



AGRICULTURAL CONVERSION MITIGATION FEE
CITIZENS ADVISORY COMMITTEE

Agenda

Regular Meeting

Jan. 31, 2024, 4 p.m.

Council Chamber
1200 Carlsbad Village Dr.
Carlsbad, CA 92008
carlsbadca.gov

Welcome to the Agricultural Conversion Mitigation Fee (ACMF) Citizens Advisory Committee Meeting

We welcome your interest and involvement in the city's legislative process. This agenda includes information about topics coming before the Agricultural Conversion Mitigation Fee Citizens Advisory Committee and the action recommended by city staff. You can read about each topic in the staff reports, which are available on the city website.

How to watch

In Person



City Council Chamber
1200 Carlsbad Village Drive

Online



Watch the livestream at
carlsbadca.gov/watch

How to participate

If you would like to provide comments to the Committee, please:

- Fill out a speaker request form, located in the foyer.
 - Submit the form to the Clerk before the item begins.
 - When it's your turn, the Clerk will call your name and invite you to the podium.
 - Speakers have three minutes, unless the presiding officer (usually the chair) changes that time.
 - You may not give your time to another person, but can create a group. A group must select a single speaker as long as three other members of your group are present. All forms must be submitted to the City Clerk before the item begins and will only be accepted for items listed on the agenda (not for general public comment at the beginning of the meeting). Group representatives have 10 minutes unless that time is changed by the presiding officer or the Committee.
- **In writing:** Email comments to housing@carlsbadca.gov. Comments received by 1 p.m. the day of the meeting will be shared with the Committee prior to the meeting. When e-mailing comments, please identify in the subject line the agenda item to which your comments relate. All comments received will be included as part of the official record.

Reasonable accommodations

Reasonable Accommodations Persons with a disability may request an agenda packet in appropriate alternative formats as required by the Americans with Disabilities Act of 1990. Reasonable accommodations and auxiliary aids will be provided to effectively allow participation in the meeting. Please contact the City Manager's Office at 442-339-2821 (voice), 711 (free relay service for TTY users), 760-720-9461 (fax) or manager@carlsbadca.gov by noon on the Monday before the meeting to make arrangements. City staff will respond to requests by noon on Wednesday, the day of the meeting, and will seek to resolve requests before the start of the meeting in order to maximize accessibility.

CALL TO ORDER:

ROLL CALL:

PLEDGE OF ALLEGIANCE:

APPROVAL OF MINUTES:

Minutes of the Regular Meeting held on Dec. 14, 2022

PRESENTATIONS: None.

PUBLIC COMMENT: *The Brown Act allows any member of the public to comment on items not on the agenda. Please treat others with courtesy, civility, and respect. Members of the public may participate in the meeting by submitting comments as provided on the front page of this agenda. The Committee will receive comments in the beginning of the meeting. In conformance with the Brown Act, no action can occur on these items.*

CONSENT CALENDAR: *The items listed under Consent Calendar are considered routine and will be enacted by one motion as listed below. There will be no separate discussion on these items prior to the time the Committee votes on the motion unless members of the Committee, staff, or the public request specific items be discussed and/or removed from the Consent Calendar for separate action.*

PUBLIC HEARINGS: None.

DEPARTMENTAL REPORTS:

1. **GRANT UPDATES:** Receive an update regarding ongoing Agricultural Conversion Mitigation Fee projects. (Staff contact: Nicole Piano-Jones, Housing & Homeless Services Department)

Recommended Action: Receive the update.

2. **BATIQUITOS LAGOON FOUNDATION PROJECTS:** Review requests of Batiquitos Lagoon Foundation for projects AGP 06-12 and AGP 09-03 and approve a resolution to make recommendations to the City Council as applicable. (Staff contact: Nicole Piano-Jones, Housing & Homeless Services Department)

Recommended Action: Review the requests and adopt a resolution with Committee recommendation(s).

3. **FISCAL REPORT:** Receive report on available fund balance. (Staff contact: Nicole Piano-Jones, Housing & Homeless Services Department)

Recommended Action: Receive the report.

COMMITTEE MEMBER COMMENTARY AND REQUESTS FOR CONSIDERATION OF MATTERS: *This portion of the agenda is for the Committee to make brief announcements, brief reports of their activities and requests for future agenda items.*

STAFF COMMENTS:

ADJOURNMENT:



AGRICULTURAL CONVERSION MITIGATION FEE CITIZENS
ADVISORY COMMITTEE

Minutes

Council Chamber
1200 Carlsbad Village Drive
Carlsbad, CA 92008

Dec. 14, 2022, 10 a.m.

CALL TO ORDER: 10:14 a.m.

ROLL CALL: Brisbois, Lichten, Hedayet, Householder, Lash, Alkire

ANNOUNCEMENT OF CONCURRENT MEETINGS: None.

PLEDGE OF ALLEGIANCE: Program Manager Nicole Piano-Jones led the Pledge of Allegiance.

APPROVAL OF MINUTES:

Minutes of the Regular Meeting held on Nov. 17, 2021

Minutes approved as presented, 5/0/1 (Lash – Abstained).

PRESENTATIONS: None.

PUBLIC COMMENT: None.

CONSENT CALENDAR: None.

PUBLIC HEARING: None.

DEPARTMENTAL REPORTS:

1. **2022 COMMITTEE APPOINTMENTS** – Appointment of a Chair and Vice-Chair for the Agricultural Mitigation Conversion Fee Citizens Advisory Committee. (Staff contact: Nicole Piano-Jones, Housing & Homeless Services Department).

Staff Recommendation: Receive the reports, provide direction as appropriate and adopt the resolution.

Members discussed willingness and experience levels and agreed upon Member Alkire as Chair and Member Brisbois as Vice-Chair.

Motion by Member Lash, seconded by Member Housholder, to adopt Resolution No. 2022-001. Motion carried, 6/0.

2. **2022 GRANT PROPOSALS** – Review grant applications and make funding recommendations to the City Council. (Staff contact: Nicole Piano-Jones, Program Manager)

Staff Recommendation: Adopt the resolution.

Members discussed and asked clarifying questions of staff and applicants.

President and CEO of Carltas Company, Chris Calkins, spoke on behalf of The Flower Fields.

Board Member & Volunteer, Sally Bickerton, spoke on behalf of the Buena Vista Audubon Society.

CEO Thomas Grimm spoke on behalf of Carlsbad Aquafarm.

Motion by Member Vice-Chair Brisbois, seconded by Chair Alkire, to adopt Resolution No. 2022-02. Motion carried, 6/0.

3. **FISCAL REPORT** – Informational item regarding the Agricultural Conversion Mitigation Fee fund (Staff contact: Nicole Piano-Jones, Program Manager)

Staff Recommendation: Receive the report on available fund balance.

Members received the report and asked clarifying questions of staff.

COMMISSION COMMENTARY AND REQUESTS FOR CONSIDERATION OF MATTERS: Vice-Chair Brisbois recommended that applicants provide presentations in the future and that past grant recipients be invited to present updates.

Chair Lash suggestion meeting informally during the year; staff reminded the committee of the Brown Act rules for convening.

ANNOUNCEMENTS: None.

STAFF COMMENTS: Program Manager Nicole Piano-Jones congratulated and thanked the committee members.

ADJOURNMENT: 11:04 a.m.

Leah Sorensen
Administrative Secretary



AGRICULTURAL CONVERSION MITIGATION FEE CITIZENS ADVISORY COMMITTEE

Staff Report

Meeting Date: Jan. 31, 2024

To: Agricultural Conversion Mitigation Fee Citizens Advisory Committee

From: Nicole Piano-Jones, Senior Program Manager

Staff Contact: Nicole Piano-Jones, Senior Program Manager
nicole.pianojones@carlsbadca.gov, 442-339-2191

Subject: Grant Updates

District: All

Recommended Action

Receive an update regarding ongoing Agricultural Conversion Mitigation Fee (ACMF) projects.

Executive Summary

This agenda item summarizes projects that were previously deemed eligible and approved by the ACMF Committee and City Council that remain ongoing. This agenda item is meant to provide a high-level status update and there are no recommended actions, unless directed by the Committee.

Explanation & Analysis

The Carlsbad Municipal Code 21.202.060 regulates the conversion of coastal agricultural property to urban uses. The municipal code allows the conversion of specific parcels located within the Coastal Zone only upon payment of a mitigation fee. Over time, the mitigation fees accumulate and are then made available as grants to organizations proposing coastal-focused improvement and restoration projects.

Per Carlsbad Municipal Code 21.202.060.D.2., Agricultural Conversion Mitigation fees collected may be used to fund projects meeting one of four eligibility criteria:

- Restoration of the coastal and lagoon environment including but not limited to acquisition, management and/or restoration involving wildlife habitat or open space preservation
- Purchase and improvement of agricultural lands for continued agricultural production, or for the provision of research activities or ancillary uses necessary for the continued production of agriculture and/or aquaculture in the city's coastal zone, including but not limited to farm worker housing
- Restoration of beaches for public use including, but not limited to local and regional sand replenishment programs, vertical and lateral beach access improvements, trails

and other beach related improvements that enhance accessibility and/or public use of beaches

- Improvements to existing or proposed nature centers

Discussion

The purpose of this agenda item is to provide an overview of five projects that were approved in prior years. Below is a general description of the projects with funding detail, followed by a more detailed discussion of each project.

PROJECT NO	ORGANIZATION	PROJECT	FUNDING		STATUS
			APPROVED & APPROPRIATED	EXPENDED	
AGP 22-01	Agua Hedionda Lagoon Foundation	Discovery Center Door/Floor Replacement	\$62,000	\$62,000	Project completed – January 2024
AGP 22-02	Buena Vista Audubon Society	Nature Center Improvements	\$30,687	\$14,385	Expected completion: Early 2024
AGP 22-03	Flower Fields at Carlsbad Ranch	Recycled Water Trial	\$50,000	\$14,136	Expected completion: December 2024
AGP 22-04	Carlsbad Aquafarms, Inc.	Living Shoreline Project	\$230,000	\$28,090	Expected completion: 2025
RSBP III	San Diego Regional Association of Governments	Regional Beach Sand Project	\$64,677	\$0	Expected completion: Phase 1 through 2025
		TOTALS	\$437,364	\$118,611	

At its last meeting on Dec. 14, 2022, the Agricultural Conversion Mitigation Fee (ACMF) Citizens Advisory Committee recommended that the City Council approve the appropriation of \$372,687 for four new projects. On March 7, 2023, the City Council adopted Resolution No. 2023-068, approving the appropriation of \$372,687 in ACMF funds. The city entered into agreements with each organization for use of funds, and status reports are discussed further in this report.

Additionally, on May 9, 2023, the City Council approved Resolution No. 2023-126 which approved a Memorandum of Understanding (MOU) between the city and the San Diego Association of Governments (SANDAG) for an appropriation of \$64,677 in ACMF funds. The funds are for the third iteration of the Regional Beach Sand Project III – Phase I. The Regional Beach Sand Project began in 2001 to initially place 2.1 million cubic yards of clean sand onto 12 beaches from Imperial Beach to Oceanside. The second iteration of this project was in 2012, which placed 1.5 million cubic yards of sand to Imperial Beach, Oceanside, Encinitas and Carlsbad beaches. For both prior iterations, the City of Carlsbad entered an MOU with SANDAG and ACMF funds were used for the city’s contribution. The third project iteration is being completed in three phases: I) preliminary planning, II) engineering and environmental, and III) construction and monitoring. The MOU with SANDAG for \$64,677 covers Carlsbad’s share in the regional planning activities. The City Council resolution authorized the remaining \$162,875 in prior unused ACMF project funds, to be available for further phases of the project.

PROJECT DESCRIPTIONS

Grant: **AGP 22-01**
Organization: Agua Hedionda Lagoon Foundation (AHLF)
Project: Discovery Center Doors and Flooring
ACMF funds: \$62,000 Appropriated / \$62,000 Expended
Project category: Improvements to existing lagoon nature centers
Project description: This project replaces the exterior and internal doors as well as in the internal flooring of the Discovery Center. This project began in April 2023 and was implemented in three phases, with final work completed in December 2023. AHLF secured \$15,000 from the County of San Diego to leverage the ACMF funding. The total project cost was \$77,000, including the \$62,000 in ACMF funds.

Grant: **AGP 22-02**
Organization: Buena Vista Audubon Society
Project: Nature Center Improvements
ACMF funds: \$30,687 Appropriated / \$14,385 Expended
Project category: Improvements to existing lagoon nature centers
Project description: This project is making several improvements to the visitor center to address energy efficiency and improve overall comfort, sustainability, and functionality of the space. The project consists of four smaller projects; replace lighting, install sliding glass door, install HVAC system, and interior paint. The total project cost is estimated at \$30,687, all of which is being requested to be funded from ACMF funds. As of January 2024, three of the four projects have been completed. The final project is estimated to be completed in early 2024.

Grant: **AGP 22-03**
Organization: CB Ranch dba The Flower Fields at Carlsbad Ranch
Project: Recycled Water Trial
ACMF funds: \$50,000 Appropriated / \$14,136 Expended
Project category: Purchase & improvement of agricultural land
Project description: This project is testing the viability of recycled water for flower production. The project will mixing potable water with recycled water in a controlled area to determine if the salinity from recycled water can be reduced. Total project cost is estimated at \$105,000, of which \$50,000 is from ACMF funds, and CB Ranch covering the remaining \$55,000. It is anticipated that trials will begin in the spring of 2024 and project is expected to be completed in December 2025.

Grant: **AGP 22-04**
Organization: Carlsbad Aquafarms
Title: Living Shoreline Restoration
ACMF funds: \$230,000 Appropriated / \$28,090 Expended

Project category:	Restoration of the coastal & lagoon environment
Project description:	This project aims to restore and preserve approximately 3,500 square meters of Aqua Hedionda Lagoon shoreline. Specifically, the project involves a community-stakeholder supported living shoreline restoration project, in which native Olympia oyster reefs and Eelgrass meadows are installed and monitored. The total project cost is estimated at \$265,132.50, of which \$230,000 is from ACMF funds and \$33,407.50 is being provided through other sources. The project timeline is delineated into three categories, project planning, restoration, and post-restoration monitoring. All total, the estimated project timeline is approximately three years, through 2025.
Grant:	RBSP III
Organization:	San Diego Association of Governments (SANDAG)
Project:	Regional Beach Sand Project (RSBP) III
ACMF funds:	\$64,677 Appropriated / \$0 Expended
Project category:	Restoration of beaches for public use
Project description:	This project is the third iteration of the Regional Beach Sand Project. The first two iterations were completed in 2001 and 2012. The third iteration is comprised of three phases: I) preliminary planning, II) Engineering and environmental, and III) construction and monitoring. The MOU with SANDAG for \$64,677 in ACMF represents the City of Carlsbad's contribution towards Phase I of the project. During Phase I, SANDAG will update a feasibility study and economic analysis, which was originally completed in 2007, and estimate the total cost for the remaining two phases of RBSP III. The estimated completion for Phase I is through 2025. The City Council resolution authorized the remaining \$162,875 in prior unused ACMF project funds, to be available for further phases of the project.

Fiscal Analysis

The ACMF program is a fully funded through mitigation fees and there is no fiscal impact on the city's General Fund. The ACMF grant program operates on a reimbursement basis; therefore, grant recipients expend funds first and then submit reimbursement requests to the city. Funding for the projects described in this report have all been included and appropriated in the approved budget for the ACMF Fund.

Environmental Evaluation

Pursuant to Public Resources Code Section 21065, this action does not constitute a "project" within the meaning of the California Environmental Quality Act (CEQA) in that it has no potential to cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and therefore does not require environmental review.



AGRICULTURAL CONVERSION MITIGATION FEE CITIZENS ADVISORY COMMITTEE

Staff Report

Meeting Date: Jan. 31, 2024

To: Agricultural Conversion Mitigation Fee Citizens Advisory Committee

From: Nicole Piano-Jones, Senior Program Manager

Staff Contact: Nicole Piano-Jones, Senior Program Manager
nicole.pianojones@carlsbadca.gov, 442-339-2191

Subject: Batiquitos Lagoon Foundation Projects

District: All

Recommended Action

Review requests of Batiquitos Lagoon Foundation for projects AGP 06-12 and AGP 09-03 and approve a resolution to make recommendations to the City Council as applicable.

Executive Summary

The Carlsbad Municipal Code 21.202.060 regulates the conversion of coastal agricultural property to urban uses. The municipal code allows the conversion of specific parcels located within the Coastal Zone only upon payment of a mitigation fee. Over time, the mitigation fees accumulate and are then made available as grants to organizations proposing coastal-focused improvement and restoration projects. The Batiquitos Lagoon Foundation has two projects that were approved in prior years and for several reasons have yet to be completed. This agenda item is to provide an overview of these two projects for the Agricultural Conversion Mitigation Fee (ACMF) Citizens Advisory Committee to consider recommendations to the City Council as applicable.

Explanation & Analysis

Below is a general description of two Batiquitos Lagoon Foundation projects with funding detail, followed by a more detailed discussion of each project.

Batiquitos Lagoon Projects

PROJECT NO	PROJECT	FUNDING			STATUS
		AWARDED	APPROPRIATED	EXPENDED	
AGP 06-12	Batiquitos Lagoon Resiliency Plan	\$730,589	\$124,995*	\$111,284	See below
AGP 09-03	North Shore Trail	\$98,572	\$98,572	\$59,754	See below
	TOTALS	\$829,161	\$223,567	\$171,038	

* Denotes a discrepancy with appropriation amounts for this project, as discussed below.

AGP 06-12 – Lagoon Resiliency Plan

The Batiquitos Lagoon Resiliency Plan project was envisioned to be a long-term plan to identify data gaps and develop climate change adaptation strategies. The project was to be completed in four phases:

- Phase 1 – Scenario planning and data needs
- Phase II – Data collection as needed
- Phase III – Adaptation strategies
- Phase IV – Final Report
 - Original anticipated completion date 2019

The project was first approved by the ACMF Citizens Advisory Committee on Nov. 18, 2006. At the time, the Committee recommended that the City Council approve an award for the project of \$780,589, of which \$74,995 would be appropriated and made available to the Batiquitos Lagoon Foundation. Subsequently, on Nov. 13, 2007, the City Council approved Resolution No. 2008-050 which approved the grant award of \$780,589 and appropriation of \$74,995.

On Nov. 29, 2016, the ACMF Committee approved another appropriation of \$100,000 for AGP 06-12, followed by City Council approval on April 11, 2017, by Resolution No. 2017-061.

Lastly, on Oct. 26, 2017, the ACMF Committee recommended that the total grant award for project AGP 06-12 be reduced by \$50,000 to make additional funds available for other eligible projects. The City Council approved this funding reduction on Feb. 27, 2018, by Resolution No. 2018-025. It was later determined by city staff that the City Council approved reduction of \$50,000 to this grant project was mistakenly reduced from the appropriation balance, and not the award balance.

There has been no further ACMF Committee discussion or City Council action on this project since that time.

Current status:

- \$111,284 expended; remaining appropriated balance of \$13,711:
 - There is a discrepancy between award balance and appropriated balance. It was determined that the 2018 reduction in funding of \$50,000 was mistakenly reduced from the appropriated funding, not the total award funding.
- Phase I completed as of February 2020.
- Established Water Quality Management Program:
 - First sampling collected January 2022.
- Next steps include contracting with consulting firm for routine environmental sampling:
 - Expected costs \$84,949, anticipated completion November 2024.
 - Ongoing sampling expected to cost \$89,000 annually and to be completed from January 2025 – January 2030.

Applicant Request:

Batiquitos Lagoon Foundation is requesting that \$84,949 be appropriated at this time to cover the costs of the environmental sampling through November 2024. Batiquitos Lagoon Foundation also requests that the award balance of AGP 06-12 be reduced by \$35,287 and

added to project AGP 09-03, and that remaining award balance of AGP 06-12 remain reserved for the project.

AGP 09-03 – North Shore Trail

The Batiquitos Lagoon North Shore Trail project was envisioned to be a multi-phased project including planning and design, property acquisition, wetland restoration and invasive species removal, and trail building. The project was expected to begin in December 2009 and be fully completed in June 2012.

The Batiquitos Lagoon North Shore Trail project was first approved by the ACMF Committee on June 15, 2009. At which time, the Committee recommended that the City Council approve an award for the project of \$98,572, all of which would be appropriated and made available to the Batiquitos Lagoon Foundation. Subsequently on June 28, 2009, the City Council approved a grant award and appropriation of \$98,572 to project AGP 09-03. There has been no further ACMF Committee discussion or City Council action since that time.

Current status:

- \$59,754 expended; remaining appropriated balance of \$38,818.
- Invasive species removal and erosion control of trail are ongoing.
- Efforts to acquire the property required to complete the trail segment have stalled, therefore a new trail segment is being proposed:
 - o New trail (noted as “Trail Segment 12C” in City of Carlsbad Trails Master Plan) will connect public trail system east of I-5 with the public trail system west of I-5. CALTRANS has completed the design and plans are in the permitting process.
 - o Batiquitos Lagoon Foundation is coordinating the implementation of a 225 ft trail that would connect the new I-5 trail and existing San Pacifico trail head.
- Next steps are for Batiquitos to engage a design firm to complete a ‘shovel ready’ design for the 225 ft trail connection. The design work is expected cost \$74,105 and anticipated completion is 10 months after contract execution. The total cost and timeframe for trail implementation is not known and is not part of this request.

Applicant Request:

Batiquitos Lagoon Foundation is requesting that the ACMF Committee consider the revised project, including an additional ACMF funding request of \$35,287 for trail design. Batiquitos Lagoon Foundation proposes to reduce the award balance of project AGP 06-12 to support this request. The estimated cost and timeframe to complete the trail segment is unknown at this time. Batiquitos Lagoon Foundation is not requesting an additional ACMF fund award for that at this time, however, may request additional funds at a later date.

Fiscal Analysis

The ACMF program is a fully funded through mitigation fees and there is no fiscal impact on the city’s General Fund. The ACMF grant program operates on a reimbursement basis; therefore, grant recipients expend funds first and then submit reimbursement requests to the city. Funding for the projects described in this report have all been included and appropriated in the approved budget for the ACMF Fund. Should the Committee direct staff to take recommendations to the City Council to appropriate funds to the two projects discussed in this

report, there would be no fiscal impact as those funds are available in the ACMF budget and have been previously awarded. Should the Committee direct staff to take recommendations to the City Council to reduce award funding from the two projects discussed in this report, the Committee would need to provide direction to city staff as to the use of those funds.

Environmental Evaluation

The City Planner finds that adoption of a resolution modifying the funding for Batiquitos Lagoon Foundation ACMF-funded projects is exempt from environmental review under the California Environmental Quality Act under CEQA Guidelines section 15061(b)(3), because it can be seen with certainty that the project will have no significant negative impact on the environment.

Exhibits

1. Resolution
2. Batiquitos Lagoon Foundation documents

RESOLUTION NO. _____

A RESOLUTION OF THE AGRICULTURAL CONVERSION MITIGATION FEE CITIZENS ADVISORY COMMITTEE OF THE CITY OF CARLSBAD, CALIFORNIA, RECOMMENDING THAT THE CITY COUNCIL APPROVE PROJECT CHANGES AS DESCRIBED HEREIN

WHEREAS, the Agricultural Conversion Mitigation Fee Citizens Advisory Committee of the City of Carlsbad, California held a noticed public meeting to obtain public input and review and consider projects funded with Agricultural Conversion Mitigation Fee funds; and

WHEREAS, on Nov. 18, 2006, the Agricultural Conversion Mitigation Fee Citizens Advisory Committee recommended that the City Council approve an award of \$780,589, of which \$74,995 appropriated to the Batiquitos Lagoon Foundation for AGP 06-12; and

WHEREAS, on Nov. 13, 2007, the City Council approved Resolution No. 2008-050, approving the award of \$780,589, of which \$74,995 appropriated to the Batiquitos Lagoon Foundation for AGP 06-12; and

WHEREAS, on Nov. 29, 2016, the Agricultural Conversion Mitigation Fee Citizens Advisory Committee recommended that the City Council approve an appropriation of \$100,000 to the Batiquitos Lagoon Foundation for AGP 06-12; and

WHEREAS, on April 11, 2017, the City Council approved Resolution No. 2017-061, approving an appropriation of \$100,000 to the Batiquitos Lagoon Foundation for AGP 06-12; and

WHEREAS, on Oct. 26, 2017, the Agricultural Conversion Mitigation Fee Citizens Advisory Committee recommended that the City Council approve a grant award reduction of \$50,000 to the Batiquitos Lagoon Foundation for AGP 06-12; and

WHEREAS, on Feb. 27, 2018, the City Council approved Resolution No. 2018-025, approving the reduction of \$50,000 to the Batiquitos Lagoon Foundation for AGP 06-12; and

WHEREAS, on June 15, 2009, the Agricultural Conversion Mitigation Fee Citizens Advisory Committee recommended that the City Council approve a grant award and appropriation of \$98,572 to the Batiquitos Lagoon Foundation for AGP 09-03; and

WHEREAS, on June 28, 2009, the City Council approved Resolution No. 2009-199, approving the grant award and appropriation of \$98,572 to Batiquitos Lagoon Foundation for AGP 09-03; and

WHEREAS, the Batiquitos Lagoon Foundation has requested that the Committee consider an additional award and appropriation request of \$35,287 for AGP 09-03 – reducing the award balance of AGP 06-12 by \$35,287; and

WHEREAS, the Batiquitos Lagoon Foundation has requested that \$84,949 be appropriated to project 06-12, and that the remaining award balance be reserved for future AGP 06-12; and

WHEREAS, the Agricultural Conversion Mitigation Fee Citizens Advisory Committee of the City of Carlsbad on Jan. 31, 2024, held a noticed public meeting to consider these requests; and

NOW, THEREFORE, BE IT RESOLVED by the Agricultural Conversion Mitigation Fee Citizens Advisory Committee of the City of Carlsbad, California, as follows:

1. That the above recitations are true and correct.
2. The Agricultural Conversion Mitigation Fee Citizens Advisory Committee recommends that the City Council approve the project changes provided in Attachment A.

PASSED, APPROVED AND ADOPTED at a Regular Meeting of the Agricultural Conversion Mitigation Fee Citizens Advisory Committee of the City of Carlsbad on the __ day of _____, 2024, by the following vote, to wit:

AYES:

NAYS:

ABSTAIN:

ABSENT:

CAROLINE ALKIRE, Chair

NICOLE PIANO-JONES, Senior Program Manager

**AGRICULTURAL CONVERSION MITIGATION FEE CITIZENS ADVISORY COMMITTEE RECOMMENDATIONS
FOR PROJECTS AGP 06-12 AND AGP 09-03**

Project Current Status		Batiquitos Lagoon Foundation Requests		ACMF Committee Recommendation
		Requested Change	Requested Total	
AGP 06-12 Approved 2006	ACMF Award: \$730,589	Award Reduction: (- \$35,287)	ACMF Award: \$695,302	
Expended: \$111,284	Appropriated: \$124,995	Current Appropriation: (+ \$84,949)	Appropriation: \$209,994	
AGP 09-03 Approved 2009	ACMF Award: \$98,572	Award Increase: (+ \$35,287)	ACMF Award: \$133,859	
Expended: \$59,754	Appropriated: \$98,572	Current Appropriation: (+\$35,287)	Appropriation: \$133,859	



Brief Cost Proposal

Date: November 7, 2023

Prepared For: Batiquitos Lagoon Foundation

Prepared By: Miller Marine Science & Consulting, Inc.

Subject: Batiquitos Lagoon Sampling of the South Shore Area West of I-5

PURPOSE

The Batiquitos Lagoon Foundation (BLF) requests environmental sampling of sediments within Batiquitos Lagoon (BL) at the site designated “the south shore area west of I-5 Freeway”. Historically, the surrounding terrestrial environment was dominated by agricultural lands that have progressively been converted to housing and commercial uses. As development expanded, stormwater capture infrastructure was expanded to collect and direct to discharge points within BL. Dedicated sediment collection on the south shore area west of I-5 Freeway using core samplers to determine the presence of legacy agriculture contamination has not been completed previously. This represents the first investigation of legacy contamination of sub-surface sediments.

SCOPE OF WORK

The scope of work was developed in consultation with Mr. David Hill and Dr. John Helly.

Batiquitos Lagoon South Shore Area west of I-5 Freeway

Miller Marine Science & Consulting, Inc. (MMSC) will collect five (5) sediment core samples from the Batiquitos Lagoon South Shore Area west of I-5 Freeway. A small area at each of the five (5) sampling stations will be cleared of vegetation by hand. MMSC will drive each core to attain either a 24-inch core sample or drive to resistance failure where the core could not penetrate the sediment any further. A new, chemically inert liner will be used in the core sampler for each station. After driving, the core will be removed from the ground and the liner pulled out. The liner ends will be capped to prevent any contamination or material loss. The liner will be labeled with the station identification corresponding to the data sheet. The liners will be kept in a vertical orientation and chilled in a custom rack through delivery to the analytical laboratory. The analytical laboratory will process the cores and collect a subsample approximately every six (6) inches from the core's bottom achieving four (4) subsamples per core. In the event the core is less than 24 inches long, the subsampling will be revised and the core nearest the sediment surface will either be less than six (6) inches from the prior sample or no sediment surface subsample will be collected. **A total of 20 samples (four subsamples per core) for laboratory analysis are planned. The laboratory's standard turnaround time to generate testing results is currently 20 business days.**

In addition to the cores, surface sediments will be collected at each of the core sampling stations. A small area at each of the five (5) sampling stations will be cleared of vegetation by hand. A clean stainless-steel spoon will be inserted 5 cm into the sediment and used to scoop up sediments. The collected sediments will be placed into the laboratory provided sample jars and labeled. All jars will be placed in a cooler with ice to maintain a cool temperature until all sampling is complete. **A total of 5 surface sediment samples for laboratory analysis are planned. The**



laboratory's standard turnaround time to generate testing results is currently 20 business days.

Surface water will be collected from three stations along the shoreline of the south shore area west of I-5 Freeway proximate to the stations sampled in December 2021. The proposed sampling will occur from the shoreline and not from a boat. Surface water will be collected in clean sampling jars provided by the two laboratories that will be used to analyze the water for fecal indicator bacteria. If needed, a sterile van dorn bottle will be available to collect the water and dispense the collected water into the laboratory-provided sample bottles. These samples will be placed in a cooler on ice and transported to the two bacteria laboratories. One laboratory will quantify the bacteria forms (Total Coliform + E. Coli and Enterococcus) like what was done in December 2021. The second laboratory will conduct genetic microbial source tracking to determine if human-sourced fecal bacteria are present using the HF183 genetic marker. The HF183 marker is the current standard required by the Regional Water Quality Control Boards for bacteria microbial source tracking where human contributions are suspected. **A total of nine water samples will be collected to support the specified bacteria tests. Quantification typically requires two bottles.**

Sampling Assumptions

MMSC assumes the south shore area west of I-5 Freeway is accessible on foot pulling a wagon from nearby La Costa Ave. MMSC may meet with Mr. David Hill to confirm the entry points and walk the path to the sampling site during a reconnaissance visit prior to mobilizing all of the sampling equipment. The BLF will provide MMSC with all the access permissions needed including copies of the needed CA Department of Fish and Wildlife permit and their acknowledgment and acceptance of the notification. BLF also states that access to the south shore area west of I-5 Freeway is unrestricted and currently open. Additionally, the sampling site is an area of Batiquitos Lagoon a State-owned Ecological Research (Batiquitos Lagoon Ecological Reserve; BLER). Permission to access and obtain water and sediment samples has been granted to the BLF until December 31, 2024 by the California Department of Fish and Wildlife (Attachment 1). The BLF has advised MMSC that the access to the south shore area is along a natural occurring surface water runoff ravine draining to the lagoon.

COST ESTIMATE

Management, Field Sampling, Reporting = \$13,700

Bacteria Testing = \$4,725

Sediment Testing = \$27,575

Total estimate = \$46,000

This cost estimate is inclusive of mobilization, sediment sampling, and surface water sampling in the field inclusive of all sampling equipment described above, laboratory processing of the sediment cores, surface sediments, and water samples as described above, and a data report summarizing the final field methods and data results.



We can proceed as soon as we receive a notice to proceed and executed master services agreement.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric Miller", is positioned below the word "Sincerely".

Eric Miller, MS

Principal

Miller Marine Science & Consulting, Inc.



ATTACHMENT 1. CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE SAMPLING AUTHORIZATION PERMIT AND EXTENSION

October 27, 2023

Chris Ross
President
Batiquitos Lagoon Foundation
P.O. Box 131741
Carlsbad, CA 92013

Subject: Permission to Access Batiquitos Lagoon Ecological Reserve in San Diego County between October 25, 2023 & December 31, 2024.

