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TECHNICAL MEMORANDUM

TO: Craig Rankine, Department of Ecology

CC: Stephanie Bosze Salisbury, GeoEngineers

Richard Roche, Parametrix

FROM: Antea Group

DATE: December 16, 2021

SUBJECT: Supplemental Remedial Investigation - Vancouver Bulk Terminal - Stormwater Investigation

1.0 Introduction

Antea®Group (Antea Group) is pleased to present this technical memorandum pertaining to the results of the stormwater sampling activities performed at the Port of Vancouver bulk terminal at 2735 NW Harborside Drive in Vancouver, Washington (Site). The sampling was conducted as part of the Supplemental Remedial Investigation (SRI) process. A scope of work, sampling methods, analytical results, ship loading schedules, precipitation data, recommended additional data collection, and a discussion of the findings is presented below. For a detailed Site history, a summary of relevant historical investigations, Site operations, Site geology, and hydrogeology please see the *Supplemental Remedial Investigation Work Plan* (SRIWP) for the Port of Vancouver bulk terminal dated December 18, 2020.

1.1 Regulatory Context

The SRIWP was prepared in accordance with the Model Toxics Control Act (MTCA) as defined in Washington Administrative Code (WAC) 173-340-350 and pursuant to Agreed Order (AO) No. DE 15806 ("AO DE 15806") between the Washington State Department of Ecology (Ecology) and the Port of Vancouver (Port), NuStar, and Kinder Morgan Bulk Terminals (KMBT) (collectively the "Parties"). AO DE 15806 requires the Parties to conduct a Supplemental RI for certain hazardous substances which may include, but are not limited to, ammonia, nitrate, copper, and other metals. The Port, in addition to being the landowner, historically exported copper concentrate and other bulk materials beginning in approximately 1982, and since approximately 1994, KMBT and its predecessor (Hall Buck Marine) have exported copper concentrate and bentonite clay for the Port at their operational area. NuStar handles fertilizers at their leasehold on Port property.

In December 2017, copper was detected in groundwater samples collected from the NuStar facility. Ecology issued a Potentially Liable Persons (PLP) status letter to KBMT on May 2, 2018, and after response comments, issued a determination of KBMT as a PLP under RCW 70.105D.040 via letter on July 19, 2018.

In early 2018, Ecology announced that they would also be requiring additional investigation at the NuStar Leasehold to evaluate two additional Constituents of Potential Concern (COPCs), ammonia and nitrate, associated with the historical and current handling of fertilizer at the NuStar facility. Preliminary data indicated



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that ammonia, nitrate, and copper (and other related metals) have commingled with the solvent plume at the Site. In accordance with MTCA, Ecology prepared AO DE 15806 requiring the Parties to prepare an SRIWP, Supplemental RI report, and Feasibility Study for hazardous substances, including but not limited to ammonia, nitrate, copper and related metals, and volatile organic compounds (VOCs).

2.0 Investigation Objectives

The purpose of the Supplemental RI is to collect the data necessary to adequately characterize the Site for the purpose of developing and evaluating cleanup action alternatives. In the SRIWP, a preliminary Site Conceptual Model (CSM) was prepared for copper concentrate, fertilizer, and VOCs to assess the potential for complete pathways based on the current/historical site use information and previous investigation data. Stormwater was identified as a potentially complete pathway for copper concentrate. Stormwater was not identified as a potential pathway for VOCs or fertilizer due to the suspension of fertilizer handling prior to the initiation of SRIWP field activities.

As stated in the SRIWP, Phase I stormwater investigation objectives included collection of stormwater samples from catch basins and stormwater conveyances in the vicinity of the KMBT operations area in order to compare metals concentrations reported in these samples to screening levels to determine potential release and/or transport mechanisms and determine need for additional sample collection to delineate stormwater impacts. Samples were to be collected following the first discharge event during or immediately following a copper ship loading event.

3.0 Scope of Work Completed

Seven stormwater sampling locations were chosen near or within the KMBT operations area. These sample points were selected to ensure that stormwater sampled is representative of KMBT areas. Sampling events were performed during the first discharge event following or during ship loading activities when possible. Sampling methods include access to manholes or storm drains and using laboratory provided containers to directly collect flowing stormwater. Where sample bottles could not be placed directly into the stormwater, peristaltic pumps and single use disposable tubing was used to collect samples. For the samples being analyzed for dissolved metals the samples were filtered in the field using a peristaltic pump and 0.45 micron filter capsules.

Immediately after sampling, samples were packed on ice and prepared for transport or shipping to the selected laboratory in accordance with standard chain-of-custody procedures. Samples were analyzed for copper, arsenic, lead, cadmium, mercury, zinc, selenium, nickel, manganese, silver, and chromium speciation by EPA Method 6020A.

Samples were collected on March 5 and April 24 from SW-1, SW-2, SW-3, SW-4, SW-5, and SW-6. Following the sampling activities on April 24 an additional sample collection point, SW-7, was added. Sample point SW-7 is a collection point where stormwater from the rail yard comingles with stormwater from the drainage basin where SW-2 is located. SW-7 is sampled from a discharge pipe in a manway before it comingles with water from the SW-2 drainage area and represents stormwater from the KMBT offloading rail and building as well as water from the area that drains to SW-1. On May 3 and May 24 stormwater samples were collected from SW-7.

On June 11, three stormwater samples were collected from sheet flow immediately adjacent to the catch basins at SW-3, SW-5, and SW-6 by installing temporary dikes around the catch basins to allow for sampling stormwater prior to it entering the catch basins. These three catch basins are fitted with StormwaterBIOCHARTM



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catch basin insert filters or similar catch basin filter inserts. The data was collected to further understand the pre-treatment conditions at the Site.

Stormwater from active handling areas and process water from cleaning and system wash downs in the paved area are diverted by asphalt berms and grading to the wastewater treatment system that is operated and maintained by the Port, which discharges to the City of Vancouver sanitary sewer under permit. The wastewater treatment system includes tankage to provide surge capacity for rain events. All stormwater samples collected are representative of stormwater that flows to the west stormwater treatment system and eventually to the Columbia River under the Port's NPDES permit.

Sample locations are presented on Figure 2.

3.1 Ship Loading Schedule and Precipitation Data

Stormwater samples were collected from the Site when sufficient precipitation generated discharge to the identified sample locations. Attempts were made to collect samples from the KMBT operational area during, or immediately following ship loading activities when possible to accurately characterize stormwater discharge during bulk material movement.

Precipitation data was collected from the Hayden Island rain gauge located approximately two miles southeast of the Site. Variations in total precipitation amounts are expected between the Site and the rain gauge. Samples were collected when flow through the conveyance structures was observed.

Ship Loading Operations	Stormwater Sample Date	Total 24-Hour Precipitation
		Amount*
3/4/21 to 3/6/21	3/5/21	0.14 inches
4/1/21 to 4/2/21	4/24/21	0.16 inches
4/26/21 to 4/27/21	5/3/21	0.08 inches
5/22/21 to 5/23/21	5/24/21	0.26 inches
5/22/21 to 5/23/21	6/11/21	0.10 inches

^{*}Rain gauge data from the Hayden Island Rain Gauge, raw hourly data presented in Appendix A.

4.0 Screening Level Evaluation

As outlined in Section 2.0, draft screening values were proposed in September of 2020 for the SRIWP. Screening stormwater results against the most conservative screening levels for total metals in surface water, none of the stormwater samples collected exceeded the most stringent screening levels for nickel, selenium, silver, trivalent chromium, or hexavalent chromium. Therefore, no further investigation into these metals is warranted in stormwater.

Concentrations of total metals; arsenic, cadmium, copper, lead, manganese, low level mercury, and zinc exceeded the most conservative screening levels for one or more receptor pathways and further investigation is warranted. The use of surface water screening values was only used as a baseline to identify areas of concern and not representative of stormwater concentrations reaching a waterbody (i.e., the Columbia River).

Stormwater analytical data is presented in Table 1. Stormwater concentrations are displayed on Figure 4 through Figure 10.



