Musa, Donna K. (ECY)

From: Riley Conkin [rconkin@farallonconsulting.com]
Sent: Tuesday, January 29, 2013 4:53 PM
To: Musa, Donna K. (ECY)
Cc: don.cook@atsmro.aero; Lawrence B. (Larry) Burke - Davis Wright Tremaine LLP (larryburke@dwt.com)
Subject: Release Notification Update - Hangar 3 Facility, Everett, Washington
Attachments: 1045-002 GW Release Notification w att.pdf

Hi Donna,

Attached please find an updated release notification, which includes information regarding the discovery of a release of a hazardous substance to groundwater at the subject property.

A hard copy of the letter is also being sent to your attention by regular mail.

Contact me if you have any questions.

Thank you

Riley

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Riley Conkin, Principal Geologist
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New Seattle Office: Farallon now has a downtown Seattle office, joining its Issaquah and Bellingham locations.

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January 29, 2013

Ms. Donna Musa
Washington State Department of Ecology, Northwest Regional Office
3190 160th Avenue Southeast
Bellevue, Washington 98008-5452

RE: RELEASE NOTIFICATION UPDATE
HANGAR 3 FACILITY
3100 112th STREET SOUTHWEST
EVERETT, WASHINGTON
FARALLON PN: 1045-002

Dear Ms. Musa:

Taurus Aerospace Holdings, LLC, as the lessee and sublessor of the Hangar 3 property at 3100 112th Street Southwest in Everett, Washington (herein referred to as the Site) (Figure 1), is submitting this letter to the Washington State Department of Ecology (Ecology) to update its prior report on the discovery of a release of a hazardous substance at the Site in accordance with the requirements of Section 300 of Chapter 173-340 of the Washington Administrative Code (WAC 173-340-300). The Site is located on the southern portion of Paine Field (also known as Snohomish County Airport), which is owned and operated by Snohomish County. The Site is operated by Taurus Aerospace Holdings, LLC under a ground lease with Snohomish County. Part of the Site is currently leased for use by The Boeing Company.

The results of an earlier environmental investigation conducted at the Site by Farallon Consulting, L.L.C. (Farallon) in September and October 2011 confirmed the presence of the halogenated volatile organic compound (HVOC) trichloroethene (TCE) at concentrations exceeding the Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A soil cleanup level of 0.03 milligrams per kilogram (mg/kg) in soil samples collected at the Site. The Boeing Company, a tenant at the Site at the time of discovery, and the land owner, Snohomish County, were notified of these findings shortly after the release was discovered. Farallon submitted a release notification letter to Ecology on behalf of Taurus Aerospace Holdings, LLC dated December 28, 2011 documenting the discovery of a release of a hazardous substance at the Site.

The results of the subsurface investigation conducted by Farallon in September and October 2011 confirmed that concentrations of TCE exceeded the MTCA Method A cleanup level in soil samples collected from borings IW-1 and IW-3 at depths ranging from 10 feet below ground surface (bgs) to the maximum depth explored of 50 feet bgs in a localized area beneath the Hangar 3 building (Figure 2). Groundwater was not encountered during the 2011 subsurface investigation and borings advanced on the periphery of the Hangar 3 building did not show

obvious signs of contamination. In addition, soil samples collected from these borings were reported non-detect for volatile organic compounds.

Additional subsurface investigation was conducted by Farallon and others during 2012, which included the advancement of a series of deep borings to characterize soil and groundwater conditions at the Site. A deep groundwater-bearing zone was encountered in the Esperance Sand at depths approximately 120 feet bgs at the Site. Monitoring wells LAI-MW1 through LAI-MW4, LAI-MW6, and LAI-MW7 were installed in the deep groundwater-bearing zone at the Site to characterize groundwater quality and flow direction (Figure 3). Groundwater contours for the deep groundwater-bearing zone at the Site were developed using elevations calculated from water levels measured on December 21, 2012 in the Site wells and three additional deep wells, DW-1 through DW-3, installed on the northeast adjacent property identified as the former All-Fab facility (Figure 3). The groundwater contours for December 21, 2012 indicate a groundwater flow direction to the north-northeast, which is consistent with prior monitoring conducted at the adjacent All Fab facility. Isolated shallow perched groundwater-bearing zones were also encountered at depths of less than 20 feet bgs in several locations on the Site. Monitoring well LAI-MW-5 was installed in a shallow perched groundwater-bearing zone encountered on the southeast portion of the Site (Figure 3).

