The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

Via CIWQS

May 15, 2025
In reply refer to SHEA-116938

Information Technology Unit
Los Angeles Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, California 90013

Subject: First Quarter 2025 NPDES Discharge Monitoring Report
Compliance File CI-6027 and NPDES No. CA0001309
Santa Susana Field Laboratory
Ventura County, California

The Boeing Company (Boeing) hereby submits this Discharge Monitoring Report (DMR) for the Santa Susana Field Laboratory (Santa Susana Site) for the period of January 1 through March 31, 2025 (First Quarter 2025). This DMR was prepared as required by, and in accordance with, the National Pollutant Discharge Elimination System Permit No. CA0001309 (NPDES Permit) issued by the Los Angeles California Regional Water Quality Control Board (Regional Board) in 2023 (California Regional Water Quality Control Board, Los Angeles Region, 2023). The NPDES Permit covers the entire Santa Susana Site, which includes approximately 2,400 acres owned by Boeing and approximately 450 acres owned by the United States and administered by the National Aeronautics and Space Administration (NASA). Department of Energy (DOE) has assumed responsibility to remediate approximately 472 acres of Boeing's land.

An electronic version of this DMR is located at: http://www.boeing.com/principles/environment/santa-susana/monitoring-reports.page.

FIRST QUARTER 2025 DMR COVER LETTER CONTENTS

This DMR cover letter includes the following sections and attachments:

- Stormwater Treatment System Activities
- Discharge and Sample Collection Summary
- Summary of Exceedances and/or Non-Compliance
- Contested NPDES Permit Conditions
- Stormwater Pollution Prevention Plan/Best Management Practice Activities
- List of Tables (included as attachments)
  - TABLE 1: SWTS Maintenance Activities, First Quarter 2025
  - TABLE 2: SWTS Operational Activities, First Quarter 2025
  - TABLE 3: Sampling Record, First Quarter 2025
  - TABLE 4: BMP Activities, First Quarter 2025

STORMWATER TREATMENT SYSTEM ACTIVITIES

The Stormwater Treatment System (SWTS) located near R-1 Pond (SWTS 011, see Figure 1) discharges through Outfall 011. The SWTS located at Silvernale Pond (SWTS 018, see Figure 1) discharges through Outfall 018. SWTS maintenance activities completed in the First Quarter 2025 are included in Table 1.

SWTS 011 did not operate and SWTS 018 operated two times during the First Quarter 2025. Operational activities are summarized in Table 2.

DISCHARGE AND SAMPLE COLLECTION SUMMARY

Six qualifying rain events occurred during the First Quarter 2025 (Appendix A) and five produced stormwater discharges. Stormwater samples were collected at Outfalls 001, 002, 008, 009, and 018 in one or more rain events or SWTS discharge events this quarter. There were no changes in the discharges as described in the NPDES Permit during the reporting period.

In addition to outfall samples, SWTS influent samples and receiving water samples were also collected. Two influent samples were collected at SWTS 018 (INF-002). On-site receiving water samples were collected at the Bell Creek location (RSW-001 at Outfall 002, see Figure 1) and off-site receiving water samples were collected at the Arroyo Simi locations (RSW-002 [downstream] and RSW-003 [upstream]; see Figure 2).

Table 3 summarizes the First Quarter 2025 sampling record by outfall or location, sample frequency, and sample type collected per NPDES Permit requirements. Sample results are included in Appendix C.

Boeing affirms that "With the exception of field tests, all analyses were conducted at a laboratory certified for such analyses by the State Water Board, Division of Drinking Water, Environmental Laboratory Accreditation Program or approved by the Executive Officer and in accordance with current U.S. EPA guideline procedures or as specified in this [Monitoring and Reporting Program] MRP." Toxicity laboratory reports and validation reports (if validation was performed), are included in Appendix E.

SUMMARY OF EXCEEDANCES AND/OR NON-COMPLIANCE

As summarized in Appendix D, the First Quarter 2025 exceedances of Daily Maximum Permit limits, Receiving Water limits, or other non-compliance for the data received within the timeframe of this report included:

- Aluminum at Outfalls 001, 002, 008, and 009;
- Lead at Outfalls 001 and 009;
- Manganese at Outfall 001;
- Mercury at Outfall 009;
- Dioxins (TCDD) toxic equivalent (TEQ) at Outfalls 001, 002, and 009;
- Combined Radium-226 and Radium-228 at Outfall 009;
- *Escherichia coli* (*E. coli*) at the Bell Creek Receiving Water location (RSW-001 at Outfall 002), and at the Arroyo Simi Receiving Water locations (RSW-002, downstream and RSW-003, upstream).

ALUMINUM AT OUTFALLS 001, 002, 008, 009

Aluminum was detected in stormwater samples collected from the following outfalls above the Daily Maximum Permit Limit of 1.0 milligram per liter (mg/L):

- Outfall 001 on February 14, 2025 at 16 mg/L;
- Outfall 002 on February 14, 2025 at 5.5 mg/L;
- Outfall 008 on February 14, 2025 at 1.3 mg/L; and
- Outfall 009 on February 15, 2025 and March 14, 2025 at 6.2 and 1.9 mg/L, respectively.

The NPDES Permit establishes new effluent limitations for aluminum. However, Boeing believes that aluminum limits are improper because significant evidence (including data and analyses produced from studies conducted by the Surface Water Expert Panel [Expert Panel], and data on aluminum concentrations in site-wide surface soils relative to background threshold values, as presented in its 2023 and 2024 Annual Reports) shows that aluminum is naturally occurring rather than residual from former industrial operations at the Santa Susana Site (Expert Panel, 2023, 2024).

At the Santa Susana Field Laboratory (SSFL), 99.9% of soil samples (all but four of 6,496 samples taken across several hundred acres of land) contain aluminum concentrations at levels typical of natural soil unaffected by human activity, or even lower levels. The two areas where solid rocket fuel was used, allegedly the source of the aluminum in stormwater at SSFL, have no elevated aluminum levels, and do not differ from samples taken where no such fuel was used. The legality of the Regional Board's aluminum effluent limitation is currently the subject of an appeal in the California Court of Appeal.

The Expert Panel will evaluate the aluminum exceedances in their 2025 Annual Report.

LEAD AT OUTFALLS 001 AND 009

Lead was detected in stormwater samples collected from the following outfalls above the Daily Maximum Permit Limit of 5.2 micrograms per liter (µg/L):

- Outfall 001 on February 14, 2025 at 13 µg/L; and
- Outfall 009 on February 15, 2025 and March 14, 2025 at 22 µg/L and 5.9 µg/L, respectively.

Boeing believes the lead concentration at Outfall 001 during the First Quarter 2025 is attributable to natural background soils. This conclusion is consistent with the findings in prior site studies conducted by the Expert Panel, which confirmed that lead is naturally occurring in site soils unrelated to former industrial operations (Expert Panel, 2024).

Excavations related to the Former Shooting Range Remediation Project were completed in the First Quarter 2025. The remedial work was located within the upper-most reaches of the Outfall 009 watershed, which removed lead in accordance with an Imminent and Substantial Endangerment Determination and Consent Order issued by the Department of Toxic Substances Control (DTSC, 2022). Before and throughout the course of the remedial work, Boeing installed, and continues to install, robust best management practices (BMPs) at the Former Shooting Range, in accordance with the Construction Stormwater Pollution Prevention Plan (SWPPP) prepared for this project (Stantec, 2022b) and incorporated in the Removal Action Workplan (Stantec, 2022a). The Expert Panel provided construction BMP recommendations prior to and during the remedial work for the Former Shooting Range area and may make additional post-remediation stabilization recommendations for disturbed soil areas of the Former Shooting Range area.

The Expert Panel will evaluate these lead exceedances at Outfalls 001 and 009 in their 2025 Annual Report.

MANGANESE AT OUTFALL 001

Manganese was detected above the Daily Maximum Permit Limit of 50 µg/L in a stormwater sample collected from Outfall 001 on:

- February 14, 2025 at 400 µg/L.

Boeing believes the manganese concentration at Outfall 001 during the First Quarter 2025 is attributable to natural background soils. This conclusion is consistent with the findings in prior site studies conducted by the Expert Panel, which confirmed that manganese is naturally occurring in site soils unrelated to former industrial operations (Expert Panel, 2022, 2024). The Expert Panel will evaluate this exceedance in their 2025 Annual Report.

MERCURY AT OUTFALL 009

Mercury was detected above the Daily Maximum Permit Limit of 0.024 µg/L in a stormwater sample collected from Outfall 009 on:

- February 15, 2025 at 0.032 µg/L.

Boeing believes the mercury concentration at Outfall 009 during the First Quarter 2025 is likely attributable to natural background soils. This conclusion is consistent with the findings in prior site studies conducted by the Expert Panel, which uses multiple lines of evidence including particulate strength, fingerprinting methods, spatial patterns, and material inventory to identify the likely non-industrial sources of mercury in the Outfall 009 watershed (Expert Panel, 2024). The Expert Panel will evaluate this exceedance in their 2025 Annual Report.

DIOXINS (TCDD) TOXICITY EQUIVALENT (TEQ) AT OUTFALLS 001, 002, AND 009

TCDD TEQ was calculated in stormwater samples from the following outfalls above the Daily Maximum Permit Limit of 2.8E-08 µg/L:

- Outfall 001 on February 14, 2025 at 2.0E-07 µg/L;
- Outfall 002 on February 14, 2025 at 4.4E-08 µg/L; and
- Outfall 009 on February 15, 2025 at 5.6E-08 µg/L.

Boeing believes the elevated dioxin concentrations at Outfalls 001, 002 and 009 during the First Quarter 2025 are likely attributable to natural background soils and non-industrial sources, such as pavement and soils adjacent to telephone/utility poles (treated wood), and the impacted surface soils in a very small portion of the Outfall 009 watershed. This conclusion is consistent with the findings in prior site studies conducted by the Expert Panel based on methods discussed in the Expert Panel Annual Reports (Expert Panel, 2022, 2024), which uses multiple lines of evidence including particulate strength, fingerprinting methods, spatial patterns, and material inventory to identify the likely non-industrial sources of TCDD TEQ in samples exceeding permit limits. The Expert Panel's modeling confirmed the presence of impacted soils within the Outfall 009 watershed [present in a small percentage (< 2 percent) of the drainage area]. The Expert Panel will evaluate these exceedances in their 2025 Annual Report. Meanwhile, Boeing will continue to maintain BMPs around utility poles and in the vicinity of the impacted portion of the watershed to minimize their pollutant contributions. The Expert Panel will evaluate these exceedances in their 2025 Annual Report.

COMBINED RADIUM-226 AND RADIUM-228 AT OUTFALL 009

On February 15, 2025, Combined Radium-226 and Radium-228 was calculated at 6.63 ± 2.29 picocuries per liter (pCi/L) in a stormwater sample collected from Outfall 009, which is indeterminate when compared to the Daily Maximum Permit Limit of 5.0 pCi/L. As radium is a naturally occurring radioactive metal and has not been exceeded at Outfall 009 previously, the laboratory was asked to reanalyze the sample. The reanalysis was non-detect. Given no radium was detected in the reanalysis and the original result was reported with a high uncertainty of 2.29 pCi/L, Boeing believes that the result was anomalous.

Permit compliance is demonstrated by the average Combined Radium-226 and Radium-228 results for the calendar year being less than the Daily Maximum Permit Limit of 5.0 pCi/L. Compliance will be determined in the Fourth Quarter 2025. The Expert Panel will evaluate this exceedance in their 2025 Annual Report.

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Bell Creek Receiving Water Location (RSW-001 at Outfall 002)

On February 13, 2025 and February 14, 2025, *E. coli* was detected at 690 and 1,400 most probable numbers per 100 milliliters (MPN/100mL), respectively, in samples collected at the Bell Creek Receiving Water location (RSW-001 at Outfall 002). These bacteria counts were above the single sample maximum receiving water limit of 235 MPN/100mL. Additional samples were collected at RSW-001 daily between February 15, 2025 and February 28, 2025. A total of nineteen samples collected in the month of February were used to calculate the geometric mean for *E. coli.* The calculated geometric mean for *E. coli* of 18 MPN/100mL was below the geometric mean receiving water limit of 126 MPN/100mL.

On February 7, 2025, a stormwater sample was collected from Outfall 002 and subsequently analyzed for human-specific *Bacteroides* to determine whether bacteria present in this sample were likely from human sources. Laboratory analysis reported that human-specific markers were not present in the sample from Outfall 002. Therefore, Boeing believes that the *E. coli* detected at RSW-001 originated from wildlife.

