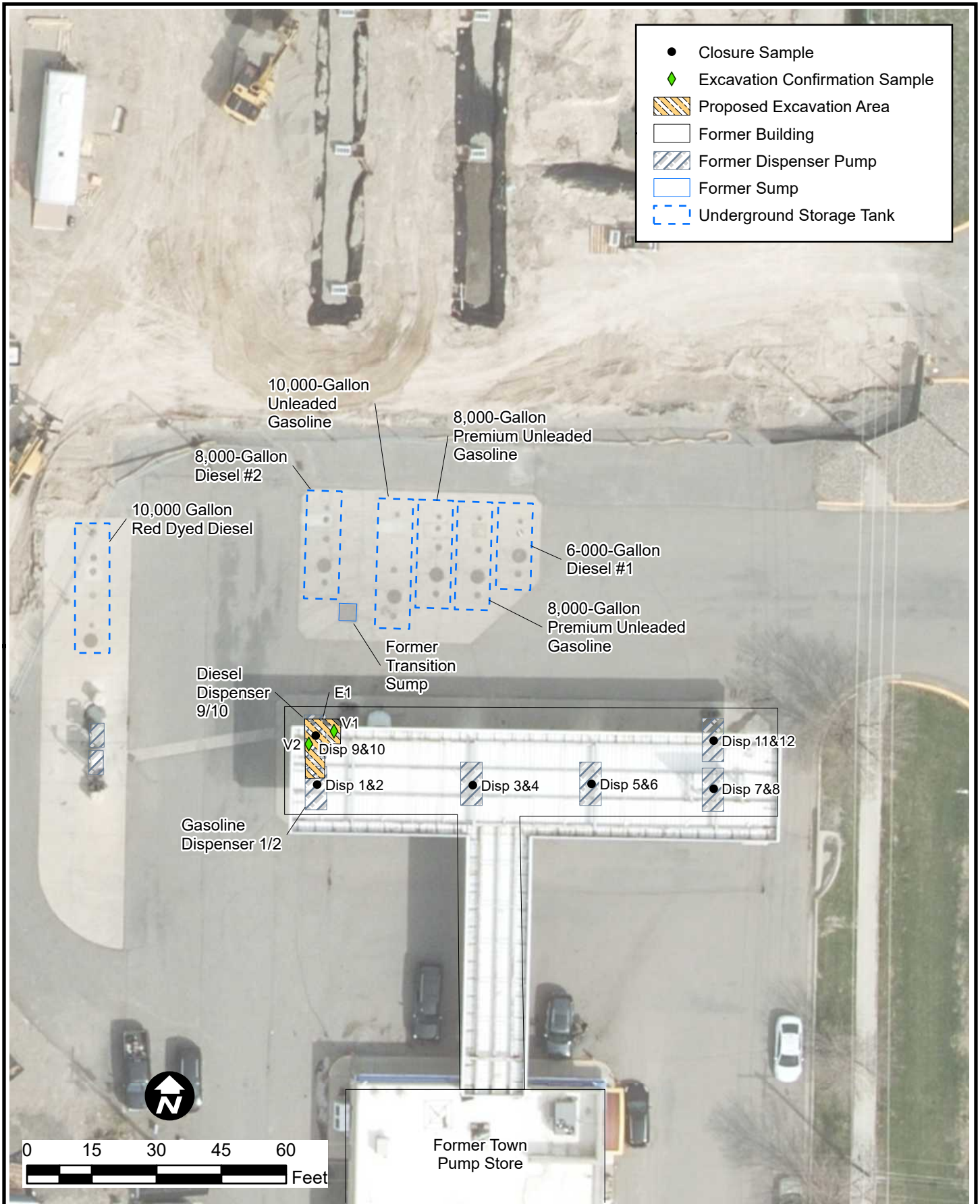




**Olympus Technical Services, Inc.**

Site Features Map  
Town Pump #4  
Helena, Montana

FIGURE  
2



**Olympus Technical Services, Inc.**

Proposed Excavation  
Town Pump #4  
Helena, Montana

FIGURE  
3

**Table 1. Soil Analytical Results for VPH and EPH (mg/kg)**

| Sample ID   | Depth BGS (ft) | Sample Date | MTBE         | Benzene     | Toluene      | Ethyl-benzene | Total Xylenes | Naphthalene | C9-C10 Aromatics | C5-C8 Aliphatics | C9-C12 Aliphatics | TPH screen | EPH    | C9-C18 Aliphatics | C19-C36 Aliphatics | C11-C22 Aromatics | TEH    |
|---|----------------|-------------|--------------|-------------|--------------|---------------|---------------|-------------|------------------|------------------|-------------------|------------|--------|-------------------|--------------------|-------------------|--------|
| <b>Surface Soil (0-2 ft)</b>                      |                |             | <b>0.078</b> | <b>0.07</b> | <b>21</b>    | <b>6.4</b>    | <b>72</b>     | <b>2.2</b>  | <b>130</b>       | <b>52</b>        | <b>77</b>         | --         | --     | <b>110</b>        | <b>24,000</b>      | <b>370</b>        | --     |
| <b>Leaching to Groundwater (0-10)<sup>2</sup></b> |                |             | <b>0.078</b> | <b>0.07</b> | <b>21</b>    | <b>26</b>     | <b>320</b>    | <b>12</b>   | <b>130</b>       | <b>220</b>       | <b>11,000</b>     | --         | --     | <b>53,000</b>     | <b>NA</b>          | <b>370</b>        | --     |
| <b>Direct Contact Construction<sup>3</sup></b>    |                |             | <b>8,900</b> | <b>240</b>  | <b>5,500</b> | <b>1,300</b>  | <b>610</b>    | <b>140</b>  | <b>1,000</b>     | <b>410</b>       | <b>640</b>        | --         | --     | <b>900</b>        | <b>200,000</b>     | <b>3,900</b>      | --     |
| <b>Tier 2 DC Construction<sup>4</sup></b>         |                |             | --           | --          | --           | --            | --            | --          | --               | --               | --                | --         | --     | <b>7,200</b>      | --                 | --                | --     |
| <b>Dispenser Island Soil Sampling</b>             |                |             |              |             |              |               |               |             |                  |                  |                   |            |        |                   |                    |                   |        |
| Composite   | 2.5            | 3/18/2024   | <0.12        | <0.060      | <0.060       | <0.060        | <0.060        | <0.12       | <2.4             | <2.4             | <2.4              | <2.4       | 15 J   | --                | --                 | --                | --     |
| Disp 1&2  | 2.5            | 3/18/2024   | <0.13        | <0.065      | <0.065       | 0.066         | 0.79          | <b>4.5</b>  | 70               | 4.6              | <b>111</b>        | 229        | 1,630  | <b>622</b>        | 158                | 288 J             | 1,090  |
| Disp 3&4  | 2.5            | 3/18/2024   | <0.11        | <0.055      | <0.055       | <0.055        | <0.055        | <0.11       | <2.2             | <2.2             | <2.2              | <2.2       | <20    | --                | --                 | --                | --     |