Dear Chris Ross:

You and your agents at the Batiquitos Lagoon Foundation (BLF) and your subcontractors, Miller Marine Science & Consulting, Inc. (MMSI) are hereby granted permission by the California Department of Fish and Wildlife (Department) to enter the State of California (State) property known as Batiquitos Lagoon Ecological Reserve (BLER) to conduct water and sediment sampling in order to determine the pollutants present in this Ecological Reserve. The BLF previously established a baseline of pollutants present in the lagoon waters and sediments in Phase 1 of this water sampling effort. Now that Phase 1 has concluded the BLF is interested in moving to Phase 2 & Phase 3. Phase 2 consists of sampling during the dry season in 2023. Phase 3 consists of sampling after a storm event in 2023 & 2024. This sampling effort will be conducted at various sampling stations shown in the attached figure. The method to obtain these samples will follow steps outlined in *Batiquitos Lagoon Environmental Monitoring: Sampling, Analysis, and Quality Assurance Plan*, attached below. As detailed in *Batiquitos Lagoon Environmental Monitoring: Sampling, Analysis, and Quality Assurance Plan*, wet and dry season sampling is planned. Since there is a California Least Tern (CLTN) nesting site located in BLER any sampling that is proposed during March 30-September 15 will need prior approval from the Reserve Manager. All inquiries to conduct sampling during the CLTN nesting season will be presented in writing 72 hours prior to any sampling events.

The Department reserves the right to place restrictions on your project as needed or to terminate access at any time. Entry upon Department land by you and/or your agents for purposes stated herein shall constitute acceptance by you and/or your agents of all terms and conditions of this Letter of Permission.

Terms and Conditions:

- 1) No take of any threatened or endangered species will occur because of this activity. Any activities that could result in take of any threatened or endangered species will be suspended immediately;

- 2) All attempts will be made to avoid disturbing wildlife and to minimize effects on riparian, wetland and other sensitive habitat areas during survey activities;
- 3) Impacts to sensitive native plants will be avoided to the extent feasible;
- 4) This access letter does not permit you to access properties adjacent to Department lands without the permission of the landowner, or their authorized representative;
- 5) This letter authorizes access from October 25, 2023, to December 31, 2024 only and only for the purposes described above;
- 6) Notice will be provided to the Reserve Manager no later than 72 hours prior to accessing BLER;
- 7) No later than 30 days after the completion of the analytical testing of the sediment and water collected, a copy of all the data collected under this access letter will be furnished to the Reserve Manager;
- 8) Fence openings, gates and other access points will be closed and locked when not working onsite and at the end of each workday to prevent unauthorized trespass;
- 9) The State shall not be liable and you BLF and your agents at MMSC shall indemnify, hold harmless and at the option of the State, defend the State, its officers, agents, and employees against and for any and all liability, claims, damages or injuries of any kind and from any cause, arising out of or connected in any way with the exercise of this letter of permission;
- 10) Public safety agencies and the Department will be notified immediately in the case of an emergency;
- 11) A copy of this Letter of Permission shall accompany you during activities on-site and will be available to any Department staff upon request.

If you have any further questions, please contact me at the letterhead address, or by email at Jason.Price@wildlife.ca.gov. Please coordinate access with the Reserve Manager, Mr. Gabriel Peñaflor by email at Gabriel.Penaflor@wildlife.ca.gov.

Sincerely,

Jason Price
Senior Environmental Scientist
Lands Program Supervisor
South Coast Region

ec:

Gabriel Peñaflor, CDFW
Scott Bringman, CDFW
Lands Chron File



BATIQUITOS LAGOON ENVIRONMENTAL MONITORING

SAMPLING, ANALYSIS, AND QUALITY ASSURANCE PLAN



Prepared For

BATIQUITOS LAGOON FOUNDATION

Prepared By

MILLER MARINE SCIENCE & CONSULTING, INC
ALISO VIEJO, CA

Date

September 19, 2023

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INTRODUCTION

The Batiquitos Lagoon Foundation (BLF) is concerned about the existing and future contamination of the Batiquitos Lagoon (BL) by both point and non-point source discharges into the lagoon. The area surrounding the BL was dominated by agricultural uses where pesticides and fertilizers, among other compounds, were used. Compounds used on the agricultural fields ran off into the lagoon because of irrigation and precipitation. Such runoff has established legacy contamination in the sediments.

In recent decades, the area surrounding the BL has been developed to convert agricultural fields to housing and commercial uses. Stormwater management infrastructure came with development. Multiple stormwater drains have been installed along the BL shoreline using the BL as the stormwater receiving waters including a new 60-inch drain installed as part of the Leucadia Streetscape plan. The BLF contacted Miller Marine Science & Consulting, Inc. (MMS) about surveying the sediments and water in the BL to establish a baseline as the new 60-inch storm drain begins operating.

Study Question to be Investigated

The primary question posed by the BLF to be addressed by the proposed sampling is to establish a baseline contamination level at ten sites within the BL. These sites represent areas that will receive discharge from the new 60-in storm drain as well as sites adjacent to the historic agricultural areas. The 60-in storm drain sites will establish a baseline for conditions during the dry season before any terrestrial deposits can accumulate. Sites near the agricultural lands will characterize the level of legacy contamination present in the BL.

QUALITY ASSURANCE PROJECT PLAN

Data quality is a cornerstone of science in support of regulatory decision making. Therefore, a Quality Assurance Project Plan (QAPP) is developed and will be used to ensure the final data products of the BL monitoring meet the highest standards and the goals to support any regulatory decisions that will follow.

QAPP Purpose

The QAPP is to ensure the work plans described below are followed. Should the need arise to adjust either plan after implementation, the necessary adjustments will be documented and reported through the project organizational structure (Figure 1).

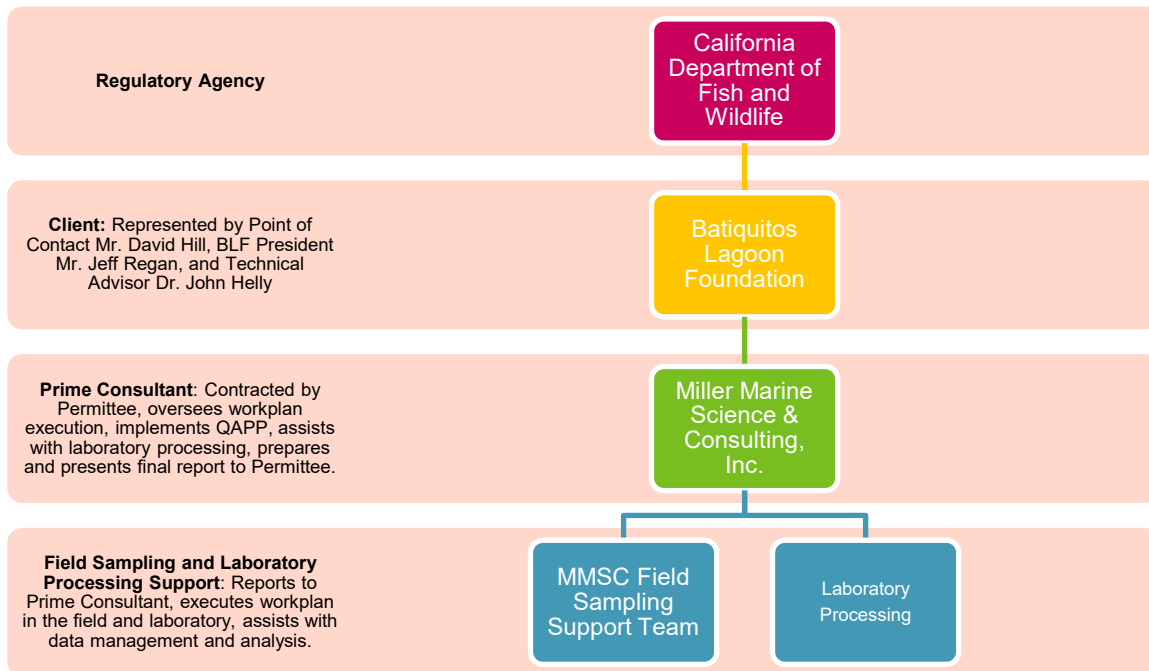


Figure 1. Organization chart indicating the roles of each entity contributing to the effective execution of the sampling and analysis plan. The roles, responsibilities, and organization expected to complete the task are listed.

QAPP Execution

To ensure all phases of benthic monitoring are achieved to the highest quality possible, a benthic monitoring expert will be on site in the field and in the sorting laboratory to observe operations. In the field, the benthic monitoring team will maintain a checklist of operational events related to each sampling effort. Operational efforts for field or laboratory operations will include:

- Benthic Sampling
 - All materials are present before sampling begins.
 - Sediment grab, 2 stainless steel spoons (1 extra for redundancy), pre-labeled plastic sample bags, metric ruler, datasheets, and GPS.
 - Water sampling equipment, e.g., Van Dorn bottle, and all laboratory-provide sample jars with required preservatives, as needed.
 - Distilled Water used for cleaning equipment between sampling efforts; sediments and water.
 - Sampling is completed in accordance with the approved workplan.
 - Especially noting the distance to target to ensure sampling is within 100 m of the target coordinates.

- Instances requiring more distance to target will include a narrative description why the added distance was needed, e.g., dense eelgrass bed or rocky habitat at the target coordinates
 - Sample storage is completed in coolers with double bagged ice packs.
 - All Chain of Custody documentation is initiated.
 - Samples delivered to analytical laboratory in a time to comply with the holding times listed in 40 CFR 136.
- Sample Laboratory Processing
 - Only ELAP-certified laboratories will be used for all sediment and water sample testing.
 - Preference will be given to laboratories that have completed the most recent SCCWRP BIGHT-Intercalibration sediment study.
 - All laboratory testing equipment is maintained per the manufacturer specifications.
 - Chain of Custody is documented at each custody transfer.
- Data Management and Analysis
 - The MMSC benthic ecologist and sediment biogeochemist Dr. Carlos Neira will review all laboratory data
 - All data will be transcribed into a digital database.
 - Data entry will be checked by someone other than the original data entry staffer for accuracy. Errors will be corrected immediately and documented.
 - The project manager will review the data submitted by the laboratory data manager and any questions will be addressed with the laboratory manager.
 - Reporting
 - The report will be reviewed internally by the project management team with a draft final submitted for review to BLF. A final report incorporating comments and edits BLF will be prepared for submittal to any regulatory agency the BLF desires.

SAMPLING PLAN

Up to ten sampling stations will be occupied in the BL during both dry and wet season sampling (Figure 2). All ten stations will be occupied during the dry season sampling. Stations (Weston Property) S.3029.08738, S.3022.08808, and S.3020.08728 will be sampled only if runoff is observed during the wet season sampling. The remaining seven stations will be occupied during the wet season sampling.

Sediments will be collected from each station during both dry and wet season. Dry season sampling will capture the legacy contributions from seasons past. The wet season sediments will be sampled to assess the influx of new sediments that may have been deposited as a result of storm water discharge. Water will be collected at each station where enough water depth exists to safely sample without disturbing the bottom sediments. Water samples will be collected before sediment samples to avoid any contamination with sediments suspended by the sediment sampling effort.

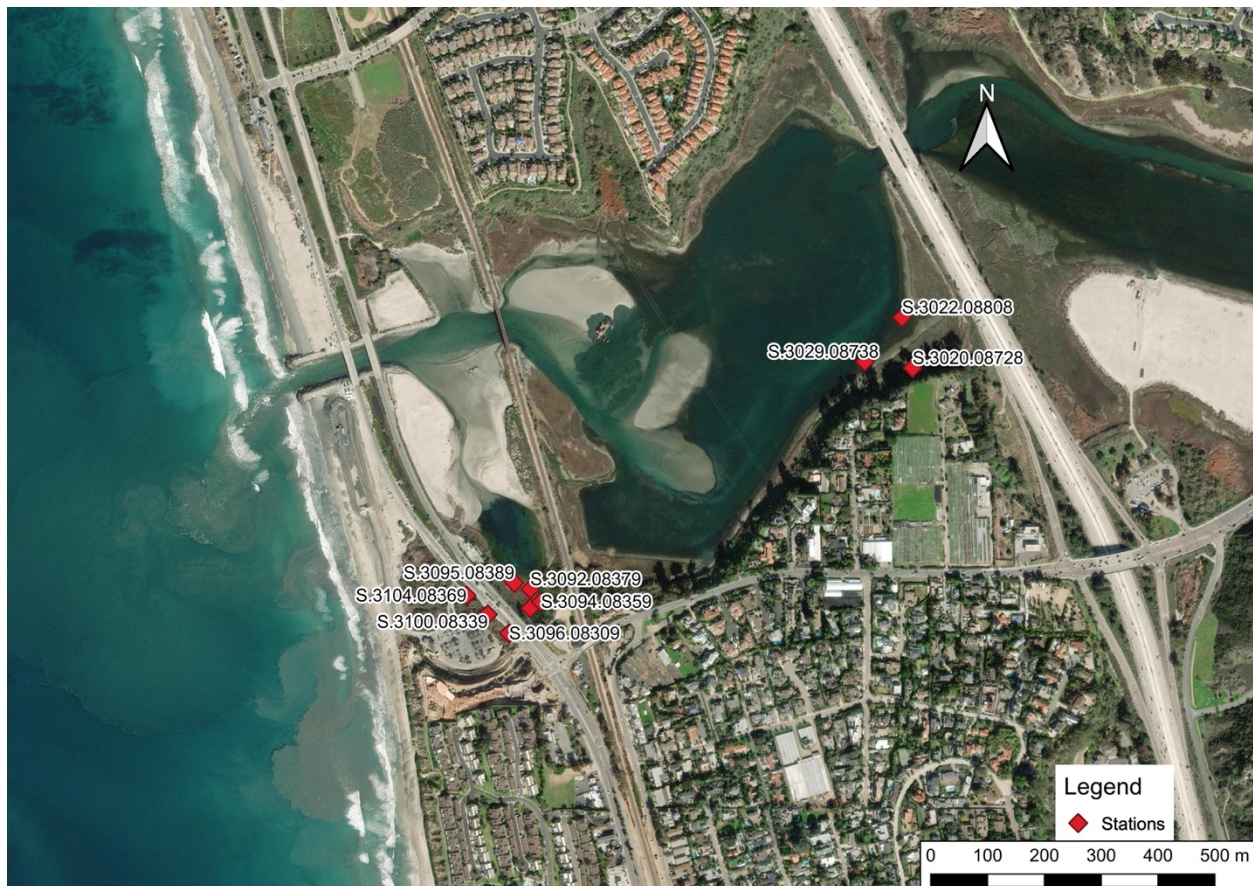


Figure 2. Batiquitos Lagoon water and sediment sampling stations proposed for dry season sampling.

Water Sampling Methods

- A clean, discrete-depth water grab, e.g., Van Dorn bottle, will be lowered to the approximate mid-depth of the station before being triggered to sample the water.
- Sample water will be decanted into the laboratory-provided sample jars.
 - Ensuring any preservative needed in the jar is not splashed out of the jar.
- Clean hands methods will be used for all bacteria sample collection to minimize any cross contamination.

- One sampling team member will handle the water sampling jar while wearing new, clean, disposable gloves.
- The second sampling team member will record all information on the pre-printed data sheets.
- Samples will be stored in accordance with laboratory requirements.
 - In an ice-cooled cooler or waterproof box without any temperature control depending on the sample.
 - Water samples will be delivered to the analytical lab within 6 hours of the first sample effort to meet bacteria testing holding time requirements.
- Chemistry analysis will include those chemicals listed on Table 1.

Sediment Sampling Methods

Sampling will be completed in accordance with the BIGHT '18 Sediment Quality Assessment Field Operations Manual (SCCWRP 2018). The protocol will be as follows:

- Position the sampling vessel within 100 m of the designated sampling site coordinates.
- A rust-free sediment grab will be used for all sampling.
- Only acceptable grabs will be kept. Acceptable criteria are:
 - Acceptable per SCCWRP (2018) is defined as: *An acceptable sample condition is characterized by an even surface with minimal disturbance and little or no leakage of the overlying water.*
 - Sediment penetration of at least 5 cm.
- Grabs will continue until sufficient sediment has been collected to support the required analyses.
- Sediments will be visually inspected and characterized after sampling but before sample storage.
 - Sediment composition, smell, and color will be recorded.
- Sediment characterization shipboard sample processing.
 - Samples will be taken from top 2 cm of the grab using a stainless-steel scoop.
 - Sediments will be transferred to 4-oz plastic container filled 80% of capacity.
 - Samples will be placed in cool state of approximately 4°C.
 - Wet ice in the field and refrigerator in the laboratory achieves the needed cooling.
 - Chain of Custody documentation will be maintained to document the handling of the samples.

- Sediment chemistry shipboard sample processing.
 - Samples will be taken from top 2 cm of the grab and at least 1 cm away from the sides of the grab will be taken using a stainless-steel scoop.
 - Scoops will be rinsed with site water and deionized water (in that order) in between stations to minimize cross-contamination
 - Sediments will be homogenized inside a new Teflon bag within a new, labeled food-grade bag lining a bucket to protect from cross contamination, should the Teflon bag break.
 - The food-grade bag will be labeled with the station identification, sampling date, and sampling time.
 - A gentle massaging of the sediments will continue for 3-5 minutes until the sample color and texture appears uniform.
 - Chemistry analysis will include those chemicals listed on Table 1.

Laboratory Processing

All sampling will be completed in accordance with the requirements set forth by 40 CFR 136 or as augmented by the San Diego Regional Water Quality Control Board and/or California State Water Resources Control Board. Only ELAP-certified laboratories will be used. Each will provide DMR results to BLF or on behalf of BLF to all regulating agencies.

DELIVERABLES

MMSC will enter all the data into a MS-Excel spreadsheet. Tables will be compiled from the data and presented in a brief data report. The data report will include a complete detailing of the sampling effort, sample management, quality control compliance, and laboratory coordination. Where appropriate or available, the results for each analysis will be compared against regulatory thresholds implemented by the San Diego Regional Water Quality Control Board and the regional bay and estuary results from the most recent BIGHT Regional Monitoring effort.

Table 1. Chemical species to be tested in each sampled matrix.

Water Grab	Sediment Samples	
Total Dissolved Solids	Grain Size	
Total Suspended Solids	Percent Solids	Acenaphthene
Total Hardness	Total Organic Carbon (TOC)	Anthracene
Total Phosphorus	Cadmium (Cd)	Phenanthrene
Orthophosphate	Copper (Cu)	Biphenyl
Nitrite	Lead (Pb)	Naphthalene
Nitrate	Mercury (Hg)	2,6-Dimethylnaphthalene
Total Kjeldahl Nitrogen	Zinc (Zn)	Fluorene
Ammonia	2,4'-DDD	1-Methylnaphthalene
Cadmium	2,4'-DDE	2-Methylnaphthalene
Copper	2,4'-DDT	1-Methylphenanthrene
Lead	4,4'-DDD	Benzo(a)anthracene
Zinc	4,4'-DDE	Benzo(a)pyrene
Total Coliform	4,4'-DDT	Benzo(e)pyrene
Fecal Coliform (or E. Coli)	Chlordane-alpha	Chrysene
Enterococcus	Chlordane-gamma	Dibenzo(a,h)anthracene
Tri-Linear Analysis of Ponto Creek	Dieldrin	Fluoranthene
	trans-Nonachlor	Perylene
	PCB Congeners	Pyrene

Longitude	Latitude	ID	CTD	Sediment	Benthos	Water Grab
-117.3127112	33.08718343	S.3127.08718				
-117.3124109	33.08728314	S.3124.08728				
-117.3118103	33.08758229	S.3118.08758				
-117.3109094	33.08688429	S.3109.08688				
-117.3103088	33.08598686	S.3103.08598				
-117.3097083	33.08489	S.3097.08489				
-117.3080066	33.08658514	S.3080.08658				
-117.3097083	33.08409229	S.3097.08409				
-117.3095081	33.08389286	S.3095.08389				
-117.3092078	33.08399257	S.3092.08399				
-117.3089075	33.08429171	S.3089.08429				
-117.3097083	33.08409229	S.3097.08409				
-117.3098084	33.08389286	S.3098.08389				
-117.3097083	33.08369343	S.3097.08369				
-117.309408	33.08359371	S.3094.08359				
-117.3092078	33.083494	S.3092.08349				
-117.3090076	33.08359371	S.3090.08359				
-117.3089075	33.08369343	S.3089.08369				
-117.3092078	33.08379314	S.3092.08379				
-117.3089075	33.08409229	S.3089.08409				
-117.3075061	33.08568771	S.3075.08568				
-117.3076062	33.08528886	S.3076.08528				
-117.3075061	33.08459086	S.3075.08459				
-117.3082068	33.084192	S.3082.08419				
-117.3078064	33.08429171	S.3078.08429				
-117.3073059	33.08429171	S.3073.08429				
-117.3077063	33.08399257	S.3077.08399				
-117.3073059	33.08409229	S.3073.08409				
-117.3081067	33.08369343	S.3081.08369				
-117.3077063	33.08369343	S.3077.08369				
-117.3073059	33.08359371	S.3073.08359				
-117.3068054	33.08359371	S.3068.08359				
-117.3065051	33.08369343	S.3065.08369				

Longitude	Latitude	ID	CTD	Sediment	Benthos	Water Grab
-117.3068054	33.08379314	S.3068.08379				
-117.3061047	33.08399257	S.3061.08399				
-117.3055041	33.08469057	S.3055.08469				
-117.3051038	33.08508943	S.3051.08508				
-117.3060046	33.08528886	S.3060.08528				
-117.3065051	33.08588714	S.3065.08588				
-117.3058044	33.08618629	S.3058.08618				
-117.3045032	33.08568771	S.3045.08568				
-117.3037024	33.08658514	S.3037.08658				
-117.303302	33.08658514	S.3033.08658				
-117.3029016	33.08738286	S.3029.08738				
-117.3020007	33.08728314	S.3020.08728				
-117.3022009	33.08808086	S.3022.08808				
-117.3019006	33.08857943	S.3019.08857				
-117.3096082	33.08309514	S.3096.08309				
-117.3100085	33.08339429	S.3100.08339				
-117.3104089	33.08369343	S.3104.08369				
-117.3113098	33.08459086	S.3113.08459				
-117.3116101	33.084192	S.3116.08419				
-117.3116101	33.08379314	S.3116.08379				
-117.31151	33.08329457	S.3115.08329				
-117.3112097	33.08309514	S.3112.08309				
-117.3107092	33.08329457	S.3107.08329				
-117.3108093	33.08369343	S.3108.08369				
-117.3108093	33.08409229	S.3108.08409				
-117.3110095	33.08429171	S.3110.08429				
-117.3111096	33.08389286	S.3111.08389				
-117.3107092	33.08429171	S.3107.08429				
-117.3112097	33.08498971	S.3112.08498				
-117.3117102	33.08568771	S.3117.08568				
-117.3120105	33.08638571	S.3120.08638				
-117.3122107	33.08688429	S.3122.08688				



Brief Cost Proposal

Date: December 21, 2023

Prepared For: Batiquitos Lagoon Foundation

Prepared By: Miller Marine Science & Consulting, Inc.

Subject: Batiquitos Lagoon Sampling of the South Shore Area West of I-5

PURPOSE

The Batiquitos Lagoon Foundation (BLF) contracted Miller Marine Science & Consulting, Inc. (MMSC) to sample water and sediments at multiple stations in the Bataquitos Lagoon in December 2021. The following proposal aims to repeat the sampling completed in 2021 and reported in January 2022.

SCOPE OF WORK

The scope of work represents a repeat of what was completed in 2021 and captured in the data report dated January 30, 2022 (attached as Attachment 1). Eight stations (Table 1) were sampled in 2021 and will be revisited under the proposed sampling effort. Water and sediments were collected at all stations except Station BL3. Station BL3 in Ponto Creek was not fully sampled for sediments and water in 2021. Both sediments and water will be collected at Station BL3 under the current proposal. The same chemical species will be tested for in water and sediment as detailed in the January 30, 2022 report. The water quality parameters will be measured at each station using a Eureka Manta multiprobe (or similar). These parameters will include water temperature, salinity, turbidity, dissolved oxygen, pH, and chrolophyll-a.

Table 1. Sampling stations used in 2021 and to be revisited during the proposed sampling effort.

Longitude	Latitude	BLF ID	Area	MMSC ID
-117.30961	33.0830951	S.3096.08309	Ponto	BL3
-117.30942	33.083935	S.3092.08349	Vestibule	BL4
-117.30927	33.083901	S.3092.08379	Vestibule	BL5
-117.30918	33.08393	S.3094.08359	Vestibule	BL6
-117.30959	33.083953	S.3095.08389	Vestibule	BL7
-117.30222	33.087626	S.3020.08728	Weston	BL8
-117.30291	33.087383	S.3029.08738	Weston	BL9
-117.30218	33.088108	S.3022.08808	Weston	BL10

Sampling will occur over two days. Due to safety and access concerns, the MMSC team will not attempt to pass under the railroad trestle. The sampling days will be divided by the trestle with all stations west of the trestle sampled on one day and those stations east of the trestle sampled on a second day. This will allow the bacteria samples to be delivered to the analytical laboratory with the required holding time each day. The MMSC team will launch the inflatable fitted with a davit and sediment grab sampler in each area independently.



COST ESTIMATE

Management, Field Sampling, Reporting = \$21,274

Bacteria Testing = \$800

Sediment Testing = \$16,875

Total estimate = \$38,949

This cost estimate is inclusive of mobilization, sediment sampling, and surface water sampling in the field inclusive of all sampling equipment described above, laboratory processing of the sediment and water samples as described above, and a data report summarizing the final field methods and data results. The BLF would be responsible for coordinating access through all gates and notifying the California Department of Fish and Wildlife per the access permit.

We can proceed as soon as we receive a notice to proceed and executed agreement.

Sincerely,

Eric Miller, MS

Principal

Miller Marine Science & Consulting, Inc.



ATTACHMENT 1. JANUARY 30, 2022 DATA REPORT AND APPENDICES

Data Report

Date: January 30, 2022

Prepared For: Batiquitos Lagoon Foundation

Prepared By: Miller Marine Science & Consulting, Inc.

Subject: December 2021 Sampling Results

PURPOSE

The Batiquitos Lagoon Foundation (BLF) contracted Miller Marine Science & Consulting, Inc. (MMSC) to develop a sampling and analysis plan (SAP; Appendix 1) and implement that SAP.

SAMPLING SUMMARY

Eight out of 10 stations in Batiquitos Lagoon and nearby Ponto Creek (Figure 1) were sampled on December 9, 2021 to assess potential sediment contamination due to historic agricultural use. The sampling event aimed to establish a baseline which would be used to compare sediment composition after future stormwater events. In addition to sediment, water samples were also collected at each site for bacterial and chemical analyses.



Figure 1. Map of the ten sample sites in Batiquitos Lagoon.

Water Sampling Protocol

At each of the ten stations, a Eureka Manta multiprobe was employed to calculate total depth (ft.), temperature (°F), salinity (ppt.), turbidity (NTU), dissolved oxygen (DO) (mg/l), pH, and chlorophyll a content (µg/l). Each of these parameters were recorded in one-foot increments until the bottom was reached. Upon completion of recording these data, a clean Van Dorn bottle was lowered to the approximate mid-depth to sample water at depth. The subsequent enclosed “water grab” was brought up to the surface and transferred to laboratory-provided sample jars (Table 1). Extreme care was taken to ensure no cross-contamination or spillage of chemicals and preservatives from sample jars. New disposable plastic gloves were used at each site during this process so that the samples, specifically the bacterial samples, contained no human-introduced bacteria. Multiple Van Dorn grabs were required at each station to sufficiently acquire enough seawater for each specified container. Upon collection all sample bottles were placed in a cooler on the boat and shortly thereafter transferred to a cooler onshore with ice to be delivered to the appropriate laboratory. All samples were delivered, and the analytical test started within the designated holding time.

Table 1. List of laboratory-provided sample jars for seawater analyses at each site denoting bottle size, type, and preservative included, if any. The analysis method and ELAP-certified analytical laboratory conducting the analysis is listed.

Seawater Analysis					
#Bottles/Site	Bottle Size	Bottle Type	Preservative	Analysis	Laboratory
1	250 ml	Plastic	None	2540C_Calcd - Total Dissolved Solids 300_ORGFMS - Nitrate, Nitrite, Orthophosphate	Eurofins
1	250 ml	Plastic	Nitric Acid	SM2340B - Hardness as CaCO ₃ 6010B - (MOD) Custom 6010B Metals List	Eurofins
1	1 L	Plastic	None	2540D - Total Suspended Solids	Eurofins
1	1 L	Amber Glass	Sulfuric Acid	SM4500NH ₃ _D – Ammonia	Eurofins
1	1 L	Amber Glass	Sulfuric Acid	356.1 - Total Phosphorus 351.2 - Total Kjeldahl Nitrogen (TKN)	Eurofins
1	120 ml (4 oz)	Plastic	None	Colilert, Total Coliform + E. coli Enumeration	EnviroMatrix Analytical Inc.
1	120 ml (4 oz)	Plastic	None	Enterococcus	EnviroMatrix Analytical Inc.

Sediment Sampling Protocol

A single Van Veen grab sampler was used to collect sediment at each of the seven stations where sediment sampling occurred. A plastic ruler and stainless-steel spoon were both cleaned with DI water to limit cross-contamination. Only acceptable grabs were kept in accordance with the SCCWRP 2018 criteria: An acceptable sample condition is characterized by an even surface with minimal disturbance and little or no leakage of the overlying water. The ruler was used to measure the penetration depth, with a minimum penetration of 5 cm required for each sample. The stainless-steel spoon was used to transfer the sediment into the appropriate laboratory-provided

jar (Table 2). Sediment was only collected from the top 2 cm and 1 cm away from the sides of the Van Veen sampler. These boundaries insured the samples were not contacted by the Van Veen sampler. Grabs continued until enough sediment had been collected and the samples were homogenized by shaking their individual jars until the color and texture appeared uniform. Upon collection all sample jars were placed in a cooler on the boat and shortly thereafter transferred to a cooler onshore with ice to be delivered to the appropriate laboratory. All samples were delivered, and the analytical test started within the designated holding time.

Table 2. List of laboratory-provided sample jars for sediment analyses at each site denoting jar size, type, and preservative included if any, and also the analysis employed in the established and ELAP-certified laboratory.

Sediment Analysis					
#Jars/Site	Jar Size	Jar Type	Preservative	Analysis	Laboratory
1	4 oz	Glass	None	9060A_DW – Total Organic Carbon 7471A – Mercury Moisture – (MOD) Percent Moisture Only 6010B – (MOD) Total CD, Cu, Pb, Zn	Eurofins
1	4 oz	Glass	None	8270C_SIM_LL – (MOD) LL SIM PAH List 8270C_SIM_CON – Regional Monitoring Program (RMP) 40 Con	Eurofins
1	4 oz	Glass	None	D4464 – Full Analyte List 8081A_LL – (MOD) Custom Low Level 8081A List	Eurofins

ANALYTICAL RESULTS

All of the accumulated data summarized below is included in the [Batiquitos Lagoon Dec 21 Data file](#).

Water Quality Measurements – One station in Ponto Creek was sampled at the terminus to two discharges. The water temperature was 73°F, salinity was 1.36 ppt, clarity was high with turbidity of 0.17 NTU, dissolved oxygen of 9.15 mg/L, pH of 7.96, and no chlorophyll-a detected. At least 7 crayfish (*Cambarus* sp.), an introduced crustacean related to rock lobster, were observed at the sampling site. Several small fish, likely introduced mosquitofish (*Gambusia affinis*) were also observed at the sampling station.

In Batiquitos Lagoon, the water temperature averaged 60°F with less than a 1°F difference between the warmest and coolest temperatures recorded. Salinity averaged 33.5 ppt and ranged from 32.48 to 33.9, all within the expected salinity range common for tidally regulated seawater bodies in southern California. The waters were slightly turbid with an average turbidity of 1.9 NTU. The dissolved oxygen averaged 7.5 mg/L, while pH was slightly basic at 8.1. Chlorophyll-a concentrations were low in general.

None of the sampled waters had fecal indicator bacteria levels in excess of designated Beneficial Use limits. The waters at Stations BL8 and BL10 along the Weston property had the highest relative fecal indicator bacteria (*Enterococcus*) levels with 96 and 99 MPN/100 ml, respectively. For comparison, the REC-1 (water contact recreation beneficial use) limit applicable to these saline waters is 110 MPN/100 ml *Enterococcus*. None of the samples collected in the first lagoon,

labeled the Vestibule, had concentrations exceeding 28 Enterococci MPN/100 ml. Because the Ponto Creek salinity was greater than 1 ppt, it must remain less than the Enterococcus limit of 110 MPN/100 ml, which it did with 46 MPN/100 ml.

Chemistry Testing – Chemistry testing was completed on both water and sediments collected at all the stations inside the lagoon. Only water was collected for analysis at the Ponto Creek sampling site.

The water was tested for multiple chemical species and compounds, but few were detected in samples from any of the stations (Appendix 2). In most cases, when a compound was detected, it was so in such low concentrations that its concentration could not be reliably reported. These reported values were J-flagged by the analytical laboratory. A J-flag indicates the compound was detected but not at a concentration high enough to be reliably reported. The values reported for any J-flagged compound represent an estimated value rather than a measured concentration.

