

Seeds, Tena (ECY)

From: Seeds, Tena (ECY)
Sent: Wednesday, August 12, 2020 10:57 AM
To: Suzy Stumpf
Cc: Jim Broadlick; Sean Biehl; Cardona-Marek, Tamara (ECY) (TACA461@ECY.WA.GOV)
Subject: RE: Block 38 West Property - Technical Memorandum RE Alley Subsurface Investigation and Foundation Elements
Attachments: Alley SI Work Plan_ECY Comments Summary.docx

Hi Suzy,

The attached file contains Ecology's comments on your Technical Memorandum RE: Supplemental Subsurface Investigation and Building Foundation Elements for the Block 38 West Site.

Please review and provide your responses to our comments. Note that some additional information and clarifications are needed regarding the details of the proposed scope of work for the supplemental investigation in the alley. Let me know if you have any questions or would like to schedule a time to discuss.

Review of the draft RI Work Plan is also underway.

Tena

Tena Seeds, PE

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From: Suzy Stumpf <sstumpf@farallonconsulting.com>
Sent: Monday, June 15, 2020 7:20 PM
To: Seeds, Tena (ECY) <TSEE461@ECY.WA.GOV>
Cc: Jim Broadlick <JimBr@vulcan.com>; Sean Biehl <SeanB@vulcan.com>
Subject: Block 38 West Property - Technical Memorandum RE Alley Subsurface Investigation and Foundation Elements

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Tena,

Below please find a link to download the Technical Memorandum presenting the scope of work and rationale for a supplemental subsurface investigation in the east-adjacent alley to the the Block 38 West Property for Ecology's review. The Technical Memorandum also provides information regarding building foundation elements.

<https://farallon.egnyte.com/fl/Y6OSmATVAs>

Per our conference call on June 8, 2020, Farallon and City Investors are preparing a draft Remedial Investigation Work Plan figure set for discussion during the Key Project Meeting for the Block 38 West Site scheduled for June 16, 2020. Both the figure set and suggested meeting agenda will be provided tomorrow morning.

We look forward to meeting with Ecology tomorrow to discuss the draft Remedial Investigation Work Plan elements and appreciate Ecology's communication with our project team as we incorporate the remaining independent remedial action activities under the Agreed Order and balance the ongoing development schedule.

Best Regards,
Suzy

Suzy Stumpf, P.E., Senior Design Engineer

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Block 38 West Site, Seattle, WA**Agency Review Comments****Document:** Technical Memorandum: *Supplemental Subsurface Investigation and Foundation Elements* (Farallon, June 15, 2020)**Comment Date:** August 12, 2020

Section and Paragraph	Page No.	Review Comment	Response to Comments
Intro, 2 nd paragraph	2	Regarding the scope of work for the alley, any cleanup in the alley will be considered part of the final cleanup action for the Site or it can be a separate interim action under the Agreed Order - see Section VII, Part E. Either way, a work plan will need to be prepared that will be subject to public review and comment prior to Ecology approval and performance of the cleanup work.	
Intro, 2 nd paragraph	2	The last sentence is confusing. Assuming you mean that the proposed soil borings in the alley will also be included as part of the RI; they won't be part of the proposed RI Work Plan scope of work as they will already be done.	
Block 38 West Property Description, 2 nd paragraph	2	A description of the ground surface elevation at/surrounding the Block 38 West property and adjacent alley is needed for reference when discussing elevations of planned structures, etc. A cross-section illustrating this would also be helpful.	
Background, 3 rd paragraph	3	By reviewing the proposed work in this plan, Ecology is not approving the estimated extent of contamination shown in the figures nor any other statement defining the extent of the contamination. Ecology is strictly reviewing the proposed locations of the borings in the alley; not the additional data interpretation that will ultimately belong in the remedial investigation.	
Background, 3 rd paragraph	3	Why are groundwater measurements and groundwater sampling analytical results left out of this memo? Shallow groundwater conditions are relevant to the shallow soil conditions at the Site.	
Background, 3 rd paragraph	3	The potential use of MTCA Method B levels as screening levels (SLs) will be protective of which pathway? Some compounds have multiple Method B cleanup levels associated with them. Explain which ones you would choose and why.	
Background, 3 rd paragraph	3	Ecology should not have to request the laboratory analytical reports. They should be provided to Ecology as soon as the data are validated.	
Soil, 1 st paragraph	3	Figures 4 through 9 include other data outside of the eastern sidewall of the Block 38 West excavation, the alley, and the western sidewall of the Block 38 East excavation. Please note that, through this review, Ecology is not evaluating the sufficiency of that data for the purpose of a remedial investigation.	