Groundwater samples collected in December 2012 from deep monitoring well LAI-MW7, which was installed proximate to the TCE source area identified beneath Hangar 3, detected TCE concentrations ranging from 2,200 to 3,100 micrograms per liter (ug/l) (Figure 3). Additional HVOCs including cis-1,2-dichloroethene (DCE) and 1,1-DCE were also detected in groundwater samples collected from monitoring well LAI-MW-7. Groundwater samples collected from the remaining deep wells installed both up-gradient and down-gradient of Hangar 3 were reported non-detect at the laboratory practical quantitation limit for TCE. Concentrations of benzene and arsenic exceeding the MTCA Method A cleanup levels were detected in a groundwater sample collected from the isolated shallow perched groundwater-bearing zone encountered in monitoring well LAI-MW5 on the southeast corner of the Site. The likely source of benzene and arsenic at monitoring well LAI-MW5 is the release and migration in shallow perched groundwater from confirmed sources on the east, adjacent Former Washington Air National Guard property.

Soil samples were also collected during installation of the deep wells. Soil samples collected from the well boring LAI-MW7 detected TCE concentrations exceeding the MTCA Method A cleanup level ranging from 9.9 mg/kg to 0.036 mg/kg at depths of 50 and 130 feet bgs, respectively. Soil samples collected from 131 and 136 feet bgs were reported non-detect or below the MTCA Method A cleanup level for TCE (Figure 2). Soil samples collected from the remaining deep well borings LAI-MW1 through LAI-MW4, and LAI-MW6 were reported non-detect or below the MTCA Method A cleanup level for TCE in soil. These data indicate a localized area of TCE contamination in soil and deep groundwater beneath Hangar 3, which is bounded both laterally and vertically on the Site.

The exact nature of the source of TCE detected in the soil and groundwater samples beneath Hangar 3 is not known. However, Paine Field was developed and used by the U.S. military

during World War II and the Korean Conflict. The Hangar 3 facility was constructed in the early 1990s and current operations include primarily aircraft assembly by The Boeing Company. Details regarding historical operations on the southern portion of Paine Field prior to the construction of the Hangar 3 facility have not been fully documented, although it has been determined that a dry cleaner for the military base was located proximate to the central portion of Hangar 3 as shown on Figure 2. Following military operations at Paine Field, some of the former military buildings proximate to Hangar 3 were leased to a variety of commercial tenants by Paine Field prior to construction of Hangar 3. According to tenants lists provided by Paine Field, the commercial tenants included several metal fabricators identified as Evergreen Industries and All-Fab. According to information provided by Paine Field, numerous underground storage tanks (USTs) used to store heating oil, gasoline, waste oil, and/or unknown contents proximate to the Hangar 3 facility and ramp area associated with historical military operations on the southern portion of Paine Field were decommissioned during the 1980s and early 1990s prior to construction of Hangar 3, which in some areas included the excavation of soil contaminated with petroleum hydrocarbons related to releases from the operation of the former USTs.

Identification and notification of Potentially Liable Persons (PLPs) responsible for the release are underway. Until the PLPs are identified, it is premature to opine on work to further address the TCE contamination or whether the PLPs would characterize and/or remediate TCE contamination at the Site through the Ecology Voluntary Cleanup Program.

Farallon trusts that this letter provides sufficient information to meet the requirements of WAC 173-340-300. Please contact Riley Conkin at (425) 295-0800 if you have questions or require further information regarding the release of TCE at the Site.