For the water, only calcium carbonate, nitrogen (total Kjeldahl nitrogen), and phosphorus were detected at most stations in reportable concentrations. Calcium carbonate and nitrogen concentrations were both higher in the lagoon than in Ponto Creek. There was minimal variation between the waters at each lagoon sampling station for these measurements. In comparison, phosphorus was higher in the Ponto Creek sample than any of the lagoon samples. Lastly, total dissolved and suspended solids were at least an order of magnitude higher throughout the lagoon than they were in samples from Ponto Creek.

None of the chemical concentrations were elevated to a level that can be considered hazardous or potentially hazardous. Where data exists, the reported Batiquitos Lagoon concentration was compared with an available Effects-Range-Median (ERM) concentration (Long et al. 1995). The ERMs are laboratory determined concentrations that pose either a human or environmental health risk. The Batiquitos Lagoon sampling results were also compared to the most recent Southern California Bight Regional Monitoring Program results (BIGHT '18). As with the ERM, all Batiquitos Lagoon concentrations were less than was reported for the bay and estuary stratum in BIGHT '18.

REFERENCES

Long, E.R., MacDonald, D.D., Smith, S.L. and Calder, F.D., 1995. Incidence of adverse biological effects within ranges of chemical concentrations in marine and estuarine sediments. *Environmental Management* 19:81-97.



BATIQUITOS LAGOON ENVIRONMENTAL MONITORING

SAMPLING, ANALYSIS, AND QUALITY ASSURANCE PLAN



Prepared For

BATIQUITOS LAGOON FOUNDATION

Prepared By

MILLER MARINE SCIENCE & CONSULTING, INC
ALISO VIEJO, CA

Date

August 21, 2021

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INTRODUCTION

The Batiquitos Lagoon Foundation (BLF) is concerned about the existing and future contamination of the Batiquitos Lagoon (BL) by both point and non-point source discharges into the lagoon. The area surrounding the BL was dominated by agricultural uses where pesticides and fertilizers, among other compounds, were used. Compounds used on the agricultural fields ran off into the lagoon because of irrigation and precipitation. Such runoff has established legacy contamination in the sediments.

In recent decades, the area surrounding the BL has been developed to convert agricultural fields to housing and commercial uses. Stormwater management infrastructure came with development. Multiple stormwater drains have been installed along the BL shoreline using the BL as the stormwater receiving waters including a new 60-inch drain installed as part of the Leucadia Streetscape plan. The BLF contacted Miller Marine Science & Consulting, Inc. (MMSI) about surveying the sediments and water in the BL to establish a baseline as the new 60-inch storm drain begins operating.

Study Question to be Investigated

The primary question posed by the BLF to be addressed by the proposed sampling is to establish a baseline contamination level at ten sites within the BL. These sites represent areas that will receive discharge from the new 60-in storm drain as well as sites adjacent to the historic agricultural areas. The 60-in storm drain sites will establish a baseline for conditions during the dry season before any terrestrial deposits can accumulate. Sites near the agricultural lands will characterize the level of legacy contamination present in the BL.

QUALITY ASSURANCE PROJECT PLAN

Data quality is a cornerstone of science in support of regulatory decision making. Therefore, a Quality Assurance Project Plan (QAPP) is developed and will be used to ensure the final data products of the BL monitoring meet the highest standards and the goals to support any regulatory decisions that will follow.

QAPP Purpose

The QAPP is to ensure the work plans described below are followed. Should the need arise to adjust either plan after implementation, the necessary adjustments will be documented and reported through the project organizational structure (Figure 1).

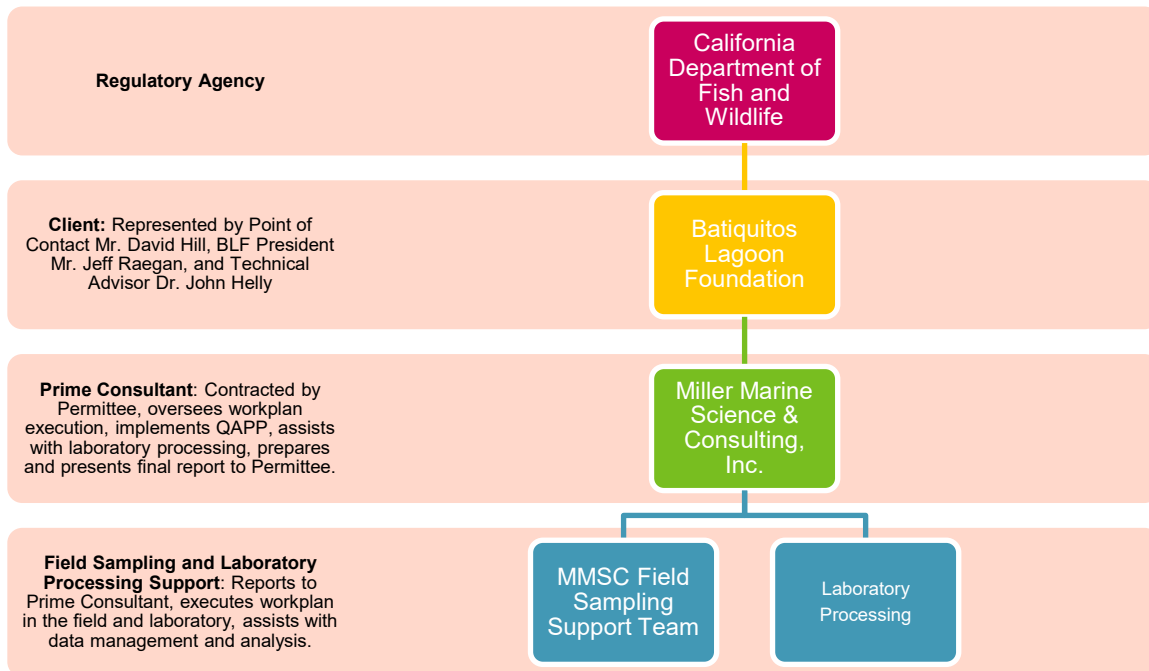


Figure 1. Organization chart indicating the roles of each entity contributing to the effective execution of the sampling and analysis plan. The roles, responsibilities, and organization expected to complete the task are listed.

QAPP Execution

To ensure all phases of benthic monitoring are achieved to the highest quality possible, a benthic monitoring expert will be on site in the field and in the sorting laboratory to observe operations. In the field, the benthic monitoring team will maintain a checklist of operational events related to each sampling effort. Operational efforts for field or laboratory operations will include:

- Benthic Sampling
 - All materials are present before sampling begins.
 - Sediment grab, 2 stainless steel spoons (1 extra for redundancy), pre-labeled plastic sample bags, metric ruler, datasheets, and GPS.
 - Water sampling equipment, e.g., Van Dorn bottle, and all laboratory-provide sample jars with required preservatives, as needed.
 - Distilled Water used for cleaning equipment between sampling efforts; sediments and water.
 - Sampling is completed in accordance with the approved workplan.
 - Especially noting the distance to target to ensure sampling is within 100 m of the target coordinates.

- Instances requiring more distance to target will include a narrative description why the added distance was needed, e.g., dense eelgrass bed or rocky habitat at the target coordinates
 - Sample storage is completed in coolers with double bagged ice packs.
 - All Chain of Custody documentation is initiated.
 - Samples delivered to analytical laboratory in a time to comply with the holding times listed in 40 CFR 136.
- Sample Laboratory Processing
 - Only ELAP-certified laboratories will be used for all sediment and water sample testing.
 - Preference will be given to laboratories that have completed the most recent SCCWRP BIGHT-Intercalibration sediment study.
 - All laboratory testing equipment is maintained per the manufacturer specifications.
 - Chain of Custody is documented at each custody transfer.
- Data Management and Analysis
 - The MMSC benthic ecologist and sediment biogeochemist Dr. Carlos Neira will review all laboratory data
 - All data will be transcribed into a digital database.
 - Data entry will be checked by someone other than the original data entry staffer for accuracy. Errors will be corrected immediately and documented.
 - The project manager will review the data submitted by the laboratory data manager and any questions will be addressed with the laboratory manager.
 - Reporting
 - The report will be reviewed internally by the project management team with a draft final submitted for review to BLF. A final report incorporating comments and edits BLF will be prepared for submittal to any regulatory agency the BLF desires.

SAMPLING PLAN

Up to ten sampling stations will be occupied in the BL during both dry and wet season sampling (Figure 2). All ten stations will be occupied during the dry season sampling. Stations S.3029.08738, S.3022.08808, and S.3020.08728 will be sampled only if runoff is observed during the wet season sampling. The remaining seven stations will be occupied during the wet season sampling.

Sediments will be collected from each station during both dry and wet season. Dry season sampling will capture the legacy contributions from seasons past. The wet season sediments will be sampled to assess the influx of new sediments that may have been deposited as a result of storm water discharge. Water will be collected at each station where enough water depth exists to safely sample without disturbing the bottom sediments. Water samples will be collected before sediment samples to avoid any contamination with sediments suspended by the sediment sampling effort.

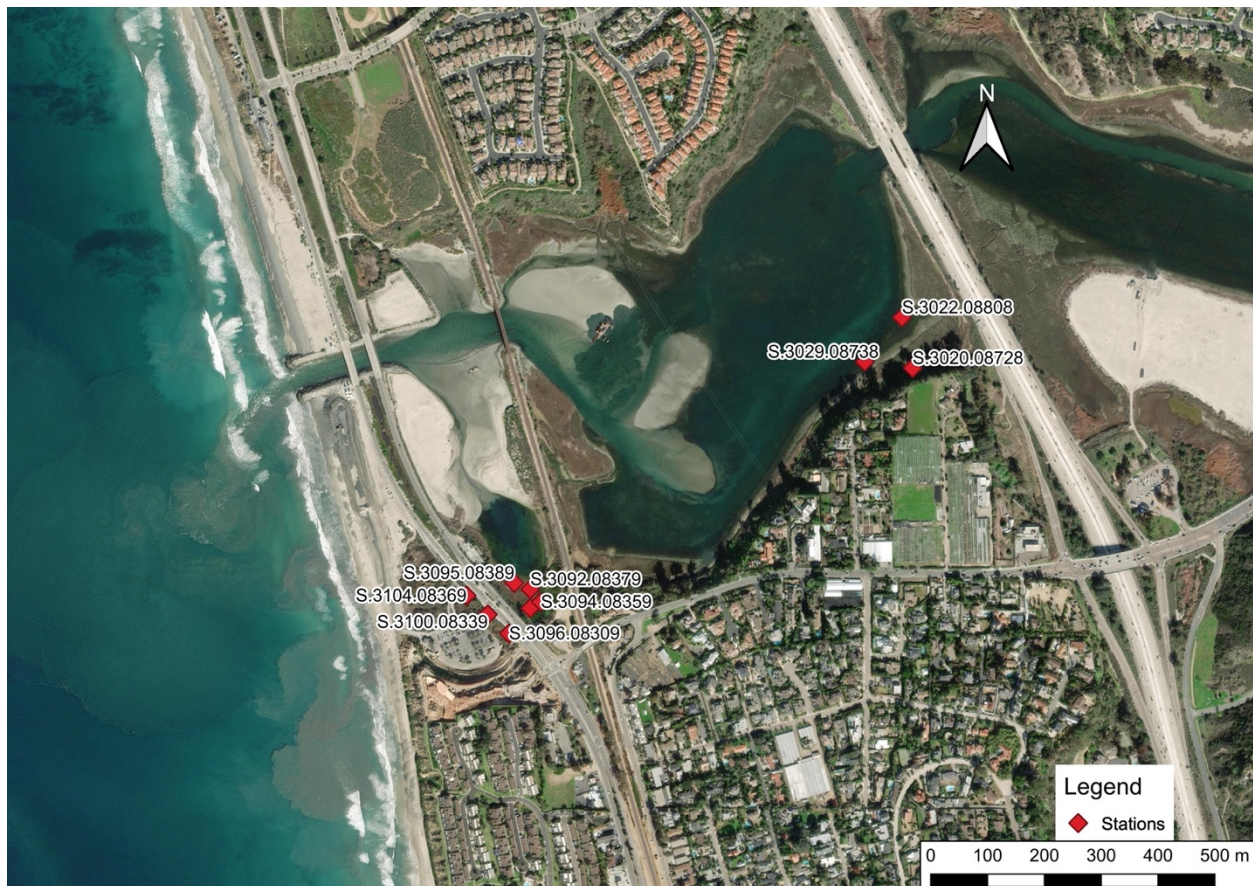


Figure 2. Batiquitos Lagoon water and sediment sampling stations proposed for dry season sampling.

Water Sampling Methods

- A clean, discrete-depth water grab, e.g., Van Dorn bottle, will be lowered to the approximate mid-depth of the station before being triggered to sample the water.
- Sample water will be decanted into the laboratory-provided sample jars.
 - Ensuring any preservative needed in the jar is not splashed out of the jar.
- Clean hands methods will be used for all bacteria sample collection to minimize any cross contamination.

- One sampling team member will handle the water sampling jar while wearing new, clean, disposable gloves.
- The second sampling team member will record all information on the pre-printed data sheets.
- Samples will be stored in accordance with laboratory requirements.
 - In an ice-cooled cooler or waterproof box without any temperature control depending on the sample.
 - Water samples will be delivered to the analytical lab within 6 hours of the first sample effort to meet bacteria testing holding time requirements.
- Chemistry analysis will include those chemicals listed on Table 1.

Sediment Sampling Methods

Sampling will be completed in accordance with the BIGHT '18 Sediment Quality Assessment Field Operations Manual (SCCWRP 2018). The protocol will be as follows:

- Position the sampling vessel within 100 m of the designated sampling site coordinates.
- A rust-free sediment grab will be used for all sampling.
- Only acceptable grabs will be kept. Acceptable criteria are:
 - Acceptable per SCCWRP (2018) is defined as: *An acceptable sample condition is characterized by an even surface with minimal disturbance and little or no leakage of the overlying water.*
 - Sediment penetration of at least 5 cm.
- Grabs will continue until sufficient sediment has been collected to support the required analyses.
- Sediments will be visually inspected and characterized after sampling but before sample storage.
 - Sediment composition, smell, and color will be recorded.
- Sediment characterization shipboard sample processing.
 - Samples will be taken from top 2 cm of the grab using a stainless-steel scoop.
 - Sediments will be transferred to 4-oz plastic container filled 80% of capacity.
 - Samples will be placed in cool state of approximately 4°C.
 - Wet ice in the field and refrigerator in the laboratory achieves the needed cooling.
 - Chain of Custody documentation will be maintained to document the handling of the samples.

- Sediment chemistry shipboard sample processing.
 - Samples will be taken from top 2 cm of the grab and at least 1 cm away from the sides of the grab will be taken using a stainless-steel scoop.
 - Scoops will be rinsed with site water and deionized water (in that order) in between stations to minimize cross-contamination
 - Sediments will be homogenized inside a new Teflon bag within a new, labeled food-grade bag lining a bucket to protect from cross contamination, should the Teflon bag break.
 - The food-grade bag will be labeled with the station identification, sampling date, and sampling time.
 - A gentle massaging of the sediments will continue for 3-5 minutes until the sample color and texture appears uniform.
 - Chemistry analysis will include those chemicals listed on Table 1.

Laboratory Processing

All sampling will be completed in accordance with the requirements set forth by 40 CFR 136 or as augmented by the San Diego Regional Water Quality Control Board and/or California State Water Resources Control Board. Only ELAP-certified laboratories will be used. Each will provide DMR results to BLF or on behalf of BLF to all regulating agencies.

DELIVERABLES

MMSC will enter all the data into a MS-Excel spreadsheet. Tables will be compiled from the data and presented in a brief data report. The data report will include a complete detailing of the sampling effort, sample management, quality control compliance, and laboratory coordination. Where appropriate or available, the results for each analysis will be compared against regulatory thresholds implemented by the San Diego Regional Water Quality Control Board and the regional bay and estuary results from the most recent BIGHT Regional Monitoring effort.

Table 1. Chemical species to be tested in each sampled matrix.

Water Grab	Sediment Samples	
Total Dissolved Solids	Grain Size	
Total Suspended Solids	Percent Solids	Acenaphthene
Total Hardness	Total Organic Carbon (TOC)	Anthracene
Total Phosphorus	Cadmium (Cd)	Phenanthrene
Orthophosphate	Copper (Cu)	Biphenyl
Nitrite	Lead (Pb)	Naphthalene
Nitrate	Mercury (Hg)	2,6-Dimethylnaphthalene
Total Kjeldahl Nitrogen	Zinc (Zn)	Fluorene
Ammonia	2,4'-DDD	1-Methylnaphthalene
Cadmium	2,4'-DDE	2-Methylnaphthalene
Copper	2,4'-DDT	1-Methylphenanthrene
Lead	4,4'-DDD	Benzo(a)anthracene
Zinc	4,4'-DDE	Benzo(a)pyrene
Total Coliform	4,4'-DDT	Benzo(e)pyrene
Fecal Coliform (or E. Coli)	Chlordane-alpha	Chrysene
Enterococcus	Chlordane-gamma	Dibenzo(a,h)anthracene
	Dieldrin	Fluoranthene
	trans-Nonachlor	Perylene
	PCB Congeners	Pyrene

ANALYTICAL REPORT

Eurofins Calscience
7440 Lincoln Way
Garden Grove, CA 92841
Tel: (714)895-5494

Laboratory Job ID: 570-78338-1
Client Project/Site: BLF 2021 Sampling

For:
Miller Marine Science & Consulting, Inc.
26895 Aliso Creek Road, Suite B-847
Aliso Viejo, California 92656

Attn: Eric Miller



Authorized for release by:
1/12/2022 8:56:09 AM

Carla Hollowell, Project Manager I
(714)895-5494
Carla.Hollowell@eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)

Eurofins Calscience

Definitions/Glossary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

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Case Narrative

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Job ID: 570-78338-1

Laboratory: Eurofins Calscience

Narrative

Job Narrative 570-78338-1

Comments

No additional comments.

Receipt

The samples were received on 12/10/2021 12:50 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 5.6° C, 5.8° C and 5.9° C.

GC/MS Semi VOA

Method 8270C SIM CON: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 570-201071 and analytical batch 570-203173 recovered outside control limits for the following analytes: PCB-195. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

HPLC/IC

Method 300.0: Reanalysis of the following sample was performed outside of the analytical holding time due to needed dilution: BL-3 (570-78338-8).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8081A: The laboratory control sample duplicate (LCSD) for preparation batch 570-201966 and analytical batch 570-202868 recovered outside control limits for the following analytes: 4,4'-DDD, 4,4'-DDT, Aldrin, Dieldrin, Endosulfan II and gamma-BHC (Lindane). These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 6010B: Due to the high concentration of Calcium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 570-203710 and analytical batch 570-204004 could not be evaluated for accuracy and precision. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM CON - PCB Congeners (GC/MS)

Client Sample ID: BL-4
Date Collected: 12/09/21 11:52
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-1
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-5/8	ND		0.58	0.17	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-18	ND		0.29	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-28	ND		0.29	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-31	ND		0.29	0.055	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-33	ND		0.29	0.069	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-44	ND		0.29	0.17	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-49	ND		0.29	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-52	ND		0.29	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-56	ND		0.29	0.069	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-60	ND		0.29	0.065	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-66	ND		0.29	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-70	ND		0.29	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-74	ND		0.29	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-87	ND		0.29	0.18	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-95	ND		0.29	0.097	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-97	ND		0.29	0.091	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-99	ND		0.29	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-101	ND		0.29	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-105	ND		0.29	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-110	ND		0.29	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-118	ND		0.29	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-128	ND		0.29	0.20	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-132/153	ND		0.58	0.35	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-138/158	ND		0.58	0.35	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-141	ND		0.29	0.097	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-149	ND		0.29	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-151	ND		0.29	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-156	ND		0.29	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-170	ND		0.29	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-174	ND		0.29	0.083	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-177	ND		0.29	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-180	ND		0.29	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-183	ND		0.29	0.18	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-187	ND		0.29	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-194	ND		0.29	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-195	ND	+	0.29	0.091	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-201	ND		0.29	0.20	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1
PCB-203	ND		0.29	0.10	ug/Kg	☆	12/14/21 21:39	12/28/21 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	100		20 - 139	12/14/21 21:39	12/28/21 00:43	1
p-Terphenyl-d14 (Surr)	129		37 - 165	12/14/21 21:39	12/28/21 00:43	1

Client Sample ID: BL-5
Date Collected: 12/09/21 13:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-2
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-5/8	ND		0.60	0.17	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-18	ND		0.30	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-28	ND		0.30	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM CON - PCB Congeners (GC/MS) (Continued)

Client Sample ID: BL-5
Date Collected: 12/09/21 13:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-2
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-31	ND		0.30	0.057	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-33	ND		0.30	0.071	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-44	ND		0.30	0.18	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-49	ND		0.30	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-52	ND		0.30	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-56	ND		0.30	0.071	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-60	ND		0.30	0.067	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-66	ND		0.30	0.17	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-70	ND		0.30	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-74	ND		0.30	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-87	ND		0.30	0.19	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-95	ND		0.30	0.10	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-97	ND		0.30	0.094	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-99	ND		0.30	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-101	ND		0.30	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-105	ND		0.30	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-110	ND		0.30	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-118	ND		0.30	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-128	ND		0.30	0.21	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-132/153	ND		0.60	0.36	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-138/158	ND		0.60	0.37	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-141	ND		0.30	0.10	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-149	ND		0.30	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-151	ND		0.30	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-156	ND		0.30	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-170	ND		0.30	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-174	ND		0.30	0.086	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-177	ND		0.30	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-180	ND		0.30	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-183	ND		0.30	0.18	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-187	ND		0.30	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-194	ND		0.30	0.17	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-195	ND	+	0.30	0.094	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-201	ND		0.30	0.21	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
PCB-203	ND		0.30	0.10	ug/Kg	☆	12/14/21 21:39	12/28/21 14:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	89		20 - 139				12/14/21 21:39	12/28/21 14:00	1
p-Terphenyl-d14 (Surr)	140		37 - 165				12/14/21 21:39	12/28/21 14:00	1

Client Sample ID: BL-6
Date Collected: 12/09/21 11:43
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-3
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-5/8	ND		0.54	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 14:23	1
PCB-18	ND		0.27	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 14:23	1
PCB-28	ND		0.27	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 14:23	1
PCB-31	ND		0.27	0.051	ug/Kg	☆	12/14/21 21:39	12/28/21 14:23	1
PCB-33	ND		0.27	0.064	ug/Kg	☆	12/14/21 21:39	12/28/21 14:23	1
PCB-44	ND		0.27	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 14:23	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM CON - PCB Congeners (GC/MS) (Continued)

Client Sample ID: BL-6
Date Collected: 12/09/21 11:43
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-3
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-49	ND		0.27	0.15	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-52	ND		0.27	0.11	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-56	ND		0.27	0.064	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-60	ND		0.27	0.060	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-66	ND		0.27	0.15	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-70	ND		0.27	0.13	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-74	ND		0.27	0.14	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-87	ND		0.27	0.17	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-95	ND		0.27	0.090	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-97	ND		0.27	0.085	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-99	ND		0.27	0.12	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-101	ND		0.27	0.15	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-105	ND		0.27	0.14	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-110	ND		0.27	0.12	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-118	ND		0.27	0.11	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-128	ND		0.27	0.19	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-132/153	ND		0.54	0.33	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-138/158	ND		0.54	0.33	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-141	ND		0.27	0.090	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-149	ND		0.27	0.15	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-151	ND		0.27	0.12	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-156	ND		0.27	0.13	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-170	ND		0.27	0.14	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-174	ND		0.27	0.078	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-177	ND		0.27	0.13	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-180	ND		0.27	0.11	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-183	ND		0.27	0.17	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-187	ND		0.27	0.12	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-194	ND		0.27	0.15	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-195	ND	+	0.27	0.085	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-201	ND		0.27	0.19	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1
PCB-203	ND		0.27	0.095	ug/Kg	✱	12/14/21 21:39	12/28/21 14:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82		20 - 139	12/14/21 21:39	12/28/21 14:23	1
p-Terphenyl-d14 (Surr)	134		37 - 165	12/14/21 21:39	12/28/21 14:23	1

Client Sample ID: BL-7
Date Collected: 12/09/21 11:30
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-4
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-5/8	ND		0.54	0.15	ug/Kg	✱	12/14/21 21:39	12/28/21 14:47	1
PCB-18	ND		0.27	0.13	ug/Kg	✱	12/14/21 21:39	12/28/21 14:47	1
PCB-28	ND		0.27	0.14	ug/Kg	✱	12/14/21 21:39	12/28/21 14:47	1
PCB-31	ND		0.27	0.051	ug/Kg	✱	12/14/21 21:39	12/28/21 14:47	1
PCB-33	ND		0.27	0.064	ug/Kg	✱	12/14/21 21:39	12/28/21 14:47	1
PCB-44	ND		0.27	0.16	ug/Kg	✱	12/14/21 21:39	12/28/21 14:47	1
PCB-49	ND		0.27	0.15	ug/Kg	✱	12/14/21 21:39	12/28/21 14:47	1
PCB-52	ND		0.27	0.11	ug/Kg	✱	12/14/21 21:39	12/28/21 14:47	1
PCB-56	ND		0.27	0.063	ug/Kg	✱	12/14/21 21:39	12/28/21 14:47	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM CON - PCB Congeners (GC/MS) (Continued)

Client Sample ID: BL-7
Date Collected: 12/09/21 11:30
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-4
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-60	ND		0.27	0.060	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-66	ND		0.27	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-70	ND		0.27	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-74	ND		0.27	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-87	ND		0.27	0.17	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-95	ND		0.27	0.089	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-97	ND		0.27	0.084	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-99	ND		0.27	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-101	ND		0.27	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-105	ND		0.27	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-110	ND		0.27	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-118	ND		0.27	0.11	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-128	ND		0.27	0.19	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-132/153	ND		0.54	0.32	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-138/158	ND		0.54	0.33	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-141	ND		0.27	0.089	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-149	ND		0.27	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-151	ND		0.27	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-156	ND		0.27	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-170	ND		0.27	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-174	ND		0.27	0.077	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-177	ND		0.27	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-180	ND		0.27	0.11	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-183	ND		0.27	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-187	ND		0.27	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-194	ND		0.27	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-195	ND	+	0.27	0.084	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-201	ND		0.27	0.19	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
PCB-203	ND		0.27	0.094	ug/Kg	☆	12/14/21 21:39	12/28/21 14:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	90		20 - 139				12/14/21 21:39	12/28/21 14:47	1
p-Terphenyl-d14 (Surr)	138		37 - 165				12/14/21 21:39	12/28/21 14:47	1

Client Sample ID: BL-8
Date Collected: 12/09/21 10:44
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-5
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-5/8	ND		0.57	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-18	ND		0.29	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-28	ND		0.29	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-31	ND		0.29	0.054	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-33	ND		0.29	0.068	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-44	ND		0.29	0.17	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-49	ND		0.29	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-52	ND		0.29	0.11	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-56	ND		0.29	0.067	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-60	ND		0.29	0.063	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-66	ND		0.29	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-70	ND		0.29	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM CON - PCB Congeners (GC/MS) (Continued)

Client Sample ID: BL-8
Date Collected: 12/09/21 10:44
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-5
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-74	ND		0.29	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-87	ND		0.29	0.18	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-95	ND		0.29	0.095	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-97	ND		0.29	0.089	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-99	ND		0.29	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-101	ND		0.29	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-105	ND		0.29	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-110	ND		0.29	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-118	ND		0.29	0.11	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-128	ND		0.29	0.20	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-132/153	ND		0.57	0.34	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-138/158	ND		0.57	0.35	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-141	ND		0.29	0.095	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-149	ND		0.29	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-151	ND		0.29	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-156	ND		0.29	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-170	ND		0.29	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-174	ND		0.29	0.082	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-177	ND		0.29	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-180	ND		0.29	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-183	ND		0.29	0.17	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-187	ND		0.29	0.13	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-194	ND		0.29	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-195	ND	+	0.29	0.089	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-201	ND		0.29	0.20	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1
PCB-203	ND		0.29	0.099	ug/Kg	☆	12/14/21 21:39	12/28/21 15:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	93		20 - 139	12/14/21 21:39	12/28/21 15:10	1
p-Terphenyl-d14 (Surr)	154		37 - 165	12/14/21 21:39	12/28/21 15:10	1

Client Sample ID: BL-9
Date Collected: 12/09/21 10:20
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-6
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-5/8	ND		1.0	0.30	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-18	ND		0.52	0.25	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-28	ND		0.52	0.26	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-31	ND		0.52	0.099	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-33	ND		0.52	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-44	ND		0.52	0.31	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-49	ND		0.52	0.29	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-52	ND		0.52	0.21	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-56	ND		0.52	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-60	ND		0.52	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-66	ND		0.52	0.29	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-70	ND		0.52	0.24	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-74	ND		0.52	0.27	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-87	ND		0.52	0.32	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-95	ND		0.52	0.17	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM CON - PCB Congeners (GC/MS) (Continued)

Client Sample ID: BL-9
Date Collected: 12/09/21 10:20
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-6
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-97	ND		0.52	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-99	ND		0.52	0.23	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-101	ND		0.52	0.28	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-105	ND		0.52	0.28	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-110	ND		0.52	0.23	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-118	ND		0.52	0.21	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-128	ND		0.52	0.36	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-132/153	ND		1.0	0.63	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-138/158	ND		1.0	0.63	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-141	ND		0.52	0.17	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-149	ND		0.52	0.28	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-151	ND		0.52	0.24	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-156	ND		0.52	0.25	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-170	ND		0.52	0.27	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-174	ND		0.52	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-177	ND		0.52	0.25	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-180	ND		0.52	0.22	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-183	ND		0.52	0.32	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-187	ND		0.52	0.23	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-194	ND		0.52	0.29	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-195	ND	+	0.52	0.16	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-201	ND		0.52	0.36	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1
PCB-203	ND		0.52	0.18	ug/Kg	☆	12/14/21 21:39	12/28/21 15:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	88		20 - 139	12/14/21 21:39	12/28/21 15:34	1
p-Terphenyl-d14 (Surr)	146		37 - 165	12/14/21 21:39	12/28/21 15:34	1

Client Sample ID: BL-10
Date Collected: 12/09/21 10:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-7
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-5/8	ND		1.2	0.36	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-18	ND		0.62	0.29	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-28	ND		0.62	0.31	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-31	ND		0.62	0.12	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-33	ND		0.62	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-44	ND		0.62	0.37	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-49	ND		0.62	0.34	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-52	ND		0.62	0.25	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-56	ND		0.62	0.15	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-60	ND		0.62	0.14	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-66	ND		0.62	0.34	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-70	ND		0.62	0.29	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-74	ND		0.62	0.32	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-87	ND		0.62	0.39	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-95	ND		0.62	0.21	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-97	ND		0.62	0.19	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-99	ND		0.62	0.27	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1
PCB-101	ND		0.62	0.34	ug/Kg	☆	12/14/21 21:39	12/28/21 15:58	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM CON - PCB Congeners (GC/MS) (Continued)

Client Sample ID: BL-10
Date Collected: 12/09/21 10:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-7
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-105	ND		0.62	0.33	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-110	ND		0.62	0.28	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-118	ND		0.62	0.25	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-128	ND		0.62	0.43	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-132/153	ND		1.2	0.75	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-138/158	ND		1.2	0.76	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-141	ND		0.62	0.21	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-149	ND		0.62	0.34	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-151	ND		0.62	0.29	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-156	ND		0.62	0.30	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-170	ND		0.62	0.32	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-174	ND		0.62	0.18	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-177	ND		0.62	0.29	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-180	ND		0.62	0.26	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-183	ND		0.62	0.38	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-187	ND		0.62	0.28	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-194	ND		0.62	0.35	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-195	ND	*+	0.62	0.19	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-201	ND		0.62	0.43	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1
PCB-203	ND		0.62	0.22	ug/Kg	✱	12/14/21 21:39	12/28/21 15:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		20 - 139	12/14/21 21:39	12/28/21 15:58	1
p-Terphenyl-d14 (Surr)	127		37 - 165	12/14/21 21:39	12/28/21 15:58	1

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL)

Client Sample ID: BL-4

Date Collected: 12/09/21 11:52

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-1

Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,6,7-Trimethylnaphthalene	ND		7.3	2.8	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
1-Methylnaphthalene	ND		7.3	2.9	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
1-Methylphenanthrene	ND		7.3	3.2	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
2,6-Dimethylnaphthalene	22		7.3	1.9	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
2-Methylnaphthalene	ND		7.3	2.7	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Acenaphthene	ND		7.3	3.2	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Acenaphthylene	ND		7.3	3.1	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Anthracene	ND		7.3	2.8	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Benzo[a]anthracene	3.7 J		7.3	3.3	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Benzo[a]pyrene	ND		7.3	4.4	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Benzo[b]fluoranthene	2.4 J		7.3	2.4	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Benzo[e]pyrene	2.0 J		7.3	1.8	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Benzo[g,h,i]perylene	ND		7.3	3.2	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Benzo[k]fluoranthene	ND		7.3	5.4	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Biphenyl	ND		7.3	2.1	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Chrysene	3.5 J		7.3	2.4	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Dibenz(a,h)anthracene	ND		7.3	2.8	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Fluoranthene	9.4		7.3	4.1	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Fluorene	ND		7.3	3.2	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Indeno[1,2,3-cd]pyrene	ND		7.3	2.7	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Naphthalene	ND		7.3	2.1	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Perylene	ND		7.3	4.0	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Phenanthrene	ND		7.3	3.2	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1
Pyrene	4.9 J		7.3	4.7	ug/Kg	☆	12/14/21 21:35	12/21/21 01:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	93		13 - 127	12/14/21 21:35	12/21/21 01:34	1
Nitrobenzene-d5 (Surr)	56		17 - 137	12/14/21 21:35	12/21/21 01:34	1
p-Terphenyl-d14 (Surr)	92		4 - 160	12/14/21 21:35	12/21/21 01:34	1

