



October 8, 2019

Mr. William Bergum, Environmental Science Specialist  
MDEQ Petroleum Tank Cleanup Section  
P.O. Box 200901  
Helena, MT 59620-0901

RE: Groundwater Monitoring Corrective Action Plan (CAP AC-01)  
Former Napa Auto Parts, 326 Central Avenue, Great Falls, Cascade County, Montana  
Facility ID 99-95128, Release #4877; WP ID 10621

Dear Mr. Bergum,

In accordance with the Montana DEQ (MDEQ) request letter dated September 23, 2019, Big Sky Civil & Environmental, Inc. (BSCE) has prepared this Semiannual Groundwater Monitoring Work Plan for the subject property. Groundwater monitoring will be performed semiannually for one year, a total of two (2) monitoring events.

#### Purpose and Objectives

Groundwater monitoring will be completed so as to assess success and rates of natural attenuation. Additionally, a release closure plan (RCP) will be completed for the purpose of evaluating additional remedial work that may be required to fully resolve the release and move the site toward closure.

#### Proposed Work

BSCE proposes to conduct groundwater monitoring/reporting at the subject release site as defined herein.

- Semiannual groundwater monitoring will be completed during seasonal high and low groundwater for a total of two events. First, static water levels will be measured and recorded from all site wells: MW-1R, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-7. Next, wells MW-6 and MW-7 will be sampled. Prior to sampling wells will be purged, and field parameters will be collected (dissolved oxygen, pH, temperature, conductivity and oxygen reduction potential).
- Groundwater samples will be sent to TestAmerica in Tacoma WA for analysis of:
  - Volatile Petroleum Hydrocarbons (VPH)
  - Extractable Petroleum Hydrocarbons (EPH) screen, with fractionation if the EPH screen exceeds 1,000 ppb.
  - Intrinsic Biodegradation Indicators (IBIs), including: methane, ferrous iron, manganese, nitrates/nitrites, and sulfates.
  - Lead scavengers: 1,2-DCA via EPA method 8260 and EDB via EPA method 8011. Note: if lead scavengers are not encountered during the first monitoring event, this analysis will not be included during the subsequent event.
- Results of the fieldwork will be discussed with MDEQ and WP modifications will be submitted as necessary to complete work plan objectives.

- After completion of groundwater monitoring and analytical testing, one Standardized Groundwater Monitoring Report (MR-01) will be prepared and submitted to MDEQ. At a minimum the report will include the following: exhibits depicting the location of site features, utilities, existing monitoring wells, analytical data in tabular format, lab reports, data validation summary forms, Release Closure Plan, data interpretations, conclusions, and recommendations for additional work – if deemed necessary – to resolve the release and achieve site closure.
- Reports and supporting documentation will be submitted following DEQ submittal requirements.
- Standardized MDEQ report formats will be used for all documents.

All sampling and groundwater monitoring will be completed in strict accordance with BSCE's standard QA/QC procedures. The following procedures will be used during sample collection to provide quality assurance and quality control (QA/QC), to minimize loss of volatiles, and to maintain the suitability of samples for analysis. Sample collection and analytical procedures are consistent with SW-846: *Test Methods for Evaluating Solid Waste*, November 1986, and updates published by the U.S. EPA. QA/QC methods used are defined below:

- All sample containers/preservatives will be supplied by a state-certified laboratory. Analyses will be performed by a state-certified laboratory.
- All samples will be handled in a manner which minimizes the loss of organic compounds to volatilization and biodegradation.
- All samples for analyses will be placed in a cooler on ice (at a temperature of 4° C) immediately following collection.
- Chain-of-custody procedures will be utilized during sampling and delivery.
- Documentation of the sampling and QA/QC procedures including notes will be available for DEQ inspection. These notes will document the procedures for sampling and all other routine activities, along with field notes describing the sequence of activities that took place during fieldwork.

See attached cost estimate for the above-mentioned work. Note: one groundwater monitoring report is requested for two monitoring events. Subsequently, the cost of the report has been increased to account for additional time to create report; see footnote (3) in cost estimate.

Please feel free to contact us with any questions or concerns you may have.

