WHIDBEY ISLAND BANK CAPITOL PLAZA HOTEL GROUNDWATER ASSESSMENT FINAL REPORT



Prepared for:

Whidbey Island Bank 14807 Highway 99 Lynnwood, Washington 98087

Prepared by:

O'Malley & Associates 22112 213th Avenue SE Monroe, Washington 98272 900 Capitol Way South Olympia, Washington 98501

April 24, 2013

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SUMMARY OF FINDINGS

A UST Assessment report prepared by Envitech, an environmental consulting firm, in a November 4, 2008 report documented the removal of a 750-gallon capacity heating oil underground storage tank (UST) from the Capitol Plaza Hotel property (Site). Groundwater contamination was indicated by the presence of diesel-range total petroleum hydrocarbons (TPH) in a grab groundwater sample collected from adjacent to the UST removal excavation. The grab groundwater sample contained diesel-range TPH in a concentration which exceeded the Washington State Model Toxics Control Act (MTCA) Method A Groundwater Cleanup Levels Method A Cleanup Level for Unrestricted Land Uses. Following the removal of approximately 70 tons of contaminated soil the excavation was backfilled with clean material.

To document the Site groundwater quality, on April 19, 2013, O'Malley & Associates supervised the installation of four groundwater monitoring wells to a depth of 20 feet below ground surface (BGS) in the source area, up-gradient of the source area, and down-gradient positions of the source area.

O'Malley & Associates developed each well (MW-1, MW-2, MW-3, and MW-4) using a submersible pump to removed fine sediments from the water column. O'Malley & Associates also sampled the four wells on April 19, 2013. The groundwater appears to occur in a shallow aquifer underlying the investigated area of the Site.

The results of the groundwater sampling and testing indicate that no diesel-range TPH is present (non-detect) in the Site groundwater.

Since the four Site well groundwater sample analytical results were non-detect, the Site groundwater is compliant with Washington State MTCA Method A Groundwater Cleanup Levels. In light of these results, it appears that no additional environmental assessment or cleanup action is warranted at this time.

O'Malley & Associates recommends submittal of the results of the Site Groundwater Assessment to the Washington State Department of Ecology (Ecology) for formal review under the Voluntary Cleanup Program.

1 INTRODUCTION

This report documents the results of a Groundwater Assessment at the Capitol Plaza Hotel property. O'Malley & Associates on behalf of the Whidbey Island Bank, the property owner, conducted this Groundwater Assessment. Ms. Cynthia Butterfield of the Whidbey Island Bank gave O'Malley & Associates Authorization to proceed with the project on April 12, 2013. O'Malley & Associates conducted the sampling and testing for the Groundwater Assessment on April 19, 2013.

1.1 BACKGROUND

A UST Assessment report prepared by Envitech, an environmental consulting firm, in a November 4, 2008 report documented the removal of a 750-gallon capacity heating oil UST from the Site. Groundwater contamination was indicated by the presence of diesel-range TPH in a grab groundwater sample collected from adjacent to the UST removal excavation. The grab groundwater sample contained diesel-range TPH in a concentration which exceeded the MTCA

Method A Groundwater Cleanup Levels Method A Cleanup Level for Unrestricted Land Uses. Following the removal of approximately 70 tons of contaminated soil the excavation was backfilled with clean material.

1.2 PROJECT OBJECTIVES

The goals of the Groundwater Assessment were:

- Collect groundwater samples for chemical analyses from the recently installed wells MW-1, MW-2, MW-3, and MW-4;
- Survey the water levels in each well; and
- Prepare a written report of the field activities and sampling and testing results.

1.3 REPORT ORGANIZATION

This report begins with a Summary of Findings. Subsequent sections present the results of the Groundwater Assessment. Two figures, two tables, and two supporting appendices follow the main text. A copy of the analytical report and chain-of-custody are provided in Appendix A and copies of the well logs are presented in Appendix B.

2 GENERAL DOCUMENTATION

O'Malley & Associates field geologist documented daily field activities in a bound serialized field book. Information pertaining to personnel on-site, weather, general activities planned and performed, and any problems experienced on-site were recorded.

2.1 GROUNDWATER MONITORING WELLS

Groundwater monitoring wells MW-1 through MW-4 were constructed in accordance with the Ecology well installation guidelines. The 2-inch inside diameter wells were installed to a depth of 20 feet BGS. The lower 10 feet of 0.010-inch slotted schedule 40 PVC was bedded in Colorado silica sand with an upper 10 feet of blank PVC casing sealed by hydrated bentonite. Each well was then finished with a flush-mount steel monument with locking provision.