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5.0 Additional Data Collection Discussion

Antea Group reviewed available documents pertaining to historical stormwater and roof gutter sampling results to further assess the spatial distribution of metals near the Kinder Morgan operational area. Documents reviewed include; Cascadia's *Historical Handling of Products Containing Copper and Historical Management of Copper Dust from Nearby Operations*, dated January 9, 2020; Parametrix's *Final Roof Gutter Sampling Results*, dated February 10, 2020; and Cascadia's *Stormwater Sub-Basin Sampling Evaluation Report*, dated March 18, 2021. The gutter sampling results show the highest concentrations of metals directly under the Kinder Morgan conveyor with elevated concentrations to northwest and southeast decreasing in concentrations with distance from the conveyor. Stormwater samples collected during the sub-basin evaluation contained the highest concentration of copper from a roof downspout on building 2565 and the highest concentration of zinc reported from a point source location along Harborside Drive. The highest concentrations of both copper and zinc reported during the sub-basin evaluation were collected from sources greater than 500 feet from the Kinder Morgan conveyor. Elevated concentrations of copper and zinc were also reported from samples collected within close proximity to the conveyor and ship loading dock. To ascertain the spatial distribution of metals surrounding the Kinder Morgan operational area, and to identify other potential sources, additional data collection is warranted.

Proposed additional sample locations are displayed on Figure 3.

Review of the total metals analytical results from the phase I stormwater investigation show relatively higher concentrations total metals between the loading dock at Berth 7 and the rail offloading building 2877. Further delineation of this area is warranted. Antea Group proposes to collect stormwater samples from catch basins to the west of SW-2, SW-3, SW-5, and SW-6 to ascertain how pervasive the metals contamination is at distance from the Kinder Morgan operational area. Nine catch basins to the west have been selected as proposed sample locations to facilitate delineation of the total metals in stormwater to the west and northwest of the Kinder Morgan operational area. If areas with excessive dust or accumulated metals are discovered, additional sample locations may be included to assist with delineation of metals contamination west of the KMBT operational area. This may be accomplished by creating temporary dikes made of inert materials to slow flow and create a ponded area to collect samples during precipitation events.

Due to the concentrations of lead, manganese, and zinc detected in samples collected from sample point SW-1, additional sampling of upstream and nearby source areas is necessary. To determine if the Harborside Drive vehicular traffic corridor is potentially contributing to the elevated concentrations reported at sample point SW-1, an additional four catch basins along Harborside Drive southeast of SW-1 will be sampled. One of these, a single catch basin (SW-1D) which flows to the east stormwater treatment system will be sampled to identify if the Harborside Drive vehicular traffic corridor is a source of metals which extends outside the west stormwater treatment stormwater system drainage basin.

To further delineate sources from the rail corridor an additional three catch basins or manways within the railyard will be sampled from conveyance structures to the north and southeast at locations upstream from sample location SW-7. These locations will be manways or catch basins where stormwater from separate drainage areas enter the stormwater main heading to the west treatment pond. Samples will only be collected from effluent pipes that are not submerged and flow is separate and discharging to the stormwater main lines.



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Comingled water in the main line will not be sampled. The Port also asked two additional catchbasins be added to the south and west of the rail loading area (identified as Port 1 and Port 2). Based on review of NuStar collected downspout data, two samples will be collected from catchbasins near buildings 2625 and 2565 (identified as NuStar 1 and NuStar 2).

6.0 Conclusions and Recommendations for Additional Work

Stormwater samples were collected from seven sample locations on and around the Kinder Morgan operational area at the Vancouver Bulk Terminal on March 3, April 24, May 3, May 24, and June 11. Sampling activities were performed during suitable rain events which provided enough precipitation to cause sheet flow of stormwater across paved surfaces and through stormwater conveyance structures.

Metals analysis of stormwater samples indicate that trivalent and hexavalent chromium, nickel, selenium, and silver did not contain concentrations exceeding the most conservative screening values indicating that these metals do not warrant further investigation in stormwater at the Site. Concentrations of total metals; **arsenic, cadmium, copper, lead, manganese, low level mercury, and zinc** exceeded the most conservative screening levels for one or more pathways and further investigation is warranted to determine the nature and extent of contamination.

Antea Group proposes to collect samples from four catch basins in the vicinity of SW-1 to ascertain if the Harborside Drive traffic corridor is a potential source area. Three of the catch basins drain to the west stormwater treatment system and one drains to the east stormwater treatment system. To determine the extent and magnitude of metals contamination to stormwater at distance from the Kinder Morgan operational area two additional catch basins will be sampled to the northwest of SW-3. Additionally, three stormwater catch basins will be sampled to the southwest of SW-5 and one to the southeast to further delineate impacts north of the ship loader building. A single catch basin on Berth 8 will be sampled to determine if the metals offloading operations to the west are a potential source. For further delineation of the rail unloading corridor, three separate catch basins or manways with influent pipes that will allow for separate drainage area samples will be selected for sampling to differentiate between east and west source areas as well as two catchbasins on Port property. Two catchbasins on the NuStar leasehold will be separated based on prior NuStar downspout sampling. At least one sampling event is proposed, following the guidelines for sample event timing laid out the in the SRIWP.

Attachments:

- Table 1 Stormwater Analytical Results
- Figure 1 Site Location Map
- Figure 2 Site Map
- Figure 3 Proposed Stormwater Sample Locations
- Figure 4 Total Arsenic Stormwater Concentrations
- Figure 5 Total Cadmium Stormwater Concentrations
- Figure 6 Total Copper Stormwater Concentrations
- Figure 7 Total Lead Stormwater Concentrations
- Figure 8 Total Manganese Stormwater Concentrations
- Figure 9 Total Zinc Stormwater Concentrations
- Figure 10 Total Low-Level Mercury Stormwater Concentrations



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• Appendix A – Rain Gauge Data

Table 1

Stormwater Analytical Results Supplemental Remedial Investigation Port of Vancouver, Washington

