Kasperski, Joseph (ECY)

From: Josh Owen <jowen@msbaenvironmental.com>
Sent: Wednesday, February 14, 2024 4:10 PM
To: Kasperski, Joseph (ECY)
Subject: VCP SW0289: Review of 2000 Opinion Letter and Project Update
Attachments: Figure 2 Modified Caribou Site Map.pdf; Figure 1 Proposed Sample Location Map (Revised).pdf

External Email

Hi Joe,

Thanks for providing the 2000 opinion letter. I believe it confirms that Ecology's references to an up-gradient dry cleaner in the 2011 and 2015 opinion letters are referring to the Caribou Realty Group (Caribou) site, which was likely misinterpreted to be up-gradient of the site by the SW Washington Environmental Health District since surface topography slopes downward to the southeast. I also noted that Ecology's December 2023 Further Action letter for the Caribou site stated "The predominant groundwater flow direction is to the northwest with an occasional reversal and flow to the southeast."

We recently obtained an Environmental Database Report (EDR) for the site and completed a Phase I ESA-type review of the historic site and surrounding property uses relating to potential sources of PCE. I'll include this information in a more detailed summary in our next report and I uploaded the EDR Report to this Google Drive link. **Link to EDR Report** In short, no other nearby dry cleaners or alternative sources were identified and the site use has been limited to the service station and convenience store which has been there since at least 1982. We did note that a surface drain on the Caribou site discharges to the wetland behind our site.

Since we've confirmed there was no up-gradient dry cleaner and did not identify any potential on-site or additional off-site sources, and PCE concentrations have remained below the CULs during the more recent sampling events, collecting upgradient soil and groundwater samples does not appear beneficial. In addition, concentrations of PCE in groundwater during the 2016 soil boring investigation did not reveal any hot spots (see attached Figure 1). If you agree that an upgradient boring is not needed based on this information, we will proceed with the proposed sample locations shown on Figure 1. The additional proposed borings and existing monitoring wells will be analyzed for PCE and its degradation products as recommended. Two additional shallow soil borings were also added at the release area and tank cavity.

We are encountering complications related to the downgradient groundwater sampling across St Johns that you recommended. Due to the overhead electrical lines and the property owner to the west-northwest denying access, the drilling would likely need to occur within the lanes of traffic, which could be difficult with the relatively busy nearby intersection. Since the primary purpose of the off-site groundwater sampling is to evaluate the presence/absence of a downgradient MTBE plume, we would like your feedback on an alternative strategy of utilizing results from Caribou Realty's monitoring well MW-5 for this purpose (Figure 2). Although the well is further away and further north than our ideal location, if high concentrations of MTBE were transported downgradient, they would likely be detected in the existing well.

