Crysler, Ruby

From: Crysler, Ruby
Sent: Friday, November 18, 2016 3:33 PM
To: Wight, Brian; KNIGHT, COLE D GS-11 USAF AMC 22 CES/CEAN (cole.knight@us.af.mil); Mark D. Wichman (mark.d.wichman@usace.army.mil); Jacqueline Grunau (JGrunau@kdheks.gov); Kidwell, JessicaL
Subject: RE: McConnell AFB PBR: RTC: SS544 (SWMU 207) Draft RFI Report

I found additional hexavalent chromium results for groundwater collected during the 2012 investigation. Disregard comments on the first portion of Item 5. However, results still need to be screened against the RSL set at $1x10^{-6}$, not $1x10^{-4}$.

Ruby Crysler
Environmental Scientist
EPA Region 7, AWMD/WRAP
11201 Renner Blvd
Lenexa, KS 66219
Phone: 913-551-7409

From: Crysler, Ruby
Sent: Friday, November 18, 2016 3:28 PM
To: Wight, Brian <brian.wight@aecom.com>; KNIGHT, COLE D GS-11 USAF AMC 22 CES/CEAN (cole.knight@us.af.mil) <cole.knight@us.af.mil>; Mark D. Wichman (mark.d.wichman@usace.army.mil) <mark.d.wichman@usace.army.mil>; Jacqueline Grunau (JGrunau@kdheks.gov) <JGrunau@kdheks.gov>; Kidwell, JessicaL <Kidwell.JessicaL@epa.gov>
Subject: FW: McConnell AFB PBR: RTC: SS544 (SWMU 207) Draft RFI Report

Brian,

The response to comments are approved with exception to the following:

- **Item 5:** The response indicates hexavalent chromium sampling was completed during the 2012 data gaps investigation. The response further states that the highest concentration detected in 2012 was 2.46 ug/L at well SMWU207-MW40. Review of the Applied Speciation laboratory report shows the following.

574510

Hexavalent Chromium Results for Tetra Tech
Contact: Mark Sievers
Project: SWMU207 (# T98781.0116)

Date: December 27, 2012
Report Generated by: Ben Wozniak
Applied Speciation and Consulting, LLC

Sample Results

Sample ID	Date Collected	Date Analyzed	Cr(VI) Dilution	Cr(VI)
SWMU207-RFI-MW35	11/29/2012	12/17/2012	2	0.440
SWMU207-RFI-MW32	11/29/2012	12/17/2012	2	0.112
SWMU207-RFI-MW39	11/29/2012	12/17/2012	2	0.051
SWMU207-RFI-DUP2	11/29/2012	12/17/2012	2	0.051
SWMU207-RFI-MW27	11/29/2012	12/17/2012	2	0.405
SWMU207-RFI-MW37	11/30/2012	12/17/2012	2	0.983
SWMU207-RFI-MW31	11/30/2012	12/17/2012	2	0.434
SWMU207-RFI-MW28	11/30/2012	12/17/2012	2	0.082
SWMU207-RFI-MW2B	11/30/2012	12/17/2012	2	0.200
SWMU207-RFI-MW38	12/3/2012	12/17/2012	2	0.424
SMWU207-RFI-MW2A	12/3/2012	12/17/2012	2	0.039
SMWU207-RFI-MW34	12/3/2012	12/17/2012	2	0.521
SWMU207-RFI-MW36	12/6/2012	12/17/2012	2	0.752
SWMU207-RFI-MW36D	12/6/2012	12/17/2012	2	0.031
SWMU207-RFI-GEB2	12/6/2012	12/17/2012	2	< 0.005 U

All results are reported in µg/L and reflect the applied dilution

U = Sample concentration is less than the estimated Method Detection Limit (eMDL)

J = Sample concentration is between the eMDL and the Reporting Limit (RL)

It is unclear where the concentrations identified in the response were derived from. See above data. Hexavalent chromium was not detected in soil samples. Also, the section references a 35 micrograms per liter tap water RSL for hexavalent chromium. This value is set at a $1x10^{-4}$ cancer risk level, which is unacceptable for this site, given the presence of multiple other contaminants of concern. Data should be screened against the 0.035 micrograms per liter RSL value. The response to should be revised accordingly. Since detected concentrations exceed the RSL, hexavalent chromium should be retained as a COPC at the site.

- **Items 5 and 10 E:** The responses state that Section 2.3 will be revised to note the change in monitoring wells sampled. It is still unclear whether Section 2.3 will be revised to discuss the basis for the replacement well locations or the historical groundwater analyses for hexavalent chromium at SWMU 207. Please clarify. These aspects of the response should be included in the report.

- **Item 14:** The EPA noted that information on Figures 3-1 and 3-10 in the report indicated that the boring logs for MW-178 and MW-179 were inadvertently reversed until 2015. The EPA commented that additional discussion is warranted in this report as to whether historical analytical results or water level measurements for MW-178 and MW-179 may have been reversed as well. URS' response states that correcting the reporting is up to Boeing's contactors. The RFI report should indicate whether this mix-up potentially affects any data interpretation at SWMU 207.

