Stage 2A Review
Data Quality Control (QC)

Site: PHSS-SIB PDI	SDG #: Case 22J0097
Laboratory: ARI	Date: 7/22/2023
HydroGeoLogic, Inc. Reviewer: Deanna Valdebenito Peer Reviewer: Ken Rapuano (8.4.23)	Project: DT2002

Client Sample ID	Laboratory Sample ID	Analyses	Matrix
SIB-120-MLW-0-1-10032022	22J0097-01	PCB Aroclors and Total Metals	Solid
SIB-120-OHW-0-1-10032022	22J0097-02	PCB Aroclors and Total Metals	Solid
SIB-120-TOB-0-1-10032022	22J0097-04	PCB Aroclors and Total Metals	Solid
SIB-119-OHW-0-1-10032022	22J0097-05	PCB Aroclors and Total Metals	Solid
SIB-118-OWH-0-1-10032022	22J0097-07	PCB Aroclors and Total Metals	Solid
SIB-117-MLW-0-1-10032022	22J0097-08	PCB Aroclors and Total Metals	Solid
SIB-117-OHW-0-1-10032022	22J0097-09	PCB Aroclors and Total Metals	Solid
SIB-119-TOB-0-1-10042022	22J0097-10	PCB Aroclors and Total Metals	Solid
SIB-118-TOB-0-1-10042022	22J0097-12	PCB Aroclors and Total Metals	Solid
SIB-117-TOB-0-1-10042022	22J0097-14	PCB Aroclors and Total Metals	Solid
SIB-116-TOB-0-1-10042022	22J0097-15	PCB Aroclors and Total Metals	Solid
SIB-115-OHW-0-1-10042022	22J0097-17	PCB Aroclors and Total Metals	Solid
SIB-115-TOB-0-1-10042022	22J0097-18	PCB Aroclors and Total Metals	Solid
SIB-114-OHW-0-1-10042022	22J0097-20	PCB Aroclors and Total Metals	Solid
SIB-114-TOB-0-1-10042022	22J0097-21	PCB Aroclors and Total Metals	Solid
SIB-113-TOB-0-1-10042022	22J0097-24	PCB Aroclors and Total Metals	Solid
SIB-112-OHW-0-1-10042022	22J0097-26	PCB Aroclors and Total Metals	Solid
SIB-112-MLW-0-1-10042022	22J0097-27	PCB Aroclors and Total Metals	Solid
FD01-10042022	22J0097-30	PCB Aroclors and Total Metals	Solid
SIB-112-TOB-0-1-10052022	22J0097-31	PCB Aroclors and Total Metals	Solid
SIB-111-TOB-0-1-10052022	22J0097-34	PCB Aroclors and Total Metals	Solid
SIB-110-MLW-0-1-10052022	22J0097-35	PCB Aroclors and Total Metals	Solid
SIB-110-TOB-0-1-10052022	22J0097-36	PCB Aroclors and Total Metals	Solid
SIB-109-OHW-0-1-10052022	22J0097-38	PCB Aroclors and Total Metals	Solid
SIB-109-TOB-0-1-10052022	22J0097-39	PCB Aroclors and Total Metals	Solid
SIB-108-TOB-0-1-10052022	22J0097-40	PCB Aroclors and Total Metals	Solid
SIB-107-OHW-0-1-10052022	22J0097-41	PCB Aroclors and Total Metals	Solid
SIB-107-TOB-0-1-10052022	22J0097-42	PCB Aroclors and Total Metals	Solid
SIB-106-OHW-0-1-10052022	22J0097-43	PCB Aroclors and Total Metals	Solid
SIB-106-TOB-0-1-10052022	22J0097-44	PCB Aroclors and Total Metals	Solid
SIB-105-OHW-0-1-10052022	22J0097-46	PCB Aroclors and Total Metals	Solid
SIB-105-TOB-0-1-10052022	22J0097-47	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 initial and continuing calibrations were within method requirements except for Aroclor 1248 which is high in ccv1/ccv7 on one column. Data was reported from the passing column for SKK0167. The CCV4 fails high for Aroclor 1260 on one column. Data is reported from the column in control for SKK0278. The internal standard areas were within limits except for 22J0097-24, -38, -41 recovery of HBPP fails low on ZB5 but passes fine on ZB35. The data was reported from the passing column in SKK0252. The internal standard HBBP is low in samples 22J0097-27, -30 and -42 on one column. The second column is in control for SKK0278. 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 samples were frozen to extend holding times; this is in accordance with the QAPP archiving protocols.

Qualification: None required.

Method Blanks – All method blanks were free from contamination except for method blank associated with batch BKL0682, which had Mercury contamination at 0.0143 mg/kg, leading to a qualification threshold of 0.0715; detected results in this batch should be qualified U-MBL.

Qualification: The mercury results reported for samples SIB-120-TOB-0-1-10032022, SIB-116-TOB-0-1-10042022, SIB-115-TOB-0-1-10042022, SIB-114-TOB-0-1-10042022, SIB-113-TOB-0-1-10042022, SIB-112-OHW-0-1-10042022, SIB-112-TOB-0-1-10052022, SIB-111-TOB-0-1-10052022 are qualified U-MBL.

Rinsate Blanks – Equipment rinse blank EB01-10052022 (results reported in SDG 22J0175) is associated with all sample results reported in this SDG. No Aroclors or metals were detected in this EB except for chromium. Chromium is not a target analyte for riverbank soil 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 met the control limits.

Qualification: None required.