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Soil, 2 nd paragraph	3	What is the approximate depth interval (ft bgs, relative to the alley) for the soil impacts at the eastern sidewall of the Block 38 West excavation? This would be helpful to have in addition to the elevation information for reference purposes.	
Soil, 2 nd paragraph	3, 4	In addition to the DRO, ORO, and cPAHs exceeding screening levels in the alley, GRO also exceeded at location PH-12. What is the approximate depth below ground surface at the soil exceedance locations in the alley? Cadmium also exceeded at some locations in the western sidewall samples at Block 38 East.	
Soil, 3 rd paragraph	4	I am not sure there is sufficient information to determine the extent of contamination. Make it clear that "available information" regarding the extent and characterization of COCs in soil will be provided in the RI Work Plan.	
Groundwater, 1 st sentence	4	It would be helpful to have a brief recap of groundwater occurrence included for reference so that I don't have to go digging for it in a previous document. Please include in future documents where this information is relevant.	
Conceptual Site Model Summary	4	This is not a CSM Summary and the title of this section is misleading. The CSM should include info on sources and releases, fate and transport, potential exposure pathways and receptors, and other pertinent info regarding land uses/zoning, other site specific concerns, etc. Either that information should be added, or this section should be taken out or called something else ("Summary of Known Conditions"?).	
Conceptual Site Model Summary, 1 st paragraph	5	What are the approximate elevations and corresponding depths below the alley ground surface for the 5- to 10-foot-thick zone of impacted soil? When was the contaminated soil removed from the Block 38 East and West properties?	
Conceptual Site Model Summary, 4 th paragraph	5	COCs are listed for soil. What about COCs for groundwater?	

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Data Gap Specific to Proposed Subsurface Investigation, 1 st paragraph	5	<p>I disagree with your interpretation of contamination extents along the Block 38 West eastern sidewall and Block 38 East western sidewall, based on the following:</p> <ul style="list-style-type: none"> • Neither G4-ESW nor L4-ESW were sampled at the 20' elevation, so these locations are not appropriate for defining the southern and northern extents of ORO and cPAHs. Based on the data, location H4-ESW2 is more appropriate for defining the southern extent of ORO at the 20' elevation along the B38W sidewall since it is less than the screening level there, and location M4-ESW would be more appropriate to define the northern extent of ORO at the 20' elevation along the sidewall since it is ND. • For cPAHs, since E4-ESW, F4-ESW, and G4-ESW were not analyzed at the 20' elevation (and H4-ESW2 exceeded the SL), location D4-ESW would be more appropriate to define the southern extent of cPAHs at/near the impacted 20' elevation along the sidewall since the concentration there was less than the SL at the 19' elevation. To define the northern extent for cPAHs along the B38W sidewall, M4-ESW would be more appropriate since the concentration there at 20' was less than the SL. • ORO is only defined along the northern portion of the Block 38 East boundary. Unfortunately, there are no ORO data for the central and southern sample locations on the Block 38 East sidewall, so ORO at the impacted elevation in that area is unknown. cPAHs appear to be better defined. <p>While I agree with the proposed alley investigation locations in this memo, your interpretation of the contaminant extents along the east and west sidewalls of the two excavations needs more clarification.</p>	
Data Gap Specific to..., 2 nd paragraph	5	<p>Interpretation of data gaps regarding the lateral extents of contaminants within the alley to the east and west needs additional clarification. The eastern and western edges of the south half of the alley are not defined for DRO and ORO (nor GRO in the area around PH-12) due to lack of petroleum data from the sidewalls of the two property excavations.</p>	

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Data Gap Specific to..., 3 rd paragraph	5	What elevation(s) define the top of the wood waste layer? Was that 22' to 18.5' (i.e., 1 foot above the excavated depth of the impacted soil)?	
Supplemental Subsurface Investigation, 1 st paragraph	6	What are the approximate elevations of the 5- to 10-foot thick zone of impacted soil extending across the alley? Is it at ~25 to 15 ft NAVD88? A cross section would be useful to illustrate this zone.	
Supplemental Subsurface Investigation, 2 nd paragraph	6	<p>This is the first mention of metals-impacted soil that needs to be investigated. Metals weren't discussed in the data gaps section and should have been included on a figure.</p> <p>According to the data in Table 3, the elevated metals concentrations were generally at elevation 22', and concentrations were below the screening levels at elevation 20' and lower. Similar conditions observed for other COCs. During the alley supplemental investigation, you should also sample and analyze soil at the 22'-23' elevation as well as the 20' and deeper elevations.</p>	
Supplemental Subsurface Investigation, 4 th paragraph	6	The use of "potential" regarding lab analysis of the soil samples to be collected is vague and implies that some may not be analyzed for certain compounds. All of the samples from each of the proposed elevations and from a shallower elevation (~22-23 ft) should be analyzed for all of the analytes listed here. If there are any that would potentially not be analyzed, please provide explanation and justification for that.	
Supplemental Subsurface Investigation, 5 th paragraph	6	Please explain what are the steps if the limits of the contamination cannot be defined (mostly vertically) with this work. Would there be additional actions?	
Building Foundation Elements	7	Drago Wrap specifications indicate that it protects against VI. However, the attached design figures indicate that the area covered by the Drago Wrap is not "all encompassing". Please demonstrate with a figure the extent covered by the Drago Wrap, or the updated membrane, if that is the case. We can't give approval of this work plan until we receive an updated figure showing that.	

