Data Report and Quality Assurance Evaluation

For Current Use Pesticide Monitoring during the 2021 Water Year

Submitted for Review by the Current Use Pesticide Technical Advisory Committee March 18, 2022

Prepared By:

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LIST OF ACRONYMS

ACRONYM	DEFINITION
CEDEN	California Environmental Data Exchange Network
CRM	Certified Reference Material
CUP	Current Use Pesticide
CV RDC	Central Valley Regional Data Center
DO	Dissolved Oxygen
DOC	Dissolved Organic Carbon
DRMP	Delta Regional Monitoring Program
EDD	Electronic Data Deliverable
EPA	U.S. Environmental Protection Agency
GRTS	Generalized Random Tessellation Stratified
GC/MS	Gas Chromatography/Mass Spectrometry
LC/MS/MS	Liquid Chromatography/Tandem Mass Spectrometry
LCS	Laboratory Control Standard
m	Meter(s)
MDL	Method Detection Limit
MLJ	MLJ Environmental
MPSL-MLML	Marine Pollution Studies Laboratory at Moss Landing Marine Laboratories
MQO	Measurement Quality Objective
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PER	Pacific EcoRisk
PIC	Particulate Inorganic Carbon
POC	Particulate Organic Carbon
QAPP	Quality Assurance Project Plan
QC	Quality Control
RPD	Relative Percent Difference
SD	Standard Deviations
SWAMP	State Water Resources Control Board's Surface Water Ambient Monitoring Program

TIC	Total Inorganic Carbon
TPC	Total Particulate Carbon
TPN	Total Particulate Nitrogen
TSS	Total Suspended Solids
USGS	U.S. Geological Survey
USGS CWSC	USGS California Water Science Center
USGS NWQL	USGS National Water Quality Laboratory
USGS OCRL	USGS Organic Chemistry Research Laboratory
WY	Water Year

LIST OF UNITS

°C	degrees Celsius
cfs	cubic feet per second
cm	centimeter
ft	feet
L	liter
m	meter
mg	milligram
mL	milliliter
ng	nanogram
NTU	Nephelometric Turbidity Unit
µg	microgram
µm	micrometer (micron)
µS	microsiemen

INTRODUCTION

BACKGROUND

This report summarizes the Delta Regional Monitoring Program's (DRMP's) sample collection and data verification of Water Year (WY) 2021 data for its Current Use Pesticide (CUP) project. These data represent the second and final year of sampling the Sacramento River and Northeast Delta subregions (see Sampling Locations), and the third year of monitoring under the revised monitoring design approved by the DRMP Steering Committee in 2018.

A revised QAPP was prepared for the DRMP pesticide and toxicity research program and was approved by the DRMP Steering Committee on March 18, 2021. Additional revisions/updates were made based on the review and feedback from the State Board QA Officer. Work going forward will follow the guidelines established in this version of the QAPP and the program design approved in 2018.

ANALYTICAL SCOPE

Water Year 2021 DRMP CUP monitoring includes the sampling and analysis of numerous pesticides, six ancillary parameters, and a single metal. During the sampling for these analytes, field measurements are performed on a suite of water quality parameters. Potential biological impacts of the above analytes are assessed with the performance of five toxicity tests.

The entire DRMP CUP analytical scope appears in **Table 1**.

Table 1. Analytical scope.

MATRIX	ANALYTE/PARAMETER
Samplewater	Current Use Pesticides[1]
Samplewater	Total Suspended Solids
Samplewater	Dissolved Copper
Samplewater	Dissolved Organic Carbon
Samplewater	*Pimephales promelas* (7-day Chronic)
Samplewater	*Ceriodaphnia dubia* (6-8 day Chronic)
Samplewater	*Selenastrum capricornutum* (96-hour Chronic)
Samplewater	*Chironomus dilutus* (10-day Chronic)
Samplewater	*Hyalella azteca* (96-hour Acute)

Matrix	Analyte/Parameter
Samplewater	Dissolved oxygen
Samplewater	pH
Samplewater	Specific conductance
Samplewater	Turbidity
Suspended Sediment	Particulate Organic Carbon
Suspended Sediment	Total Carbon
Suspended Sediment	Total Inorganic Carbon
Suspended Sediment	Total Nitrogen

[1] See appendix **Table C.1** for complete list.

Toxicity Identification Evaluations

Toxicity Identification Evaluations (TIEs) are follow-up toxicity tests recommended by the TIE Subcommittee (a select group of appropriate Pesticides Subcommittee representatives). The toxicity laboratory notifies the TIE Subcommittee by telephone, text message, and email within 24 hours of observation that a sample (or samples) exceeds the TIE trigger (as outlined in the QAPP Appendix I).

Delta RMP TIE testing (as described in the QAPP section 13.2.5) has the primary goal of identifying whether pesticides are causing or contributing to toxic effects. This includes identification (or exclusion) of other factors (i.e., water quality conditions or other toxicants) contributing to reduced survival, growth, or reproduction. A phased TIE approach is used, to the extent possible, to achieve these goals by initially focusing on treatments that identify major classes of contaminants including pesticides. If the cause of an observed effect is not clear after initial TIE testing, or if further detail describing the type or specific toxicant is desired, then the TIE Subcommittee may choose to have the laboratory conduct additional TIE treatments. TIEs are not expected to require dilutions but are expected to use the minimum number of test replicates and organisms per replicate required by the method, unless otherwise determined in consultation with the TIE Subcommittee.

During WY 2021, the TIE Subcommittee became an Advisory Committee of the DRMP Board of Directors and is now referred to as the TIE Advisory Committee.

Delayed Data

A total of 32 environmental samples were analyzed by the United State Geological Survey (USGS) National Water Quality Laboratory (NWQL) for dissolved copper, dissolved organic carbon (DOC), total inorganic carbon (TIC), particulate organic carbon (POC), total particulate carbon (TPC), and total particulate nitrogen (TPN). Associated

results were unavailable during the preparation of this report. To ensure a complete and consistent record of WY 2021, verification of USGS NWQL results will be detailed in a future **Appendix A** to this document.

INVOLVED ORGANIZATIONS

Water Year 2021 DRMP CUP monitoring includes six organizations performing administrative, laboratory, and/or field tasks. Details appear in **Table 2**.

Table 2. Involved organizations.

ORGANIZATION	TASK(S)
Marine Pollution Studies Laboratory (Moss Landing Marine Laboratories)	Data Management, Quality Assurance
MLJ Environmental	Project Management, Data Management, Quality Assurance
Pacific EcoRisk	Toxicity Testing
USGS California Water Science Center	Sample Collection
USGS National Water Quality Laboratory	Sample Analysis
USGS Organic Chemistry Research Laboratory	Sample Analysis

SAMPLING OVERVIEW

Sampling logistics for WY 2021 DRMP CUP monitoring are summarized in **Table 3** and detailed in the sections that follow.

Table 3. Sampling event information for Events 3-6 of Year 3 CUP monitoring taking place in WY 2021.

Event	CEDEN Code	USGS Site Name	USGS Site Number	Latitude	Longitude	Date	Time
3	544LSAC13	SAN JOAQUIN R A BUCKLEY COVE NR STOCKTON CA	375831121223701	37.97528	-121.37694	4/29/21	9:10
3	511ULCABR	ULATIS C A BROWNS RD NR ELMIRA CA	11455261	38.30667	-121.79361	4/28/21	8:25
3	NORT-009	DELTA RMP NORT-009	380720121295401	38.12235	-121.49829	4/29/21	11:25
3	NORT-010	DELTA RMP NORT-010	381612121283901	38.26999	-121.47745	4/28/21	14:25
3	NORT-011	DELTA RMP NORT-011	380845121360201	38.14596	-121.60069	4/29/21	12:55
3	NORT-012	DELTA RMP NORT-012	380722121313101	38.1228	-121.52521	4/29/21	11:55
3	SACR-017	DELTA RMP SACR-017	381627121351901	38.27415	-121.58859	4/28/21	10:45
3	SACR-018	DELTA RMP SACR-018	381423121322401	38.23966	-121.53999	4/28/21	11:45
4	544LSAC13	SAN JOAQUIN R A BUCKLEY COVE NR STOCKTON CA	375831121223701	37.97528	-121.37694	6/16/21	8:35
4	511ULCABR	ULATIS C A BROWNS RD NR ELMIRA CA	11455261	38.30667	-121.79361	6/15/21	8:25
4	NORT-013	DELTA RMP NORT-013	381235121302601	38.20981	-121.50713	6/16/21	11:10
4	NORT-014	DELTA RMP NORT-014	381449121295401	38.24697	-121.49829	6/16/21	12:05
4	NORT-015	DELTA RMP NORT-015	380747121334201	38.12969	-121.56176	6/15/21	11:45
4	NORT-016	DELTA RMP NORT-016	381206121322901	38.20163	-121.54138	6/15/21	13:30

Event	CEDEN Code	USGS Site Name	USGS Site Number	Latitude	Longitude	Date	Time
4	SACR-019	DELTA RMP SACR-019	383431121304201	38.57538	-121.51169	6/16/21	14:15
4	SACR-020	DELTA RMP SACR-020	381105121385301	38.1846	-121.64806	6/15/21	10:00
5	544LSAC13	SAN JOAQUIN R A BUCKLEY COVE NR STOCKTON CA	375831121223701	37.97528	-121.37694	8/11/21	9:20
5	511ULCABR	ULATIS C A BROWNS RD NR ELMIRA CA	11455261	38.30667	-121.79361	8/10/2021	14:25
5	NORT-017	DELTA RMP NORT-017	380834121281301	38.14276	-121.47036	8/11/21	12:05
5	NORT-018	DELTA RMP NORT-018	381008121281301	38.16881	-121.47039	8/11/21	11:25
5	NORT-019	DELTA RMP NORT-019	381710121301101	38.28613	-121.50318	8/10/21	9:35
5	NORT-020	DELTA RMP NORT-020	380751121342701	38.13087	-121.57406	8/11/21	12:50
5	SACR-021	DELTA RMP SACR-021	381837121355501	38.31035	-121.59847	8/10/21	11:45
5	SACR-022	DELTA RMP SACR-022	382451121311701	38.41424	-121.52147	8/10/21	11:00
6	544LSAC13	SAN JOAQUIN R A BUCKLEY COVE NR STOCKTON CA	375831121223701	37.97528	-121.37694	9/14/21	9:20
6	511ULCABR	ULATIS C A BROWNS RD NR ELMIRA CA	11455261	38.30667	-121.79361	9/13/21	8:25
6	NORT-021	DELTA RMP NORT-021	380922121301101	38.15614	-121.50311	9/14/21	11:55
6	NORT-022	DELTA RMP NORT-022	381611121294701	38.26963	-121.49641	9/13/21	12:20
6	NORT-023	DELTA RMP NORT-023	380604121334701	38.10115	-121.56298	9/14/21	13:20
6	NORT-024	DELTA RMP NORT-024	380806121334701	38.13515	-121.5631	9/14/21	12:40
6	SACR-023	DELTA RMP SACR-023	382939121332101	38.49416	-121.55587	9/13/21	14:05
6	SACR-024	DELTA RMP SACR-024	381347121361201	38.2297	-121.60339	9/13/21	10:40

STUDY BACKGROUND

The current monitoring design is focused on understanding pesticide occurrence and toxicity within the Sacramento/San Joaquin Delta by sampling a large number of sites (i.e., 36 per year), selected using a Generalized Random Tessellation Stratified (GRTS) approach. For logistical reasons, this revised design divides the Delta into six sub-regions based on water source, and only two adjacent sub-regions are sampled in any WY (**Figure 1** and **Figure 2**). The driver behind using the GRTS approach is that it generates a random sample of points across the delta and allows statistical analyses that do not violate the major assumption of all statistical tests, and that the samples collected are representative of the entire delta. The DRMP can now do comparisons across regions or over time and be able to state that the Delta is in good or bad condition. For the two sub-regions sampled, one sub-region is sampled completely (i.e., 24 GRTS sites) and the other sub-region is partially sampled (i.e., 12 GRTS sites). The remaining 12 GRTS sites within the partially sampled sub-region are sampled in the following WY.

In addition to the GRTS sites, two Delta input sites sampled during the 2015-2017 DRMP monitoring (i.e., Ulatis Creek at Brown Rd, San Joaquin River at Buckley Cove) continue to be sampled during the current program. It was decided to continue sampling at the two fixed sites to provide long term monitoring data. Additionally, these sites were chosen because they generally had the highest concentrations of pesticides and the most instances of aquatic toxicity of the five sites sampled in 2015-2017.

Under the current monitoring design, samples are collected during six targeted events (i.e., two fall/winter storms, spring runoff, and spring, summer, and fall irrigation period events). Samples are collected once per event at each of the two fixed sites and at six GRTS sites per event. A total of 48 environmental water samples are collected per year (i.e., 24 in one completely sampled sub-region, 12 in the partially sampled sub-region, and 12 samples collected at the fixed sites, **Table 4**).

The rotating sub-regional strategy is designed to complete sampling of the entire Delta over four years of monitoring. The second year of the current monitoring design was scheduled to be completed during WY 2020; however, sampling was paused after the second monitoring event due to a combination of the process to select a new toxicity laboratory and restrictions caused by COVID-19. Events 1 and 2 of the second monitoring year were fully completed during WY 2020 and the remaining sites planned for that year were continued during WY 2021, beginning with Event 3. Therefore, the WY 2021 monitoring described in this report encompasses Events 3-6 of the second year of monitoring under the current study design.

Table 4. Count of sites in each Subregion by WY and event.

WY	Event	Event Type	GRTS Sites Subregion 1	GRTS Sites Subregion 2	GRTS Sites Subregion 3	GRTS Sites Subregion 4	GRTS Sites Subregion 5	GRTS Sites Subregion 6	Fixed Site 1	Fixed Site 2	Total
WY 2019 (Year 1)	Event 1	Storm	4	2	--	--	--	--	1	1	8
	Event 2	Storm	4	2	--	--	--	--	1	1	8
	Event 3	Storm	4	2	--	--	--	--	1	1	8
	Event 4	Irrigation	4	2	--	--	--	--	1	1	8
	Event 5	Irrigation	4	2	--	--	--	--	1	1	8
	Event 6	Irrigation	4	2	--	--	--	--	1	1	8
WY 2020 (Year 2)	Event 1	Storm	--	2	4	--	--	--	1	1	8
	Event 2	Storm	--	2	4	--	--	--	1	1	8
WY 2021 (Year 2)	Event 3 [1]	Runoff	--	2	4	--	--	--	1	1	8
	Event 4	Irrigation	--	2	4	--	--	--	1	1	8
	Event 5	Irrigation	--	2	4	--	--	--	1	1	8
	Event 6	Irrigation	--	2	4	--	--	--	1	1	8
WY 2023 (Year 3)	Event 1	Storm	--	--	--	4	2	--	1	1	8
	Event 2	Storm	--	--	--	4	2	--	1	1	8
	Event 3	Storm	--	--	--	4	2	--	1	1	8
	Event 4	Irrigation	--	--	--	4	2	--	1	1	8
	Event 5	Irrigation	--	--	--	4	2	--	1	1	8
	Event 6	Irrigation	--	--	--	4	2	--	1	1	8
WY 2024 Year 4	Event 1	Storm	--	--	--	--	2	4	1	1	8
	Event 2	Storm	--	--	--	--	2	4	1	1	8
	Event 3	Storm	--	--	--	--	2	4	1	1	8
	Event 4	Irrigation	--	--	--	--	2	4	1	1	8
	Event 5	Irrigation	--	--	--	--	2	4	1	1	8
	Event 6	Irrigation	--	--	--	--	2	4	1	1	8
Total Samples			**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**192**

[1] Samples were collected from subregions 2 and 3 in March 2020 but where not tested for toxicity due to COVID-19 restrictions. Chemical analyses were run on the March 2020 samples; however, all sites scheduled for Event 3 in Year 2 were resampled and analyzed for both chemical constituents and toxicity in March of 2021.

Figure 1. Delta subregions with fixed and GRTS sampling sites in WY 2021.

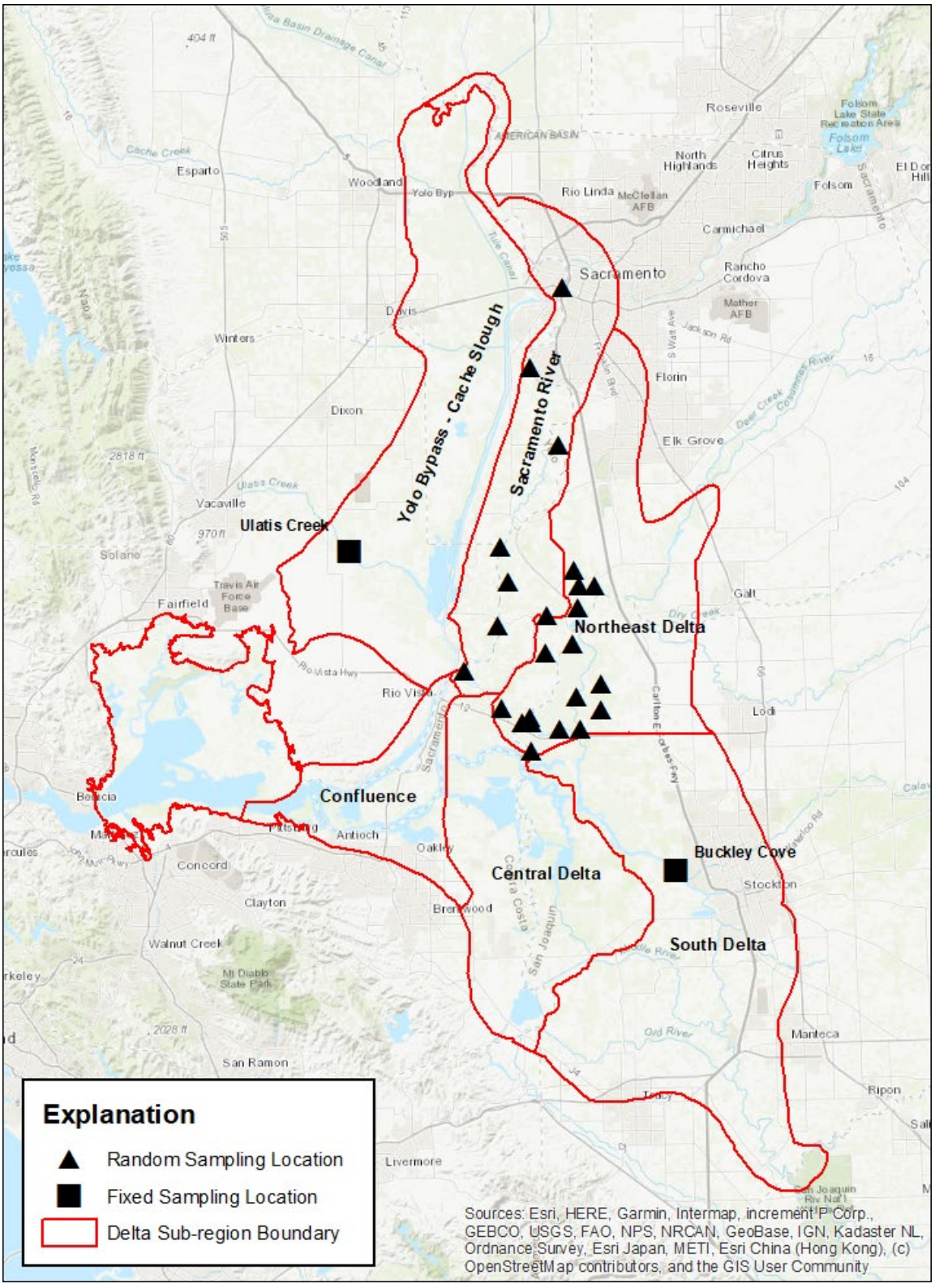
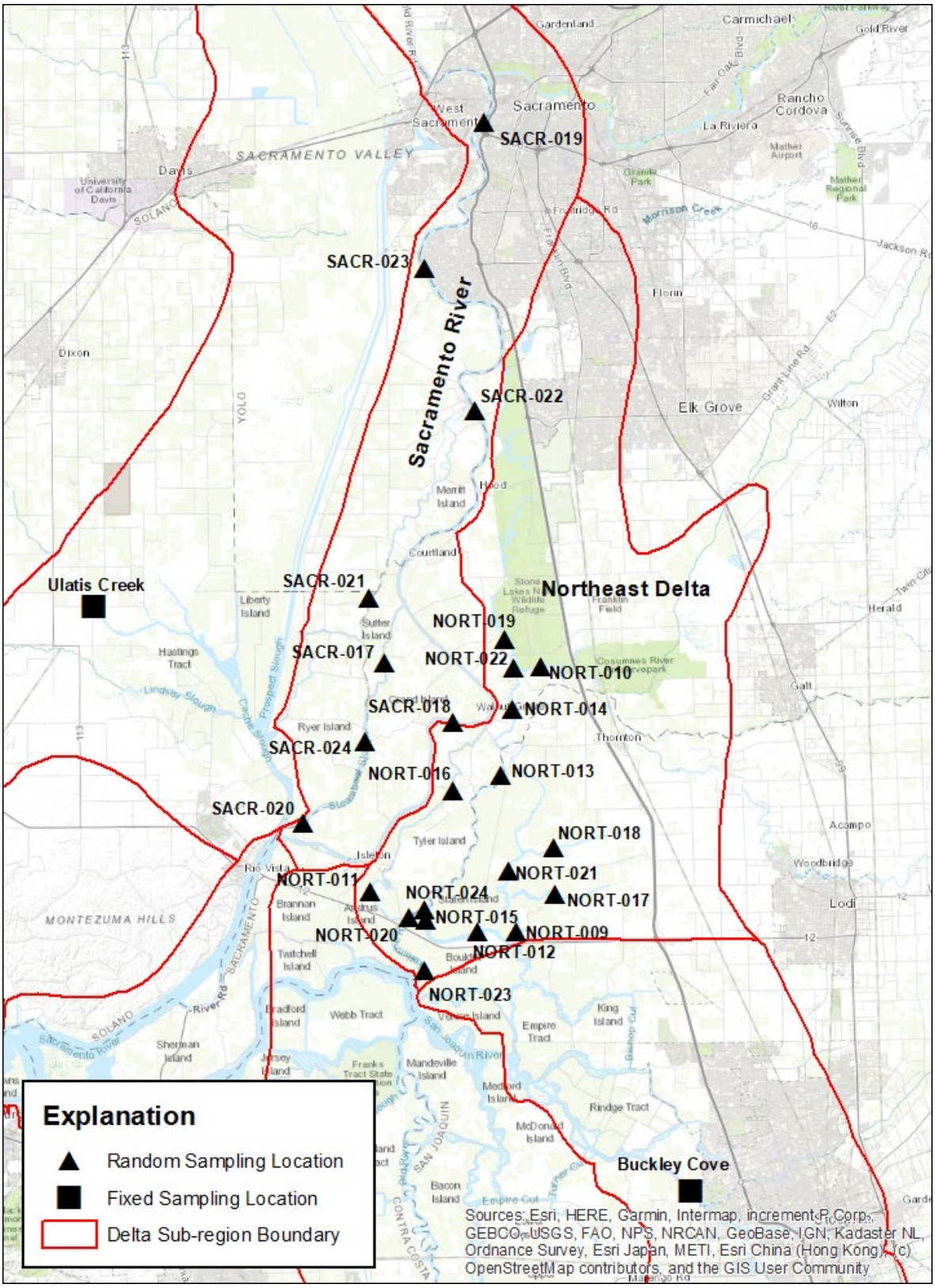


Figure 2. Fixed and GRTS sites sampled in WY 2021 (detailed map).