						-	Total Met	:als (μg/L)					Mercur	y (μg/L)					Dissolve	ed Metals	s (μg/L)				
Sample Location	Sample Date	Arsenic	Cadmium	Chromium	Trivalent Chromium	Hexavalent Chromium	Copper	Lead	Manganese	Nickel	Selenium	Silver	Zinc	Total, Low- Level	Dissolved, Low-Level	Arsenic	Cadmium	Chromium	Copper	Lead	Manganese	Nickel	Selenium	Silver	Zinc	Hexavalent Chromium
SW-1	3/5/2021	5.78	1.98	14.8	14.55	0.28	802	89.8	176	17.0	0.3 ^J	1.03	1,300	0.00453	0.00220	2.23	1.07	6.88	281	37.8	110	9.7	< 0.2	0.354	723	0.44
	4/24/2021	1.06	0.913	0.97	0.966	<0.004	293	3.77	60.4	6.82	0.3 ^J	0.067	549	0.0122	0.01090	0.98	0.818	0.70	238	1.60	118	7.03	0.3 ^J	0.024	505	<0.004
SW-2	3/5/2021	6.16	0.905	0.52	0.3	0.22	599	18.4	26.9	1.54	0.4 ^J	0.406	223	0.00977	0.00227	2.06	0.553	0.26	82.9	1.45	18.2	0.68	0.2 ^J	0.034	74.5	0.13
	4/24/2021	32.7	2.47	0.99	0.986	<0.004	1,380	15.6	66.2	3.19	0.8 ^J	0.142	445	0.00833	0.00462	19.2	1.65	0.86	1,030	5.46	64.3	3.02	0.8 ^J	0.031	403	<0.004
SW-3	3/5/2021	15.8	1.44	4.71	4.38	0.33	1,890	76.1	77.4	4.32	0.7 ^J	2.14	503	0.00217	0.00107	5.02	0.647	1.81	507	20.1	36.7	1.72	0.3 ^J	0.555	245	0.28
	4/24/2021	10.8	1.10	1.97	1.964	0.006 ^J	1,120	8.75	155	5.90	1.0	0.152	531	0.00974	0.01450	9.48	0.898	1.19	998	0.668	153	5.24	1.1	0.010 ^J	485	0.006 ^J
	6/11/2021 *	10.3	1.48	5.55	5.542	0.008 ^J	1,610	68.2	134	7.27	1.3	1.16	725	0.00311	0.00698	3.17	0.656	0.81	434	1.13	86.8	4.18	1.1	<0.009	332	<0.004
SW-4	3/5/2021	6.25	0.502	2.43	2.04	0.39	680	31.8	30.9	2.04	0.3 ^J	0.799	241	0.00155	0.00391	2.19	0.193	0.88	157	3.73	19.1	1.06	< 0.2	0.075	134	0.54
	4/24/2021	2.68	0.493	0.97	0.966	<0.004	792	3.01	54.0	1.91	0.4 ^J	0.070	368	0.0182	0.01740	2.56	0.490	0.84	754	1.42	53.4	2.52	0.4 ^J	0.049	373	0.004 ^J
SW-5	3/5/2021	14.6	2.18	4.27	4.14	0.13	1,430	46.7	107	5.49	0.7 ^J	1.28	721	0.00146	0.00346	6.18	0.863	0.41	311	1.54	78.2	3.15	0.5 ^J	0.025	427	0.19
	4/24/2021	12.5	3.01	2.12	2.1	0.020 ^J	1,960	8.00	315	14.6	2.2	0.178	1,710	0.00555	0.01300	11.1	2.28	0.85	1,430	0.195	352	14.4	2.1	<0.009	1,610	0.015 ^J
	6/11/2021 *	11.1	1.98	2.74	2.736	<0.004	1,320	20.9	168	8.53	1.4	0.256	999	0.00209	0.00251	10.7	1.74	1.85	1,180	10.1	167	7.99	1.4	0.132	969	0.004 ^J
SW-6	3/5/2021	11.0	1.98	1.36	1.21	0.15	1,670	46.8	70.4	4.44	0.6 ^J	1.10	949	0.00421	0.00361	5.75	1.57	0.72	861	21.3	61.9	3.77	0.5 ^J	0.480	786	0.094
	4/24/2021	6.11	6.35	1.36	1.337	0.023 ^J	2,720	15.2	301	17.6	2.7	0.274	4,240	0.0133	0.01640	4.83	5.95	0.37 ^J	2,380	0.921	302	18.0	2.5	0.018 ^J	3,950	0.019 ^J
	6/11/2021 *	8.75	11.1	1.51	1.506	0.004 ^J	3,490	51.3	290	16.6	2.8	0.927	5,020	0.00641	0.00937	3.48	10.7	0.43	2,700	6.22	280	15.5	2.6	0.045	4,890	<0.004
SW-7	5/3/2021	2.23	0.819	1.12	1.116	<0.004	489	6.24	103	4.17	0.4	0.082	371	0.0123	0.01490	1.96	0.739	0.73	436	1.47	101	3.84	0.4	0.018 ^J	349	<0.004
	5/24/2021	3.00	0.790	2.61	2.606	0.004 ^J	468	28.7	77.9	4.71	0.3	0.252	386	0.0123	0.01230	1.50	0.547	0.72	273	3.34	61.8	2.59	0.3 ^J	0.013 ^J	266	<0.004
Screening Values ^a		2.50	0.720		74	10	11	2.5	50	52	5	3.2	100	0.012												

- Bold text indicates a concentration above most stringent screening value for surface water direct contact, protective of aquatic life, or protective of human health pathways, see Draft Vancouver Screening Values Table. Note; PQLs were not used for initial screening purposes.

μg/L - Micrograms per liter

Metals - Total and Dissolved Arsenic, Cadmium, Chromium, Copper, Lead, Manganese, Nickel, Selenium, Silver and Zinc by EPA Method 6020A.

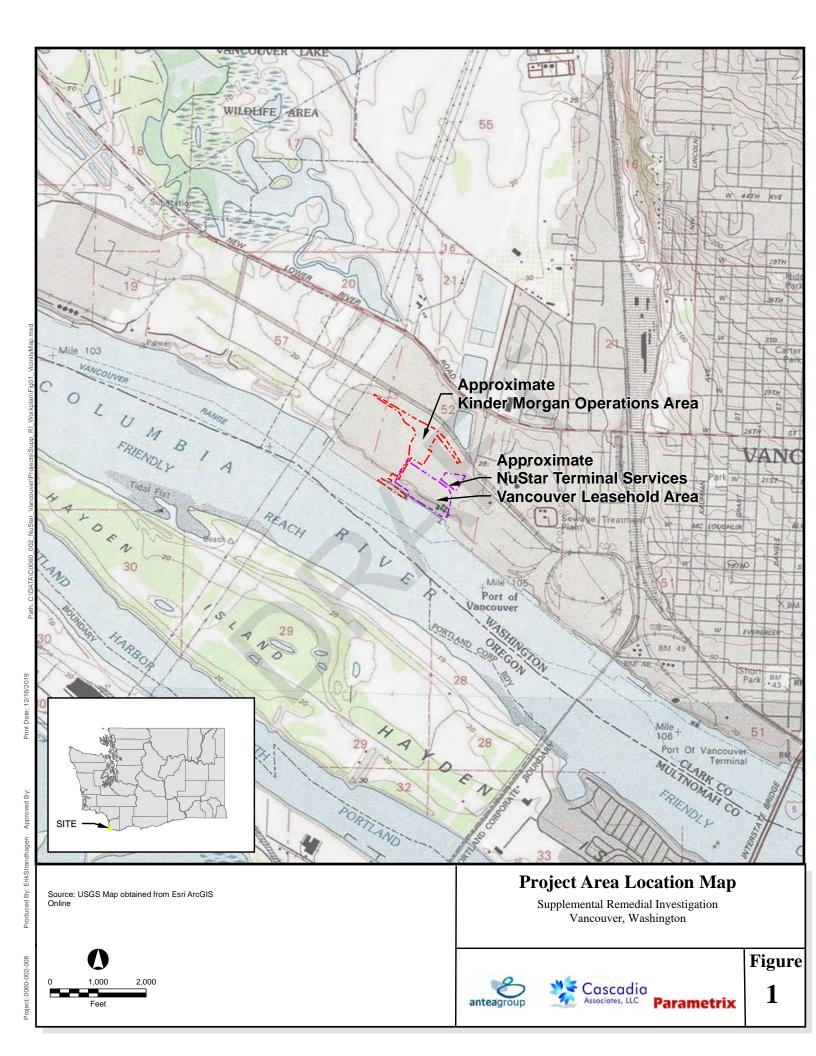
Mercury - Total and Dissolved Low Level Mercury by EPA Method 1631E.