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Building Foundation Elements	3	While the Hycrete 1000 System may be suitable as a water vapor barrier, I don't believe there are specifications that qualify it as a chemical vapor barrier. If this is to be used as a barrier to prevent intrusion of VOC vapors, you will need to provide Ecology with the manufacturer's chemical vapor resistance specifications for this product to demonstrate that it is protective.	
Figure 9 (cPAHs in soil)		I disagree with the inferred extent of cPAHs that had exceeded the SL on the Block 38 West property. Conditions in the area between FMW-130 and the eastern property boundary are unknown with respect to cPAHs at the impacted elevation of ~20-ft NAVD88. Soil from this area (including the sidewalls) was not analyzed for cPAHs at elevations shallower than 15 ft NAVD88. Can you provide more information to justify the cPAH boundary that is shown?	
Table 1 (soil analytical for TPH, BTEX)		DRO and ORO should be combined for a single value to compare to the screening level for this project. For this and future documents, please add a column for DRO+ORO.	
Attachment A – Sampling and Analysis Plan Comments			
Section 1.1, 3 rd bullet	1-1	No wells are included in the proposed scope for this work plan.	
Section 2.1, 4 th bullet	2-1	In addition to collecting samples from elevations of 20, 15, and 10 ft NAVD88, please also collect samples from the ~22-23 ft elevation for lab analysis, to be in the zone consistent with previously detected exceedances	
Section 3.1, 2 nd paragraph	3-1	Same comment as above – include samples from ~22-23 ft elevation	
Section 3.1, 3 rd paragraph	3-1	Samples for volatile analysis should be sampled in accordance with EPA Method 5035A. It is not clear in this document (nor in the attached SOPs) that the proposed samples for volatile analyses will be collected as such.	
Section 5.1, 1 st paragraph	5-1	This scope indicates that the soil samples “may” be analyzed for “one or more” of the analytes listed. Based on the data gaps identified, all proposed samples from the 20-, 15-, and 10-ft elevations should be analyzed for all of the analytes listed here. In addition, and as noted in previous comments, shallower samples from all of the proposed locations from ~22-23 ft elevation should also be analyzed for all analytes listed.	

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Section 5.1, 1 st paragraph, 1 st bullet	5-1	Do you mean 8021B for the BTEX analysis? I don't believe there is a 8021D.	
Section 5.1, 1 st paragraph, 5 th bullet	5-1	What metals are included in the MTCA metals? Also, there are references to EPA 6010 and EPA 7471B in the SAP tables. Those should be included as potential methods used for metals analysis.	
Section 8.1, 2 nd paragraph	8-1	Why "potential" analysis? Explain why any of the samples would not be analyzed.	
Table 1		<p>This table is too vague regarding scope and rationale. It should list the proposed locations and provide justification for each of the samples being analyzed and their proposed analyses; be more specific in the rationale for each sample location, depth, and corresponding analyses (e.g., "to delineate southern and vertical extent of cPAHs", to delineate western extent of lead at the 22-ft elevation near previous sample location XX").</p> <p>It is not clear whether all of the proposed samples will be analyzed for all analytes or if some will not be analyzed for certain ones. If you are proposing that some won't be analyzed for certain compounds, you need to identify which samples those are and justify why certain analytes would or would not be analyzed.</p>	
Table 1		<p>Regarding the analytes and methods listed:</p> <p>GRO analytical method is listed as NWTPH-Dx; should be NWTPH-Gx.</p> <p>List out the metals included in MTCA metals – are they the five metals listed in Table 2? Also include the other possible analytical methods for metals that are indicated in Table 3.</p>	
Appendix A – SOP SL-01, Sample Collection and Processing, 9 th bullet	4	The language is too vague regarding when to use EPA Method 5035A. The sampling procedure for collecting VOC soil samples for the investigation scope in this work plan should be clearer about using EPA Method 5035A.	