SAMPLING METHODS

Sampling for Events 3-6 was conducted by personnel from the USGS California Water Science Center (CWSC) at sites shown in **Figure 1** and **Figure 2** and following procedures described in Version 6.4 of the *Delta Regional Monitoring Program Quality Assurance Project Plan for Fiscal Year 2020–2021 Monitoring* (DRMP QAPP). Water samples were collected concurrently for analysis of pesticides, DOC, PIC, POC, TPC, TPN, and copper analyses as well as for multispecies toxicity testing. Monitoring photos taken by field crews during each event are provided in **Appendix B**.

All samples were collected as grab samples and all sites were accessed by boat with the exception of the fixed sampling station, Ulatis Creek at Browns Road. The study design approved by the DRMP called for grab samples because of the large volume of water required for collecting toxicity and pesticide samples concurrently. Samples were collected between the high and low tide, or on the ebb tide (for tidally influenced sites) by submerging narrow-mouthed bottles at mid-channel to a depth of 0.5 meters (m).

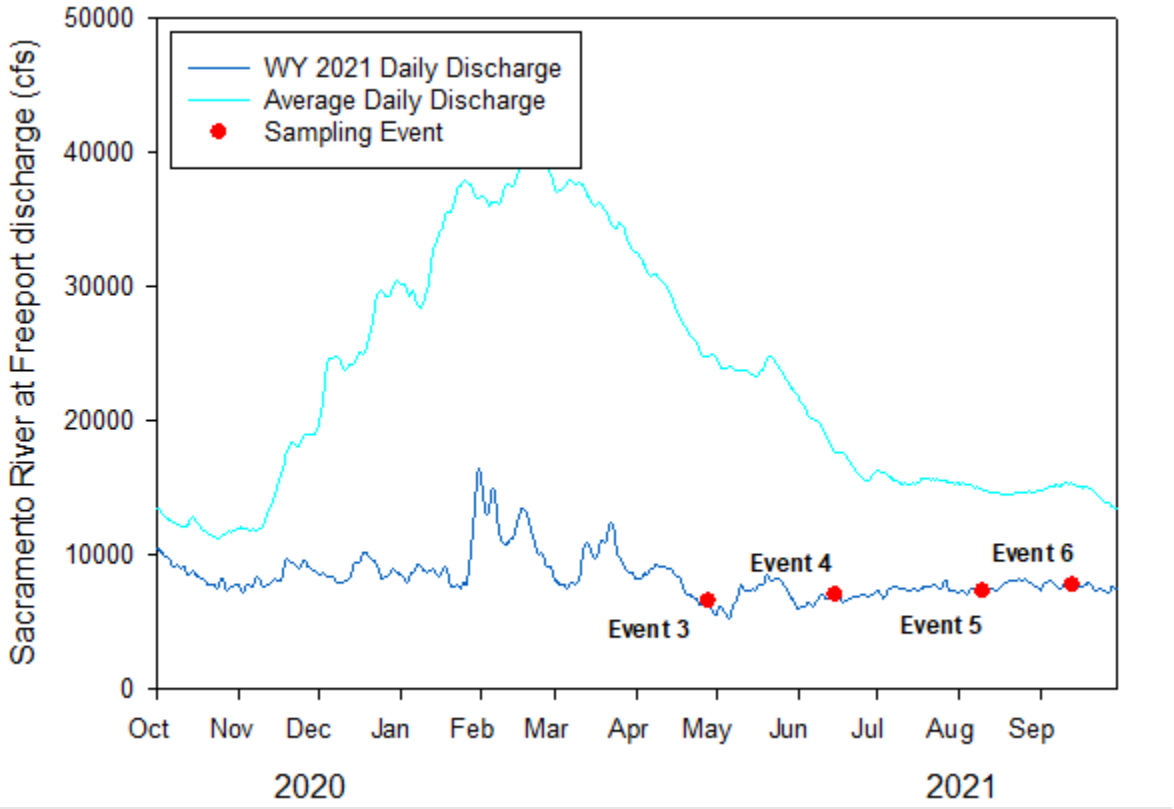
Pesticide samples were collected in pre-cleaned, baked amber-glass bottles and transported on ice to the USGS Organic Chemistry Research Laboratory (USGS OCRL) in Sacramento, California. Samples for analysis at the USGS NWQL (i.e., copper, DOC, POC, PIC, TPC, and TPN) were collected in Teflon bottles, processed at the USGS CWSC, and shipped on ice to the USGS NWQL. Sample collection and handling methods are described in more detail in De Parsia and others (2018 and 2019) and in the Delta RMP QAPP (2021). Water samples for toxicity analyses were collected in pre-cleaned, 4-liter, amber-glass bottles provided by Pacific EcoRisk (PER). Bottles were triple rinsed with native water on-site before sample collection. Ten bottles were collected at each site and transported on ice to the USGS CWSC where they were picked up by a PER courier at the end of each sampling day.

FIELD ACTIVITIES

Event 3

This was the first sampling event following the discontinuance of sampling in March 2020. Water year 2021 was characterized by below normal precipitation. Little to no rain occurred in the Sacramento and Delta region in either March or April 2021. As a result, Event 3 of WY 2021 can be considered a dry season/spring runoff event. Flow on area rivers was below normal (**Figure 3**).

Figure 3. Water year 2021 discharge for the Sacramento River at Freeport; sampling event dates and Sacramento River at Freeport Average Discharge.



At the time of sampling, some agricultural irrigation had been occurring for permanent crops like nuts and stone fruits, but most row crops and rice fields were still in the planting/preparation stage. A very minor precipitation event occurred on April 25, 2021, with precipitation totals in the Sacramento and Delta area totaling roughly 0.1" or less.

Sampling occurred over a two-day span from April 28th to April 29th. On April 28, 2021 water samples were collected from Ulatis Creek by wading at 08:25. It was noted that the low-flow channel had switched from the left bank and center of the channel to the right bank and center of the channel as it had been in previous years (**Figure B.1**). Samples were collected by hand dipping bottles in the center of the channel at 0.3-m depth.

Following sampling at Ulatis Creek, the full sampling crew met at the Rio Vista public boat ramp, launched the sampling boat, and proceeded on an approximately 30-mi loop course to collect samples at SACR-017 and SACR-018. Samples were collected at 10:45 at SACR-017 on Steamboat Slough and at 11:45 at SACR-018 on the Sacramento River (**Figure B.2**). The crew then returned to Rio Vista, pulled the boat and moved to Wimpy's Marina off Walnut Grove Road in Walnut Grove. Sampling of site NORT-010 on Lost Slough occurred at 14:25 (**Figure B.3**). Conditions were clear and warm with no

precipitation. Samples were kept on wet ice and transported to the USGS CWSC at the Sacramento State campus. Toxicity samples were picked up by PER personnel at approximately 18:00.

On April 29, 2021 USGS personnel collected samples from the San Joaquin River near Buckley Cove, NORT-009, NORT-012, and NORT-011. The boat was launched from Ladd's Marina in Stockton at approximately 09:00 and samples were taken at Buckley Cove at 09:10. A toxicity duplicate sample was collected at this site. The boat was then relaunched from B&W Resort Marina in Isleton to better access the remaining sites. NORT-009 was sampled at 11:25 on South Mokelumne River. The exact sampling location could not be reached due to blockage by aquatic vegetation (**Figure B.4**). This vegetation looked dead, and it is unknown if it had recently been sprayed with herbicide or if it was killed by winter temperatures. Samples were collected approximately 40 m northwest of the target location. It was also noted while collecting samples at this site that two, spray-boom equipped helicopters flew overhead (less than 0.25 mi away). No spray was noted coming from the equipment, and the helicopters looked to be transiting from one location to another rather than making spraying passes. Additionally, agricultural disking was taking place on islands adjacent to the site and large volumes of dust were blowing around in the immediate area.

NORT-012 was sampled at 11:55 on the South Mokelumne River (**Figure B.5**). Again, agricultural disking was taking place on islands adjacent to the site and some dust was blowing around in the immediate area. NORT-011 was sampled at 12:55 on Georgiana Slough (**Figure B.6**). This site is close to numerous riverside residences and boat docks. All sites were sampled within acceptable distances from their respective target locations. Conditions were sunny and very warm. Samples were kept on wet ice and transported to the USGS CWSC at Sacramento State campus. Toxicity samples were picked up by PER personnel at approximately 16:30.

Event 4

This was the second sampling event of WY 2021 and is considered Event 4 of the second year of sampling under the current monitoring design. Samples were collected on June 15th and 16th. This is considered an irrigation runoff sampling event. On June 15, 2021, water samples were collected from Ulatis Creek by wading at 08:35 (**Figure B.7**). It was noted that flows seemed to be slightly higher than during the April sampling event. It was also noted that the water had a faint smell of treated wastewater and the water appeared cloudy. Dissolved oxygen (DO) was measured at 3.6 mg/L (**Table 15**). Samples were collected by hand dipping bottles in the center of the channel at a depth of 0.1 m.

Following sampling at Ulatis Creek, the full sampling crew met at the Rio Vista public boat ramp, launched the sampling boat, and proceeded to sample SACR-020. Samples were collected at 10:00 on Steamboat Slough near the confluence with Cache Slough (**Figure B.8**). The crew then returned to Rio Vista, pulled the boat, and moved to B&W Marina off Hwy 12. Sampling of site NORT-015 on the South Mokelumne River occurred at 11:45 (**Figure B.9**) and at NORT-016 on Georgianna Slough at 13:30 (**Figure B.10**). Conditions were clear and warm with no precipitation. Samples were kept on wet ice and transported to the USGS CWSC at the Sacramento State campus. Toxicity samples were picked up by PER personnel at approximately 17:00.

On June 16, 2021, USGS personnel collected samples from the San Joaquin River near Buckley Cove, NORT-013, NORT-014, and SACR-019. The boat was launched from Ladd's Marina in Stockton at approximately 08:25 and samples were taken at Buckley Cove at 08:35 (**Figure B.11**). The boat was then pulled and relaunched from Wimpy's Marina in near Walnut Grove. NORT-013 was sampled at 11:10 on North Mokelumne River (**Figure B.12**). It was noted that agricultural harvesting or roadside mowing was taking place adjacent to the sampling site and quite a bit of grass/fine vegetation debris was blowing onto the surface of the water during sample collection.

NORT-014 was sampled at 12:05 on Snodgrass Slough (**Figure B.13**). The boat and crew then returned to the marina, pulled the boat and drove to Miller Park in Sacramento. The boat was launched from Miller Park at approximately 14:00. Samples were collected at SACR-019 at 14:15 (**Figure B.14**). At this point field personnel realized that the site names for SACR-020 and SACR-019 had been switched during the previous day's sampling. PER personnel were immediately contacted by phone and notified of the mistake in bottle labeling. All sites were sampled within acceptable distances from their respective target locations. Conditions were sunny and very warm. Samples were kept on wet ice and transported to the USGS CWSC at Sacramento State campus. Toxicity samples were picked up by PER personnel at approximately 16:30.

Event 5

This was the third sampling event of WY 2021 and is considered Event 5 of the second year of sampling under the current monitoring design. Samples were collected August 10th and 11th. This is considered an irrigation runoff sampling event. Flows on area rivers were much below normal (**Figure 3**). Some agricultural land (e.g., rice) was fallowed in the Sacramento Valley due to the drought, resulting in lower-than-normal flows in agricultural drainage water influenced waterways.

On August 10, 2021, USGS personnel launched the boat at New Hope Landing Marina near Walnut Grove and proceeded to site NORT-019 on Snodgrass Slough (**Figure B.15**).

Sampling took place at 09:35 approximately 30 m west of the target coordinates due to the presence of abundant aquatic vegetation at the target coordinates. The presence of bright green algae was also noted at the site and personnel donned protective equipment (i.e., shoulder length gloves, face masks, and eye protection) during sampling (**Figure B.16**).

The crew then traveled through the Delta Cross Channel into the Sacramento River and proceeded approximately 15 miles north to site SACR-022 located on the Sacramento River at Clarksburg. It was noted that a barge and crane were conducting levee excavation work approximately 400 m upstream and that some woody debris was present at the site during sampling (**Figure B.17**). Samples were collected at 11:00 at the target coordinates. The crew then motored back south, entered Sutter Slough, and proceeded to site SACR-021 where samples were collected at the target coordinates at 11:35 (**Figure B. 18**). The crew then returned to New Hope Landing Marina.

At this point Jim Orlando and Matt Uychutin returned with the boat and samples collected so far to Sacramento while Matt de Parsia and Elisabeth Newman proceeded to Ulatis Creek to collect a sample there. Conditions at Ulatis Creek were similar to those encountered during the June sampling event with low water and the presence of much aquatic vegetation. Samples were collected at 14:25 by wading and hand dipping sample bottles (**Figure B.19**). It was noted that as during the previous sampling event, DO saturation was measured at a very low level (16.5%). Samples were kept on wet ice and transported to the USGS CWSC at the Sacramento State campus. Toxicity samples were picked up by PER personnel at approximately 17:00.

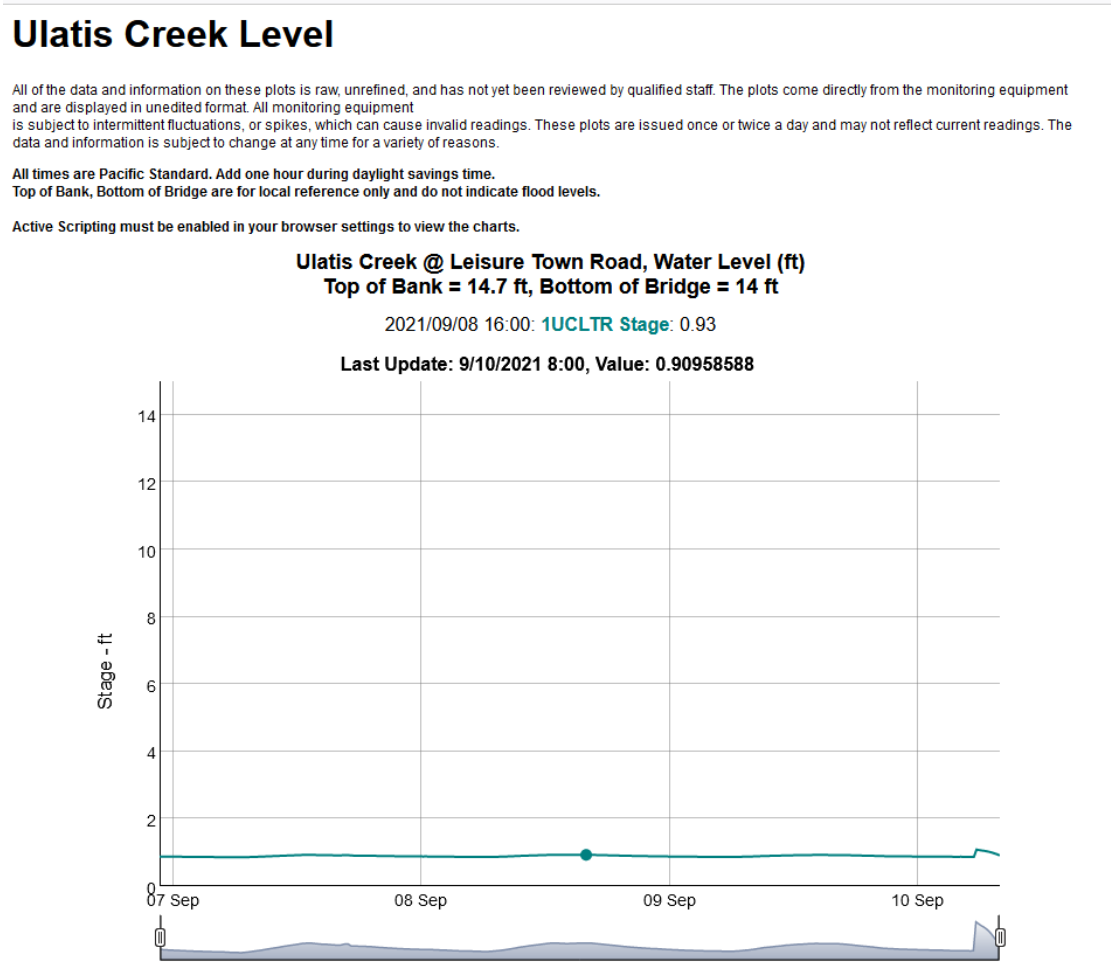
On August 11, 2021, USGS personnel collected samples from the San Joaquin River near Buckley Cove, NORT-017, NORT-08, and NORT-020. The boat was launched from Ladd's Marina in Stockton at approximately 09:00 and samples were taken at Buckley Cove at 09:20 (**Figure B. 20**). The presence of bright green algae was noted throughout the water column at the site and personnel donned protective equipment. The boat was then pulled and relaunched from B&W Marina. NORT-018 was sampled at 11:25 on Hog Slough (**Figure B.21**). It was noted that agricultural drain water was being pumped into the waterway approximately 500 m west of the sampling site (**Figure B.22**).

NORT-017 was sampled at 12:05 on Sycamore Slough at the target coordinates. It was noted that aquatic vegetation in both Hog Slough and Sycamore Slough looked wilted/browned in spots and was likely recently sprayed with herbicides (**Figure B.23**). The crew then proceeded to site NORT-020 at the confluence of the North and South Mokelumne Rivers. Samples (including a toxicity field duplicate) were collected at 12:50 (**Figure B.24**). Samples were kept on wet ice and transported to the USGS CWSC at the Sacramento State campus. Toxicity samples were picked up by PER personnel at approximately 17:00.

Event 6

This was the fourth sampling event of WY 2021 and is considered Event 6 of the second year of sampling under the current monitoring design. Samples were collected September 13th and 14th. This is considered an irrigation runoff sampling event. A very minor rainfall event occurred on September 10th and 11th which produced generally less than 0.1" of at most Valley locations. Despite the rainfall no flow occurred on Arcade Creek in Sacramento and only a very minor rise in stage occurred on Ulatis Creek (see **Figure** 4).

Figure 4. Stage at Ulatis Creek during minor rainfall event on September 10 and 11, 2021.



On September 13, 2021, USGS personnel sampled Ulatis Creek by wading at 08:25. Flows were low and much of the channel was choked with aquatic vegetation (**Figure B.25**). Following sampling at Ulatis the full sampling crew met up at the Hogback Island Boat Launch on Steamboat Slough. While assembling at the boat ramp Jim Orlando spoke with Sacramento County Sheriff's deputies who were conducting several cannabis

eradication operations by helicopter in the area (**Figure B.26**). Deputies reported that there were numerous grow sites in the area on farmed islands, on the channel side of local levees, as well as on in-channel islands. They also reported seeing used pesticide containers at these sites on a routine basis. The boat was launched at approximately 10:00 and samples were collected at SACR-024 at 10:40 (**Figure B.27**). The crew then pulled the boat and relaunched it from New Hope Landing Marina near Walnut Grove. Samples were collected from NORT-022 on Snodgrass Slough at 12:20 (**Figure B.28**). The crew then pulled the boat once again and transported it to Garcia Bend Park in Sacramento where it was relaunched. Sampling occurred at SACR-023 at 14:05 (**Figure B.29**). Samples were kept on wet ice and transported to the USGS CWSC at the Sacramento State campus. Toxicity samples were picked up by PER personnel at approximately 17:00.

On September 14, 2021, USGS personnel collected samples from the San Joaquin River near Buckley Cove, NORT-021, NORT-23, and NORT-024. The boat was launched from Ladd's Marina in Stockton at approximately 09:00 and samples were taken at Buckley Cove at 09:20 (**Figure B.30**). The boat was then pulled and relaunched from B&W Marina. NORT-021 was sampled at 11:55 on the South Mokelumne River (**Figure B.31**). NORT-024 was sampled at 12:40 on the North Mokelumne River near the confluence with the South Mokelumne River (**Figure B.32**). The crew then proceeded to site NORT-023 on the Mokelumne River near the San Joaquin River confluence. Samples were collected at 13:20 (**Figure B.33**). All samples were collected at the target coordinates. Samples were kept on wet ice and transported to the USGS CWSC at the Sacramento State campus. Toxicity samples were picked up by PER personnel at approximately 17:00.

ANALYTICAL OVERVIEW

FIELD MEASUREMENTS

During each of the four sampling events described in the **Sampling Overview**, the USGS CWSC took basic water-quality measurements (i.e., water temperature, specific conductance, DO, pH, and turbidity) at a depth of 0.5 m using a YSI EXO multi-parameter meter equipped with conductivity/temperature, DO, pH, and turbidity sensors. The meter was calibrated using appropriate procedures and standards before each sampling event as described in the USGS National Field Manual (U.S. Geological Survey, variously dated). Basic water-quality parameter data are shown in **Table 15**.

ANALYTICAL LABORATORY METHODS

The preparation and analytical methods applied to DRMP CUP samples are identified in **Table 5**.

Table 5. Analytical laboratory methods.

