

Ms. Kristin Reed
Site Manager
Washington Department of Ecology
Toxics Cleanup Program

Arcadis U.S., Inc.
830 NE Holladay Street
Portland
Oregon 97232
Phone: 503 220 8201
Fax:
www.arcadis.com

Date: February 24, 2023
Our Ref: 30064305
Subject: Data Gap Investigation Work Plan Addendum

Chevron Service Station 91122
568 Peace Portal Drive
Blaine, Washington
Cleanup Site Identification No. 9280
Facility Site Identification No. 45439773

Dear Ms. Reed,

On behalf of Chevron Environmental Management Company (CEMC), Arcadis U.S., Inc. (Arcadis) has prepared this Data Gap Investigation Work Plan Addendum (Addendum) for the Former Chevron Service Station No. 91122, located at 568 Peace Portal Drive in Blaine, Washington (site, Figure 1). On June 30, 2022, Arcadis submitted a Data Gap Investigation Work Plan (work plan) to the State of Washington Department of Ecology (Ecology) and comments were received on October 10, 2022. This addendum addresses those comments as well as documents additional communication regarding the investigation.

Ecology Comments and Responses

1. Potential preferential pathway in the vicinity of MW-7 issues still need to be addressed. Section 4.3 addressed the investigation into this and concluded that there was not enough evidence to determine if the well had indeed penetrated the sewer line. Ecology requests that this be investigated further to rule out the pathway.
 - a. Ecology also asks for consideration of decommissioning the MW-7 well to reduce the influence this well seems to have on the groundwater flow and establishing a new sampling site close to MW-7 as the location is highly impacted by TPH and benzene.
 - b. An updated utility cross section of the area surrounding the wells in this area could also be useful (i.e. well location, utility lines, etc). Ecology has plans from 2014. If there are any potential changes since this date, an update would be useful.

Response: Arcadis will investigate sewer line construction with the City of Blain, including installation method and potential use of bedding material to help determine risk of preferential pathway. Based on that investigation, Arcadis may propose to complete a tracer test. Recommendations regarding replacement of well MW-7 will be included in the summary report submitted after completion of the investigation work. Additionally, Arcadis will

investigate if additional utilities have been installed since 2014 and an updated utility cross section will be included in the summary report.

2. Ecology concurs with locations and suggestions for MW-21 and MW-22. Please add GW data to the groundwater flow map.

Response: Newly installed wells will be included in groundwater flow maps for future reports.

3. MW-19: Ecology agrees with adding an additional sampling site to this area, but would also like to see another well just to the west of the suggested location of MW-19 to help define the SW boundary of contamination in the soil and GW.

Response: Location MW-23 will be completed to meet this request.

4. MW-20: Ecology agrees with the need for more sampling of soil and GW to the west. An additional site to consider would be between MW-16 and MW-17 to define the west boundary better considering the boundary inference in this area.
 - a. Please consider the screening level of this proposed well. Suggested screening levels between 5-15' bgs may need to be adjusted based on field observations.

Response: Location MW-24 will be completed to meet this request.

5. An updated hydrology map once data has been collected on groundwater would be useful to further determine the groundwater flow over the site.

Response: An updated hydrology map will be included in the summary report submitted after completion of the investigation work.

Additional Proposed Changes

The work plan proposed monitoring well MW-21 north of the site on the adjacent offsite property identified as Gull 274 site, Facility ID 43142599, Cleanup Site ID 6070 to delineate impacts. However, a review of Ecology's Environmental Information Management (EIM) database identified analytical data from the Gull 274 site that indicates delineation of hydrocarbons along the northern boundary of the site using historical wells MW-8T, MW-5T, MW-9T, and MW-10T. Using this data, CEMC proposed removal of the proposed boring and monitoring well in email correspondence to Ecology on November 17, 2022 and received concurrence via email on November 17, 2022 (Attachment 1). This addendum proposes to remove soil boring and associated monitoring well MW-21 from the proposed scope of work.

Schedule

The work plan proposed a soil vapor sampling event in the fall. The previous two soil vapor sampling events were conducted at the same time of year (spring); therefore, to evaluate any seasonal variability in concentrations,

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Arcadis will conduct an additional soil vapor sampling event in the fall. To obtain data at the end of the dry season, this work will be scheduled for early fall of 2023 (e.g., September) before the rainy season begins.

Arcadis is currently working on access with the offsite property to the west and anticipates completing the investigation activities discussed above and in the previously submitted work plan in second quarter pending Ecology approval of this addendum.

If you have any questions or comments regarding the content of this letter, please contact me at 503-785-9381 or Melissa.Caldwell@arcadis.com.

Sincerely,
Arcadis U.S., Inc.

A handwritten signature in black ink, appearing to read "Melissa Caldwell", with a long horizontal flourish extending to the right.