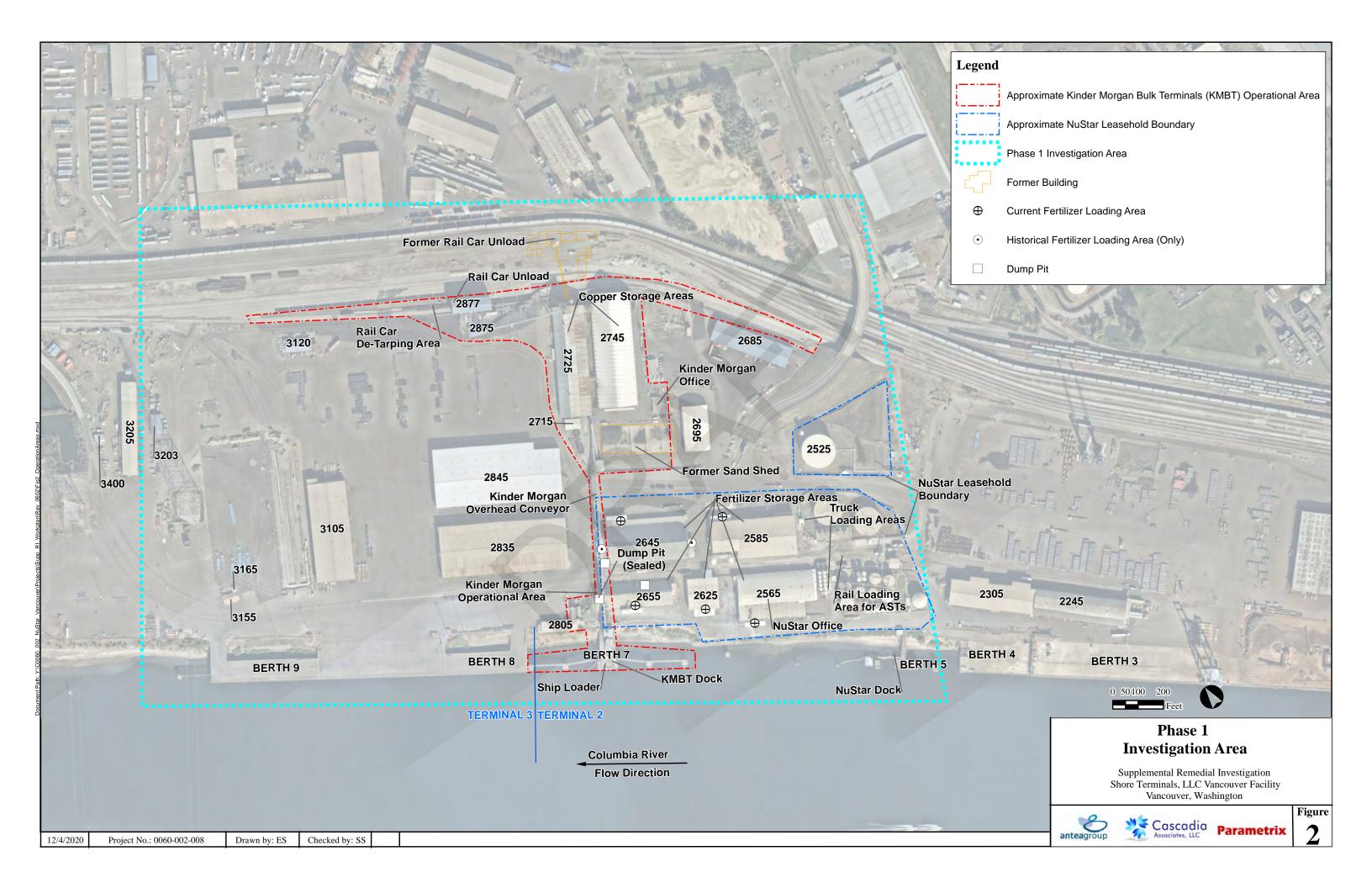
Hexavalent Chromium

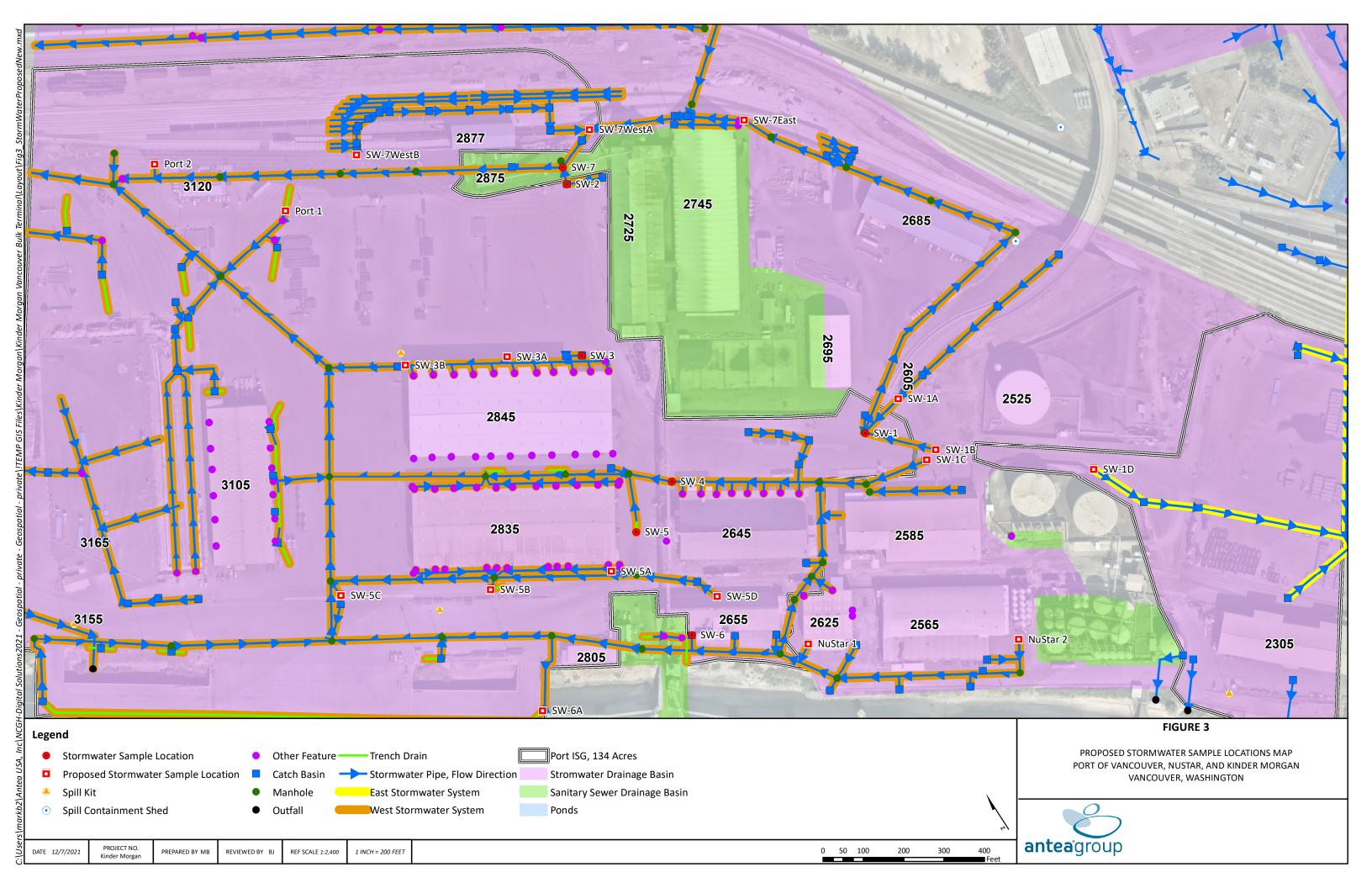
- Total and Dissolved Hexavalent Chromium by EPA Method 218.6

