

**MFA WORK ORDER AUTHORIZATION**

Between Maul Foster & Alongi, Inc. (MFA), and JCS Gas N Grub Inc. (Client).

Signing of this authorization by MFA and Client authorizes MFA to complete the work as described below (Work) under the attached General Terms and Conditions and Schedule of Charges.

MFA project number: M2551.01.003

Work order number: 01

Project name: Site Assessment for UST System Release, JCS Gas N Grub Inc.

Project location: 106 SW Oak Street, Hillsboro, Oregon.

Scope of work: On July 28, 2023, MFA installed four monitoring wells (MW-1 through MW-4) to assess subsurface conditions related to a release from the UST system associated with the gas station located at 106 SW Oak Street, Hillsboro, Oregon (the Site). Three days after the monitoring wells were installed, MFA observed a layer of light non-aqueous-phase liquid (LNAPL) on the groundwater table (ranging from approximately 0.25-0.75 feet in thickness) in the three monitoring wells installed adjacent to the USTs (MW-1 through MW-3), confirming the presence of a fuel release from the UST system. Trace LNAPL was observed in MW-4, which is located on the eastern portion of the Site, away from the UST system. Visual evidence of contamination observed during the field work and the analytical results from soil samples collected during the well installation also indicated that the most significant evidence of contamination observed at the Site is present in the vicinity directly adjacent to the USTs, and visual evidence of and concentrations of contamination significantly diminish in MW-4. On August 9, 2023, MFA and the Client met with a representative from the Oregon Department of Environmental Quality (DEQ) at the Site to discuss the results of the July 2023 monitoring well installation event. The DEQ representative stated that the presence of LNAPL confirms that a release from the UST system has occurred and product recovery efforts and further assessment is necessary to determine the extent of LNAPL at the Site. DEQ requested a work plan for an additional subsurface investigation to assess the extent of LNAPL at the Site, particularly in the vicinity of the USTs. In accordance with DEQ's request, this work order describes the scope of work and serves as the work plan for the additional subsurface investigation. DEQ also requested a preferential pathway analysis to assess the potential for off-site contaminant migration. DEQ's current priority is for the Client to further delineate the extent of LNAPL on-site and a preferential pathway analysis will be covered under a separate phase of work.

Task 1. Prepare Workplan and Coordination

This task includes the on-site meeting with DEQ, development of the project work plan, coordination with subcontractors (driller, private utility locating contractor, analytical laboratory, traffic control contractor), and project administration.

Task 2. Environmental Assessment

A two-day field investigation is proposed. On the first day, MFA will oversee a drilling subcontractor licensed in Oregon to drill four borings that will be completed as monitoring wells MW-5 through MW-8 at the locations shown on the attached figure. The locations have been selected to assess conditions further away from the LNAPL observed in monitoring wells MW-1 through MW-3, to further delineate the extent of LNAPL. Assessing conditions further west of the UST system at proposed well MW-5 will require drilling in the City of Hillsboro right-of-way of the SW Denrose Lane alley. MFA will apply for a right-of-way permit with the City. There is no permit fee, but a traffic control plan will need to be prepared and submitted with the permit application. Cost for preparation of the traffic control plan and traffic control during drilling at MW-5 are included.

Using a direct-push drilling rig, the borings will be advanced to 20 feet below ground surface (bgs) into the water table, which varies from approximately five to 14.5 feet bgs. Advancement and installation of monitoring wells will be prioritized to maximize the longer-term monitoring and product extraction potential.

MFA will contact the one-call utility notification center one week prior to the on-site work. A private utility locating contractor, under the direction of MFA, will assess the proposed boring locations for subsurface utilities on the morning of the on-site work. This task also includes budget for MFA to mark the proposed boring locations on Site and provide oversight during the private utility locates to ensure that the vicinity around each boring location is cleared of public and private underground utilities and infrastructure (e.g., fuel lines).

A continuous soil core will be collected at each boring. MFA will observe the core to document subsurface conditions, including soil types and field indicators of contamination (e.g., petroleum odor, staining, sheen, elevated photoionization

detector readings), and collect one soil sample at each boring for laboratory analysis. If evidence of vadose zone soil contamination is observed, the sample will be collected from the depth interval of the contamination. If no contamination is observed, the sample will be collected from just above the water table.

After soil sample collection, MW-5 through MW-8 will be completed as 2-inch-diameter, polyvinyl chloride monitoring wells with 15-foot-long pre-packed polyvinyl chloride screens, and traffic-grade surface monuments. Depending on the depth to groundwater and subsurface conditions encountered, the screens will be installed from approximately 5 to 20 feet bgs, with the screen top being located above the water table encountered in the boring.

