

Oak Harbor Sanitation Treatment Plant
LUST 591717

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**Underground Storage Tank
Closure Confirmation**

**City of Oak Harbor
Wastewater Treatment Plant
1501 S.E. City Beach Street
Oak Harbor, Washington 98277**

Whidbey Island

Prepared for:

Rob Kelley
Lead Wastewater Treatment Plant Operator
City of Oak Harbor
865 SE Barrington Drive
Oak Harbor, WA 98277-4092

Prepared by:

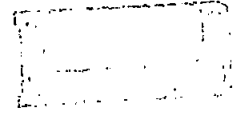


Earthworks Environmental, Inc.
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(360) 738-6600 (Bellingham)

May 10, 2007
Revised: June 12, 2007



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1.0 EXECUTIVE SUMMARY

Earthworks Environmental, Inc. personnel conducted, an Environmental Sampling and Underground Storage Tank Closure Confirmation for the City of Oak Harbor's Wastewater Treatment Plant located at 1501 S.E. City Beach St., Oak Harbor, Washington. Earthworks Environmental, Inc. (EEI) was on site on April 11, 2007 as requested by Rob Kelley of the City of Oak Harbor Public Works Department.

Rob Kelley asked EEI to conduct groundwater sampling at the location of an old underground storage tank that was previously removed. The sampling was intent on confirming that the tank removal and the contaminated soil in the area was cleaned up according to MTCA level A standards. Groundwater samples were taken from an existing monitoring well located within the center of the old UST location and tested for NWTPH-DX. The NWTPH-DX diesel and heavy oils were both confirmed to be not detectable at the reporting limit.

Given the non-detectable laboratory results of the water sample taken in the middle of the previously contaminated Underground Storage Tank area, it is are opinion that this site is confirmed to be clean of contaminants associated with the UST investigated in this report.

2.0 BACKGROUND

The Underground Storage Tank that is the subject of this report was located at 1501 S.E. City Beach Street, Oak Harbor, Washington. The UST was located on the eastern side of the Water Treatment Facility near S.E. City Beach Street (Figure 1 and Figure 2). The UST was a 300 gallon tank that contained heating oil. The UST was removed by Fuel Tank Installation Co., Inc. on August 10, 1998 and an UST Closure and Site Assessment Notice was filed with the Department of Ecology. Contaminated soil was present adjacent to the tank at the time of the UST closure and was treated on site by a combination of stockpile aeration and natural bacterial stimulation using Environmental Chemical Solutions, Inc.'s FM-186-2. The estimated area of the contamination at the time of the UST removal is shown in Figure 2. After the soil was treated and cleaned below clean-up standards it was returned to the UST pit. Groundwater samples were taken within and around the refilled UST pit in December 29, 2004 and the highest hit was found in the center of the UST pit with a value of 5.37 mg/L of NWTPH-DX-heavy oil. Given that in 2004 the highest sample was found at the center of the UST location, Earthworks Environmental, Inc. deemed it an appropriate step to sample the hottest spot for a contaminate clean-up assessment.

3.0 GROUNDWATER SAMPLING

3.1 METHODS

The water sample that was taken for this report was collected from an existing well that was 18" in diameter and was 5' 1" from the top of the casing to the base of the well. At the time of the water sample the water table was 4' below the top of the casing. We

Rob

~~R Kelley~~ @ OAK HARBOR.ORG

R Kelley

removed 3 volumes of water from the well and stored the purge water in nine 5-gallon buckets. The sample was collected into a sample jar supplied, by CCI Analytical Laboratories, 8620 Holly Drive Suite 100 Everett, WA 98208, for water samples being tested for NWTPH-DX. After sampling the sample was placed in a cooler with double-bagged ice packs and delivered to CCI Analytical Laboratories via Red Dog Courier. CCI Analytical Laboratories then processed the sample analyzing for TPH-diesel range and oil range using NWTPH-DX methods.