Matrix	Analyte	Laboratory	Preparation Method	Analytical Method
Samplewater (<0.7 µm)	Dissolved Pesticides	USGS OCRL	USGS-OCRL LC/MS/MS Sanders 2018	USGS-OCRL LC/MS/MS Sanders 2018
Samplewater, Particulate (>0.70 µm)	Particulate Pesticides	USGS OCRL	USGS-OCRL GC/MS Sanders 2018	USGS-OCRL GC/MS Sanders 2018
Samplewater, Particulate (>0.70 µm)	Total Suspended Solids	USGS OCRL	None	EPA 160.2
Samplewater	Dissolved Copper	USGS NWQL	USGS TM-5-B1	USGS TM-5-B1
Samplewater	Dissolved Organic Carbon	USGS NWQL	None	SM 5310B
Suspended Sediment	Particulate Organic Carbon	USGS NWQL	None	EPA 440.0
Suspended Sediment	Total Particulate Nitrogen	USGS NWQL	None	EPA 440.0
Suspended Sediment	Total Particulate Carbon	USGS NWQL	None	EPA 440.0
Suspended Sediment	Total Inorganic Carbon	USGS NWQL	None	EPA 440.0

Matrix	Analyte	Laboratory	Preparation Method	Analytical Method
Samplewater	*Pimephales promelas* (Chronic)	PER	None	EPA 821/R-02-013
Samplewater	*Ceriodaphnia dubia* (Chronic)	PER	None	EPA 821/R-02-013
Samplewater	*Selenastrum capricornutum* (Chronic)	PER	None	EPA 821/R-02-013
Samplewater	*Chironomus dilutus* (Chronic)	PER	None	EPA 821/R-02-013M
Samplewater	*Hyalella azteca* (Acute)	PER	None	EPA 821/R-02-012M

Analytical Methods – USGS OCRL

Pesticide concentrations in surface water were measured by the USGS OCRL using two methods: (1) liquid chromatography/tandem mass spectrometry (LC/MS/MS) and (2) gas chromatography/mass spectrometry (GC/MS). Thirty-five compounds were analyzed using the LC/MS/MS method described in Hladik and Calhoun (2012) and 127 compounds were analyzed using the GC/MS methods described in Hladik and others (2008, 2009) and Hladik and McWayne (2012). Pesticide concentrations for 127 compounds in suspended sediment were measured by the OCRL using the GC/MS methods described in Hladik and others (2008, 2009) and Hladik and McWayne (2012). Individual constituents and the associated methods are provided in **Appendix C**. More detailed information on the sample processing and analytical methods employed along with method detection limits can be found in De Parsia and others (2018 and 2019).

Analytical Methods – USGS NWQL

Dissolved organic carbon, PIC, POC, TPC, TPN and copper analyses were performed by the USGS NWQL. Dissolved organic carbon was analyzed at the NWQL using the method described in Open-File Report 92–480 (Brenton and Arnett, 1993). Particulate inorganic carbon, POC, TPC, and TPN were analyzed at the NWQL using U.S. Environmental Protection Agency (EPA) method 440.0 (Zimmermann and others, 1997). Copper was analyzed at the NWQL using the method described by Garbarino and others (2006).

Toxicity Methods – PER

Toxicity testing was conducted on five test organisms by PER according to the methodology defined by the US EPA. Chronic toxicity testing for *Ceriodaphnia dubia, Pimephales promelas,* and *Selenastrum capricornutum* followed the protocols outlined in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA-821-R-02-013, 2002). *Chironomus dilutus* water-only testing protocols and MQOs are defined by SWAMP. Organism responses to sample water were evaluated at various endpoints, including survival and growth (measured as ash-free dry weight per surviving individual) for *C. dilutus*, survival and reproduction (measured as number of young per surviving female) for *C. dubia*, survival and growth (measured as biomass as wight per original individual) for *P. promelas*, and growth (measured as total cell count) for *S. capricornutum*.

Acute 96-hour toxicity testing for *Hyalella azteca* followed acute protocols and MQOs outlined in SWAMP Guidance and *Methods for Measuring Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA 821/R-02-012, 2002). *H. azteca* was conducted at 23° C in accordance with SWAMP Guidance. The response of *H. azteca* was evaluated as the survival of individuals.

DATA VERIFICATION OVERVIEW

VERIFICATION PROCESS

The US EPA defines data verification as the process of evaluating the completeness, correctness, and conformance/compliance of a specific data set against the method, procedural, or contractual specifications. Verification of DRMP CUP data was performed by MLJ Environmental (MLJ) and the Marine Pollution Studies Laboratory at Moss Landing Marine Laboratories (MPSL-MLML) based on the sample handling requirements and measurement quality objectives (MQOs) of the DRMP QAPP. Verification of instrument tuning, calibration standards, calibration verifications, and internal standards were the responsibility of the submitting laboratory.

Initial data verification by MLJ staff was conducted as individual electronic data deliverables (EDDs) received by the laboratories were processed and uploaded into the Central Valley Regional Data Center (CV RDC). These data processing steps occurred according to the procedures outlined in the DRMP QAPP. All project data underwent a final verification review by MPSL-MLML staff as a part of the data finalization process, at which point all verified data were assigned a classification and the corresponding California Environmental Data Exchange Network (CEDEN) compliance code described in the following sections.

Compliant

Data classified as “Compliant” meet all requirements specified in the DRMP QAPP. These data are considered usable for their intended purpose without additional assessment.

Qualified

Data classified as “Qualified” do not meet one or more of the requirements specified in the DRMP QAPP. These data are considered usable for their intended purpose following an additional assessment to determine the scope and impact of the deficiency.

Estimated

Data classified as “Estimated” (i.e., EPA “J” flag) are assigned to data batches and sample results that are not considered quantifiable.

Screening

Data classified as “Screening” are considered non-quantitative and may or may not meet the minimum requirements specified in the DRMP QAPP. These data may not be usable for their intended purpose and require additional assessment.

Rejected

Data classified as “Rejected” do not meet the minimum requirements specified in the DRMP QAPP. These data are not considered usable for their intended purpose.

Not Applicable

Data classified as “Not Applicable” were not verified since there were no DRMP QAPP requirements for the specific parameter (e.g., oxygen saturation) or a failure was reported and could not be verified.

Verified Datasets

This report details the above verification process as applied to the datasets appearing in **Table 6**. The findings of the data verification process are outlined in the sections below. A complete summary of the completeness and quality control (QC) sample acceptability for each analysis performed during WY 2021 is provided in **Appendix D**.

Table 6. Verified datasets associated with WY 2021 monitoring.

Lab	Analytical Category	Matrix	Datasets Produced	Datasets Reviewed	Reviewed Dataset (Batch) IDs
USGS OCRL	Pesticides	Samplewater, Particulate (>0.70 µm)	4	4	USGS-OCRL_DRMP _CUP_1155_W_ GCMS; USGS-OCRL_DRMP_CUP_1167_W GCMS
	Pesticides	Samplewater (<0.7 µm)	4	4	USGS-OCRL_DRMP_CUP_1156_W_ LCMSMS; USGS-OCRL_DRMP_CUP_1166_ W_LCMSMS
	Total Suspended Solids	Samplewater, Particulate (>0.70 µm)	4	4	USGS-OCRL_DRMP_CUP_4292021_4302021_W_ TSS; USGS-OCRL_DRMP_CUP_6162021_6172021_W_ TSS
PER	*Pimephales promelas* (Chronic)	Samplewater	8	8	PER_DRMP_CUP_0421PP_C1_W_TOX; PER_DRMP_CUP_0421PP_C2_W_TOX; PER_DRMP_CUP_0621PP_C1_W_TOX; PER_DRMP_CUP_0621PP_C2_W_TOX; PER_DRMP_CUP_0821PP_C1_W_TOX; PER_DRMP_CUP_0821PP_C2_W_TOX; PER_DRMP_CUP_0921PP_C1_W_TOX; PER_DRMP_CUP_0921PP_C2_W_TOX
	Ceridodaphnia dubia (Chronic)	Samplewater	8	8	PER_DRMP_CUP_0421CD_C1_W_TOX; PER_DRMP_CUP_0421CD_C2_W_TOX; PER_DRMP_CUP_0621CD_C1_W_TOX; PER_DRMP_CUP_0621CD_C2_W_TOX; PER_DRMP_CUP_0821CD_C1_W_TOX; PER_DRMP_CUP_0821CD_C2_W_TOX; PER_DRMP_CUP_0921CD_C1_W_TOX; PER_DRMP_CUP_0921CD_C2_W_TOX

Lab	Analytical Category	Matrix	Datasets Produced	Datasets Reviewed	Reviewed Dataset (Batch) IDs
	Selenastrum capricornutum (Chronic)	Samplewater	8	8	PER_DRMP_CUP_0421SC_C1_W_TOX; PER_DRMP_CUP_0421SC_C2_W_TOX; PER_DRMP_CUP_0621SC_C1_W_TOX; PER_DRMP_CUP_0621SC_C2_W_TOX; PER_DRMP_CUP_0821SC_C1_W_TOX; PER_DRMP_CUP_0821SC_C2_W_TOX; PER_DRMP_CUP_0921SC_C1_W_TOX; PER_DRMP_CUP_0921SC_C2_W_TOX
	Chironomus dilutus (Chronic)	Samplewater	8	8	PER_DRMP_CUP_0421CHD_C1_W_TOX; PER_DRMP_CUP_0421CHD _C2_W_TOX; PER_DRMP_CUP_0621CHD _C1_W_TOX; PER_DRMP_CUP_0621CHD_C2_W_TOX; PER_DRMP_CUP_0821CHD_C1_W_TOX; PER_DRMP_CUP_0821CHD_C2_W_TOX; PER_DRMP_CUP_0921CHD_C1_W_TOX; PER_DRMP_CUP_0921CHD_C2_W_TOX
	Hyalella azteca (Acute)	Samplewater	8	8	PER_DRMP_CUP_0421HA_C1_W_TOX; PER_DRMP_CUP_0421HA_C2_W_TOX; PER_DRMP_CUP_0621HA_C1_W_TOX; PER_DRMP_CUP_0621HA_C2_W_TOX; PER_DRMP_CUP_0821HA_C1_W_TOX; PER_DRMP_CUP_0821HA_C2_W_TOX; PER_DRMP_CUP_0921HA_C1_W_TOX; PER_DRMP_CUP_0921HA_C2_W_TOX

DATA VERIFICATION: SAMPLE HANDLING

During data verification, storage and holding times of DRMP CUP samples were evaluated to ensure the integrity of the target analyte(s) in each matrix. For consistency with the State Water Resources Control Board's Surface Water Ambient Monitoring Program (SWAMP) and the Code of Federal Regulations, Title 40 *Protection of the Environment*, Section 136 *Guidelines Establishing Test Procedures for the Analysis of Pollutants*, DRMP holding times are defined as follows:

- *Pre-Preservation/Extraction*: Required holding times for sample preservation or extraction begin at the time of sample collection and conclude when the sample is preserved or extracted, respectively.
- *Pre-Analysis*: Required holding times for sample analysis begin either at the time of sample collection, filtration or extraction and conclude when sample analysis is completed.

In WY 2021, 32 DRMP CUP samples were verified against the sample handling requirements in **Table 7**. 100% of verified samples met these DRMP CUP requirements.

Table 7. Sample handling requirements defined in the DRMP QAPP.

Parameter Group	Pre-Preservation/Extraction		Pre-Analysis	
	Storage	Holding Time	Holding Time	Storage
Dissolved Organic Carbon (Water)	0 to 6°C in dark	Filtration within 24 hours of collection	DOC: 30 days/ POC: 100 days	0 - 6°C in dark
Total Suspended Solids (Water)	4 ±2°C in dark	Cool to 4 ±2°C	7 days	4 ±2°C
Copper (Dissolved)	0 to 6°C in dark	Filter in the field as soon as possible after collection	180 days	0 - 6°C in dark
Pesticides (Dissolved)	0 to 6°C in dark	Extract within 48 hours of collection	Not to exceed 90 days	≤ −20°C in dark
Pesticides (Particulate)	0 to 6°C in dark	Extract within 48 hours of collection	Not to exceed 180 days	≤ −20°C in dark
Aquatic Toxicity Tests	0 to 6°C in dark	Initiate Test within 48 hours of sample collection	NA	NA

DATA VERIFICATION: USGS ORGANIC CHEMISTRY RESEARCH LABORATORY

DRMP CUP chemistry data verification assesses QC samples associated with contamination, precision, and accuracy. For consistency with SWAMP, QC sample definitions are based on the January 2022 *Surface Water Ambient Monitoring Program Quality Assurance Program Plan* (SWAMP QAPrP).

Contamination

For USGS OCRL's pesticide and total suspended solids (TSS) analyses, contamination is assessed with the analysis of field blanks and laboratory blanks. Associated data verification results are detailed below.

Field Blanks

A field blank is a sample of analyte-free media that is carried to the sampling site, exposed to the sampling conditions, returned to the laboratory, and treated as a routine environmental sample. Preservatives, if any, are added to the sample container in the same manner as the environmental sample. The field blank matrix should be comparable to the sample of interest. This blank is used to provide information about contaminants that may be introduced during sample collection, storage, and transport.

For WY 2021 DRMP CUP monitoring, field blanks were collected for pesticide and TSS analyses. Four pesticide (i.e., two for analysis by GC/MS and two for analysis by LC/MS/MS) and two TSS field blanks were analyzed. 100% of these results met the DRMP MQO by being below the method detection limit (MDL).

Laboratory Blanks

A laboratory blank is free from the target analyte(s) and is used to represent the environmental sample matrix as closely as possible. The laboratory blank is processed simultaneously with and under the same conditions and steps of the analytical procedures (e.g., including exposure to all glassware, equipment, solvents, reagents, labeled compounds, internal standards, and surrogates that are used with samples) as all samples in the analytical batch (including other QC samples). The laboratory blank is used to determine if target analytes or interferences are present in the laboratory environment, reagents, or instruments. Results of laboratory blanks provide a measurement of bias introduced by the analytical procedure.

For WY 2021 DRMP CUP monitoring, laboratory blanks were prepared and analyzed for all pesticide and TSS batches. Four TSS and eight pesticide laboratory blanks were analyzed at the required frequency of one per 20 samples or per batch (whichever is more frequent). 100% of these results met the DRMP MQO by being below the MDL.

Precision

For USGS OCRL's DRMP CUP analyses, precision is studied with the analysis of field duplicates, laboratory duplicates, and matrix spike (MS) duplicates (MSDs). Associated data verification results are detailed below.

Field Duplicates

A field duplicate is an independent sample that is collected as close as possible to the same point in space, time, and collection methodology as the field sample.

For WY 2021 DRMP CUP monitoring, field duplicates collected and analyzed for pesticides and TSS appear in **Table 8**.

Table 8. Field duplicates.

Duplicate ID	Sample Date	Analyte
544LSAC13	9/14/2021	Total Suspended Solids Pesticides by GC/MS
Nort-012	4/29/2021	Pesticides by LCMSMS
Nort-013	6/16/2021	Total Suspended Solids Pesticides by GC/MS
Nort-017	8/11/2021	Pesticides by LCMSMS

99% of these results met the DRMP MQO by having a relative percent difference (RPD) <25% (n/a if concentration of either sample < MDL). Analyses resulting in qualification appear in **Table 9**.

Table 9. Field duplicate qualification.

Dataset ID	Duplicate ID	Analyte	Matrix	Sample Result	Duplicate Result	RPD	Project Qualifier
USGS-OCRL_DRMP_CUP_6162021_6172021_W_TSS	Nort-013	Total Suspended Solids	Samplewater, Particulate (>0.70 µm)	6.3	4.8	27	Qualified

Laboratory Duplicates

A laboratory duplicate is an analysis or measurement of the target analyte(s) performed identically on two sub-samples of the same sample, usually taken from the same container. The results from laboratory duplicate analyses are used to evaluate analytical or measurement precision, and include variability associated with sub-sampling and the matrix (not the precision of field sampling, preservation, or storage internal to the laboratory).

For WY 2021 DRMP CUP monitoring, eight pesticide laboratory duplicates were analyzed at the required frequency of one per 20 samples or per batch (whichever is more frequent). 100% of these results met the DRMP MQO by having an RPD <25% (n/a if concentration of either sample < MDL).

Matrix Spike Duplicates

An MSD is prepared with an MS. Both the MS and MSD samples are analyzed exactly like an environmental sample within the lab batch. The purpose of analyzing the MS and MSD samples is to determine whether the sample matrix contributes bias to the analytical results, and to measure precision of the duplicate analysis.

For WY 2021 DRMP CUP monitoring, four matrix spike duplicate pairs were prepared and analyzed for pesticides at the required frequency of one per 20 samples or per batch (whichever is more frequent). 100% of these results met the DRMP MQO by having an RPD <25%.

Accuracy

For USGS OCRL's DRMP pesticide analyses, accuracy is studied with the analysis of MSs, laboratory control samples (LCSs), and surrogates. Associated data verification results are detailed below.

Matrix Spikes

An MS is a sample prepared by adding a known amount of the target analyte to an environmental sample in order to increase the concentration of the target analyte. The MS is used to determine the effect of the matrix on a method's recovery efficiency and is a measure of accuracy. The MS is analyzed exactly like an environmental sample within the lab batch. The purpose of analyzing the MS is to determine whether the sample matrix contributes bias to the analytical results.

For WY 2021 DRMP CUP monitoring, eight matrix spikes (i.e., four matrix spike duplicate pairs) were prepared and analyzed for pesticides at the required frequency of 1 per 20 samples. 100% of these results met the 70-130% DRMP recovery MQO.

Laboratory Control Samples

An LCS is a sample matrix representative of the environmental sample (e.g., water, sand) that is prepared in the laboratory and is free from the analytes of interest. The LCS is spiked with verified amounts of analytes or a material containing known and verified amounts of analytes. It is either used to establish intra-laboratory or analyst-specific precision and bias, or to assess the performance of a portion of the measurement system.

For DRMP CUP monitoring in WY 2021, eight LCSs were prepared and analyzed for all pesticide batches at the required frequency of one per 20 samples or per batch (whichever is more frequent). 100% of these results met the 70-130% DRMP recovery MQO.

Surrogates

A surrogate is a non-target analyte that has similar chemical properties to the analyte of interest. The surrogate standard is added to the sample in a known amount and used to evaluate the response (i.e., loss of analyte) of the analyte to sample preparation and analysis procedures.

For DRMP CUP monitoring in WY 2021, surrogates $^{13}C_3$-atrazine, ^{13}C-fipronil, and d_{14}-trifluralin (GC/MS); and monuron and d_4-imidacloprid (LC/MS/MS) were added to all environmental and QC samples analyzed for dissolved pesticides. Surrogates d_{14}-trifluralin, $^{13}C_{12}$-p,p'-DDE, and $^{13}C_6$-cis-permethrin (GC/MS) were added to all environmental and QC samples analyzed for particulate pesticides. 100% of these results met the 70-130% DRMP recovery MQO.

DATA VERIFICATION: USGS CALIFORNIA WATER SCIENCE CENTER

USGS CWSC equipment used to take field data measurements must be calibrated according to Table 14.1 of the DRMP QAPP. At a minimum, the following equipment must be calibrated:

- Thermometers
- DO meters
- pH meters
- Conductivity meters
- Multi-parameter field meters

After post-calibration checks are performed, the percent drift should be evaluated to confirm compliance with Table 14.1 of the DRMP QAPP. Non-compliant results should not be reported unless they have been flagged to indicate non-compliance.

Of the 256 field measurement results reported, four turbidity results were classified as "Qualified" because field calibration was not performed at the correct frequency. One pH result was classified as "Not Applicable" due to probe failure. None of the 32 oxygen saturation results were verified since no MQO exists for this field measurement. Affected oxygen saturation results were classified as "Not Applicable".

DATA VERIFICATION: PACIFIC ECORISK

DRMP CUP toxicity data verification assesses QC samples associated with negative and positive controls that address sensitivity, test manipulations, tolerance thresholds, and intra-laboratory precision for both acute and chronic test methods. Also verified are the associated water quality measurements and required testing parameters to assess toxicity test conditions. For consistency with SWAMP, QC sample definitions are based on the January 2022 SWAMP QAPrP.

NEGATIVE CONTROLS

Laboratory control water is used to evaluate the health and sensitivity of the test organisms. It must be used with each analytical batch and meet all test acceptability criteria for the species of interest.

Additional control water for manipulated samples (i.e., a treatment control) is used to evaluate the effects of manipulations upon the test organisms. The same treatment must be performed on the control water when manipulations are performed on one or more of the ambient samples in the analytical batch and the treatment control must meet the test acceptability criteria.

Additional control water (i.e., a tolerance control) for unmanipulated samples is used to evaluate the effects of parameters near the tolerance threshold of the test organisms. They can be performed when samples have parameters near the tolerance threshold of the organism and the tolerance control must meet the test acceptability criteria if it is to be used for statistical comparisons.

For WY 2021 DRMP CUP monitoring, laboratory control water was used for all toxicity testing batches except when conductivity was insufficient for the test species (see **Table 10).** 100% of these results met the MQO specified in Table 14.4 of the DRMP QAPP.

Table 10. Additional control water.

Tox Batch ID	QA Control ID	Sample ID	Sample Date	Organism	Reason for Additional Control
PER_DRMP_CUP_0421CD_C1_W_TOX	DRMP_0421CD_CC_CNSL	Nort-010	4/28/21	*Ceriodaphnia dubia*	Conductivity insufficient for test species; alternative control used in toxicity statistical analysis.

Tox Batch ID	QA Control ID	Sample ID	Sample Date	Organism	Reason for Additional Control
PER_DRMP_CUP_0621CD_C2_W_TOX	DRMP_0621CD_CC_CNSL	Sacr-019	6/16/21	*Ceriodaphnia dubia*	Conductivity insufficient for test species; alternative control used in toxicity statistical analysis.

POSITIVE CONTROLS

Reference Toxicant Test

A reference toxicant test is used to assess intra-laboratory precision. One reference toxicant test is required per batch when using organisms that are either commercially supplied or wild-caught. Monthly reference toxicant tests are required for laboratories utilizing in-house cultures. The last-plotted data point (LC50 or EC50) should be within two standard deviations (SD) of the cumulative mean. One reference toxicant test performed with *Hyalella azteca* (Event 6, September 2021) was above 3SD of the cumulative mean. A non-conforming data evaluation was performed by Pacific EcoRisk and did not identify a cause of the decreased organism sensitivity. More information can be found in the Pacific EcoRisk data report.

For WY 2021 DRMP CUP monitoring, reference toxicant tests were performed at the required frequency and 100% of these results met the MQO specified in Table 14.4 of the DRMP QAPP.

Test Acceptability Criteria

The required number of organisms were processed per replicate, and organism survival met the test criteria for all batches except those appearing in **Table 11;** 100 % of tests met test acceptability criteria. 78% of toxicity testing results met the MQOs specified in Table 14.4 in the DRMP QAPP.

Table 11. Organism and survival qualifications.

