

Bardy, Louise (ECY)

From: Cliff Schmitt <cschmitt@farallonconsulting.com>
Sent: Monday, September 19, 2016 10:23 AM
To: Bardy, Louise (ECY)
Cc: Brani Jurista
Subject: RE: Cleaning Center of Redmond
Attachments: FIGURE 1.pdf; MW-8 Aerial Photo.pdf; Trail.pdf

Louise,

Thank you for your email response on September 1, 2016. This email presents information to demonstrate that the former plume of tetrachloroethene (PCE) caused by the release at the Cleaning Center of Redmond dry cleaner was characterized to the extent practicable. No further characterization of groundwater is warranted as the source area was remediated and concentrations of PCE in groundwater attenuated to less than the MTCA Method A cleanup level as confirmed by the results of compliance groundwater monitoring performed at monitoring well MW-8 and all other monitoring wells within the plume footprint.

Monitoring well MW-8 was installed in 2000 along the centerline of the groundwater plume at the most down-gradient location accessible to install a monitoring well. This location is immediately up-gradient of the Sammamish River, approximately 70 feet from the water's edge and approximately 50 feet from the top of the river bank (please see attached illustrations/photos). The Sammamish River pedestrian trail lies between the top of the river bank and is approximately 20 feet west of the former location of monitoring well MW-8. King County owns the land that includes the Sammamish River trail and the former location of monitoring well MW-8. The location of monitoring well MW-8 was established pursuant to an Access Agreement with King County.

Vertical delineation of the plume depth established that the concentrations of PCE exceeding the MTCA Method A cleanup level were limited to the uppermost portion of the shallow water-bearing zone. The shallow water-bearing zone discharges to the Sammamish River. Maps depicting the plume footprint prior to implementation of the cleanup action showed the plume extending slightly past monitoring well MW-8 to the vicinity of the eastern bank of the Sammamish River. These maps accurately represent the down-gradient extent of the plume as is not technically possible for the plume to migrate past the discharge point (eastern bank and base of the Sammamish River).

Installation of a monitoring well down-gradient of monitoring well MW-8 prior to implementation of the cleanup action was not practicable or technically necessary. It was not practicable for the following reasons:

- 1) Drilling on the river bank is not possible due to a steep slope and rip-rap boulders, and because it is the environmentally sensitive area.
- 2) Drilling on top of the Sammamish River Trail would have necessitated closure of the trail to pedestrian traffic and was not allowed by King County.
- 3) The only location closer to the river than monitoring well MW-8 that could be drilled along the flow path would only be 10 to 15 feet further west-northwest of the former monitoring well MW-8 location. This location proximate to the former monitoring well MW-8 would not provide any meaningful data to define the northwesterly extent of former plume.

As a result of the completed cleanup action at the Cleaning Center of Redmond source area, the PCE plume no longer exists (the plume is defined as the area where PCE concentrations exceed the MTCA Method A cleanup level). Therefore, collection of current groundwater quality data will not be useful to define the historical extent of PCE in groundwater exceeding the MTCA Method A cleanup level. Monitoring well MW-8 and the other monitoring wells comprising the Cleaning Center of Redmond Site well network were decommissioned in 2012 upon receipt of the No Further Action determination from Ecology.

In summary, the former monitoring well network for the Cleaning Center of Redmond Site was sufficient to characterize the extent of the plume. As depicted on plume maps prior to implementation of the cleanup action, the plume extended past monitoring well MW-8 where the shallow aquifer discharges to the Sammamish River. After completion of the cleanup action, concentrations of PCE attenuated to less than the MTCA Method A cleanup level and the plume no longer exists. Further characterization of groundwater (pre-cleanup action) was not practicable due to access limitations nor technically necessary to define the down-gradient limit of the plume as the discharge point for the shallow aquifer was proximate to monitoring well MW-8. Compliance monitoring confirmed that the Cleaning Center of Redmond Site meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC.

The property owner for the Redmond Center property is interested in resolving this issue and obtaining a designation of "Cleanup Completed" and delisting of the Cleaning Center of Redmond Site.

Please contact Brani Jurista or me with any questions.

Clifford T. Schmitt, Principal

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From: Bardy, Louise (ECY) [mailto:LBAR461@ECY.WA.GOV]
Sent: Thursday, September 01, 2016 4:38 PM
To: Cliff Schmitt <cschmitt@farallonconsulting.com>
Subject: Cleaning Center of Redmond

Hi Cliff,

You requested that Ecology remove this site from the Hazardous Sites List and change the status to No Further Action. We spent many hours reviewing the old files and piecing together agency decisions on this site and the two others nearby to respond to this request. Here is a summary of what we found:

Ecology issued a Property No Further Action (NFA) letter for the Cleaning Center of Redmond (VCP Project NW1324) on April 1, 2011.