| Disp 5&6  | 2.5            | 3/18/2024   | <0.11        | <0.057      | <0.057       | <0.057        | <0.057        | <0.11       | <2.3             | <2.3             | <2.3              | <2.3       | 8.5 J  | --                | --                 | --                | --     |
| Disp 7&8  | 2.5            | 3/18/2024   | <0.12        | <0.058      | <0.058       | <0.058        | <0.058        | <0.12       | <2.3             | <2.3             | <2.3              | <2.3       | 16 J   | --                | --                 | --                | --     |
| Disp 9&10   | 2.5            | 3/18/2024   | <0.11        | <0.057      | 0.096        | 0.18          | 0.79          | <6.5        | 109              | 5.9              | <b>156</b>        | 322        | 6,030  | <b>2370 J+</b>    | 764 J+             | <b>872 J</b>      | 4,020  |
| Disp 11&12  | 2.5            | 3/18/2024   | <0.12        | <0.061      | <0.061       | <0.061        | <0.061        | <0.12       | <2.4             | <2.4             | <2.4              | <2.4       | 13 J   | --                | --                 | --                | --     |
| <b>Confirmation Sampling</b>                      |                |             |              |             |              |               |               |             |                  |                  |                   |            |        |                   |                    |                   |        |
| E1  | 3.5            | 3/20/2024   | --           | --          | --           | --            | --            | --          | --               | --               | --                | --         | 474 J- | <b>293 J-</b>     | 76 J-              | 83                | 454 J- |
| V1  | 4.5            | 3/20/2024   | <0.12        | <0.058      | <0.058       | <0.058        | <0.058        | <0.12       | <2.3             | <2.3             | 3.1               | 3.2 J-     | --     | --                | --                 | --                | --     |
| V2  | 3.5            | 3/20/2024   | <0.12        | <0.059      | <0.059       | <0.059        | <0.059        | <0.12       | <2.4             | <2.4             | <2.4              | <2.4 UJ    | --     | --                | --                 | --                | --     |

1 - Tier 1 RBSL for surface soil 0-2 ft depth and <10 ft to groundwater. Used for release confirmation reporting.

2 - Tier 1 RBSL for leaching to groundwater (0-10 feet)

3 - Tier 1 RBSL for Direct Contact Construction Workers

4 - Tier 2 RBSL for Direct Contact Construction Workers

J - Estimated value.

J+ Estimated value potentially biased high.

J- Estimated value potentially biased low.

UJ - Analyte not detected above CRQL, but CRQL may be inaccurate

< indicates concentration not detected above the referenced laboratory reporting limit.

-- not analyzed

**BOLD** values indicate concentration exceeds RBSL or Leaching to Groundwater

**622** Release confirmed to soil onsite

**872** Concentration exceeds Tier 1 Leaching to Groundwater (0-10 ft) RBSLs

**2,370** Concentration exceeds Tier 1 Direct Contact to Construction Worker RBSLs