Arroyo Simi Receiving Water Locations (RSW-002, Downstream and RSW-003, Upstream)

On February 14, 15, 16, and 17, 2025, *E. coli* was detected at 5,400, 2,400, 1,700, and 580 MPN/100mL, respectively, in samples collected off site at the Arroyo Simi Receiving Water downstream location (RSW-002), approximately 4 miles downstream of Outfall 009. Bacteria in these four samples were above the Statistical Threshold Value Limit of 320 MPN/100mL. Three additional samples were collected daily until discharge from Outfall 009 concluded, and all seven samples were used to calculate the geometric mean for *E. coli*. The calculated geometric mean for *E. coli* of 499 MPN/100mL for RSW-002 was above the geometric mean receiving water limit of 100 MPN/100mL.

On February 14, 15, and 16, 2025, *E. coli* was detected at 8,000, 9,200, and 2,400 MPN/100mL, respectively, in samples collected off site at the Arroyo Simi Receiving Water upstream location (RSW-003), which is upstream of RSW-002 and upstream from the point where discharge from Outfall 009 enters the Arroyo Simi. Bacteria in these three samples were above the Statistical Threshold Value Limit of 320 MPN/100mL. These samples were used to calculate the geometric mean for *E. coli*. The calculated geometric mean for *E. coli* of 5,611 MPN/100mL for RSW-003 was above the geometric mean receiving water limit of 100 MPN/100mL.

On February 13, 2025, a stormwater sample was collected from Outfall 009 and subsequently analyzed for human-specific *Bacteroides* to determine whether bacteria present in this sample were likely from human sources. Laboratory analysis reported human-specific markers were present in the sample from Outfall 009 at 1,096 cell equivalents per 100 milliliters (CEs/100mL). The *E. coli* concentration from this same sample was 1,500 MPN/100mL, lower than the corresponding Arroyo Simi Receiving Water downstream and upstream

samples described above. Boeing collects all sanitary waste generated at the Santa Susana Site and transports it to an off-site facility for treatment and disposal; therefore, there is no sanitary waste discharged at SSFL and the site is not considered an active source of bacteria. Additionally, the *E. coli* detection in the Arroyo Simi upstream sample is higher than both the Arroyo Simi downstream sample and Outfall 009 sample. Therefore, Boeing believes that the *E. coli* detected at RSW-002 and RSW-003 originated from wildlife or other sources not related to the Santa Susana Site.

CONTESTED NPDES PERMIT CONDITIONS

Boeing has filed a lawsuit in Los Angeles Superior Court (the "Action") against the Regional Board (Board) challenging certain conditions in the NPDES Permit (the "Contested Conditions"). The Contested Conditions include, but are not limited to, the effluent limitation for aluminum at multiple outfalls. After the Los Angeles Superior Court ruled on the Contested Conditions, Boeing filed an appeal (the "Appeal") in the California Court of Appeal challenging, as relevant here, the trial court's ruling on the aluminum effluent limitation. Boeing's Appeal is currently pending in the California Court of Appeal.

Boeing's Appeal explains that the trial court made legal and factual errors in upholding the Board's aluminum effluent limitation. The trial court applied the wrong legal framework in assessing the aluminum effluent limitation. The trial court wrongly permitted the Board to impose the aluminum effluent limitation regardless of whether aluminum is naturally occurring in SSFL's stormwater. The trial court also subjected Boeing to an improperly heightened standard of proof. The trial court also erred on the facts to the extent it found that the aluminum in SSFL stormwater is not naturally occurring. All data and expert evidence in the record shows that aluminum in SSFL stormwater is naturally occurring. As explained above: (i) the Board's own Surface Water Expert Panel concluded that aluminum in SSFL stormwater is naturally occurring; (ii) 99.9% of soil samples at SSFL (all but four of 6,496 samples taken across several hundred acres of land) contain aluminum concentrations at levels typical of natural soil unaffected by human activity—or even lower levels; and (iii) the two areas where solid rocket fuel was used—allegedly the source of the aluminum in stormwater at SSFL—have no elevated aluminum levels, and do not reflect aluminum levels different from samples taken where no such fuel was used.

Despite the substantial harm Boeing will incur by complying with the aluminum effluent limitation while the Action and Appeal are pending, Boeing nonetheless is complying with the aluminum effluent limitation, under protest, by submitting this DMR. In so complying, Boeing neither waives any rights to pursue the Action and Appeal, nor admits the propriety of the aluminum effluent limitation (or any other Contested Condition). Boeing expressly reserves all legal rights, including but not limited to Boeing's right to pursue the Action and Appeal and any further review as appropriate.

STORMWATER POLLUTION PREVENTION PLAN/BEST MANAGEMENT PRACTICE ACTIVITIES

BOEING-RELATED ACTIVITIES

Boeing implemented BMP activities in compliance with the site-wide Stormwater Pollution Prevention Plan (SWPPP; Haley & Aldrich, Inc., 2024) to assist in improving stormwater quality and compliance at the Santa Susana Site. Boeing updates the SWPPP annually to include a summary of areas of past industrial activity, as well as a description of past industrial and current remediation activities, material handling and storage areas.

Additional BMP activities were performed, commenced, or completed during the First Quarter 2025 in coordination with the Expert Panel. Table 4 summarizes the BMP activities completed during the First Quarter 2025 by outfall or BMP location.

In addition to site-wide SWPPP-related activities, specific BMP projects included NASA and DOE activities. These are discussed below.

NASA-RELATED ACTIVITIES

During the First Quarter 2025, NASA continued to inspect and maintain BMPs in accordance with the Construction General Permit and maintained fiber rolls and sandbags as perimeter and linear sediment controls in areas where construction activities were occurring (NASA, 2023). Additionally, NASA received a Notice of Termination for their Coca area Construction SWPPP, and the permit was terminated on February 12, 2025.

DOE-RELATED ACTIVITIES

DOE reported that no BMP-related activities or monitoring were conducted during the First Quarter 2025.

CONCLUSIONS

Boeing is committed to fulfilling the requirements of the NPDES Permit and continues to implement, maintain, and monitor wide-ranging control practices intended to improve water quality at stormwater discharge locations at the Santa Susana Site through methods designed to preserve the natural conditions in the watershed to the maximum extent feasible. The Surface Water Expert Panel is reviewing the data collected and will make BMP and monitoring recommendations that will be communicated in the Surface Water Expert Panel's 2025 Annual Report.

FACILITY CONTACT

If there are any questions regarding this report or its enclosures, you may contact Mr. Jeffrey Wokurka of Boeing at (818) 466-8800.

CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the 15th of May 2025 at The Boeing Company, Seal Beach, California Site.

Sincerely,

Kim O'Rourke

Kim O'Rourke
Global Remediation and Due Diligence Program Manager
Global Enterprise Sustainability - Environment

Enclosures:

References

Table 1 - SWTS Maintenance Activities, First Quarter 2025
Table 2 - SWTS Operational Activities, First Quarter 2025
Table 3 - Sampling Record, First Quarter 2025
Table 4 - BMP Activities, First Quarter 2025

Attachments:

Figure 1 - Site Map with Stormwater Collection and Conveyance System and Site Features
Figure 2 - Arroyo Simi Receiving Water Downstream (RSW-002) and Upstream (RSW-003) Sampling Locations
Appendix A - Rainfall Data Summary, First Quarter 2025
Appendix B - Waste Shipment Summary Table, First Quarter 2025
Appendix C - Discharge Monitoring Data Summary Tables, First Quarter 2025
Appendix D - NPDES Permit Limit Exceedances and/or Non-Compliance, First Quarter 2025
Appendix E - Toxicity Laboratory Reports and Validation Reports, First Quarter 2025
Appendix F - Receiving Water Surveys, First Quarter 2025
Appendix G - Annual Comprehensive Site Compliance Evaluation Report

REFERENCES

1. California Regional Water Quality Control Board, Los Angeles Region, 2023. *Waste Discharge Requirements for The Boeing Company, Santa Susana Field Laboratory (Order No. R4-2023-0359, NPDES No. CA0001309, CI Number 6027).* 19 October.

2. Department of Toxic Substances Control (DTSC), 2022. Former Rocketdyne-Atomics International Rifle and Pistol Club Shooting Range and Overshot Area Imminent and Substantial Endangerment Determination and Consent Order, Simi Valley, Ventura Country, CA (Docket No. HAS-FY21/22-131). 25 March.

3. Geosyntec and the Expert Panel, 2022. *Santa Susana Field Laboratory Site-wide Stormwater Annual Report, 2021/22 Reporting Year, Ventura County, California* (NPDES No. CA0001309, CI No.6027). October.

4. Geosyntec and the Expert Panel, 2023. *Santa Susana Field Laboratory Site-wide Stormwater Annual Report, 2022/23 Reporting Year, Ventura County, California* (NPDES No. CA0001309, CI No.6027). October.

5. Geosyntec and the Expert Panel, 2024. *Santa Susana Field Laboratory Site-wide Stormwater Annual Report, 2023/24 Reporting Year, Ventura County, California* (NPDES No. CA0001309, CI No.6027). October.

6. Haley & Aldrich, Inc., 2024. *Stormwater Pollution and Prevention Plan (Version 1 for Compliance with 2023 NPDES Permit).* 29 March. Updated annually.

7. Jacobs, 2023. *Stormwater Pollution Prevention Plan (SWPPP) for Santa Susanna Field Laboratory Area I Burn Pit Removal Action, Ventura County, California.* August.

8. National Aeronautics and Space Administration, 2023. *Stormwater Pollution and Prevention Plan for Demo SSFL Phase 7 – NASA Area II, Ventura County, California.* October.

9. Stantec Consulting Services, Inc., 2022a. Draft Removal Action Workplan (RAW), Former Rocketdyne – Atomics International Rifle and Pistol Club Shooting Range and Overshot Area, Sage Ranch Park, Ventura County, California. May.

10. Stantec Consulting Services, Inc., 2022b. Stormwater Pollution Prevention Plan for Former Shooting Range Remedial Action, Santa Susana Field Laboratory, Ventura County, California. August.

TABLES

TABLE 1

SWTS MAINTENANCE ACTIVITIES, FIRST QUARTER 2025

THE BOEING COMPANY

SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

SWTS	Activities During First Quarter 2025
011	Coated sand filters with potassium permanganate and ensured the system was fully operational for the 2024-2025 rainy season.
	Installed waterproof boxes for pH and turbidity sensors on top of ActiFlo.
	Installed new shut-off valve for Backwash Tank.
	Repaired doors for the HCl, Polymer, and Sodium Hydroxide sheds.
	Repaired cabinet doors for the Mechanical Control Center.
018	Coated sand filters with potassium permanganate and ensured the system was fully operational for the 2024-2025 rainy season.
	Installed waterproof boxes for pH and turbidity sensors on top of ActiFlo.
	Replaced tubing for all chemical peristaltic pumps.
	Rebuilt filter feed pump P-107.
	Replaced electrical outlets and floats on the Weir Tank.
	Representatives from BDP Industries and Hychem performed fine-tuning maintenance of the dewatering unit and determined the optimal polymer for use during treatment system operations.
	Repaired the wheel handle on ActiFlo.
	Performed flow simulation and tested the alum dosing pump for ActiFlo.
	Installed a new submersible pump for the dewatering unit.

TABLE 2

SWTS OPERATIONAL ACTIVITIES, FIRST QUARTER 2025

THE BOEING COMPANY

SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

SWTS	Operational Event	Operational Dates and Hours	Total Amount of Water Treated and Discharged (gallons)
018	1	19 February through 21 February 2025, and discharged for approximately 34 hours.	2,077,900
018	2	17 March through 18 March 2025, and discharged for approximately 24 hours.	1,485,500

018	Solids generated at SWTS 018 during the First Quarter 2025 are still being processed. Total solids will be reported in the Second Quarter 2025 Discharge Monitoring Report.