Respectfully,

**Big Sky Civil & Environmental, Inc.**

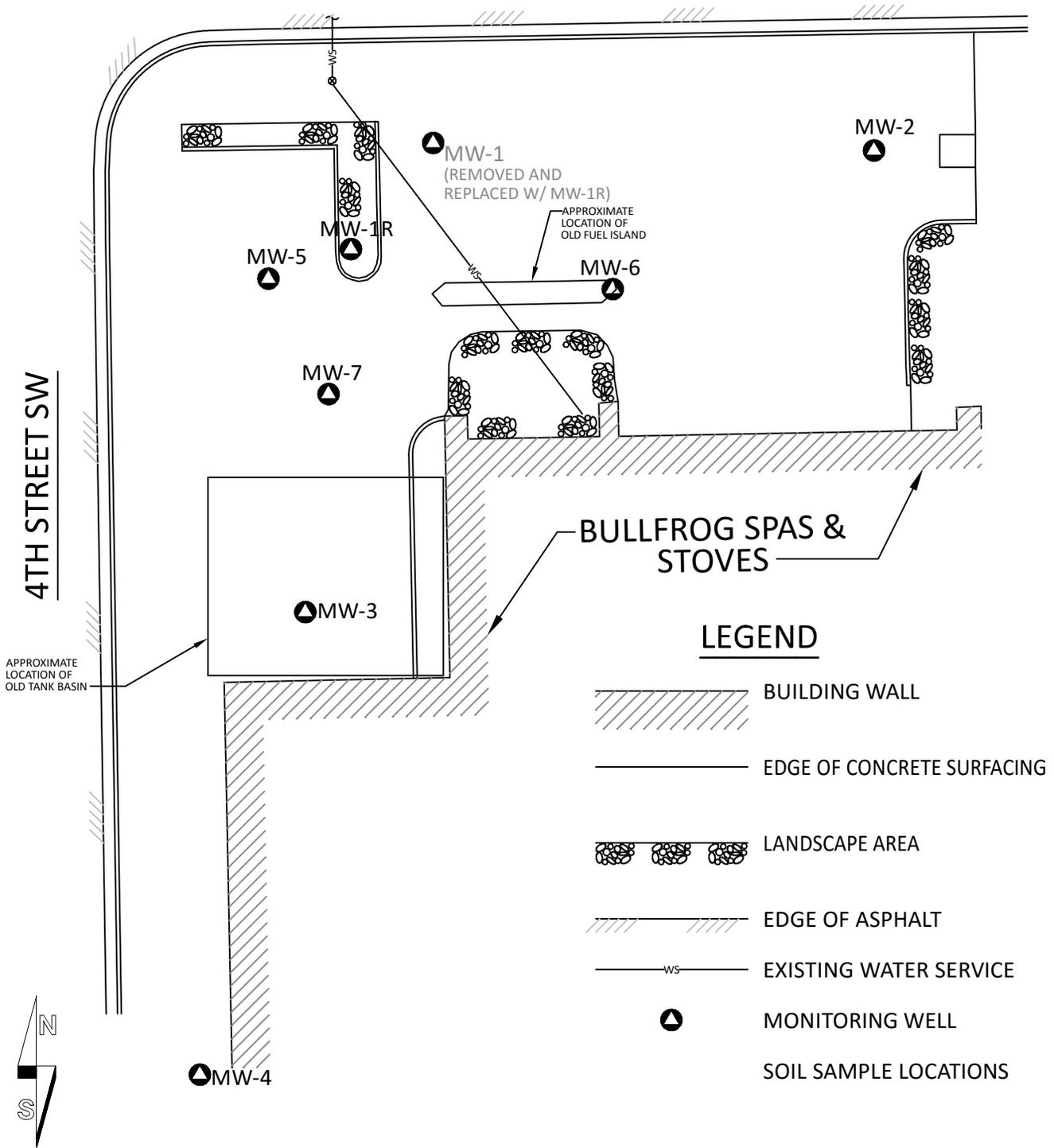
  
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Joseph N. Murphy, P.E.