No less than 48 hours after monitoring well installation, MFA will return to the site to develop the wells using a surge and purge technique and sample the wells using the low-flow sampling technique. The presence of LNAPL in each well will be measured using an oil-water interface probe. If significant LNAPL is encountered, the well will not be developed, and a groundwater sample will not be collected. For the purposes of budgeting for this work order, MFA assumes LNAPL will not be encountered and therefore that MFA will proceed with well development and groundwater sampling.

A disposable bailer will be used to surge and purge the wells of turbid groundwater. Then a peristaltic pump will be used to continue to purge the well to reduce turbidity and to achieve stable readings for temperature, pH, conductivity, oxidation-reduction potential, and dissolved oxygen, which will be measured during purging using a water-quality meter. Following well development, a groundwater sample will be collected from each well using the peristaltic pump and tubing until water quality parameters have stabilized after which the sample will be collected. MFA will also measure the presence of LNAPL at MW-4, where only a sheen was previously observed when the well was installed in July. If only a sheen is observed again, MFA will also collect a groundwater sample from that well.

Soil samples will be collected using laboratory-provided EPA Method 5035 kits. The soil and groundwater samples will be collected in laboratory-provided samples containers, immediately placed in a cooler with ice, and delivered to Apex Laboratories, LLC, in Tigard, Oregon under chain-of-custody. The soil and groundwater samples will be analyzed for gasoline-range petroleum hydrocarbons by the NWTPH-Gx method, and benzene, toluene, ethylbenzene, xylene, and naphthalene by EPA Method 8260D on a standard, 10-day turn-around time.

Investigation derived waste (soil and groundwater) will be stored on site in 55-gallon drums. Following receipt of analytical data for the assessment, MFA can support the Client in coordinating transport and disposal of the waste to a permitted landfill. Cost for investigation derived waste management and disposal is not included in this work order.

Task 3. Reporting

Following receipt of the final sample analytical data, MFA will discuss the findings and summarize in an email to the Client. This task includes preparing DEQ required boring logs for the four new wells, in addition to the four wells installed previously. This task includes a follow-up meeting with DEQ to discuss the findings and next steps for the assessment. The next steps may include compiling all of the data for MW-1 through MW-8 into a report (if requested by DEQ and/or insurance), and/or conducting additional site assessment activities if warranted by the data or if requested by DEQ. Costs for formal report preparation and additional assessment activities are not included in this work order.

Task 4. DEQ Required Interim Cleanup Action

This task includes budget to assist the Client with coordinating and contracting with a product recovery contractor to conduct weekly LNAPL removal from the Site. This task also includes budget for tracking and reporting levels of LNAPL at the Site to DEQ and coordinating with the agency to determine when product recovery efforts can discontinue. For the purposes of this cost estimate, it is assumed that weekly removal will continue for six events. This work order assumes that the product recovery contractor will contract with the Client directly and that the Client or the contractor will supply MFA with the weekly LNAPL measurements and removal volumes for compilation, evaluation, and reporting to DEQ. Additionally, this task includes budget to document meetings and correspondence with DEQ for the Client's records, as well as prepare project updates and progress summaries to DEQ and Insurance regarding the LNAPL removal activities.

Assumptions:

The scope of work and cost estimate is based on the following assumptions:

- The Client can ensure prompt access to the boring locations.
- The City will approve the right-of-way permit and MW-5 well installation.
- The presence of subsurface utilities will not require the use of an air knife.

Schedule of work:

Pending availability of the drilling subcontractor, and the time required to receive the right-of-way permit (the City estimates 3 to 5 days after submittal of the permit application), MFA can conduct the field investigation within two weeks of the Client's approval of this work order and authorization to proceed. The assessment findings will be communicated via email within two weeks of receipt of the final analytical data.

This proposal is valid for 30 days.

Estimated cost of work:

The cost to complete the scope of work is shown on the attached table.

This cost estimate does not represent a lump sum. MFA bills on a time-and-materials basis. MFA may apply money from one task to another to complete the scope of work.

So agreed to this 23 day of August, 2023.

By Maul Foster & Alongi, Inc.

By JCS Gas N Grub Inc.

Signature

Merideth D'Andrea

Printed Name

Principal Geologist

Title

Signature

Printed Name

Title

Proposed Monitoring Well Locations
Site Assessment for UST System Release
JCS Gas N Grub Inc., Hillsboro, Oregon



⊗ = Existing monitoring well locations MW-1 through MW-4 installed in July 2023. ⊗ = Proposed monitoring well locations MW-5 through MW-8.