Thanks,
Josh Owen
Senior Project Manager

Martin S. Burck Associates, Inc.
Geologic and Environmental Consulting Services

Phone: 855 387 4422
JOwen@MSBAenvironmental.com

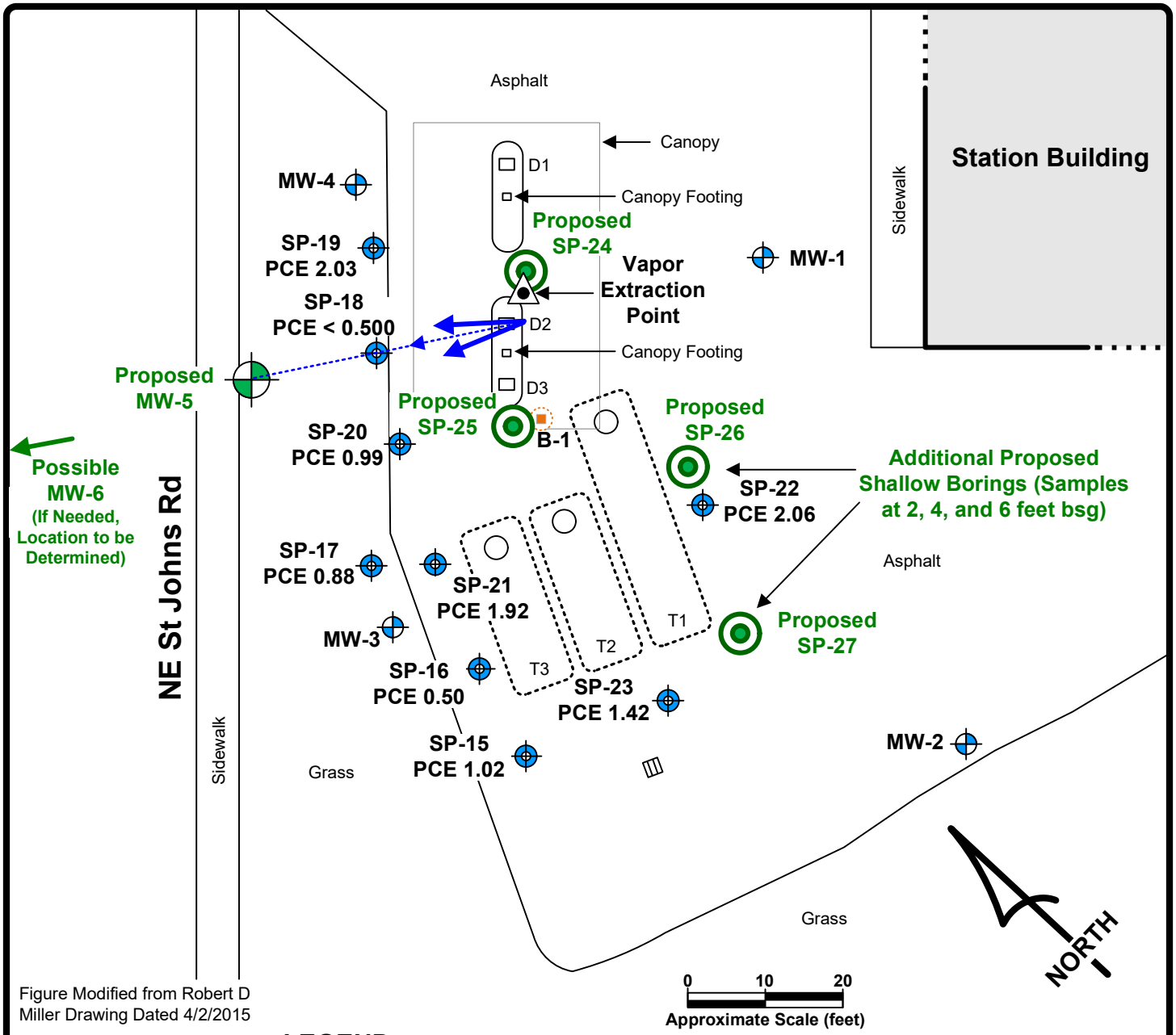

Figure Modified from Robert D Miller Drawing Dated 4/2/2015

LEGEND

- Proposed MW-5 — Proposed Monitoring Well Sample Location and ID (MSBA 2024)
- Proposed SP-24 — Proposed Soil Boring Sample Location and ID (MSBA 2024)
- Soil Vapor Extraction Point (1995)
- SP-15 PCE 1.02 — Robert D Miller Consulting Soil Boring B1 Location and ID (2015); Tetrachloroethylene (PCE) Concentration in Groundwater Sample (ppb)
- B-1 — Approximate Petrocon Sample Location and ID (1995)
- D1 — Dispenser Island, Dispenser, and Canopy Footing
- Inferred Groundwater Flow Direction
- T3 — Underground Storage Tank Location and ID
- Catch Basin

Revised: 2/9/2024 10:23 AM

MSBA
Martin S. Burck Associates, Inc.
Geologic and Environmental Consulting Services

FIGURE 1

PROPOSED SAMPLE LOCATION MAP

Quick Shop Mini Mart 27
8817 NE St Johns Rd
Vancouver, Washington
Cleanup Site No. 5943
VCP No. SW0289