Sincerely,

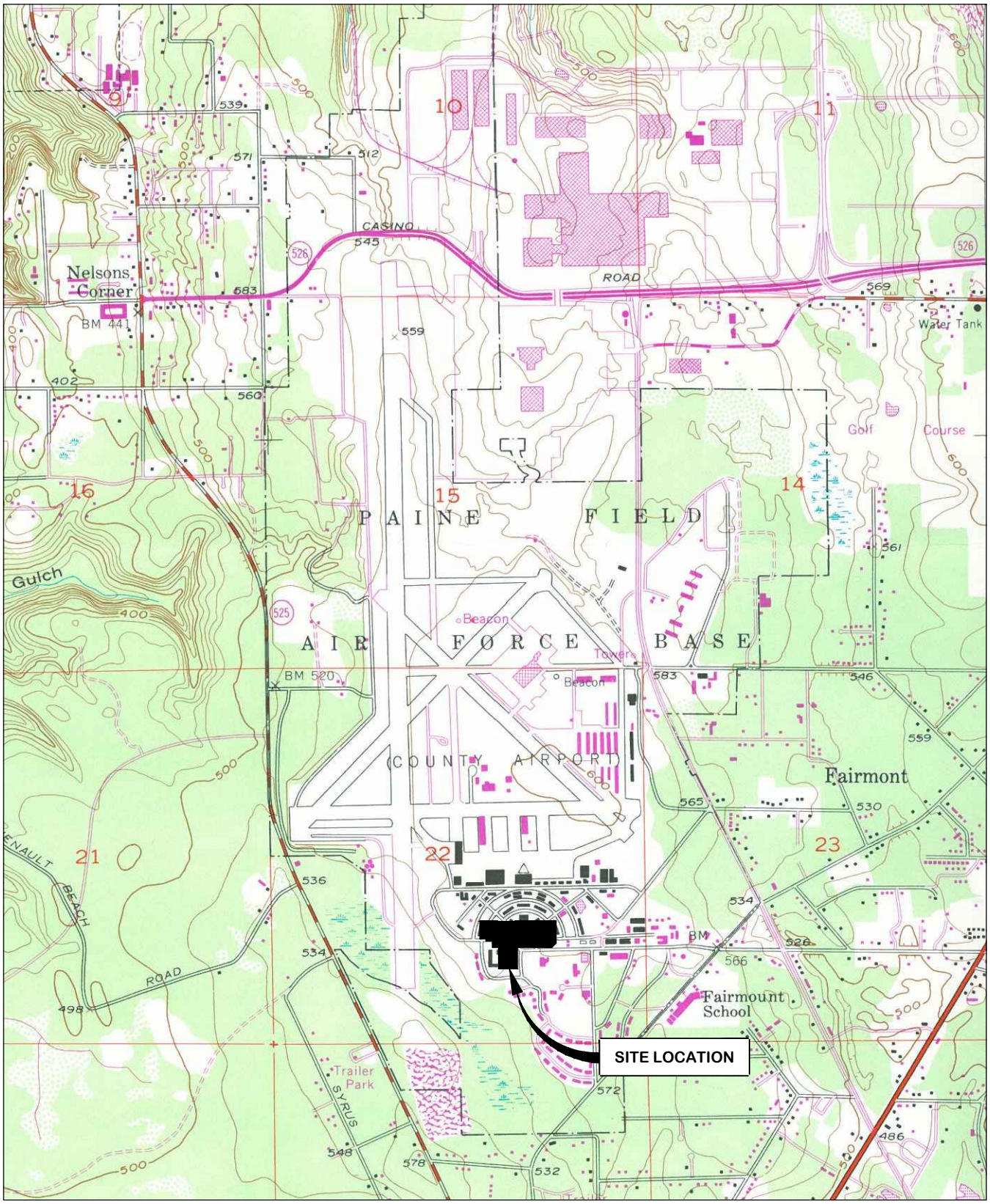
Farallon Consulting, L.L.C.

J. Riley Conkin, L.G., L.H.G.
Principal Geologist

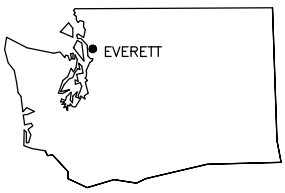
Attachments: Figure 1, *Site Vicinity Map*
Figure 2, *Site Plan with Soil Vapor and Soil Analytical Results for TCE*
Figure 3, *Groundwater Elevation Contour and Trichloroethene Concentrations Map*

cc: Mr. Don Cook, Taurus Aerospace Holdings, LLC
Mr. Lawrence B. Burke, Davis Wright Tremaine LLP

JRC:bw



REFERENCE: 7.5 MINUTE USGS QUADRANGLE MUCKILTEO, WASHINGTON. DATED 1953 AND PHOTOREVISED 1981



WASHINGTON

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FIGURE 1

SITE VICINITY MAP
HANGAR 3
EVERETT, WASHINGTON

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DEPTH	TCE
4.0'	<0.030
10.0'	<0.030
20.0'	<0.030
40.0'	<0.030
50.0'	<0.030
60.0'	<0.030
70.0'	<0.030
80.0'	<0.030
100.0'	<0.030
110.0'	<0.030
134.0'	<0.030
139.0'	<0.030

DEPTH	TCE
4.9'	<0.0012

DEPTH	TCE
7.0'	<0.0011

DEPTH	TCE
5.0'	<0.030
14.0'	<0.030
30.0'	<0.030
34.0'	<0.030
45.0'	<0.030
65.0'	<0.030
75.0'	<0.030
95.0'	<0.030
124.0'	<0.030
129.5'	<0.030