Tox Batch ID	Sample ID	Sample Date	Organism	Issue	Project Qualifier
PER_DRMP_CUP_0621CHD_C1_W_TOX	All samples in batch	6/15/21	*Chironomus dilutus*	Test organisms exceeds maximum weight requirement at test initiation	Qualified

Tox Batch ID	Sample ID	Sample Date	Organism	Issue	Project Qualifier
PER_DRMP_CUP_0921CHD_C1_W_TOX	All samples in batch	9/13/21	*Chironomus dilutus*	Test organisms exceeds maximum weight requirement at test initiation	Qualified
PER_DRMP_CUP_0921CHD_C2_W_TOX	All samples in batch	9/14/21	*Chironomus dilutus*	Test organisms exceeds maximum weight requirement at test initiation	Qualified
PER_DRMP_CUP_0921CHD_C2_W_TOX	Nort-023	9/14/21	*Chironomus dilutus*	Pupated organism incorrectly included in growth statistics	Qualified
PER_DRMP_CUP_0421CHD_C1_W_TOX	511ULCABR	4/28/21	*Chironomus dilutus*	Unequal quantity of organisms per replicate was used	Qualified
PER_DRMP_CUP_0421CHD_C2_W_TOX	544LSAC13	4/29/21	*Chironomus dilutus*	Unequal quantity of organisms per replicate was used	Qualified
PER_DRMP_CUP_0421CHD_C2_W_TOX	544LSAC13 – Field Duplicate	4/29/21	*Chironomus dilutus*	Unequal quantity of organisms per replicate was used	Qualified
PER_DRMP_CUP_0421CHD_C2_W_TOX	CNEG	4/30/21	*Chironomus dilutus*	Unequal quantity of organisms per replicate was used	Qualified
PER_DRMP_CUP_0621CHD_C2_W_TOX	544LSAC13	6/16/21	*Chironomus dilutus*	Unequal quantity of organisms per replicate was used	Qualified
PER_DRMP_CUP_0621CHD_C2_W_TOX	Nort-013	6/16/21	*Chironomus dilutus*	Unequal quantity of organisms per replicate was used	Qualified
PER_DRMP_CUP_0821CHD_C1_W_TOX	511ULCABR	8/10/21	*Chironomus dilutus*	Unequal quantity of organisms per replicate was used	Qualified
PER_DRMP_CUP_0821CHD_C1_W_TOX	Sacr-021	8/10/21	*Chironomus dilutus*	Unequal quantity of organisms per replicate was used	Qualified
PER_DRMP_CUP_0821CHD_C2_W_TOX	Nort-020	8/11/21	*Chironomus dilutus*	Unequal quantity of organisms per replicate was used	Qualified

Tox Batch ID	Sample ID	Sample Date	Organism	Issue	Project Qualifier
PER_DRMP_CUP_0421HA_C2_W_TOX	Nort-011	4/29/21	*Hyalella azteca*	Unequal quantity of organisms per replicate was used	Qualified
PER_DRMP_CUP_0421PP_C1_W_TOX	CNEG	4/29/21	*Pimephales promelas*	Unequal quantity of organisms per replicate was used	Qualified
PER_DRMP_CUP_0821CHD_C1_W_TOX	511ULCABR	8/10/21	*Chironomus dilutus*	Organism was missing at the end of the test	Qualified
PER_DRMP_CUP_0821CHD_C1_W_TOX	Sacr-022	8/10/21	*Chironomus dilutus*	Organism was missing at the end of the test	Qualified
PER_DRMP_CUP_0821PP_C2_W_TOX	544LSAC13	8/11/21	*Pimephales promelas*	Organism was missing at the end of the test	Qualified
PER_DRMP_CUP_0921CHD_C1_W_TOX	511ULCABR	9/13/21	*Chironomus dilutus*	Organism pupated and was not used in the statistics	Qualified
PER_DRMP_CUP_0921CHD_C1_W_TOX	Nort-022	9/13/21	*Chironomus dilutus*	Organism pupated and was not used in the statistics	Qualified
PER_DRMP_CUP_0921CHD_C1_W_TOX	Sacr-023	9/13/21	*Chironomus dilutus*	Organism pupated and was not used in the statistics	Qualified
PER_DRMP_CUP_0921CHD_C1_W_TOX	Sacr-024	9/13/21	*Chironomus dilutus*	Organism pupated and was not used in the statistics	Qualified
PER_DRMP_CUP_0421PP_C1_W_TOX	Nort-010	4/28/21	*Pimephales promelas*	Low survival in toxicity test resulted from test interference due to pathogen-related mortality	Qualified
PER_DRMP_CUP_0421PP_C1_W_TOX	Nort-011	4/29/21	*Pimephales promelas*	Low survival in toxicity test resulted from test interference due to pathogen-related mortality	Qualified

Tox Batch ID	Sample ID	Sample Date	Organism	Issue	Project Qualifier
PER_DRMP_CUP_0621PP_C1_W_TOX	Sacr-020	6/15/21	*Pimephales promelas*	Low survival in toxicity test resulted from test interference due to pathogen-related mortality	Qualified
PER_DRMP_CUP_0621PP_C2_W_TOX	Nort-013	6/16/21	*Pimephales promelas*	Low survival in toxicity test resulted from test interference due to pathogen-related mortality	Qualified
PER_DRMP_CUP_0621PP_C2_W_TOX	Nort-014	6/16/21	*Pimephales promelas*	Low survival in toxicity test resulted from test interference due to pathogen-related mortality	Qualified
PER_DRMP_CUP_0621PP_C2_W_TOX	Sacr-019	6/16/21	*Pimephales promelas*	Low survival in toxicity test resulted from test interference due to pathogen-related mortality	Qualified
PER_DRMP_CUP_0821PP_C1_W_TOX	Nort-019	8/10/21	*Pimephales promelas*	Low survival in toxicity test resulted from test interference due to pathogen-related mortality	Qualified
PER_DRMP_CUP_0821PP_C2_W_TOX	544LSAC13	8/11/21	*Pimephales promelas*	Low survival in toxicity test resulted from test interference due to pathogen-related mortality	Qualified
PER_DRMP_CUP_0821PP_C2_W_TOX	Nort-017	8/11/21	*Pimephales promelas*	Low survival in toxicity test resulted from test interference due to pathogen-related mortality	Qualified

Tox Batch ID	Sample ID	Sample Date	Organism	Issue	Project Qualifier
PER_DRMP_CUP_0921PP_C1_W_TOX	511ULCABR	9/13/21	*Pimephales promelas*	Low survival in toxicity test resulted from test interference due to pathogen-related mortality	Qualified
PER_DRMP_CUP_0921CD_C1_W_TOX	SACR-024	9/13/21	*Ceriodaphnia dubia*	Replicate was lost during solution renewal	Qualified
PER_DRMP_CUP_0921CD_C1_W_TOX	Nort-022	9/13/2021	*Ceriodaphnia dubia*	Male replicate excluded from test analysis	Qualified

FIELD DUPLICATES

A field duplicate is an independent sample that is collected as close as possible to the same point in space, time, and collection methodology as the field sample.

For WY 2021 DRMP CUP monitoring, field duplicates collected and analyzed for all aquatic toxicity test species appear in **Table 12**. 100% of these results met the DRMP MQO by having a relative percent difference (RPD) <25%.

Table 12. Field duplicates.

Duplicate ID	Sample Date	Analyte
544LSAC13	4/29/21	Aquatic Toxicity Tests
Nort-020	8/11/21	Aquatic Toxicity Tests

WATER QUALITY PARAMETERS

Water quality parameters (i.e., temperature, pH, DO, specific conductance, hardness, alkalinity, and ammonia) are monitored to assess toxicity testing conditions and are required to meet the MQOs specified in the DRMP QAPP. Deviations from recommended test conditions were noted in the data set.

For WY 2021 DRMP CUP monitoring, the required number of organisms were processed per replicate, and organism survival met the test criteria for all toxicity testing batches except those appearing in **Table 13**.

In addition, water quality parameters were performed at the required frequency for all toxicity testing batches except those appearing in **Table 13**. 95% of toxicity testing

results met the water quality parameter MQOs specified in Table 14.3 of the DRMP QAPP.

Table 13. Water quality parameter qualifications.

Tox Batch ID	Sample IDs	Sample Date	Organism	Missing Water Quality Parameter	Project Qualifier
PER_DRMP_CUP_0921CD_C2_W_TOX	544LSAC13	09/14/21	*Ceriodaphnia dubia*	Old DO solution Day 1	Qualified
PER_DRMP_CUP_0921CD_C2_W_TOX	Nort-021	09/14/21	*Ceriodaphnia dubia*	Old DO solution Day 1	Qualified
PER_DRMP_CUP_0921CD_C2_W_TOX	Nort-023	09/14/21	*Ceriodaphnia dubia*	Old DO solution Day 1	Qualified
PER_DRMP_CUP_0921CD_C2_W_TOX	Nort-024	09/14/21	*Ceriodaphnia dubia*	Old DO solution Day 1	Qualified
PER_DRMP_CUP_0921CD_C2_W_TOX	CNEG	09/15/21	*Ceriodaphnia dubia*	Old DO solution Day 1	Qualified
PER_DRMP_CUP_0921PP_C1_W_TOX	Nort-022	09/13/21	*Pimephales promelas*	Old DO solution Day 4	Qualified
PER_DRMP_CUP_0921PP_C2_W_TOX	Nort-024	09/14/21	*Pimephales promelas*	Old DO solution Day 1	Qualified
PER_DRMP_CUP_0821SC_C2_W_TOX	544LSAC13	08/11/21	*Selenastrum capricornutum*	pH and Temperature Day 3	Qualified

SUMMARY

CHEMISTRY RESULTS

A total of 34 environmental samples (including two field duplicates) were analyzed for dissolved pesticides by the USGS OCRL during WY 2021. During this period, a total of 49 pesticides were detected in the dissolved phase (i.e., 13 fungicides, 17 herbicides, 18 insecticides and the synergist piperonyl butoxide). Each of the 32 samples analyzed contained mixtures of from four to 27 pesticides per sample. Frequently detected pesticides included azoxystrobin and methoxyfenozide (100% of samples), 3,4-DCA (91%), imidacloprid (66%), and fluridone and metolachlor (59%). Maximum concentrations ranged from below method detection limits to 3,710 ng/L (metolachlor).

All 8,632 environmental and QC sample results for dissolved pesticides met the MQOs specified in the DRMP QAPP and are considered "Compliant".

A total of 34 environmental samples (including two field duplicates) were analyzed for suspended-sediment-associated (i.e., particulate) pesticides by the USGS OCRL. During this period, three pesticides were detected on suspended sediments. The pesticides detected included bifenthrin (two detections), cyhalothrin (one detection), and metolachlor (one detection).

Ten of the 32 field samples contained at least one pesticide with a concentration above an EPA aquatic life benchmark. Bifenthrin was detected above its chronic invertebrate benchmark of 1.3 ng/L in the Event 3 sample collected at NORT-009 and in the Event 4 Buckley Cove and Ulatis Creek samples. Cyhalothrin was detected in the Event 4 Ulatis Creek sample at 25.3 ng/L (the acute fish toxicity benchmark is 14.5 ng/L). Imidacloprid was detected above its chronic invertebrate benchmark of 10.0 ng/L in the Event 3 SACR-017 sample and the Event 5 and 6 Ulatis Creek samples. Dichlorvos was detected above its chronic invertebrate toxicity benchmark of 5.8 ng/L in two Event 6 samples (i.e., NORT-021 and SACR-023). Metolachlor was detected above its chronic invertebrate benchmark of 1,000 ng/L in the Event 3 Ulatis Creek sample. Diuron was detected above its recently (2021) lowered vascular plant acute toxicity benchmark of 130 ng/L in the Event 3 Buckley Cove sample and the Event 5 Ulatis Creek sample.

All 6,812 environmental and QC sample results for particulate pesticides met the MQOs specified in the DRMP QAPP and are considered "Compliant".

A total of 34 environmental samples (including field QC) were analyzed for TSS by USGS OCRL. While the field duplicate results were addressed in **Table 9**, the

remaining 32 results met the MQOs specified in the DRMP QAPP and are considered "Compliant".

TOXICITY TESTING

A total of 34 environmental samples (including two field duplicates) were analyzed by PER for each the following aquatic toxicity test species: *Ceriodaphnia dubia*, *Pimephales promelas*, *Selenastrum capricornutum*, *Chironomus dilutus*, and *Hyalella azteca*. 1,034 environmental and QC sample results were qualified for organism and survival findings (see **Table 11**) and/or missing water quality parameters (see **Table 13**). The remaining 4,746 environmental sample and QC results met the MQOs specified in the DRMP QAPP and are considered "Compliant".

During WY 2021, 21 toxicity tests produced results that were significantly different from the control. These test results are outlined in **Table 14**. Four of the five test species had significant results for at least one endpoint, with *S. capricornutum* being the only species for which no significant reductions were observed during the WY.

Six of the significant results had a percent effect of 50% or less compared to the control, which is the threshold at which the decision to conduct a toxicity identification evaluation (TIE) is presented to the TIE Technical Advisory Committee (TAC). TIEs were conducted for four of the five toxic samples during the WY, with the TIE TAC opting to forego additional TIE testing to investigate *P. promelas* response to samples collected at Nort-017 on August 11, 2021 for the sublethal growth endpoint and for the survival endpoint due to the laboratory attributing mortality to the presence of pathogens.

For the four TIEs that were conducted, two were in response to significant reductions of *H. azteca* survival observed in samples collected from NORT-009 on April 29, 2021 and from Ulatis Creek at Brown Road on June 15, 2021. In both cases, the TIE results suggested pyrethroid-induced toxicity, but could not rule out metals as a potential cause for some toxicity. Several pesticides, including the pyrethroid bifenthrin, were detected in the associated pesticide samples collected concurrently with both the April and June toxicity samples. The June samples also included detections for total cyhalothrin.

The additional two TIEs conducted were due to a 33% percent control response for *C. dubia* reproduction in samples collected from NORT-016 on June 15, 2021 and a 12% percent control response in reproduction for samples collected at Sacr-021 on August 10, 2021. The results of June 15 TIE were inclusive due to the toxicity not persisting through the TIE testing period, suggesting the cause of initial toxicity was an organic subject to rapid degradation or an initial false positive. The TIE results for the August sample were also inconclusive though the toxicity was persistent. None of the applied treatments reduced the toxicity and there was blank interference observed, which may

indicate that an organic or metals toxicant saturated the columns causing breakthrough, or that the toxicant was neither of these types of compounds.

Table 14. Significant toxicity results from WY 2021.

Station Code	Station Name	Sample Date	Organism	Endpoint	Pct Control	Sig. Effect [1]	TIE?	TIE Narrative
Sacr-018	Sacramento River Subregion - Sacr-018	4/28/2021	*Pimephales promelas*	Growth [2]	74	SL	No	None
Nort-011	Northeast Delta Subregion - Nort-011	4/29/2021	*Ceriodaphnia dubia*	Reproduction [3]	73	SL	No	None
Nort-009	Northeast Delta Subregion - Nort-009	4/29/2021	*Hyalella azteca*	Survival	0	SL	Yes	Phase I TIE (5/4/21) treatment results: No blank interference; toxicity persistent. Toxicity removal in C18, WCX, partial removal in carboxylesterase. Suggests pyrethroid-induced toxicity; metals not ruled out as potential cause for some toxicity.
Nort-016	Northeast Delta Subregion - Nort-016	6/15/2021	*Ceriodaphnia dubia*	Reproduction [3]	33	SL	Yes	Phase I TIE was initiated on 6/24/2021. No blank interference in TIE treatments. Toxicity was not persistent. Results suggest cause of initial toxicity was an organic subject to rapid degradation.

Station Code	Station Name	Sample Date	Organism	Endpoint	Pct Control	Sig. Effect [1]	TIE?	TIE Narrative
511ULCABR	Ulatis Creek at Brown Road	6/15/2021	*Hyalella azteca*	Survival	0	SL	Yes	Phase I Acute TIE (6/20/21) treatment results: No blank interference; toxicity persistent. Toxicity removal in C18, WCX, partial removal in carboxylesterase. Suggests pyrethroid-induced toxicity; metals not ruled out as potential cause for some toxicity.
Sacr-020	Sacramento River Subregion - Sacr-020	6/15/2021	*Pimephales promelas*	Growth [2]	80	SG	No	Pathogen related mortality.
544LSAC13	San Joaquin R at Buckley Cove	6/16/2021	*Ceriodaphnia dubia*	Reproduction [3]	63	SL	No	None
Sacr-019	Sacramento River Subregion - Sacr-019	6/16/2021	*Ceriodaphnia dubia*	Reproduction [3]	53	SL	No	None
544LSAC13	San Joaquin R at Buckley Cove	6/16/2021	*Chironomus dilutus*	Survival	67	SL	No	None
Sacr-019	Sacramento River Subregion - Sacr-019	6/16/2021	*Chironomus dilutus*	Survival	87	SG	No	None

Station Code	Station Name	Sample Date	Organism	Endpoint	Pct Control	Sig. Effect [1]	Tie?	TIE Narrative
Nort-013	Northeast Delta Subregion - Nort-013	6/16/2021	*Pimephales promelas*	Growth [2]	54	SL	No	None
Nort-013	Northeast Delta Subregion - Nort-013	6/16/2021	*Pimephales promelas*	Survival	67	SL	No	None
Nort-014	Northeast Delta Subregion - Nort-014	6/16/2021	*Pimephales promelas*	Growth [2]	86	SG	No	None
Sacr-021	Sacramento River Subregion - Sacr-021	8/10/21	*Ceriodaphnia dubia*	Reproduction [3]	12	SL	Yes	TIE 8/18/21: toxicity persistent; baseline half as toxic vs initial. No treatment reduced tox. Blank interference in BSA. Could indicate organic/metal toxicant saturated columns causing breakthrough or multiple at toxic levels; or toxicant not organic/metal.
Sacr-022	Sacramento River Subregion - Sacr-022	8/10/21	*Ceriodaphnia dubia*	Reproduction [3]	66	SL	No	
511ULCABR	Ulatis Creek at Brown Road	8/10/2021	*Chironomus dilutus*	Survival	72	SL	No	None

Station Code	Station Name	Sample Date	Organism	Endpoint	Pct Control	Sig. Effect [1]	Tie?	TIE Narrative
Sacr-021	Sacramento River Subregion - Sacr-021	8/10/2021	*Pimephales promelas*	Growth [2]	86	SG	No	None
Nort-020	Northeast Delta Subregion - Nort-020	8/11/2021	*Ceriodaphnia dubia*	Reproduction [3]	70	SL	No	None
Nort-020	Northeast Delta Subregion - Nort-020	8/11/2021	*Ceriodaphnia dubia*	Reproduction [3]	60	SL	No	None
Nort-017	Northeast Delta Subregion - Nort-017	8/11/2021	*Pimephales promelas*	Growth [2]	38	SL	No	TIE Subcommittee recommended not performing a TIE due to Pathogen Related Mortality.
Nort-017	Northeast Delta Subregion - Nort-017	8/11/2021	*Pimephales promelas*	Survival	29	SL	No	TIE Subcommittee recommended not performing a TIE due to Pathogen Related Mortality.
Nort-018	Northeast Delta Subregion - Nort-018	8/11/2021	*Pimephales promelas*	Growth [2]	87	SG	No	None
Sacr-023	Sacramento River Subregion - Sacr-023	9/13/21	*Chironomus dilutus*	Growth [4]	93	SG	No	None

Station Code	Station Name	Sample Date	Organism	Endpoint	Pct Control	Sig. Effect [1]	Tie?	TIE Narrative
Nort-023	Northeast Delta Subregion - Nort-023	9/14/2021	*Chironomus dilutus*	Growth [4]	89	SG	No	None

[1] Significant effect: SG indicates significantly different from the control and greater than the evaluation threshold; SL indicates significantly different from the control and less than the evaluation threshold.
[2] Growth for *Pimephales promelas* is evaluated as biomass as weight per original individual. dry weight per surviving individual.
[3] Reproduction for *Ceriodaphnia dubia* is evaluated as the number of young per female.
[4] Growth for *Chironomus dilutus* is evaluated as the ash-free dry weight.

FIELD MEASUREMENTS

Per **Table D.2**, there were no completeness concerns associated with WY 2021 DRMP CUP monitoring. Field measurement results appear in their entirety in **Table 15**.

DATA AVAILABILITY

All analytical and field parameter results generated by USGS CWSC, USGS OCRL, and USGS NWQL will be made available for download through the USGS National Water Information System (NWIS; https://nwis.waterdata.usgs.gov/ca/nwis/qwdata) using the sampling event and station identification information found in **Table 3** and **Table 15**. All project data, including the USGS datasets as well as those provided by PER, will be published to CEDEN and can be accessed through the Advance Query Tool (https://ceden.waterboards.ca.gov/AdvancedQueryTool) under the project code "2020 Delta RMP Current Use Pesticides".

Table 15. Sampling event information and basic water quality parameters measured during sample collection.