TABLE 3
SAMPLING RECORD, FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

Date (Grab)	Date (Composite)	Outfall/Location	Sample Frequency
2/7/2025	2/8/2025	Outfall 002	Annual, Quarterly, Routine, Toxicity
2/7/2025	2/8/2025	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Annual, Quarterly
2/8/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/9/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/13/2025	2/14/2025	Outfall 002	Routine, Toxicity
2/13/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/13/2025	2/15/2025	Outfall 009	Annual, Routine, Toxicity
2/14/2025	2/14/2025	Outfall 001	Annual, Routine, Toxicity
2/14/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/14/2025	N/A	Arroyo Simi Receiving Water Downstream (RSW-002)	Annual, Quarterly
2/14/2025	N/A	Arroyo Simi Receiving Water Upstream (RSW-003)	Annual, Quarterly
2/14/2025	2/14/2025	Outfall 008	Annual, Routine, Toxicity
2/15/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/15/2025	N/A	Arroyo Simi Receiving Water Downstream (RSW-002)	Geometric Mean
2/15/2025	N/A	Arroyo Simi Receiving Water Upstream (RSW-003)	Geometric Mean
2/16/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/16/2025	N/A	Arroyo Simi Receiving Water Downstream (RSW-002)	Geometric Mean
2/16/2025	N/A	Arroyo Simi Receiving Water Upstream (RSW-003)	Geometric Mean
2/17/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/17/2025	N/A	Arroyo Simi Receiving Water Downstream (RSW-002)	Geometric Mean
2/18/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/18/2025	N/A	Arroyo Simi Receiving Water Downstream (RSW-002)	Geometric Mean
2/19/2025	2/21/2025	Outfall 018	Annual, Routine, Toxicity
2/19/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/19/2025	N/A	Arroyo Simi Receiving Water Downstream (RSW-002)	Geometric Mean
2/20/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/20/2025	N/A	Arroyo Simi Receiving Water Downstream (RSW-002)	Geometric Mean
2/21/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/22/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/23/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/24/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/25/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/26/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/27/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
2/28/2025	N/A	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Geometric Mean
3/5/2025	3/6/2025	Outfall 002	Routine
3/11/2025	3/12/2025	Outfall 002	Routine
3/13/2025	3/14/2025	Outfall 009	Routine, Toxicity

TABLE 3

SAMPLING RECORD, FIRST QUARTER 2025

THE BOEING COMPANY

SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

Date (Grab)	Date (Composite)	Outfall/Location	Sample Frequency
3/17/2025	3/18/2025	Outfall 018	Routine, Toxicity
3/31/2025	4/1/2025	Outfall 002	Routine
3/31/2025	4/1/2025	Bell Creek Receiving Water (RSW-001 at Outfall 002)	Quarterly

Notes:

N/A = Not applicable.

Annual = 1 per year.

Quarterly = 1 per quarter.

Routine = 1 per discharge event.

Toxicity is required during the 1st and 2nd rain events that create flow at the outfall.

Geometric mean samples were collected in compliance with the Receiving Water Requirements in Attachment E of the NPDES Permit.

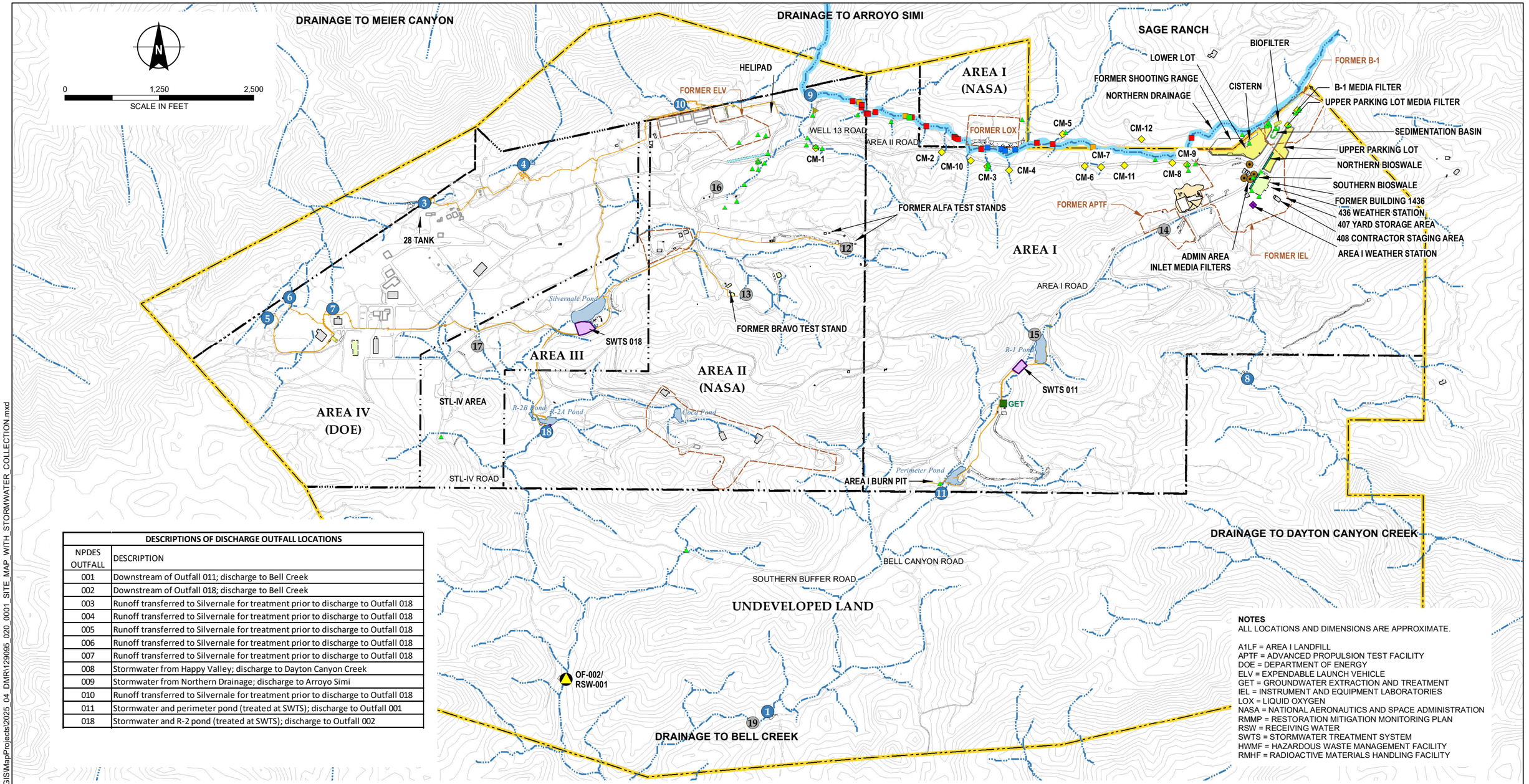
TABLE 4
BMP ACTIVITIES, FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

Outfall, Watershed, BMP, or Other Location	BMP Activities During First Quarter 2025
SWPPP-Related Activities	
001	Performed road maintenance on access road to Outfall.
	Performed brush clearance.
	Collected equipment blank samples for autosamplers.
002	Replaced the "North culvert" on the road to Outfall 002.
	Performed road maintenance on access road to Outfall.
	Collected equipment blank samples for autosamplers.
003	Performed road maintenance on access road to Outfall.
	Performed brush clearance.
004	Performed road maintenance on access road to Outfall.
	Performed brush clearance.
	Re-installed solar panel that had come loose during high winds.
005	Performed road maintenance on access road to Outfall.
	Designed, constructed, and installed intake structure for conveyance pump to prevent intake of spadefoot toads.
006	Performed road maintenance on access road to Outfall.
	Removed and replaced wattles at Outfall.
	Replace non-woven geotextile fabric in the retention basin.
007	Performed road maintenance on access road to Outfall.
	Removed and replaced wattles at Outfall.
	Performed brush clearance.
008	Performed road maintenance on access road to Outfall.
	Performed brush clearance.
009	Performed brush clearance.
010	Performed brush clearance.
	Repaired sections of the liner covering the sandbags.
011	Performed road maintenance on access road to Outfall.
	Performed brush clearance in the basin at Outfall.
	Replaced and re-adjusted fiber rolls at outfall.
	The flow totalizer was serviced to restore its functionality and ensure accurate flow rate measurements.
018	Performed brush clearance.
	Installed additional media wattles in the spillway.
	The autosampler intake strainer was redesigned and reattached to facilitate easier access.
Perimeter Pond	Installed 110-horsepower (hp) self-priming pump to convey water to R1 pond.
	Performed weekly inspections.
R-2A Pond	Performed seasonal maintenance on conveyance pumps.
	Installed safety rail.
	Installed two 110-hp self-priming pumps to convey water to Silvernale Pond.
Area I Weather Station	Performed quartley calibration.
	Performed brush clearance.

TABLE 4
BMP ACTIVITIES, FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

Outfall, Watershed, BMP, or Other Location	BMP Activities During First Quarter 2025
Helipad	Performed brush clearance.
	Performed BMP Inspections.
Lower Lot	Performed BMP Inspections.
B-1 Slope	Performed BMP Inspections.
408 Yard	Removed sediment around the wattles.
28 Tank Area	Performed BMP Inspections.
Other SWPPP-Related Activities	
Former Shooting Range	Performed BMP Inspections, upgrades, and repairs in accordance with the SWPPP for Former Shooting Range Remedial Action (Stantec, 2022b).
	Completed installing erosion blanket in all Decision Units (DU's).
	Performed BMP Inspections.
	Completed wrapping tree islands in all DU's.
Area I Burn Pit	Performed BMP Inspections, upgrades, and repairs in accordance with the SWPPP for Area I Burn Pit Removal Action (Jacobs, 2023).
	Continued installing BMPs.
	Installed 49-hp self priming pump to convey water to Perimeter Pond.
	Installed additional sandbags in the catch basin.
STL-IV	Performed road maintenance on access roads to STL-IV.
Northern Drainage	Installed geotextile fabric over sandbags at LOX.
Expert Panel-Related Activities	
Culvert Modifications (CM)	Performed BMP Inspections.
	Cleared tree litter and debris upstream of the headwall at all CMs.
Area I Road	Removed sediment and debris in swales.
B-1 Area	Performed BMP Inspections.
Upper Parking Lot Media Filter	Cleared tree litter and debris from basin.
	Performed BMP Inspections.
Former Building 1436 Bioswales	Removed and disposed of sediment behind wattles.
Lower Lot Biofilter (Sedimentation Basin and Biofilter)	Performed brush clearance.
	Performed BMP Inspections.
Administration Area Inlet Filters	Performed BMP Inspections.
NASA and Boeing BMP Monitoring-Related Activities	In addition to activities performed in coordination with the Expert Panel described above, BMP performance monitoring samples were collected in the watershed associated with Outfall 009. These sampling results will be reported by the Expert Panel in their 2025 Annual Report.

FIGURES



DESCRIPTIONS OF DISCHARGE OUTFALL LOCATIONS	
NPDES OUTFALL	DESCRIPTION
001	Downstream of Outfall 011; discharge to Bell Creek
002	Downstream of Outfall 018; discharge to Bell Creek
003	Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018
004	Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018
005	Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018
006	Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018
007	Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018
008	Stormwater from Happy Valley; discharge to Dayton Canyon Creek
009	Stormwater from Northern Drainage; discharge to Arroyo Simi
010	Runoff transferred to Silvernale for treatment prior to discharge to Outfall 018
011	Stormwater and perimeter pond (treated at SWTS); discharge to Outfall 001
018	Stormwater and R-2 pond (treated at SWTS); discharge to Outfall 002

NOTES
ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

A1LF = AREA I LANDFILL
APTF = ADVANCED PROPULSION TEST FACILITY
DOE = DEPARTMENT OF ENERGY
ELV = EXPENDABLE LAUNCH VEHICLE
GET = GROUNDWATER EXTRACTION AND TREATMENT
IEL = INSTRUMENT AND EQUIPMENT LABORATORIES
LOX = LIQUID OXYGEN
NASA = NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
RMMP = RESTORATION MITIGATION MONITORING PLAN
RSW = RECEIVING WATER
SWTS = STORMWATER TREATMENT SYSTEM
HWMF = HAZARDOUS WASTE MANAGEMENT FACILITY
RMHF = RADIOACTIVE MATERIALS HANDLING FACILITY

LEGEND

- ACTIVE NPDES OUTFALL LOCATION
- FORMER NPDES OUTFALL LOCATION
- BELL CREEK RECEIVING WATER (RSW-001) SAMPLING LOCATION AND OUTFALL 002
- SLOPE DRAIN DISCHARGE POINT TO NORTHERN DRAINAGE
- CULVERT MODIFICATION
- CM-12
- ADMINISTRATION AREA DRAIN INLETS
- BMP MONITORING LOCATION
- GET SYSTEM
- STORMWATER TREATMENT SYSTEM
- FORMER STUDY AREA

