

JUNE 1, 2023

**Mr. Sam Meng, PhD, PE**  
Cleanup Project Manager  
Southwest Regional Office  
Toxics Cleanup Program  
P.O. Box 47775  
Olympia, WA 98504-7775

Dear Sam,

On behalf of the Chemours Company FC, LLC and White Birch Group LLC I this letter is proposing a change to the soil Remediation Level (REL) for Operable Unit (OU) 3 presented in the Corrective Action Plan for On-Property Soils and Perched Water (CAP-OSP) Interim Action (IA) remedy for the Superlon Plastics Site (PERC/PIONEER 2017).

This proposal is due to new data collected during the recent Phase V Remedial Investigation (RI) which indicates that arsenic is not leaching from soil to groundwater as was modeled during the development of the soil REL for OU 3. This proposal presents a brief background of the CAP-OSP followed by the proposed change to the REL.

### **Corrective Action Plan-On-Property Soils and Perched Water Interim Action Background**

The CAP-OSP IA remedy is summarized as follows:

- Treating perched water to the perched water RELs;
- Excavating and disposing of soil greater than direct contact RELs in OUs 4 and 6;
- Excavating and stabilizing soils greater than soil-to-perched water RELs in OUs 1, 2, and 3;
- Covering the Property; and
- Applying a deed restriction to ensure on-going industrial land use

Remediation of soils and perched water on the Property are ongoing and are being performed in accordance with an Ecology-approved Remedial Design Report (PERC/PIONEER 2018). Remediation of OU 6 is complete, remediation of OUs 1, 2, and 4 is 90% complete (with only the pond area remaining), and remediation of OU 3 is ongoing. Following remediation of the OSP, the Property will be covered with a cap and a deed restriction will be placed on the Property to ensure industrial land use.

The RELs were determined during the Feasibility Study (FS) for OSP.

The FS-OSP identified one exposure pathway by which industrial workers could indirectly contact constituents in on-Property perched water. This involves the migration of constituents from the Perched Aquifer to the Shallow Aquifer, with the Shallow Aquifer used as part of a future process cooling water system. Under this scenario, exposure to industrial workers could occur as a part of maintenance activities on the cooling water system. Based on this pathway, the non-potable groundwater RELs for arsenic and lead were calculated to be 0.67 and 1.65 milligrams per liter (mg/l), respectively. None of the groundwater samples collected during the Phase V Remedial Investigation (RI) from

the Perched Aquifer within OU 3 exceeded the RELs for arsenic or lead. In summary, groundwater arsenic concentrations in the Perched Aquifer within OU 3 do not exceed the Perched Water RELs and do not need to be treated as part of CAP-OSP IA.

The FS-OSP identified the following two potentially complete exposure pathways for soil: (1) direct contact with soils by a future utility worker; and (2) the soil-to-perched water pathway where constituents in soil leach or migrate into perched water that could be contacted by workers performing maintenance activities on a future groundwater-fed cooling water system. Cleanup-Levels (CLs) for the direct contact soil pathway were developed for arsenic and lead for the Property as a whole. The CLs for arsenic and lead were calculated to be 588 and 1,000 milligrams per kilogram (mg/kg), respectively. The CLs for the soil-to-perched water pathway were developed for arsenic for each of the six OUs depending on the leachability of the material in each OU. The CLs were calculated by comparing the leachability results to the perched water REL to determine a corresponding soil concentration that would be protective of groundwater for each OU.

The CAP-OSP arsenic soil REL for each OU is the lower of the two soil exposure pathway CLs. The soil-to-perched water pathway calculated from leachability analysis was selected for OU 3 with an REL of 114 mg/kg. However, data from the Phase V RI indicates that some OU 3 arsenic soil concentrations exceed the leachability-based soil REL of 114 mg/mg, but collocated OU 3 arsenic groundwater concentrations do not exceed the Perched Water REL (0.67 mg/l) that the leachability-based soil REL was calculated from (see attached Figure 1). This indicates that arsenic within OU 3 is not leaching into groundwater as expected and the calculated soil-to-perched water pathway CL is overly conservative (see Phase V RI Section 4.6 for details). This conflict is likely due to the synthetic nature of the leaching analysis not representing real world phreatic zone chemistry conditions at OU 3 (i.e., if the leaching analysis represented the phreatic zone chemistry, higher concentrations of dissolved arsenic would be present in the Perched Aquifer within OU 3). Given that arsenic is not leaching into groundwater at concentrations that exceed the Perched Aquifer REL, the direct contact soil pathway REL is the applicable REL for OU 3.

#### **Proposed Change to the CAP-OSP IA**

It is proposed that the CAP-OSP arsenic soil REL for OU 3 be based on the direct contact soil pathway CL of 588 mg/kg.

Please contact me if you have any questions concerning this proposal.