Surrogates – Samples SIB-120-OHW-0-1-10032022, SIB-114-OHW-0-1-10042022, SIB-111-TOB-0-1-10052022, SIB-109-OHW-0-1-10052022, and SIB-107-OHW-0-1-10052022 had high %Rs for surrogate Decachlorobiphenyl [2C]. Sample SIB-119-OHW-0-1-10032022 had high %Rs surrogates Decachlorobiphenyl, Tetrachlorometaxylene, Decachlorobiphenyl [2C]. Samples SIB-117-OHW-0-1-10032022, SIB-109-TOB-0-1-10052022 and SIB-105-OHW-0-1-10052022 had high %Rs for surrogate Decachlorobiphenyl. The detected Aroclor results should be qualified J with reason code SSH and non-detections should not be qualified. The detected Aroclor results for samples SIB-120-OHW-0-1-10032022, SIB-114-OHW-0-1-10042022, SIB-109-OHW-0-1-10052022, and SIB-119-OHW-0-1-10032022 reported from the affected columns should be qualified J-SSH. The surrogate %R discrepancies for samples SIB-

111-TOB-0-1-10052022, SIB-107-OHW-0-1-10052022, SIB-117-OHW-0-1-10032022, SIB-109-TOB-0-1-10052022, and SIB-105-OHW-0-1-10052022 were a single discrepancy out of the four reported %Rs and were above the upper control limit by less than 20%. In accordance with the HGL consistency memorandum, no qualification is required.

Qualification: The detected Aroclor results reported from Column 2 for samples SIB-120-OHW-0-1-10032022, SIB-114-OHW-0-1-10042022, and SIB-109-OHW-0-1-10052022, are qualified J with reason code SSH. All detected Aroclor results for sample SIB-119-OHW-0-1-1003202 are qualified J with reason code SSH.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) – An MS/MSD was performed on samples SIB-118-OWH-0-1-10032022 and SIB-112-TOB-0-1-10052022 (Method 8082A) as well as sample SIB-112-TOB-0-1-10052022 (metals). All %R and RPDs were within QAPP control limits except for sample SIB-118-OWH-0-1-10032022 for Method 8082A had a high %R and RPD for Aroclor 1016; however, the parent sample had no detections of Aroclor 1016 or associated Aroclors and no further action is required.

Qualification: None required.

Field Duplicate – Sample FD01-10042022 is a field duplicate of sample SIB-112-MLW-0-1-10042022. Aroclor 1260 did not meet the absolute difference criterion and the Aroclor 1260 results in both members of the duplicate pair are qualified J-FDPA.

Qualification: The Aroclor 1260 results for samples SIB-112-MLW-0-1-10042022 and FD01-10042022 are qualified J-FDPA.

Laboratory Duplicate – A laboratory duplicate was performed on sample SIB-112-TOB-0-1-10052022 (metals). The duplicate pairs met the acceptance criteria for precision.

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-120-MLW-0-1-10032022	None required.					
SIB-120-OHW-0-1-10032022	Aroclor 1254	74.8	D	74.8	J	SSH
	Aroclor 1260	62.3	D	62.3	J	SSH
SIB-120-TOB-0-1-10032022	Mercury	0.0657	-	0.0657	U	MBL
SIB-119-OHW-0-1-10032022	Aroclor 1254	63.6	D	63.6	J	SSH
	Aroclor 1260	66.0	D	66.0	J	SSH
SIB-118-OWH-0-1-10032022	None required.					
SIB-117-MLW-0-1-10032022	None required.					
SIB-117-OHW-0-1-10032022	None required.					
SIB-119-TOB-0-1-10042022	None required.					
SIB-118-TOB-0-1-10042022	None required.					
SIB-117-TOB-0-1-10042022	None required.					
SIB-116-TOB-0-1-10042022	Mercury	0.069	-	0.069	U	MBL
SIB-115-OHW-0-1-10042022	None required.					
SIB-115-TOB-0-1-10042022	Mercury	0.07	-	0.07	U	MBL
SIB-114-OHW-0-1-10042022	Aroclor 1254	36.4	D	36.4	J	SSH
	Aroclor 1260	43.6	D	43.6	J	SSH
SIB-114-TOB-0-1-10042022	Mercury	0.0522	-	0.0522	U	MBL
SIB-113-TOB-0-1-10042022	Mercury	0.0319	-	0.0319	U	MBL
SIB-112-OHW-0-1-10042022	Mercury	0.0541	-	0.0541	U	MBL
SIB-112-MLW-0-1-10042022	None required.					
FD01-10042022	None required.					
SIB-112-TOB-0-1-10052022	Mercury	0.0617	-	0.0617	U	MBL
SIB-111-TOB-0-1-10052022	Mercury	0.023	-	0.023	U	MBL
SIB-110-MLW-0-1-10052022	None required.					
SIB-110-TOB-0-1-10052022	None required.					

Sample	Analyte	Lab Value	Lab Qualifier	Validated Value	Validated Qualifier	Reason Code
SIB-109-OHW-0-1-10052022	Aroclor 1260	24.5	D	24.5	J	SSH
SIB-109-TOB-0-1-10052022	None required.					
SIB-108-TOB-0-1-10052022	None required.					
SIB-107-OHW-0-1-10052022	None required.					
SIB-107-TOB-0-1-10052022	None required.					
SIB-106-OHW-0-1-10052022	None required.					
SIB-106-TOB-0-1-10052022	None required.					
SIB-105-OHW-0-1-10052022	None required.					
SIB-105-TOB-0-1-10052022	None required.					