Stage 2A Review
Data Quality Control (QC)

Site: PHSS-SIB PDI	SDG #: Case 23F0233
Laboratory: ARI	Date: 8/24/2023
HydroGeoLogic, Inc. Reviewer: Deanna Valdebenito Peer Reviewer: Ken Rapuano (8.28.23)	Project: DT2002

Client Sample ID	Laboratory Sample ID	Analyses	Matrix
SIB-087-OHW-1-2-10102022	23F0233-01	PCB Aroclors	Solid
SIB-087-OHW-2-3-10102022	23F0233-02	PCB Aroclors	Solid
SIB-087-TOB-1-2-10102022	23F0233-03	PCB Aroclors and Total Metals	Solid
SIB-087-TOB-2-3-10102022	23F0233-04	PCB Aroclors and Total Metals	Solid
SIB-086-MLW-1-2-10112022	23F0233-05	PCB Aroclors	Solid
SIB-085-MLW-1-2-10112022	23F0233-06	Total Metals	Solid
SIB-085-OHW-1-2-10112022	23F0233-07	PCB Aroclors	Solid
SIB-085-TOB-1-2-10112022	23F0233-08	PCB Aroclors and Total Metals	Solid
SIB-085-TOB-2-3-10112022	23F0233-09	PCB Aroclors and Total Metals	Solid
SIB-084-MLW-1-2-10112022	23F0233-10	Total Metals	Solid
SIB-084-OHW-1-2-10112022	23F0233-11	PCB Aroclors	Solid
SIB-084-TOB-1-2-10112022	23F0233-12	PCB Aroclors	Solid
SIB-083-TOB-1-2-10112022	23F0233-13	PCB Aroclors and Total Metals	Solid
SIB-081-MLW-1-2-10122022	23F0233-14	PCB Aroclors and Total Metals	Solid
SIB-081-OHW-1-2-10122022	23F0233-15	PCB Aroclors and Total Metals	Solid
SIB-081-TOB-1-2-10122022	23F0233-16	PCB Aroclors and Total Metals	Solid
SIB-080-MLW-1-2-10122022	23F0233-17	PCB Aroclors	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 initial and continuing calibrations were within method requirements except for Aroclor 1260 which fails high in ICV2, CCV2 on zb35 column. All associated data is reported from zb5 column as primary. 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 259 to 261 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 blank EB02-10102022 (results reported in SDG 22J0175) is associated with all sample results reported in this SDG. The rinse blank was free from contamination 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 met the control limits.

Qualification: None required.

Surrogates – All surrogates were within QAPP control limits except surrogates Decachlorobiphenyl and Decachlorobiphenyl [2C] for sample SIB-087-TOB-2-3-10102022. All detected Aroclors should be qualified J with reason code SSH.

Qualification: For sample SIB-087-TOB-2-3-10102022 analytes Aroclor 1248, Aroclor 1254 and Aroclor 1262 are qualified J-SSH.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) – An MS/MSD was performed on sample SIB-084-TOB-1-2-10112022 (Method 8082A) and had all %R and RPDs within QAPP control limits except for a low %R in the MSD for Aroclor 1260 and a high Aroclor 1260 RPD. The Aroclor 1248, Aroclor 1254, Aroclor 1262, and Aroclor 1268 results for sample SIB-084-TOB-1-2-10112022 are non-detections and should be qualified UJ-MSL. The Aroclor 1260 result for sample SIB-084-TOB-1-2-10112022 is a detection and should be qualified J-MSL,MSP.

Qualification: For sample SIB-084-TOB-1-2-10112022 analytes Aroclor 1248, Aroclor 1254, Aroclor 1262, and Aroclor 1268 are qualified UJ-MSL and analyte Aroclor 1260 is qualified J-MSL,MSP.

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

Qualification: None required.

Laboratory Duplicate – A laboratory duplicate was not performed with the samples in this SDG.

Qualification: None required.

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
SIB-087-OHW-1-2-10102022	None required.					
SIB-087-OHW-2-3-10102022	None required.					
SIB-087-TOB-1-2-10102022	Mercury	0.0409	H	0.0409	J	HTA
SIB-087-TOB-2-3-10102022	Aroclor 1248	7.7	-	7.7	J	SSH
	Aroclor 1254	38.4	-	38.4	J	SSH
	Aroclor 1262	118	-	118	J	SSH
	Mercury	0.144	H	0.144	J	HTA
SIB-086-MLW-1-2-10112022	None required.					
SIB-085-MLW-1-2-10112022	Mercury	0.0596	H	0.0596	J	HTA
SIB-085-OHW-1-2-10112022	None required.					
SIB-085-TOB-1-2-10112022	Mercury	0.19	H	0.19	J	HTA
SIB-085-TOB-2-3-10112022	Mercury	0.149	H	0.149	J	HTA
SIB-084-MLW-1-2-10112022	Mercury	0.0459	H	0.0459	J	HTA
SIB-084-OHW-1-2-10112022	None required.					
SIB-084-TOB-1-2-10112022	Aroclor 1248	1.6	U	1.6	UJ	MSL
	Aroclor 1254	1.6	U	1.6	UJ	MSL
	Aroclor 1260	3.6	J	3.6	J	MSL,MSP
	Aroclor 1262	0.6	U	0.6	UJ	MSL
	Aroclor 1268	0.6	U	0.6	UJ	MSL
SIB-083-TOB-1-2-10112022	Mercury	0.083	H	0.083	J	HTA
SIB-081-MLW-1-2-10122022	Mercury	0.0405	H	0.0405	J	HTA
SIB-081-OHW-1-2-10122022	Mercury	0.0551	H	0.0551	J	HTA
SIB-081-TOB-1-2-10122022	Mercury	0.119	H	0.119	J	HTA
SIB-080-MLW-1-2-10122022	None required.					