RMMP LOCATION

- CHECK STRUCTURE - MOSTLY NATURAL SANDSTONE, SOME RIP RAP
- CHECK STRUCTURE - RIP RAP
- CHECK STRUCTURE - VEGETATED RIP RAP
- SLOPE DRAIN WITH UNDERLYING CHECK STRUCTURE AND ENERGY DISSIPATING GRAVEL AT INFLUENT END

- DRAINAGE
- NORTHERN DRAINAGE
- ASPHALT SWALE
- PAVED ROAD
- DIRT ROAD
- 25' ELEVATION CONTOUR

- VEHICLE PARKING AREA
- BIOFILTER
- SEDIMENT BASIN
- STORAGE TANK
- BIOSWALE
- GRAVEL
- SURFACE WATER POND

- EXISTING BUILDING/STRUCTURE
- FORMER BUILDING FOOTPRINT
- CONCRETE SLAB IN PLACE
- LANDFILL AREA
- SANTA SUSANA SITE PROPERTY BOUNDARY
- ADMINISTRATIVE AREA BOUNDARY

HALEY ALDRICH

NPDES PERMIT COMPLIANCE FIRST QUARTER 2025
DISCHARGE MONITORING REPORT
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

SITE MAP WITH STORMWATER COLLECTION AND CONVEYANCE SYSTEM AND SITE FEATURES

MAY 2025

FIGURE 1

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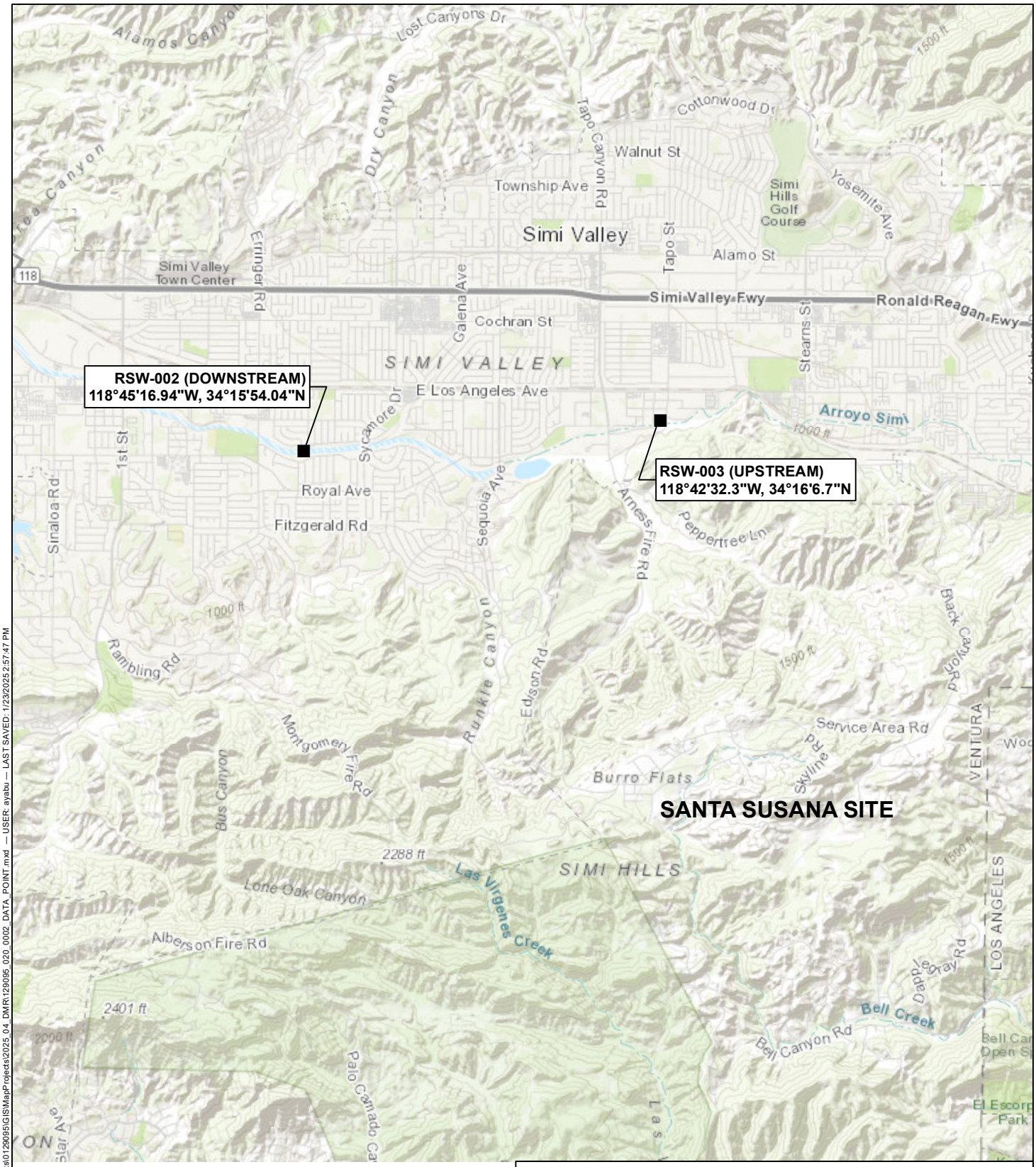

0 0.5 1
SCALE IN MILES

HALEY ALDRICH

NPDES PERMIT COMPLIANCE FIRST QUARTER 2025
DISCHARGE MONITORING REPORT
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

ARROYO SIMI RECEIVING WATER SAMPLING LOCATIONS
RSW-002 (DOWNSTREAM) AND
RSW-003 (UPSTREAM)

MAY 2025

FIGURE 2

GIS FILE PATH: \\haleyaldrich.com\share\CF\Projects\0129095\GIS\MapProjects\2025_04_DMR\129095_020_0002_DATA_POINT.mxd — USER: ayabu — LAST SAVED: 1/23/2025 2:57:47 PM

APPENDIX A

Rainfall Data Summary, First Quarter 2025

TABLE A

DAILY RAINFALL SUMMARY

FIRST QUARTER 2025

THE BOEING COMPANY - SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

Station: AREA I

Parameter: Inches of Rain

Month/Year: January 2025

HOUR OF THE DAY, PACIFIC STANDARD TIME

	HR-BEG	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	HR-END	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	DAY																									Total
	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Y	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
F	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T	22	0.00	0.00	0.00	0.00	0.00	d	d	d	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.14	0.01	0.00	0.02	0.26
	26	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.02	0.02	0.02	0.08	0.10	0.00	0.02	0.01	0.04	0.02	0.10	0.20	0.06	0.12	0.18	0.16	1.19
	27	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																								Monthly Total		1.47

Flags: d = Off-line part of hour. Invalid hour due to semiannual audit (22 January). For the off-line event, the rain gauge at Sage Ranch did not record measurable rainfall on 22 January during hour 0600-0800.

TABLE A

DAILY RAINFALL SUMMARY

FIRST QUARTER 2025

THE BOEING COMPANY - SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

Station: AREA I

Parameter: Inches of Rain

Month/Year: February 2025

HOUR OF THE DAY, PACIFIC STANDARD TIME

	HR-BEG	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	HR-END	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	DAY																									Total
	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.03	0.08
	5	0.05	0.10	0.08	0.04	0.04	0.06	0.08	0.06	0.06	0.04	0.07	0.04	0.03	0.03	0.00	0.00	0.02	0.00	0.01	0.00	0.02	0.00	0.01	0.01	0.85
	6	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.07	0.05	0.06	0.13	0.12	0.07	0.04	0.01	0.61
	7	0.06	0.04	0.05	0.05	0.02	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
D	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Y	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	12	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.04	0.03	0.03	0.03	0.01	0.04	0.05	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.04	0.35
F	13	0.07	0.04	0.08	0.14	0.12	0.12	0.07	0.02	0.06	0.09	0.10	0.57	0.19	0.05	0.17	0.61	0.42	0.01	0.01	0.05	0.02	0.02	0.00	0.00	3.03
	14	0.00	0.04	0.03	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
T	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
T	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																									Monthly Total	5.31

TABLE A

DAILY RAINFALL SUMMARY

FIRST QUARTER 2025

THE BOEING COMPANY - SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

Station: AREA I

Parameter: Inches of Rain

Month/Year: March 2025

HOUR OF THE DAY, PACIFIC STANDARD TIME

	HR-BEG	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	HR-END	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
	DAY																									Total
	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.09	0.08	0.13	0.05	0.07	0.03	0.02	0.05	0.01	0.02	0.00	0.00	0.01	0.00	0.00	0.57
	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03
	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
D	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Y	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	11	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.28	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35
O	12	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.03	0.07	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.17	0.14	0.55
F	13	0.27	0.31	0.18	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87
	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.06	0.12	0.06	0.05	0.02	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.39
T	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
M	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
O	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
N	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	26	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	30	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.03	0.01	0.07
	31	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
																								Monthly Total		2.92

APPENDIX B

Waste Shipment Summary Table, First Quarter 2025

TABLE B

WASTE SHIPMENT SUMMARY TABLE

FIRST QUARTER 2025

THE BOEING COMPANY

SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

Transported Spills
None

Transported Stormwater						
Type of Stormwater	**Matrix**	**Quantity**	**Units**	**Transporter 1**	**Transporter 2**	**Destination**
Non Hazardous Waste	Liquid	20,000	G	Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058	n/a	Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058

Notes:

n/a = Not Applicable

P = Pounds

G = Gallons

APPENDIX C

Discharge Monitoring Data Summary Tables, First Quarter 2025

APPENDIX C

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Reporting Summary Notes

C-1. Effluent Monitoring Data Summary Tables
- C-1.A. Outfalls 001, 002, and 018
- C-1.B. Outfall 008
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C-2. Influent Monitoring Data Summary Table
- SWTS 018 (INF-002)

C-3. Arroyo Simi Receiving Waters
- C-3.A. RSW-002 (Downstream)
- C-3.B. RSW-003 (Upstream)

C-4. E. Coli

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C-6. TCDD TEQ

C-7. PCBs

REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

Not all the following notes, abbreviations, symbols, or acronyms occur on every table:

1. Exceedances are constituents detected in excess of daily maximum permit limits or receiving water limits. Analytical concentrations or calculations to determine compliance to the National Pollutant Discharge Elimination System (NPDES) permit are compared to the same number of significant figures as the daily maximum permit limits or receiving water limits.

2. Dissolved metals are filtered by the laboratory and reported as "Metal, dissolved". Total metals are not filtered by the laboratory and reported as "Metal".

3. If the laboratory reported multiple analytical results for the same analyte, the table shows the result with the lowest reporting limit.

4. Abbreviations, symbols, and acronyms:

–92.9 +/–200	A negative radiochemical analytical result indicates the count rate of the sample was less than the background condition. Radiological results are presented as activity plus or minus total uncertainty.
%	Percent.
$	Reported result or other information was incorrectly reported by the laboratory; result was corrected by the data validator.
--	Based on validation of the data, a qualifier was not required.
-	No NPDES permit limit established for daily maximum or receiving waterlimit.
>(value)	Greater than most probable number.
*	Result not validated.
**	Flow for each outfall is calculated over the 24-hour period when the outfall autosampler is operating to collect the composite sample. See definition of "Daily Discharge" on page A-1 of attachment A of the 2023 NPDES permit.
*1	Improper preservation of sample.
*3	Initial and or continuing calibration recoveries were outside acceptable control limits.
*10	Value was estimated detect or estimated non-detect (J, UJ) due to deficiencies in quantitation of the constituent including constituents reported by the laboratory as estimated maximum possible concentration (EMPC) values.
*III	Unusual problems found with the data that have been described in the validation report.
ANR	Analysis not required; e.g., constituent or outfall was not required by the NPDES permit to be sampled and analyzed over the reporting period (annual, semi- annual, etc.).
B	Presumed contamination as indicated by the preparation (method) blank results.
BEF	Bioaccumulation equivalency factor.
C	Calibration %RSD or %D was noncompliant or Correlation coefficient is <0.995.
Comp	Composite sample.
CEs/100 ml	Cell equivalents per 100 milliliters.
D	The analysis with this flag should not be used because another more technically sound analysis is available.
Deg C	Degrees Celsius.

REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

Deg F	Degrees Fahrenheit.
DL	Detection limit.
DNQ	Detected but not quantified (constituent value greater than or equal to the laboratory method detection limit and less than the laboratory reporting limit).
E	E in validation qualifier indicates that duplicates show poor agreement.
F	The analyte was detected in an associated field blank (FB) or equipment blank (EB) as well as in the sample.
FB	Field blank.
ft/sec	Feet per second.
gpd	Gallons per day.
H	Holding time was exceeded.
I	Internal standard performance was unsatisfactory.
J	Estimated value.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
L	Laboratory control standard (LCS)/laboratory control standard duplicate (LCSD), relative percent difference (RPD) was outside the control limit.
LBS/DAY	Pounds per day.
MDL	Method detection limit.
Meas	Measure sample type.
MFL	Million fibers per liter.
MGD	Million gallons per day.
mg/L	Milligrams per liter.
mg/kg	Milligrams per kilogram.
ml/L	Milliliters per liter.
ml/L/hr	Milliliters per liter per hour.
MPN/100 mL	Most probable number per 100 milliliters.
MQL	Method quantitation limit.
MS	Matrix spike.
MSD	Matrix spike duplicate.
mS/cm	MilliSiemens per centimeter.
NA	Not applicable (i.e., NPDES permit limit not established for the constituent and/or outfall or analyte not required per receiving water monitoring requirements.)
ND	Analyte not detected.
ng/L	Nanograms per liter.
NM	Not measured or determined or minimum detectable activities (MDAs) are not calculated as there is no statistical method for combining MDAs.
NOEC	No observed effect concentration
NPDES	National Pollutant Discharge Elimination System.
NR	Not reported by laboratory by the deadline of this report.
NTU	Nephelometric turbidity unit.
ppb	Parts per billion.

REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

pCi/L	PicoCuries per liter.
Q	Matrix spike (MS)/matrix spike duplicate (MSD) relative percent difference (RPD) was outside the control limit.
R	As a validation qualifier, results are rejected; the presence or absence of analyte cannot be verified.
(R)	Percent recovery (%R) for calibration not within control limits.
RL	Laboratory reporting limit.
RPD	Relative percent difference.
%R	Percent recovery.
S	Surrogate recovery was outside control limits.
s.u.	Standard unit.
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin.
TEQ	Toxic equivalent.
TIC	Tentatively identified compound
TIE	Toxicity identification evaluation
T	Presumed contamination, as indicated by a detect in the trip blank.
U	Result not detected.
µg/L	Micrograms per liter.
µg/g	Micrograms per gram.
µg/kg	Micrograms per kilogram.
µmhos/cm	Micromhos per centimeter.
UJ	Result not detected at the estimated reporting limit.
WHO TEF	World Health Organization toxic equivalency factor.
(a)	Analysis not completed due to hold time exceedance or insufficient sample volume.
(b)	The composite sample was collected as a grab sample from the stream due to insufficient flow.
(c)	Total Ammonia is reported in wet weight units' milligrams per kilogram (mg/kg).
(d)	Total organic carbon (TOC) is reported in dry weight units. Permit asks for TOC units in % dry weight, but data is provided in dry unit milligrams per kilogram (mg/kg).
(e)	The composite sample was collected as a grab sample from the sample box due to insufficient flow.
(f)	The grab sample was collected at the first opportunity given the short duration and low flow at this Outfall.
(g)	Unsafe conditions all day prevented access to the Outfall.
(h)	Various constituents were analyzed by laboratory due to field and laboratory error.
(i)	Reanalysis.
(j)	Sample collected in addition to NPDES permit required sampling frequency.
(k)	Composite sample collected from sample box due to cracked autosampler tubing resulting in low volume recovery.
(l)	Various field parameter(s) analyzed out of hold time due to field and/or laboratory error.
(m)	Analysis performed on composite sample instead of grab sample due to field error.

REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

(n)	Permit limit does not apply to receiving water.
(o)	Analyte was reported as a TIC.
(p)	Particle size distribution is reported in percent units. Permit asks for particle size distribution units in µm, but data is provided in percent (%).
(q)	The Discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation, it will be considered a violation unless an analysis has been made for hexavalent chromium in a replicate sample and the result reported is within the hexavalent chromium limits.
(r)	Statistical Threshold Value (STV): E. coli density shall not exceed 320 cfu or MPN/100mL by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 001				Outfall 002 and Bell Creek Receiving Water (RSW-001)			
							LOCATION								
							DATE RANGE	02/14/2025 10:20[f] - 02/14/2025 11:00				02/07/2025 07:35 - 02/08/2025 08:30			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
1,1,1-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.19	0.50	U *	ANR	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.15	0.50	U *	ANR	ANR	ANR	ANR
1,1,2-Trichloro-1,2,2-trifluoroethane	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	1.1	2.0	U *	ND	1.1	2.0	U *
1,1,2-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.20	0.50	U *	ANR	ANR	ANR	ANR
1,1-Dichloroethane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.23	0.50	U *	ANR	ANR	ANR	ANR
1,1-Dichloroethene	Grab	µg/L	E624.1	2	6.0	1/Year	1/Discharge	ND	0.19	0.50	U *	ND	0.19	0.50	U *
1,1-Dichloroethene	Grab	lbs/day	CALC	-	5.9	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
1,2,4-Trichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.079	0.19	U *	ND	0.080	0.19	U *
1,2,4-Trichlorobenzene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ND	0.18	1.0	U *	ANR	ANR	ANR	ANR
1,2-Dichloro-1,1,2-trifluoroethane	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	0.78	2.0	U *	ND	0.78	2.0	U *
1,2-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ND	0.074	0.19	U *	ND	0.074	0.19	U *
1,2-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.16	0.50	U *	ANR	ANR	ANR	ANR
1,2-Dichloroethane	Grab	µg/L	E624.1	2	0.5	1/Year	1/Discharge	ND	0.17	0.50	U *	ND	0.17	0.50	U *
1,2-Dichloroethane	Grab	lbs/day	CALC	-	0.49	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
1,2-Dichloropropane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.17	0.50	U *	ANR	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.023	0.19	U *	ND	0.023	0.19	U *
1,3-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.076	0.19	U *	ND	0.076	0.19	U *
1,3-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.13	0.50	U *	ANR	ANR	ANR	ANR
1,4-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.073	0.19	U *	ND	0.073	0.19	U *
1,4-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.12	0.50	U *	ANR	ANR	ANR	ANR
1,4-Dioxane	Composite	µg/L	SW8260SIM	-	-	-	1/Discharge	ND	0.55	1.0	U *	ND	1.1	2.0	U *
2,4,6-Trichlorophenol	Composite	µg/L	E625.1SIM	10	13	1/Year	1/Discharge	ND	0.056	0.96	U *	ND	0.056	0.96	U *
2,4,6-Trichlorophenol	Composite	lbs/day	CALC	-	12.8	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
2,4-Dichlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.045	0.96	U *	ND	0.045	0.96	U *
2,4-Dimethylphenol	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ND	0.062	0.19	U *	ND	0.062	0.19	U *
2,4-Dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	2.5	4.8	U *	ND	2.5	4.8	U *
2,4-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	18	1/Year	1/Discharge	ND	0.12	0.19	U *	ND	0.12	0.19	U *
2,4-Dinitrotoluene	Composite	lbs/day	CALC	-	17.7	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
2,6-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.064	0.19	U *	ND	0.064	0.19	U *
2-Chloroethyl vinyl ether (EUR)	Grab	µg/L	E624.1	-	-	1/Year	Additional[i]	ND	0.92	2.0	U *	ANR	ANR	ANR	ANR
2-Chloroethyl vinyl ether (WECC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ND	3.0	25	U *	ND	0.59	5.0	U *
2-Chloronaphthalene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.064	0.19	U *	ND	0.064	0.19	U *
2-Chlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.055	0.19	U *	ND	0.056	0.19	U *
2-Methyl-4,6-dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	1.6	4.8	U *	ND	1.6	4.8	U *
2-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	1.4	4.8	U *	ND	1.4	4.8	U *
3,3'-Dichlorobenzidine	Composite	µg/L	E625.1SIM	5	0.077	1/Year	1/Discharge	ND	0.52	4.8	U *	ND	0.52	4.8	U *
3,3'-Dichlorobenzidine	Composite	lbs/day	CALC	-	0.076	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
4,4'-DDD	Composite	µg/L	E608.3	0.05	-	1/Year	1/Year	ND	0.0027	0.005	U *	ND	0.014	0.025	U *
4,4'-DDE	Composite	µg/L	E608.3	0.05	0.00059	1/Year	1/Discharge	ND	0.0018	0.005	U *	ND	0.009	0.025	U *
4,4'-DDE	Composite	lbs/day	CALC	-	0.00058	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
4,4'-DDT	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.010	0.010	U *	ND	0.014	0.025	U *
4-Bromophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.052	0.19	U *	ND	0.052	0.19	U *
4-Chloro-3-methylphenol	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.053	0.96	U *	ND	0.053	0.96	U *
4-Chlorophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.059	0.19	U *	ND	0.059	0.19	U *
4-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.76	4.8	U *	ND	0.76	4.8	U *
Acenaphthene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.062	0.19	U *	ND	0.063	0.19	U *
Acenaphthylene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.062	0.19	U *	ND	0.062	0.19	U *
Acrolein	Grab	µg/L	E624.1	5	-	1/Year	1/Year	ND	1.8	5.0	U *	ANR	ANR	ANR	ANR
Acrylonitrile	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.98	2.0	U *	ANR	ANR	ANR	ANR
Aldrin	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year	ND	0.010	0.010	U *	ND	0.015	0.025	U *
alpha-BHC	Composite	µg/L	E608.3	0.01	0.03	1/Year	1/Discharge	ND	0.005	0.005	U *	ND	0.012	0.025	U *
alpha-BHC	Composite	lbs/day	CALC	-	0.03	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
alpha-Endosulfan	Composite	µg/L	E608.3	0.02	-	1/Year	1/Year	ND	0.0019	0.005	U *	ND	0.0095	0.025	U *
Aluminum	Composite	mg/L	E200.8	-	1.0	-	1/Discharge	16	0.086	0.15	--	0.021	0.0086	0.015	*
Aluminum	Composite	lbs/day	CALC	-	983	-	1/Discharge	5.1	NA	NA	--	0.019	NA	NA	*
Aluminum, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Discharge	0.81	0.0086	0.015	--	ND	0.0086	0.015	U *
Ammonia - N	Composite	mg/L	E350.1	-	10.1	-	1/Discharge	0.037	0.023	0.075	J (DNQ*)	ND	0.023	0.075	U *