Event	CEDEN Code	USGS Site Number	Date	Time	Air Temp °C	Water Temp °C	pH	DO (mg/L)	DO (%)	Specific Conductance (µS/cm)	Salinity	Turbidity (NTU)
3	544LSAC13	375831121223701	4/29/21	9:10	18.6	19.6	7.5	7.8	84.8	755	0.37	2.1
3	511ULCABR	11455261	4/28/21	8:25	14.9	16.8	7.6	3.3	34.3	805	0.39	6.2
3	NORT-009	380720121295401	4/29/21	11:25	24.7	18.6	7.8	9.7	103.6	191	0.1	1.3
3	NORT-010	381612121283901	4/28/21	14:25	26.9	20.0	IM	8.9	98.0	140	0.06	5.2
3	NORT-011	380845121360201	4/29/21	12:55	30.1	19.2	7.5	8.3	89.2	168	0.08	2.3
3	NORT-012	380722121313101	4/29/21	11:55	27.3	19.3	8.4	10.9	118.0	173	0.08	1.3
3	SACR-017	381627121351901	4/28/21	10:45	19.5	18.5	7.7	8.2	86.9	161	0.08	2.7
3	SACR-018	381423121322401	4/28/21	11:45	24.4	18.8	7.8	8.2	88.0	165	0.08	3.4
4	544LSAC13	375831121223701	6/16/21	8:35	20.9	23.3	7.7	7.3	85.9	633	0.31	2.2
4	511ULCABR	11455261	6/15/21	8:25	20.7	19.0	7.7	3.6	39.0	835	0.41	24.5
4	NORT-013	381235121302601	6/16/21	11:10	25.0	23.1	8.1	8.5	99.1	176	0.08	2.9
4	NORT-014	381449121295401	6/16/21	12:05	31.2	23.8	8.1	8.6	102.1	171	0.08	3.2
4	NORT-015	380747121334201	6/15/21	11:45	28.5	22.8	8.0	8.4	96.9	176	0.08	1.3
4	NORT-016	381206121322901	6/15/21	13:30	29.6	23.0	7.8	8.4	97.7	141	0.07	0.8
4	SACR-019	383431121304201	6/16/21	14:15	32.1	24.0	7.9	8.3	98.2	123	0.06	1.0
4	SACR-020	381105121385301	6/15/21	10:00	21.5	21.7	8.0	8.1	91.9	197	0.09	3.4
5	544LSAC13	375831121223701	8/11/21	9:20	21.49	25.04	7.41	7.07	85.7	276.8	0.13	2.6
5	511ULCABR	11455261	8/10/21	14:25	30.81	21.02	7.38	1.46	16.5	901	0.44	5.64
5	NORT-017	380834121281301	8/11/21	12:05	26.01	25.1	7.87	7.86	95.3	237.5	0.11	0.29
5	NORT-018	381008121281301	8/11/21	11:25	23.96	24.84	7.52	7.8	94.6	323	0.15	1.65
5	NORT-019	381710121301101	8/10/21	9:35	20.16	24.71	7.78	8.04	96.7	149.8	0.07	3.21
5	NORT-020	380751121342701	8/11/21	12:50	31.49	24.7	7.96	8.55	103.1	145.2	0.07	1.27
5	SACR-021	381837121355501	8/10/21	11:45	26.55	23.58	7.68	8.08	95.9	150	0.07	1.08
5	SACR-022	382451121311701	8/10/21	11:00	26.9	24.65	7.59	7.94	93.8	160.3	0.07	1.28

Event	CEDEN Code	USGS Site Number	Date	Time	Air Temp °C	Water Temp °C	pH	DO (mg/L)	DO (%)	Specific Conductance (µS/cm)	Salinity	Turbidity (NTU)
6	544LSAC13	375831121223701	9/14/21	9:20	23.54	25.22	7.43	7.59	92.3	537	0.26	2.89
6	511ULCABR	11455261	9/13/21	8:25	19.76	20.97	7.41	0.44	4.8	789	0.39	4.01
6	NORT-021	380922121301101	9/14/21	11:55	26.99	24.51	7.67	7.42	88.9	235	0.11	1.07
6	NORT-022	381611121294701	9/13/21	12:20	29	24.5	7.66	8.04	96.5	199.6	0.09	1.87
6	NORT-023	380604121334701	9/14/21	13:20	26.12	25.14	8.63	11.64	141.5	214.3	0.1	33.34
6	NORT-024	380806121334701	9/14/21	12:40	25.21	24.36	7.75	7.82	93.6	198.8	0.09	1.05
6	SACR-023	382939121332101	9/13/21	14:05	32.89	24.97	8.01	8.98	108.5	187.7	0.09	1.53
6	SACR-024	381347121361201	9/13/21	10:40	23.19	24.04	7.77	8.32	99.4	199.2	0.09	0.56

CORRECTIVE ACTIONS

On April 2, 2021, DRMP deviation form 2020-10 was initiated to document incomplete WY 2020 field QC sampling due to the cancelation of three planned sampling events. In response, the USGS CWSC modified its sampling design to reduce the impact of future sampling cancellations on field QC completeness. In WY 2021, this modification enabled the sampling and analysis of a full suite of field QC samples. A complete assessment of field QC sample frequency is provided in **Field Quality Control Frequency, Table D.3**. Relevant DRMP QAPP deviation forms are outlined in **Table 16**.

No deviations from the DRMP QAPP or necessary corrective actions were identified during WY 2021.

Table 16. Referenced deviations from the DRMP QAPP.

Deviation Number	Status	Deviation Date	Monitoring Sector	Title	Description	Corrective Actions	Resolution
2020-10 [1]	Created, pending final review	4/2/2021	Pesticides and toxicity	USGS Did Not Meet Planned QA Frequencies	Not all of the planned field QA samples were collected, due to the final three events being cancelled	USGS will modify the sampling design in future years to collect QA samples more proportionally to the field samples collected at each event to reduce the impact of event cancelations on QA sample completeness.	The evaluation of 2021 field QC frequency indicates new procedures are effective.

[1] Though this deviation occurred during WY 2020 and referenced a previous version of the DRMP QAPP, data evaluated in this report indicate a satisfactory resolution. A complete assessment of field QC sample frequency is provided in **Field Quality Control Frequency, Table D.3**.

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Appendix A. Quality Assurance Evaluation for WY 2021 Results Received from the USGS National Water Quality Laboratory

[NWQL Results still Pending: Not Included with the Current Draft of this Report]

Appendix B. Sampling Photos for WY 2021 Monitoring (Current Use Pesticides Year 3, Events 3-6)

Sampling for the second year of the Delta Regional Monitoring Program (RMP) Current Use Pesticides (CUP) monitoring during water year (WY) 2021 occurred over Events 3 through 6 in April through September of 2021. Photos taken by field crews during each monitoring event are provided below.

Event 3 – April 28 and 29, 2021

Figure B.1. Flow conditions at Ulatis Creek, April 28, 2021.

Figure B.2. SACR-018 on the Sacramento River, April 28, 2021.

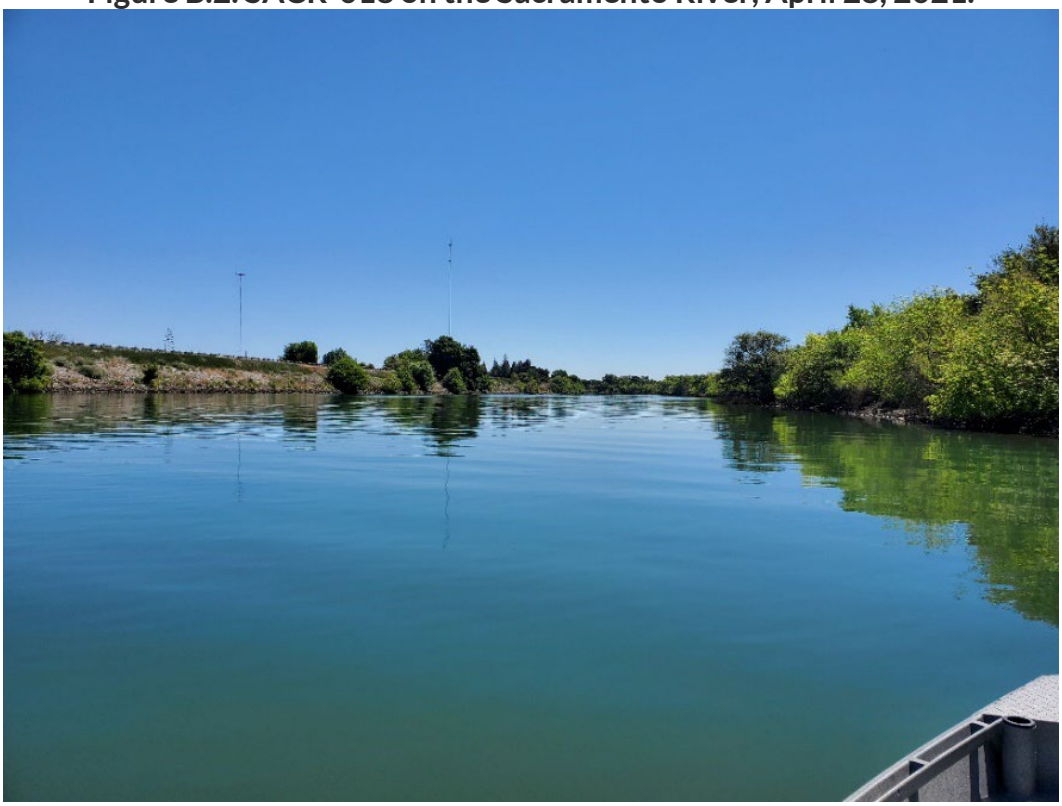

Figure B.3. NORT-010 on Lost Slough, April 28, 2021.

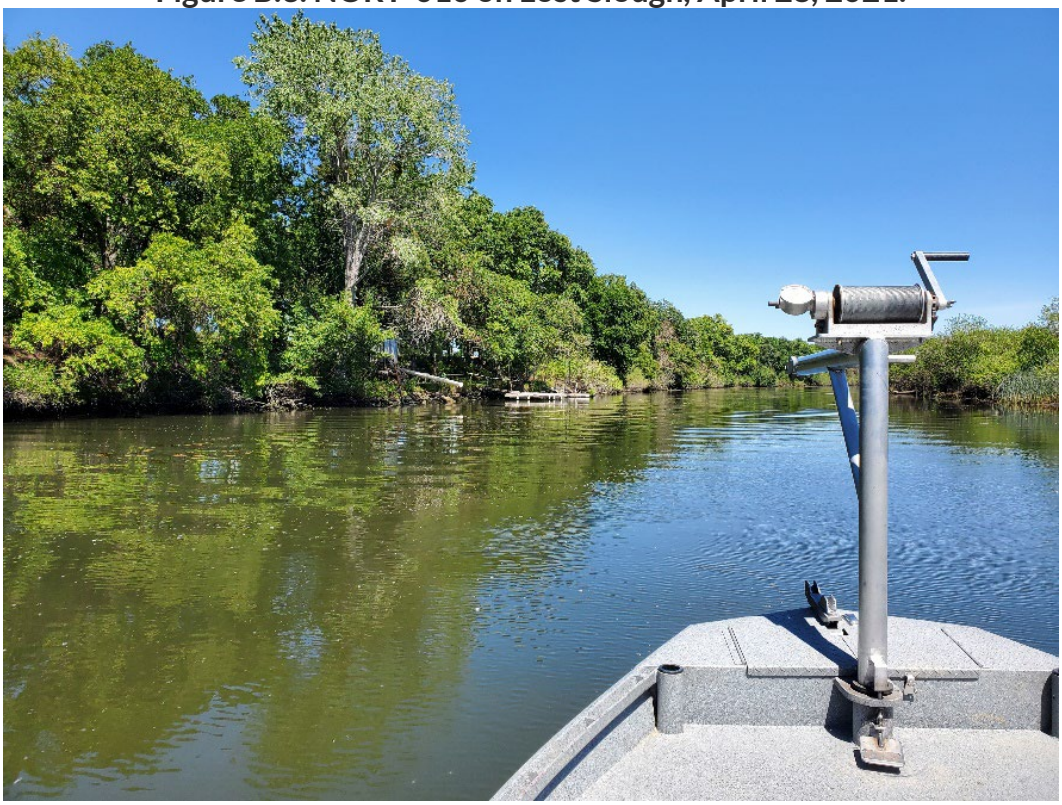

Figure B.4. Vegetation covering site NORT-009, April 29, 2021.

Figure B.5. Preparing to sample at NORT-012 on the South Mokelumne River, April 29, 2021.

Figure B.6. Approaching site NORT-011 on Georgiana Slough, April 29, 2021.

Event 4 – June 15 and 16, 2021

Figure B.7. Flow conditions at Ulatis Creek, June 15, 2021.

Figure B.8. SACR-020 on Steamboat Slough, June 15, 2021.

Figure B.9. NORT-015 on South Mokelumne River, June15, 2021.

Figure B.10. NORT-016 on Georgiana Slough, June 15, 2021.

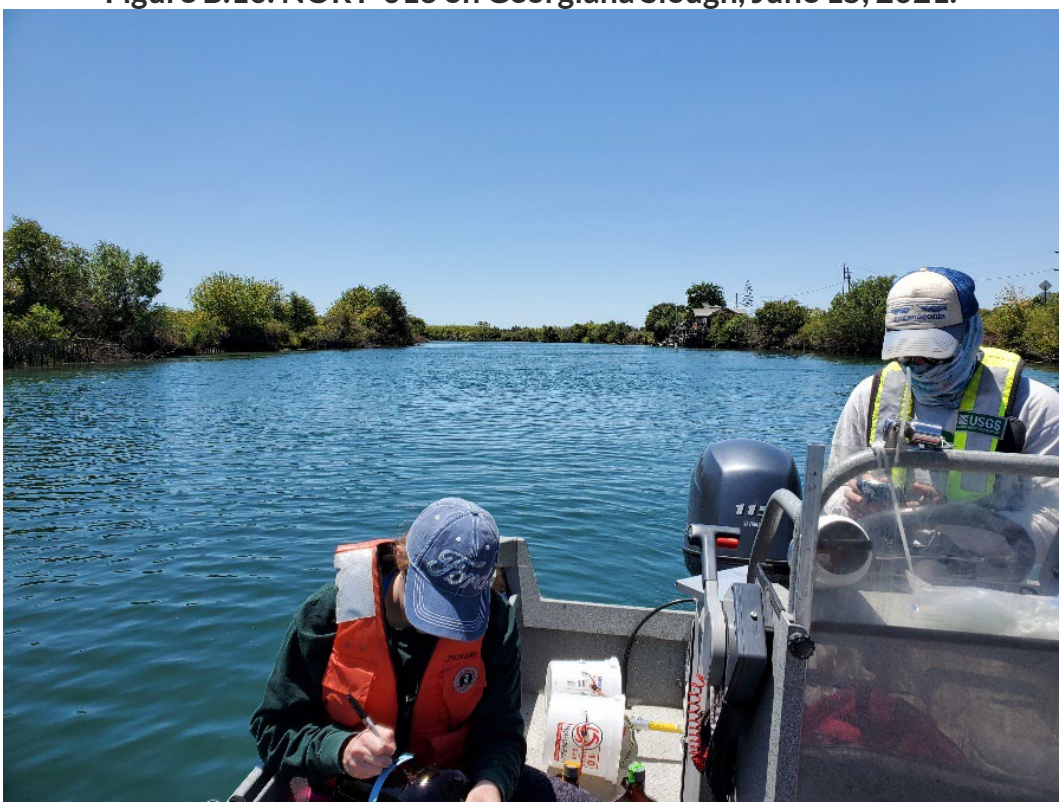

Figure B.11. San Joaquin River near Buckley Cove, June 16, 2021.

Figure B.12. NORT-013 on the North Mokelumne River, June 16, 2021.

Figure B.13. NORT-014 on Snodgrass Slough, June 16, 2021.

Figure B.14. Approaching site SACR-019 on the Sacramento River, June 16, 2021.

Event 5 – August 10 and 11, 2021

Figure B.15. NORT-019 on Snodgrass Slough, August 10, 2021.

Figure B.16. Algae and aquatic vegetation at NORT-019, August 10, 2021.

Figure B.17. Barge and crane removing vegetation upstream of SACR-022, August 10, 2021

Figure B. 18. SACR-021 on Sutter Slough, August 10, 2021.

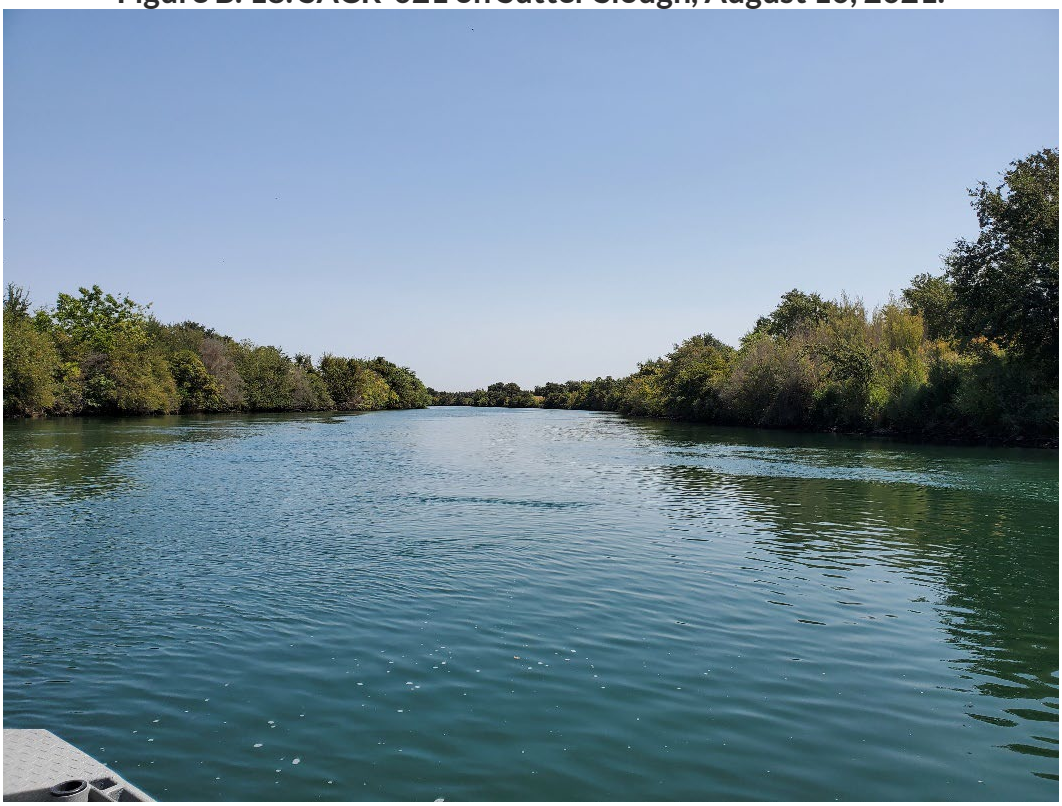

Figure B.19. Ulatis Creek looking downstream, August 10, 2021.

Figure B. 20. San Joaquin River near Buckley Cove, August 11, 2021.

Figure B.21. NORT-018 Hog Slough (agricultural drain in proceeding figure is in the background), August 11, 2021.

Figure B.22. Agricultural drain water being pumped into the waterway near NORT-018, August 11, 2021.

Figure B.23. Burnt aquatic vegetation on Hog Slough, August 11, 2021.

Figure B.24. NORT-020 at the confluence of the North and South Mokelumne Rivers, August 11,2021

Event 6 – September 13 and 14, 2021

Figure B.25. Ulatis Creek looking downstream, September 13, 2021.

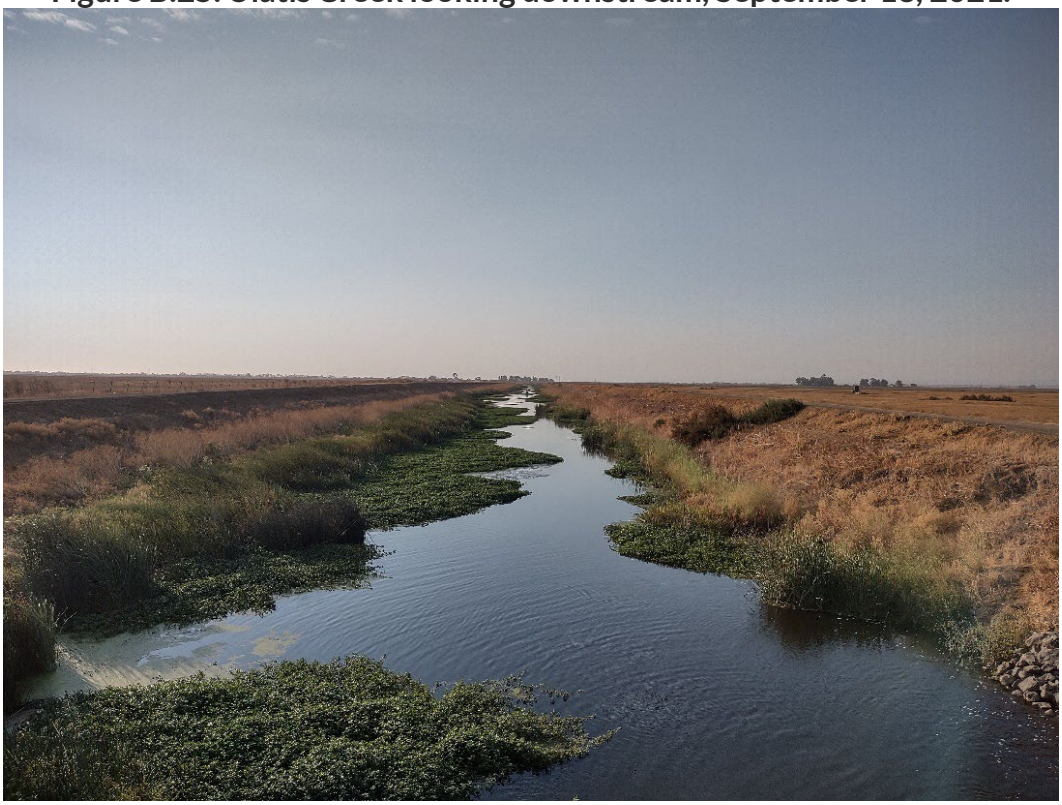

Figure B.26. Cannabis eradication operations by helicopter near Steamboat Slough on September 13, 2021

Figure B.27. Sampling at SACR-024 on Steamboat Slough, September 13, 2021.

Figure B.28. NORT-022 on Snodgrass Slough, September 13, 2021.

Figure B.29. SACR-023 on the Sacramento River, September 13, 2021.

Figure B.30. San Joaquin River at Buckley Cove, September 14, 2021.

Figure B.31. NORT-021 on the South Mokelumne River, September 14, 2021.

Figure B.32. NORT-024 on the North Mokelumne River, September 14, 2021.

Figure B.33. NORT-023 Mokelumne River, September 14, 2021.

Appendix C. List of Current Use Pesticide Constituents

Pesticides Constituents Analyzed by USGS OCRL

Table C.1. Fiscal Year 2020-2021 DRMP current use pesticides.