Client Sample ID: BL-5

Date Collected: 12/09/21 13:01

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-2

Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,6,7-Trimethylnaphthalene	ND		7.5	2.8	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
1-Methylnaphthalene	ND		7.5	2.9	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
1-Methylphenanthrene	ND		7.5	3.3	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
2,6-Dimethylnaphthalene	39		7.5	1.9	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
2-Methylnaphthalene	ND		7.5	2.8	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Acenaphthene	ND		7.5	3.2	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Acenaphthylene	ND		7.5	3.2	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Anthracene	ND		7.5	2.9	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Benzo[a]anthracene	ND		7.5	3.4	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Benzo[a]pyrene	ND		7.5	4.5	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Benzo[b]fluoranthene	ND		7.5	2.5	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Benzo[e]pyrene	2.2 J		7.5	1.9	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Benzo[g,h,i]perylene	ND		7.5	3.2	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Benzo[k]fluoranthene	ND		7.5	5.5	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Biphenyl	5.2 J		7.5	2.2	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Chrysene	2.9 J		7.5	2.5	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL) (Continued)

Client Sample ID: BL-5

Date Collected: 12/09/21 13:01

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-2

Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		7.5	2.9	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Fluoranthene	8.5		7.5	4.2	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Fluorene	ND		7.5	3.3	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Indeno[1,2,3-cd]pyrene	ND		7.5	2.8	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Naphthalene	ND		7.5	2.1	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Perylene	ND		7.5	4.1	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Phenanthrene	ND		7.5	3.3	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Pyrene	5.1 J		7.5	4.8	ug/Kg	☆	12/14/21 21:35	12/21/21 01:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	95		13 - 127				12/14/21 21:35	12/21/21 01:54	1
Nitrobenzene-d5 (Surr)	60		17 - 137				12/14/21 21:35	12/21/21 01:54	1
p-Terphenyl-d14 (Surr)	95		4 - 160				12/14/21 21:35	12/21/21 01:54	1

Client Sample ID: BL-6

Date Collected: 12/09/21 11:43

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-3

Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,6,7-Trimethylnaphthalene	ND		6.8	2.6	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
1-Methylnaphthalene	ND		6.8	2.6	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
1-Methylphenanthrene	ND		6.8	3.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
2,6-Dimethylnaphthalene	14		6.8	1.7	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
2-Methylnaphthalene	ND		6.8	2.5	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Acenaphthene	ND		6.8	2.9	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Acenaphthylene	ND		6.8	2.9	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Anthracene	ND		6.8	2.6	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Benzo[a]anthracene	ND		6.8	3.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Benzo[a]pyrene	ND		6.8	4.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Benzo[b]fluoranthene	ND		6.8	2.2	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Benzo[e]pyrene	1.7 J		6.8	1.7	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Benzo[g,h,i]perylene	ND		6.8	2.9	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Benzo[k]fluoranthene	ND		6.8	5.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Biphenyl	2.9 J		6.8	2.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Chrysene	2.5 J		6.8	2.3	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Dibenz(a,h)anthracene	ND		6.8	2.6	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Fluoranthene	7.2		6.8	3.8	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Fluorene	ND		6.8	3.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Indeno[1,2,3-cd]pyrene	ND		6.8	2.5	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Naphthalene	ND		6.8	1.9	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Perylene	ND		6.8	3.7	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Phenanthrene	ND		6.8	3.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Pyrene	ND		6.8	4.3	ug/Kg	☆	12/14/21 21:35	12/21/21 02:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	93		13 - 127				12/14/21 21:35	12/21/21 02:13	1
Nitrobenzene-d5 (Surr)	57		17 - 137				12/14/21 21:35	12/21/21 02:13	1
p-Terphenyl-d14 (Surr)	95		4 - 160				12/14/21 21:35	12/21/21 02:13	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL)

Client Sample ID: BL-7

Date Collected: 12/09/21 11:30

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-4

Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,6,7-Trimethylnaphthalene	ND		6.8	2.5	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
1-Methylnaphthalene	ND		6.8	2.6	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
1-Methylphenanthrene	ND		6.8	2.9	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
2,6-Dimethylnaphthalene	11		6.8	1.7	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
2-Methylnaphthalene	ND		6.8	2.5	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Acenaphthene	ND		6.8	2.9	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Acenaphthylene	ND		6.8	2.8	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Anthracene	ND		6.8	2.6	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Benzo[a]anthracene	ND		6.8	3.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Benzo[a]pyrene	ND		6.8	4.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Benzo[b]fluoranthene	ND		6.8	2.2	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Benzo[e]pyrene	ND		6.8	1.7	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Benzo[g,h,i]perylene	ND		6.8	2.9	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Benzo[k]fluoranthene	ND		6.8	5.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Biphenyl	ND		6.8	2.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Chrysene	ND		6.8	2.2	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Dibenz(a,h)anthracene	ND		6.8	2.6	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Fluoranthene	7.2		6.8	3.8	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Fluorene	ND		6.8	3.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Indeno[1,2,3-cd]pyrene	ND		6.8	2.5	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Naphthalene	ND		6.8	1.9	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Perylene	ND		6.8	3.7	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Phenanthrene	ND		6.8	2.9	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1
Pyrene	ND		6.8	4.3	ug/Kg	☆	12/14/21 21:35	12/21/21 02:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	95		13 - 127	12/14/21 21:35	12/21/21 02:32	1
Nitrobenzene-d5 (Surr)	59		17 - 137	12/14/21 21:35	12/21/21 02:32	1
p-Terphenyl-d14 (Surr)	96		4 - 160	12/14/21 21:35	12/21/21 02:32	1

Client Sample ID: BL-8

Date Collected: 12/09/21 10:44

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-5

Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,6,7-Trimethylnaphthalene	ND		7.1	2.7	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
1-Methylnaphthalene	ND		7.1	2.8	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
1-Methylphenanthrene	ND		7.1	3.1	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
2,6-Dimethylnaphthalene	24		7.1	1.8	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
2-Methylnaphthalene	ND		7.1	2.6	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Acenaphthene	ND		7.1	3.1	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Acenaphthylene	ND		7.1	3.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Anthracene	ND		7.1	2.7	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Benzo[a]anthracene	ND		7.1	3.2	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Benzo[a]pyrene	ND		7.1	4.2	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Benzo[b]fluoranthene	ND		7.1	2.3	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Benzo[e]pyrene	ND		7.1	1.8	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Benzo[g,h,i]perylene	ND		7.1	3.1	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Benzo[k]fluoranthene	ND		7.1	5.2	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Biphenyl	2.1 J		7.1	2.1	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Chrysene	ND		7.1	2.4	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL) (Continued)

Client Sample ID: BL-8

Date Collected: 12/09/21 10:44

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-5

Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		7.1	2.8	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Fluoranthene	6.9	J	7.1	4.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Fluorene	ND		7.1	3.1	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Indeno[1,2,3-cd]pyrene	ND		7.1	2.6	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Naphthalene	ND		7.1	2.0	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Perylene	ND		7.1	3.9	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Phenanthrene	ND		7.1	3.1	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1
Pyrene	ND		7.1	4.5	ug/Kg	☆	12/14/21 21:35	12/21/21 02:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	96		13 - 127	12/14/21 21:35	12/21/21 02:52	1
Nitrobenzene-d5 (Surr)	59		17 - 137	12/14/21 21:35	12/21/21 02:52	1
p-Terphenyl-d14 (Surr)	95		4 - 160	12/14/21 21:35	12/21/21 02:52	1

Client Sample ID: BL-9

Date Collected: 12/09/21 10:20

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-6

Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,6,7-Trimethylnaphthalene	ND		13	4.9	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
1-Methylnaphthalene	ND		13	5.1	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
1-Methylphenanthrene	ND		13	5.7	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
2,6-Dimethylnaphthalene	97		13	3.4	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
2-Methylnaphthalene	ND		13	4.8	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Acenaphthene	ND		13	5.6	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Acenaphthylene	ND		13	5.5	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Anthracene	ND		13	5.0	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Benzo[a]anthracene	ND		13	5.8	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Benzo[a]pyrene	ND		13	7.8	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Benzo[b]fluoranthene	ND		13	4.3	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Benzo[e]pyrene	3.9	J	13	3.3	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Benzo[g,h,i]perylene	ND		13	5.6	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Benzo[k]fluoranthene	ND		13	9.6	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Biphenyl	4.2	J	13	3.8	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Chrysene	4.3	J	13	4.3	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Dibenz(a,h)anthracene	ND		13	5.0	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Fluoranthene	16		13	7.3	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Fluorene	ND		13	5.8	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Indeno[1,2,3-cd]pyrene	ND		13	4.8	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Naphthalene	ND		13	3.7	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Perylene	ND		13	7.1	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Phenanthrene	ND		13	5.7	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1
Pyrene	ND		13	8.3	ug/Kg	☆	12/14/21 21:35	12/21/21 03:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	92		13 - 127	12/14/21 21:35	12/21/21 03:11	1
Nitrobenzene-d5 (Surr)	58		17 - 137	12/14/21 21:35	12/21/21 03:11	1
p-Terphenyl-d14 (Surr)	100		4 - 160	12/14/21 21:35	12/21/21 03:11	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL)

Client Sample ID: BL-10
Date Collected: 12/09/21 10:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-7
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,6,7-Trimethylnaphthalene	ND		16	5.8	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
1-Methylnaphthalene	ND		16	6.1	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
1-Methylphenanthrene	ND		16	6.8	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
2,6-Dimethylnaphthalene	110		16	4.0	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
2-Methylnaphthalene	ND		16	5.8	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Acenaphthene	ND		16	6.7	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Acenaphthylene	ND		16	6.5	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Anthracene	ND		16	6.0	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Benzo[a]anthracene	ND		16	7.0	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Benzo[a]pyrene	ND		16	9.3	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Benzo[b]fluoranthene	5.7 J		16	5.1	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Benzo[e]pyrene	4.5 J		16	3.9	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Benzo[g,h,i]perylene	ND		16	6.7	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Benzo[k]fluoranthene	ND		16	11	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Biphenyl	ND		16	4.5	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Chrysene	6.7 J		16	5.2	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Dibenz(a,h)anthracene	ND		16	6.0	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Fluoranthene	20		16	8.7	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Fluorene	ND		16	6.9	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Indeno[1,2,3-cd]pyrene	ND		16	5.8	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Naphthalene	ND		16	4.4	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Perylene	ND		16	8.4	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Phenanthrene	ND		16	6.8	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1
Pyrene	ND		16	9.9	ug/Kg	☆	12/14/21 21:35	12/21/21 03:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	87		13 - 127	12/14/21 21:35	12/21/21 03:31	1
Nitrobenzene-d5 (Surr)	42		17 - 137	12/14/21 21:35	12/21/21 03:31	1
p-Terphenyl-d14 (Surr)	92		4 - 160	12/14/21 21:35	12/21/21 03:31	1

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: BL-4
Date Collected: 12/09/21 11:52
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-1
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.4	0.23	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
2,4'-DDE	ND		7.2	0.53	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
2,4'-DDT	ND		1.4	0.31	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
4,4'-DDD	ND	F2 *+	1.4	0.29	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
4,4'-DDE	ND		1.4	0.16	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
4,4'-DDT	ND	*+	1.4	0.27	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
Aldrin	ND	*+	1.4	0.21	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
alpha-Chlordane	ND		1.4	0.38	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
Dieldrin	ND	*+	0.29	0.073	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
Endosulfan I	ND		1.4	0.32	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
Endosulfan II	ND	*+	1.4	0.089	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
Endrin	ND		1.4	0.097	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
gamma-BHC (Lindane)	ND	*+	1.4	0.18	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
Heptachlor	ND		1.4	0.26	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
Heptachlor epoxide	ND		1.4	0.19	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
Hexachlorobenzene	ND		7.2	0.76	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
Mirex	ND		1.4	0.27	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1
trans-Nonachlor	ND		1.4	0.21	ug/Kg	✱	12/17/21 14:19	12/22/21 12:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		20 - 163	12/17/21 14:19	12/22/21 12:56	1
DCB Decachlorobiphenyl (Surr)	87		27 - 176	12/17/21 14:19	12/22/21 12:56	1

Client Sample ID: BL-5
Date Collected: 12/09/21 13:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-2
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.5	0.24	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
2,4'-DDE	ND		7.5	0.56	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
2,4'-DDT	ND		1.5	0.32	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
4,4'-DDD	ND	*+	1.5	0.30	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
4,4'-DDE	ND		1.5	0.16	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
4,4'-DDT	ND	*+	1.5	0.28	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
Aldrin	ND	*+	1.5	0.22	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
alpha-Chlordane	ND		1.5	0.40	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
Dieldrin	ND	*+	0.30	0.076	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
Endosulfan I	ND		1.5	0.33	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
Endosulfan II	ND	*+	1.5	0.092	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
Endrin	ND		1.5	0.10	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
gamma-BHC (Lindane)	ND	*+	1.5	0.19	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
Heptachlor	ND		1.5	0.27	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
Heptachlor epoxide	ND		1.5	0.20	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
Hexachlorobenzene	ND		7.5	0.80	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
Mirex	ND		1.5	0.28	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1
trans-Nonachlor	ND		1.5	0.22	ug/Kg	✱	12/17/21 14:19	12/22/21 17:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	127		20 - 163	12/17/21 14:19	12/22/21 17:29	1
DCB Decachlorobiphenyl (Surr)	83		27 - 176	12/17/21 14:19	12/22/21 17:29	1

Eurofins Calscience

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: BL-6
Date Collected: 12/09/21 11:43
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-3
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.3	0.21	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
2,4'-DDE	ND		6.7	0.50	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
2,4'-DDT	ND		1.3	0.29	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
4,4'-DDD	ND	+	1.3	0.27	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
4,4'-DDE	ND		1.3	0.14	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
4,4'-DDT	ND	+	1.3	0.25	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
Aldrin	ND	+	1.3	0.19	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
alpha-Chlordane	ND		1.3	0.36	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
Dieldrin	ND	+	0.27	0.068	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
Endosulfan I	ND		1.3	0.30	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
Endosulfan II	ND	+	1.3	0.083	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
Endrin	ND		1.3	0.090	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
gamma-BHC (Lindane)	ND	+	1.3	0.17	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
Heptachlor	ND		1.3	0.24	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
Heptachlor epoxide	ND		1.3	0.18	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
Hexachlorobenzene	ND		6.7	0.71	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
Mirex	ND		1.3	0.25	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1
trans-Nonachlor	ND		1.3	0.20	ug/Kg	☆	12/17/21 14:19	12/22/21 17:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83	p	20 - 163	12/17/21 14:19	12/22/21 17:43	1
DCB Decachlorobiphenyl (Surr)	96		27 - 176	12/17/21 14:19	12/22/21 17:43	1

Client Sample ID: BL-7
Date Collected: 12/09/21 11:30
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-4
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.3	0.21	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
2,4'-DDE	ND		6.7	0.50	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
2,4'-DDT	ND		1.3	0.29	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
4,4'-DDD	ND	+	1.3	0.27	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
4,4'-DDE	ND		1.3	0.14	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
4,4'-DDT	ND	+	1.3	0.25	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
Aldrin	ND	+	1.3	0.19	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
alpha-Chlordane	ND		1.3	0.36	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
Dieldrin	ND	+	0.27	0.068	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
Endosulfan I	ND		1.3	0.30	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
Endosulfan II	ND	+	1.3	0.083	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
Endrin	ND		1.3	0.090	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
gamma-BHC (Lindane)	ND	+	1.3	0.17	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
Heptachlor	ND		1.3	0.24	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
Heptachlor epoxide	ND		1.3	0.18	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
Hexachlorobenzene	ND		6.7	0.71	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
Mirex	ND		1.3	0.25	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1
trans-Nonachlor	ND		1.3	0.20	ug/Kg	☆	12/17/21 14:19	12/22/21 17:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	103	p	20 - 163	12/17/21 14:19	12/22/21 17:57	1
DCB Decachlorobiphenyl (Surr)	81		27 - 176	12/17/21 14:19	12/22/21 17:57	1

Eurofins Calscience

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: BL-8
Date Collected: 12/09/21 10:44
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-5
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.4	0.22	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
2,4'-DDE	ND		7.1	0.52	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
2,4'-DDT	ND		1.4	0.30	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
4,4'-DDD	ND	+	1.4	0.28	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
4,4'-DDE	ND		1.4	0.15	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
4,4'-DDT	ND	+	1.4	0.27	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
Aldrin	ND	+	1.4	0.21	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
alpha-Chlordane	ND		1.4	0.38	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
Dieldrin	ND	+	0.28	0.072	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
Endosulfan I	ND		1.4	0.31	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
Endosulfan II	ND	+	1.4	0.087	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
Endrin	ND		1.4	0.095	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
gamma-BHC (Lindane)	ND	+	1.4	0.18	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
Heptachlor	ND		1.4	0.25	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
Heptachlor epoxide	ND		1.4	0.19	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
Hexachlorobenzene	ND		7.1	0.75	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
Mirex	ND		1.4	0.27	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1
trans-Nonachlor	ND		1.4	0.21	ug/Kg	☆	12/17/21 14:19	12/22/21 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91	p	20 - 163	12/17/21 14:19	12/22/21 18:12	1
DCB Decachlorobiphenyl (Surr)	85		27 - 176	12/17/21 14:19	12/22/21 18:12	1

Client Sample ID: BL-9
Date Collected: 12/09/21 10:20
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-6
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		2.6	0.40	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
2,4'-DDE	ND		13	0.95	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
2,4'-DDT	ND		2.6	0.55	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
4,4'-DDD	ND	+	2.6	0.51	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
4,4'-DDE	ND		2.6	0.28	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
4,4'-DDT	ND	+	2.6	0.49	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
Aldrin	ND	+	2.6	0.37	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
alpha-Chlordane	ND		2.6	0.68	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
Dieldrin	ND	+	0.51	0.13	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
Endosulfan I	ND		2.6	0.57	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
Endosulfan II	ND	+	2.6	0.16	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
Endrin	ND		2.6	0.17	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
gamma-BHC (Lindane)	ND	+	2.6	0.32	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
Heptachlor	ND		2.6	0.46	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
Heptachlor epoxide	ND		2.6	0.34	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
Hexachlorobenzene	ND		13	1.4	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
Mirex	ND		2.6	0.48	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1
trans-Nonachlor	ND		2.6	0.38	ug/Kg	☆	12/17/21 14:19	12/22/21 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90	p	20 - 163	12/17/21 14:19	12/22/21 18:26	1
DCB Decachlorobiphenyl (Surr)	87		27 - 176	12/17/21 14:19	12/22/21 18:26	1

Eurofins Calscience

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8081A - Organochlorine Pesticides (GC)

Client Sample ID: BL-10
Date Collected: 12/09/21 10:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-7
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		3.1	0.48	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
2,4'-DDE	ND		15	1.1	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
2,4'-DDT	ND		3.1	0.66	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
4,4'-DDD	ND	*+	3.1	0.61	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
4,4'-DDE	ND		3.1	0.33	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
4,4'-DDT	ND	*+	3.1	0.58	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
Aldrin	ND	*+	3.1	0.44	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
alpha-Chlordane	ND		3.1	0.81	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
Dieldrin	ND	*+	0.61	0.16	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
Endosulfan I	ND		3.1	0.68	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
Endosulfan II	ND	*+	3.1	0.19	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
Endrin	ND		3.1	0.21	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
gamma-BHC (Lindane)	ND	*+	3.1	0.38	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
Heptachlor	ND		3.1	0.54	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
Heptachlor epoxide	ND		3.1	0.41	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
Hexachlorobenzene	ND		15	1.6	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
Mirex	ND		3.1	0.58	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
trans-Nonachlor	ND		3.1	0.45	ug/Kg	✱	12/17/21 14:19	12/22/21 18:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90		20 - 163				12/17/21 14:19	12/22/21 18:40	1
DCB Decachlorobiphenyl (Surr)	88		27 - 176				12/17/21 14:19	12/22/21 18:40	1

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: BL-3

Date Collected: 12/09/21 10:16

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.10	0.018	mg/L			12/10/21 20:05	1
Orthophosphate as P	ND		0.10	0.076	mg/L			12/10/21 20:05	1

Client Sample ID: BL-4

Date Collected: 12/09/21 08:27

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		2.0	0.36	mg/L			12/10/21 20:21	20
Nitrate as N	ND		2.0	0.48	mg/L			12/10/21 20:21	20
Orthophosphate as P	ND		2.0	1.5	mg/L			12/10/21 20:21	20

Client Sample ID: BL-5

Date Collected: 12/09/21 08:58

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		2.0	0.36	mg/L			12/10/21 20:38	20
Nitrate as N	ND		2.0	0.48	mg/L			12/10/21 20:38	20
Orthophosphate as P	ND		2.0	1.5	mg/L			12/10/21 20:38	20

Client Sample ID: BL-6

Date Collected: 12/09/21 08:46

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		2.0	0.36	mg/L			12/10/21 20:55	20
Nitrate as N	ND		2.0	0.48	mg/L			12/10/21 20:55	20
Orthophosphate as P	ND		2.0	1.5	mg/L			12/10/21 20:55	20

Client Sample ID: BL-7

Date Collected: 12/09/21 08:34

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		2.0	0.36	mg/L			12/10/21 21:12	20
Nitrate as N	ND		2.0	0.48	mg/L			12/10/21 21:12	20
Orthophosphate as P	ND		2.0	1.5	mg/L			12/10/21 21:12	20

Client Sample ID: BL-8

Date Collected: 12/09/21 10:36

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		2.0	0.36	mg/L			12/10/21 21:29	20
Nitrate as N	ND		2.0	0.48	mg/L			12/10/21 21:29	20
Orthophosphate as P	ND		2.0	1.5	mg/L			12/10/21 21:29	20

Client Sample ID: BL-9

Date Collected: 12/09/21 10:13

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		2.0	0.36	mg/L			12/10/21 21:46	20
Nitrate as N	ND		2.0	0.48	mg/L			12/10/21 21:46	20
Orthophosphate as P	ND		2.0	1.5	mg/L			12/10/21 21:46	20

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: BL-10
Date Collected: 12/09/21 09:49
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		2.0	0.36	mg/L			12/10/21 22:03	20
Nitrate as N	ND		2.0	0.48	mg/L			12/10/21 22:03	20
Orthophosphate as P	ND		2.0	1.5	mg/L			12/10/21 22:03	20

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: BL-3
Date Collected: 12/09/21 10:16
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	14	H	0.50	0.12	mg/L			12/20/21 01:50	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 6010B - Metals (ICP)

Client Sample ID: BL-4
Date Collected: 12/09/21 11:52
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-1
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.460	J	0.750	0.303	mg/Kg	☆	12/26/21 08:21	12/27/21 17:43	1
Copper	7.54		1.50	0.761	mg/Kg	☆	12/26/21 08:21	12/27/21 17:43	1
Lead	4.12	J	7.50	1.45	mg/Kg	☆	12/26/21 08:21	12/27/21 17:43	1
Zinc	21.7		15.0	7.67	mg/Kg	☆	12/26/21 08:21	12/27/21 17:43	1

Client Sample ID: BL-5
Date Collected: 12/09/21 13:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-2
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.549	J	0.737	0.298	mg/Kg	☆	12/26/21 08:21	12/27/21 17:46	1
Copper	9.00		1.47	0.748	mg/Kg	☆	12/26/21 08:21	12/27/21 17:46	1
Lead	4.92	J	7.37	1.43	mg/Kg	☆	12/26/21 08:21	12/27/21 17:46	1
Zinc	24.4		14.7	7.54	mg/Kg	☆	12/26/21 08:21	12/27/21 17:46	1

Client Sample ID: BL-6
Date Collected: 12/09/21 11:43
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-3
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.310	J	0.703	0.284	mg/Kg	☆	12/26/21 08:21	12/27/21 17:48	1
Copper	5.40		1.41	0.713	mg/Kg	☆	12/26/21 08:21	12/27/21 17:48	1
Lead	3.38	J	7.03	1.36	mg/Kg	☆	12/26/21 08:21	12/27/21 17:48	1
Zinc	14.3		14.1	7.19	mg/Kg	☆	12/26/21 08:21	12/27/21 17:48	1

Client Sample ID: BL-7
Date Collected: 12/09/21 11:30
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-4
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.486	J	0.683	0.276	mg/Kg	☆	12/26/21 08:21	12/27/21 17:51	1
Copper	8.26		1.37	0.693	mg/Kg	☆	12/26/21 08:21	12/27/21 17:51	1
Lead	4.73	J	6.83	1.32	mg/Kg	☆	12/26/21 08:21	12/27/21 17:51	1
Zinc	22.0		13.7	6.99	mg/Kg	☆	12/26/21 08:21	12/27/21 17:51	1

Client Sample ID: BL-8
Date Collected: 12/09/21 10:44
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-5
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.708	0.286	mg/Kg	☆	12/26/21 08:21	12/27/21 17:53	1
Copper	4.13		1.42	0.718	mg/Kg	☆	12/26/21 08:21	12/27/21 17:53	1
Lead	3.04	J	7.08	1.37	mg/Kg	☆	12/26/21 08:21	12/27/21 17:53	1
Zinc	8.51	J	14.2	7.24	mg/Kg	☆	12/26/21 08:21	12/27/21 17:53	1

Client Sample ID: BL-9
Date Collected: 12/09/21 10:20
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-6
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.26	0.509	mg/Kg	☆	12/26/21 08:21	12/27/21 17:56	1
Copper	8.40		2.52	1.28	mg/Kg	☆	12/26/21 08:21	12/27/21 17:56	1
Lead	6.25	J	12.6	2.44	mg/Kg	☆	12/26/21 08:21	12/27/21 17:56	1
Zinc	16.2	J	25.2	12.9	mg/Kg	☆	12/26/21 08:21	12/27/21 17:56	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 6010B - Metals (ICP)

Client Sample ID: BL-10
Date Collected: 12/09/21 10:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-7
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.59	0.642	mg/Kg	☼	12/26/21 08:21	12/27/21 17:59	1
Copper	11.8		3.18	1.61	mg/Kg	☼	12/26/21 08:21	12/27/21 17:59	1
Lead	8.32	J	15.9	3.07	mg/Kg	☼	12/26/21 08:21	12/27/21 17:59	1
Zinc	23.2	J	31.8	16.3	mg/Kg	☼	12/26/21 08:21	12/27/21 17:59	1

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 6010B - Metals (ICP) - Total Recoverable

Client Sample ID: BL-3
Date Collected: 12/09/21 10:16
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00211	J	0.0100	0.00119	mg/L		12/27/21 06:48	12/27/21 17:38	1
Copper	ND		0.0500	0.00845	mg/L		12/27/21 06:48	12/27/21 17:38	1
Lead	0.0125	J	0.0500	0.00796	mg/L		12/27/21 06:48	12/27/21 17:38	1
Zinc	ND		0.250	0.0138	mg/L		12/27/21 06:48	12/27/21 17:38	1

Client Sample ID: BL-4
Date Collected: 12/09/21 08:27
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00801	J	0.0100	0.00119	mg/L		12/27/21 06:48	12/27/21 17:50	1
Copper	ND		0.0500	0.00845	mg/L		12/27/21 06:48	12/27/21 17:50	1
Lead	0.0169	J	0.0500	0.00796	mg/L		12/27/21 06:48	12/27/21 17:50	1
Zinc	ND		0.250	0.0138	mg/L		12/27/21 06:48	12/27/21 17:50	1

Client Sample ID: BL-5
Date Collected: 12/09/21 08:58
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00809	J	0.0100	0.00119	mg/L		12/27/21 06:48	12/27/21 17:53	1
Copper	ND		0.0500	0.00845	mg/L		12/27/21 06:48	12/27/21 17:53	1
Lead	ND		0.0500	0.00796	mg/L		12/27/21 06:48	12/27/21 17:53	1
Zinc	ND		0.250	0.0138	mg/L		12/27/21 06:48	12/27/21 17:53	1

Client Sample ID: BL-6
Date Collected: 12/09/21 08:46
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00805	J	0.0100	0.00119	mg/L		12/27/21 06:48	12/27/21 17:55	1
Copper	ND		0.0500	0.00845	mg/L		12/27/21 06:48	12/27/21 17:55	1
Lead	0.0135	J	0.0500	0.00796	mg/L		12/27/21 06:48	12/27/21 17:55	1
Zinc	ND		0.250	0.0138	mg/L		12/27/21 06:48	12/27/21 17:55	1

Client Sample ID: BL-7
Date Collected: 12/09/21 08:34
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00922	J	0.0100	0.00119	mg/L		12/27/21 06:48	12/27/21 17:57	1
Copper	ND		0.0500	0.00845	mg/L		12/27/21 06:48	12/27/21 17:57	1
Lead	0.0101	J	0.0500	0.00796	mg/L		12/27/21 06:48	12/27/21 17:57	1
Zinc	ND		0.250	0.0138	mg/L		12/27/21 06:48	12/27/21 17:57	1

Client Sample ID: BL-8
Date Collected: 12/09/21 10:36
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00993	J	0.0100	0.00119	mg/L		12/27/21 06:48	12/27/21 17:59	1
Copper	ND		0.0500	0.00845	mg/L		12/27/21 06:48	12/27/21 17:59	1
Lead	0.00875	J	0.0500	0.00796	mg/L		12/27/21 06:48	12/27/21 17:59	1
Zinc	ND		0.250	0.0138	mg/L		12/27/21 06:48	12/27/21 17:59	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 6010B - Metals (ICP) - Total Recoverable

Client Sample ID: BL-9

Date Collected: 12/09/21 10:13

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00873	J	0.0100	0.00119	mg/L		12/27/21 06:48	12/27/21 18:01	1
Copper	ND		0.0500	0.00845	mg/L		12/27/21 06:48	12/27/21 18:01	1
Lead	ND		0.0500	0.00796	mg/L		12/27/21 06:48	12/27/21 18:01	1
Zinc	ND		0.250	0.0138	mg/L		12/27/21 06:48	12/27/21 18:01	1

Client Sample ID: BL-10

Date Collected: 12/09/21 09:49

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	0.00930	J	0.0100	0.00119	mg/L		12/27/21 06:48	12/27/21 18:03	1
Copper	ND		0.0500	0.00845	mg/L		12/27/21 06:48	12/27/21 18:03	1
Lead	0.0142	J	0.0500	0.00796	mg/L		12/27/21 06:48	12/27/21 18:03	1
Zinc	ND		0.250	0.0138	mg/L		12/27/21 06:48	12/27/21 18:03	1

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 7471A - Mercury (CVAA)

Client Sample ID: BL-4
Date Collected: 12/09/21 11:52
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-1
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0287	J	0.119	0.0192	mg/Kg	☆	12/26/21 07:41	12/27/21 16:17	1

Client Sample ID: BL-5
Date Collected: 12/09/21 13:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-2
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0512	J	0.126	0.0204	mg/Kg	☆	12/26/21 07:41	12/27/21 16:18	1

Client Sample ID: BL-6
Date Collected: 12/09/21 11:43
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-3
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0247	J	0.118	0.0190	mg/Kg	☆	12/26/21 07:41	12/27/21 16:20	1

Client Sample ID: BL-7
Date Collected: 12/09/21 11:30
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-4
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0697	J	0.108	0.0175	mg/Kg	☆	12/26/21 07:41	12/27/21 16:22	1

Client Sample ID: BL-8
Date Collected: 12/09/21 10:44
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-5
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.115	J	0.122	0.0197	mg/Kg	☆	12/26/21 07:41	12/27/21 16:24	1

Client Sample ID: BL-9
Date Collected: 12/09/21 10:20
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-6
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.233		0.215	0.0349	mg/Kg	☆	12/26/21 07:41	12/27/21 16:26	1

Client Sample ID: BL-10
Date Collected: 12/09/21 10:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-7
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.406		0.261	0.0423	mg/Kg	☆	12/26/21 07:41	12/27/21 16:28	1

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Total Recoverable

Client Sample ID: BL-3
Date Collected: 12/09/21 10:16
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	600		7.05	1.04	mg/L			12/28/21 16:56	1

Client Sample ID: BL-4
Date Collected: 12/09/21 08:27
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	7130		7.05	1.04	mg/L			12/28/21 16:56	1

