Stage 2A Review
Data Quality Control (QC)

Site: PHSS-SIB PDI	SDG #: Case 23F0235
Laboratory: ARI	Date: 8/23/2023
HydroGeoLogic, Inc. Reviewer: Deanna Valdebenito Peer Reviewer: Ken Rapuano (8.29.23)	Project: DT2002

Client Sample ID	Laboratory Sample ID	Analyses	Matrix
SIB-067-OHW-1-2-10142022	23F0235-01	PCB Aroclors	Solid
SIB-067-OHW-2-3-10142022	23F0235-02	PCB Aroclors	Solid
SIB-005-OHW-1-2-10172022	23F0235-03	PCB Aroclors and Total Metals	Solid
SIB-068-OHW-1-2-10142022	23F0235-04	PCB Aroclors and Total Metals	Solid
SIB-066-OHW-1-2-10182022	23F0235-05	PCB Aroclors and Total Metals	Solid
SIB-066-OHW-2-3-10182022	23F0235-06	PCB Aroclors and Total Metals	Solid
SIB-066-TOB-1-2-10182022	23F0235-07	PCB Aroclors	Solid
SIB-066-TOB-2-3-10182022	23F0235-08	PCB Aroclors	Solid
SIB-063-MLW-1-2-10182022	23F0235-09	PCB Aroclors and Total Metals	Solid
SIB-064-MLW-1-2-10182022	23F0235-10	PCB Aroclors	Solid
SIB-064-TOB-1-2-10182022	23F0235-11	PCB Aroclors	Solid
SIB-064-TOB-2-3-10182022	23F0235-12	PCB Aroclors	Solid
SIB-062-MLW-1-2-10182022	23F0235-13	PCB Aroclors and Total Metals	Solid
SIB-057-TOB-1-2-10192022	23F0235-14	PCB Aroclors and Total Metals	Solid
SIB-049-OHW-1-2-10202022	23F0235-15	PCB Aroclors and Total Metals	Solid
SIB-125-TOB-1-2-10262022	23F0235-16	PCB Aroclors and Total Metals	Solid
SIB-123-TOB-1-2-10262022	23F0235-17	PCB Aroclors and Total Metals	Solid
SIB-122-TOB-1-2-10262022	23F0235-18	PCB Aroclors and Total Metals	Solid
SIB-122-MLW-1-2-10262022	23F0235-19	PCB Aroclors and Total Metals	Solid

The following Stage 2A review was performed on the requested analyses. No results were rejected, and analytical completeness is 100%.

Narrative and Completeness Review – The case narrative and data package were checked for completeness. The narrative noted sporadic ICV/CCV and internal standard discrepancies in one of the columns; in all cases, data were reported from an unaffected column. All this has been noted but falls outside of a 2A validation.

Qualification: None required.

Sample Delivery and Condition – All samples arrived intact at the laboratory in acceptable condition and temperature and were properly preserved.

Qualification: None required.

Holding Times – All samples were prepared and analyzed within their required holding times. The narrative noted that mercury and PCB Aroclors samples were frozen to extend holding times; this is in accordance with the QAPP archiving protocols. All mercury samples were analyzed from day 274 to day 286 from

collection, which is greater than the 180-day holding time for frozen mercury samples. All mercury results are detections and should be qualified J, reason code HTA.

***Qualification:* All mercury results are qualified J, reason code HTA.**

Method Blanks – All method blanks were free from contamination.

Qualification: None required.

Rinsate Blanks – Equipment rinse blanks EB02-10102022 (results reported in SDG 22J0175), EB03-10192022 (results reported in SDG 22J0477) and EB04-10262022 (results reported in SDG 22J0477) are associated with all sample results reported in this SDG. Some of the rinse blanks were contaminated with low levels of chromium; chromium is not a target analyte for sediment samples and no qualification is required.

Qualification: None required.

Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) – All LCS/LCSD %Rs and RPDs were within QAPP control limits. A standard reference material was also reported for each PCB, metals, and mercury preparation batch. The SRM %Rs for Aroclor 1260 were above the control limits on both columns. All detected results for Aroclors are for 1248, 1254, or 1260 and in the judgment of the HGL reviewer, these results should be qualified J, reason code VJ.

***Qualification:* All detected results for Aroclors are qualified J, reason code VJ.**

Surrogates – All surrogates were within QAPP control limits or were a single discrepancy outside the control limits but within the limits for a single discrepancy set by the HGL consistency memo.

Qualification: None required.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) –

An MS/MSD was performed on sample SIB-064-TOB-1-2-10182022 (Method 8082A) and had all %R and RPDs within QAPP control limits.

Qualification: None required.

An MS/MSD was performed on sample SIB-005-OHW-1-2-10172022 (metals) and had all %R and RPDs within QAPP control limits except for in method 6020B. The MS and MSD associated with all lead results had for extremely low %Rs (<30%). All Lead results in this SDG are detections and should be qualified J, reason code MSLX.

Qualification: All lead results are qualified J with reason code MSLX.

Field Duplicate – A field duplicate was not submitted with the samples in this SDG.

Qualification: None required.

Laboratory Duplicate – A laboratory duplicate was performed on sample SIB-005-OHW-1-2-10172022 (metals); this laboratory duplicate is associated with all metals results reported in this SDG. All the RPDs of the duplicate pairs met the acceptance criteria except for Lead in method 6020B and Arsenic in method 6020B UCT-KED. All Lead and Arsenic results in this SDG are detections and should be qualified J with reason code LDPR.

Qualification: All Lead and Arsenic results are qualified J with reason code LDPR.

Compound Quantitation – Analyte results were reported with the associated DL, LOD, and LOQ in the DoD format instead of with the associated MDL and RL. Non-detected results were reported on the hardcopy as <#, where # corresponds to the LOD. The HGL reviewer confirmed that the value associated with non-detected results in the EDD is the MDL, in accordance with the project reporting requirements. Analytes detected between the MDL and RL were reported as J-qualified results by the laboratory. These J qualifiers were retained unless superseded by a more severe qualifier.

Qualification: None required.

Qualification Summary Table (concentrations in µg/kg [Aroclors] or mg/kg [metals]):

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier	Reason Code
All samples	Detected Aroclor results	varies	none or J	varies	J	VJ
	Mercury	varies	H or H J	varies	J	HTA
	Arsenic	varies	D	varies	J	LDPR
	Lead	varies	D	varies	J	MSLX,LDPR