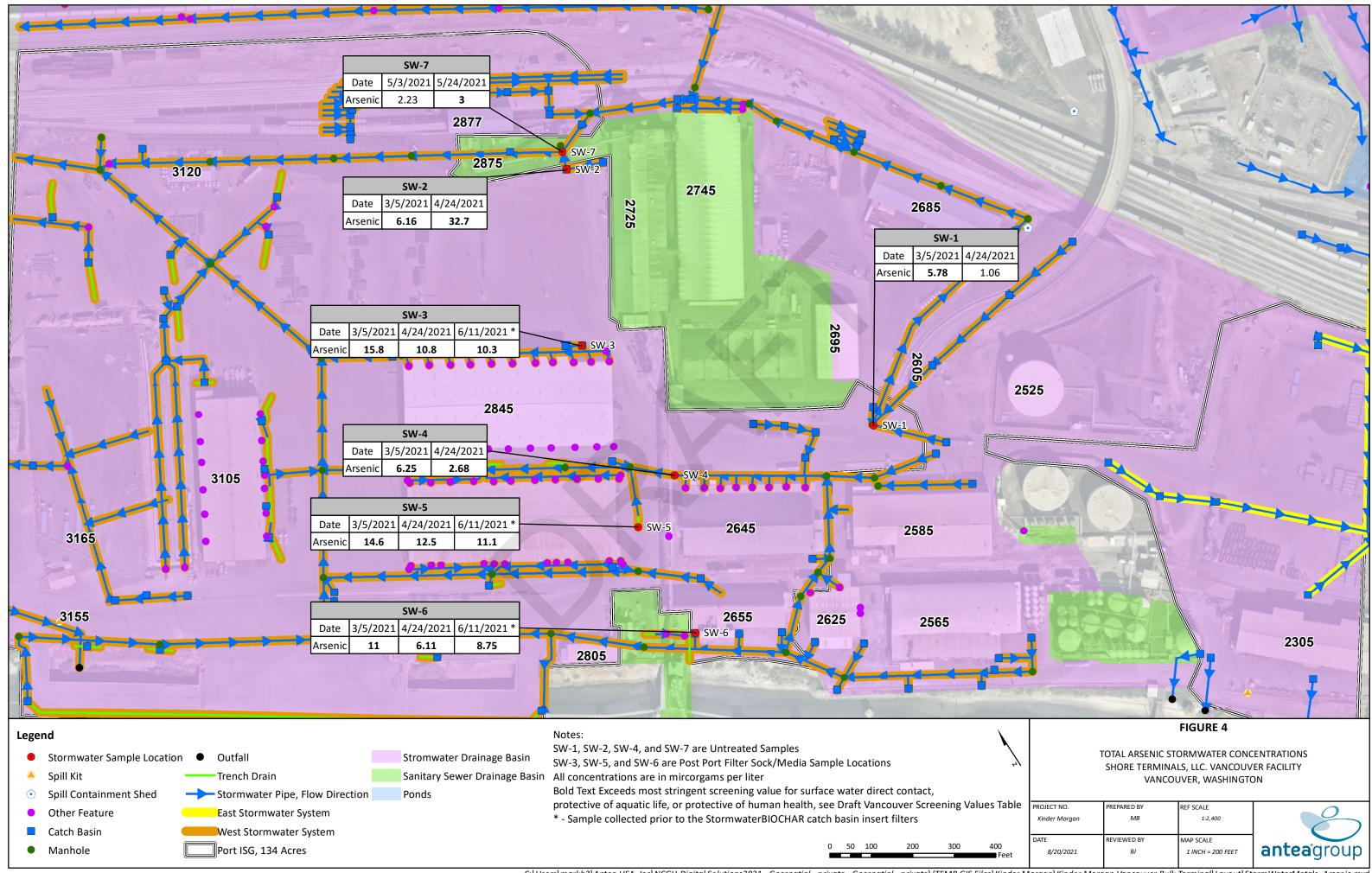
Trivalent Chromium calculated by subtracting Hexavalent Chromium the MRL was subtracted from the Total Chromium value.

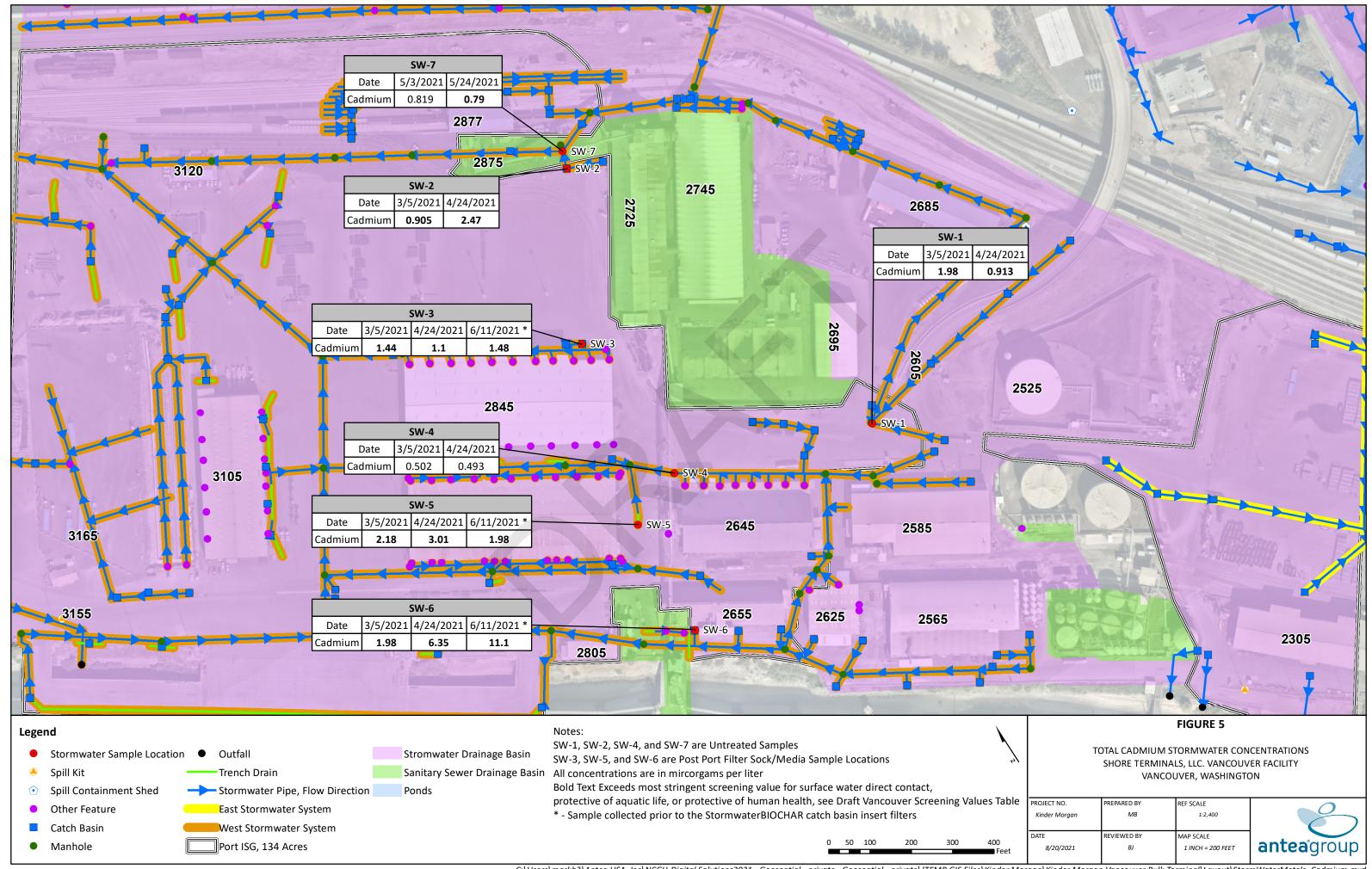
- The identification of the analyte is acceptable; the reported value is an estimate
- B The same analyte is found in the associated blank
- * Sample collected prior to the StormwaterBIOCHAR catch basin insert filters.
- -- Not established, not analyzed, or not applicable for the purpose of this initial scope of work.
 - Catch basins fitted with filter sock/media. Samples collected post filter media with the exception of samples collected on 6/11/21.
 - Untreated stormwater.

