



*The Riley Group Inc.*

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**TECHNICAL MEMORANDUM**

**Date:** October 11, 2012 Job Number: 2012-366  
**To:** Messrs. Samuel Tachdjian and Hrag Salibian  
Western Motor Coach  
**CC:** Mr. Dan DeLue, Ferring and DeLue  
**From:** Fred Becker, LG, LHG  
The Riley Group, Inc.  
**Subject:** North Site Boundary Soil Quality  
Western Motor Coach Property  
19411 Highway 99  
Lynnwood, Washington

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Per the agreement between Mr. Sam Tachdjian/Western Motor Coach and The Riley Group, Inc. (RGI) for Environmental Consulting Services dated August 2, 2012 and authorized on August 3, 2012, RGI has performed the following environmental services:

- Conducted a Site Reconnaissance
- Reviewed available environmental reports
- Conducted oversight during test probe drilling.

RGI has reviewed the following reports:

- *Interim Action Report, The Bank of Washington Building, 19424 58<sup>th</sup> Place West, Lynnwood, Washington.* Prepared by Farallon Consulting, LLC (Farallon) dated June 12, 2012; and,
- *Subsurface Soil Investigation Report* prepared by JBR Environmental Consultants, Inc. (JBR) dated October 9, 2012.

In February 2012, the south adjacent property, Bank of Washington, reported a chemical-like odor in the men's bathroom (located on the north side of the building). In response, Bank of Washington installed a soil vapor extraction system and conducted indoor air sampling. Based upon the results of the soil vapor and indoor air sampling, Bank of Washington alleged that a petroleum hydrocarbon release on WMC's property had reached the soil in its foundation (French) drain on the north side of its building. In order to evaluate the extent of the soil contamination, Bank of Washington retained Farallon,

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**Serving the Pacific Northwest**

*Western Washington - Corporate Office*  
17522 Bothell Way NE, Suite A  
Bothell, WA 98011  
Phone 425.415.0551 ♦ Fax 425.415.0311

*Eastern Washington & Oregon Office*  
1838 South Washington Street  
Kennewick, WA 99337  
Phone 509.586.4840 ♦ Fax 509.586.4863

which had also designed and installed a soil vapor extraction and sub slab depressurization (SVE/SSD) system for Bank of Washington.

In June 2012, Farallon advanced four hand auger soil borings along the French drain and collected soil samples for chemical analysis. Farallon collected soil samples from 0.5 feet below ground surface (bgs) in the north sidewall of the French drain and from 2.0 feet bgs, at the base of the French drain. During digging, Farallon observed that the pea gravel around hand auger locations' HA-3 and HA-4 exhibited a sheen and strong petroleum odor. Farallon reported that soil sample HA-3 at 0.5 ft bgs yielded benzene at a concentration that exceeded MTCA soil cleanup levels; and that soil samples from HA-4 at 0.5 feet and 1.0 feet also exceed the MTCA Method A Soil Cleanup Levels for benzene, ethyl benzene, toluene, xylene (BETX) and naphthalene. Based on the soil sampling test results, Farallon concluded that the soil contamination was a point source rather than widespread contamination.

On August 17, 2012, JBR advanced five shallow test probes to evaluate shallow soil quality adjacent to the French drain located on the north side of the Bank of Washington. Five soil samples from the test probes were submitted for chemical analysis for VOCs using EPA Test Method 8260 with the result that none were detected above the analytical test method detection limits (ND); except for an anomalous finding of methylene chloride in sample GP-3-4, at four feet bgs.

RGI visited the Site on August 17, 2012 to note the locations of the planned test probes and to observe the test probe drilling. RGI observed the drilling of two of the test probes and the inspection and logging procedures employed by JBR's geologist. RGI was satisfied that the drilling, inspection, sample logging, documentation and handling were being conducted in a professional manner; and, (JBR was) observing what is generally considered industry-standard health and safety procedures.

In September 2012, JBR advanced a single hand auger soil boring within the French drain in close proximity to Farallon's previous sample location, HA-4. JBR collected three soil samples for chemical analysis. JBR did not note any odors, sheen or staining during their hand auger exploration. One sample, HA-1-2.5, was selected and submitted for chemical analysis for VOCs. Sample HA-1-2.5 was collected from the surface of the soil at the base of the French drain. It did not yield any detectible VOCs above the method detection limits (None detected - ND). RGI concurs that a soil sample from this location was a good choice to evaluate soil quality at the French drain/native soil contact.

Based upon its field observations and analytical laboratory findings, JBR concluded that it has appeared that the prior finding of VOCs by Farallon has either dissipated or the soil vapor extraction system has effectively removed the contamination from the subsurface.

Based upon JBR's shallow soil sampling and testing, RGI concurs that it appears that the soil contamination was a point source not a more wide spread release and that it appears

that the VOC concentrations in the shallow native soil and/or pea gravel in the French drain, have dissipated.

If and when the French drain is decommissioned, RGI recommends we be retained to observe shallow soil quality as the pea gravel is removed; and, if necessary assist (WMC) with handling and disposal of any petroleum contaminated gravel should it be encountered.

RGI also recommends that the WMC property be secured (locked) at all times; and, that if the French drain remains that Bank of Washington have it paved over or otherwise engineered to prevent another surface release from entering the system.