S:\Project Files\WSCO - Astro 727 - St Johns Rd Vanc WA\Figures\Fig 1 Proposed Sample Location Map.vsd

Zinda MW-2				
VOCs (µg/L)	4/12	10/12	4/13	10/13
PCE	1.3	Dry	1.8	2.3

MW-4					
VOCs (µg/L)	12/7/06	10/15/07	8/23/11	4/29/13	5/27/14
PCE	33	45.3	22.8	27.7	8.49
TCE	<2	<1	<0.5	<0.5	<0.5
cis DCE	<2	<1	<1	<0.5	<0.5
trans DCE	<2	<1	<0.5	<0.5	<0.5
Vinyl Chloride	<0.2	<1	<0.5	<0.5	<0.5

MW-3					
VOCs (µg/L)	12/7/06	10/15/07	8/23/11	4/29/13	5/27/14
PCE	3	1.16	1.42	0.81	0.62
TCE	<2	<1	<0.5	<0.5	<0.5
cis DCE	<2	<1	<1	<0.5	<0.5
trans DCE	<2	<1	<0.5	<0.5	<0.5
Vinyl Chloride	<0.2	<1	<0.5	<0.5	<0.5

Zinda MW-1				
VOCs (µg/L)	4/12	10/12	4/13	10/13
PCE	ND	ND	ND	ND

PCE Detected in 1998

MW-6			
VOCs (µg/L)	1/9/12	4/29/13	5/27/14
PCE	19.8	19.3	14.7
TCE	<0.5	<0.5	<0.5
cis DCE	<0.5	<0.5	<0.5
trans DCE	<0.5	<0.5	<0.5
Vinyl Chloride	<0.5	<0.5	<0.5

MW-2				
VOCs (µg/L)	12/7/06	10/15/07	8/23/11	4/29/13
PCE	1,100	3.57	3.81	<0.5
TCE	<2	<1	<0.5	<0.5
cis DCE	<2	<1	<1	<0.5
trans DCE	<2	<1	<0.5	<0.5
Vinyl Chloride	<0.2	<1	<0.5	<0.5

MW-5					
VOCs (µg/L)	12/7/06	10/15/07	8/23/11	4/29/13	5/27/14
PCE	220	52.2	129	6.28	47.2
TCE	<2	<1	<0.5	<0.5	<0.5
cis DCE	<2	<1	<1	<0.5	<0.5
trans DCE	<2	<1	<0.5	<0.5	<0.5
Vinyl Chloride	<0.2	<1	<0.5	<0.5	<0.5

MW-1					
VOCs (µg/L)	12/7/06	10/15/07	8/23/11	4/29/13	5/27/14
PCE	33,000	22,900	52,300	26,800	30,200
TCE	<10,000	<200	0.86	<250	<250
cis DCE	<10,000	<200	<1	<250	<250
trans DCE	<10,000	<200	<0.5	<250	<250
Vinyl Chloride	<10,000	<200	<0.5	<250	<250

N

2
10
100
10,000

Former St. John's Dry Cleaner Building

Monitoring Well MW-5 for Possible Use in Quick Shop Minit Mart 27 MTBE Assessment

Current Automotive Repair (Former Service Station)

NE St. Johns Rd

NE 45th St

Quick Shop Minit Mart 27 Site

Legend

- Well Screened Above the Upper Confining Unit
- Well Decommissioned November 2013
- Well Installed by Clark County Public Utilities on Zinda Property in 1998
- Subject Property Boundary
- PCE Isoconcentration Contour

Notes

1. Zinda well analytical data from Clark County Public Utilities.
2. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 50 100

Scale in Feet

Data Source: Esri World Imagery.

G:\Projects\1066\001\050051\Groundwater Sampling\F03SitePlanGWData.mxd 6/18/2014 NAD 1983 StatePlane Washington North FIPS 4601 Feet

LANDAU ASSOCIATES

Map Modified by Martin S Burck Assoc., Inc. (2/8/2024)

Former St. John's Dry Cleaners Vancouver, Washington	**Site Plan with Groundwater Data**	Figure **2**