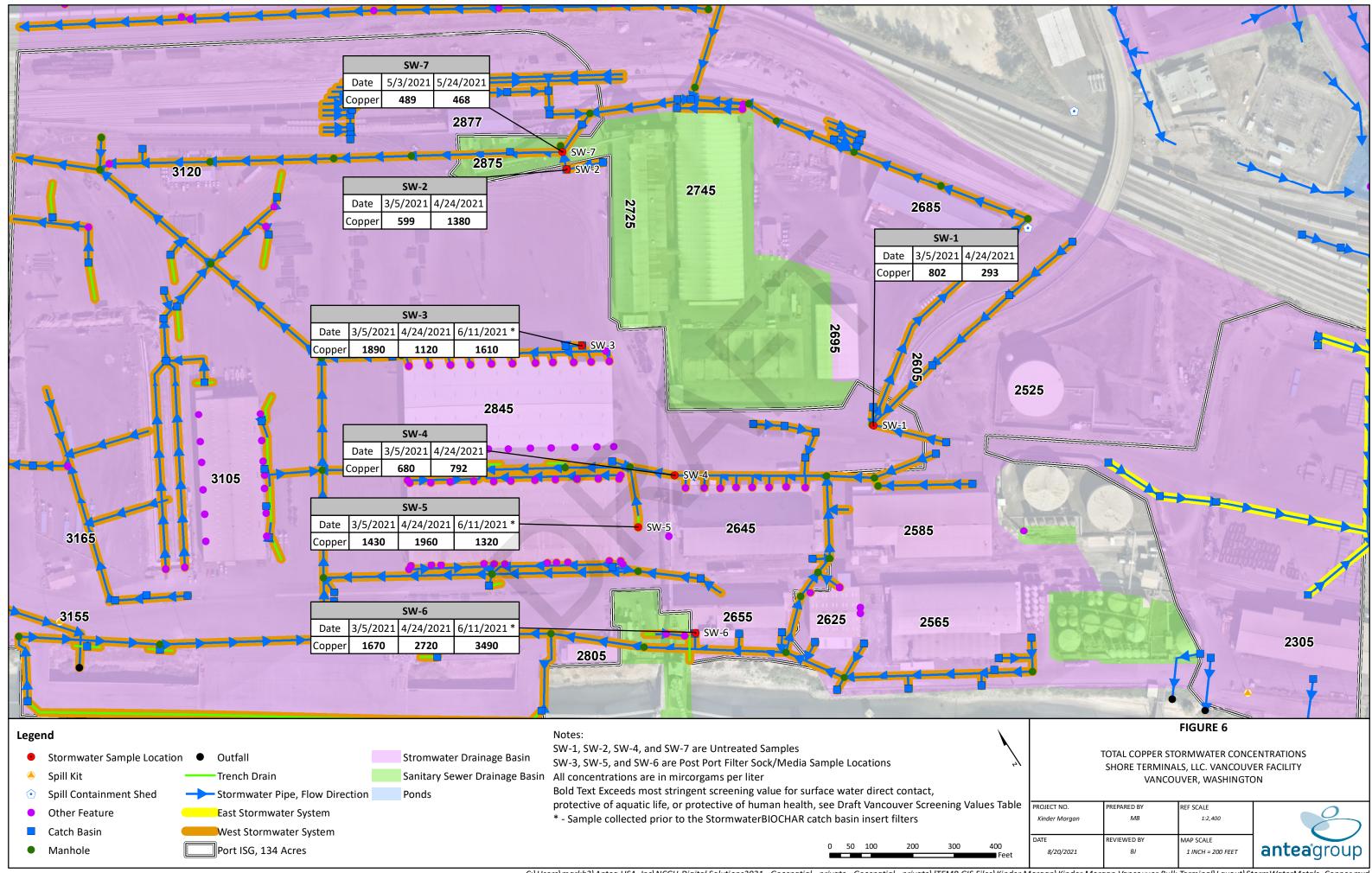


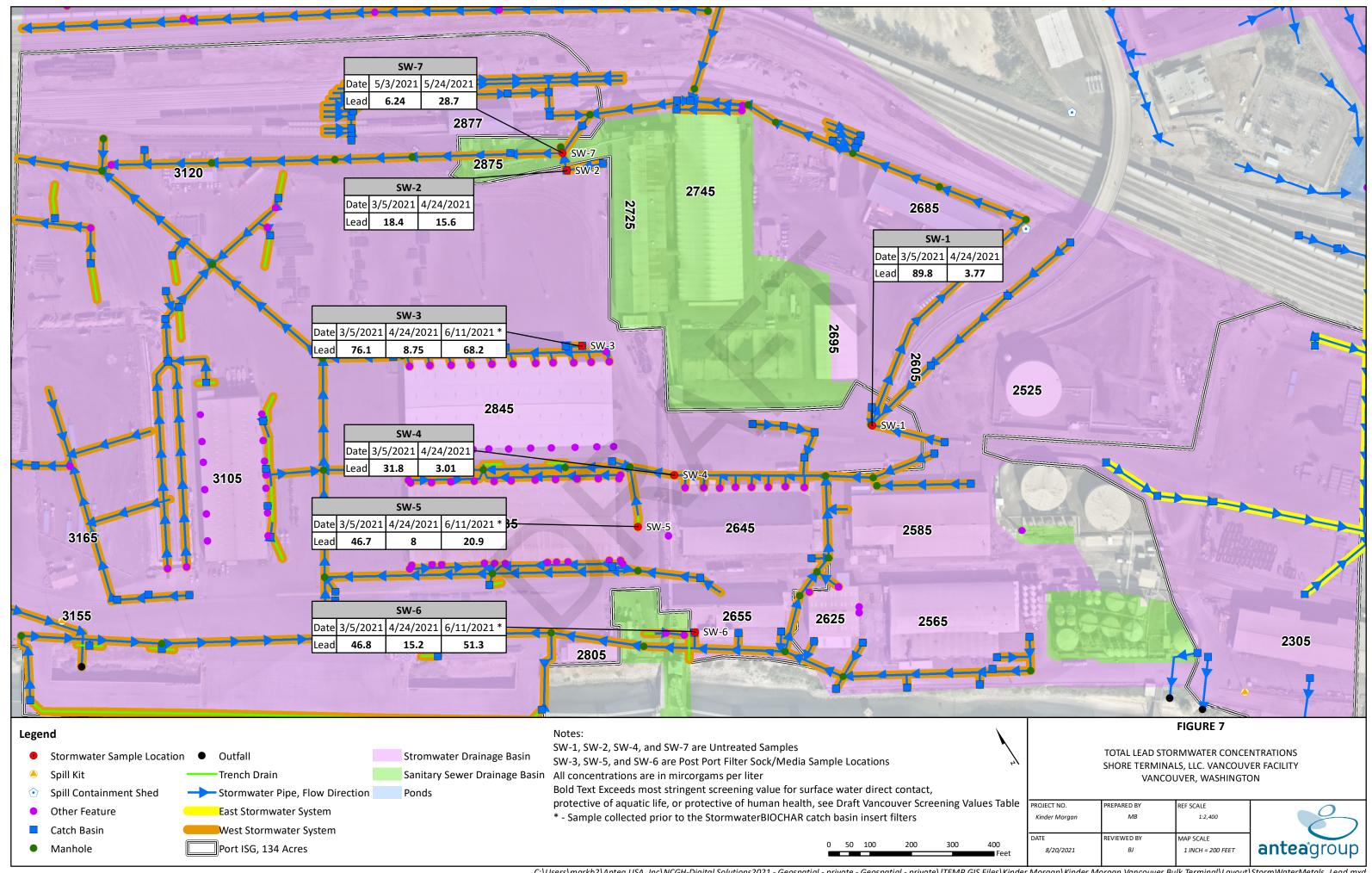


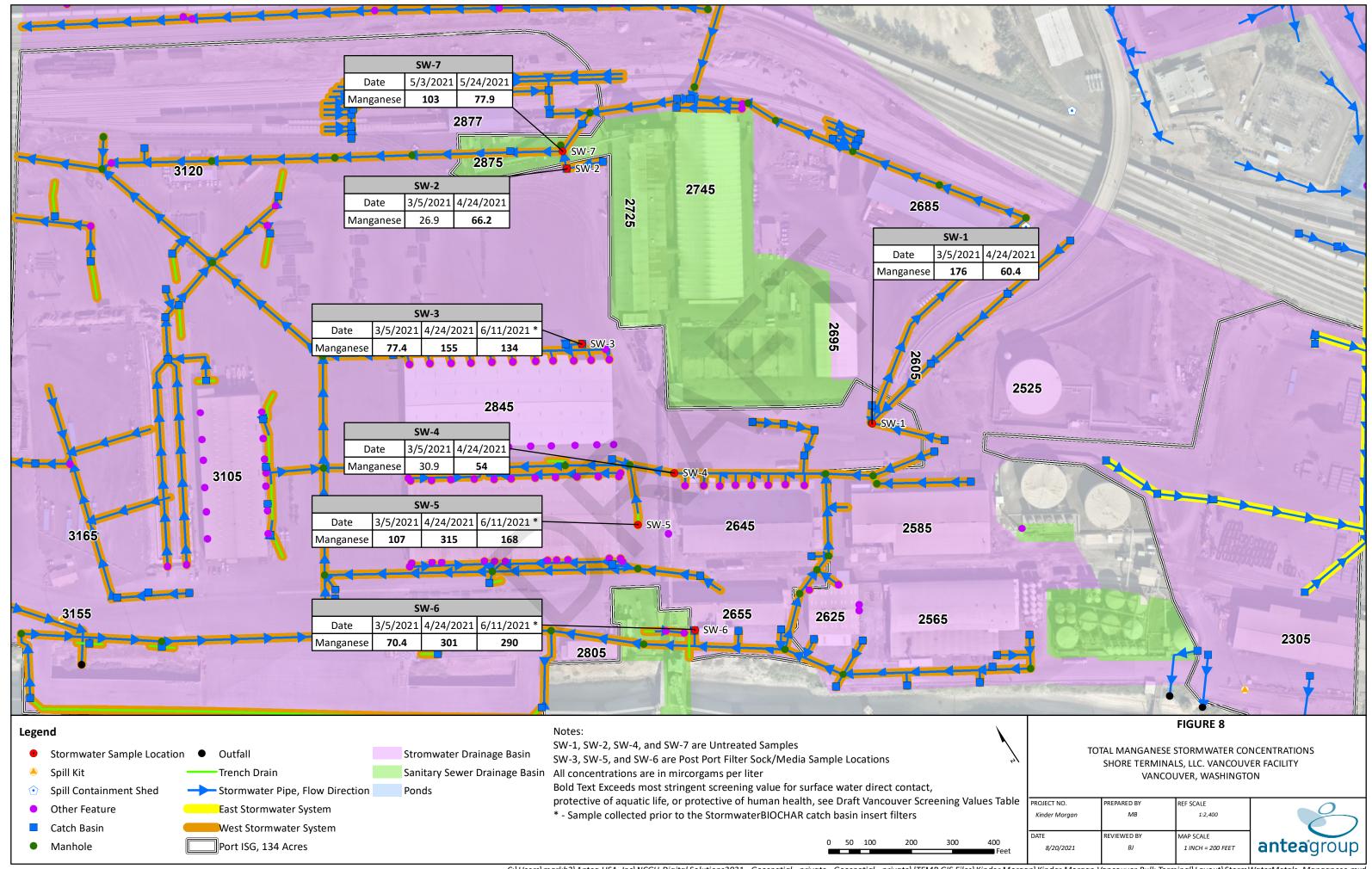


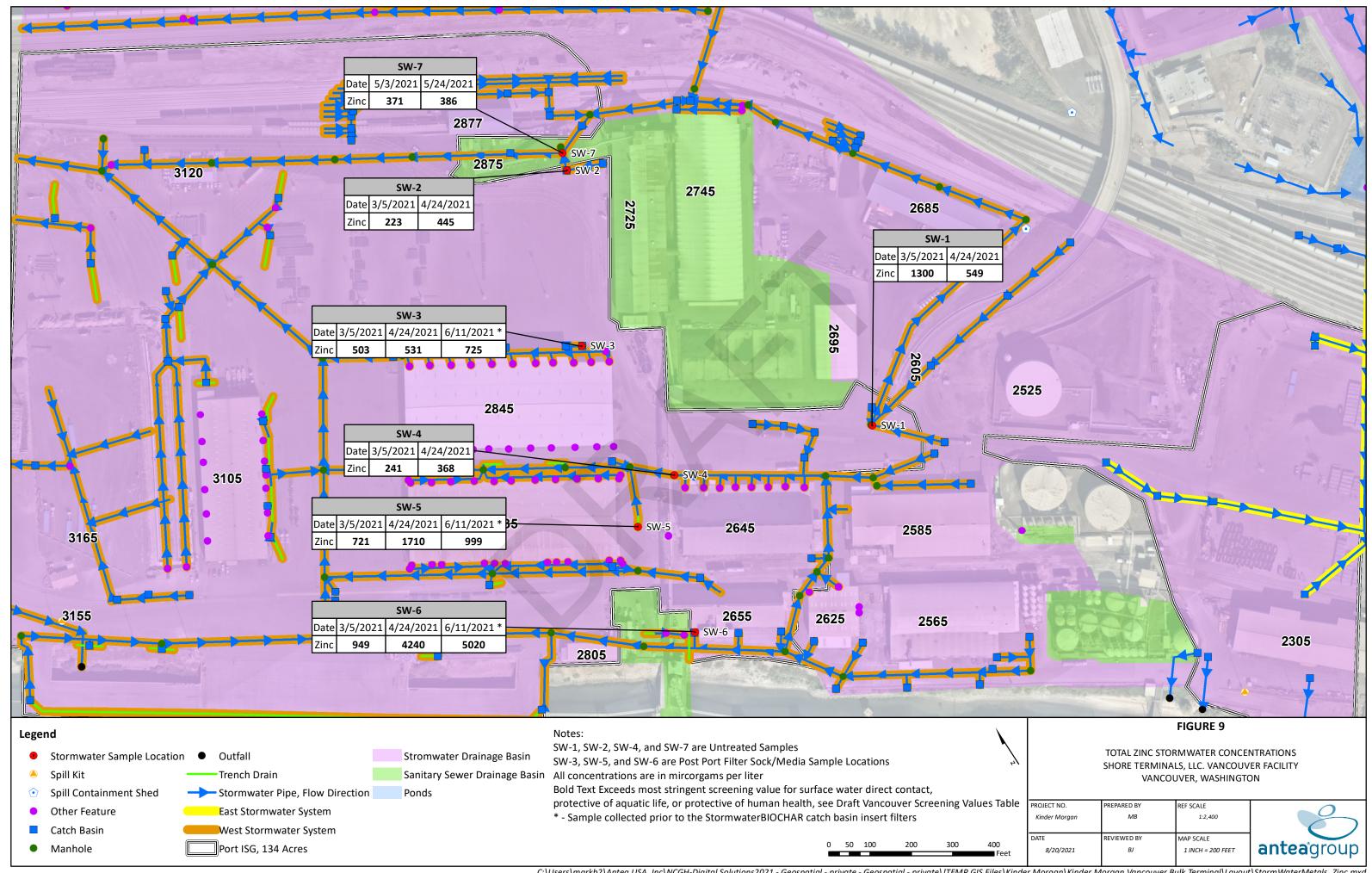


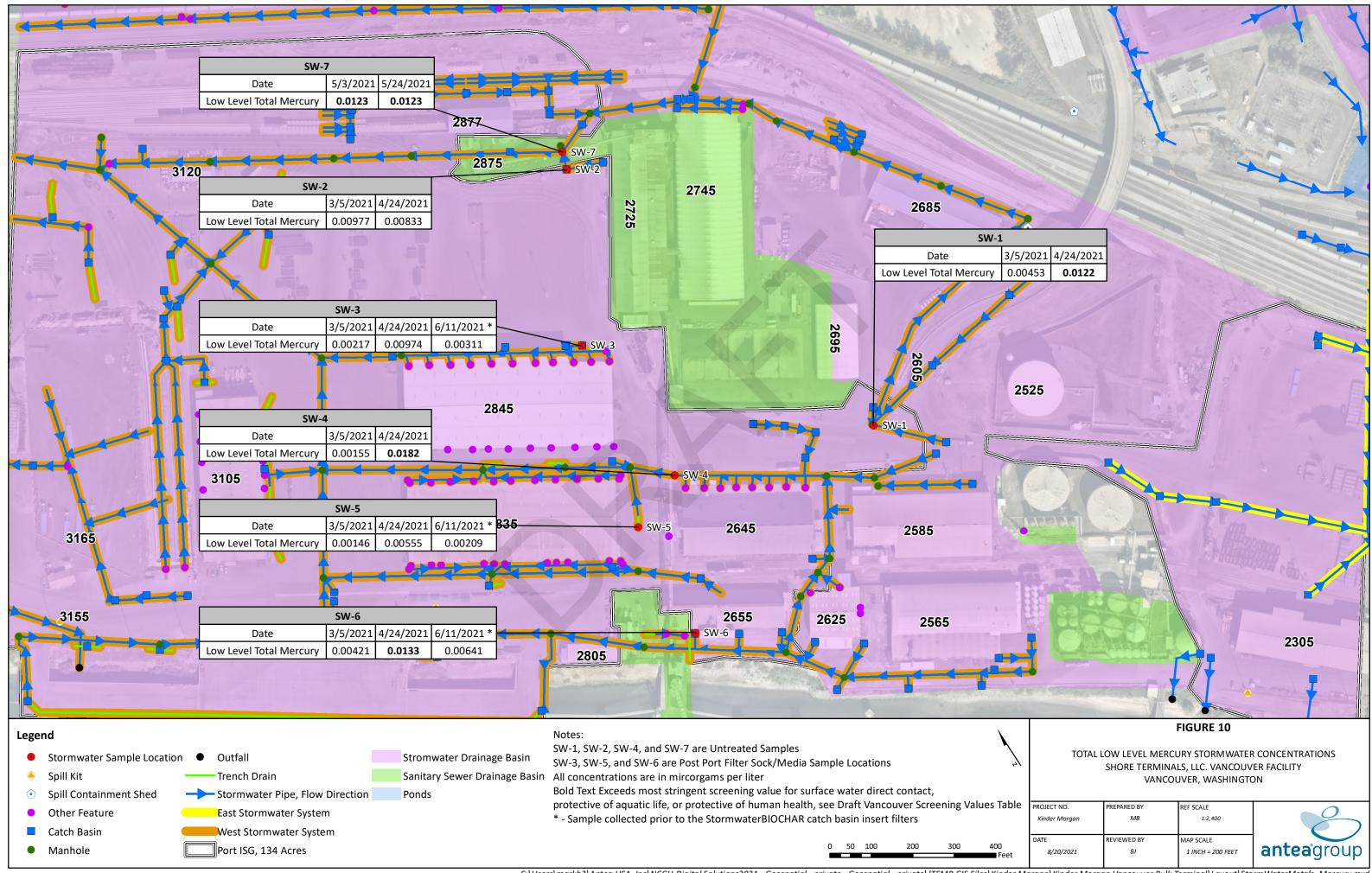












Hayden Island Rain Gage - 1740 N. Jantzen Beach Ctr.

PROVISIONAL, UNCORRECTED RAW DATA FROM THE CITY OF PORTLAND HYDRA NETWORK.

Data are the number of tips of the rain gage bucket.

Each tip is 0.01 inches of rainfall.

[-, missing data]

Dates and times are PACIFIC STANDARD TIME.

	Daily																								
Date	Totaĺ	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
01-JUL-2021	0	0	0	0	0	0	0	0	0	0			_		_				_		_	_	_	_	_
30-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-JUN-2021	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
14-JUN-2021	23	0	0	0	0	0	1	0	3	13	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0
13-JUN-2021	77	6	3	6	0	1	0	2	1	1	0	0	2	18	13	11	10	2	0	1	0	0	0	0	0
12-JUN-2021	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	6	8	1	3	7
11-JUN-2021	10	0	0	0	0	0	0	3	0	3	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0
10-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-JUN-2021	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-JUN-2021	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2
05-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-JUN-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-MAY-2021	15	0	0	0	9	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

											-		_			_		_							
25-MAY-2021	53	1	0	0	0	0	0	23	19	0	1	0	0	6	1	2	0	0	0	0	0	0	0	0	0
24-MAY-2021	26	0	0	0	0	0	1	2	0	2	4	0	0	1	2	0	0	0	0	1	7	2	2	1	1
23-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-MAY-2021	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
20-MAY-2021	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
19-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-MAY-2021	11	0	0	0	0	0	0	0	0	0	0	0	10	0	1	0	0	0	0	0	0	0	0	0	0
17-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-MAY-2021	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
06-MAY-2021	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-MAY-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-MAY-2021	9	0	0	0	0	0	0	0	0	0	a	0	0	0	0	0	0	9	0	0	0	0	0	0	0