Sincerely,



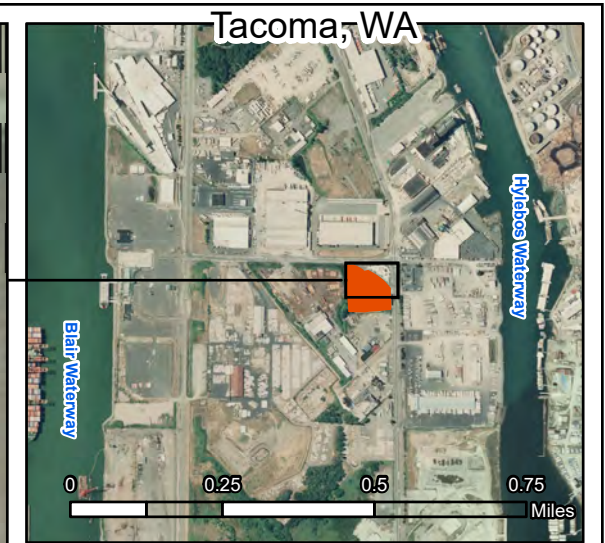
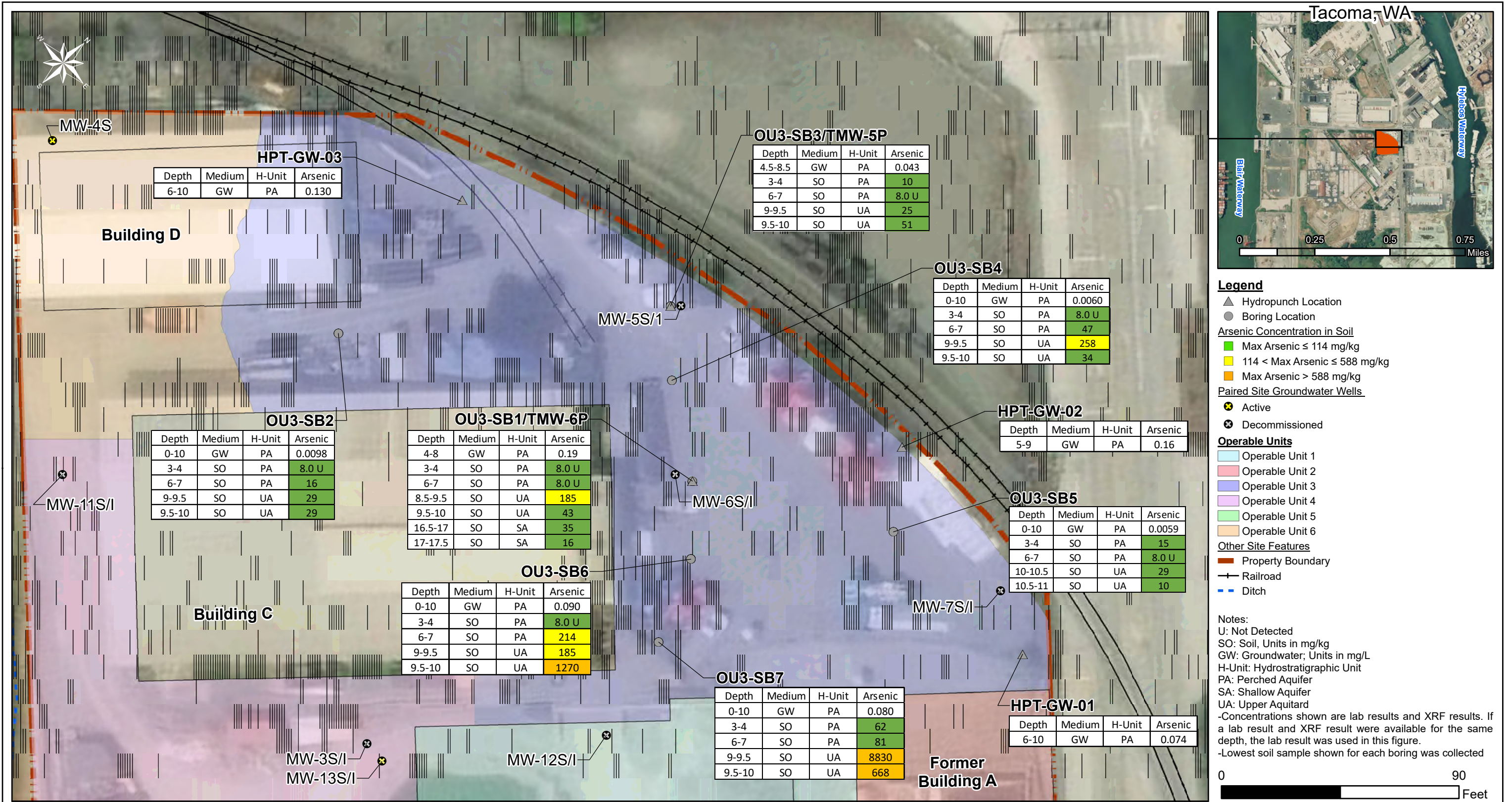
**Jeff King, L.G.**

PRINCIPAL/PRESIDENT

Attachments:

Figure 1 - Operable Unit 3 Arsenic Soil Concentrations and Groundwater Concentrations in the Perched Aquifer

## FIGURES



**Legend**

- ▲ Hydropunch Location
- Boring Location
- Arsenic Concentration in Soil
  - Max Arsenic ≤ 114 mg/kg
  - 114 < Max Arsenic ≤ 588 mg/kg
  - Max Arsenic > 588 mg/kg
- Paired Site Groundwater Wells
- ⊛ Active
- ⊛ Decommissioned

**Operable Units**

- Operable Unit 1
- Operable Unit 2
- Operable Unit 3
- Operable Unit 4
- Operable Unit 5
- Operable Unit 6

**Other Site Features**

- Property Boundary
- Railroad
- Ditch

**Notes:**

- U: Not Detected
- SO: Soil, Units in mg/kg
- GW: Groundwater; Units in mg/L
- H-Unit: Hydrostratigraphic Unit
- PA: Perched Aquifer
- SA: Shallow Aquifer
- UA: Upper Aquitard
- Concentrations shown are lab results and XRF results. If a lab result and XRF result were available for the same depth, the lab result was used in this figure.
- Lowest soil sample shown for each boring was collected

0 90 Feet



Operable Unit 3 Arsenic Soil Concentrations and  
Groundwater Concentrations in the Perched Aquifer  
Remedial Investigation Phase V  
Superlon Plastics Property, Tacoma, Washington

Figure 8