DEPTH	TCE
40.0'	**9.0**
50.0'	**9.9**
60.0'	**5.1**
90.0'	**2.8**
110.0'	**0.65**
120.0'	**0.130**
130.0'	**0.036**
131.0'	<0.0009
136.0'	0.0056

DEPTH	TCE
20.2'	0.0013

DEPTH	TCE
10.1'	**0.068**
20.1'	**0.14**
30.1'	**0.11**
50.1'	**1.1**

IW-1/IWD-4

DEPTH	TCE
5.2'	0.014
10.2'	**2.3**
15.2'	**5.6**
49.2'	**5.5**
65.0'	**1.9**
70.0'	**0.12**
85.0'	**2.4**
115.0'	**0.54**

IWD-4

DEPTH	TCE
2.0'	**0.110**
3.5'	**0.094**
10.0'	**0.060**
30.0'	**4.5**
50.0'	**4.6**
66.0'	**2.3**
80.0'	**1.5**
100.0'	**3.6**
110.0'	**2.8**
115.0'	**0.130**

DEPTH	TCE
2.5'	<0.0012

DEPTH	TCE
4.0'	<0.001
12.0'	<0.0009
20.0'	<0.0011
30.0'	<0.0009
39.0'	<0.0012
49.0'	<0.001
59.0'	<0.0011
69.0'	<0.0009
81.0'	<0.0011
89.0'	<0.001
99.0'	<0.001

DEPTH	TCE
4.2'	<0.0012
19.8'	<0.00099

SSV2 (<5)
SSV3 (<5)
SSV4 (<5)
SSV5 (<5)
SSV6 (<5)
SSV10 (<5)
SSV12 (<5)
SSV13 (<5)
SSV15 (32)
SSV7/14 (41,600/43,800)

LAI-MW1
LAI-MW3
LAI-MW4
LAI-MW5 [NOT TESTED]
LAI-MW7
MW-1
MW-3
IW-1/IWD-4
IW-2
IW-3
FB-1
FB-2

APPROXIMATE LOCATION OF FORMER BASE LAUNDRY AND DRY CLEANER BUILDING

BAY 1
BAY 2
BAY 3
BAY 4
HANGAR 3
WAREHOUSE

101
103
301
307

FALCON DRIVE
31st PLACE W
111th STREET SW
112th STREET SW

LEGEND

- STORMWATER LINE
- FIBER OPTIC LINE
- TRENCH DRAIN
- MW-1 — DRY MONITORING WELL (FARALLON CONSULTING)
- LAI-MW1 — DEEP MONITORING WELL (LANDAU ASSOCIATES)
- LAI-MW5 — SHALLOW MONITORING WELL (LANDAU ASSOCIATES)
- FB-1 — BORING (FARALLON CONSULTING)
- SSV4 — SUB-SLAB SOIL VAPOR SAMPLE LOCATION (LANDAU ASSOCIATES)
- APPROXIMATE LOCATION OF FORMER UNDERGROUND STORAGE TANK (UNKNOWN CONTENT)
- 301 — APPROXIMATE LOCATION OF FORMER BUILDING STRUCTURE AND BUILDING ID NUMBER

(32) TCE CONCENTRATION IN SOIL VAPOR IN MICROGRAMS PER CUBIC METER
DEPTH IN FEET BELOW GROUND SURFACE AND
SOIL ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM
TCE = TRICHLOROETHENE

BOLD = INDICATES CONCENTRATIONS EXCEED WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATION METHOD A CLEANUP LEVEL