03-MAY-2021	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	2	1	0	0	0	0	0
02-MAY-2021	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0
01-MAY-2021	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-APR-2021	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0
29-APR-2021	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28-APR-2021	9	0	a	a	0	0	a	0	0	0	a	0	0	0	9	0	0	a	0	a	0	a	0	0	0
27-APR-2021	0	0	a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	a	0	0	0	0	0	0	0
26-APR-2021	1	0	a	0	0	0	0	0	0	0	0	1	0	0	0	0	0	a	0	0	0	0	0	0	0
25-APR-2021	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-APR-2021	16	0	a	0	0	0	1	2	2	1	2	2	2	2	2	0	0	0	0	0	0	a	0	0	0
23-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22-APR-2021	0	0	a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-APR-2021	a	0	9	9	0	0	a	0	9	0	a	a	a	a	0	0	0	a	0	0	a	a	a	0	0
19-APR-2021	0	0	9	9	0	0	ø	0	0	0	0	0	0	0	0	0	0	a	0	0	0	9	0	0	0
18-APR-2021	0	0	9	0	0	0	ø	0	0	0	0	0	0	0	0	0	0	a	0	0	0	0	0	0	0
17-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-APR-2021	ø	0	0	0	0	0	ø	0	0	0	0	a	0	0	0	0	0	ø	0	0	0	0	ø	0	0
15-APR-2021	ø	0	0	0	ø	0	ø	0	ø	0	ø	ø	0	0	0	0	0	ø	0	0	0	ø	ø	0	ø
14-APR-2021	ø	0	0	0	0	0	0	0	0	0	ø	ø	0	0	0	0	0	0	ø	0	0	ø	ø	0	ø
13-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-APR-2021	9	0	0	0	2	0	0	3	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0
09-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08-APR-2021	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0/-WIN-5051	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	J	U	U	U	U	J	U	J

											-		_	_				_							
06-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01-APR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31-MAR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-MAR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-MAR-2021	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
28-MAR-2021	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9	3	0	0	0	0	0	0	0
27-MAR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-MAR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-MAR-2021	5	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0
24-MAR-2021	6	0	0	0	0	0	0	0	0	2	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0
23-MAR-2021	1	0	0	0	0	0	0	0	0	0	0	0	1	0	ø	0	0	0	0	0	0	0	0	0	0