2.2 GROUNDWATER SAMPLING

O'Malley & Associates collected four groundwater samples (Table 1) from the four Site groundwater monitoring wells. The static water level in each well was measured to 0.01 inches using an electronic water level meter. Prior to sampling, each well was developed and purged by using a submersible pump to remove at least three well volumes of water. The purge water was pumped into a 55-gallon drum and left on-site pending laboratory analysis. Dedicated disposable plastic bailers were then used to collect a groundwater sample from each well. The water was poured into laboratory supplied 500 mL preserved amber bottles.

2.3 GROUNDWATER SAMPLING DOCUMENTATION

O'Malley & Associates documented all field activities associated with groundwater sampling. Documentation included a comprehensive discussion of field observations, such as field parameter measurements, and documentation of any problems encountered in the field. All groundwater sample containers were labeled with the following information:

- O'Malley & Associates project identification number;
- Sample date;
- Sampler's name; and
- Sample identification number.

Each groundwater sample collected was given a unique identification number as described below:

<u>Well Number</u>: For example, sample MW-1-01 is the sample collected from monitoring well MW-1 during the first (01) sampling of the well.

In addition, the sample chain-of-custody forms were completed with O'Malley & Associates project identification number, the sampler's name, date, and sample identification codes, number of containers, and date and time the sample was collected. The chain-of-custody form was included with samples transported to the analytical laboratory.

2.4 DECONTAMINATION PROCEDURES

All non-disposable sampling equipment was decontaminated prior to and after each sampling operation. The specific steps used for decontamination of the equipment are:

- Rinse and pre-clean equipment in potable water;
- Wash and scrub equipment with non-phosphate based detergent and potable water;
- Rinse with potable water;
- Rinse in deionized water; and
- Air-dry and store in clean plastic bags (or visqueen sheet) between samplings.

2.5 SAMPLE HANDLING AND SHIPPING

O'Malley & Associates field personnel checked all sample bottles for completeness and cap tightness. The sealed sample containers were then placed upright in a cooler and chilled with Blue Ice. The sample cooler was then placed in a field vehicle to await transportation to the analytical laboratory. All samples collected were shipped, under chain-of-custody to the Libby Environmental, Inc. (Libby), Olympia, Washington laboratory for analyses.

3 LABORATORY ANALYSES

Four groundwater samples were submitted to Libby for analysis. The samples were analyzed for diesel- to oil-range TPH using Ecology Test Method NWTPH-Diesel Extended (Dx).

4 INVESTIGATION RESULTS

4.1 GEOLOGY

The dominant geological feature of the landscape in this portion of Thurston County is Vashon till (Pleistocene). The Vashon till is made up of predominantly fine-grained deposits consisting of unsorted and unstratified glacial sediments from clay to boulder in size that vary in compaction and composition throughout the Puget Sound. The Vashon till is made up of both subglacial and ablation components. The subglacial component consists of compacted unsorted gravel in a matrix of sandy silt and clay, commonly called hardpan. The ablation is till, brown sandy and gravelly soil accompanied by a few boulders (Jones, 1998).

4.2 GROUNDWATER

During the well installations, a saturated zone indicative of the uppermost groundwater table was encountered at approximately 13 feet BGS. Following installation of the groundwater monitoring well, MW-1, groundwater stabilized at 11.40 feet BGS. Groundwater was measured at 11.90 feet BGS at well MW-2, 10.80 feet BGS at well MW-3, and 12.50 feet in well MW-4.

5 ANALYTICAL RESULTS

Prior to analysis, each sample was passed through a silica gel extraction to remove naturally-occurring biogenic material. The water NWTPH-Dx analytical results for the groundwater samples from each well are summarized below:

- MW-1, non-detect;
- MW-2, non-detect;
- MW-3, non-detect; and
- MW-4, non-detect

A Copy of the analytical laboratory report is provided in Appendix A.

6 REGULATORY REVIEW

The MW-1, MW-2, MW-3, and MW-4 groundwater sample analytical results were compared to MTCA Method A Cleanup Levels for diesel-range TPH. Since the four Site well groundwater sample analytical results were non-detect, the Site groundwater is compliant with Washington State MTCA Method A Diesel Groundwater Cleanup Levels for Unrestricted Land Uses.

7 GROUNDWATER ASSESSMENT CONCLUSIONS

No measured concentrations of diesel-range TPH were detected in the Site groundwater samples. On the basis of non-detection, the Site groundwater is compliant with Washington State MTCA Method A Groundwater Cleanup Levels. In light of these results, it appears that no additional environmental assessment or cleanup action is warranted at this time.

8 RECOMMDENDATIONS

O'Malley & Associates recommends submittal of the Groundwater Assessment to the Washington State Department of Ecology for formal review under the Voluntary Cleanup Program.