  
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Paxton Ellis, E.I.

encl. Figure 1  
Cost estimate

cc: Ken Seay, 12 Pheasant Lane, Great Falls, MT 59404

# CENTRAL AVE. WEST



## LEGEND

-  BUILDING WALL
-  EDGE OF CONCRETE SURFACING
-  LANDSCAPE AREA
-  EDGE OF ASPHALT
-  EXISTING WATER SERVICE
-  MONITORING WELL
-  SOIL SAMPLE LOCATIONS

<b>TITLE:</b> <p style="text-align: center; font-size: 1.2em;">SITE PLAN</p>	<b>PROJECT:</b> <p style="text-align: center; font-size: 1.2em;">FORMER NAPA GROUNDWATER MONITORING</p>	<b>EXHIBIT:</b> <p style="text-align: center; font-size: 1.5em;">1</p>	 <p style="font-size: 0.8em; margin-top: 5px;"> <b>bsc&amp;e</b>  <b>BIG SKY CIVIL &amp; ENVIRONMENTAL, INC</b>  <small>ENGINEERS - PLANNERS - DESIGNERS -              LAND SURVEYORS - ENVIRONMENTAL SPECIALISTS</small>  <small>1324 13th Ave. SW              P.O. BOX 3625              GREAT FALLS, MT 59403              (406)727-2185 OFFICE              (406)727-3656 FAX              www.bigskyce.com</small> </p>
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**FIELDWORK/SAMPLING COST ESTIMATE**

<b>Task</b>	<b>Cost</b>	<b>Unit</b>	<b>Number of Units</b>	<b>Total Cost</b>
<b>Senior Engineer<sup>(1)</sup></b>	\$ 145.00	/hr	5	\$ 725.00
<b>Project Engineer<sup>(1)</sup></b>	\$ 131.50	/hr	12	\$ 1,578.00
<b><u>Mobilization/Demobilization</u></b>				
Mobilization/Demobilization <sup>(2)</sup> (4 RT, 15 mi/RT)	\$ 9.00	/mile	60	\$ 540.00
<b><u>Groundwater Monitoring</u></b>				
Water Level Measurements: 10 total (5 wells, 2 events)	\$ 42.25	/well	10	\$ 422.50
GW Monitoring/Purging/Sampling	\$ 186.00	/well	4	\$ 744.00
<b><u>Work Plan &amp; Report Preparation</u></b>				
Work Plan prep (CAP_MR-01)	\$ 625.00	/report	1	\$ 625.00
Report_MR-01 (two events) <sup>(3)</sup>	\$ 1,815.00	/report	1.5	\$ 2,722.50
Data Validation Summary Forms (x2)	\$ 131.50	/hr	4	\$ 526.00
Release Closure Plan (RCP) <sup>(4)</sup>	\$ 1,500.00	/report	1	\$ 1,500.00
	<b>Estimated Project Expenses</b>			\$ 9,383.00
<b><u>Laboratory Analysis - 4 water</u></b>				
Volatile Petroleum Hydrocarbons (VPH)	\$ 125.00	/sample	4	\$ 500.00
EPH Screen	\$ 80.00	/sample	4	\$ 320.00
EPH Fractionation	\$ 190.00	/sample	4	\$ 760.00
EPA Method 8260B (1,2-dichloroethane)	\$ 110.00	/sample	4	\$ 440.00
EPA Method 8011 (ethylene dibromide (EDB))	\$ 85.00	/sample	4	\$ 340.00
EPA 300.0 (Nitrate, Nitrate as N)	\$ 49.00	/sample	4	\$ 196.00
EPA 300.0 (Sulfate)	\$ 15.00	/sample	4	\$ 60.00
RSK 175 (Methane)	\$ 120.00	/sample	4	\$ 480.00
EPA 200.7 (Iron and Manganese)	\$ 26.00	/sample	4	\$ 104.00
RCRA metals (EPA 6010, 7470/1)	\$ 76.00	/sample	0	\$ -
PTRCB sampling fee	\$ 10.00	/sample	4	\$ 40.00
Misc. Costs (copies, etc.)				\$ 50.00
	<b>Estimate of Per Diem &amp; Lab</b>			\$ 3,290.00
	<b>Estimated Total Project Cost</b>			\$ 12,673.00

(1) Project Management (scheduling, DEQ/client correspondence, Health and safety plan/meetings, etc.)

(2) RT - Round trip: 2 RT - Groundwater Monitoring, 2 RT sample shipping; includes time to load/unload

(3) Report prep takes additional time to include two events (tables - analytical results, figures - gradient maps, etc.) Cost increase from \$1,815 (typical) to \$2,722.50. (1.5 times)

(4) First RCP ever completed for release