22-MAR-2021	11	0	1	9	9	1	1	3	3	0	0	0	0	2	ø	0	0	a	a	0	0	0	0	0	ø
21-MAR-2021	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	4	4	3	2	0
20-MAR-2021	9	0	0	0	0	0	0	2	0	0	0	0	0	2	2	1	2	0	0	0	0	0	0	0	0
19-MAR-2021	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0
18-MAR-2021	16	0	a	a	0	0	0	0	2	2	0	a	0	0	1	4	6	a	0	1	0	0	0	0	0
17-MAR-2021	0	0	a	a	0	0	0	a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16-MAR-2021	0	0	0	a	0	0	0	0	0	0	0	a	0	0	0	0	0	0	0	0	0	0	0	0	0
15-MAR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14-MAR-2021	16	0	a	a	0	0	0	0	0	0	0	2	1	0	0	1	3	7	1	1	0	0	0	0	0
13-MAR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ø	0	0	0	0	0	0	0
12-MAR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-MAR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10-MAR-2021	0	0	a	a	0	0	0	0	0	0	a	a	0	0	0	0	0	a	0	a	9	0	0	0	0
09-MAR-2021	2	0	0	a	0	2	0	0	a	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0
08-MAR-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-MAR-2021	8	0	0	1	2	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
06-MAR-2021	3	0	0	9	0	0	0	0	0	0	0	a	0	0	1	0	0	a	0	0	0	0	2	0	0
05-MAR-2021 05-MAR-2021	14	0	0	0	0	0	0	0		1	4	1	3	2	0	_	0	1	0	0	0	0	_	0	0
04-MAR-2021		_	0	_	_	_	-	_	1	0		_		0		0	_	1	0	_	_		1	0	0
03-MAR-2021	2	0		0	0	0	0	0	0	_	0	0	0	_	0	0	0	T		1	0	0	0		0
03-MAR-2021 02-MAR-2021	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0 0	0
01-MAR-2021	0	0	0	a	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	_	0
	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
28-FEB-2021 27-FEB-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26-FEB-2021	20	1	T	0	4	4	T	0	1	1	T	0	0	0	0	1	0	0	0	0	1	2	0	2	0
25-FEB-2021	16	0	0	0	2	2	0	1	0	0	0	0	0	1	5	3	1	0	0	0	1	0	0	0	0
24-FEB-2021	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23-FEB-2021	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
22-FEB-2021	18	0	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	5	5	0	0	0	0	0	0
21-FEB-2021	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20-FEB-2021	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19-FEB-2021	9	3	3	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-FEB-2021	22	0	0	0	0	0	0	0	0	0	0	3	5	4	3	3	0	2	0	0	1	0	0	0	1
17-FEB-2021	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0