3.2 RESULTS

The analysis the water sample taken for the UST site resulted in non-detect for both diesel range and oil range. The TPH-Diesel range detection limit was ND (<130) µg/L (Attachment A). The TPH-Oil range detection limit was ND (<250) µg/L (Attachment A). The MTCA Method A, unrestricted use, for groundwater is 500 µg/L and is regulated under WAC 173-340.

4.0 CONCLUSIONS

Earthworks Environmental, Inc. has performed an Environmental Sampling and Underground Storage Tank Closure Confirmation for the City of Oak Harbor's Wastewater Treatment Plant located at 1501 S.E. City Beach St., Oak Harbor, Washington. Based on the non-detectable results of the laboratory analysis taken for the previous UST site, the UST site is judged to be clean of diesel and oil range contaminated associated with the previous leaking UST.

Please feel free to contact us at (360) 661-3546 if you have any questions concerning this report.

Sincerely,



Jeff Ninnemann
Hydrogeologist

1911. The first of these was the discovery of the
fossilized remains of a new species of
the genus *Trilobites*. This discovery was made
by the late Dr. J. W. Galloway, who was
then a student of the University of
California. The fossil was found in the
Trilobite beds of the Cambrian period.

1912. The second of these was the discovery of the
fossilized remains of a new species of
the genus *Trilobites*. This discovery was made
by the late Dr. J. W. Galloway, who was
then a student of the University of
California. The fossil was found in the
Trilobite beds of the Cambrian period.

1913. The third of these was the discovery of the
fossilized remains of a new species of
the genus *Trilobites*. This discovery was made
by the late Dr. J. W. Galloway, who was
then a student of the University of
California. The fossil was found in the
Trilobite beds of the Cambrian period.

1914. The fourth of these was the discovery of the
fossilized remains of a new species of
the genus *Trilobites*. This discovery was made
by the late Dr. J. W. Galloway, who was
then a student of the University of
California. The fossil was found in the
Trilobite beds of the Cambrian period.

1915. The fifth of these was the discovery of the
fossilized remains of a new species of
the genus *Trilobites*. This discovery was made
by the late Dr. J. W. Galloway, who was
then a student of the University of
California. The fossil was found in the
Trilobite beds of the Cambrian period.

1916. The sixth of these was the discovery of the
fossilized remains of a new species of
the genus *Trilobites*. This discovery was made
by the late Dr. J. W. Galloway, who was
then a student of the University of
California. The fossil was found in the
Trilobite beds of the Cambrian period.

1917. The seventh of these was the discovery of the
fossilized remains of a new species of
the genus *Trilobites*. This discovery was made
by the late Dr. J. W. Galloway, who was
then a student of the University of
California. The fossil was found in the
Trilobite beds of the Cambrian period.

1918. The eighth of these was the discovery of the
fossilized remains of a new species of
the genus *Trilobites*. This discovery was made
by the late Dr. J. W. Galloway, who was
then a student of the University of
California. The fossil was found in the
Trilobite beds of the Cambrian period.

Figure 1. Water Treatment Plant UST sample site location, surrounding properties and groundwater flow direction.

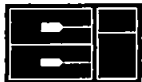


Figure 2. Location of UST and approximate estimated extent of original contamination.



Attachment A: CCI Analytical Laboratories Results

(See Following Pages)



CCI
ANALYTICAL
LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: EARTHWORKS ENVIRONMENTAL, INC.
1200 DUPONT ST. SUITE 2-I
BELLINGHAM, WA 98225

DATE: 4/13/2007
CCIL JOB #: 0704063
DATE RECEIVED: 4/12/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: JEFF NINNEMANN
CLIENT PROJECT ID: CITY OF OAK HARBOR WT.
CLIENT SAMPLE ID: 4/11/2007 11:15 07/04/11-1
CCIL SAMPLE #: -01

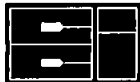
DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-Diesel Range	NWTPH-DX	ND(<130)	UG/L	4/12/2007	DLC
TPH-Oil Range	NWTPH-DX	ND(<250)	UG/L	4/12/2007	DLC

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:



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QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	% RECV
0704063-01	NWTPH-DX	C25	96

APPROVED BY: