**Pesticides**
EPA Method 1699
**Stage 2A Review**
**Data Quality Control (QC)**

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|---|---|
| Site: PHSS-Swan Island Basin | SDG #: K2302950 (Burlington L2740034) |
| Laboratory: ALS Environmental (Burlington) | Project #: DT2002.03.03.03.01 |
| HydroGeoLogic, Inc. Validator: Ken Rapuano | Validation Date: 07.07.23 |
| HGL QC Reviewer: Justin Hersh | Peer Review Date: (07.07.23) |

| Client Sample ID | Laboratory Sample ID | Matrix |
|---|---|---|
| SIB-SW-WR198-102122 | K2212522-001 (23A0259-01) | Storm Water |
| SIB-SW-WR186-102122 | K2212522-002 (23A0259-02) | Storm Water |
| SIB-SW-WR15-102122 | K2212522-003 (23A0259-03) | Storm Water |
| SIB-SW-WR428-102122 | K2212522-004 (23A0259-04) | Storm Water |
| SIB-SW-WR71-102122 | K2212522-005 (23A0259-05) | Storm Water |
| SIB-SW-WR30-102122 | K2212522-006 (23A0259-06) | Storm Water |

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. It was noted in the narrative that due to lab oversight; pentachlorophenol was not reported in the results. No other completeness issues were noted.

*Qualification:* None required.

Sample Delivery and Condition – All samples arrived intact at the laboratory in acceptable condition. Sample temperatures ranged from 8.2 to 10.8 °C on receipt at ALS Kelso. The field team leader confirmed that the samples were refrigerated at the site and were driven to the laboratory the following day. The samples were collected in 20-g carboys and were too large to fit into coolers, so ice was packed around the base of each carboy. In the judgment of the HGL reviewer, sufficient temperature reduction was achieved, and no qualification is required. The Burlington laboratory noted that the samples arrived at 6.4 °C. This temperature exceedance is considered nominal and no qualification is required.

*Qualification:* None required.

Holding Times – The samples were held at the Kelso laboratory for approximately 6 months before being sent to the Burlington (Ontario) laboratory for analysis for pesticides. Method 1699 indicates a 7-day holding time for extraction of aqueous samples. As the holding time exceedances are extreme, all non-detected results are rejected and qualified R.

***Qualification:* All non-detected results are rejected and qualified R-HTPX.**

Laboratory Blanks – The method blank was contaminated with 0.0330 ng/L hexachlorobenzene, leading to a qualification threshold of 0.165 ng/L. The hexachlorobenzene results for samples SIB-SW-WR198-102122 and SIB-SW-WR15-102122 should be qualified U; the final qualifier applied to these results is UJ due to other QC elements (EMPC and/or holding time).

***Qualification:* The detected hexachlorobenzene results for samples SIB-SW-WR198-102122 and SIB-SW-WR15-102122 are qualified U.**

Rinsate Blanks – Rinsate blanks were not submitted with the samples in this SDG.

*Qualification:* None required.

Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) – All LCS %Rs were within QAPP control limits.

*Qualification:* None required.

Surrogates – All labeled extraction standard %Rs were within control limits.

*Qualification:* None required.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) – MS/MSD analyses were not performed.

*Qualification:* None required.

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

*Qualification:* None required.

Laboratory Duplicate – A laboratory replicate was not performed.

*Qualification:* None required.

Compound Quantitation – Analyte non-detections were reported as <#, where # is the EDL. This reporting format is equivalent to reporting non-detected data in the EPA "MDL U" format. The EDL and RL were presented on sample-specific summary pages. The sample-specific summaries also included detections of EMPCs that had been reported as ND on the general summary report. All EMPCs quantitated above the associated MDL were reported as detected values in the EDD. These values should be qualified J-EMPC. Analytes detected between the MDL and MRL were reported as J-qualified results by the laboratory on the sample-specific summary pages. These J qualifiers were retained unless superseded by a more severe qualifier.

***Qualification:* The hexachlorobenzene result for sample SIB-SW-WR198-102122 and the gamma-BHC (Lindane) result for sample SIB-SW-WR30-102122 are qualified J-EMPC.**

Qualification Summary Table (concentrations in ng/L):

| Sample | Analyte | Lab Value | Lab Qualifier | Validated Value | Validated Qualifier | Reason Code |
|---|---|---|---|---|---|---|
| All samples | Results reported as ND by lab | varies | U or M,U | R | R | HTPX |
| SIB-SW-WR198-102122 | gamma-BHC (Lindane) | 0.216 | M,J | J | J | HTPX |
| | Hexachlorobenzene | 0.035 | M,J,K | UJ | UJ | HTPX,EMPC,MBL |
| SIB-SW-WR186-102122 | Hexachlorobenzene | 0.254 | J,B | J | J | HTPX |
| SIB-SW-WR15-102122 | Hexachlorobenzene | 0.0391 | M,J,B | UJ | UJ | HTPX,MBL |
| SIB-SW-WR30-102122 | gamma-BHC (Lindane) | 0.39 | M,J,K | J | J | HTPX,EMPC |