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 001				Outfall 002 and Bell Creek Receiving Water (RSW-001)			
							LOCATION								
							DATE RANGE	02/14/2025 10:20[f] - 02/14/2025 11:00				02/07/2025 07:35 - 02/08/2025 08:30			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Ammonia - N	Composite	lbs/day	CALC	-	9,925	-	1/Discharge	0.012	NA	NA	J (DNQ*)	ND	NA	NA	U *
Anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.025	0.19	U *	ND	0.025	0.19	U *
Antimony	Composite	µg/L	E200.8	0.5	6.0	1/Year	1/Year	ND	0.36	2.0	U *	0.76	0.36	2.0	J (DNQ*)
Antimony	Composite	lbs/day	CALC	-	5.9	-	1/Year	ND	NA	NA	U *	0.00070	NA	NA	J (DNQ*)
Antimony, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	0.38	0.36	2.0	J (DNQ)	1.8	0.36	2.0	J (DNQ*)
Aroclor 1016	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	1.0	1.0	U *	ND	0.50	0.50	U *
Aroclor 1221	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	1.0	1.0	U *	ND	0.50	0.50	U *
Aroclor 1232	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	1.0	1.0	U *	ND	0.50	0.50	U *
Aroclor 1242	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	1.0	1.0	U *	ND	0.50	0.50	U *
Aroclor 1248	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	1.0	1.0	U *	ND	0.50	0.50	U *
Aroclor 1254	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	1.0	1.0	U *	ND	0.50	0.50	U *
Aroclor 1260	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	1.0	1.0	U *	ND	0.50	0.50	U *
Arsenic	Composite	µg/L	E200.8	2	10.0	1/Year	1/Year	4.6	0.16	1.0	--	1.6	0.16	1.0	*
Arsenic	Composite	lbs/day	CALC	-	9.83	-	1/Year	0.0015	NA	NA	--	0.0015	NA	NA	*
Arsenic, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	1.3	0.16	1.0	--	1.5	0.16	1.0	*
Barium	Composite	mg/L	E200.8	-	1.0	-	1/Year	0.17	0.00017	0.001	--	0.047	0.00017	0.001	*
Barium	Composite	lbs/day	CALC	-	983	-	1/Year	0.055	NA	NA	--	0.044	NA	NA	*
Barium, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Year	0.023	0.00017	0.001	--	0.045	0.00017	0.001	*
Benzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.10	0.50	U *	ANR	ANR	ANR	ANR
Benzidine	Composite	µg/L	E625.1SIM	5	0.00054	1/Year	1/Discharge	ND	0.90	4.8	U *	ND	0.90	4.8	U *
Benzidine	Composite	lbs/day	CALC	-	0.00053	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Benzo(a)anthracene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.057	0.19	U *	ND	0.057	0.19	U *
Benzo(a)pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.028	0.19	U *	ND	0.028	0.19	U *
Benzo(b)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.066	0.19	U *	ND	0.066	0.19	U *
Benzo(g,h,i)perylene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.057	0.19	U *	ND	0.057	0.19	U *
Benzo(k)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.066	0.19	U *	ND	0.066	0.19	U *
Beryllium	Composite	µg/L	E200.8	0.5	4.0	1/Year	1/Year	0.97	0.26	0.50	--	ND	0.26	0.50	U *
Beryllium	Composite	lbs/day	CALC	-	3.93	-	1/Year	0.00031	NA	NA	--	ND	NA	NA	U *
Beryllium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ND	0.26	0.50	U *	ND	0.26	0.50	U *
beta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year	ND	0.0015	0.005	U *	ND	0.0075	0.025	U *
beta-Endosulfan	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.0019	0.005	U *	ND	0.0095	0.025	U *
Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C)	Composite	mg/L	SM5210B	-	30	-	1/Discharge	5.0	1.0	2.0	*	2.7	1.0	2.0	*
Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C)	Composite	lbs/day	CALC	-	29,481	-	1/Discharge	2.0	NA	NA	*	2.5	NA	NA	*
Bis (2-Chloroethoxy) Methane	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.068	0.19	U *	ND	0.068	0.19	U *
Bis (2-Chloroethyl) Ether	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.066	0.19	U *	ND	0.066	0.19	U *
Bis (2-Chloroisopropyl) Ether	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ND	0.083	0.19	U *	ND	0.083	0.19	U *
Bis (2-Ethylhexyl) Phthalate	Composite	µg/L	E625.1SIM	5	4	1/Year	1/Discharge	ND	1.0	4.8	U *	ND	1.0	4.8	U *
Bis (2-Ethylhexyl) Phthalate	Composite	lbs/day	CALC	-	3.93	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Boron	Composite	mg/L	E200.7	-	-	-	1/Year	0.029	0.0035	0.50	J (DNQ)	0.11	0.0035	0.50	J (DNQ*)
Boron, dissolved	Composite	mg/L	E200.7	-	-	-	Additional/Year	0.024	0.0035	0.50	J (DNQ)	0.10	0.0035	0.50	J (DNQ*)
Bromodichloromethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.13	0.50	U *	ANR	ANR	ANR	ANR
Bromoform	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.25	1.0	U *	ANR	ANR	ANR	ANR
Bromomethane (Methyl Bromide)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.38	0.50	U *	ANR	ANR	ANR	ANR
Butyl benzylphthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.33	0.96	U *	ND	0.33	0.96	U *
Cadmium	Composite	µg/L	E200.8	0.25	3.1	1/Year	1/Discharge	0.23	0.13	1.0	J (DNQ)	ND	0.13	1.0	U *
Cadmium	Composite	lbs/day	CALC	-	3.05	-	1/Discharge	0.000074	NA	NA	J (DNQ)	ND	NA	NA	U *
Cadmium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	0.13	1.0	U *	ND	0.13	1.0	U *
Carbon tetrachloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.20	0.50	U *	ANR	ANR	ANR	ANR
Chlordane	Composite	µg/L	E608.3	0.1	-	1/Year	1/Year	ND	0.50	0.50	U *	ND	0.50	0.50	U *
Chloride	Composite	mg/L	E300	-	150	-	1/Discharge	7.1	0.36	1.0	*	50	0.36	1.0	*
Chloride	Composite	lbs/day	CALC	-	147,405	-	1/Discharge	2.3	NA	NA	*	50	NA	NA	*
Chlorobenzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.14	0.50	U *	ANR	ANR	ANR	ANR
Chlorodibromomethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.13	0.50	U *	ANR	ANR	ANR	ANR
Chloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.36	1.0	U *	ANR	ANR	ANR	ANR
Chloroform	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.25	0.50	U *	ANR	ANR	ANR	ANR
Chloromethane (Methyl Chloride)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.23	0.50	U *	ANR	ANR	ANR	ANR
Chromium	Composite	µg/L	E200.8	0.5	16[q]	1/Year	1/Year	22	0.14	2.0	--	0.23	0.14	2.0	J (DNQ*)

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 001				Outfall 002 and Bell Creek Receiving Water (RSW-001)			
							LOCATION								
							DATE RANGE	02/14/2025 10:20[f] - 02/14/2025 11:00				02/07/2025 07:35 - 02/08/2025 08:30			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Chromium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	0.90	0.14	2.0	J (DNQ)	0.24	0.14	2.0	J (DNQ*)
Chromium III (Trivalent)	Composite	µg/L	E218.6	-	-	1/Year	1/Year	22	3.0	50	J (DNQ)	230	3.0	50	--
Chromium III (Trivalent), dissolved	Composite	µg/L	E218.6	-	-	-	Additional/Year	ND	3.0	50	U *	ND	3.0	50	U *
Chromium VI (Hexavalent)	Composite	µg/L	E218.6	-	16	1/Year	1/Year	0.15	0.051	0.20	J (DNQ*)	ND	0.051	0.20	U *
Chromium VI (Hexavalent)	Composite	lbs/day	CALC	-	15.72	-	1/Year	0.000048	NA	NA	J (DNQ*)	ND	NA	NA	U *
Chromium VI (Hexavalent), dissolved	Composite	µg/L	E218.6	-	-	-	Additional/Year	0.16	0.051	0.20	J (DNQ*)	ND	0.051	0.20	U *
Chronic Toxicity, Fathead Minnow	Composite	Pass or Fail and % Effect	EPA-821-R-02-013	-	Pass or % Effect <50	-	1st & 2nd rain event/year	SURVIVAL = PASS, % EFFECT= -1.69%	NM	NM	*	SURVIVAL = PASS, % EFFECT=0.00%	NM	NM	*
Chrysene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.054	0.19	U *	ND	0.054	0.19	U *
cis-1,2-Dichloroethene	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	0.24	0.50	U *	ND	0.24	0.50	U *
cis-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.14	0.50	U *	ANR	ANR	ANR	ANR
Cobalt	Composite	µg/L	E200.8	-	-	-	1/Year	8.4	0.14	1.0	--	0.29	0.14	1.0	J (DNQ*)
Cobalt, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	0.23	0.14	1.0	J (DNQ)	0.28	0.14	1.0	J (DNQ*)
Conductivity at 25 deg. C	Grab	µmhos/cm	SM2510	-	-	-	1/Discharge	250	1.0	1.0	*	1100	1.0	1.0	*
Copper	Composite	µg/L	E200.8	0.5	67.5	1/Year	1/Discharge	17	0.32	2.0	--	2.1	0.32	2.0	*
Copper	Composite	lbs/day	CALC	-	66.3	-	1/Discharge	0.0055	NA	NA	--	0.0019	NA	NA	*
Copper, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	2.4	0.32	2.0	--	1.6	0.32	2.0	J (DNQ*)
Cyanide	Composite	µg/L	KELADA-01	5	8.5	1/Year	1/Discharge	ND	2.7	5.0	U *	ND	2.7	5.0	U *
Cyanide	Composite	lbs/day	CALC	-	8.4	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Cyclohexane	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	0.80	2.0	U *	ND	0.80	2.0	U *
delta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year	ND	0.020	0.020	U *	ND	0.0095	0.025	U *
Detergents (as MBAS)	Composite	mg/L	SM5540	-	0.5	-	1/Discharge	ND	0.052	0.20	U *	0.064	0.052	0.20	J (DNQ*)
Detergents (as MBAS)	Composite	lbs/day	CALC	-	491.4	-	1/Discharge	ND	NA	NA	U *	0.059	NA	NA	J (DNQ*)
Dibenzo(a,h)anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.14	0.19	U *	ND	0.14	0.19	U *
Dieldrin	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.0017	0.005	U *	ND	0.0085	0.025	U *
Diethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ND	0.19	1.9	U *	ND	0.20	1.9	U *
Dimethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ND	1.6	1.9	U *	ND	1.6	1.9	U *
Di-n-butyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.68	1.9	U *	ND	0.68	1.9	U *
Di-n-octyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.072	2.9	U *	ND	0.072	2.9	U *
Dissolved Oxygen (Field)	Grab	mg/L	FIELDPARAM	-	-	-	1/Discharge	43.36	NM	NM	*	5.20	NM	NM	*
Endosulfan sulfate	Composite	µg/L	E608.3	0.05	-	1/Year	1/Year	ND	0.0029	0.005	U *	ND	0.014	0.025	U *
Endrin	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.004	0.005	U *	ND	0.020	0.025	U *
Endrin aldehyde	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.0039	0.005	U *	ND	0.020	0.025	U *
Ethylbenzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.090	0.50	U *	ANR	ANR	ANR	ANR
Flow**	Meas	mgd	FIELDPARAM	-	117.83	1/Quarter	1/Discharge	0.03852	NA	NA	*	0.11109	NA	NA	*
Fluoranthene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.053	0.19	U *	ND	0.053	0.19	U *
Fluorene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.057	0.19	U *	ND	0.057	0.19	U *
Fluoride	Composite	mg/L	E300	-	1.6	-	1/Year	0.14	0.046	0.10	*	0.39	0.046	0.10	*
Fluoride	Composite	lbs/day	CALC	-	1,572	-	1/Year	0.045	NA	NA	*	0.36	NA	NA	*
gamma-BHC (Lindane)	Composite	µg/L	E608.3	0.02	-	1/Year	1/Year	ND	0.0015	0.005	U *	ND	0.0075	0.025	U *
Hardness, Dissolved (as CaCO3)	Composite	mg/L	SM2340	-	-	-	Additional/Year	47	0.50	7.1	*	360	0.50	7.1	*
Hardness, Total (as CaCO3)	Composite	mg/L	SM2340	-	-	1/Quarter	1/Year	84	0.50	7.1	*	380	0.50	7.1	*
Heptachlor	Composite	µg/L	E608.3	0.01	0.00042	1/Year	1/Discharge	ND	0.010	0.010	U *	ND	0.012	0.025	U *
Heptachlor	Composite	lbs/day	CALC	-	0.00041	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Heptachlor epoxide	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.0018	0.005	U *	ND	0.009	0.025	U *
Hexachlorobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.067	0.19	U *	ND	0.067	0.19	U *
Hexachlorobutadiene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.11	0.19	U *	ND	0.11	0.19	U *
Hexachlorobutadiene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ND	0.22	0.50	U *	ANR	ANR	ANR	ANR
Hexachlorocyclopentadiene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.10	0.19	U *	ND	0.10	0.19	U *
Hexachloroethane	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.093	0.19	U *	ND	0.093	0.19	U *
Human Bacteroides	Grab	CEs/100mL	DHC qPCR	-	-	-	Additional/Year	ND	0	0	U *	ND	0	0	U *
Indeno(1,2,3-cd)pyrene (EUR)	Composite	µg/L	E625.1SIM	10	0.1	1/Year	Additional[(j)]	ANR	ANR	ANR	ANR	ND	0.13	0.19	U *
Indeno(1,2,3-cd)pyrene (EMAX)	Composite	µg/L	SW8270CSIM	10	0.1	1/Year	1/Discharge	ND	0.11	0.33	U *	ND	0.094	0.28	U *
Indeno(1,2,3-cd)pyrene (EUR)	Composite	lbs/day	CALC	-	0.1	-	Additional[(j)]	ANR	ANR	ANR	ANR	ND	NA	NA	U *
Indeno(1,2,3-cd)pyrene (EMAX)	Composite	lbs/day	CALC	-	0.1	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Iron	Composite	mg/L	E200.8	-	-	-	1/Year	21	0.0037	0.020	--	0.057	0.0037	0.020	*
Iron, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Year	0.75	0.0037	0.020	--	0.026	0.0037	0.020	*