MATRIX	ANALYTE	FRACTION	UNIT
samplewater, <0.7 um	Acibenzolar-S-methyl	Dissolved	ng/L
samplewater, <0.7 um	Allethrin	Dissolved	ng/L
samplewater, <0.7 um	Atrazine	Dissolved	ng/L
samplewater, <0.7 um	Atrazine-13C3(Surrogate)	Dissolved	% recovery
samplewater, <0.7 um	Azoxystrobin	Dissolved	ng/L
samplewater, <0.7 um	Benfluralin	Dissolved	ng/L
samplewater, <0.7 um	Benzovindiflupyr	Dissolved	ng/L
samplewater, <0.7 um	Bifenthrin	Dissolved	ng/L
samplewater, <0.7 um	Boscalid	Dissolved	ng/L
samplewater, <0.7 um	Butralin	Dissolved	ng/L
samplewater, <0.7 um	Captan	Dissolved	ng/L
samplewater, <0.7 um	Carbaryl	Dissolved	ng/L
samplewater, <0.7 um	Carbofuran	Dissolved	ng/L
samplewater, <0.7 um	Chlorfenapyr	Dissolved	ng/L
samplewater, <0.7 um	Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide, 2-	Dissolved	ng/L
samplewater, <0.7 um	Chlorothalonil	Dissolved	ng/L
samplewater, <0.7 um	Chlorpyrifos	Dissolved	ng/L
samplewater, <0.7 um	Chlorpyrifos oxon	Dissolved	ng/L
samplewater, <0.7 um	Clomazone	Dissolved	ng/L
samplewater, <0.7 um	Coumaphos	Dissolved	ng/L
samplewater, <0.7 um	Cycloate	Dissolved	ng/L
samplewater, <0.7 um	Cyfluthrin, Total	Dissolved	ng/L
samplewater, <0.7 um	Cyhalofop-butyl	Dissolved	ng/L
samplewater, <0.7 um	Cyhalothrin, Total	Dissolved	ng/L
samplewater, <0.7 um	Cypermethrin, Total	Dissolved	ng/L
samplewater, <0.7 um	Cyproconazole	Dissolved	ng/L
samplewater, <0.7 um	Cyprodinil	Dissolved	ng/L
samplewater, <0.7 um	Dacthal	Dissolved	ng/L
samplewater, <0.7 um	DDD(p,p')	Dissolved	ng/L
samplewater, <0.7 um	DDE(p,p')	Dissolved	ng/L
samplewater, <0.7 um	DDT(p,p')	Dissolved	ng/L
samplewater, <0.7 um	Deltamethrin	Dissolved	ng/L
samplewater, <0.7 um	Diazinon	Dissolved	ng/L
samplewater, <0.7 um	Diazoxon	Dissolved	ng/L
samplewater, <0.7 um	Dichloroaniline, 3,5-	Dissolved	ng/L

Matrix	Analyte	Fraction	Unit
samplewater, <0.7 um	Dichlorvos	Dissolved	ng/L
samplewater, <0.7 um	Difenoconazole	Dissolved	ng/L
samplewater, <0.7 um	Dimethomorph	Dissolved	ng/L
samplewater, <0.7 um	Dithiopyr	Dissolved	ng/L
samplewater, <0.7 um	EPTC	Dissolved	ng/L
samplewater, <0.7 um	Esfenvalerate	Dissolved	ng/L
samplewater, <0.7 um	Ethalfluralin	Dissolved	ng/L
samplewater, <0.7 um	Ethofenprox	Dissolved	ng/L
samplewater, <0.7 um	Etoxazole	Dissolved	ng/L
samplewater, <0.7 um	Famoxadone	Dissolved	ng/L
samplewater, <0.7 um	Fenamidone	Dissolved	ng/L
samplewater, <0.7 um	Fenbuconazole	Dissolved	ng/L
samplewater, <0.7 um	Fenhexamid	Dissolved	ng/L
samplewater, <0.7 um	Fenpropathrin	Dissolved	ng/L
samplewater, <0.7 um	Fenpyroximate	Dissolved	ng/L
samplewater, <0.7 um	Fipronil	Dissolved	ng/L
samplewater, <0.7 um	Fipronil Desulfinyl	Dissolved	ng/L
samplewater, <0.7 um	Fipronil Desulfinyl Amide	Dissolved	ng/L
samplewater, <0.7 um	Fipronil Sulfide	Dissolved	ng/L
samplewater, <0.7 um	Fipronil Sulfone	Dissolved	ng/L
samplewater, <0.7 um	Fipronil-C13(Surrogate)	Dissolved	% recovery
samplewater, <0.7 um	Fluazinam	Dissolved	ng/L
samplewater, <0.7 um	Flubendiamide	Dissolved	ng/L
samplewater, <0.7 um	Fludioxonil	Dissolved	ng/L
samplewater, <0.7 um	Flufenacet	Dissolved	ng/L
samplewater, <0.7 um	Flumetralin	Dissolved	ng/L
samplewater, <0.7 um	Fluopicolide	Dissolved	ng/L
samplewater, <0.7 um	Fluopyram	Dissolved	ng/L
samplewater, <0.7 um	Fluoxastrobin	Dissolved	ng/L
samplewater, <0.7 um	Flutolanil	Dissolved	ng/L
samplewater, <0.7 um	Flutriafol	Dissolved	ng/L
samplewater, <0.7 um	Fluxapyroxad	Dissolved	ng/L
samplewater, <0.7 um	Hexazinone	Dissolved	ng/L
samplewater, <0.7 um	Imazalil	Dissolved	ng/L
samplewater, <0.7 um	Indaziflam	Dissolved	ng/L
samplewater, <0.7 um	Indoxacarb	Dissolved	ng/L
samplewater, <0.7 um	Ipconazole	Dissolved	ng/L
samplewater, <0.7 um	Iprodione	Dissolved	ng/L
samplewater, <0.7 um	Isofetamid	Dissolved	ng/L
samplewater, <0.7 um	Kresoxim-methyl	Dissolved	ng/L
samplewater, <0.7 um	Malaoxon	Dissolved	ng/L

Matrix	Analyte	Fraction	Unit
samplewater, <0.7 um	Malathion	Dissolved	ng/L
samplewater, <0.7 um	Metalaxyl	Dissolved	ng/L
samplewater, <0.7 um	Metconazole	Dissolved	ng/L
samplewater, <0.7 um	Methoprene	Dissolved	ng/L
samplewater, <0.7 um	Metolachlor	Dissolved	ng/L
samplewater, <0.7 um	Myclobutanil	Dissolved	ng/L
samplewater, <0.7 um	Napropamide	Dissolved	ng/L
samplewater, <0.7 um	Novaluron	Dissolved	ng/L
samplewater, <0.7 um	Oxadiazon	Dissolved	ng/L
samplewater, <0.7 um	Oxyfluorfen	Dissolved	ng/L
samplewater, <0.7 um	Paclobutrazol	Dissolved	ng/L
samplewater, <0.7 um	Parathion, Methyl	Dissolved	ng/L
samplewater, <0.7 um	Pendimethalin	Dissolved	ng/L
samplewater, <0.7 um	Pentachloroanisole	Dissolved	ng/L
samplewater, <0.7 um	Pentachloronitrobenzene	Dissolved	ng/L
samplewater, <0.7 um	Permethrin, Total	Dissolved	ng/L
samplewater, <0.7 um	Phenothrin	Dissolved	ng/L
samplewater, <0.7 um	Phosmet	Dissolved	ng/L
samplewater, <0.7 um	Picoxystrobin	Dissolved	ng/L
samplewater, <0.7 um	Piperonyl Butoxide	Dissolved	ng/L
samplewater, <0.7 um	Prodiamine	Dissolved	ng/L
samplewater, <0.7 um	Prometon	Dissolved	ng/L
samplewater, <0.7 um	Prometryn	Dissolved	ng/L
samplewater, <0.7 um	Propanil	Dissolved	ng/L
samplewater, <0.7 um	Propargite	Dissolved	ng/L
samplewater, <0.7 um	Propiconazole	Dissolved	ng/L
samplewater, <0.7 um	Propyzamide	Dissolved	ng/L
samplewater, <0.7 um	Pyraclostrobin	Dissolved	ng/L
samplewater, <0.7 um	Pyridaben	Dissolved	ng/L
samplewater, <0.7 um	Pyrimethanil	Dissolved	ng/L
samplewater, <0.7 um	Pyriproxyfen	Dissolved	ng/L
samplewater, <0.7 um	Quinoxyfen	Dissolved	ng/L
samplewater, <0.7 um	Resmethrin	Dissolved	ng/L
samplewater, <0.7 um	Sedaxane	Dissolved	ng/L
samplewater, <0.7 um	Simazine	Dissolved	ng/L
samplewater, <0.7 um	Tebuconazole	Dissolved	ng/L
samplewater, <0.7 um	Tebupirimfos	Dissolved	ng/L
samplewater, <0.7 um	Tebupirimfos oxon	Dissolved	ng/L
samplewater, <0.7 um	Tefluthrin	Dissolved	ng/L
samplewater, <0.7 um	Tetraconazole	Dissolved	ng/L
samplewater, <0.7 um	Tetramethrin	Dissolved	ng/L

Matrix	Analyte	Fraction	Unit
samplewater, <0.7 um	T-Fluvalinate	Dissolved	ng/L
samplewater, <0.7 um	Thiobencarb	Dissolved	ng/L
samplewater, <0.7 um	Triadimefon	Dissolved	ng/L
samplewater, <0.7 um	Triadimenol	Dissolved	ng/L
samplewater, <0.7 um	Triallate	Dissolved	ng/L
samplewater, <0.7 um	Tributyl Phosphorotrithioate, S,S,S-	Dissolved	ng/L
samplewater, <0.7 um	Trifloxystrobin	Dissolved	ng/L
samplewater, <0.7 um	Triflumizole	Dissolved	ng/L
samplewater, <0.7 um	Trifluralin	Dissolved	ng/L
samplewater, <0.7 um	Trifluralin-d14(Surrogate)	Dissolved	% recovery
samplewater, <0.7 um	Triticonazole	Dissolved	ng/L
samplewater, <0.7 um	Zoxamide	Dissolved	ng/L
samplewater, <0.7 um	Acetamiprid	Dissolved	ng/L
samplewater, <0.7 um	Acetamiprid	Dissolved	ng/L
samplewater, <0.7 um	Acetamiprid	Dissolved	ng/L
samplewater, <0.7 um	Carbendazim	Dissolved	ng/L
samplewater, <0.7 um	Carbendazim	Dissolved	ng/L
samplewater, <0.7 um	Carbendazim	Dissolved	ng/L
samplewater, <0.7 um	Carboxin	Dissolved	ng/L
samplewater, <0.7 um	Carboxin	Dissolved	ng/L
samplewater, <0.7 um	Carboxin	Dissolved	ng/L
samplewater, <0.7 um	Chlorantraniliprole	Dissolved	ng/L
samplewater, <0.7 um	Chlorantraniliprole	Dissolved	ng/L
samplewater, <0.7 um	Chlorantraniliprole	Dissolved	ng/L
samplewater, <0.7 um	Clothianidin	Dissolved	ng/L
samplewater, <0.7 um	Clothianidin	Dissolved	ng/L
samplewater, <0.7 um	Clothianidin	Dissolved	ng/L
samplewater, <0.7 um	Cyantraniliprole	Dissolved	ng/L
samplewater, <0.7 um	Cyantraniliprole	Dissolved	ng/L
samplewater, <0.7 um	Cyantraniliprole	Dissolved	ng/L
samplewater, <0.7 um	Cyazofamid	Dissolved	ng/L
samplewater, <0.7 um	Cyazofamid	Dissolved	ng/L
samplewater, <0.7 um	Cyazofamid	Dissolved	ng/L
samplewater, <0.7 um	Cymoxanil	Dissolved	ng/L
samplewater, <0.7 um	Cymoxanil	Dissolved	ng/L
samplewater, <0.7 um	Cymoxanil	Dissolved	ng/L
samplewater, <0.7 um	Desthio-prothioconazole	Dissolved	ng/L
samplewater, <0.7 um	Desthio-prothioconazole	Dissolved	ng/L
samplewater, <0.7 um	Desthio-prothioconazole	Dissolved	ng/L
samplewater, <0.7 um	Dichlorobenzenamine, 3,4-	Dissolved	ng/L

Matrix	Analyte	Fraction	Unit
samplewater, <0.7 um	Dichlorobenzenamine, 3,4-	Dissolved	ng/L
samplewater, <0.7 um	Dichlorobenzenamine, 3,4-	Dissolved	ng/L
samplewater, <0.7 um	Dichlorophenyl Urea, 3,4-	Dissolved	ng/L
samplewater, <0.7 um	Dichlorophenyl Urea, 3,4-	Dissolved	ng/L
samplewater, <0.7 um	Dichlorophenyl Urea, 3,4-	Dissolved	ng/L
samplewater, <0.7 um	Dichlorophenyl-3-methyl Urea, 3,4-	Dissolved	ng/L
samplewater, <0.7 um	Dichlorophenyl-3-methyl Urea, 3,4-	Dissolved	ng/L
samplewater, <0.7 um	Dichlorophenyl-3-methyl Urea, 3,4-	Dissolved	ng/L
samplewater, <0.7 um	Dinotefuran	Dissolved	ng/L
samplewater, <0.7 um	Dinotefuran	Dissolved	ng/L
samplewater, <0.7 um	Dinotefuran	Dissolved	ng/L
samplewater, <0.7 um	Diuron	Dissolved	ng/L
samplewater, <0.7 um	Diuron	Dissolved	ng/L
samplewater, <0.7 um	Diuron	Dissolved	ng/L
samplewater, <0.7 um	Ethaboxam	Dissolved	ng/L
samplewater, <0.7 um	Ethaboxam	Dissolved	ng/L
samplewater, <0.7 um	Ethaboxam	Dissolved	ng/L
samplewater, <0.7 um	Flonicamid	Dissolved	ng/L
samplewater, <0.7 um	Flonicamid	Dissolved	ng/L
samplewater, <0.7 um	Flonicamid	Dissolved	ng/L
samplewater, <0.7 um	Flupyradifurone	Dissolved	ng/L
samplewater, <0.7 um	Flupyradifurone	Dissolved	ng/L
samplewater, <0.7 um	Flupyradifurone	Dissolved	ng/L
samplewater, <0.7 um	Fluridone	Dissolved	ng/L
samplewater, <0.7 um	Fluridone	Dissolved	ng/L
samplewater, <0.7 um	Fluridone	Dissolved	ng/L
samplewater, <0.7 um	Imidacloprid	Dissolved	ng/L
samplewater, <0.7 um	Imidacloprid	Dissolved	ng/L
samplewater, <0.7 um	Imidacloprid	Dissolved	ng/L
samplewater, <0.7 um	Imidacloprid urea	Dissolved	ng/L
samplewater, <0.7 um	Imidacloprid urea	Dissolved	ng/L
samplewater, <0.7 um	Imidacloprid urea	Dissolved	ng/L
samplewater, <0.7 um	Imidacloprid-d4(Surrogate)	Dissolved	% recovery
samplewater, <0.7 um	Imidacloprid-d4(Surrogate)	Dissolved	% recovery
samplewater, <0.7 um	Imidacloprid-d4(Surrogate)	Dissolved	% recovery
samplewater, <0.7 um	Mandipropamid	Dissolved	ng/L
samplewater, <0.7 um	Mandipropamid	Dissolved	ng/L
samplewater, <0.7 um	Mandipropamid	Dissolved	ng/L

Matrix	Analyte	Fraction	Unit
samplewater, <0.7 um	Methoxyfenozide	Dissolved	ng/L
samplewater, <0.7 um	Methoxyfenozide	Dissolved	ng/L
samplewater, <0.7 um	Methoxyfenozide	Dissolved	ng/L
samplewater, <0.7 um	Monuron(Surrogate)	Dissolved	% recovery
samplewater, <0.7 um	Monuron(Surrogate)	Dissolved	% recovery
samplewater, <0.7 um	Monuron(Surrogate)	Dissolved	% recovery
samplewater, <0.7 um	Oryzalin	Dissolved	ng/L
samplewater, <0.7 um	Oryzalin	Dissolved	ng/L
samplewater, <0.7 um	Oryzalin	Dissolved	ng/L
samplewater, <0.7 um	Oxathiapiprolin	Dissolved	ng/L
samplewater, <0.7 um	Oxathiapiprolin	Dissolved	ng/L
samplewater, <0.7 um	Oxathiapiprolin	Dissolved	ng/L
samplewater, <0.7 um	Penoxsulam	Dissolved	ng/L
samplewater, <0.7 um	Penoxsulam	Dissolved	ng/L
samplewater, <0.7 um	Penoxsulam	Dissolved	ng/L
samplewater, <0.7 um	Penthiopyrad	Dissolved	ng/L
samplewater, <0.7 um	Penthiopyrad	Dissolved	ng/L
samplewater, <0.7 um	Penthiopyrad	Dissolved	ng/L
samplewater, <0.7 um	Sulfoxaflor	Dissolved	ng/L
samplewater, <0.7 um	Sulfoxaflor	Dissolved	ng/L
samplewater, <0.7 um	Sulfoxaflor	Dissolved	ng/L
samplewater, <0.7 um	Tebufenozide	Dissolved	ng/L
samplewater, <0.7 um	Tebufenozide	Dissolved	ng/L
samplewater, <0.7 um	Tebufenozide	Dissolved	ng/L
samplewater, <0.7 um	Thiabendazole	Dissolved	ng/L
samplewater, <0.7 um	Thiabendazole	Dissolved	ng/L
samplewater, <0.7 um	Thiabendazole	Dissolved	ng/L
samplewater, <0.7 um	Thiacloprid	Dissolved	ng/L
samplewater, <0.7 um	Thiacloprid	Dissolved	ng/L
samplewater, <0.7 um	Thiacloprid	Dissolved	ng/L
samplewater, <0.7 um	Thiamethoxam	Dissolved	ng/L
samplewater, <0.7 um	Thiamethoxam	Dissolved	ng/L
samplewater, <0.7 um	Thiamethoxam	Dissolved	ng/L
samplewater, <0.7 um	Thiamethoxam Degradate (CGA-355190)	Dissolved	ng/L
samplewater, <0.7 um	Thiamethoxam Degradate (CGA-355190)	Dissolved	ng/L
samplewater, <0.7 um	Thiamethoxam Degradate (CGA-355190)	Dissolved	ng/L
samplewater, <0.7 um	Thiamethoxam Degradate (NOA-407475)	Dissolved	ng/L

Matrix	Analyte	Fraction	Unit
samplewater, <0.7 um	Thiamethoxam Degradate (NOA-407475)	Dissolved	ng/L
samplewater, <0.7 um	Thiamethoxam Degradate (NOA-407475)	Dissolved	ng/L
samplewater, <0.7 um	Tolfenpyrad	Dissolved	ng/L
samplewater, <0.7 um	Tolfenpyrad	Dissolved	ng/L
samplewater, <0.7 um	Tolfenpyrad	Dissolved	ng/L
samplewater, <0.7 um	Tricyclazole	Dissolved	ng/L
samplewater, <0.7 um	Tricyclazole	Dissolved	ng/L
samplewater, <0.7 um	Tricyclazole	Dissolved	ng/L
samplewater, particulate, >0.70 um	Total Suspended Solids	Particulate	mg/L
samplewater, particulate, >0.70 um	Acibenzolar-S-methyl	Particulate	ng/L
samplewater, particulate, >0.70 um	Allethrin	Particulate	ng/L
samplewater, particulate, >0.70 um	Atrazine	Particulate	ng/L
samplewater, particulate, >0.70 um	Azoxystrobin	Particulate	ng/L
samplewater, particulate, >0.70 um	Benfluralin	Particulate	ng/L
samplewater, particulate, >0.70 um	Benzovindiflupyr	Particulate	ng/L
samplewater, particulate, >0.70 um	Bifenthrin	Particulate	ng/L
samplewater, particulate, >0.70 um	Boscalid	Particulate	ng/L
samplewater, particulate, >0.70 um	Butralin	Particulate	ng/L
samplewater, particulate, >0.70 um	Captan	Particulate	ng/L
samplewater, particulate, >0.70 um	Carbaryl	Particulate	ng/L
samplewater, particulate, >0.70 um	Carbofuran	Particulate	ng/L
samplewater, particulate, >0.70 um	Chlorfenapyr	Particulate	ng/L
samplewater, particulate, >0.70 um	Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide, 2-	Particulate	ng/L
samplewater, particulate, >0.70 um	Chlorothalonil	Particulate	ng/L
samplewater, particulate, >0.70 um	Chlorpyrifos	Particulate	ng/L
samplewater, particulate, >0.70 um	Chlorpyrifos oxon	Particulate	ng/L
samplewater, particulate, >0.70 um	Clomazone	Particulate	ng/L
samplewater, particulate, >0.70 um	Coumaphos	Particulate	ng/L
samplewater, particulate, >0.70 um	Cycloate	Particulate	ng/L
samplewater, particulate, >0.70 um	Cyfluthrin, Total	Particulate	ng/L
samplewater, particulate, >0.70 um	Cyhalofop-butyl	Particulate	ng/L
samplewater, particulate, >0.70 um	Cyhalothrin, Total	Particulate	ng/L
samplewater, particulate, >0.70 um	Cypermethrin, Total	Particulate	ng/L
samplewater, particulate, >0.70 um	Cyproconazole	Particulate	ng/L
samplewater, particulate, >0.70 um	Cyprodinil	Particulate	ng/L
samplewater, particulate, >0.70 um	Dacthal	Particulate	ng/L
samplewater, particulate, >0.70 um	DDD(p,p')	Particulate	ng/L

Matrix	Analyte	Fraction	Unit
samplewater, particulate, >0.70 um	DDE(p,p')	Particulate	ng/L
samplewater, particulate, >0.70 um	DDE(p,p')(Surrogate)	Particulate	% recovery
samplewater, particulate, >0.70 um	DDT(p,p')	Particulate	ng/L
samplewater, particulate, >0.70 um	Deltamethrin	Particulate	ng/L
samplewater, particulate, >0.70 um	Diazinon	Particulate	ng/L
samplewater, particulate, >0.70 um	Diazoxon	Particulate	ng/L
samplewater, particulate, >0.70 um	Dichloroaniline, 3,5-	Particulate	ng/L
samplewater, particulate, >0.70 um	Dichlorobenzenamine, 3,4-	Particulate	ng/L
samplewater, particulate, >0.70 um	Dichlorvos	Particulate	ng/L
samplewater, particulate, >0.70 um	Difenoconazole	Particulate	ng/L
samplewater, particulate, >0.70 um	Dimethomorph	Particulate	ng/L
samplewater, particulate, >0.70 um	Dithiopyr	Particulate	ng/L
samplewater, particulate, >0.70 um	EPTC	Particulate	ng/L
samplewater, particulate, >0.70 um	Esfenvalerate	Particulate	ng/L
samplewater, particulate, >0.70 um	Ethalfluralin	Particulate	ng/L
samplewater, particulate, >0.70 um	Ethofenprox	Particulate	ng/L
samplewater, particulate, >0.70 um	Etoxazole	Particulate	ng/L
samplewater, particulate, >0.70 um	Famoxadone	Particulate	ng/L
samplewater, particulate, >0.70 um	Fenamidone	Particulate	ng/L
samplewater, particulate, >0.70 um	Fenbuconazole	Particulate	ng/L
samplewater, particulate, >0.70 um	Fenhexamid	Particulate	ng/L
samplewater, particulate, >0.70 um	Fenpropathrin	Particulate	ng/L
samplewater, particulate, >0.70 um	Fenpyroximate	Particulate	ng/L
samplewater, particulate, >0.70 um	Fipronil	Particulate	ng/L
samplewater, particulate, >0.70 um	Fipronil Desulfinyl	Particulate	ng/L
samplewater, particulate, >0.70 um	Fipronil Desulfinyl Amide	Particulate	ng/L
samplewater, particulate, >0.70 um	Fipronil Sulfide	Particulate	ng/L
samplewater, particulate, >0.70 um	Fipronil Sulfone	Particulate	ng/L
samplewater, particulate, >0.70 um	Fipronil-C13(Surrogate)	Particulate	% recovery
samplewater, particulate, >0.70 um	Fluazinam	Particulate	ng/L
samplewater, particulate, >0.70 um	Flubendiamide	Particulate	ng/L
samplewater, particulate, >0.70 um	Fludioxonil	Particulate	ng/L
samplewater, particulate, >0.70 um	Flufenacet	Particulate	ng/L
samplewater, particulate, >0.70 um	Flumetralin	Particulate	ng/L
samplewater, particulate, >0.70 um	Fluopicolide	Particulate	ng/L
samplewater, particulate, >0.70 um	Fluopyram	Particulate	ng/L
samplewater, particulate, >0.70 um	Fluoxastrobin	Particulate	ng/L
samplewater, particulate, >0.70 um	Flutolanil	Particulate	ng/L
samplewater, particulate, >0.70 um	Flutriafol	Particulate	ng/L
samplewater, particulate, >0.70 um	Fluxapyroxad	Particulate	ng/L
samplewater, particulate, >0.70 um	Hexazinone	Particulate	ng/L