Client Sample ID: BL-5
Date Collected: 12/09/21 08:58
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	7290		7.05	1.04	mg/L			12/28/21 16:56	1

Client Sample ID: BL-6
Date Collected: 12/09/21 08:46
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	7330		7.05	1.04	mg/L			12/28/21 16:56	1

Client Sample ID: BL-7
Date Collected: 12/09/21 08:34
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	7550		7.05	1.04	mg/L			12/28/21 16:56	1

Client Sample ID: BL-8
Date Collected: 12/09/21 10:36
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	7120		7.05	1.04	mg/L			12/28/21 16:56	1

Client Sample ID: BL-9
Date Collected: 12/09/21 10:13
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	7280		7.05	1.04	mg/L			12/28/21 16:56	1

Client Sample ID: BL-10
Date Collected: 12/09/21 09:49
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	6880		7.05	1.04	mg/L			12/28/21 16:56	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

General Chemistry

Client Sample ID: BL-4
Date Collected: 12/09/21 11:52
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-1
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Total Organic	0.401		0.0735	0.0215	%	☆		01/04/22 23:34	1
Percent Solids	68.0		0.1	0.1	%			12/15/21 13:00	1

Client Sample ID: BL-5
Date Collected: 12/09/21 13:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-2
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Total Organic	0.509		0.0756	0.0221	%	☆		01/04/22 23:34	1
Percent Solids	66.1		0.1	0.1	%			12/15/21 13:00	1

Client Sample ID: BL-6
Date Collected: 12/09/21 11:43
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-3
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Total Organic	0.138		0.0682	0.0199	%	☆		01/04/22 23:34	1
Percent Solids	73.3		0.1	0.1	%			12/15/21 13:00	1

Client Sample ID: BL-7
Date Collected: 12/09/21 11:30
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-4
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Total Organic	0.0612	J	0.0680	0.0198	%	☆		01/04/22 23:34	1
Percent Solids	73.6		0.1	0.1	%			12/15/21 13:00	1

Client Sample ID: BL-8
Date Collected: 12/09/21 10:44
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-5
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Total Organic	0.229		0.0719	0.0210	%	☆		01/04/22 23:34	1
Percent Solids	69.6		0.1	0.1	%			12/15/21 13:00	1

Client Sample ID: BL-9
Date Collected: 12/09/21 10:20
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-6
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Total Organic	ND		0.131	0.0383	%	☆		01/04/22 23:34	1
Percent Solids	38.1		0.1	0.1	%			12/15/21 13:00	1

Client Sample ID: BL-10
Date Collected: 12/09/21 10:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-7
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Total Organic	2.05		0.157	0.0457	%	☆		01/04/22 23:34	1
Percent Solids	31.9		0.1	0.1	%			12/15/21 13:00	1

Client Sample ID: BL-3
Date Collected: 12/09/21 10:16
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	0.0583	J	0.200	0.0472	mg/L		12/16/21 10:10	12/16/21 18:05	1
Phosphorus, Total	0.0607		0.0200	0.00490	mg/L		12/17/21 11:05	12/17/21 16:37	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

General Chemistry (Continued)

Client Sample ID: BL-3

Date Collected: 12/09/21 10:16

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-8

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1640		1.00	0.870	mg/L			12/15/21 17:27	1
Total Suspended Solids	3.00		1.00	0.829	mg/L			12/15/21 11:40	1
Ammonia	ND		0.450	0.0911	mg/L			12/17/21 12:00	1

Client Sample ID: BL-4

Date Collected: 12/09/21 08:27

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-9

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	2.79		0.200	0.0472	mg/L		12/16/21 10:10	12/16/21 18:07	1
Phosphorus, Total	0.0248		0.0200	0.00490	mg/L		12/17/21 11:05	12/17/21 16:39	1
Total Dissolved Solids	31700		6.67	5.80	mg/L			12/15/21 17:27	1
Total Suspended Solids	31.3		1.00	0.829	mg/L			12/15/21 11:40	1
Ammonia	ND		0.450	0.0911	mg/L			12/17/21 12:00	1

Client Sample ID: BL-5

Date Collected: 12/09/21 08:58

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-10

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	2.84		0.200	0.0472	mg/L		12/16/21 10:10	12/16/21 18:25	1
Phosphorus, Total	0.0298		0.0200	0.00490	mg/L		12/17/21 11:05	12/17/21 16:40	1
Total Dissolved Solids	30000		6.67	5.80	mg/L			12/15/21 17:27	1
Total Suspended Solids	42.6		1.00	0.829	mg/L			12/15/21 11:40	1
Ammonia	ND		0.450	0.0911	mg/L			12/17/21 12:00	1

Client Sample ID: BL-6

Date Collected: 12/09/21 08:46

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-11

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	2.77		0.200	0.0472	mg/L		12/16/21 10:10	12/16/21 18:11	1
Phosphorus, Total	0.0247		0.0200	0.00490	mg/L		12/17/21 11:05	12/17/21 16:42	1
Total Dissolved Solids	32100		6.67	5.80	mg/L			12/15/21 17:27	1
Total Suspended Solids	37.9		1.02	0.846	mg/L			12/15/21 11:40	1
Ammonia	ND		0.450	0.0911	mg/L			12/17/21 12:00	1

Client Sample ID: BL-7

Date Collected: 12/09/21 08:34

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-12

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	2.76		0.200	0.0472	mg/L		12/16/21 10:10	12/16/21 18:14	1
Phosphorus, Total	0.0251		0.0200	0.00490	mg/L		12/17/21 11:05	12/17/21 16:43	1
Total Dissolved Solids	31700		6.67	5.80	mg/L			12/15/21 17:27	1
Total Suspended Solids	51.2		1.00	0.829	mg/L			12/15/21 11:40	1
Ammonia	ND		0.450	0.0911	mg/L			12/17/21 12:00	1

Client Sample ID: BL-8

Date Collected: 12/09/21 10:36

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	2.84		0.200	0.0472	mg/L		12/16/21 10:10	12/16/21 18:16	1
Phosphorus, Total	0.0188	J	0.0200	0.00490	mg/L		12/17/21 11:05	12/17/21 16:45	1
Total Dissolved Solids	31300		6.67	5.80	mg/L			12/15/21 17:27	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

General Chemistry (Continued)

Client Sample ID: BL-8

Date Collected: 12/09/21 10:36

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-13

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	40.8		1.00	0.829	mg/L			12/15/21 11:40	1
Ammonia	ND		0.450	0.0911	mg/L			12/17/21 12:00	1

Client Sample ID: BL-9

Date Collected: 12/09/21 10:13

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-14

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	2.67		0.200	0.0472	mg/L		12/16/21 10:10	12/16/21 18:19	1
Phosphorus, Total	0.0181	J	0.0200	0.00490	mg/L		12/17/21 11:05	12/17/21 16:46	1
Total Dissolved Solids	31100		6.67	5.80	mg/L			12/15/21 17:27	1
Total Suspended Solids	45.3		1.00	0.829	mg/L			12/15/21 11:40	1
Ammonia	ND		0.450	0.0911	mg/L			12/17/21 12:00	1

Client Sample ID: BL-10

Date Collected: 12/09/21 09:49

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-15

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	2.84		0.200	0.0472	mg/L		12/16/21 10:10	12/16/21 18:20	1
Phosphorus, Total	0.0189	J	0.0200	0.00490	mg/L		12/17/21 11:05	12/17/21 16:48	1
Total Dissolved Solids	29300		6.67	5.80	mg/L			12/15/21 17:27	1
Total Suspended Solids	49.1		1.00	0.829	mg/L			12/15/21 11:40	1
Ammonia	ND		0.450	0.0911	mg/L			12/17/21 12:00	1

Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: D4464 - Particle Size Distribution of Catalytic Material (Laser light scattering)

Client Sample ID: BL-4
Date Collected: 12/09/21 11:52
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-1
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay (less than 0.00391 mm)	1.56		0.01	0.01	%			12/22/21 16:02	1
Coarse Sand (0.5mm to 1mm)	6.87		0.01	0.01	%			12/22/21 16:02	1
Fine Sand (0.125 to 0.25mm)	41.32		0.01	0.01	%			12/22/21 16:02	1
Gravel (greater than 2 mm)	ND		0.01	0.01	%			12/22/21 16:02	1
Medium Sand (0.25 to 0.5 mm)	27.54		0.01	0.01	%			12/22/21 16:02	1
Silt (0.00391 to 0.0625mm)	9.80		0.01	0.01	%			12/22/21 16:02	1
Total Silt and Clay (0 to 0.0626mm)	11.37		0.01	0.01	%			12/22/21 16:02	1
Very Coarse Sand (1 to 2mm)	3.78		0.01	0.01	%			12/22/21 16:02	1
Very Fine Sand (0.0625 to 0.125 mm)	9.13		0.01	0.01	%			12/22/21 16:02	1

Client Sample ID: BL-5
Date Collected: 12/09/21 13:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-2
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay (less than 0.00391 mm)	1.61		0.01	0.01	%			12/22/21 16:08	1
Coarse Sand (0.5mm to 1mm)	4.24		0.01	0.01	%			12/22/21 16:08	1
Fine Sand (0.125 to 0.25mm)	37.06		0.01	0.01	%			12/22/21 16:08	1
Gravel (greater than 2 mm)	ND		0.01	0.01	%			12/22/21 16:08	1
Medium Sand (0.25 to 0.5 mm)	33.32		0.01	0.01	%			12/22/21 16:08	1
Silt (0.00391 to 0.0625mm)	16.66		0.01	0.01	%			12/22/21 16:08	1
Total Silt and Clay (0 to 0.0626mm)	18.27		0.01	0.01	%			12/22/21 16:08	1
Very Coarse Sand (1 to 2mm)	1.11		0.01	0.01	%			12/22/21 16:08	1
Very Fine Sand (0.0625 to 0.125 mm)	5.99		0.01	0.01	%			12/22/21 16:08	1

Client Sample ID: BL-6
Date Collected: 12/09/21 11:43
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-3
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay (less than 0.00391 mm)	0.98		0.01	0.01	%			12/22/21 16:14	1
Coarse Sand (0.5mm to 1mm)	0.86		0.01	0.01	%			12/22/21 16:14	1
Fine Sand (0.125 to 0.25mm)	50.48		0.01	0.01	%			12/22/21 16:14	1
Gravel (greater than 2 mm)	ND		0.01	0.01	%			12/22/21 16:14	1
Medium Sand (0.25 to 0.5 mm)	38.23		0.01	0.01	%			12/22/21 16:14	1
Silt (0.00391 to 0.0625mm)	3.92		0.01	0.01	%			12/22/21 16:14	1
Total Silt and Clay (0 to 0.0626mm)	4.90		0.01	0.01	%			12/22/21 16:14	1
Very Coarse Sand (1 to 2mm)	ND		0.01	0.01	%			12/22/21 16:14	1
Very Fine Sand (0.0625 to 0.125 mm)	5.53		0.01	0.01	%			12/22/21 16:14	1

Client Sample ID: BL-7
Date Collected: 12/09/21 11:30
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-4
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay (less than 0.00391 mm)	0.91		0.01	0.01	%			12/22/21 16:20	1
Coarse Sand (0.5mm to 1mm)	0.66		0.01	0.01	%			12/22/21 16:20	1
Fine Sand (0.125 to 0.25mm)	47.46		0.01	0.01	%			12/22/21 16:20	1
Gravel (greater than 2 mm)	ND		0.01	0.01	%			12/22/21 16:20	1
Medium Sand (0.25 to 0.5 mm)	43.52		0.01	0.01	%			12/22/21 16:20	1
Silt (0.00391 to 0.0625mm)	4.05		0.01	0.01	%			12/22/21 16:20	1

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Client Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: D4464 - Particle Size Distribution of Catalytic Material (Laser light scattering) (Continued)

Client Sample ID: BL-7
Date Collected: 12/09/21 11:30
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-4
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Silt and Clay (0 to 0.0626mm)	4.96		0.01	0.01	%			12/22/21 16:20	1
Very Coarse Sand (1 to 2mm)	ND		0.01	0.01	%			12/22/21 16:20	1
Very Fine Sand (0.0625 to 0.125 mm)	3.41		0.01	0.01	%			12/22/21 16:20	1

Client Sample ID: BL-8
Date Collected: 12/09/21 10:44
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-5
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay (less than 0.00391 mm)	1.89		0.01	0.01	%			12/22/21 16:28	1
Coarse Sand (0.5mm to 1mm)	1.90		0.01	0.01	%			12/22/21 16:28	1
Fine Sand (0.125 to 0.25mm)	48.34		0.01	0.01	%			12/22/21 16:28	1
Gravel (greater than 2 mm)	ND		0.01	0.01	%			12/22/21 16:28	1
Medium Sand (0.25 to 0.5 mm)	29.04		0.01	0.01	%			12/22/21 16:28	1
Silt (0.00391 to 0.0625mm)	10.96		0.01	0.01	%			12/22/21 16:28	1
Total Silt and Clay (0 to 0.0626mm)	12.85		0.01	0.01	%			12/22/21 16:28	1
Very Coarse Sand (1 to 2mm)	ND		0.01	0.01	%			12/22/21 16:28	1
Very Fine Sand (0.0625 to 0.125 mm)	7.86		0.01	0.01	%			12/22/21 16:28	1

Client Sample ID: BL-9
Date Collected: 12/09/21 10:20
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-6
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay (less than 0.00391 mm)	10.09		0.01	0.01	%			12/22/21 16:40	1
Coarse Sand (0.5mm to 1mm)	ND		0.01	0.01	%			12/22/21 16:40	1
Fine Sand (0.125 to 0.25mm)	9.63		0.01	0.01	%			12/22/21 16:40	1
Gravel (greater than 2 mm)	ND		0.01	0.01	%			12/22/21 16:40	1
Medium Sand (0.25 to 0.5 mm)	ND		0.01	0.01	%			12/22/21 16:40	1
Silt (0.00391 to 0.0625mm)	60.00		0.01	0.01	%			12/22/21 16:40	1
Total Silt and Clay (0 to 0.0626mm)	70.09		0.01	0.01	%			12/22/21 16:40	1
Very Coarse Sand (1 to 2mm)	ND		0.01	0.01	%			12/22/21 16:40	1
Very Fine Sand (0.0625 to 0.125 mm)	20.28		0.01	0.01	%			12/22/21 16:40	1

Client Sample ID: BL-10
Date Collected: 12/09/21 10:01
Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-7
Matrix: Sediment

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay (less than 0.00391 mm)	10.15		0.01	0.01	%			12/22/21 16:46	1
Coarse Sand (0.5mm to 1mm)	ND		0.01	0.01	%			12/22/21 16:46	1
Fine Sand (0.125 to 0.25mm)	8.17		0.01	0.01	%			12/22/21 16:46	1
Gravel (greater than 2 mm)	ND		0.01	0.01	%			12/22/21 16:46	1
Medium Sand (0.25 to 0.5 mm)	ND		0.01	0.01	%			12/22/21 16:46	1
Silt (0.00391 to 0.0625mm)	62.20		0.01	0.01	%			12/22/21 16:46	1
Total Silt and Clay (0 to 0.0626mm)	72.35		0.01	0.01	%			12/22/21 16:46	1
Very Coarse Sand (1 to 2mm)	ND		0.01	0.01	%			12/22/21 16:46	1
Very Fine Sand (0.0625 to 0.125 mm)	19.48		0.01	0.01	%			12/22/21 16:46	1

Eurofins Calscience

PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

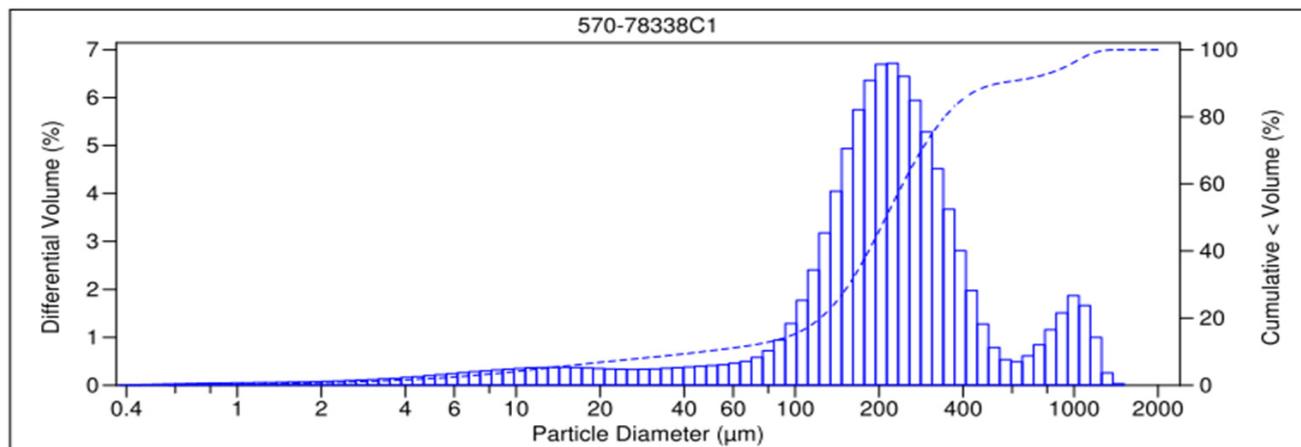
Miller Marine Science & Consulting

Date Sampled: 12/09/21
Date Received: 12/10/21
Work Order No: 570-78338
Date Analyzed: 12/22/21
Method: ASTM D4464M

Project: BLF 2021 Sampling

Sample ID	Depth ft	Description	Mean Grain Size mm
BL4		Medium Sand	0.275

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	3.78	6.87	27.54	41.32	9.13	9.80	1.56	11.37



V 3.0

PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

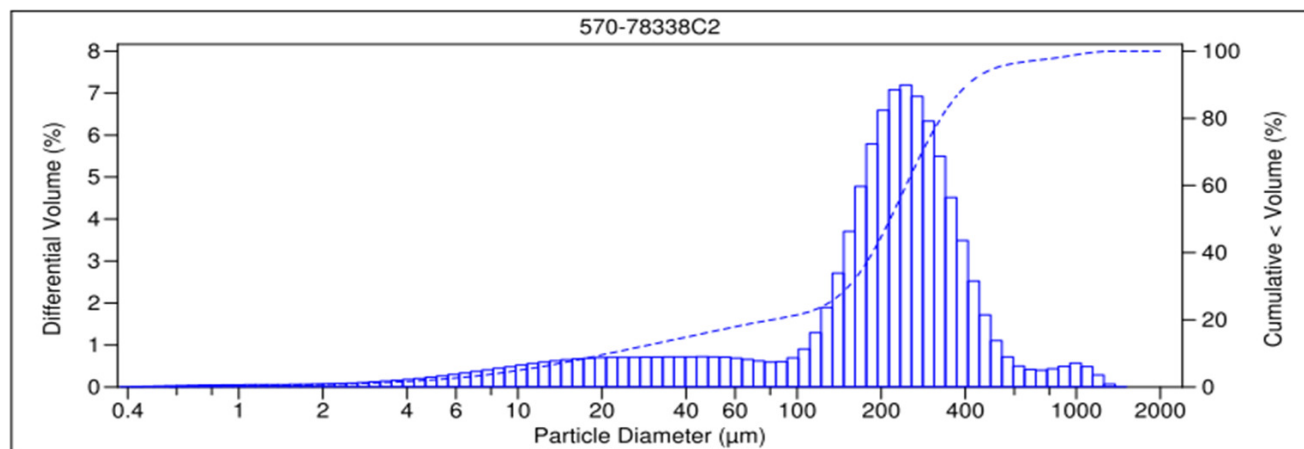
Miller Marine Science & Consulting

Date Sampled: 12/09/21
Date Received: 12/10/21
Work Order No: 570-78338
Date Analyzed: 12/22/21
Method: ASTM D4464M

Project: BLF 2021 Sampling

Sample ID	Depth ft	Description	Mean Grain Size mm
BL5		Fine Sand	0.233

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	1.11	4.24	33.32	37.06	5.99	16.66	1.61	18.27



V 3.0

PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

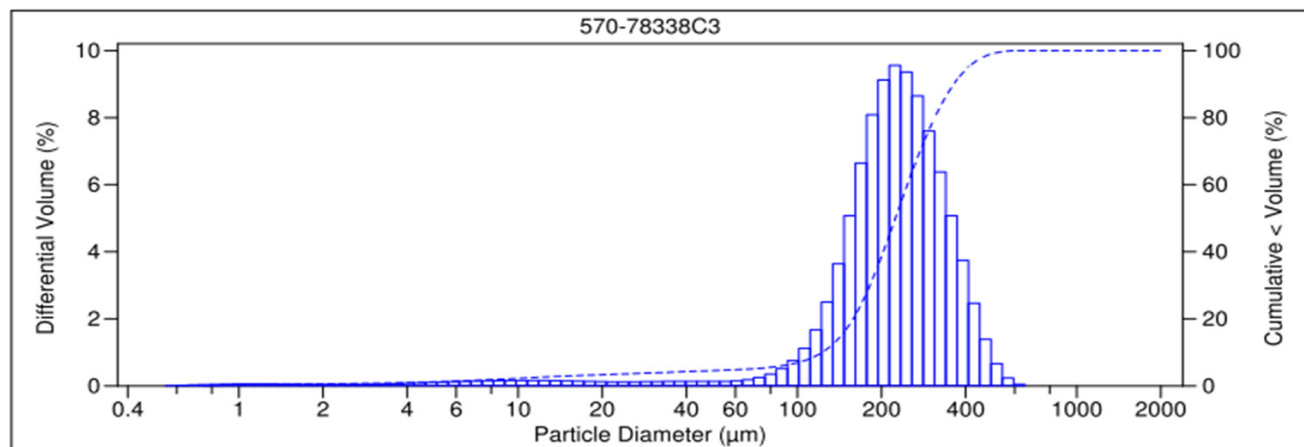
Miller Marine Science & Consulting

Date Sampled: 12/09/21
Date Received: 12/10/21
Work Order No: 570-78338
Date Analyzed: 12/22/21
Method: ASTM D4464M

Project: BLF 2021 Sampling

Sample ID	Depth ft	Description	Mean Grain Size mm
BL6		Fine Sand	0.232

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.86	38.23	50.48	5.53	3.92	0.98	4.90



V 3.0

PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

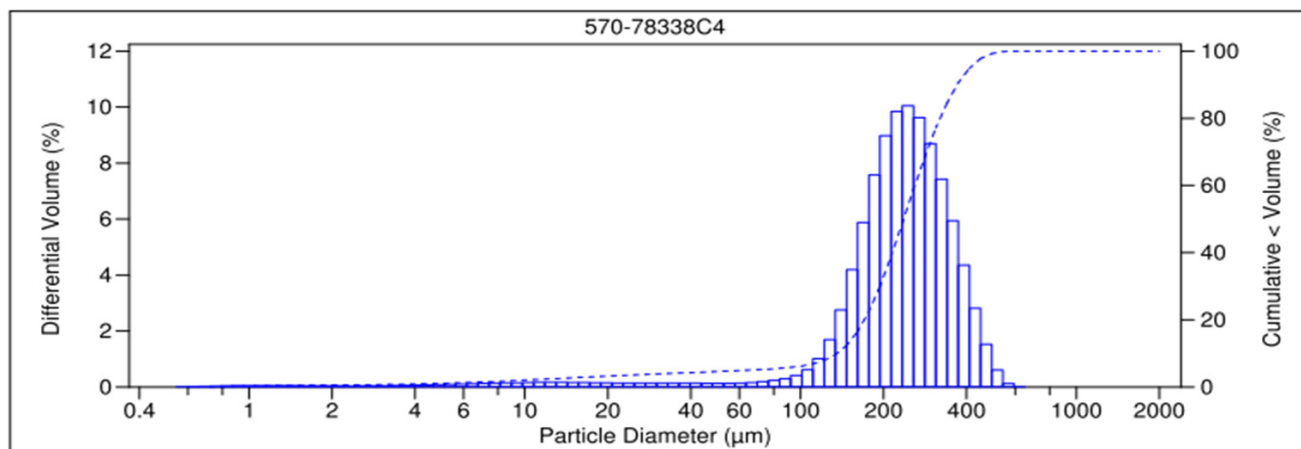
Miller Marine Science & Consulting

Date Sampled: 12/09/21
Date Received: 12/10/21
Work Order No: 570-78338
Date Analyzed: 12/22/21
Method: ASTM D4464M

Project: BLF 2021 Sampling

Sample ID	Depth ft	Description	Mean Grain Size mm
BL7		Fine Sand	0.242

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.66	43.52	47.46	3.41	4.05	0.91	4.96



V 3.0

PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

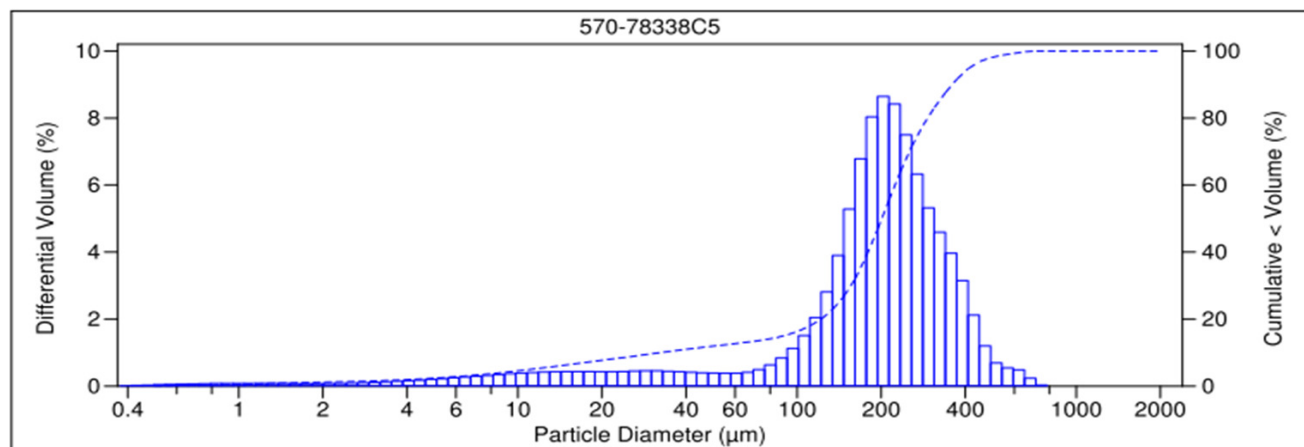
Miller Marine Science & Consulting

Date Sampled: 12/09/21
Date Received: 12/10/21
Work Order No: 570-78338
Date Analyzed: 12/22/21
Method: ASTM D4464M

Project: BLF 2021 Sampling

Sample ID	Depth ft	Description	Mean Grain Size mm
BL8		Fine Sand	0.208

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	1.90	29.04	48.34	7.86	10.96	1.89	12.85



V 3.0

PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

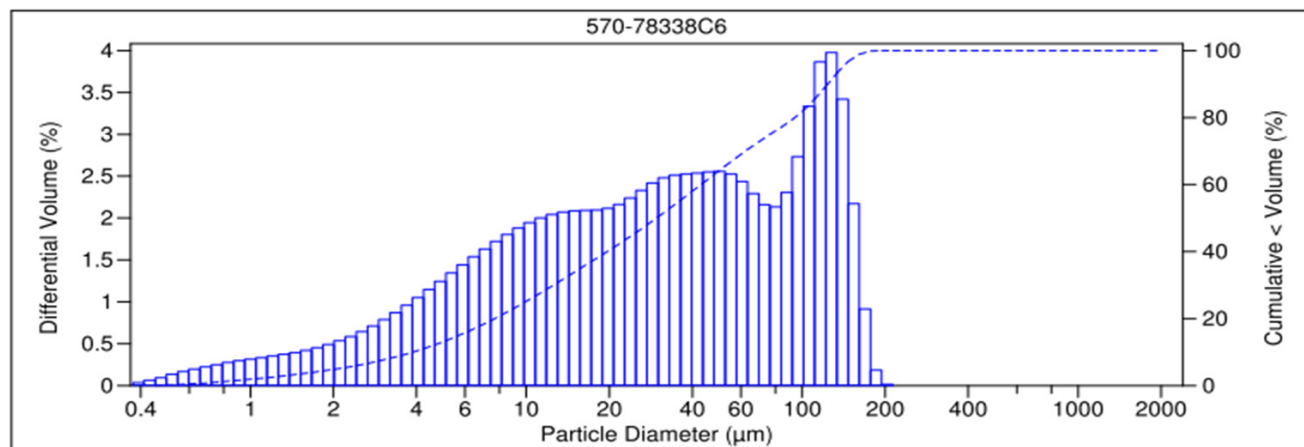
Miller Marine Science & Consulting

Date Sampled: 12/09/21
Date Received: 12/10/21
Work Order No: 570-78338
Date Analyzed: 12/22/21
Method: ASTM D4464M

Project: BLF 2021 Sampling

Sample ID	Depth ft	Description	Mean Grain Size mm
BL9		Silt	0.048

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	9.63	20.28	60.00	10.09	70.09



V 3.0

PARTICLE SIZE SUMMARY

(ASTM D422 / D4464M)

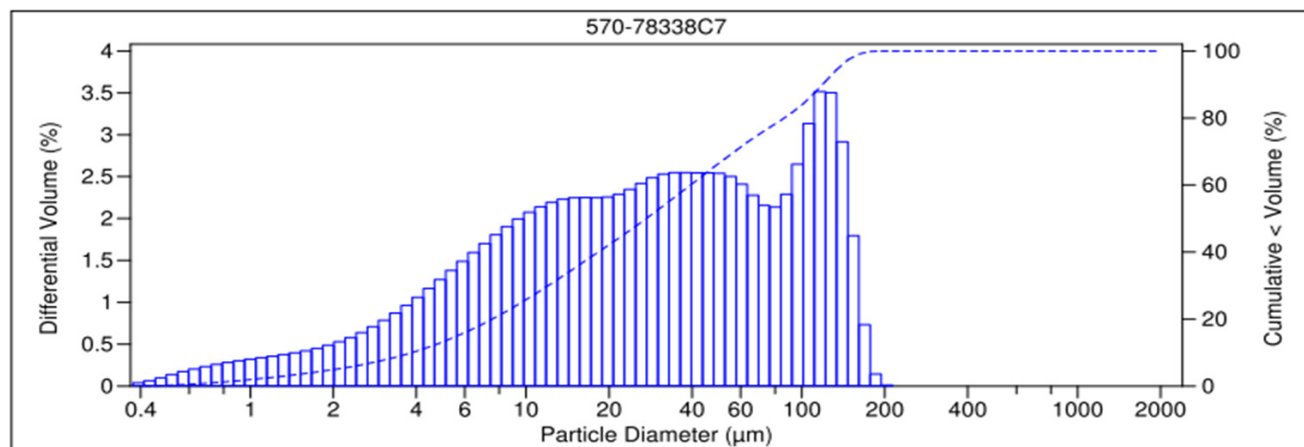
Miller Marine Science & Consulting

Date Sampled: 12/09/21
Date Received: 12/10/21
Work Order No: 570-78338
Date Analyzed: 12/22/21
Method: ASTM D4464M

Project: BLF 2021 Sampling

Sample ID	Depth ft	Description	Mean Grain Size mm
BL10		Silt	0.045

Particle Size Distribution, wt by percent								Total Silt & Clay
Total Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
0.00	0.00	0.00	0.00	8.17	19.48	62.20	10.15	72.35



V 3.0

Surrogate Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL)

Matrix: Sediment

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (13-127)	NBZ (17-137)	TPHd14 (4-160)
570-78338-1	BL-4	93	56	92
570-78338-1 MS	BL-4	96	58	103
570-78338-1 MSD	BL-4	96	62	95
570-78338-2	BL-5	95	60	95
570-78338-3	BL-6	93	57	95
570-78338-4	BL-7	95	59	96
570-78338-5	BL-8	96	59	95
570-78338-6	BL-9	92	58	100
570-78338-7	BL-10	87	42	92

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (13-127)	NBZ (17-137)	TPHd14 (4-160)
LCS 570-201070/2-A	Lab Control Sample	104	73	83
LCSD 570-201070/3-A	Lab Control Sample Dup	112	86	79
MB 570-201070/1-A	Method Blank	92	61	77

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
NBZ = Nitrobenzene-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8270C SIM CON - PCB Congeners (GC/MS)

Matrix: Sediment

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		FBP (20-139)	TPHd14 (37-165)
570-78338-1	BL-4	100	129
570-78338-2	BL-5	89	140
570-78338-3	BL-6	82	134
570-78338-4	BL-7	90	138
570-78338-5	BL-8	93	154
570-78338-6	BL-9	88	146
570-78338-7	BL-10	77	127

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)

Surrogate Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM CON - PCB Congeners (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (20-139)	TPHd14 (37-165)
LCS 570-201071/2-A	Lab Control Sample	94	124
LCSD 570-201071/3-A	Lab Control Sample Dup	88	127
MB 570-201071/1-A	Method Blank	96	139