< = INDICATES CONCENTRATIONS NOT DETECTED AT OR ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT

0 100
Scale in feet

N

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FIGURE 2

SOIL VAPOR AND
SOIL ANALYTICAL RESULTS FOR TCE
HANGAR 3
EVERETT, WASHINGTON

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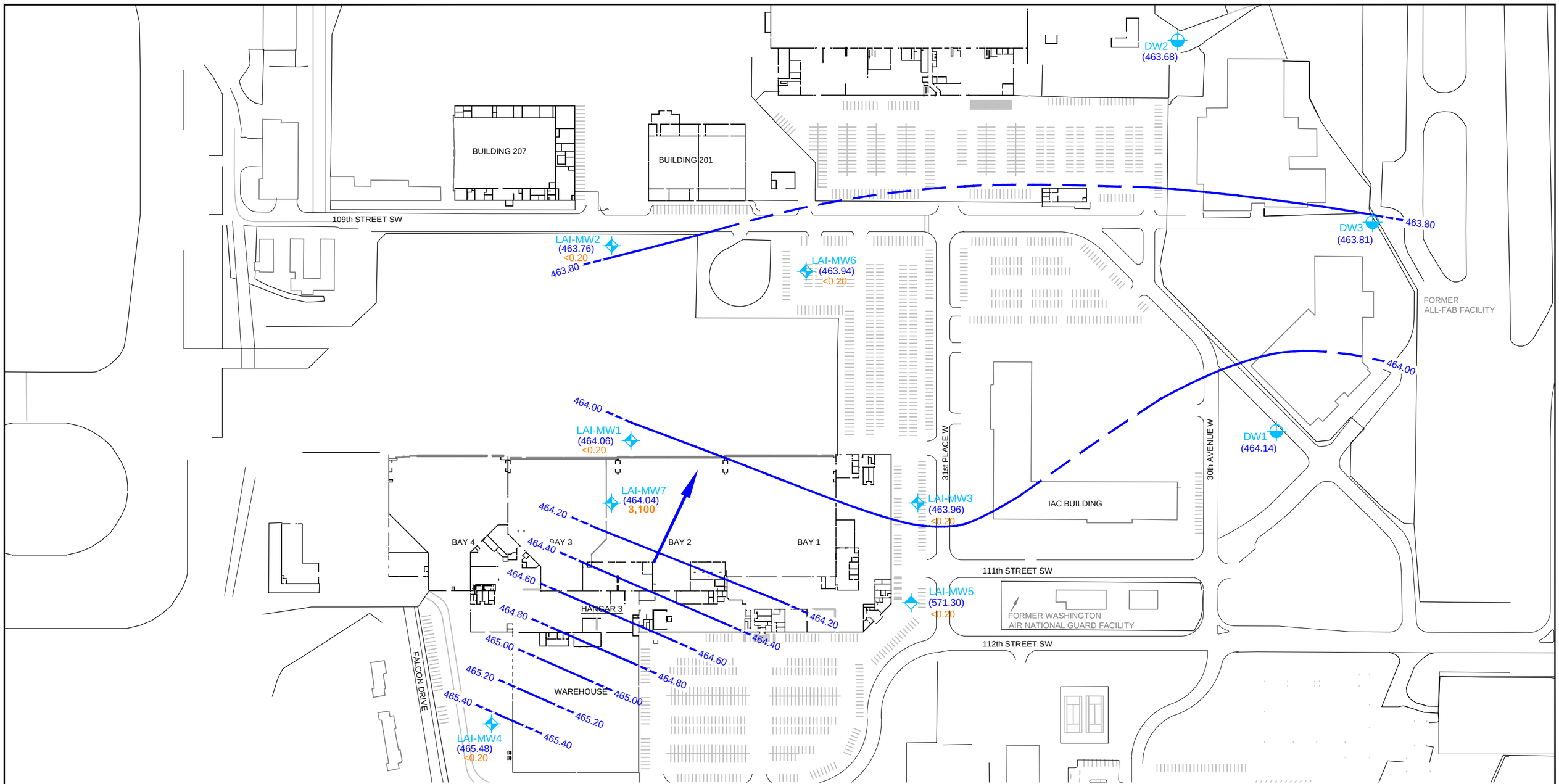

LEGEND

- LAI-MW1 — DEEP MONITORING WELL (LANDAU ASSOCIATES)
- LAI-MW5 — SHALLOW MONITORING WELL (LANDAU ASSOCIATES)
- DW1 — DEEP MONITORING WELL (CDM)
- (464.06) — GROUNDWATER ELEVATION 12/21/2012 (LANDAU ASSOCIATES)
- 464.00 — GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

3,100 = TRICHLOROETHENE IN GROUNDWATER IN MICROGRAMS PER LITER (OCTOBER-DECEMBER 2012)

BOLD = INDICATES CONCENTRATIONS EXCEED WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATION METHOD A CLEANUP LEVEL

< = INDICATES CONCENTRATIONS NOT DETECTED AT OR ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT

N

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FIGURE 3

GROUNDWATER ELEVATION CONTOUR AND TRICHLOROETHENE CONCENTRATIONS MAP
HANGAR 3
EVERETT, WASHINGTON

FARALLON PN:1045-002

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