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 001				Outfall 002 and Bell Creek Receiving Water (RSW-001)			
							LOCATION								
							DATE RANGE	02/14/2025 10:20[f] - 02/14/2025 11:00				02/07/2025 07:35 - 02/08/2025 08:30			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Isophorone	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.068	0.19	U *	ND	0.068	0.19	U *
Lead	Composite	µg/L	E200.8	0.5	5.2	1/Year	1/Discharge	13	0.12	1.0	--	ND	0.12	1.0	U *
Lead	Composite	lbs/day	CALC	-	5.1	-	1/Discharge	0.0042	NA	NA	--	ND	NA	NA	U *
Lead, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	0.34	0.12	1.0	J (DNQ)	ND	0.12	1.0	U *
Manganese	Composite	µg/L	E200.8	-	50	-	1/Year	400	0.41	1.0	--	37	0.41	1.0	*
Manganese	Composite	lbs/day	CALC	-	49.1	-	1/Year	0.1	NA	NA	--	0.034	NA	NA	*
Manganese, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	5.1	0.41	1.0	--	20	0.41	1.0	*
Mercury	Composite	µg/L	E1631E	0.5	0.1	1/Year	1/Discharge	0.034	0.0002	0.0005	J+ (Q)	0.0052	0.0002	0.0005	*
Mercury	Composite	lbs/day	CALC	-	0.1	-	1/Discharge	0.000011	NA	NA	J+ (Q)	0.0000048	NA	NA	*
Mercury, dissolved	Composite	µg/L	E1631E	-	-	-	Additional/Discharge	0.0059	0.0002	0.0005	*	0.0038	0.0002	0.0005	*
Monomethyl hydrazine	Composite	µg/L	SW8315	-	-	-	1/Discharge	ND	0.62	2.0	U *	ND	0.62	2.0	U *
Methylene chloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.63	2.0	U *	ANR	ANR	ANR	ANR
Naphthalene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.054	0.19	U *	ND	0.054	0.19	U *
Naphthalene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ND	0.17	1.0	U *	ANR	ANR	ANR	ANR
Nickel	Composite	µg/L	E200.8	1	94	1/Year	1/Year	15	0.17	2.0	--	1.2	0.17	2.0	J (DNQ*)
Nickel	Composite	lbs/day	CALC	-	92.4	-	1/Year	0.0048	NA	NA	--	0.0011	NA	NA	J (DNQ*)
Nickel, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	1.3	0.17	2.0	J (DNQ)	1.1	0.17	2.0	J (DNQ*)
Nitrate - N	Composite	mg/L	E300	-	8	-	1/Discharge	0.70	0.020	0.10	*	0.34	0.020	0.10	*
Nitrate - N	Composite	lbs/day	CALC	-	7,862	-	1/Discharge	0.2	NA	NA	*	0.32	NA	NA	*
Nitrate + Nitrite as Nitrogen (N)	Composite	mg/L	E300	-	8	-	1/Discharge	0.70	0.020	0.10	*	0.34	0.020	0.10	*
Nitrate + Nitrite as Nitrogen (N)	Composite	lbs/day	CALC	-	7,862	-	1/Discharge	0.2	NA	NA	*	0.32	NA	NA	*
Nitrite - N	Composite	mg/L	E300	-	1	-	1/Discharge	ND	0.091	0.10	U *	ND	0.091	0.10	U *
Nitrite - N	Composite	lbs/day	CALC	-	983	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Nitrobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.081	0.19	U *	ND	0.081	0.19	U *
N-Nitrosodimethylamine	Composite	µg/L	E625.1SIM	5	16	1/Year	1/Discharge	ND	0.088	0.19	U *	ND	0.088	0.19	U *
N-Nitrosodimethylamine	Composite	lbs/day	CALC	-	15.72	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
N-Nitroso-di-n-propylamine	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.057	0.19	U *	ND	0.058	0.19	U *
N-Nitrosodiphenylamine	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.030	0.19	U *	ND	0.030	0.19	U *
Oil & Grease	Grab	mg/L	E1664	-	15	-	1/Discharge	1.4	0.50	0.98	*	ND	0.51	1.0	U *
Oil & Grease	Grab	lbs/day	CALC	-	14,741	-	1/Discharge	0.45	NA	NA	*	ND	NA	NA	U *
Pentachlorophenol	Composite	µg/L	E625.1SIM	5	1	1/Year	1/Discharge	0.48	0.092	0.96	J (DNQ*)	ND	0.093	0.96	U *
Pentachlorophenol	Composite	lbs/day	CALC	-	0.98	-	1/Discharge	0.00015	NA	NA	J (DNQ*)	ND	NA	NA	U *
Perchlorate	Composite	µg/L	E314.0	-	6.0	-	1/Year	ND	4.5	10	U *	ND	1.8	4.0	U *
Perchlorate	Composite	lbs/day	CALC	-	5.9	-	1/Year	ND	NA	NA	U *	ND	NA	NA	U *
pH (Field)	Grab	s.u.	FIELDPARAM	-	6.5-8.5	1/Quarter	1/Discharge	7.18	NM	NM	*	7.08	NM	NM	*
Phenanthrene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.065	0.19	U *	ND	0.065	0.19	U *
Phenol	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.032	0.96	U *	ND	0.032	0.96	U *
Pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.064	0.19	U *	ND	0.064	0.19	U *
Selenium	Composite	µg/L	E200.8	2	8.2	1/Year	1/Discharge	1.6	0.52	2.0	J (DNQ)	ND	0.52	2.0	U *
Selenium	Composite	lbs/day	CALC	-	8.1	-	1/Discharge	0.00051	NA	NA	J (DNQ)	ND	NA	NA	U *
Selenium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	0.52	2.0	U *	ND	0.52	2.0	U *
Settleable solids	Grab	mL/L	SM2540F	-	-	-	1/Discharge	0.20	0.10	0.10	*	ND	0.10	0.10	U *
Silver	Composite	µg/L	E200.8	0.25	4.1	1/Year	1/Year	ND	0.23	1.0	U *	ND	0.23	1.0	U *
Silver	Composite	lbs/day	CALC	-	4.03	-	1/Year	ND	NA	NA	U *	ND	NA	NA	U *
Silver, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ND	0.23	1.0	U *	ND	0.23	1.0	U *
Sulfate	Composite	mg/L	E300	-	300	-	1/Discharge	26	0.18	1.0	*	270	1.8	10	*
Sulfate	Composite	lbs/day	CALC	-	294,810	-	1/Discharge	8.4	NA	NA	*	250	NA	NA	*
Temperature (Field)	Grab	Deg F	FIELDPARAM	-	80	1/Quarter	1/Discharge	52.1	NM	NM	*	54.1	NM	NM	*
Tetrachloroethene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.14	0.50	U *	ANR	ANR	ANR	ANR
Thallium	Composite	µg/L	E200.8	1	2.0	1/Year	1/Year	0.24	0.11	1.0	J (DNQ)	ND	0.11	1.0	U *
Thallium	Composite	lbs/day	CALC	-	1.97	-	1/Year	0.000077	NA	NA	J (DNQ)	ND	NA	NA	U *
Thallium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ND	0.11	1.0	U *	ND	0.11	1.0	U *
Toluene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.11	0.50	U *	ANR	ANR	ANR	ANR
Total Dissolved Solids	Composite	mg/L	SM2540C	-	950	-	1/Discharge	180	8.4	10	*	760	8.4	10	*
Total Dissolved Solids	Composite	lbs/day	CALC	-	933,565	-	1/Discharge	58	NA	NA	*	700	NA	NA	*
Total Organic Carbon	Composite	mg/L	SM5310D	-	-	-	1/Year	13	1.1	2.0	*	14	0.53	1.0	*
Total Residual Chlorine, Field	Grab	mg/L	FIELDPARAM	-	0.1	-	1/Year	0	NM	NM	*	0	NM	NM	*

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 001				Outfall 002 and Bell Creek Receiving Water (RSW-001)			
							LOCATION								
							DATE RANGE	02/14/2025 10:20[f] - 02/14/2025 11:00				02/07/2025 07:35 - 02/08/2025 08:30			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Total Residual Chlorine, Field	Grab	lbs/day	CALC	-	98.3	-	1/Year	0	NA	NA	*	0	NA	NA	*
Total Suspended Solids	Composite	mg/L	SM2540D	-	-	1/Year	1/Discharge	340	16	20	*	3.5	0.80	1.0	*
Toxaphene	Composite	µg/L	E608.3	0.5	-	1/Year	1/Year	ND	2.5	2.5	U *	ND	1.2	2.5	U *
trans-1,2-Dichloroethene	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.19	0.50	U *	ANR	ANR	ANR	ANR
trans-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.16	0.50	U *	ANR	ANR	ANR	ANR
Trichloroethene	Grab	µg/L	E624.1	2	5	1/Year	1/Discharge	ND	0.11	0.50	U *	ND	0.11	0.50	U *
Trichloroethene	Grab	lbs/day	CALC	-	4.9	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Turbidity	Composite	NTU	SM2130	-	-	-	1/Discharge	650	0.40	0.50	*	1.6	0.40	0.50	*
Vanadium	Composite	µg/L	E200.8	-	-	-	1/Year	38	0.17	2.0	--	1.4	0.17	2.0	J (DNQ*)
Vanadium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	2.5	0.17	2.0	--	1.4	0.17	2.0	J (DNQ*)
Vinyl chloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.16	0.50	U *	ANR	ANR	ANR	ANR
Zinc	Composite	µg/L	E200.8	1	159	1/Year	1/Discharge	76	2.8	20	--	3.2	2.8	20	J (DNQ*)
Zinc	Composite	lbs/day	CALC	-	156.25	-	1/Discharge	0.024	NA	NA	--	0.0030	NA	NA	J (DNQ*)
Zinc, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	2.8	2.8	20	J (DNQ)	2.9	2.8	20	J (DNQ*)

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 002 and Bell Creek Receiving Water (RSW-001)				Outfall 002			
							LOCATION								
							DATE RANGE	02/13/2025 07:00 - 02/14/2025 07:45				03/05/2025 10:15 - 03/06/2025 10:10			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
1,1,1-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.19	0.50	U *	ANR	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.15	0.50	U *	ANR	ANR	ANR	ANR
1,1,2-Trichloro-1,2,2-trifluoroethane	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	1.1	2.0	U *	ND	1.1	2.0	U *
1,1,2-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.20	0.50	U *	ANR	ANR	ANR	ANR
1,1-Dichloroethane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.23	0.50	U *	ANR	ANR	ANR	ANR
1,1-Dichloroethene	Grab	µg/L	E624.1	2	6.0	1/Year	1/Discharge	ND	0.19	0.50	U *	ND	0.19	0.50	U *
1,1-Dichloroethene	Grab	lbs/day	CALC	-	5.9	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
1,2,4-Trichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,2,4-Trichlorobenzene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ND	0.18	1.0	U *	ANR	ANR	ANR	ANR
1,2-Dichloro-1,1,2-trifluoroethane	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	0.78	2.0	U *	ND	0.78	2.0	U *
1,2-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,2-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.16	0.50	U *	ANR	ANR	ANR	ANR
1,2-Dichloroethane	Grab	µg/L	E624.1	2	0.5	1/Year	1/Discharge	ND	0.17	0.50	U *	ND	0.17	0.50	U *
1,2-Dichloroethane	Grab	lbs/day	CALC	-	0.49	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
1,2-Dichloropropane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.17	0.50	U *	ANR	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,3-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,3-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.13	0.50	U *	ANR	ANR	ANR	ANR
1,4-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,4-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.12	0.50	U *	ANR	ANR	ANR	ANR
1,4-Dioxane	Composite	µg/L	SW8260SIM	-	-	-	1/Discharge	ND	0.55	1.0	U *	ND	0.55	1.0	U *
2,4,6-Trichlorophenol	Composite	µg/L	E625.1SIM	10	13	1/Year	1/Discharge	ND	0.056	0.96	U *	ND	0.056	0.96	U *
2,4,6-Trichlorophenol	Composite	lbs/day	CALC	-	12.8	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
2,4-Dichlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2,4-Dimethylphenol	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2,4-Dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2,4-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	18	1/Year	1/Discharge	ND	0.12	0.19	U *	ND	0.12	0.19	U *
2,4-Dinitrotoluene	Composite	lbs/day	CALC	-	17.7	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
2,6-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Chloroethyl vinyl ether (EUR)	Grab	µg/L	E624.1	-	-	1/Year	Additional[(i)]	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Chloroethyl vinyl ether (WECC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Chloronaphthalene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Chlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Methyl-4,6-dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
3,3'-Dichlorobenzidine	Composite	µg/L	E625.1SIM	5	0.077	1/Year	1/Discharge	ND	0.53	4.8	U *	ND	0.52	4.8	U *
3,3'-Dichlorobenzidine	Composite	lbs/day	CALC	-	0.076	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
4,4'-DDD	Composite	µg/L	E608.3	0.05	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
4,4'-DDE	Composite	µg/L	E608.3	0.05	0.00059	1/Year	1/Discharge	ND	0.010	0.010	U *	ND	0.0018	0.005	U *
4,4'-DDE	Composite	lbs/day	CALC	-	0.00058	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
4,4'-DDT	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
4-Bromophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
4-Chloro-3-methylphenol	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
4-Chlorophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
4-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Acenaphthene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Acenaphthylene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Acrolein	Grab	µg/L	E624.1	5	-	1/Year	1/Year	ND	1.8	5.0	U *	ANR	ANR	ANR	ANR
Acrylonitrile	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.98	2.0	U *	ANR	ANR	ANR	ANR
Aldrin	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
alpha-BHC	Composite	µg/L	E608.3	0.01	0.03	1/Year	1/Discharge	ND	0.0024	0.005	U *	ND	0.0024	0.005	U *
alpha-BHC	Composite	lbs/day	CALC	-	0.03	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
alpha-Endosulfan	Composite	µg/L	E608.3	0.02	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Aluminum	Composite	mg/L	E200.8	-	1.0	-	1/Discharge	5.5	0.043	0.075	--	0.02	0.0086	0.015	*
Aluminum	Composite	lbs/day	CALC	-	983	-	1/Discharge	15	NA	NA	--	0.03	NA	NA	*
Aluminum, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Discharge	0.077	0.0086	0.015	--	ND	0.0086	0.015	U *
Ammonia - N	Composite	mg/L	E350.1	-	10.1	-	1/Discharge	ND	0.023	0.075	U *	ND	0.023	0.075	U *