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Sediment

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (20-163)	DCB1 (27-176)
570-78338-1	BL-4	77	87
570-78338-1 MS	BL-4	38	38
570-78338-1 MSD	BL-4	97	103
570-78338-2	BL-5	127	83
570-78338-3	BL-6	83 p	96
570-78338-4	BL-7	103 p	81
570-78338-5	BL-8	91 p	85
570-78338-6	BL-9	90 p	87
570-78338-7	BL-10	90	88

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (20-163)	DCB1 (27-176)
LCS 570-201966/2-A	Lab Control Sample	101	115
LCSD 570-201966/3-A	Lab Control Sample Dup	102	119
MB 570-201966/1-A	Method Blank	100	115

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl (Surr)

QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL)

Lab Sample ID: MB 570-201070/1-A

Matrix: Solid

Analysis Batch: 202608

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201070

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,6,7-Trimethylnaphthalene	ND		5.0	1.9	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
1-Methylnaphthalene	ND		5.0	2.0	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
1-Methylphenanthrene	ND		5.0	2.2	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
2,6-Dimethylnaphthalene	ND		5.0	1.3	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
2-Methylnaphthalene	ND		5.0	1.9	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Acenaphthene	ND		5.0	2.2	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Acenaphthylene	ND		5.0	2.1	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Anthracene	ND		5.0	1.9	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Benzo[a]anthracene	ND		5.0	2.2	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Benzo[a]pyrene	ND		5.0	3.0	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Benzo[b]fluoranthene	ND		5.0	1.6	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Benzo[e]pyrene	ND		5.0	1.2	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Benzo[g,h,i]perylene	ND		5.0	2.2	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Benzo[k]fluoranthene	ND		5.0	3.7	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Biphenyl	ND		5.0	1.5	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Chrysene	ND		5.0	1.7	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Dibenz(a,h)anthracene	ND		5.0	1.9	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Fluoranthene	ND		5.0	2.8	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Fluorene	ND		5.0	2.2	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.9	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Naphthalene	ND		5.0	1.4	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Perylene	ND		5.0	2.7	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Phenanthrene	ND		5.0	2.2	ug/Kg		12/14/21 21:35	12/20/21 18:25	1
Pyrene	ND		5.0	3.2	ug/Kg		12/14/21 21:35	12/20/21 18:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	92		13 - 127	12/14/21 21:35	12/20/21 18:25	1
Nitrobenzene-d5 (Surr)	61		17 - 137	12/14/21 21:35	12/20/21 18:25	1
p-Terphenyl-d14 (Surr)	77		4 - 160	12/14/21 21:35	12/20/21 18:25	1

Lab Sample ID: LCS 570-201070/2-A

Matrix: Solid

Analysis Batch: 202608

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201070

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	50.0	47.39		ug/Kg		95	52 - 138
2-Methylnaphthalene	50.0	45.04		ug/Kg		90	43 - 151
Acenaphthene	50.0	43.88		ug/Kg		88	45 - 134
Acenaphthylene	50.0	51.70		ug/Kg		103	45 - 147
Anthracene	50.0	46.53		ug/Kg		93	45 - 139
Benzo[a]anthracene	50.0	41.82		ug/Kg		84	51 - 136
Benzo[a]pyrene	50.0	41.59		ug/Kg		83	44 - 145
Benzo[b]fluoranthene	50.0	39.50		ug/Kg		79	41 - 156
Benzo[g,h,i]perylene	50.0	42.56		ug/Kg		85	41 - 154
Benzo[k]fluoranthene	50.0	42.73		ug/Kg		85	50 - 145
Chrysene	50.0	42.94		ug/Kg		86	48 - 134
Dibenz(a,h)anthracene	50.0	39.80		ug/Kg		80	45 - 153
Fluoranthene	50.0	42.12		ug/Kg		84	45 - 137

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QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL) (Continued)

Lab Sample ID: LCS 570-201070/2-A

Matrix: Solid

Analysis Batch: 202608

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201070

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluorene	50.0	46.78		ug/Kg		94	49 - 134
Indeno[1,2,3-cd]pyrene	50.0	38.03		ug/Kg		76	41 - 152
Naphthalene	50.0	42.18		ug/Kg		84	45 - 135
Phenanthrene	50.0	41.70		ug/Kg		83	45 - 133
Pyrene	50.0	44.92		ug/Kg		90	47 - 138

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	104		13 - 127
Nitrobenzene-d5 (Surr)	73		17 - 137
p-Terphenyl-d14 (Surr)	83		4 - 160

Lab Sample ID: LCSD 570-201070/3-A

Matrix: Solid

Analysis Batch: 202608

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 201070

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1-Methylnaphthalene	50.0	48.46		ug/Kg		97	52 - 138	2	26
2-Methylnaphthalene	50.0	50.61		ug/Kg		101	43 - 151	12	27
Acenaphthene	50.0	47.75		ug/Kg		96	45 - 134	8	25
Acenaphthylene	50.0	52.38		ug/Kg		105	45 - 147	1	28
Anthracene	50.0	49.32		ug/Kg		99	45 - 139	6	24
Benzo[a]anthracene	50.0	41.16		ug/Kg		82	51 - 136	2	24
Benzo[a]pyrene	50.0	40.44		ug/Kg		81	44 - 145	3	25
Benzo[b]fluoranthene	50.0	38.72		ug/Kg		77	41 - 156	2	25
Benzo[g,h,i]perylene	50.0	41.45		ug/Kg		83	41 - 154	3	30
Benzo[k]fluoranthene	50.0	41.30		ug/Kg		83	50 - 145	3	25
Chrysene	50.0	41.33		ug/Kg		83	48 - 134	4	22
Dibenz(a,h)anthracene	50.0	38.94		ug/Kg		78	45 - 153	2	26
Fluoranthene	50.0	42.50		ug/Kg		85	45 - 137	1	24
Fluorene	50.0	50.47		ug/Kg		101	49 - 134	8	27
Indeno[1,2,3-cd]pyrene	50.0	36.89		ug/Kg		74	41 - 152	3	27
Naphthalene	50.0	47.21		ug/Kg		94	45 - 135	11	26
Phenanthrene	50.0	44.02		ug/Kg		88	45 - 133	5	27
Pyrene	50.0	44.78		ug/Kg		90	47 - 138	0	27

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	112		13 - 127
Nitrobenzene-d5 (Surr)	86		17 - 137
p-Terphenyl-d14 (Surr)	79		4 - 160

Lab Sample ID: 570-78338-1 MS

Matrix: Sediment

Analysis Batch: 202608

Client Sample ID: BL-4

Prep Type: Total/NA

Prep Batch: 201070

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1-Methylnaphthalene	ND		73.2	56.20		ug/Kg	⊛	77	34 - 136
2-Methylnaphthalene	ND		73.2	61.73		ug/Kg	⊛	84	29 - 137
Acenaphthene	ND		73.2	61.88		ug/Kg	⊛	84	29 - 137

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QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL) (Continued)

Lab Sample ID: 570-78338-1 MS

Matrix: Sediment

Analysis Batch: 202608

Client Sample ID: BL-4

Prep Type: Total/NA

Prep Batch: 201070

Top Bottom 20100									
Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Acenaphthylene	ND		73.2	70.10		ug/Kg	☼	96	29 - 131
Anthracene	ND		73.2	75.33		ug/Kg	☼	103	26 - 134
Benzo[a]anthracene	3.7	J	73.2	65.07		ug/Kg	☼	84	24 - 150
Benzo[a]pyrene	ND		73.2	69.18		ug/Kg	☼	94	29 - 149
Benzo[b]fluoranthene	2.4	J	73.2	67.37		ug/Kg	☼	89	21 - 153
Benzo[g,h,i]perylene	ND		73.2	74.00		ug/Kg	☼	101	20 - 148
Benzo[k]fluoranthene	ND		73.2	68.69		ug/Kg	☼	94	28 - 148
Chrysene	3.5	J	73.2	66.05		ug/Kg	☼	85	25 - 145
Dibenz(a,h)anthracene	ND		73.2	66.57		ug/Kg	☼	91	20 - 132
Fluoranthene	9.4		73.2	68.94		ug/Kg	☼	81	20 - 151
Fluorene	ND		73.2	66.58		ug/Kg	☼	91	36 - 132
Indeno[1,2,3-cd]pyrene	ND		73.2	63.19		ug/Kg	☼	86	20 - 154
Naphthalene	ND		73.2	55.99		ug/Kg	☼	76	20 - 150
Phenanthrene	ND		73.2	67.36		ug/Kg	☼	92	20 - 144
Pyrene	4.9	J	73.2	71.95		ug/Kg	☼	92	20 - 150
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
2-Fluorobiphenyl (Surr)	96		13 - 127						
Nitrobenzene-d5 (Surr)	58		17 - 137						
p-Terphenyl-d14 (Surr)	103		4 - 160						

Lab Sample ID: 570-78338-1 MSD

Matrix: Sediment

Analysis Batch: 202608

Client Sample ID: BL-4

Prep Type: Total/NA

Prep Batch: 201070

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
1-Methylnaphthalene	ND		73.4	57.92		ug/Kg	☼	79	34 - 136	3	29
2-Methylnaphthalene	ND		73.4	66.52		ug/Kg	☼	91	29 - 137	7	31
Acenaphthene	ND		73.4	62.77		ug/Kg	☼	86	29 - 137	1	28
Acenaphthylene	ND		73.4	72.83		ug/Kg	☼	99	29 - 131	4	32
Anthracene	ND		73.4	73.78		ug/Kg	☼	100	26 - 134	2	27
Benzo[a]anthracene	3.7	J	73.4	69.71		ug/Kg	☼	90	24 - 150	7	24
Benzo[a]pyrene	ND		73.4	71.79		ug/Kg	☼	98	29 - 149	4	22
Benzo[b]fluoranthene	2.4	J	73.4	67.13		ug/Kg	☼	88	21 - 153	0	26
Benzo[g,h,i]perylene	ND		73.4	74.79		ug/Kg	☼	102	20 - 148	1	27
Benzo[k]fluoranthene	ND		73.4	70.00		ug/Kg	☼	95	28 - 148	2	26
Chrysene	3.5	J	73.4	67.70		ug/Kg	☼	88	25 - 145	2	28
Dibenz(a,h)anthracene	ND		73.4	66.77		ug/Kg	☼	91	20 - 132	0	26
Fluoranthene	9.4		73.4	67.22		ug/Kg	☼	79	20 - 151	3	26
Fluorene	ND		73.4	70.25		ug/Kg	☼	96	36 - 132	5	27
Indeno[1,2,3-cd]pyrene	ND		73.4	62.97		ug/Kg	☼	86	20 - 154	0	25
Naphthalene	ND		73.4	57.63		ug/Kg	☼	79	20 - 150	3	33
Phenanthrene	ND		73.4	69.16		ug/Kg	☼	94	20 - 144	3	27
Pyrene	4.9	J	73.4	73.46		ug/Kg	☼	93	20 - 150	2	32
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
2-Fluorobiphenyl (Surr)	96		13 - 127								
Nitrobenzene-d5 (Surr)	62		17 - 137								

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QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM - Semivolatile Organic Compound (GC/MS SIM LL) (Continued)

Lab Sample ID: 570-78338-1 MSD
Matrix: Sediment
Analysis Batch: 202608

Client Sample ID: BL-4
Prep Type: Total/NA
Prep Batch: 201070

Surrogate	MSD %Recovery	MSD Qualifier	Limits
p-Terphenyl-d14 (Surr)	95		4 - 160

Method: 8270C SIM CON - PCB Congeners (GC/MS)

Lab Sample ID: MB 570-201071/1-A
Matrix: Solid
Analysis Batch: 203173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 201071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-5/8	ND		0.40	0.11	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-18	ND		0.20	0.094	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-28	ND		0.20	0.10	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-31	ND		0.20	0.038	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-33	ND		0.20	0.047	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-44	ND		0.20	0.12	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-49	ND		0.20	0.11	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-52	ND		0.20	0.079	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-56	ND		0.20	0.047	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-60	ND		0.20	0.044	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-66	ND		0.20	0.11	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-70	ND		0.20	0.093	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-74	ND		0.20	0.10	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-87	ND		0.20	0.12	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-95	ND		0.20	0.066	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-97	ND		0.20	0.062	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-99	ND		0.20	0.086	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-101	ND		0.20	0.11	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-105	ND		0.20	0.11	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-110	ND		0.20	0.089	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-118	ND		0.20	0.080	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-128	ND		0.20	0.14	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-132/153	ND		0.40	0.24	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-138/158	ND		0.40	0.24	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-141	ND		0.20	0.066	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-149	ND		0.20	0.11	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-151	ND		0.20	0.092	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-156	ND		0.20	0.095	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-170	ND		0.20	0.10	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-174	ND		0.20	0.057	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-177	ND		0.20	0.094	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-180	ND		0.20	0.083	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-183	ND		0.20	0.12	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-187	ND		0.20	0.089	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-194	ND		0.20	0.11	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-195	ND		0.20	0.062	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-201	ND		0.20	0.14	ug/Kg		12/14/21 21:39	12/27/21 19:11	1
PCB-203	ND		0.20	0.070	ug/Kg		12/14/21 21:39	12/27/21 19:11	1

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QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM CON - PCB Congeners (GC/MS) (Continued)

Lab Sample ID: MB 570-201071/1-A

Matrix: Solid

Analysis Batch: 203173

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201071

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	96		20 - 139	12/14/21 21:39	12/27/21 19:11	1
p-Terphenyl-d14 (Surr)	139		37 - 165	12/14/21 21:39	12/27/21 19:11	1

Lab Sample ID: LCS 570-201071/2-A

Matrix: Solid

Analysis Batch: 203173

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-18	50.0	50.45		ug/Kg		101	33 - 114
PCB-28	50.0	55.94		ug/Kg		112	40 - 132
PCB-44	50.0	56.79		ug/Kg		114	38 - 131
PCB-52	50.0	51.79		ug/Kg		104	38 - 131
PCB-66	50.0	64.49		ug/Kg		129	42 - 141
PCB-101	50.0	60.02		ug/Kg		120	40 - 132
PCB-105	50.0	61.58		ug/Kg		123	39 - 135
PCB-118	50.0	60.05		ug/Kg		120	38 - 131
PCB-128	50.0	62.20		ug/Kg		124	43 - 149
PCB-132/153	50.0	73.19		ug/Kg		146	37 - 164
PCB-138/158	50.0	54.59		ug/Kg		109	36 - 124
PCB-170	50.0	60.12		ug/Kg		120	35 - 134
PCB-180	50.0	65.00		ug/Kg		130	38 - 159
PCB-187	50.0	63.41		ug/Kg		127	41 - 147
PCB-195	50.0	64.95	*+	ug/Kg		130	44 - 128
PCB-201	50.0	60.89		ug/Kg		122	40 - 156

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	94		20 - 139
p-Terphenyl-d14 (Surr)	124		37 - 165

Lab Sample ID: LCSD 570-201071/3-A

Matrix: Solid

Analysis Batch: 203173

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 201071

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
PCB-18	50.0	51.89		ug/Kg		104	33 - 114	3	29
PCB-28	50.0	58.29		ug/Kg		117	40 - 132	4	29
PCB-44	50.0	59.70		ug/Kg		119	38 - 131	5	32
PCB-52	50.0	53.01		ug/Kg		106	38 - 131	2	32
PCB-66	50.0	67.84		ug/Kg		136	42 - 141	5	34
PCB-101	50.0	62.53		ug/Kg		125	40 - 132	4	34
PCB-105	50.0	65.76		ug/Kg		132	39 - 135	7	37
PCB-118	50.0	63.17		ug/Kg		126	38 - 131	5	35
PCB-128	50.0	65.85		ug/Kg		132	43 - 149	6	37
PCB-132/153	50.0	76.27		ug/Kg		153	37 - 164	4	38
PCB-138/158	50.0	58.29		ug/Kg		117	36 - 124	7	40
PCB-170	50.0	64.23		ug/Kg		128	35 - 134	7	31
PCB-180	50.0	70.41		ug/Kg		141	38 - 159	8	40
PCB-187	50.0	68.07		ug/Kg		136	41 - 147	7	40

Eurofins Calscience

QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8270C SIM CON - PCB Congeners (GC/MS) (Continued)

Lab Sample ID: LCSD 570-201071/3-A

Matrix: Solid

Analysis Batch: 203173

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 201071

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-195	50.0	66.58	*+	ug/Kg		133	44 - 128	2	28
PCB-201	50.0	65.81		ug/Kg		132	40 - 156	8	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	88		20 - 139
p-Terphenyl-d14 (Surr)	127		37 - 165

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 570-201966/1-A

Matrix: Solid

Analysis Batch: 202868

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		1.0	0.16	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
2,4'-DDE	ND		5.0	0.37	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
2,4'-DDT	ND		1.0	0.21	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
4,4'-DDD	ND		1.0	0.20	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
4,4'-DDE	ND		1.0	0.11	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
4,4'-DDT	ND		1.0	0.19	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
Aldrin	ND		1.0	0.14	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
alpha-Chlordane	ND		1.0	0.26	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
Dieldrin	ND		0.20	0.051	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
Endosulfan I	ND		1.0	0.22	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
Endosulfan II	ND		1.0	0.062	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
Endrin	ND		1.0	0.067	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
gamma-BHC (Lindane)	ND		1.0	0.12	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
Heptachlor	ND		1.0	0.18	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
Heptachlor epoxide	ND		1.0	0.13	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
Hexachlorobenzene	ND		5.0	0.53	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
Mirex	ND		1.0	0.19	ug/Kg		12/17/21 14:19	12/21/21 22:08	1
trans-Nonachlor	ND		1.0	0.15	ug/Kg		12/17/21 14:19	12/21/21 22:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	100		20 - 163	12/17/21 14:19	12/21/21 22:08	1
DCB Decachlorobiphenyl (Surr)	115		27 - 176	12/17/21 14:19	12/21/21 22:08	1

Lab Sample ID: LCS 570-201966/2-A

Matrix: Solid

Analysis Batch: 202868

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	5.00	6.590		ug/Kg		132	41 - 140
4,4'-DDE	5.00	6.085		ug/Kg		122	46 - 132
4,4'-DDT	5.00	6.487		ug/Kg		130	40 - 136
Aldrin	5.00	5.983		ug/Kg		120	49 - 123
alpha-Chlordane	5.00	5.934		ug/Kg		119	42 - 128
Dieldrin	5.00	6.141		ug/Kg		123	40 - 130

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QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 570-201966/2-A

Matrix: Solid

Analysis Batch: 202868

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endosulfan I	5.00	5.968		ug/Kg		119	36 - 131
Endosulfan II	5.00	6.385		ug/Kg		128	42 - 137
Endrin	5.00	6.071		ug/Kg		121	45 - 144
gamma-BHC (Lindane)	5.00	6.080		ug/Kg		122	48 - 123
Heptachlor	5.00	5.972		ug/Kg		119	43 - 132
Heptachlor epoxide	5.00	5.895		ug/Kg		118	46 - 128
Hexachlorobenzene	5.00	5.687		ug/Kg		114	43 - 156

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	101		20 - 163
DCB Decachlorobiphenyl (Surr)	115		27 - 176

Lab Sample ID: LCSD 570-201966/3-A

Matrix: Solid

Analysis Batch: 202868

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 201966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
4,4'-DDD	5.00	7.118	*+	ug/Kg		142	41 - 140	8	22
4,4'-DDE	5.00	6.474		ug/Kg		129	46 - 132	6	20
4,4'-DDT	5.00	6.976	*+	ug/Kg		140	40 - 136	7	21
Aldrin	5.00	6.474	*+	ug/Kg		129	49 - 123	8	20
alpha-Chlordane	5.00	6.338		ug/Kg		127	42 - 128	7	20
Dieldrin	5.00	6.615	*+	ug/Kg		132	40 - 130	7	21
Endosulfan I	5.00	6.393		ug/Kg		128	36 - 131	7	22
Endosulfan II	5.00	6.925	*+	ug/Kg		139	42 - 137	8	20
Endrin	5.00	6.543		ug/Kg		131	45 - 144	7	20
gamma-BHC (Lindane)	5.00	6.501	*+	ug/Kg		130	48 - 123	7	20
Heptachlor	5.00	6.408		ug/Kg		128	43 - 132	7	21
Heptachlor epoxide	5.00	6.298		ug/Kg		126	46 - 128	7	20
Hexachlorobenzene	5.00	6.138		ug/Kg		123	43 - 156	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	102		20 - 163
DCB Decachlorobiphenyl (Surr)	119		27 - 176

Lab Sample ID: 570-78338-1 MS

Matrix: Sediment

Analysis Batch: 202868

Client Sample ID: BL-4

Prep Type: Total/NA

Prep Batch: 201966

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	ND	F2 *+	7.30	6.139	p	ug/Kg	⊛	84	13 - 178
4,4'-DDE	ND		7.30	6.103	p	ug/Kg	⊛	84	10 - 174
4,4'-DDT	ND	*+	7.30	5.387		ug/Kg	⊛	74	10 - 169
Aldrin	ND	*+	7.30	5.592	p	ug/Kg	⊛	77	15 - 135
alpha-Chlordane	ND		7.30	5.815		ug/Kg	⊛	80	10 - 153
Dieldrin	ND	*+	7.30	5.865		ug/Kg	⊛	80	34 - 127
Endosulfan I	ND		7.30	5.572	p	ug/Kg	⊛	76	10 - 141
Endosulfan II	ND	*+	7.30	5.564	p	ug/Kg	⊛	76	10 - 159

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QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 570-78338-1 MS

Matrix: Sediment

Analysis Batch: 202868

Client Sample ID: BL-4

Prep Type: Total/NA

Prep Batch: 201966

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Endrin	ND		7.30	5.683		ug/Kg	☼	78	31 - 147		
gamma-BHC (Lindane)	ND	*+	7.30	6.175		ug/Kg	☼	85	10 - 137		
Heptachlor	ND		7.30	6.761	p	ug/Kg	☼	93	10 - 160		
Heptachlor epoxide	ND		7.30	5.694	p	ug/Kg	☼	78	29 - 134		
Hexachlorobenzene	ND		7.30	5.793	J	ug/Kg	☼	79	30 - 146		
Surrogate	MS %Recovery	MS Qualifier	Limits								
Tetrachloro-m-xylene	38		20 - 163								
DCB Decachlorobiphenyl (Surr)	38		27 - 176								

Lab Sample ID: 570-78338-1 MSD

Matrix: Sediment

Analysis Batch: 202868

Client Sample ID: BL-4

Prep Type: Total/NA

Prep Batch: 201966

Top Data: 20100											
Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	Limit	
4,4'-DDD	ND	F2 *+	7.28	9.486	F2	ug/Kg	☼	130	13 - 178	43	40
4,4'-DDE	ND		7.28	8.084		ug/Kg	☼	111	10 - 174	28	40
4,4'-DDT	ND	*+	7.28	5.016		ug/Kg	☼	69	10 - 169	7	40
Aldrin	ND	*+	7.28	7.971	p	ug/Kg	☼	110	15 - 135	35	40
alpha-Chlordane	ND		7.28	7.679		ug/Kg	☼	106	10 - 153	28	40
Dieldrin	ND	*+	7.28	7.978		ug/Kg	☼	110	34 - 127	31	40
Endosulfan I	ND		7.28	7.481	p	ug/Kg	☼	103	10 - 141	29	40
Endosulfan II	ND	*+	7.28	7.626		ug/Kg	☼	105	10 - 159	31	40
Endrin	ND		7.28	7.705		ug/Kg	☼	106	31 - 147	30	40
gamma-BHC (Lindane)	ND	*+	7.28	8.602		ug/Kg	☼	118	10 - 137	33	40
Heptachlor	ND		7.28	8.322	p	ug/Kg	☼	114	10 - 160	21	40
Heptachlor epoxide	ND		7.28	7.434	p	ug/Kg	☼	102	29 - 134	27	40
Hexachlorobenzene	ND		7.28	8.218		ug/Kg	☼	113	30 - 146	35	40
Surrogate	MSD	MSD									
	%Recovery	Qualifier	Limits								
Tetrachloro-m-xylene	97		20 - 163								
DCB Decachlorobiphenyl (Surr)	103		27 - 176								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 570-200044/5

Matrix: Water

Analysis Batch: 200044

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	ND		0.10	0.018	mg/L			12/10/21 11:28	1
Nitrate as N	ND		0.10	0.024	mg/L			12/10/21 11:28	1
Orthophosphate as P	ND		0.10	0.076	mg/L			12/10/21 11:28	1

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QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 570-200044/6

Matrix: Water

Analysis Batch: 200044

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	2.50	2.509		mg/L		100	90 - 110
Nitrate as N	5.00	4.779		mg/L		96	90 - 110
Orthophosphate as P	2.50	2.743		mg/L		110	90 - 110

Lab Sample ID: LCSD 570-200044/7

Matrix: Water

Analysis Batch: 200044

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	2.50	2.539		mg/L		102	90 - 110	1	15
Nitrate as N	5.00	4.799		mg/L		96	90 - 110	0	15
Orthophosphate as P	2.50	2.721		mg/L		109	90 - 110	1	15

Lab Sample ID: MB 570-202276/34

Matrix: Water

Analysis Batch: 202276

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.10	0.024	mg/L			12/19/21 22:45	1

Lab Sample ID: LCS 570-202276/35

Matrix: Water

Analysis Batch: 202276

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.00	4.880		mg/L		98	90 - 110

Lab Sample ID: LCSD 570-202276/36

Matrix: Water

Analysis Batch: 202276

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	5.00	4.765		mg/L		95	90 - 110	2	15

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 570-203639/1-A

Matrix: Solid

Analysis Batch: 204220

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203639

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.488	0.197	mg/Kg		12/26/21 08:21	12/27/21 15:20	1
Copper	ND		0.976	0.495	mg/Kg		12/26/21 08:21	12/27/21 15:20	1
Lead	ND		4.88	0.943	mg/Kg		12/26/21 08:21	12/27/21 15:20	1
Zinc	ND		9.76	4.99	mg/Kg		12/26/21 08:21	12/27/21 15:20	1

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QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 570-203639/2-A

Matrix: Solid

Analysis Batch: 204220

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 203639

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	25.1	28.54		mg/Kg		114	80 - 120
Copper	25.1	29.33		mg/Kg		117	80 - 120
Lead	25.1	28.66		mg/Kg		114	80 - 120
Zinc	25.1	25.67		mg/Kg		102	80 - 120

Lab Sample ID: LCSD 570-203639/3-A

Matrix: Solid

Analysis Batch: 204220

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 203639

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	24.6	27.70		mg/Kg		112	80 - 120	3	20
Copper	24.6	28.45		mg/Kg		115	80 - 120	3	20
Lead	24.6	27.77		mg/Kg		113	80 - 120	3	20
Zinc	24.6	24.98		mg/Kg		101	80 - 120	3	20

Lab Sample ID: MB 570-203710/1-A

Matrix: Water

Analysis Batch: 204004

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 203710

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0100	0.00119	mg/L		12/27/21 06:48	12/27/21 16:52	1
Copper	ND		0.0500	0.00845	mg/L		12/27/21 06:48	12/27/21 16:52	1
Lead	ND		0.0500	0.00796	mg/L		12/27/21 06:48	12/27/21 16:52	1
Zinc	ND		0.250	0.0138	mg/L		12/27/21 06:48	12/27/21 16:52	1

Lab Sample ID: LCS 570-203710/2-A

Matrix: Water

Analysis Batch: 204004

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 203710

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.500	0.4869		mg/L		97	80 - 120
Calcium	0.500	0.4726	J	mg/L		95	80 - 120
Copper	0.500	0.5327		mg/L		107	80 - 120
Lead	0.500	0.4866		mg/L		97	80 - 120
Magnesium	0.500	0.4869	J	mg/L		97	80 - 120
Zinc	0.500	0.4277		mg/L		86	80 - 120

Lab Sample ID: LCSD 570-203710/3-A

Matrix: Water

Analysis Batch: 204004

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 203710

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.500	0.4921		mg/L		98	80 - 120	1	20
Calcium	0.500	0.4835	J	mg/L		97	80 - 120	2	20
Copper	0.500	0.5349		mg/L		107	80 - 120	0	20
Lead	0.500	0.4911		mg/L		98	80 - 120	1	20
Magnesium	0.500	0.5041		mg/L		101	80 - 120	3	20
Zinc	0.500	0.4336		mg/L		87	80 - 120	1	20

Eurofins Calscience

QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 570-203633/1-A

Matrix: Solid

Analysis Batch: 203864

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 203633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.0794	0.0129	mg/Kg		12/26/21 07:41	12/27/21 16:45	1

Lab Sample ID: LCS 570-203633/2-A

Matrix: Solid

Analysis Batch: 203864

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 203633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.820	0.8144		mg/Kg		99	85 - 121

Lab Sample ID: LCSD 570-203633/3-A

Matrix: Solid

Analysis Batch: 203864

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 203633

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.820	0.7561		mg/Kg		92	85 - 121	7	10

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 570-201697/12-A

Matrix: Water

Analysis Batch: 202031

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 201697

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.200	0.0472	mg/L		12/16/21 10:10	12/16/21 17:07	1

Lab Sample ID: LCS 570-201697/13-A

Matrix: Water

Analysis Batch: 202031

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 201697

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	1.00	0.9761		mg/L		98	90 - 110

Lab Sample ID: LCSD 570-201697/14-A

Matrix: Water

Analysis Batch: 202031

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 201697

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Total Kjeldahl Nitrogen	1.00	0.9710		mg/L		97	90 - 110	1	7

Method: 365.1 - Phosphorus, Total

Lab Sample ID: MB 570-202015/11-A

Matrix: Water

Analysis Batch: 202588

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 202015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	ND		0.0200	0.00490	mg/L		12/17/21 11:05	12/17/21 16:01	1

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QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: 365.1 - Phosphorus, Total (Continued)

Lab Sample ID: LCS 570-202015/12-A
Matrix: Water
Analysis Batch: 202588

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 202015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.200	0.2000		mg/L		100	93 - 107

Lab Sample ID: LCSD 570-202015/13-A
Matrix: Water
Analysis Batch: 202588

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 202015

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phosphorus, Total	0.200	0.1978		mg/L		99	93 - 107	1	4

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 570-205342/62
Matrix: Solid
Analysis Batch: 205342

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon, Total Organic	ND		0.0500	0.0146	%			01/03/22 09:52	1

Lab Sample ID: LCS 570-205342/63
Matrix: Solid
Analysis Batch: 205342

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon, Total Organic	3.00	2.616		%		87	78 - 110

Lab Sample ID: LCSD 570-205342/64
Matrix: Solid
Analysis Batch: 205342

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon, Total Organic	3.00	2.682		%		89	78 - 110	2	16

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 570-201338/1
Matrix: Water
Analysis Batch: 201338

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		0.400	0.348	mg/L			12/15/21 17:27	1

Lab Sample ID: LCS 570-201338/2
Matrix: Water
Analysis Batch: 201338

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	100	102.5		mg/L		103	84 - 108

Eurofins Calscience

QC Sample Results

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCSD 570-201338/3

Matrix: Water

Analysis Batch: 201338

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Dissolved Solids	100	95.00		mg/L		95	84 - 108	8	10

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 570-201213/1

Matrix: Water

Analysis Batch: 201213

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.00	0.829	mg/L			12/15/21 11:40	1

Lab Sample ID: LCS 570-201213/2

Matrix: Water

Analysis Batch: 201213

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids	100	105.0		mg/L		105	77 - 116		

Lab Sample ID: LCSD 570-201213/3

Matrix: Water

Analysis Batch: 201213

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	100	102.0		mg/L		102	77 - 116	3	10

Method: SM 4500 NH3 D - Ammonia

Lab Sample ID: MB 570-202063/10

Matrix: Water

Analysis Batch: 202063

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.450	0.0911	mg/L			12/17/21 12:00	1

Lab Sample ID: LCS 570-202063/11

Matrix: Water

Analysis Batch: 202063

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia	10.0	11.30		mg/L		113	67 - 127		

Lab Sample ID: LCSD 570-202063/12

Matrix: Water

Analysis Batch: 202063

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	10.0	10.80		mg/L		108	67 - 127	5	13

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QC Association Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

GC/MS Semi VOA

Cleanup Batch: 200957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	Homogenize Prep	
570-78338-2	BL-5	Total/NA	Sediment	Homogenize Prep	
570-78338-3	BL-6	Total/NA	Sediment	Homogenize Prep	
570-78338-4	BL-7	Total/NA	Sediment	Homogenize Prep	
570-78338-5	BL-8	Total/NA	Sediment	Homogenize Prep	
570-78338-6	BL-9	Total/NA	Sediment	Homogenize Prep	
570-78338-7	BL-10	Total/NA	Sediment	Homogenize Prep	
570-78338-1 MS	BL-4	Total/NA	Sediment	Homogenize Prep	
570-78338-1 MSD	BL-4	Total/NA	Sediment	Homogenize Prep	