- **Item 25:** Current TCE action levels for indoor air are partly based on developmental health effects that result from less-than-lifetime exposures. For TCE, the critical exposure period of concern for potential heart defects is one day. As such, unless the TCE concentration in indoor air can be demonstrated to be below EPA Region 7 Action Levels for TCE in Air (see attached document), delaying vapor intrusion investigation or mitigation roughly 27 months is unacceptable. The response to part b (below) further discussions calculation of TCE concentrations using the appropriate site conceptual model and exposure scenario.

- **Item 26:** Modification of the VISL Calculator to reflect attenuation through fine-grained vadose zone soils (attenuation factor 0.0005), a commercial exposure scenario (8-hour shift), and a site-specific groundwater temperature (18°C) is consistent with Agency vapor intrusion guidance (EPA, 2015) and the site conceptual model. However, as noted above, an exceedance of the TCE action level indicates a potential imminent threat to human health. Because the target cancer risks and target hazard indices are based on chronic or lifetime exposures, these values are not appropriate for determining protective TCE concentrations in groundwater, subslab soil vapor, or indoor air. Rather, measured or calculated TCE concentrations in indoor air should be compared to the appropriate EPA Region 7 Action Levels for TCE in Air (see attached). Note that these Action Levels will need to be recalculated for work shifts other than 8-hours.

  Additionally, if generic VISLs are applied, the report should "verify that site-specific conditions reflect the conditions and assumptions of the generic model underlying the VISLs" (EPA, 2015; see Section 6.5.2, p. 107). In particular the report should document shift lengths, any groundwater use within the building, "significant openings" in the building foundation (e.g., sump, earthen floor), any preferential pathways for vapor migration, and whether groundwater or source material is within 5 feet of the building. For MW-179 and other proximate wells, their screens are set more than 50 feet below the groundwater surface. Although groundwater contamination at this depth is not expected to pose a vapor intrusion concern, the absence of shallow groundwater or soil vapor data below the Control Tower is a data gap. Additional lines of evidence are needed to demonstrate the presence or absence of a vapor intrusion concern.

- **Item 27:** To assess future risk, in the absence of an enforceable institutional control (for example, a Kansas EUC) with long-term restrictions on building development and occupation, vapor intrusion assessment is warranted for both onsite and offsite portions of the SWMU 207 shallow subsurface contamination plume. "Both current and reasonably likely future risks need to be considered in order to demonstrate that a site does not present an unacceptable risk to human health and the environment" (EPA, 1991). EPA agrees that downgradient contamination plumes from sources outside the SWMU 207 boundary would not be included in the SWMU 207 Baseline Risk Assessment.

- **Item 28:** The response is acceptable, and the proposed improvement to the graphs is appreciated.

Please review the comments and let me know if you have any questions.

Thank you.

Ruby Crysler
Environmental Scientist
EPA Region 7, AWMD/WRAP

11201 Renner Blvd
Lenexa, KS 66219
Phone: 913-551-7409

From: Wight, Brian [mailto:brian.wight@aecom.com]
Sent: Wednesday, October 05, 2016 1:46 PM
To: Crysler, Ruby <Crysler.Ruby@epa.gov>
Cc: Jacqueline Grunau (jgrunau@kdheks.gov) <jgrunau@kdheks.gov>; Mark D. Wichman (mark.d.wichman@usace.army.mil) <mark.d.wichman@usace.army.mil>; Sansom, Andrea NWO <Andrea.Sansom@usace.army.mil>; KNIGHT, COLE D GS-11 USAF AMC 22 CES/CEAN (cole.knight@us.af.mil) <cole.knight@us.af.mil>; BLAIR, SHELDON M CTR USAF AMC 22 CES/CEIE <sheldon.blair.ctr@us.af.mil>; Krause, Michael <michael.krause@aecom.com>; Mike L. Schofield (mlschofield@gsi-net.com) <mlschofield@gsi-net.com>; Bergantzel, Vanessa <Vanessa.Bergantzel@aecom.com>; Julie Spencer <jaspencer@gsi-net.com>
Subject: McConnell AFB PBR: RTC: SS544 (SWMU 207) Draft RFI Report

Ruby,

URS/GSI responses to EPA's comments on the SS544 (SWMU 207) Draft RFI report are attached for your review and approval. If possible, please provide your approval on or before 14 October 2016. If this is not possible, please let us know when your approval may be received.

Thanks

Brian Wight, PE
Department/Senior Project Manager, Environment, Central Midwest
D +1-402-952-2557
[redacted]
brian.wight@aecom.com

AECOM
12120 Shamrock Plaza
Suite 100
Omaha, Nebraska 68154, USA
T +1-402-334-8181
aecom.com

Built to deliver a better world

LinkedIn Twitter Facebook Instagram

FORTUNE WORLD'S MOST ADMIRED COMPANIES 2016