9 REFERENCES

Jones, M. A.; 1998, "Surficial Hydrogeologic Units of the Puget Sound Aquifer System, Washington"; United States Geological Survey Professional Paper

10 SIGNATURE

This Groundway ssment was prepared by the undersigned.

Miguel A. Ortega

Miguel Ortega, L.G. Washington Licensed Geologist; License #534.

24 April 2013

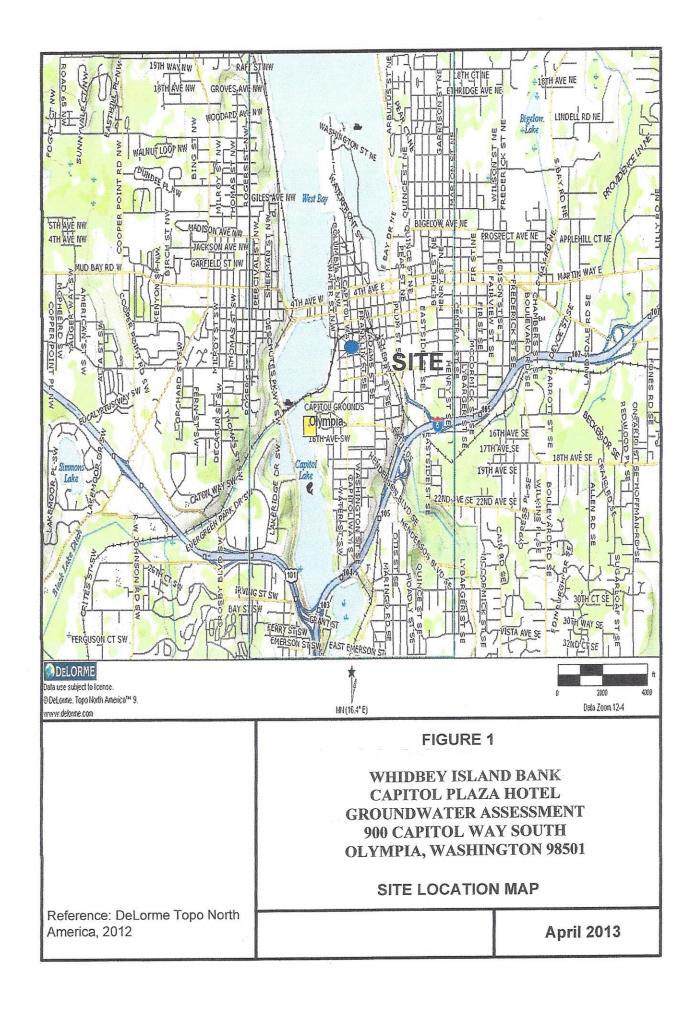
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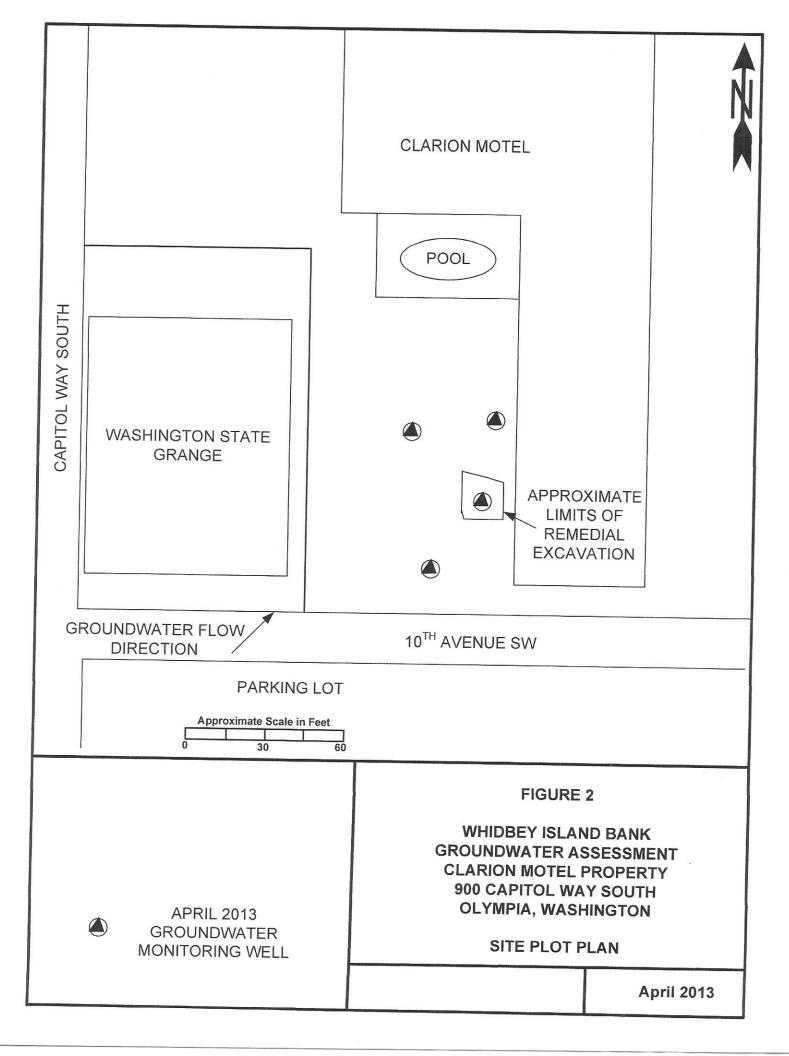
11 PROJECT LIMITATIONS