Prep Batch: 201070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	3541	200957
570-78338-2	BL-5	Total/NA	Sediment	3541	200957
570-78338-3	BL-6	Total/NA	Sediment	3541	200957
570-78338-4	BL-7	Total/NA	Sediment	3541	200957
570-78338-5	BL-8	Total/NA	Sediment	3541	200957
570-78338-6	BL-9	Total/NA	Sediment	3541	200957
570-78338-7	BL-10	Total/NA	Sediment	3541	200957
MB 570-201070/1-A	Method Blank	Total/NA	Solid	3541	
LCS 570-201070/2-A	Lab Control Sample	Total/NA	Solid	3541	
LCSD 570-201070/3-A	Lab Control Sample Dup	Total/NA	Solid	3541	
570-78338-1 MS	BL-4	Total/NA	Sediment	3541	200957
570-78338-1 MSD	BL-4	Total/NA	Sediment	3541	200957

Prep Batch: 201071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	3541	200957
570-78338-2	BL-5	Total/NA	Sediment	3541	200957
570-78338-3	BL-6	Total/NA	Sediment	3541	200957
570-78338-4	BL-7	Total/NA	Sediment	3541	200957
570-78338-5	BL-8	Total/NA	Sediment	3541	200957
570-78338-6	BL-9	Total/NA	Sediment	3541	200957
570-78338-7	BL-10	Total/NA	Sediment	3541	200957
MB 570-201071/1-A	Method Blank	Total/NA	Solid	3541	
LCS 570-201071/2-A	Lab Control Sample	Total/NA	Solid	3541	
LCSD 570-201071/3-A	Lab Control Sample Dup	Total/NA	Solid	3541	

Analysis Batch: 202608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	8270C SIM	201070
570-78338-2	BL-5	Total/NA	Sediment	8270C SIM	201070
570-78338-3	BL-6	Total/NA	Sediment	8270C SIM	201070
570-78338-4	BL-7	Total/NA	Sediment	8270C SIM	201070

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QC Association Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

GC/MS Semi VOA (Continued)

Analysis Batch: 202608 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-5	BL-8	Total/NA	Sediment	8270C SIM	201070
570-78338-6	BL-9	Total/NA	Sediment	8270C SIM	201070
570-78338-7	BL-10	Total/NA	Sediment	8270C SIM	201070
MB 570-201070/1-A	Method Blank	Total/NA	Solid	8270C SIM	201070
LCS 570-201070/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM	201070
LCSD 570-201070/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM	201070
570-78338-1 MS	BL-4	Total/NA	Sediment	8270C SIM	201070
570-78338-1 MSD	BL-4	Total/NA	Sediment	8270C SIM	201070

Analysis Batch: 203173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	8270C SIM CON	201071
MB 570-201071/1-A	Method Blank	Total/NA	Solid	8270C SIM CON	201071
LCS 570-201071/2-A	Lab Control Sample	Total/NA	Solid	8270C SIM CON	201071
LCSD 570-201071/3-A	Lab Control Sample Dup	Total/NA	Solid	8270C SIM CON	201071

Analysis Batch: 204106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-2	BL-5	Total/NA	Sediment	8270C SIM CON	201071
570-78338-3	BL-6	Total/NA	Sediment	8270C SIM CON	201071
570-78338-4	BL-7	Total/NA	Sediment	8270C SIM CON	201071
570-78338-5	BL-8	Total/NA	Sediment	8270C SIM CON	201071
570-78338-6	BL-9	Total/NA	Sediment	8270C SIM CON	201071
570-78338-7	BL-10	Total/NA	Sediment	8270C SIM CON	201071

GC Semi VOA

Cleanup Batch: 200957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	Homogenize Prep	
570-78338-2	BL-5	Total/NA	Sediment	Homogenize Prep	
570-78338-3	BL-6	Total/NA	Sediment	Homogenize Prep	
570-78338-4	BL-7	Total/NA	Sediment	Homogenize Prep	
570-78338-5	BL-8	Total/NA	Sediment	Homogenize Prep	
570-78338-6	BL-9	Total/NA	Sediment	Homogenize Prep	
570-78338-7	BL-10	Total/NA	Sediment	Homogenize Prep	
570-78338-1 MS	BL-4	Total/NA	Sediment	Homogenize Prep	
570-78338-1 MSD	BL-4	Total/NA	Sediment	Homogenize Prep	

Prep Batch: 201966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	3546	200957
570-78338-2	BL-5	Total/NA	Sediment	3546	200957
570-78338-3	BL-6	Total/NA	Sediment	3546	200957
570-78338-4	BL-7	Total/NA	Sediment	3546	200957

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QC Association Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

GC Semi VOA (Continued)

Prep Batch: 201966 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-5	BL-8	Total/NA	Sediment	3546	200957
570-78338-6	BL-9	Total/NA	Sediment	3546	200957
570-78338-7	BL-10	Total/NA	Sediment	3546	200957
MB 570-201966/1-A	Method Blank	Total/NA	Solid	3546	
LCS 570-201966/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 570-201966/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
570-78338-1 MS	BL-4	Total/NA	Sediment	3546	200957
570-78338-1 MSD	BL-4	Total/NA	Sediment	3546	200957

Analysis Batch: 202868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	8081A	201966
MB 570-201966/1-A	Method Blank	Total/NA	Solid	8081A	201966
LCS 570-201966/2-A	Lab Control Sample	Total/NA	Solid	8081A	201966
LCSD 570-201966/3-A	Lab Control Sample Dup	Total/NA	Solid	8081A	201966
570-78338-1 MS	BL-4	Total/NA	Sediment	8081A	201966
570-78338-1 MSD	BL-4	Total/NA	Sediment	8081A	201966

Analysis Batch: 203226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-2	BL-5	Total/NA	Sediment	8081A	201966
570-78338-3	BL-6	Total/NA	Sediment	8081A	201966
570-78338-4	BL-7	Total/NA	Sediment	8081A	201966
570-78338-5	BL-8	Total/NA	Sediment	8081A	201966
570-78338-6	BL-9	Total/NA	Sediment	8081A	201966
570-78338-7	BL-10	Total/NA	Sediment	8081A	201966

HPLC/IC

Analysis Batch: 200044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8	BL-3	Total/NA	Water	300.0	
570-78338-9	BL-4	Total/NA	Water	300.0	
570-78338-10	BL-5	Total/NA	Water	300.0	
570-78338-11	BL-6	Total/NA	Water	300.0	
570-78338-12	BL-7	Total/NA	Water	300.0	
570-78338-13	BL-8	Total/NA	Water	300.0	
570-78338-14	BL-9	Total/NA	Water	300.0	
570-78338-15	BL-10	Total/NA	Water	300.0	
MB 570-200044/5	Method Blank	Total/NA	Water	300.0	
LCS 570-200044/6	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-200044/7	Lab Control Sample Dup	Total/NA	Water	300.0	

Analysis Batch: 202276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8 - DL	BL-3	Total/NA	Water	300.0	
MB 570-202276/34	Method Blank	Total/NA	Water	300.0	
LCS 570-202276/35	Lab Control Sample	Total/NA	Water	300.0	
LCSD 570-202276/36	Lab Control Sample Dup	Total/NA	Water	300.0	

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QC Association Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Metals

Cleanup Batch: 200957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	Homogenize Prep	
570-78338-2	BL-5	Total/NA	Sediment	Homogenize Prep	
570-78338-3	BL-6	Total/NA	Sediment	Homogenize Prep	
570-78338-4	BL-7	Total/NA	Sediment	Homogenize Prep	
570-78338-5	BL-8	Total/NA	Sediment	Homogenize Prep	
570-78338-6	BL-9	Total/NA	Sediment	Homogenize Prep	
570-78338-7	BL-10	Total/NA	Sediment	Homogenize Prep	

Prep Batch: 203633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	7471A	200957
570-78338-2	BL-5	Total/NA	Sediment	7471A	200957
570-78338-3	BL-6	Total/NA	Sediment	7471A	200957
570-78338-4	BL-7	Total/NA	Sediment	7471A	200957
570-78338-5	BL-8	Total/NA	Sediment	7471A	200957
570-78338-6	BL-9	Total/NA	Sediment	7471A	200957
570-78338-7	BL-10	Total/NA	Sediment	7471A	200957
MB 570-203633/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 570-203633/2-A	Lab Control Sample	Total/NA	Solid	7471A	
LCSD 570-203633/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	

Prep Batch: 203639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	3050B	200957
570-78338-2	BL-5	Total/NA	Sediment	3050B	200957
570-78338-3	BL-6	Total/NA	Sediment	3050B	200957
570-78338-4	BL-7	Total/NA	Sediment	3050B	200957
570-78338-5	BL-8	Total/NA	Sediment	3050B	200957
570-78338-6	BL-9	Total/NA	Sediment	3050B	200957
570-78338-7	BL-10	Total/NA	Sediment	3050B	200957
MB 570-203639/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 570-203639/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSD 570-203639/3-A	Lab Control Sample Dup	Total/NA	Solid	3050B	

Prep Batch: 203710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8	BL-3	Total Recoverable	Water	3005A	
570-78338-9	BL-4	Total Recoverable	Water	3005A	
570-78338-10	BL-5	Total Recoverable	Water	3005A	
570-78338-11	BL-6	Total Recoverable	Water	3005A	
570-78338-12	BL-7	Total Recoverable	Water	3005A	
570-78338-13	BL-8	Total Recoverable	Water	3005A	
570-78338-14	BL-9	Total Recoverable	Water	3005A	
570-78338-15	BL-10	Total Recoverable	Water	3005A	
MB 570-203710/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 570-203710/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

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QC Association Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Metals (Continued)

Prep Batch: 203710 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 570-203710/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Analysis Batch: 203864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	7471A	203633
570-78338-2	BL-5	Total/NA	Sediment	7471A	203633
570-78338-3	BL-6	Total/NA	Sediment	7471A	203633
570-78338-4	BL-7	Total/NA	Sediment	7471A	203633
570-78338-5	BL-8	Total/NA	Sediment	7471A	203633
570-78338-6	BL-9	Total/NA	Sediment	7471A	203633
570-78338-7	BL-10	Total/NA	Sediment	7471A	203633
MB 570-203633/1-A	Method Blank	Total/NA	Solid	7471A	203633
LCS 570-203633/2-A	Lab Control Sample	Total/NA	Solid	7471A	203633
LCSD 570-203633/3-A	Lab Control Sample Dup	Total/NA	Solid	7471A	203633

Analysis Batch: 204004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8	BL-3	Total Recoverable	Water	6010B	203710
570-78338-9	BL-4	Total Recoverable	Water	6010B	203710
570-78338-10	BL-5	Total Recoverable	Water	6010B	203710
570-78338-11	BL-6	Total Recoverable	Water	6010B	203710
570-78338-12	BL-7	Total Recoverable	Water	6010B	203710
570-78338-13	BL-8	Total Recoverable	Water	6010B	203710
570-78338-14	BL-9	Total Recoverable	Water	6010B	203710
570-78338-15	BL-10	Total Recoverable	Water	6010B	203710
MB 570-203710/1-A	Method Blank	Total Recoverable	Water	6010B	203710
LCS 570-203710/2-A	Lab Control Sample	Total Recoverable	Water	6010B	203710
LCSD 570-203710/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010B	203710

Analysis Batch: 204220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	6010B	203639
570-78338-2	BL-5	Total/NA	Sediment	6010B	203639
570-78338-3	BL-6	Total/NA	Sediment	6010B	203639
570-78338-4	BL-7	Total/NA	Sediment	6010B	203639
570-78338-5	BL-8	Total/NA	Sediment	6010B	203639
570-78338-6	BL-9	Total/NA	Sediment	6010B	203639
570-78338-7	BL-10	Total/NA	Sediment	6010B	203639
MB 570-203639/1-A	Method Blank	Total/NA	Solid	6010B	203639
LCS 570-203639/2-A	Lab Control Sample	Total/NA	Solid	6010B	203639
LCSD 570-203639/3-A	Lab Control Sample Dup	Total/NA	Solid	6010B	203639

Analysis Batch: 204289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8	BL-3	Total Recoverable	Water	SM 2340B	
570-78338-9	BL-4	Total Recoverable	Water	SM 2340B	
570-78338-10	BL-5	Total Recoverable	Water	SM 2340B	
570-78338-11	BL-6	Total Recoverable	Water	SM 2340B	
570-78338-12	BL-7	Total Recoverable	Water	SM 2340B	
570-78338-13	BL-8	Total Recoverable	Water	SM 2340B	
570-78338-14	BL-9	Total Recoverable	Water	SM 2340B	

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QC Association Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Metals (Continued)

Analysis Batch: 204289 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-15	BL-10	Total Recoverable	Water	SM 2340B	

General Chemistry

Cleanup Batch: 200957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	Homogenize Prep	
570-78338-2	BL-5	Total/NA	Sediment	Homogenize Prep	
570-78338-3	BL-6	Total/NA	Sediment	Homogenize Prep	
570-78338-4	BL-7	Total/NA	Sediment	Homogenize Prep	
570-78338-5	BL-8	Total/NA	Sediment	Homogenize Prep	
570-78338-6	BL-9	Total/NA	Sediment	Homogenize Prep	
570-78338-7	BL-10	Total/NA	Sediment	Homogenize Prep	

Analysis Batch: 201078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	Moisture	
570-78338-2	BL-5	Total/NA	Sediment	Moisture	
570-78338-3	BL-6	Total/NA	Sediment	Moisture	
570-78338-4	BL-7	Total/NA	Sediment	Moisture	
570-78338-5	BL-8	Total/NA	Sediment	Moisture	
570-78338-6	BL-9	Total/NA	Sediment	Moisture	
570-78338-7	BL-10	Total/NA	Sediment	Moisture	

Analysis Batch: 201213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8	BL-3	Total/NA	Water	SM 2540D	
570-78338-9	BL-4	Total/NA	Water	SM 2540D	
570-78338-10	BL-5	Total/NA	Water	SM 2540D	
570-78338-11	BL-6	Total/NA	Water	SM 2540D	
570-78338-12	BL-7	Total/NA	Water	SM 2540D	
570-78338-13	BL-8	Total/NA	Water	SM 2540D	
570-78338-14	BL-9	Total/NA	Water	SM 2540D	
570-78338-15	BL-10	Total/NA	Water	SM 2540D	
MB 570-201213/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 570-201213/2	Lab Control Sample	Total/NA	Water	SM 2540D	
LCSD 570-201213/3	Lab Control Sample Dup	Total/NA	Water	SM 2540D	

Analysis Batch: 201338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8	BL-3	Total/NA	Water	SM 2540C	
570-78338-9	BL-4	Total/NA	Water	SM 2540C	
570-78338-10	BL-5	Total/NA	Water	SM 2540C	
570-78338-11	BL-6	Total/NA	Water	SM 2540C	
570-78338-12	BL-7	Total/NA	Water	SM 2540C	
570-78338-13	BL-8	Total/NA	Water	SM 2540C	

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Jan. 31, 2024

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QC Association Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

General Chemistry (Continued)

Analysis Batch: 201338 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-14	BL-9	Total/NA	Water	SM 2540C	
570-78338-15	BL-10	Total/NA	Water	SM 2540C	
MB 570-201338/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 570-201338/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 570-201338/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	

Prep Batch: 201697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8	BL-3	Total/NA	Water	351.2	
570-78338-9	BL-4	Total/NA	Water	351.2	
570-78338-10	BL-5	Total/NA	Water	351.2	
570-78338-11	BL-6	Total/NA	Water	351.2	
570-78338-12	BL-7	Total/NA	Water	351.2	
570-78338-13	BL-8	Total/NA	Water	351.2	
570-78338-14	BL-9	Total/NA	Water	351.2	
570-78338-15	BL-10	Total/NA	Water	351.2	
MB 570-201697/12-A	Method Blank	Total/NA	Water	351.2	
LCS 570-201697/13-A	Lab Control Sample	Total/NA	Water	351.2	
LCSD 570-201697/14-A	Lab Control Sample Dup	Total/NA	Water	351.2	

Prep Batch: 202015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8	BL-3	Total/NA	Water	365.2/365.3/365	
570-78338-9	BL-4	Total/NA	Water	365.2/365.3/365	
570-78338-10	BL-5	Total/NA	Water	365.2/365.3/365	
570-78338-11	BL-6	Total/NA	Water	365.2/365.3/365	
570-78338-12	BL-7	Total/NA	Water	365.2/365.3/365	
570-78338-13	BL-8	Total/NA	Water	365.2/365.3/365	
570-78338-14	BL-9	Total/NA	Water	365.2/365.3/365	
570-78338-15	BL-10	Total/NA	Water	365.2/365.3/365	
MB 570-202015/11-A	Method Blank	Total/NA	Water	365.2/365.3/365	
LCS 570-202015/12-A	Lab Control Sample	Total/NA	Water	365.2/365.3/365	
LCSD 570-202015/13-A	Lab Control Sample Dup	Total/NA	Water	365.2/365.3/365	

Analysis Batch: 202031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8	BL-3	Total/NA	Water	351.2	201697
570-78338-9	BL-4	Total/NA	Water	351.2	201697
570-78338-10	BL-5	Total/NA	Water	351.2	201697
570-78338-11	BL-6	Total/NA	Water	351.2	201697
570-78338-12	BL-7	Total/NA	Water	351.2	201697
570-78338-13	BL-8	Total/NA	Water	351.2	201697
570-78338-14	BL-9	Total/NA	Water	351.2	201697
570-78338-15	BL-10	Total/NA	Water	351.2	201697
MB 570-201697/12-A	Method Blank	Total/NA	Water	351.2	201697
LCS 570-201697/13-A	Lab Control Sample	Total/NA	Water	351.2	201697
LCSD 570-201697/14-A	Lab Control Sample Dup	Total/NA	Water	351.2	201697

Analysis Batch: 202063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8	BL-3	Total/NA	Water	SM 4500 NH3 D	

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QC Association Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

General Chemistry (Continued)

Analysis Batch: 202063 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-9	BL-4	Total/NA	Water	SM 4500 NH3 D	
570-78338-10	BL-5	Total/NA	Water	SM 4500 NH3 D	
570-78338-11	BL-6	Total/NA	Water	SM 4500 NH3 D	
570-78338-12	BL-7	Total/NA	Water	SM 4500 NH3 D	
570-78338-13	BL-8	Total/NA	Water	SM 4500 NH3 D	
570-78338-14	BL-9	Total/NA	Water	SM 4500 NH3 D	
570-78338-15	BL-10	Total/NA	Water	SM 4500 NH3 D	
MB 570-202063/10	Method Blank	Total/NA	Water	SM 4500 NH3 D	
LCS 570-202063/11	Lab Control Sample	Total/NA	Water	SM 4500 NH3 D	
LCSD 570-202063/12	Lab Control Sample Dup	Total/NA	Water	SM 4500 NH3 D	

Analysis Batch: 202588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-8	BL-3	Total/NA	Water	365.1	202015
570-78338-9	BL-4	Total/NA	Water	365.1	202015
570-78338-10	BL-5	Total/NA	Water	365.1	202015
570-78338-11	BL-6	Total/NA	Water	365.1	202015
570-78338-12	BL-7	Total/NA	Water	365.1	202015
570-78338-13	BL-8	Total/NA	Water	365.1	202015
570-78338-14	BL-9	Total/NA	Water	365.1	202015
570-78338-15	BL-10	Total/NA	Water	365.1	202015
MB 570-202015/11-A	Method Blank	Total/NA	Water	365.1	202015
LCS 570-202015/12-A	Lab Control Sample	Total/NA	Water	365.1	202015
LCSD 570-202015/13-A	Lab Control Sample Dup	Total/NA	Water	365.1	202015

Analysis Batch: 205342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	9060A	200957
570-78338-2	BL-5	Total/NA	Sediment	9060A	200957
570-78338-3	BL-6	Total/NA	Sediment	9060A	200957
570-78338-4	BL-7	Total/NA	Sediment	9060A	200957
570-78338-5	BL-8	Total/NA	Sediment	9060A	200957
570-78338-6	BL-9	Total/NA	Sediment	9060A	200957
570-78338-7	BL-10	Total/NA	Sediment	9060A	200957
MB 570-205342/62	Method Blank	Total/NA	Solid	9060A	
LCS 570-205342/63	Lab Control Sample	Total/NA	Solid	9060A	
LCSD 570-205342/64	Lab Control Sample Dup	Total/NA	Solid	9060A	

Geotechnical

Analysis Batch: 203799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-78338-1	BL-4	Total/NA	Sediment	D4464	
570-78338-2	BL-5	Total/NA	Sediment	D4464	
570-78338-3	BL-6	Total/NA	Sediment	D4464	
570-78338-4	BL-7	Total/NA	Sediment	D4464	
570-78338-5	BL-8	Total/NA	Sediment	D4464	
570-78338-6	BL-9	Total/NA	Sediment	D4464	
570-78338-7	BL-10	Total/NA	Sediment	D4464	

Eurofins Calscience

Lab Chronicle

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Client Sample ID: BL-4

Date Collected: 12/09/21 11:52

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-1

Matrix: Sediment

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.03 g	1 mL	201070	12/14/21 21:35	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			202608	12/21/21 01:34	AJ2Q	ECL 1
Instrument ID: GCMSAAA										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.12 g	2 mL	201071	12/14/21 21:39	UM1W	ECL 1
Total/NA	Analysis	8270C SIM CON		1			203173	12/28/21 00:43	AJ2Q	ECL 1
Instrument ID: GCMSHHH										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3546			20.38 g	2 mL	201966	12/17/21 14:19	USUL	ECL 1
Total/NA	Analysis	8081A		1			202868	12/22/21 12:56	UHHN	ECL 1
Instrument ID: GC44										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3050B			1.96 g	100 mL	203639	12/26/21 08:21	WL8G	ECL 1
Total/NA	Analysis	6010B		1			204220	12/27/21 17:43	UWCT	ECL 1
Instrument ID: ICP9										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	7471A			.62 g	100 mL	203633	12/26/21 07:41	WL8G	ECL 1
Total/NA	Analysis	7471A		1			203864	12/27/21 16:17	VWJ7	ECL 1
Instrument ID: HG8										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Analysis	9060A		1	202.8 mg	202.8 mg	205342	01/04/22 23:34	UAPD	ECL 1
Instrument ID: TOC9										
Total/NA	Analysis	Moisture		1			201078	12/15/21 13:00	UAPD	ECL 1
Instrument ID: BAL87										
Total/NA	Analysis	D4464		1			203799	12/22/21 16:02	C4LT	ECL 1
Instrument ID: NOEQUIP										

Client Sample ID: BL-5

Date Collected: 12/09/21 13:01

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-2

Matrix: Sediment

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.15 g	1 mL	201070	12/14/21 21:35	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			202608	12/21/21 01:54	AJ2Q	ECL 1
Instrument ID: GCMSAAA										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.08 g	2 mL	201071	12/14/21 21:39	UM1W	ECL 1
Total/NA	Analysis	8270C SIM CON		1			204106	12/28/21 14:00	AJ2Q	ECL 1
Instrument ID: GCMSHHH										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3546			20.12 g	2 mL	201966	12/17/21 14:19	USUL	ECL 1
Total/NA	Analysis	8081A		1			203226	12/22/21 17:29	UHHN	ECL 1
Instrument ID: GC44										

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Lab Chronicle

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Client Sample ID: BL-5

Date Collected: 12/09/21 13:01

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-2

Matrix: Sediment

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3050B			2.05 g	100 mL	203639	12/26/21 08:21	WL8G	ECL 1
Total/NA	Analysis	6010B		1			204220	12/27/21 17:46	UWCT	ECL 1
Instrument ID: ICP9										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	7471A			.60 g	100 mL	203633	12/26/21 07:41	WL8G	ECL 1
Total/NA	Analysis	7471A		1			203864	12/27/21 16:18	VWJ7	ECL 1
Instrument ID: HG8										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Analysis	9060A		1	201.7 mg	201.7 mg	205342	01/04/22 23:34	UAPD	ECL 1
Instrument ID: TOC9										
Total/NA	Analysis	Moisture		1			201078	12/15/21 13:00	UAPD	ECL 1
Instrument ID: BAL87										
Total/NA	Analysis	D4464		1			203799	12/22/21 16:08	C4LT	ECL 1
Instrument ID: NOEQUIP										

Client Sample ID: BL-6

Date Collected: 12/09/21 11:43

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-3

Matrix: Sediment

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.07 g	1 mL	201070	12/14/21 21:35	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			202608	12/21/21 02:13	AJ2Q	ECL 1
Instrument ID: GCMSAAA										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.05 g	2 mL	201071	12/14/21 21:39	UM1W	ECL 1
Total/NA	Analysis	8270C SIM CON		1			204106	12/28/21 14:23	AJ2Q	ECL 1
Instrument ID: GCMSHHH										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3546			20.26 g	2 mL	201966	12/17/21 14:19	USUL	ECL 1
Total/NA	Analysis	8081A		1			203226	12/22/21 17:43	UHHN	ECL 1
Instrument ID: GC44										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3050B			1.94 g	100 mL	203639	12/26/21 08:21	WL8G	ECL 1
Total/NA	Analysis	6010B		1			204220	12/27/21 17:48	UWCT	ECL 1
Instrument ID: ICP9										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	7471A			.58 g	100 mL	203633	12/26/21 07:41	WL8G	ECL 1
Total/NA	Analysis	7471A		1			203864	12/27/21 16:20	VWJ7	ECL 1
Instrument ID: HG8										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Analysis	9060A		1	208.8 mg	208.8 mg	205342	01/04/22 23:34	UAPD	ECL 1
Instrument ID: TOC9										
Total/NA	Analysis	Moisture		1			201078	12/15/21 13:00	UAPD	ECL 1
Instrument ID: BAL87										

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Lab Chronicle

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Client Sample ID: BL-6

Date Collected: 12/09/21 11:43

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-3

Matrix: Sediment

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D4464		1			203799	12/22/21 16:14	C4LT	ECL 1

Client Sample ID: BL-7

Date Collected: 12/09/21 11:30

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-4

Matrix: Sediment

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.06 g	1 mL	201070	12/14/21 21:35	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			202608	12/21/21 02:32	AJ2Q	ECL 1
Instrument ID: GCMSAAA										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.18 g	2 mL	201071	12/14/21 21:39	UM1W	ECL 1
Total/NA	Analysis	8270C SIM CON		1			204106	12/28/21 14:47	AJ2Q	ECL 1
Instrument ID: GCMSHHH										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3546			20.21 g	2 mL	201966	12/17/21 14:19	USUL	ECL 1
Total/NA	Analysis	8081A		1			203226	12/22/21 17:57	UHHN	ECL 1
Instrument ID: GC44										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3050B			1.99 g	100 mL	203639	12/26/21 08:21	WL8G	ECL 1
Total/NA	Analysis	6010B		1			204220	12/27/21 17:51	UWCT	ECL 1
Instrument ID: ICP9										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	7471A			.63 g	100 mL	203633	12/26/21 07:41	WL8G	ECL 1
Total/NA	Analysis	7471A		1			203864	12/27/21 16:22	VWJ7	ECL 1
Instrument ID: HG8										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Analysis	9060A		1	202.2 mg	202.2 mg	205342	01/04/22 23:34	UAPD	ECL 1
Instrument ID: TOC9										
Total/NA	Analysis	Moisture		1			201078	12/15/21 13:00	UAPD	ECL 1
Instrument ID: BAL87										
Total/NA	Analysis	D4464		1			203799	12/22/21 16:20	C4LT	ECL 1
Instrument ID: NOEQUIP										

Client Sample ID: BL-8

Date Collected: 12/09/21 10:44

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-5

Matrix: Sediment

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.18 g	1 mL	201070	12/14/21 21:35	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			202608	12/21/21 02:52	AJ2Q	ECL 1
Instrument ID: GCMSAAA										

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Lab Chronicle

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Client Sample ID: BL-8

Date Collected: 12/09/21 10:44

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-5

Matrix: Sediment

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.10 g	2 mL	201071	12/14/21 21:39	UM1W	ECL 1
Total/NA	Analysis	8270C SIM CON		1			204106	12/28/21 15:10	AJ2Q	ECL 1
Instrument ID: GCMSHHH										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3546			20.26 g	2 mL	201966	12/17/21 14:19	USUL	ECL 1
Total/NA	Analysis	8081A		1			203226	12/22/21 18:12	UHHN	ECL 1
Instrument ID: GC44										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3050B			2.03 g	100 mL	203639	12/26/21 08:21	WL8G	ECL 1
Total/NA	Analysis	6010B		1			204220	12/27/21 17:53	UWCT	ECL 1
Instrument ID: ICP9										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	7471A			.59 g	100 mL	203633	12/26/21 07:41	WL8G	ECL 1
Total/NA	Analysis	7471A		1			203864	12/27/21 16:24	VWJ7	ECL 1
Instrument ID: HG8										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Analysis	9060A		1	210.0 mg	210.0 mg	205342	01/04/22 23:34	UAPD	ECL 1
Instrument ID: TOC9										
Total/NA	Analysis	Moisture		1			201078	12/15/21 13:00	UAPD	ECL 1
Instrument ID: BAL87										
Total/NA	Analysis	D4464		1			203799	12/22/21 16:28	C4LT	ECL 1
Instrument ID: NOEQUIP										

Client Sample ID: BL-9

Date Collected: 12/09/21 10:20

Date Received: 12/10/21 12:50

Lab Sample ID: 570-78338-6

Matrix: Sediment

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.13 g	1 mL	201070	12/14/21 21:35	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			202608	12/21/21 03:11	AJ2Q	ECL 1
Instrument ID: GCMSAAA										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.06 g	2 mL	201071	12/14/21 21:39	UM1W	ECL 1
Total/NA	Analysis	8270C SIM CON		1			204106	12/28/21 15:34	AJ2Q	ECL 1
Instrument ID: GCMSHHH										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3546			20.39 g	2 mL	201966	12/17/21 14:19	USUL	ECL 1
Total/NA	Analysis	8081A		1			203226	12/22/21 18:26	UHHN	ECL 1
Instrument ID: GC44										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3050B			2.08 g	100 mL	203639	12/26/21 08:21	WL8G	ECL 1
Total/NA	Analysis	6010B		1			204220	12/27/21 17:56	UWCT	ECL 1
Instrument ID: ICP9										

Eurofins Calscience

Lab Chronicle

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Client Sample ID: BL-9

Lab Sample ID: 570-78338-6

Date Collected: 12/09/21 10:20

Matrix: Sediment

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	7471A			.61 g	100 mL	203633	12/26/21 07:41	WL8G	ECL 1
Total/NA	Analysis	7471A		1			203864	12/27/21 16:26	VWJ7	ECL 1
Instrument ID: HG8										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Analysis	9060A		1	205.2 mg	205.2 mg	205342	01/04/22 23:34	UAPD	ECL 1
Instrument ID: TOC9										
Total/NA	Analysis	Moisture		1			201078	12/15/21 13:00	UAPD	ECL 1
Instrument ID: BAL87										
Total/NA	Analysis	D4464		1			203799	12/22/21 16:40	C4LT	ECL 1
Instrument ID: NOEQUIP										

Client Sample ID: BL-10

Lab Sample ID: 570-78338-7

Date Collected: 12/09/21 10:01

Matrix: Sediment

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.13 g	1 mL	201070	12/14/21 21:35	UM1W	ECL 1
Total/NA	Analysis	8270C SIM		1			202608	12/21/21 03:31	AJ2Q	ECL 1
Instrument ID: GCMSAAA										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3541			20.04 g	2 mL	201071	12/14/21 21:39	UM1W	ECL 1
Total/NA	Analysis	8270C SIM CON		1			204106	12/28/21 15:58	AJ2Q	ECL 1
Instrument ID: GCMSHHH										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3546			20.38 g	2 mL	201966	12/17/21 14:19	USUL	ECL 1
Total/NA	Analysis	8081A		1			203226	12/22/21 18:40	UHHN	ECL 1
Instrument ID: GC44										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	3050B			1.97 g	100 mL	203639	12/26/21 08:21	WL8G	ECL 1
Total/NA	Analysis	6010B		1			204220	12/27/21 17:59	UWCT	ECL 1
Instrument ID: ICP9										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Prep	7471A			.60 g	100 mL	203633	12/26/21 07:41	WL8G	ECL 1
Total/NA	Analysis	7471A		1			203864	12/27/21 16:28	VWJ7	ECL 1
Instrument ID: HG8										
Total/NA	Cleanup	Homogenize Prep					200957	12/14/21 14:58	C4LT	ECL 1
Total/NA	Analysis	9060A		1	208.7 mg	208.7 mg	205342	01/04/22 23:34	UAPD	ECL 1
Instrument ID: TOC9										
Total/NA	Analysis	Moisture		1			201078	12/15/21 13:00	UAPD	ECL 1
Instrument ID: BAL87										
Total/NA	Analysis	D4464		1			203799	12/22/21 16:46	C4LT	ECL 1
Instrument ID: NOEQUIP										