In an email Michael Kuntz (former Ecology site manager) wrote to Cliff Schmitt on January 11, 2011, Michael stated that the reason for a Property NFA instead of a Site NFA was because the entire site was not adequately characterized. Point number one in Michael's email: "There is no groundwater compliance monitoring well identified that is beyond MW-8 along the northwesterly groundwater flow path to delineate the extent of the plume. In summary, MW-8 does not represent the extent of the plume and a critical data gap for groundwater quality down gradient of MW-8 exists. Additional groundwater characterization is needed beyond the location of MW-8 along a northwest flow path towards the Sammamish River to address the critical data gap for a NFA for the site. In the absence of the additional characterization, Ecology could grant a Property Specific NFA..." Point number three further clarifies: "Addressing the critical data gap as identified in comment No. 1 above to Ecology's satisfaction would lead to a NFA determination for the site for the Tetrachloroethene release(s) associated with the former dry cleaners on the subject property of the VCP application."

Additionally, in response to Michael Kuntz's email of 1/11/11, Cliff Schmitt stated, "At the time, Nelgroup Properties, LLC is not planning to perform further characterization of groundwater conditions at or down-gradient of monitoring well MW-8." Ecology is not aware of any further characterization of the data gap for groundwater quality down gradient of MW-8.

The site status of the Cleaning Center of Redmond will remain "Cleanup Started" until such time as the down gradient characterization has been conducted. When this has been completed and the results show the groundwater to be clean, the property owner is encouraged to apply to Ecology's VCP and submit a request for a Site NFA Opinion. Ecology cannot

delist the Cleaning Center of Redmond until the entire site meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC.

We are preparing a memo to file in case this question arises again in the future. There isn't anything else we can change at this time.

Best Regards,

Louise

From: Cliff Schmitt [<mailto:cschmitt@farallonconsulting.com>]
Sent: Thursday, August 18, 2016 11:02 AM
To: Bardy, Louise (ECY) <LBAR461@ECY.WA.GOV>
Subject: RE: Redmond Sites

Thanks Louise for the response. The lead representative (Tom Markl) for the Redmond Center property owner and their outside counsel (Bill Joyce) are putting a lot of pressure on us to get this matter resolved in a timely manner.

We'll check in on Ecology's progress in two weeks.

Thanks for your attention to this matter.

Clifford T. Schmitt, Principal

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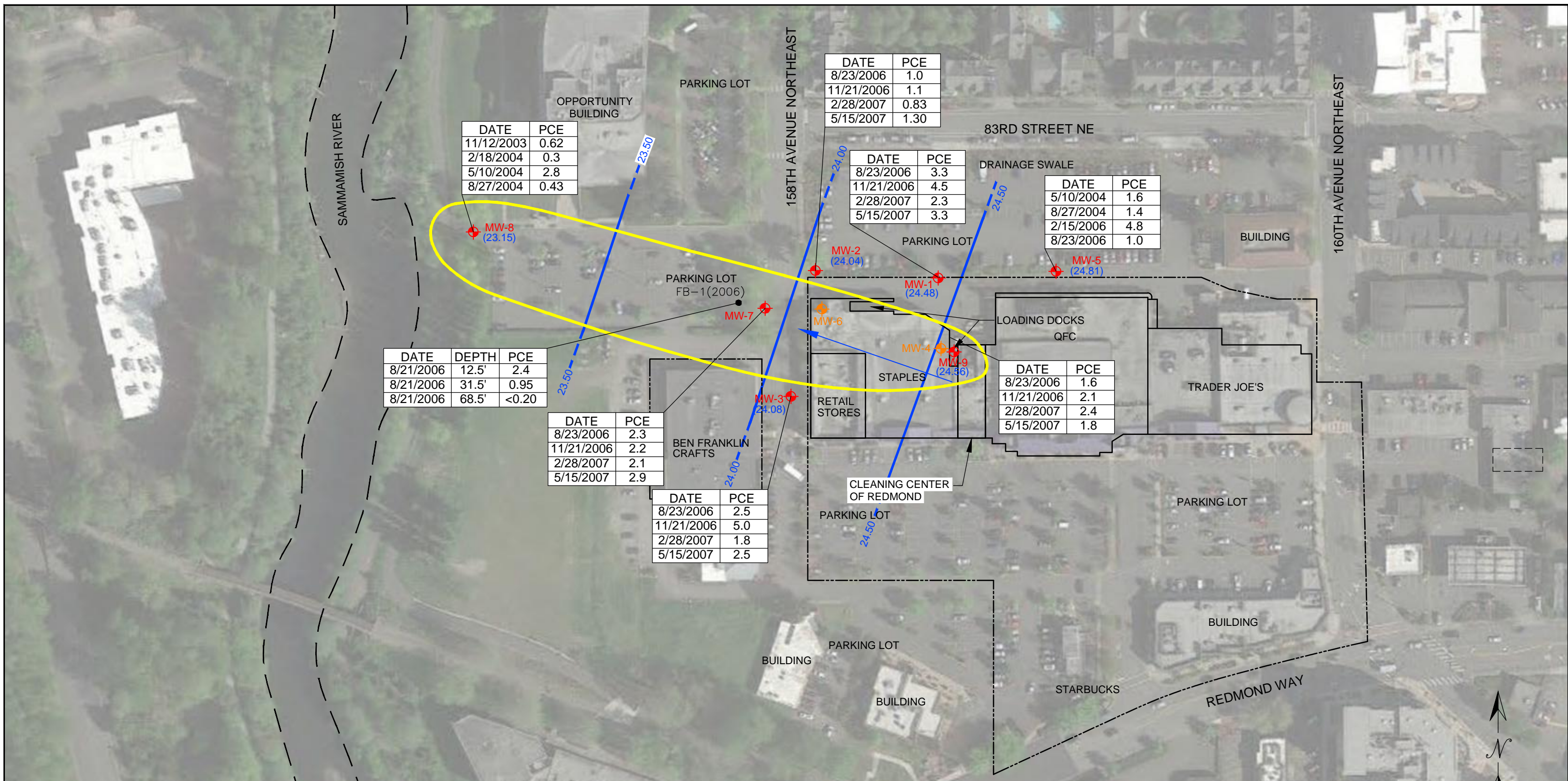
From: Bardy, Louise (ECY) [<mailto:LBAR461@ECY.WA.GOV>]
Sent: Thursday, August 18, 2016 10:46 AM
To: Cliff Schmitt <cschmitt@farallonconsulting.com>
Subject: Redmond Sites