Matrix	Analyte	Fraction	Unit
samplewater, particulate, >0.70 um	Imazalil	Particulate	ng/L
samplewater, particulate, >0.70 um	Indaziflam	Particulate	ng/L
samplewater, particulate, >0.70 um	Indoxacarb	Particulate	ng/L
samplewater, particulate, >0.70 um	Ipconazole	Particulate	ng/L
samplewater, particulate, >0.70 um	Iprodione	Particulate	ng/L
samplewater, particulate, >0.70 um	Isofetamid	Particulate	ng/L
samplewater, particulate, >0.70 um	Kresoxim-methyl	Particulate	ng/L
samplewater, particulate, >0.70 um	Malaoxon	Particulate	ng/L
samplewater, particulate, >0.70 um	Malathion	Particulate	ng/L
samplewater, particulate, >0.70 um	Metalaxyl	Particulate	ng/L
samplewater, particulate, >0.70 um	Metconazole	Particulate	ng/L
samplewater, particulate, >0.70 um	Methoprene	Particulate	ng/L
samplewater, particulate, >0.70 um	Metolachlor	Particulate	ng/L
samplewater, particulate, >0.70 um	Myclobutanil	Particulate	ng/L
samplewater, particulate, >0.70 um	Napropamide	Particulate	ng/L
samplewater, particulate, >0.70 um	Novaluron	Particulate	ng/L
samplewater, particulate, >0.70 um	Oxadiazon	Particulate	ng/L
samplewater, particulate, >0.70 um	Oxyfluorfen	Particulate	ng/L
samplewater, particulate, >0.70 um	Paclobutrazol	Particulate	ng/L
samplewater, particulate, >0.70 um	Parathion, Methyl	Particulate	ng/L
samplewater, particulate, >0.70 um	Pendimethalin	Particulate	ng/L
samplewater, particulate, >0.70 um	Pentachloroanisole	Particulate	ng/L
samplewater, particulate, >0.70 um	Pentachloronitrobenzene	Particulate	ng/L
samplewater, particulate, >0.70 um	Permethrin, cis-(Surrogate)	Particulate	% recovery
samplewater, particulate, >0.70 um	Permethrin, Total	Particulate	ng/L
samplewater, particulate, >0.70 um	Phenothrin	Particulate	ng/L
samplewater, particulate, >0.70 um	Phosmet	Particulate	ng/L
samplewater, particulate, >0.70 um	Picoxystrobin	Particulate	ng/L
samplewater, particulate, >0.70 um	Piperonyl Butoxide	Particulate	ng/L
samplewater, particulate, >0.70 um	Prodiamine	Particulate	ng/L
samplewater, particulate, >0.70 um	Prometon	Particulate	ng/L
samplewater, particulate, >0.70 um	Prometryn	Particulate	ng/L
samplewater, particulate, >0.70 um	Propanil	Particulate	ng/L
samplewater, particulate, >0.70 um	Propargite	Particulate	ng/L
samplewater, particulate, >0.70 um	Propiconazole	Particulate	ng/L
samplewater, particulate, >0.70 um	Propyzamide	Particulate	ng/L
samplewater, particulate, >0.70 um	Pyraclostrobin	Particulate	ng/L
samplewater, particulate, >0.70 um	Pyridaben	Particulate	ng/L
samplewater, particulate, >0.70 um	Pyrimethanil	Particulate	ng/L
samplewater, particulate, >0.70 um	Pyriproxyfen	Particulate	ng/L
samplewater, particulate, >0.70 um	Quinoxyfen	Particulate	ng/L

Matrix	Analyte	Fraction	Unit
samplewater, particulate, >0.70 um	Resmethrin	Particulate	ng/L
samplewater, particulate, >0.70 um	Sedaxane	Particulate	ng/L
samplewater, particulate, >0.70 um	Simazine	Particulate	ng/L
samplewater, particulate, >0.70 um	Tebuconazole	Particulate	ng/L
samplewater, particulate, >0.70 um	Tebupirimfos	Particulate	ng/L
samplewater, particulate, >0.70 um	Tebupirimfos oxon	Particulate	ng/L
samplewater, particulate, >0.70 um	Tefluthrin	Particulate	ng/L
samplewater, particulate, >0.70 um	Tetraconazole	Particulate	ng/L
samplewater, particulate, >0.70 um	Tetramethrin	Particulate	ng/L
samplewater, particulate, >0.70 um	T-Fluvalinate	Particulate	ng/L
samplewater, particulate, >0.70 um	Thiobencarb	Particulate	ng/L
samplewater, particulate, >0.70 um	Triadimefon	Particulate	ng/L
samplewater, particulate, >0.70 um	Triadimenol	Particulate	ng/L
samplewater, particulate, >0.70 um	Triallate	Particulate	ng/L
samplewater, particulate, >0.70 um	Tributyl Phosphorotrithioate, S,S,S-	Particulate	ng/L
samplewater, particulate, >0.70 um	Trifloxystrobin	Particulate	ng/L
samplewater, particulate, >0.70 um	Triflumizole	Particulate	ng/L
samplewater, particulate, >0.70 um	Trifluralin	Particulate	ng/L
samplewater, particulate, >0.70 um	Trifluralin-d14(Surrogate)	Particulate	% recovery
samplewater, particulate, >0.70 um	Triticonazole	Particulate	ng/L
samplewater, particulate, >0.70 um	Zoxamide	Particulate	ng/L

Appendix D. Summary of Completeness and Quality Control Sample Acceptability for WY 2021

The following sections outline the completeness and overall acceptability of each analysis completed for the Delta Regional Monitoring Program (DRMP) Current Use Pesticide (CUP) monitoring that occurred during WY 2021.

A total of 32 environmental samples were analyzed by the United State Geological Survey (USGS) National Water Quality Laboratory (NWQL) for dissolved copper, dissolved organic carbon (DOC), total inorganic carbon (TIC), particulate organic carbon (POC), total particulate carbon (TPC), and total particulate nitrogen (TPN). Associated results were unavailable during the preparation of this report. To ensure a complete and consistent record of WY 2021, verification of USGS NWQL results will be detailed in a future **Appendix A** to this document. These analytes are not included in the assessment below.

Summary of Completeness

Sample Completeness

Table D.1. Field and transport and analytical completeness for WY 2021.
Samples are counted as individual results, i.e., separate endpoints for toxicity results and separate sample fractions analyzed for chemistry results.

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
EPA 160.2	Water	Total Suspended Solids	32	32	100	32	100
EPA 821/R-02-012	Water	*Hyalella azteca*	32	32	100	32	100
EPA 821/R-02-013	Water	*Ceriodaphnia dubia*	64	64	100	64	100
EPA 821/R-02-013	Water	*Pimephales promelas*	64	64	100	64	100
EPA 821/R-02-013	Water	*Selenastrum capricornutum*	32	32	100	32	100
EPA 600/R-99-064M	Water	*Chironomus dilutus*	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Acibenzolar-S-methyl	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Allethrin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Atrazine	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Azoxystrobin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Benfluralin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Benzovindiflupyr	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Bifenthrin	64	64	100	64	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Boscalid	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Butralin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Captan	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Carbaryl	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Carbofuran	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Chlorfenapyr	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide, 2-	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Chlorothalonil	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Chlorpyrifos	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Chlorpyrifos oxon	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Clomazone	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Coumaphos	64	64	100	64	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Cycloate	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Cyfluthrin, Total	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Cyhalofop-butyl	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Cyhalothrin, Total	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Cypermethrin, Total	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Cyproconazole	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Cyprodinil	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Dacthal	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	DDD(p,p')	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	DDE(p,p')	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	DDT(p,p')	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Deltamethrin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Diazinon	64	64	100	64	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Diazoxon	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Dichloroaniline, 3,5-	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Dichlorobenzenamine, 3,4-	32	32	100	32	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Dichlorvos	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Difenoconazole	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Dimethomorph	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Dithiopyr	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	EPTC	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Esfenvalerate	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Ethalfluralin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Ethofenprox	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Etoxazole	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Famoxadone	64	64	100	64	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fenamidone	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fenbuconazole	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fenhexamid	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fenpropathrin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fenpyroximate	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fipronil	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fipronil Desulfinyl	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fipronil Desulfinyl Amide	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fipronil Sulfide	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fipronil Sulfone	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fluazinam	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Flubendiamide	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fludioxonil	64	64	100	64	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Flufenacet	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Flumetralin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fluopicolide	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fluopyram	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fluoxastrobin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Flutolanil	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Flutriafol	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fluxapyroxad	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Hexazinone	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Imazalil	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Indaziflam	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Indoxacarb	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Ipconazole	64	64	100	64	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Iprodione	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Isofetamid	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Kresoxim-methyl	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Malaoxon	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Malathion	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Metalaxyl	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Metconazole	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Methoprene	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Metolachlor	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Myclobutanil	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Napropamide	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Novaluron	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Oxadiazon	64	64	100	64	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Oxyfluorfen	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Paclobutrazol	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Parathion, Methyl	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Pendimethalin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Pentachloroanisole	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Pentachloronitrobenzene	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Permethrin, Total	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Phenothrin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Phosmet	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Picoxystrobin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Piperonyl Butoxide	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Prodiamine	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Prometon	64	64	100	64	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Prometryn	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Propanil	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Propargite	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Propiconazole	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Propyzamide	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Pyraclostrobin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Pyridaben	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Pyrimethanil	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Pyriproxyfen	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Quinoxyfen	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Resmethrin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Sedaxane	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Simazine	64	64	100	64	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tebuconazole	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tebupirimfos	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tebupirimfos oxon	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tefluthrin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tetraconazole	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tetramethrin	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	T-Fluvalinate	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Thiobencarb	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Triadimefon	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Triadimenol	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Triallate	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tributyl Phosphorotrithioate, S,S,S-	64	64	100	64	100
USGS-OCRL_GC/ MS_Sanders_2018	Water	Trifloxystrobin	64	64	100	64	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_GC/MS_Sanders_2018	Water	Triflumizole	64	64	100	64	100
USGS-OCRL_GC/MS_Sanders_2018	Water	Trifluralin	64	64	100	64	100
USGS-OCRL_GC/MS_Sanders_2018	Water	Triticonazole	64	64	100	64	100
USGS-OCRL_GC/MS_Sanders_2018	Water	Zoxamide	64	64	100	64	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Acetamiprid	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Carbendazim	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Carboxin	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Chlorantraniliprole	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Clothianidin	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Cyantraniliprole	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Cyazofamid	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Cymoxanil	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Desthio-prothioconazole	32	32	100	32	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Dichlorobenzenamine, 3,4-	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Dichlorophenyl Urea, 3,4-	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Dichlorophenyl-3-methyl Urea, 3,4-	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Dinotefuran	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Diuron	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Ethaboxam	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Flonicamid	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Flupyradifurone	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Fluridone	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Imidacloprid	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Imidacloprid urea	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Mandipropamid	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Methoxyfenozide	32	32	100	32	100

Method	Matrix	Analyte	Env. Samples Scheduled	Env. Samples Collected	Field and Transport Completeness (%)	Total Samples Analyzed	Analytical Completeness (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Oryzalin	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Oxathiapiprolin	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Penoxsulam	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Penthiopyrad	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Sulfoxaflor	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Tebufenozide	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Thiabendazole	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Thiacloprid	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Thiamethoxam	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Thiamethoxam Degradate (CGA-355190)	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Thiamethoxam Degradate (NOA-407475)	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Tolfenpyrad	32	32	100	32	100
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Tricyclazole	32	32	100	32	100
Total			**9504**	**9504**	**100**	**9512**	**100**

Field Measurement Completeness

Table D.2. Field measurement completeness counts for WY 2021.

Analyte	Samples Scheduled	Instrument Failure	Measurements taken	Completeness (%)
Dissolved Oxygen, mg/L	32	0	32	100
Oxygen Saturation (%)	32	0	32	100
pH	32	1	31	96
Salinity	32	0	32	100
Specific Conductivity, µS/cm	32	0	32	100
Temperature, ^{0}C	32	0	32	100
Turbidity, NTU	32	0	32	100
Total	**224**	**1**	**223**	**99.6**

Field Quality Control Frequency

Table D.3. Field quality control sample completeness.
Samples are counted as individual results, i.e., separate endpoints for toxicity results and separate sample fractions analyzed for chemistry results.

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
EPA 160.2	Water	Total Suspended Solids	32	2	2	36	6.3	6.3
EPA 821/R-02-012	Water	*Hyalella azteca*	32	2	NA	34	6.3	NA
EPA 821/R-02-013	Water	*Ceriodaphnia dubia*	64	4	NA	68	5.6	NA
EPA 821/R-02-013	Water	*Pimephales promelas*	64	4	NA	68	6.3	NA
EPA 821/R-02-013	Water	*Selenastrum capricornutum*	32	2	NA	34	6.3	NA
EPA 600/R-99-064M	Water	*Chironomus dilutus*	64	4	NA	68	6.3	NA
USGS-OCRL_GC/ MS_Sanders_2018	Water	Acibenzolar-S-methyl	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Allethrin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Atrazine	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Azoxystrobin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Benfluralin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Benzovindiflupyr	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Bifenthrin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Boscalid	64	4	4	72	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_GC/MS_Sanders_2018	Water	Butralin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Captan	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Carbaryl	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Carbofuran	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Chlorfenapyr	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide, 2-	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Chlorothalonil	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Chlorpyrifos	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Chlorpyrifos oxon	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Clomazone	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Coumaphos	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Cycloate	64	4	4	72	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_GC/MS_Sanders_2018	Water	Cyfluthrin, Total	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Cyhalofop-butyl	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Cyhalothrin, Total	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Cypermethrin, Total	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Cyproconazole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Cyprodinil	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Dacthal	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	DDD(p,p')	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	DDE(p,p')	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	DDT(p,p')	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Deltamethrin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Diazinon	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Diazoxon	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Dichloroaniline, 3,5-	64	4	4	72	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_GC/MS_Sanders_2018	Water	Dichlorobenzenamine, 3,4-	32	2	2	36	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Dichlorvos	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Difenoconazole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Dimethomorph	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Dithiopyr	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	EPTC	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Esfenvalerate	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Ethalfluralin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Ethofenprox	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Etoxazole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Famoxadone	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fenamidone	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fenbuconazole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fenhexamid	64	4	4	72	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_GC/MS_Sanders_2018	Water	Fenpropathrin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fenpyroximate	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fipronil	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fipronil Desulfinyl	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fipronil Desulfinyl Amide	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fipronil Sulfide	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fipronil Sulfone	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fluazinam	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Flubendiamide	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fludioxonil	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Flufenacet	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Flumetralin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fluopicolide	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Fluopyram	64	4	4	72	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fluoxastrobin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Flutolanil	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Flutriafol	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Fluxapyroxad	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Hexazinone	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Imazalil	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Indaziflam	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Indoxacarb	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Ipconazole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Iprodione	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Isofetamid	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Kresoxim-methyl	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Malaoxon	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Malathion	64	4	4	72	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_GC/MS_Sanders_2018	Water	Metalaxyl	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Metconazole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Methoprene	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Metolachlor	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Myclobutanil	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Napropamide	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Novaluron	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Oxadiazon	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Oxyfluorfen	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Paclobutrazol	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Parathion, Methyl	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Pendimethalin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Pentachloroanisole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Pentachloronitrobenzene	64	4	4	72	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Permethrin, Total	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Phenothrin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Phosmet	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Picoxystrobin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Piperonyl Butoxide	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Prodiamine	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Prometon	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Prometryn	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Propanil	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Propargite	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Propiconazole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Propyzamide	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Pyraclostrobin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Pyridaben	64	4	4	72	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_GC/ MS_Sanders_2018	Water	Pyrimethanil	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Pyriproxyfen	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Quinoxyfen	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Resmethrin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Sedaxane	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Simazine	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tebuconazole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tebupirimfos	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tebupirimfos oxon	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tefluthrin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tetraconazole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Tetramethrin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	T-Fluvalinate	64	4	4	72	6.3	6.3
USGS-OCRL_GC/ MS_Sanders_2018	Water	Thiobencarb	64	4	4	72	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_GC/MS_Sanders_2018	Water	Triadimefon	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Triadimenol	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Triallate	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Tributyl Phosphorotrithioate, S,S,S-	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Trifloxystrobin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Triflumizole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Trifluralin	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Triticonazole	64	4	4	72	6.3	6.3
USGS-OCRL_GC/MS_Sanders_2018	Water	Zoxamide	64	4	4	72	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Acetamiprid	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Carbendazim	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Carboxin	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Chlorantraniliprole	32	2	2	36	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Clothianidin	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Cyantraniliprole	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Cyazofamid	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Cymoxanil	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Desthio-prothioconazole	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Dichlorobenzenamine, 3,4-	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Dichlorophenyl Urea, 3,4-	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Dichlorophenyl-3-methyl Urea, 3,4-	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Dinotefuran	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Diuron	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Ethaboxam	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Flonicamid	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Flupyradifurone	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Fluridone	32	2	2	36	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Imidacloprid	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Imidacloprid urea	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Mandipropamid	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Methoxyfenozide	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Oryzalin	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Oxathiapiprolin	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Penoxsulam	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Penthiopyrad	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Sulfoxaflor	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Tebufenozide	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Thiabendazole	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Thiacloprid	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Thiamethoxam	32	2	2	36	6.3	6.3

Method	Matrix	Analyte	Env. Samples	Field Duplicates	Field Blanks	Total Samples	Field Duplicate Completeness (%)	Field Blank Completeness (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Thiamethoxam Degradate (CGA-355190)	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Thiamethoxam Degradate (NOA-407475)	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Tolfenpyrad	32	2	2	36	6.3	6.3
USGS-OCRL_LC/MS/MS_Sanders_2018	Water	Tricyclazole	32	2	2	36	6.3	6.3
Total			**9512**	**594**	**578**	**10684**	**6.2**	**6.1**

Quality Control Sample Acceptability

Field Blanks Samples

Table D.4. Field blank (FB) acceptability for WY 2021.

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Acetamiprid	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carbendazim	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carboxin	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Chlorantraniliprole	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Clothianidin	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyantraniliprole	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyazofamid	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cymoxanil	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Desthio-prothioconazole	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorobenzenamine, 3,4-	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl Urea, 3,4-	< MDL	2	2	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl-3-methyl Urea, 3,4-	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dinotefuran	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Diuron	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Ethaboxam	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flonicamid	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flupyradifurone	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Fluridone	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid urea	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Mandipropamid	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Methoxyfenozide	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oryzalin	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oxathiapiprolin	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penoxsulam	< MDL	2	2	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penthiopyrad	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Sulfoxaflor	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tebufenozide	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiabendazole	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiacloprid	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (CGA-355190)	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (NOA-407475)	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tolfenpyrad	< MDL	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tricyclazole	< MDL	2	2	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Acibenzolar-S-methyl	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Allethrin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Atrazine	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Azoxystrobin	< MDL	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Benfluralin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Benzovindiflupyr	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Bifenthrin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Boscalid	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Butralin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Captan	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Carbaryl	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Carbofuran	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorfenapyr	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide, 2-	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorothalonil	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorpyrifos	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorpyrifos oxon	< MDL	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Clomazone	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Coumaphos	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cycloate	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyfluthrin, Total	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyhalofop-butyl	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyhalothrin, Total	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cypermethrin, Total	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyproconazole	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyprodinil	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dacthal	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDD(p,p')	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDE(p,p')	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDT(p,p')	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Deltamethrin	< MDL	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Diazinon	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Diazoxon	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dichloroaniline, 3,5-	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate	Dichlorobenzenamine, 3,4-	< MDL	2	2	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dichlorvos	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Difenoconazole	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dimethomorph	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dithiopyr	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	EPTC	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Esfenvalerate	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ethalfluralin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ethofenprox	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Etoxazole	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Famoxadone	< MDL	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenamidone	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenbuconazole	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenhexamid	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenpropathrin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenpyroximate	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Desulfinyl	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Desulfinyl Amide	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Sulfide	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Sulfone	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluazinam	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flubendiamide	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fludioxonil	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flufenacet	< MDL	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flumetralin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluopicolide	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluopyram	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluoxastrobin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flutolanil	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flutriafol	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluxapyroxad	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Hexazinone	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Imazalil	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Indaziflam	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Indoxacarb	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ipconazole	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Iprodione	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Isofetamid	< MDL	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Kresoxim-methyl	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Malaoxon	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Malathion	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metalaxyl	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metconazole	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Methoprene	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metolachlor	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Myclobutanil	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Napropamide	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Novaluron	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Oxadiazon	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Oxyfluorfen	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Paclobutrazol	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Parathion, Methyl	< MDL	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pendimethalin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pentachloroanisole	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pentachloronitrobenzene	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Permethrin, Total	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Phenothrin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Phosmet	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Picoxystrobin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Piperonyl Butoxide	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prodiamine	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prometon	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prometryn	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propanil	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propargite	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propiconazole	< MDL	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propyzamide	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyraclostrobin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyridaben	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyrimethanil	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyriproxyfen	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Quinoxyfen	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Resmethrin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Sedaxane	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Simazine	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebuconazole	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebupirimfos	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebupirimfos oxon	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tefluthrin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tetraconazole	< MDL	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total FB Samples	FB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tetramethrin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	T-Fluvalinate	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Thiobencarb	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triadimefon	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triadimenol	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triallate	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tributyl Phosphorotrithioate, S,S,S-	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Trifloxystrobin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triflumizole	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Trifluralin	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triticonazole	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Zoxamide	< MDL	4	4	100
EPA 160.2	OCRL	Water	Particulate	Total Suspended Solids	< MDL	2	2	100
Total						**578**	**578**	**100**

Field Duplicate Samples

Table D.5. Field duplicate acceptability for WY 2021.

