HGL Data Validation Review Report

Project Name/Number	PHSS-SIB PDI / DT2002
Data Validation Stage	2A
Laboratory	ALS Environmental
SDG	K2306338
HGL Reviewer	Ken Rapuano 10/11/23
HGL Peer Review	Justin Hersh 10/11/2023

General issues: The HGL reviewer ensured that all results with an interpreted_qualifiers of U or UJ had the corresponding detect_flag field populated with N and that all rows had Y in the validated_yn field.

The DV report used the higher of the method blank or equipment blank results (on-column) to qualify associated results. Although HGL's internal protocol is to use all applicable reason codes, using the reason code only associated with the highest associated blank is consistent with the NFG and is acceptable for this project.

Although equipment blank results are not validated, the method blanks associated with equipment blanks EB01-10052022 and EB02-10102022 were contaminated with several target analytes, including DRO, RRO, BEHP, and the PAHs 2-methylnaphthalene, fluorene, and phenanthrene. In most cases, the concentration in the aqueous method blank was below the corresponding concentration found in the equipment blank and in the judgment of the HGL reviewer, it is appropriate to use the equipment blank to qualify any associated sample results for those analytes. However, the concentrations of BEHP and phenanthrene in EB01-10052022 are below the associated method blank concentration and these two analytes should be considered detected due to aqueous sample preparation contamination and not to cross-contamination of soil samples during sampling activities. For EB02-10102022, BEHP was below the concentration detected in the associated aqueous method blank and the RRO result was only slightly greater than the aqueous method blank result; these two analytes are also considered to be laboratory artifacts due to aqueous preparation rather than field cross-contamination artifacts. Any change to qualification or reason codes is discussed in the method-specific sections below.

Diesel Range Organics (DRO) and Residual Range Organics (RRO):

No issues noted. The RRO results qualified U for equipment blank contamination are associated with EB01-10052022, which has an RRO concentration unambiguously higher than the associated aqueous method blank.

Tributyltin:

No issues noted.

Organochlorine Pesticides:

No issues noted.

bis(2-Ethylhexyl)phthalate; Polycyclic Aromatic Hydrocarbons (PAHs):

No issues noted.

Total Organic Carbon (TOC):

No issues noted.