Hi Cliff,

We pulled the files and are reviewing all three related sites – what's in the letters and databases. We're not done yet but working on it and will surely be back in touch when done.

Best Regards,

Louise



DATE	PCE
11/12/2003	0.62
2/18/2004	0.3
5/10/2004	2.8
8/27/2004	0.43

DATE	PCE
8/23/2006	1.0
11/21/2006	1.1
2/28/2007	0.83
5/15/2007	1.30

DATE	PCE
8/23/2006	3.3
11/21/2006	4.5
2/28/2007	2.3
5/15/2007	3.3

DATE	PCE
5/10/2004	1.6
8/27/2004	1.4
2/15/2006	4.8
8/23/2006	1.0

DATE	DEPTH	PCE
8/21/2006	12.5'	2.4
8/21/2006	31.5'	0.95
8/21/2006	68.5'	<0.20

DATE	PCE
8/23/2006	2.3
11/21/2006	2.2
2/28/2007	2.1
5/15/2007	2.9

DATE	PCE
8/23/2006	2.5
11/21/2006	5.0
2/28/2007	1.8
5/15/2007	2.5

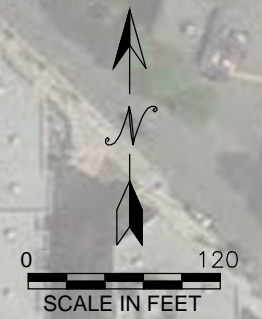
DATE	PCE
8/23/2006	1.6
11/21/2006	2.1
2/28/2007	2.4
5/15/2007	1.8

LEGEND

- SITE BOUNDARY
- FORMER EXTENT OF PCE PLUME IN GROUNDWATER
- PERFORMANCE AND CONFIRMATION MONITORING WELL NETWORK (DECOMMISSIONED FOLLOWING RECEIPT OF NO FURTHER ACTION DETERMINATION)
- MONITORING WELL (DECOMMISSIONED PRIOR TO CLEANUP DUE TO CONSTRUCTION OF NEW BUILDING)
- FB-1(2006) RECONNAISSANCE GROUNDWATER SAMPLE
- (24.56) GROUNDWATER ELEVATION RELATIVE TO MEAN SEA LEVEL (MAY 2007)
- 24.50 GROUNDWATER ELEVATION CONTOUR (MAY 2007)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW

DEPTH IN FEET BELOW GROUND SURFACE
 PCE = TETRACHLOROETHENE
BOLD = INDICATE CONCENTRATIONS EXCEEDED WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATIONS (MTCA) METHOD A CLEANUP LEVEL
 < = INDICATES ANALYTE NOT DETECTED AT CONCENTRATIONS AT OR EXCEEDING THE LABORATORY PRACTICAL QUANTITATION LIMIT
 = DATE SAMPLED AND PCE CONCENTRATION IN GROUNDWATER IN MICROGRAMS PER LITER (ug/L)
 ALL LOCATIONS ARE APPROXIMATE

DATE	PCE
8/23/2006	1.6



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FIGURE 1
 GROUNDWATER ELEVATION CONTOURS AND PCE CONCENTRATIONS IN GROUNDWATER
 CLEANING CENTER OF REDMOND
 REDMOND, WASHINGTON
 FARALLON PN: 650-001
DRAFT
 Drawn By: DJR Checked By: BJ Date: 9/7/2016 Disk Reference: 650-001_00.dwg

1/2016



SAMMAMISH RIVER TRAIL

TOP OF RIVER BANK

BOTTOM OF RIVER BANK

MW-8

60 ft

Google earth

1990

Imagery Date: 4/19/2015 lat 47.676322° lon -122.131873° elev 35 ft eye alt 284 ft

BOTTOM OF SLOPE AND SAMMAMISH RIVER

SAMMAMISH RIVER TRAIL

TOP OF RIVER BANK

MW-8