Melissa Caldwell
Project Manager

CC.
James Kiernan, Operations Lead, CEMC
Amanda Bowring, Portfolio Deputy, Arcadis

Enclosures:
Figure 1: Site Plan
Attachment 1: Email Correspondence



- LEGEND**
- PARCEL BOUNDARY
 - - - OFFSITE PARCEL BOUNDARY
 - - - AREA OF OPEN TRENCH AND EXCAVATIONS (PEG, 1994).
 - S - SANITARY SEWER LINE
 - TESORO WELL
 - ⊕ GROUNDWATER MONITORING WELL
 - ⊗ DECOMMISSIONED WELL
 - SOIL VAPOR PROBE
 - ◆ MONITORING WELL/SOIL BORING (INSTALLED BY ARCADIS 2021)
 - ⬠ PROPOSED MONITORING WELL

SOURCE:
© 2022 Microsoft Corporation ©2022 Maxar ©CNES (2022)
Distribution Airbus DS

0 40' 80'
APPROXIMATE SCALE 1 in. = 40 ft.

CHEVRON SERVICE STATION NO. 91122
568 PEACE PORTAL DRIVE
BLAINE, WASHINGTON

SITE PLAN



FIGURE

1

Caldwell, Melissa

From: Reed, Kristen (ECY) <krre461@ECY.WA.GOV>
Sent: Thursday, November 17, 2022 2:15 PM
To: Kiernan, James
Cc: Caldwell, Melissa; Parisi, Renée; Bowring, Amanda
Subject: RE: Hills Chevron - 91122

Some people who received this message don't often get email from krre461@ecy.wa.gov. [Learn why this is important](#)

James:

Thanks for the quick response James! What you explained below makes sense.

The proposed well to the north (MW-21) was not a suggestion from Ecology. That was a well that was proposed by Arcadis in the Draft Work Plan. After discussing with others at Ecology, there were differences in opinion on putting another well so far into the property to the north when there was a fairly well defined delineation from the four wells (MW-8T, MW-5T, MW-9T, and MW-10T) along the boarder of the two properties. I assumed that your consultants had a reason behind the placement of W-21. I figured if they want info for that area Ecology has no reason to say otherwise.

Let me know if you need more discussion on this.

Thanks,

Kristen Reed (she/her)

Cell: 360-742-2595

Kristen.Reed@ecy.wa.gov

Working time: M-Th 6:00am - 4:30pm

From: Kiernan, James <JKiernan@chevron.com>
Sent: Thursday, November 17, 2022 1:29 PM
To: Reed, Kristen (ECY) <krre461@ECY.WA.GOV>
Cc: Caldwell, Melissa <Melissa.Caldwell@arcadis.com>; Parisi, Renée <Renee.Parisi@arcadis.com>; Bowring, Amanda <Amanda.Bowring@arcadis.com>
Subject: RE: Hills Chevron - 91122

Hi Kristen,

Thanks for the note. No, there have not been any formal GWM reports after the one you referenced. In discussing with the prior caseworker, it was decided to include all GWM data and an evaluation of the overall GW conditions in the recent data gap work plan, which was done.

Yes, the data gap work is moving along (we generally concurred with your comments). However, regarding the proposed well to the north for additional delineation, we had previously discussed this with Sam as there was the former Gull/Tesoro case on that property which got NFA in 2010. We were wondering if there were any data we could use for our purpose. He wasn't able to provide much useful documentation as the readily available files were not that extensive apparently. We dug into EIM a bit and ended up finding some from four wells along the northern boundary between the properties that show GW is adequately delineated in that direction. Although the most recent data is from 2015 which is confusing given that the NFA was in 2010.

If that makes sense, I will have Arcadis submit something explaining the rationale above for foregoing a well to the north.

Sincerely,

James P. Kiernan, P.E.

Operations Lead - West

jkiernan@chevron.com

Chevron Environmental Management and Real Estate Company

6001 Bollinger Canyon Road, Room B1266

San Ramon, CA 94583

Tel +1 925 842 3220

Mobile +1 510 606 0156

From: Reed, Kristen (ECY) <krre461@ECY.WA.GOV>

Sent: Thursday, November 17, 2022 9:27 AM

To: Kiernan, James <JKiernan@chevron.com>

Subject: [**EXTERNAL**] Hills Chevron - 91122

Be aware this external email contains an attachment and/or link.

Ensure the email and contents are expected. If there are concerns, please submit suspicious messages to the Cyber Intelligence Center using the Report Phishing button.

Good morning James:

I have been looking over the files and getting to know this site. I saw that there were regular groundwater monitoring summary reports that were coming in to Ecology. The last one that I have is for 2018 and 2019 dated 11/2020. Are there more that may have been produced since then? If this is the case I would like to get them to review and get into the site file.

Hopefully the Data Gap work is moving along as well. Hope you have a great holiday next week.

Thanks,

Kristen Reed (she/her)

Site Manager

Toxics Cleanup Program

Cell: 360-742-2595

Kristen.Reed@ecy.wa.gov

Working time: M-Th 6:00am - 4:30pm