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
EPA 821/R-02-013M	PER	Water	Survival, Growth [1]	*Chironomus dilutus*	RPD ≤ 25	4	4	100
EPA 821/R-02-013	PER	Water	Survival, Reproduction [2]	*Ceriodaphnia dubia*	RPD ≤ 25	4	4	100
EPA 821/R-02-013	PER	Water	Survival, Growth [3]	*Pimephales promelas*	RPD ≤ 25	4	4	100
EPA 821/R-02-013	PER	Water	Growth [4]	*Selenastrum capricornutum*	RPD ≤ 25	2	2	100
EPA 821/R-02-012M	PER	Water	Survival	*Hyalella azteca*	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Acetamiprid	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carbendazim	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carboxin	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Chlorantraniliprole	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Clothianidin	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyantraniliprole	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyazofamid	RPD ≤ 25	2	2	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cymoxanil	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Desthio-prothioconazole	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorobenzenamine, 3,4-	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl Urea, 3,4-	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl-3-methyl Urea, 3,4-	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dinotefuran	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Diuron	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Ethaboxam	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flonicamid	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flupyradifurone	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Fluridone	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid urea	RPD ≤ 25	2	2	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Mandipropamid	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Methoxyfenozide	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oryzalin	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oxathiapiprolin	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penoxsulam	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penthiopyrad	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Sulfoxaflor	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tebufenozide	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiabendazole	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiacloprid	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (CGA-355190)	RPD ≤ 25	2	2	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (NOA-407475)	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tolfenpyrad	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tricyclazole	RPD ≤ 25	2	2	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Acibenzolar-S-methyl	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Allethrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Atrazine	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Azoxystrobin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Benfluralin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	articulate, Dissolved	Benzovindiflupyr	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Bifenthrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Boscalid	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Butralin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Captan	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	articulate, Dissolved	Carbaryl	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Carbofuran	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorfenapyr	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide, 2-	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorothalonil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorpyrifos	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorpyrifos oxon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Clomazone	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Coumaphos	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cycloate	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyfluthrin, Total	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyhalofop-butyl	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyhalothrin, Total	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cypermethrin, Total	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyproconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyprodinil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dacthal	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDD(p,p')	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDE(p,p')	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDT(p,p')	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Deltamethrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Diazinon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Diazoxon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dichloroaniline, 3,5-	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate	Dichlorobenzenamine, 3,4-	RPD ≤ 25	2	2	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dichlorvos	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Difenoconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dimethomorph	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dithiopyr	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	EPTC	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Esfenvalerate	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ethalfluralin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ethofenprox	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Etoxazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Famoxadone	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenamidone	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenbuconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenhexamid	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenpropathrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenpyroximate	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Desulfinyl	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Desulfinyl Amide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Sulfide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Sulfone	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluazinam	RPD ≤ 25	4	4	100
USGS-OCRL_GC/- MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flubendiamide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fludioxonil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flufenacet	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flumetralin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluopicolide	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluopyram	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluoxastrobin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flutolanil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flutriafol	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluxapyroxad	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Hexazinone	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Imazalil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Indaziflam	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Indoxacarb	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ipconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Iprodione	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Isofetamid	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Kresoxim-methyl	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Malaoxon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Malathion	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metalaxyl	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Methoprene	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metolachlor	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Myclobutanil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Napropamide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Novaluron	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Oxadiazon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Oxyfluorfen	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Paclobutrazol	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Parathion, Methyl	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pendimethalin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pentachloroanisole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pentachloronitrobenzene	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Permethrin, Total	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Phenothrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Phosmet	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Picoxystrobin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Piperonyl Butoxide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prodiamine	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prometon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prometryn	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propanil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propargite	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propiconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propyzamide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyraclostrobin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyridaben	RPD ≤ 25	4	4	100
USGS-OCRL_GC/- MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyrimethanil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyriproxyfen	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Quinoxyfen	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Resmethrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Sedaxane	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Simazine	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebuconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebupirimfos	RPD ≤ 25	4	4	100
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebupirimfos oxon	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tefluthrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tetraconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tetramethrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	T-Fluvalinate	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Thiobencarb	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triadimefon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triadimenol	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triallate	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tributyl Phosphorotrithioate, S,S,S-	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Trifloxystrobin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triflumizole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Trifluralin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triticonazole	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Field Dup Samples	Field Dup Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/ MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Zoxamide	RPD ≤ 25	4	4	100
EPA 160.2	OCRL	Water	Particulate	Total Suspended Solids	RPD ≤ 25 [5]	2	1	50
Total						**594**	**593**	**99.8**

[1] Growth for *Chironomus dilutus* is evaluated as the ash-free dry weight per surviving individual.
[2] Reproduction for *Ceriodaphnia dubia* is evaluated as the number of young per female.
[3] Growth for *Pimephales promelas* is evaluated as biomass as weight per original individual.
[4] Growth for *Selenastrum capricornutum* is evaluated as total cell count.
[5] RPD criteria not applicable id the concentration of either sample is below the MDL.

Laboratory Blank Samples

Table D.6. Laboratory blank (LB) acceptability for WY 2021.

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Acetamiprid	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carbendazim	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carboxin	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Chlorantraniliprole	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Clothianidin	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyantraniliprole	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyazofamid	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cymoxanil	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Desthio-prothioconazole	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorobenzenamine, 3,4-	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl Urea, 3,4-	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl-3-methyl Urea, 3,4-	< MDL	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dinotefuran	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Diuron	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Ethaboxam	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flonicamid	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flupyradifurone	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Fluridone	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid urea	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Mandipropamid	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Methoxyfenozide	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oryzalin	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oxathiapiprolin	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penoxsulam	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penthiopyrad	< MDL	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Sulfoxaflor	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tebufenozide	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiabendazole	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiacloprid	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (CGA-355190)	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (NOA-407475)	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tolfenpyrad	< MDL	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tricyclazole	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Acibenzolar-S-methyl	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Allethrin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Atrazine	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Azoxystrobin	< MDL	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Benfluralin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Benzovindiflupyr	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Bifenthrin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Boscalid	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Butralin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Captan	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Carbaryl	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Carbofuran	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Chlorfenapyr	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide, 2-	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Chlorothalonil	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Chlorpyrifos	< MDL	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Chlorpyrifos oxon	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Clomazone	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Coumaphos	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Cycloate	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Cyfluthrin, Total	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Cyhalofop-butyl	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Cyhalothrin, Total	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Cypermethrin, Total	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Cyproconazole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Cyprodinil	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Dacthal	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	DDD(p,p')	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	DDE(p,p')	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	DDT(p,p')	< MDL	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Deltamethrin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Diazinon	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Diazoxon	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Dichloroaniline, 3,5-	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate	Dichlorobenzenamine, 3,4-	< MDL	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Dichlorvos	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Difenoconazole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Dimethomorph	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Dithiopyr	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	EPTC	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Esfenvalerate	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Ethalfluralin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Ethofenprox	< MDL	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Etoxazole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Famoxadone	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fenamidone	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fenbuconazole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fenhexamid	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fenpropathrin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fenpyroximate	< MDL	8	8	100
USGS-OCRL_GC/-MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fipronil	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fipronil Desulfinyl	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fipronil Desulfinyl Amide	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fipronil Sulfide	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fipronil Sulfone	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fluazinam	< MDL	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Flubendiamide	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fludioxonil	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Flufenacet	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Flumetralin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fluopicolide	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fluopyram	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fluoxastrobin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Flutolanil	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Flutriafol	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Fluxapyroxad	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Hexazinone	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Imazalil	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Indaziflam	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Indoxacarb	< MDL	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Ipconazole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Iprodione	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Isofetamid	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Kresoxim-methyl	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Malaoxon	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Malathion	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Metalaxyl	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Metconazole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Methoprene	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Metolachlor	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Myclobutanil	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Napropamide	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Novaluron	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Oxadiazon	< MDL	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Oxyfluorfen	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Paclobutrazol	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Parathion, Methyl	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Pendimethalin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Pentachloroanisole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Pentachloronitrobenzene	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Permethrin, Total	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Phenothrin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Phosmet	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Picoxystrobin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Piperonyl Butoxide	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Prodiamine	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Prometon	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Prometryn	< MDL	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Propanil	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Propargite	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Propiconazole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Propyzamide	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Pyraclostrobin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Pyridaben	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Pyrimethanil	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Pyriproxyfen	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Quinoxyfen	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Resmethrin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Sedaxane	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Simazine	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Tebuconazole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Tebupirimfos	< MDL	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Tebupirimfos oxon	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Tefluthrin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Tetraconazole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Tetramethrin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	T-Fluvalinate	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Thiobencarb	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Triadimefon	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Triadimenol	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Triallate	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Tributyl Phosphorotrithioate, S,S,S-	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Trifloxystrobin	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Triflumizole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Trifluralin	< MDL	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LB Samples	LB Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Triticonazole	< MDL	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved, Particulate	Zoxamide	< MDL	8	8	100
EPA 160.2	OCRL	Water	Particulate	Total Suspended Solids	< MDL	4	4	100
Total						**1156**	**1156**	**100**

Laboratory Control Spike Samples

Table D.7. Laboratory control spike (LCS) recovery acceptability for WY 2021.

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Acetamiprid	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carbendazim	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carboxin	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Chlorantraniliprole	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Clothianidin	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyantraniliprole	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyazofamid	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cymoxanil	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Desthio-prothioconazole	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorobenzenamine, 3,4-	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl Urea, 3,4-	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl-3-methyl Urea, 3,4-	PR 70-130	2	2	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dinotefuran	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Diuron	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Ethaboxam	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flonicamid	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flupyradifurone	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Fluridone	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid urea	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Mandipropamid	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Methoxyfenozide	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oryzalin	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oxathiapiprolin	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penoxsulam	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penthiopyrad	PR 70-130	2	2	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Sulfoxaflor	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tebufenozide	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiabendazole	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiacloprid	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (CGA-355190)	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (NOA-407475)	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tolfenpyrad	PR 70-130	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tricyclazole	PR 70-130	2	2	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Acibenzolar-S-methyl	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Allethrin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Atrazine	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Azoxystrobin	PR 70-130	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Benfluralin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Benzovindiflupyr	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Bifenthrin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Boscalid	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Butralin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Captan	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Carbaryl	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Carbofuran	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorfenapyr	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide, 2-	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorothalonil	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorpyrifos	PR 70-130	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorpyrifos oxon	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Clomazone	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Coumaphos	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cycloate	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyfluthrin, Total	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyhalofop-butyl	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyhalothrin, Total	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cypermethrin, Total	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyproconazole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyprodinil	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dacthal	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDD(p,p')	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDE(p,p')	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDT(p,p')	PR 70-130	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Deltamethrin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Diazinon	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Diazoxon	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dichloroaniline, 3,5-	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate	Dichlorobenzenamine, 3,4-	PR 70-130	2	2	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dichlorvos	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Difenoconazole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dimethomorph	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dithiopyr	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	EPTC	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Esfenvalerate	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ethalfluralin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ethofenprox	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Etoxazole	PR 70-130	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Famoxadone	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenamidone	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenbuconazole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenhexamid	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenpropathrin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenpyroximate	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Desulfinyl	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Desulfinyl Amide	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Sulfide	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Sulfone	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluazinam	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flubendiamide	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fludioxonil	PR 70-130	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flufenacet	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flumetralin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluopicolide	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluopyram	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluoxastrobin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flutolanil	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flutriafol	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluxapyroxad	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Hexazinone	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Imazalil	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Indaziflam	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Indoxacarb	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ipconazole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Iprodione	PR 70-130	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Isofetamid	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Kresoxim-methyl	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Malaoxon	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Malathion	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metalaxyl	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metconazole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Methoprene	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metolachlor	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Myclobutanil	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Napropamide	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Novaluron	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Oxadiazon	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Oxyfluorfen	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Paclobutrazol	PR 70-130	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Parathion, Methyl	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pendimethalin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pentachloroanisole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pentachloronitrobenzene	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Permethrin, Total	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Phenothrin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Phosmet	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Picoxystrobin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Piperonyl Butoxide	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prodiamine	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prometon	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prometryn	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propanil	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propargite	PR 70-130	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propiconazole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propyzamide	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyraclostrobin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyridaben	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyrimethanil	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyriproxyfen	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Quinoxyfen	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Resmethrin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Sedaxane	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Simazine	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebuconazole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebupirimfos	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebupirimfos oxon	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tefluthrin	PR 70-130	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total LCS Samples	LCS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tetraconazole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tetramethrin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	T-Fluvalinate	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Thiobencarb	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triadimefon	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triadimenol	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triallate	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tributyl Phosphorotrithioate, S,S,S-	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Trifloxystrobin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triflumizole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Trifluralin	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triticonazole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Zoxamide	PR 70-130	4	4	100
Total						**1152**	**1152**	**100**

Matrix Spike Samples

Table D.8. Matrix spike (MS) recovery acceptability for WY 2021.

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Acetamiprid	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carbendazim	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carboxin	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Chlorantraniliprole	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Clothianidin	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyantraniliprole	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyazofamid	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cymoxanil	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Desthio-prothioconazole	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorobenzenamine, 3,4-	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl Urea, 3,4-	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl-3-methyl Urea, 3,4-	PR 70-130	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dinotefuran	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Diuron	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Ethaboxam	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flonicamid	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flupyradifurone	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Fluridone	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid urea	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Mandipropamid	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Methoxyfenozide	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oryzalin	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oxathiapiprolin	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penoxsulam	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penthiopyrad	PR 70-130	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Sulfoxaflor	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tebufenozide	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiabendazole	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiacloprid	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (CGA-355190)	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (NOA-407475)	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tolfenpyrad	PR 70-130	4	4	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tricyclazole	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Acibenzolar-S-methyl	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Allethrin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Atrazine	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Azoxystrobin	PR 70-130	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Benfluralin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Benzovindiflupyr	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Bifenthrin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Boscalid	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Butralin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Captan	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Carbaryl	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Carbofuran	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorfenapyr	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide, 2-	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorothalonil	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorpyrifos	PR 70-130	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorpyrifos oxon	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Clomazone	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Coumaphos	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cycloate	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyfluthrin, Total	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyhalofop-butyl	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyhalothrin, Total	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cypermethrin, Total	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyproconazole	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyprodinil	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dacthal	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDD(p,p')	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDE(p,p')	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDT(p,p')	PR 70-130	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Deltamethrin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Diazinon	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Diazoxon	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dichloroaniline, 3,5-	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate	Dichlorobenzenamine, 3,4-	PR 70-130	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dichlorvos	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Difenoconazole	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dimethomorph	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dithiopyr	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	EPTC	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Esfenvalerate	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ethalfluralin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ethofenprox	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Etoxazole	PR 70-130	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Famoxadone	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenamidone	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenbuconazole	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenhexamid	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenpropathrin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenpyroximate	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Desulfinyl	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Desulfinyl Amide	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Sulfide	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Sulfone	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluazinam	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flubendiamide	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fludioxonil	PR 70-130	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flufenacet	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flumetralin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluopicolide	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluopyram	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluoxastrobin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flutolanil	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flutriafol	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluxapyroxad	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Hexazinone	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Imazalil	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Indaziflam	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Indoxacarb	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ipconazole	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Iprodione	PR 70-130	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Isofetamid	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Kresoxim-methyl	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Malaoxon	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Malathion	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metalaxyl	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metconazole	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Methoprene	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metolachlor	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Myclobutanil	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Napropamide	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Novaluron	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Oxadiazon	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Oxyfluorfen	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Paclobutrazol	PR 70-130	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Parathion, Methyl	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pendimethalin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pentachloroanisole	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pentachloronitrobenzene	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Permethrin, Total	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Phenothrin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Phosmet	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Picoxystrobin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Piperonyl Butoxide	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prodiamine	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prometon	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prometryn	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propanil	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propargite	PR 70-130	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propiconazole	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propyzamide	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyraclostrobin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyridaben	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyrimethanil	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyriproxyfen	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Quinoxyfen	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Resmethrin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Sedaxane	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Simazine	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebuconazole	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebupirimfos	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebupirimfos oxon	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tefluthrin	PR 70-130	8	8	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MS Samples	MS Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tetraconazole	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tetramethrin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	T-Fluvalinate	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Thiobencarb	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triadimefon	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triadimenol	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triallate	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tributyl Phosphorotrithioate, S,S,S-	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Trifloxystrobin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triflumizole	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Trifluralin	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triticonazole	PR 70-130	8	8	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Zoxamide	PR 70-130	8	8	100
Total						**1152**	**1152**	**100**

Table D.9. Matrix spike duplicate acceptability for WY 2021.

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Acetamiprid	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carbendazim	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Carboxin	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Chlorantraniliprole	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Clothianidin	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyantraniliprole	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cyazofamid	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Cymoxanil	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Desthio-prothioconazole	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorobenzenamine, 3,4-	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl Urea, 3,4-	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dichlorophenyl-3-methyl Urea, 3,4-	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Dinotefuran	RPD ≤ 25	2	2	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Diuron	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Ethaboxam	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flonicamid	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Flupyradifurone	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Fluridone	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid urea	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Mandipropamid	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Methoxyfenozide	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oryzalin	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Oxathiapiprolin	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penoxsulam	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Penthiopyrad	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Sulfoxaflor	RPD ≤ 25	2	2	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tebufenozide	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiabendazole	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiacloprid	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (CGA-355190)	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Thiamethoxam Degradate (NOA-407475)	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tolfenpyrad	RPD ≤ 25	2	2	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Tricyclazole	RPD ≤ 25	2	2	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved	Acibenzolar-S-methyl	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Allethrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Atrazine	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Azoxystrobin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Benfluralin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Benzovindiflupyr	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Bifenthrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Boscalid	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Butralin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Captan	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Carbaryl	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Carbofuran	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorfenapyr	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chloro-N-(ethoxymethyl)-N-(2-ethyl-6-methylphenyl)acetamide, 2-	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorothalonil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorpyrifos	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Chlorpyrifos oxon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Clomazone	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Coumaphos	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cycloate	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyfluthrin, Total	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyhalofop-butyl	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyhalothrin, Total	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cypermethrin, Total	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyproconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Cyprodinil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dacthal	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDD(p,p')	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDE(p,p')	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	DDT(p,p')	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Deltamethrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Diazinon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Diazoxon	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dichloroaniline, 3,5-	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate	Dichlorobenzenamine, 3,4-	RPD ≤ 25	2	2	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dichlorvos	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Difenoconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dimethomorph	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Dithiopyr	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	EPTC	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Esfenvalerate	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ethalfluralin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ethofenprox	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Etoxazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Famoxadone	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenamidone	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenbuconazole	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenhexamid	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenpropathrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fenpyroximate	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Desulfinyl	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Desulfinyl Amide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Sulfide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil Sulfone	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluazinam	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flubendiamide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fludioxonil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flufenacet	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flumetralin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluopicolide	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluopyram	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluoxastrobin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flutolanil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Flutriafol	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fluxapyroxad	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Hexazinone	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Imazalil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Indaziflam	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Indoxacarb	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Ipconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Iprodione	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Isofetamid	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Kresoxim-methyl	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Malaoxon	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Malathion	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metalaxyl	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Methoprene	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Metolachlor	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Myclobutanil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Napropamide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Novaluron	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Oxadiazon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Oxyfluorfen	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Paclobutrazol	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Parathion, Methyl	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pendimethalin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pentachloroanisole	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pentachloronitrobenzene	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Permethrin, Total	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Phenothrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Phosmet	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Picoxystrobin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Piperonyl Butoxide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prodiamine	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prometon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Prometryn	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propanil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propargite	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propiconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Propyzamide	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyraclostrobin	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyridaben	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyrimethanil	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Pyriproxyfen	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Quinoxyfen	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Resmethrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Sedaxane	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Simazine	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebuconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebupirimfos	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tebupirimfos oxon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tefluthrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tetraconazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tetramethrin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	T-Fluvalinate	RPD ≤ 25	4	4	100

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total MSD Samples	MSD Samples Within Limits	Acceptability Met (%)
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Thiobencarb	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triadimefon	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triadimenol	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triallate	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Tributyl Phosphorotrithioate, S,S,S-	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Trifloxystrobin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triflumizole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Trifluralin	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Triticonazole	RPD ≤ 25	4	4	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Zoxamide	RPD ≤ 25	4	4	100
Total						**576**	**576**	**100**

Surrogate Samples

Table D.10. Surrogate recovery acceptability for WY 2021.

Method	Lab	Matrix	Fractions	Analyte	Acceptability Criteria	Total Surrogate Samples	Surrogate Samples Within Limits	Acceptability Met (%)
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Imidacloprid-d4(Surrogate)	PR 70-130	52	52	100
USGS-OCRL_LC/MS/MS_Sanders_2018	OCRL	Water	Dissolved	Monuron(Surrogate)	PR 70-130	52	52	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Dissolved	Atrazine-13C3(Surrogate)	PR 70-130	52	52	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate	DDE(p,p')(Surrogate)	PR 70-130	52	52	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Fipronil-C13(Surrogate)	PR 70-130	104	104	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate	Permethrin, cis-(Surrogate)	PR 70-130	52	52	100
USGS-OCRL_GC/MS_Sanders_2018	OCRL	Water	Particulate, Dissolved	Trifluralin-d14(Surrogate)	PR 70-130	104	104	100
Total						**468**	**468**	**100**

Toxicity Control Samples

Table D.11. Toxicity control sample acceptability for WY 2021.

Method	Lab	Control	Matrix	Organism	Endpoint	Acceptability Criteria	Total Control Samples	Control Samples Within Limits	Acceptability Met (%)
EPA 600/R-99-064M	PER	Negative Control	Water	*Chironomus dilutus*	Survival	≥ 80%	8	8	100
					Growth [1]	≥ 0.60 mg	8	8	100
EPA 821/R-02-013	PER	Negative Control	Water	*Ceriodaphnia dubia*	Reproduction [2]	60% of females ≥3 broods and average ≥15 young	8	8	100
					Survival	≥ 80%	8	8	100
EPA 821/R-02-013	PER	Salinity Control	Water	*Ceriodaphnia dubia*	Reproduction [2]	60% of females ≥3 broods and average ≥15 young	2	2	100
					Survival	≥ 80%	2	2	100
EPA 821/R-02-013	PER	Negative Control	Water	*Pimephales promelas*	Survival	≥ 80%	8	8	100
					Growth [3]	≥ 0.25 mg	8	8	100
EPA 821/R-02-013	PER	Negative Control	Water	*Selenastrum capricornutum*	Growth [4]	Growth >200,000 cells/mL and variability <20%	8	8	100
EPA 821/R-02-012	PER	Negative Control	Water	*Hyalella azteca*	Survival	≥ 90%	8	8	100
Total							**68**	**68**	**100**

[1] Growth for *Chironomus dilutus* is evaluated as the ash-free dry weight per surviving individual.
[2] Reproduction for *Ceriodaphnia dubia* is evaluated as the number of young per female.
[3] Growth for *Pimephales promelas* is evaluated as biomass as weight per original individual.
[4] Growth for *Selenastrum capricornutum* is evaluated as total cell count.