Eurofins Calscience

Lab Chronicle

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Client Sample ID: BL-3

Lab Sample ID: 570-78338-9

Date Collected: 12/09/21 10:16

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			200044	12/10/21 20:05	URMH	ECL 1
	Instrument ID: IC7									
Total/NA	Analysis	300.0	DL	5			202276	12/20/21 01:50	URMH	ECL 1
	Instrument ID: IC7									
Total Recoverable	Prep	3005A			50 mL	50 mL	203710	12/27/21 06:48	WL8G	ECL 1
Total Recoverable	Analysis	6010B		1			204004	12/27/21 17:38	UWCT	ECL 1
	Instrument ID: ICP8									
Total Recoverable	Analysis	SM 2340B		1			204289	12/28/21 16:56	UIAS	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Prep	351.2			25 mL	25 mL	201697	12/16/21 10:10	UXCH	ECL 1
Total/NA	Analysis	351.2		1			202031	12/16/21 18:05	UXCH	ECL 1
	Instrument ID: ACA1									
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	202015	12/17/21 11:05	UXCH	ECL 1
Total/NA	Analysis	365.1		1	5 mL	5 mL	202588	12/17/21 16:37	UXCH	ECL 1
	Instrument ID: ACA1									
Total/NA	Analysis	SM 2540C		1	20 mL	20 mL	201338	12/15/21 17:27	VWM4	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	201213	12/15/21 11:40	ULIN	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 4500 NH3 D		1			202063	12/17/21 12:00	UAPD	ECL 1
	Instrument ID: ISE1									

Client Sample ID: BL-4

Lab Sample ID: 570-78338-9

Date Collected: 12/09/21 08:27

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			200044	12/10/21 20:21	URMH	ECL 1
	Instrument ID: IC7									
Total Recoverable	Prep	3005A			50 mL	50 mL	203710	12/27/21 06:48	WL8G	ECL 1
Total Recoverable	Analysis	6010B		1			204004	12/27/21 17:50	UWCT	ECL 1
	Instrument ID: ICP8									
Total Recoverable	Analysis	SM 2340B		1			204289	12/28/21 16:56	UIAS	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Prep	351.2			25 mL	25 mL	201697	12/16/21 10:10	UXCH	ECL 1
Total/NA	Analysis	351.2		1			202031	12/16/21 18:07	UXCH	ECL 1
	Instrument ID: ACA1									
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	202015	12/17/21 11:05	UXCH	ECL 1
Total/NA	Analysis	365.1		1	5 mL	5 mL	202588	12/17/21 16:39	UXCH	ECL 1
	Instrument ID: ACA1									
Total/NA	Analysis	SM 2540C		1	3 mL	20 mL	201338	12/15/21 17:27	VWM4	ECL 1
	Instrument ID: NOEQUIP									
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	201213	12/15/21 11:40	ULIN	ECL 1
	Instrument ID: NOEQUIP									

Eurofins Calscience

Lab Chronicle

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Client Sample ID: BL-4

Lab Sample ID: 570-78338-9

Date Collected: 12/09/21 08:27

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NH3 D		1			202063	12/17/21 12:00	UAPD	ECL 1

Client Sample ID: BL-5

Lab Sample ID: 570-78338-10

Date Collected: 12/09/21 08:58

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			200044	12/10/21 20:38	URMH	ECL 1
		Instrument ID: IC7								
Total Recoverable	Prep	3005A			50 mL	50 mL	203710	12/27/21 06:48	WL8G	ECL 1
Total Recoverable	Analysis	6010B		1			204004	12/27/21 17:53	UWCT	ECL 1
		Instrument ID: ICP8								
Total Recoverable	Analysis	SM 2340B		1			204289	12/28/21 16:56	UIAS	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Prep	351.2			25 mL	25 mL	201697	12/16/21 10:10	UXCH	ECL 1
Total/NA	Analysis	351.2		1			202031	12/16/21 18:25	UXCH	ECL 1
		Instrument ID: ACA1								
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	202015	12/17/21 11:05	UXCH	ECL 1
Total/NA	Analysis	365.1		1	5 mL	5 mL	202588	12/17/21 16:40	UXCH	ECL 1
		Instrument ID: ACA1								
Total/NA	Analysis	SM 2540C		1	3 mL	20 mL	201338	12/15/21 17:27	VWM4	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	201213	12/15/21 11:40	ULIN	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 4500 NH3 D		1			202063	12/17/21 12:00	UAPD	ECL 1
		Instrument ID: ISE1								

Client Sample ID: BL-6

Lab Sample ID: 570-78338-11

Date Collected: 12/09/21 08:46

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			200044	12/10/21 20:55	URMH	ECL 1
		Instrument ID: IC7								
Total Recoverable	Prep	3005A			50 mL	50 mL	203710	12/27/21 06:48	WL8G	ECL 1
Total Recoverable	Analysis	6010B		1			204004	12/27/21 17:55	UWCT	ECL 1
		Instrument ID: ICP8								
Total Recoverable	Analysis	SM 2340B		1			204289	12/28/21 16:56	UIAS	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Prep	351.2			25 mL	25 mL	201697	12/16/21 10:10	UXCH	ECL 1
Total/NA	Analysis	351.2		1			202031	12/16/21 18:11	UXCH	ECL 1
		Instrument ID: ACA1								
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	202015	12/17/21 11:05	UXCH	ECL 1
Total/NA	Analysis	365.1		1	5 mL	5 mL	202588	12/17/21 16:42	UXCH	ECL 1
		Instrument ID: ACA1								

Eurofins Calscience

Lab Chronicle

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Client Sample ID: BL-6

Lab Sample ID: 570-78338-11

Date Collected: 12/09/21 08:46

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	3 mL	20 mL	201338	12/15/21 17:27	VWM4	ECL 1
Total/NA	Analysis	SM 2540D		1	980 mL	1000 mL	201213	12/15/21 11:40	ULIN	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 4500 NH3 D		1			202063	12/17/21 12:00	UAPD	ECL 1
		Instrument ID: ISE1								

Client Sample ID: BL-7

Lab Sample ID: 570-78338-12

Date Collected: 12/09/21 08:34

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			200044	12/10/21 21:12	URMH	ECL 1
		Instrument ID: IC7								
Total Recoverable	Prep	3005A			50 mL	50 mL	203710	12/27/21 06:48	WL8G	ECL 1
Total Recoverable	Analysis	6010B		1			204004	12/27/21 17:57	UWCT	ECL 1
		Instrument ID: ICP8								
Total Recoverable	Analysis	SM 2340B		1			204289	12/28/21 16:56	UIAS	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Prep	351.2			25 mL	25 mL	201697	12/16/21 10:10	UXCH	ECL 1
Total/NA	Analysis	351.2		1			202031	12/16/21 18:14	UXCH	ECL 1
		Instrument ID: ACA1								
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	202015	12/17/21 11:05	UXCH	ECL 1
Total/NA	Analysis	365.1		1	5 mL	5 mL	202588	12/17/21 16:43	UXCH	ECL 1
		Instrument ID: ACA1								
Total/NA	Analysis	SM 2540C		1	3 mL	20 mL	201338	12/15/21 17:27	VWM4	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	201213	12/15/21 11:40	ULIN	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 4500 NH3 D		1			202063	12/17/21 12:00	UAPD	ECL 1
		Instrument ID: ISE1								

Client Sample ID: BL-8

Lab Sample ID: 570-78338-13

Date Collected: 12/09/21 10:36

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			200044	12/10/21 21:29	URMH	ECL 1
		Instrument ID: IC7								
Total Recoverable	Prep	3005A			50 mL	50 mL	203710	12/27/21 06:48	WL8G	ECL 1
Total Recoverable	Analysis	6010B		1			204004	12/27/21 17:59	UWCT	ECL 1
		Instrument ID: ICP8								
Total Recoverable	Analysis	SM 2340B		1			204289	12/28/21 16:56	UIAS	ECL 1
		Instrument ID: NOEQUIP								

Eurofins Calscience

Lab Chronicle

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Client Sample ID: BL-8

Lab Sample ID: 570-78338-13

Date Collected: 12/09/21 10:36

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	351.2			25 mL	25 mL	201697	12/16/21 10:10	UXCH	ECL 1
Total/NA	Analysis	351.2		1			202031	12/16/21 18:16	UXCH	ECL 1
		Instrument ID: ACA1								
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	202015	12/17/21 11:05	UXCH	ECL 1
Total/NA	Analysis	365.1		1	5 mL	5 mL	202588	12/17/21 16:45	UXCH	ECL 1
		Instrument ID: ACA1								
Total/NA	Analysis	SM 2540C		1	3 mL	20 mL	201338	12/15/21 17:27	VWM4	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	201213	12/15/21 11:40	ULIN	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 4500 NH3 D		1			202063	12/17/21 12:00	UAPD	ECL 1
		Instrument ID: ISE1								

Client Sample ID: BL-9

Lab Sample ID: 570-78338-14

Date Collected: 12/09/21 10:13

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			200044	12/10/21 21:46	URMH	ECL 1
		Instrument ID: IC7								
Total Recoverable	Prep	3005A			50 mL	50 mL	203710	12/27/21 06:48	WL8G	ECL 1
Total Recoverable	Analysis	6010B		1			204004	12/27/21 18:01	UWCT	ECL 1
		Instrument ID: ICP8								
Total Recoverable	Analysis	SM 2340B		1			204289	12/28/21 16:56	UIAS	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Prep	351.2			25 mL	25 mL	201697	12/16/21 10:10	UXCH	ECL 1
Total/NA	Analysis	351.2		1			202031	12/16/21 18:19	UXCH	ECL 1
		Instrument ID: ACA1								
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	202015	12/17/21 11:05	UXCH	ECL 1
Total/NA	Analysis	365.1		1	5 mL	5 mL	202588	12/17/21 16:46	UXCH	ECL 1
		Instrument ID: ACA1								
Total/NA	Analysis	SM 2540C		1	3 mL	20 mL	201338	12/15/21 17:27	VWM4	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	201213	12/15/21 11:40	ULIN	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 4500 NH3 D		1			202063	12/17/21 12:00	UAPD	ECL 1
		Instrument ID: ISE1								

Client Sample ID: BL-10

Lab Sample ID: 570-78338-15

Date Collected: 12/09/21 09:49

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		20			200044	12/10/21 22:03	URMH	ECL 1
		Instrument ID: IC7								

Eurofins Calscience

Lab Chronicle

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Client Sample ID: BL-10

Lab Sample ID: 570-78338-15

Date Collected: 12/09/21 09:49

Matrix: Water

Date Received: 12/10/21 12:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	203710	12/27/21 06:48	WL8G	ECL 1
Total Recoverable	Analysis	6010B		1			204004	12/27/21 18:03	UWCT	ECL 1
		Instrument ID: ICP8								
Total Recoverable	Analysis	SM 2340B		1			204289	12/28/21 16:56	UIAS	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Prep	351.2			25 mL	25 mL	201697	12/16/21 10:10	UXCH	ECL 1
Total/NA	Analysis	351.2		1			202031	12/16/21 18:20	UXCH	ECL 1
		Instrument ID: ACA1								
Total/NA	Prep	365.2/365.3/365			50 mL	50 mL	202015	12/17/21 11:05	UXCH	ECL 1
Total/NA	Analysis	365.1		1	5 mL	5 mL	202588	12/17/21 16:48	UXCH	ECL 1
		Instrument ID: ACA1								
Total/NA	Analysis	SM 2540C		1	3 mL	20 mL	201338	12/15/21 17:27	VWM4	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	201213	12/15/21 11:40	ULIN	ECL 1
		Instrument ID: NOEQUIP								
Total/NA	Analysis	SM 4500 NH3 D		1			202063	12/17/21 12:00	UAPD	ECL 1
		Instrument ID: ISE1								

Laboratory References:

ECL 1 = Eurofins Calscience Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Accreditation/Certification Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Laboratory: Eurofins Calscience

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State	2944	09-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0		Water	Nitrate as N
300.0		Water	Nitrite as N
300.0		Water	Orthophosphate as P
8270C SIM CON	3541	Sediment	PCB-101
8270C SIM CON	3541	Sediment	PCB-105
8270C SIM CON	3541	Sediment	PCB-110
8270C SIM CON	3541	Sediment	PCB-118
8270C SIM CON	3541	Sediment	PCB-128
8270C SIM CON	3541	Sediment	PCB-132/153
8270C SIM CON	3541	Sediment	PCB-138/158
8270C SIM CON	3541	Sediment	PCB-141
8270C SIM CON	3541	Sediment	PCB-149
8270C SIM CON	3541	Sediment	PCB-151
8270C SIM CON	3541	Sediment	PCB-156
8270C SIM CON	3541	Sediment	PCB-170
8270C SIM CON	3541	Sediment	PCB-174
8270C SIM CON	3541	Sediment	PCB-177
8270C SIM CON	3541	Sediment	PCB-18
8270C SIM CON	3541	Sediment	PCB-180
8270C SIM CON	3541	Sediment	PCB-183
8270C SIM CON	3541	Sediment	PCB-187
8270C SIM CON	3541	Sediment	PCB-194
8270C SIM CON	3541	Sediment	PCB-195
8270C SIM CON	3541	Sediment	PCB-201
8270C SIM CON	3541	Sediment	PCB-203
8270C SIM CON	3541	Sediment	PCB-28
8270C SIM CON	3541	Sediment	PCB-31
8270C SIM CON	3541	Sediment	PCB-33
8270C SIM CON	3541	Sediment	PCB-44
8270C SIM CON	3541	Sediment	PCB-49
8270C SIM CON	3541	Sediment	PCB-5/8
8270C SIM CON	3541	Sediment	PCB-52
8270C SIM CON	3541	Sediment	PCB-56
8270C SIM CON	3541	Sediment	PCB-60
8270C SIM CON	3541	Sediment	PCB-66
8270C SIM CON	3541	Sediment	PCB-70
8270C SIM CON	3541	Sediment	PCB-74
8270C SIM CON	3541	Sediment	PCB-87
8270C SIM CON	3541	Sediment	PCB-95
8270C SIM CON	3541	Sediment	PCB-97
8270C SIM CON	3541	Sediment	PCB-99
9060A		Sediment	Carbon, Total Organic
D4464		Sediment	Clay (less than 0.00391 mm)
D4464		Sediment	Coarse Sand (0.5mm to 1mm)
D4464		Sediment	Fine Sand (0.125 to 0.25mm)

Eurofins Calscience

Accreditation/Certification Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Laboratory: Eurofins Calscience (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
D4464		Sediment	Gravel (greater than 2 mm)
D4464		Sediment	Medium Sand (0.25 to 0.5 mm)
D4464		Sediment	Silt (0.00391 to 0.0625mm)
D4464		Sediment	Total Silt and Clay (0 to 0.0626mm)
D4464		Sediment	Very Coarse Sand (1 to 2mm)
D4464		Sediment	Very Fine Sand (0.0625 to 0.125 mm)
Moisture		Sediment	Percent Solids
SM 2340B		Water	Hardness as calcium carbonate
SM 2540C		Water	Total Dissolved Solids

Method Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Method	Method Description	Protocol	Laboratory
8270C SIM	Semivolatile Organic Compound (GC/MS SIM LL)	SW846	ECL 1
8270C SIM CON	PCB Congeners (GC/MS)	SW846	ECL 1
8081A	Organochlorine Pesticides (GC)	SW846	ECL 1
300.0	Anions, Ion Chromatography	MCAWW	ECL 1
6010B	Metals (ICP)	SW846	ECL 1
7471A	Mercury (CVAA)	SW846	ECL 1
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	ECL 1
351.2	Nitrogen, Total Kjeldahl	MCAWW	ECL 1
365.1	Phosphorus, Total	EPA	ECL 1
9060A	Organic Carbon, Total (TOC)	SW846	ECL 1
Moisture	Percent Moisture	EPA	ECL 1
SM 2540C	Solids, Total Dissolved (TDS)	SM	ECL 1
SM 2540D	Solids, Total Suspended (TSS)	SM	ECL 1
SM 4500 NH3 D	Ammonia	SM	ECL 1
D4464	Particle Size Distribution of Catalytic Material (Laser light scattering)	ASTM	ECL 1
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ECL 1
3050B	Preparation, Metals	SW846	ECL 1
351.2	Nitrogen, Total Kjeldahl	MCAWW	ECL 1
3541	Automated Soxhlet Extraction	SW846	ECL 1
3546	Microwave Extraction (Low Level)	SW846	ECL 1
365.2/365.3/365	Phosphorus, Total	MCAWW	ECL 1
7471A	Preparation, Mercury	SW846	ECL 1
Homogenize Prep	Preparation, Homogenization	None	ECL 1

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 1 = Eurofins Calscience Lincoln, 7440 Lincoln Way, Garden Grove, CA 92841, TEL (714)895-5494

Sample Summary

Client: Miller Marine Science & Consulting, Inc.
Project/Site: BLF 2021 Sampling

Job ID: 570-78338-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-78338-1	BL-4	Sediment	12/09/21 11:52	12/10/21 12:50
570-78338-2	BL-5	Sediment	12/09/21 13:01	12/10/21 12:50
570-78338-3	BL-6	Sediment	12/09/21 11:43	12/10/21 12:50
570-78338-4	BL-7	Sediment	12/09/21 11:30	12/10/21 12:50
570-78338-5	BL-8	Sediment	12/09/21 10:44	12/10/21 12:50
570-78338-6	BL-9	Sediment	12/09/21 10:20	12/10/21 12:50
570-78338-7	BL-10	Sediment	12/09/21 10:01	12/10/21 12:50
570-78338-8	BL-3	Water	12/09/21 10:16	12/10/21 12:50
570-78338-9	BL-4	Water	12/09/21 08:27	12/10/21 12:50
570-78338-10	BL-5	Water	12/09/21 08:58	12/10/21 12:50
570-78338-11	BL-6	Water	12/09/21 08:46	12/10/21 12:50
570-78338-12	BL-7	Water	12/09/21 08:34	12/10/21 12:50
570-78338-13	BL-8	Water	12/09/21 10:36	12/10/21 12:50
570-78338-14	BL-9	Water	12/09/21 10:13	12/10/21 12:50
570-78338-15	BL-10	Water	12/09/21 09:49	12/10/21 12:50



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For courier service / sample drop off information, contact us26 sales@eurofinsus.com or call us.



CHAIN OF CUSTODY RECORD

DATE: 12/19/21
PAGE: 1 OF 3

LABORATORY CLIENT Miller Marine Science & Consulting		CLIENT PROJECT NAME / NUMBER BLF 2021 Sampling	
ADDRESS: 66 Argonaut Suite 170		P.O. NO.	
CITY: Aliso Viejo	STATE: CA	ZIP: 92656	SAMPLER(S): (PRINT) Eric Miller
TEL: 562-714-0266	E-MAIL: ericm@millermarinescience.com		

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):	
<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR
<input type="checkbox"/> 48 HR	<input type="checkbox"/> 72 HR
<input type="checkbox"/> 5 DAYS	<input checked="" type="checkbox"/> STANDARD

SPECIAL INSTRUCTIONS:	
Analyze as per Eurofins Calscience Quote 57008490	
NO Sediment from BL 1 - BL 3	

GLOBAL ID:		LOG CODE:		COELT EDF	
SPECIAL INSTRUCTIONS:		Field Filtered		Unpreserved	
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SPECIAL INSTRUCTIONS:		Unpreserved			

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Relinquished by (Signature) <i>[Signature]</i>	Received by (Signature/Affiliation)	Date	Time
Relinquished by (Signature) <i>[Signature]</i>	Received by (Signature/Affiliation)	Date	Time



4.7/5.6 4.9/5.8 5.0/5.9 SCS



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LABORATORY CLIENT

Miller Marine Science & Consulting

ADDRESS: 66 Argonaut Suite 170

CITY: Aliso Viejo

STATE: CA

ZIP: 92656

TEL: 562-714-0266

E-MAIL: ericm@millermarinescience.com

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

☐ COELT EDF GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:

Analyze as per Eurofins Calscience Quote 57008490

No Water from BL1 or BL2

LAB USE ONLY	SAMPLE ID	SAMPLING		MATRIX	NO. OF CONT.	LOG CODE		
		DATE	TIME			Unpreserved	Preserved	Field Filtered
1	BL1	12/9/21		Water	2	X		
2				Water	2	X		
3			1016	Water	2	X		
4			827	Water	2	X		
5			838	Water	2	X		
6			840	Water	2	X		
7	BL2		834	Water	2	X		
8			1036	Water	2	X		
9			1013	Water	2	X		
10			949	Water	2	X		

Relinquished by (Signature)	Received by (Signature/Affiliation)	Date	Time
<i>[Signature]</i>	<i>[Signature]</i> ECI	12-10-2021	12:50
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date	Time
Relinquished by (Signature)	Received by (Signature/Affiliation)	Date	Time

78336

CHAIN OF CUSTODY RECORD

DATE: 12/9/21

PAGE: 2 OF 3

CLIENT PROJECT NAME / NUMBER: BLF 2021 Sampling	P.O. NO.
PROJECT CONTACT: Eric Miller, 562-714-0266, ericm@millermarinescience.com	SAMPLER(S): (PRINT) Eric Miller

REQUESTED ANALYSES

Please check box or fill in blank as needed.											
<input type="checkbox"/> TPH(g) <input type="checkbox"/> GRO	<input type="checkbox"/> TPH(d) <input type="checkbox"/> DRO	<input type="checkbox"/> TPH <input type="checkbox"/> C6-C36 <input type="checkbox"/> C6-C44	<input type="checkbox"/> BTX <input type="checkbox"/> MTBE <input type="checkbox"/> 8260 <input type="checkbox"/>	<input type="checkbox"/> VOCs (8260)	<input type="checkbox"/> Oxygenates (8260)	<input type="checkbox"/> Prep (5035) <input type="checkbox"/> En Core <input type="checkbox"/> Terra Core	<input type="checkbox"/> SVOCs (8270)	<input type="checkbox"/> Pesticides (8081)	<input type="checkbox"/> PCBs (8082)	<input type="checkbox"/> PAHs <input type="checkbox"/> 8270 <input type="checkbox"/> 8270 SIM	<input type="checkbox"/> T22 Metals <input type="checkbox"/> 6010/747X <input type="checkbox"/> 6020/747X
<input type="checkbox"/> Cr(VI) <input type="checkbox"/> 7196 <input type="checkbox"/> 7199 <input type="checkbox"/> 218.6	Analyze as per Eurofins Calscience Quote 57008490										<input checked="" type="checkbox"/>

Login Sample Receipt Checklist

Client: Cash in Advance (CalScience)

Job Number: 570-78338-1

Login Number: 78338

List Source: Eurofins Calscience

List Number: 1

Creator: Patel, Jayesh

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



3916 Normal Street
San Diego, CA 92103
619.294.4477
www.ktua.com

December 22, 2023

Batiquitos Lagoon Foundation (BLF)
7380 Gabbiano Lane
Carlsbad, CA 92024

Attention: Chris Ross & Lance Shulte
BLF Board Members

Regarding: Proposal for Landscape Architectural Services
Project: Trail GAP closure between Caltrans I-5 Trail and San Pacifico Rosalina HOA Trail Head

Chris & Lance:

Thank you for the opportunity to submit our professional services and fees to support the Design and Construction Documents for an approximately 200-foot segment of trail between a future Caltrans I-5 Trail and San Pacifico Rosaline HOA Trail.

Description of Services:

Based on BLF's desire to have the project be 'shovel ready' at the completion of this effort, KTUA has identified five phases of work. A detailed fee break-out is included as an attachment.

Phase 1: Project Management & Communication (\$6,350)

We've assumed an overall project schedule of 10 months with support for a monthly 1-hour virtual meeting and other miscellaneous project management tasks.

Phase 2: Data Collection & Concept Coordination (\$12,660)

We've assumed some time to integrate base map data from Caltrans and augment it with other preliminary data for a base map. This will allow us to draft a preliminary alignment and probable limits of work. We have included a NTE amount of \$9,600 in survey costs mark property boundaries in the field and collect supplemental topography data.

Phase 3: 50% Trail Design (\$37,480)

Based on our review of the City of Carlsbad Permit Review forms, we believe we may need to have some additional engineering input provided to the project. We've identified a NTE amount of \$22,000 for a geotechnical investigation, structural engineering, and civil engineering support. Our labor covers the development of grading plans and details, improvement plans and details, specifications, and an opinion of probable construction costs. The resulting design package would be submitted to BLF, Caltrans, and the City for review and comment. We've included a NTE amount of \$1,000 for reproduction costs and City application fees,

Phase 4: 90% Trail Design (\$15,145)

Based on comments received, KTUA will revise all elements of the Design Package and resubmit it to BLF, Caltrans, and the City of Carlsbad. We've identified NTE amounts of \$6,000 for engineering support and another \$1,000 for reproduction and City application fees.

Phase 5: Final Trail Design (\$2,470)

KTUA will incorporate any additional comments provided and provide BLF with a 'shovel ready' construction package.

Professional Fees:

The total estimated fee is \$74,105.00. KTUA's fee is \$34,505.00 and there is \$39,600.00 identified for survey, engineering support, application fees, and reproduction. Any additional services outside of these fees will be billed on a time and materials not to exceed basis using the rates below.

Labor costs will be based on the following hourly rates:

Designer/Planner	\$105.00/hour
Senior Designer	\$125.00/hour
Associate I	\$135.00/hour
Associate II	\$145.00/hour
Senior Associate I	\$155.00/hour
Senior Associate II	\$175.00/hour
Principal	\$190.00/hour

We look forward to working with you on this project. Please do not hesitate to call if you have any questions or need additional information.

Sincerely,

A handwritten signature in blue ink, reading "Mark Carpenter". The signature is stylized with a large, looping "M" and a long, sweeping underline.

Mark Carpenter, AICP
Principal

Subarea 12: Aviara/Batiquitos Lagoon

Batiquitos Lagoon is a valued visual asset as well as a great natural resource hosting many species of migrating birds, which forms the southern boundary of the city. Some of the heaviest used trails can be found in this subarea (see Figure 4.13 “Trail Subarea 12 Map”).

Subarea 12 General Description: This subarea contains a part of the Coastal Rail Trail on the east side of the railway, south of the Poinsettia Coaster Station. Serene views of Batiquitos Lagoon are available from several miles of trails on both sides of the lagoon or from the upper bluffs on the west side of I-5. Future connections will allow for continuous trail on the north shore, of the lagoon westward to Carlsbad State Beach and the Pacific Ocean and along the coast. Trail segment 12.3 Batiquitos Alagoon North Shore does allow only pedestrian use.

Destinations: Batiquitos Lagoon, Nature Center, Dove Library, beach, schools, shopping centers, parks.

Range of Difficulties: Trails in this subarea vary from flat to moderately hilly.

Range of Surface Types: Most trails are compacted native soil or decomposed granite. Most of the existing trails on the west side of I-5 are paved.

Possible Loops: Several loops already exist through the area. Future coastal trail projects will allow connectivity along the beach and to the north shore of the lagoon.

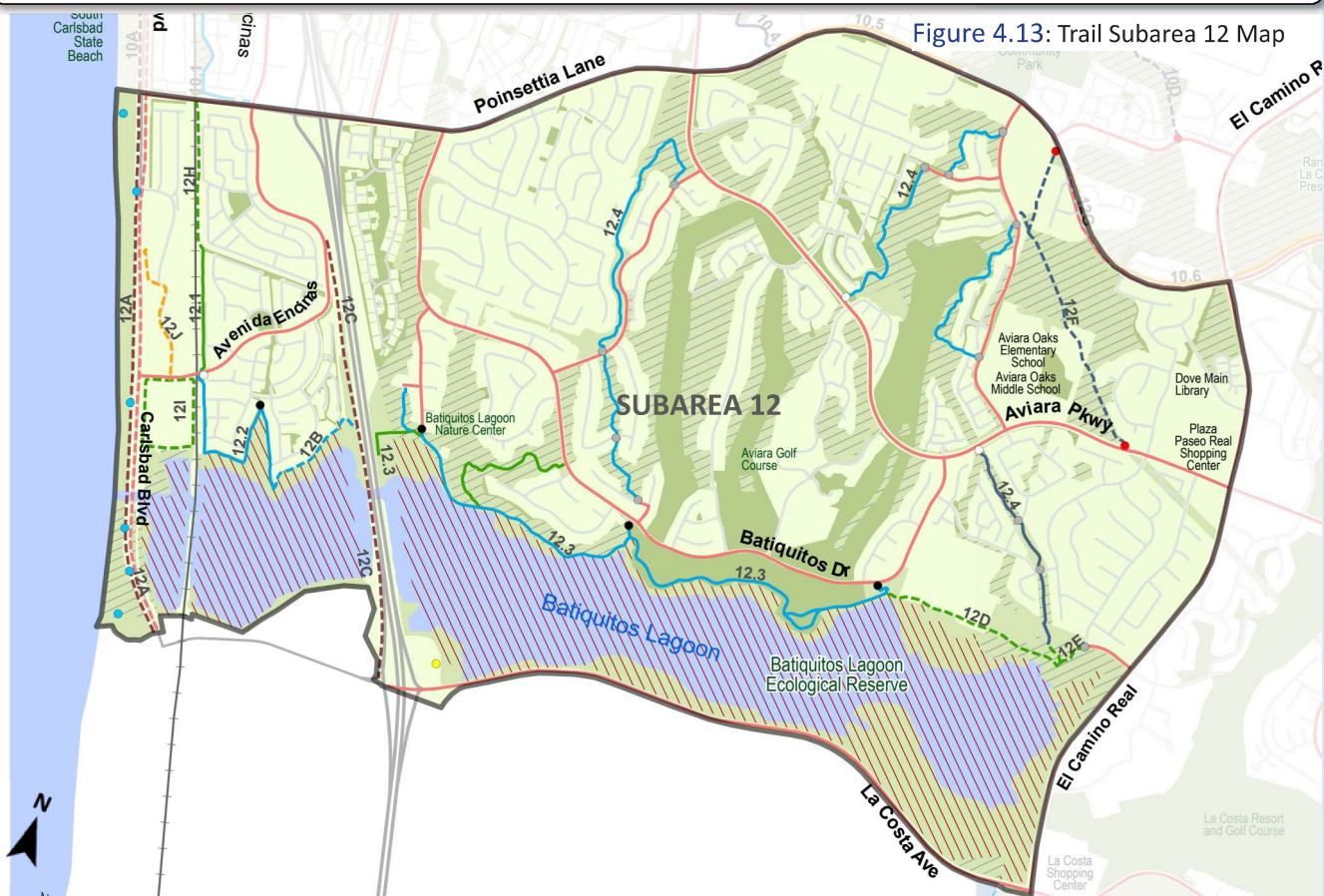
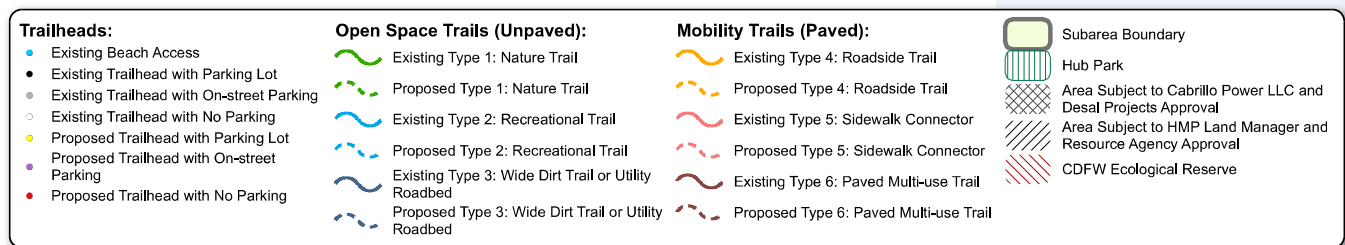


Figure 4.13: Trail Subarea 12 Map



AGRICULTURAL CONVERSION MITIGATION FEE CITIZENS ADVISORY COMMITTEE

Staff Report

Meeting Date: Jan. 31, 2024

To: Agricultural Conversion Mitigation Fee Citizens Advisory Committee

From: Nicole Piano-Jones, Senior Program Manager

Staff Contact: Nicole Piano-Jones, Senior Program Manager
nicole.pianojones@carlsbadca.gov, 442-339-2191

Subject: Fiscal Report

District: All

Recommended Action

Receive report on available fund balance.

Executive Summary

This report provides an update on the current balance, including prior obligations and accrued interest.

Explanation & Analysis

As of Dec. 31, 2023, the Agricultural Conversion Mitigation Fee has a cash balance of \$1,139,789, of which \$320,874 is currently encumbered to projects (listed in Agenda Item #1) and \$605,594 has been approved for prior year projects (described in Agenda Item #2). This amount is inclusive of all interest accrued since beginning of the fiscal year. If balances are recommitted as described in Agenda Item #2 the resulting net available cash balance is anticipated to be **\$139,856**. Net available cash (up to \$162,875) is reserved for future phases of the Regional Beach Sand Project III. Depending on the committee action for Agenda Item #2, the Committee may recommend, if so desired, that the City Council direct staff to solicit additional grant proposals to commit the remaining fund balance.

Fiscal Analysis

There is no direct fiscal impact associated with receiving this information report. The Committee may request that the City Council direct staff to solicit additional grant proposals. In this instance, any fiscal impacts would be reflected in future agenda reports.

Environmental Evaluation

Pursuant to Public Resources Code Section 21065, this action does not constitute a "project" within the meaning of the California Environmental Quality Act (CEQA) in that it has no potential to cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and therefore does not require environmental review.