The conclusions presented in report are professional opinions based upon our visual observations and physical testing. This report is intended exclusively for the purpose outlined herein and at the site location and project indicated. This report is for the sole use of our client, Whidbey Island Bank. Opinions and conclusions presented herein apply to site conditions existing at the time of execution of our Groundwater Assessment and do not necessarily apply to future changes or other prior conditions at the site of which O'Malley & Associates is not aware and has not had the opportunity to evaluate. The scope of services performed in execution of this Groundwater Assessment may not be appropriate to satisfy the needs of other users, and any use or re-use of the document or the findings, conclusions, or recommendations presented is at the sole risk of the said user.

O'Malley & Associates' objective is to perform our work with care, exercising the customary thoroughness and competence of environmental consulting professionals in the relevant disciplines. Furthermore, we carried out our services in accordance with the standard for professional services by a consulting firm at the time those services were rendered. It is important to recognize that even the most comprehensive scope of services may fail to detect environmental liability on a particular site. Therefore, O'Malley & Associates cannot act as insures and cannot "certify or underwrite" that a site is totally free of environmental liability. In addition, no expressed or implied representation or warranty is included or intended in our report except that our work was performed within the limits prescribed by our client, and with the customary thoroughness and competence of our profession.

FIGURES





TABLES

TABLE 1: GROUNDWATER SAMPLE SOURCE INFORMATION					
GROUNDWATER SAMPLE	SOURCE LOCATION				
MW-1-01	Monitoring well MW-1 is located to the south of the former UST excavation and north of 10 th Avenue SE right-of-way.				
MW-2-01	Monitoring well MW-2 is located in the center of the former UST excavation.				
MW-3-01	Monitoring well MW-3 is located to the north-northeast of the former UST excavation				
MW-4-01	Monitoring well MW-4 is located to the north-northwest of the former UST excavation.				

TABLE 2: GROUNDWATER N	TABLE 2: GROUNDWATER NWTPH-Dx RESULTS				
Groundwater Sample ID	NWTPH-Dx ¹ Diesel-range TPH (µg/L)				
MTCA METHOD A CLEANUP LEVEL ³	500				
MW-1	ND^4				
MW-2	ND				
MW-3	ND				
MW-	ND				

EXPLANATION

¹NWTPH-Dx, Washington State Department of Ecology Test Method for quantifying the presence of diesel- to oil-range total petroleum hydrocarbons (TPH);

²Analytical values reported in micrograms per liter (μg/L);

³Washington Model Toxics Control Act (MTCA) Method A Groundwater Cleanup Levels For Unrestricted Land Uses (WAC 173-340-745);

⁴ND - Not Detected, below test method detection limit of 50 μg/L for diesel-range TPH.

	O'Malley & Associates, LLC
APPENDIX A: COPY OF ANA CUSTODY	ALYTICAL REPORT AND CHAIN-OF-
Capitol Plaza Hotel	Groundwater Assessment

Libby Environmental, Inc.

4139 Libby Road NE Olympia, WA 98506

Phone: (360) 352-2110 FAX: (360) 352-4154

Email: libbyenv@aol.com

CAPITOL PLAZA PROJECT O'Malley & Associates, LLC Olympia, Washington Libby Project # L130419-5

Analyses of Diesel (NWTPH-Dx) in Water with Silica Gel Clean Up

Sample	Date	Surrogate	Diesel
Number	Analyzed	Recovery (%)	(µg/l)
Method Blank	4/22/13	92	nd
MW-1-01	4/22/13	111	nd
MW-2-01	4/22/13	111	nd
MW-3-01	4/22/13	109	nd
MW-4-01	4/22/13	112	nd
MW-4-01 Dup	4/22/13	110	nd
Practical Quantitation Limit			200

[&]quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Kyle Williams

[&]quot;int" Indicates that interference prevents determination.

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APPENDIX B: COPIES OF WELL LOGS