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								LOCATION	Outfall 002 and Bell Creek Receiving Water (RSW-001)				Outfall 002			
								DATE RANGE	02/13/2025 07:00 - 02/14/2025 07:45				03/05/2025 10:15 - 03/06/2025 10:10			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY		RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Ammonia - N	Composite	lbs/day	CALC	-	9,925	-	1/Discharge		ND	NA	NA	U *	ND	NA	NA	U *
Anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Antimony	Composite	µg/L	E200.8	0.5	6.0	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Antimony	Composite	lbs/day	CALC	-	5.9	-	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Antimony, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Aroclor 1016	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Aroclor 1221	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Aroclor 1232	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Aroclor 1242	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Aroclor 1248	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Aroclor 1254	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Aroclor 1260	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Arsenic	Composite	µg/L	E200.8	2	10.0	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Arsenic	Composite	lbs/day	CALC	-	9.83	-	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Arsenic, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Barium	Composite	mg/L	E200.8	-	1.0	-	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Barium	Composite	lbs/day	CALC	-	983	-	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Barium, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Benzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.10	0.50	U *	ANR	ANR	ANR	ANR
Benzidine	Composite	µg/L	E625.1SIM	5	0.00054	1/Year	1/Discharge		ND	0.90	4.8	U *	ND	0.90	4.8	U *
Benzidine	Composite	lbs/day	CALC	-	0.00053	-	1/Discharge		ND	NA	NA	U *	ND	NA	NA	U *
Benzo(a)anthracene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Benzo(a)pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Benzo(b)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Benzo(g,h,i)perylene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Benzo(k)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Beryllium	Composite	µg/L	E200.8	0.5	4.0	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Beryllium	Composite	lbs/day	CALC	-	3.93	-	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Beryllium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
beta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
beta-Endosulfan	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C)	Composite	mg/L	SM5210B	-	30	-	1/Discharge		2.9	1.0	2.0	*	ND	1.0	2.0	U *
Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C)	Composite	lbs/day	CALC	-	29,481	-	1/Discharge		7.6	NA	NA	*	ND	NA	NA	U *
Bis (2-Chloroethoxy) Methane	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Bis (2-Chloroethyl) Ether	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Bis (2-Chloroisopropyl) Ether	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Bis (2-Ethylhexyl) Phthalate	Composite	µg/L	E625.1SIM	5	4	1/Year	1/Discharge		ND	1.0	4.8	U *	ND	1.0	4.8	U *
Bis (2-Ethylhexyl) Phthalate	Composite	lbs/day	CALC	-	3.93	-	1/Discharge		ND	NA	NA	U *	ND	NA	NA	U *
Boron	Composite	mg/L	E200.7	-	-	-	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Boron, dissolved	Composite	mg/L	E200.7	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Bromodichloromethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.13	0.50	U *	ANR	ANR	ANR	ANR
Bromoform	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.25	1.0	U *	ANR	ANR	ANR	ANR
Bromomethane (Methyl Bromide)	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.38	0.50	U *	ANR	ANR	ANR	ANR
Butyl benzylphthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Cadmium	Composite	µg/L	E200.8	0.25	3.1	1/Year	1/Discharge		ND	0.13	1.0	U *	ND	0.13	1.0	U *
Cadmium	Composite	lbs/day	CALC	-	3.05	-	1/Discharge		ND	NA	NA	U *	ND	NA	NA	U *
Cadmium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge		ND	0.13	1.0	U *	ND	0.13	1.0	U *
Carbon tetrachloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.20	0.50	U *	ANR	ANR	ANR	ANR
Chlordane	Composite	µg/L	E608.3	0.1	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chloride	Composite	mg/L	E300	-	150	-	1/Discharge		38	0.36	1.0	*	38	0.72	2.0	*
Chloride	Composite	lbs/day	CALC	-	147,405	-	1/Discharge		100	NA	NA	*	59	NA	NA	*
Chlorobenzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.14	0.50	U *	ANR	ANR	ANR	ANR
Chlorodibromomethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.13	0.50	U *	ANR	ANR	ANR	ANR
Chloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.36	1.0	U *	ANR	ANR	ANR	ANR
Chloroform	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.25	0.50	U *	ANR	ANR	ANR	ANR
Chloromethane (Methyl Chloride)	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.23	0.50	U *	ANR	ANR	ANR	ANR
Chromium	Composite	µg/L	E200.8	0.5	16[q]	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								LOCATION	Outfall 002 and Bell Creek Receiving Water (RSW-001)				Outfall 002			
								DATE RANGE	02/13/2025 07:00 - 02/14/2025 07:45				03/05/2025 10:15 - 03/06/2025 10:10			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY		RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Chromium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chromium III (Trivalent)	Composite	µg/L	E218.6	-	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chromium III (Trivalent), dissolved	Composite	µg/L	E218.6	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent)	Composite	µg/L	E218.6	-	16	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent)	Composite	lbs/day	CALC	-	15.72	-	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent), dissolved	Composite	µg/L	E218.6	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chronic Toxicity, Fathead Minnow	Composite	Pass or Fail and % Effect	EPA-821-R-02-013	-	Pass or % Effect <50	-	1st & 2nd rain event/year		SURVIVAL = PASS, % EFFECT=0.00%	NM	NM	*	ANR	ANR	ANR	ANR
Chrysene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
cis-1,2-Dichloroethene	Grab	µg/L	E624.1	-	-	-	1/Discharge		ND	0.24	0.50	U *	ND	0.24	0.50	U *
cis-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.14	0.50	U *	ANR	ANR	ANR	ANR
Cobalt	Composite	µg/L	E200.8	-	-	-	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Cobalt, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Conductivity at 25 deg. C	Grab	µmhos/cm	SM2510	-	-	-	1/Discharge		990	1.0	1.0	*	970	1.0	1.0	*
Copper	Composite	µg/L	E200.8	0.5	67.5	1/Year	1/Discharge		6.4	0.32	2.0	--	0.51	0.32	2.0	J (DNQ*)
Copper	Composite	lbs/day	CALC	-	66.3	-	1/Discharge		0.017	NA	NA	--	0.00079	NA	NA	J (DNQ*)
Copper, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge		1.0	0.32	2.0	J (DNQ)	0.75	0.32	2.0	J (DNQ*)
Cyanide	Composite	µg/L	KELADA-01	5	8.5	1/Year	1/Discharge		ND	2.7	5.0	U *	ND	2.7	5.0	U *
Cyanide	Composite	lbs/day	CALC	-	8.4	-	1/Discharge		ND	NA	NA	U *	ND	NA	NA	U *
Cyclohexane	Grab	µg/L	E624.1	-	-	-	1/Discharge		ND	0.80	2.0	U *	ND	0.80	2.0	U *
delta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Detergents (as MBAS)	Composite	mg/L	SM5540	-	0.5	-	1/Discharge		0.056	0.052	0.20	J (DNQ*)	ND	0.052	0.20	U *
Detergents (as MBAS)	Composite	lbs/day	CALC	-	491.4	-	1/Discharge		0.15	NA	NA	J (DNQ*)	ND	NA	NA	U *
Dibenzo(a,h)anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Dieldrin	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Diethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Dimethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Di-n-butyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Di-n-octyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Dissolved Oxygen (Field)	Grab	mg/L	FIELDPARAM	-	-	-	1/Discharge		11.44	NM	NM	*	50.00	NM	NM	*
Endosulfan sulfate	Composite	µg/L	E608.3	0.05	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Endrin	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Endrin aldehyde	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Ethylbenzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year		ND	0.090	0.50	U *	ANR	ANR	ANR	ANR
Flow**	Meas	mgd	FIELDPARAM	-	117.83	1/Quarter	1/Discharge		0.31617	NA	NA	*	0.18566	NA	NA	*
Fluoranthene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Fluorene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Fluoride	Composite	mg/L	E300	-	1.6	-	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Fluoride	Composite	lbs/day	CALC	-	1,572	-	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
gamma-BHC (Lindane)	Composite	µg/L	E608.3	0.02	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hardness, Dissolved (as CaCO3)	Composite	mg/L	SM2340	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hardness, Total (as CaCO3)	Composite	mg/L	SM2340	-	-	1/Quarter	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Heptachlor	Composite	µg/L	E608.3	0.01	0.00042	1/Year	1/Discharge		ND	0.005	0.005	U *	ND	0.0023	0.005	U *
Heptachlor	Composite	lbs/day	CALC	-	0.00041	-	1/Discharge		ND	NA	NA	U *	ND	NA	NA	U *
Heptachlor epoxide	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hexachlorobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hexachlorobutadiene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hexachlorobutadiene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year		ND	0.22	0.50	U *	ANR	ANR	ANR	ANR
Hexachlorocyclopentadiene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hexachloroethane	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Human Bacteroides	Grab	CEs/100mL	DHC qPCR	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene (EUR)	Composite	µg/L	E625.1SIM	10	0.1	1/Year	Additional[(j)]		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene (EMAX)	Composite	µg/L	SW8270CSIM	10	0.1	1/Year	1/Discharge		ND	0.11	0.33	U *	ND	0.11	0.33	U *
Indeno(1,2,3-cd)pyrene (EUR)	Composite	lbs/day	CALC	-	0.1	-	Additional[(j)]		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene (EMAX)	Composite	lbs/day	CALC	-	0.1	-	1/Discharge		ND	NA	NA	U *	ND	NA	NA	U *
Iron	Composite	mg/L	E200.8	-	-	-	1/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Iron, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Year		ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 002 and Bell Creek Receiving Water (RSW-001)				Outfall 002			
							LOCATION								
							DATE RANGE	02/13/2025 07:00 - 02/14/2025 07:45				03/05/2025 10:15 - 03/06/2025 10:10			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Isophorone	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Lead	Composite	µg/L	E200.8	0.5	5.2	1/Year	1/Discharge	4.2	0.12	1.0	--	ND	0.12	1.0	U *
Lead	Composite	lbs/day	CALC	-	5.1	-	1/Discharge	0.011	NA	NA	--	ND	NA	NA	U *
Lead, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	0.12	1.0	U *	ND	0.12	1.0	U *
Manganese	Composite	µg/L	E200.8	-	50	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Manganese	Composite	lbs/day	CALC	-	49.1	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Manganese, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Mercury	Composite	µg/L	E1631E	0.5	0.1	1/Year	1/Discharge	0.012	0.0002	0.0005	*	0.0016	0.0002	0.0005	*
Mercury	Composite	lbs/day	CALC	-	0.1	-	1/Discharge	0.000032	NA	NA	*	0.0000025	NA	NA	*
Mercury, dissolved	Composite	µg/L	E1631E	-	-	-	Additional/Discharge	0.0035	0.0002	0.0005	*	0.0013	0.0002	0.0005	*
Monomethyl hydrazine	Composite	µg/L	SW8315	-	-	-	1/Discharge	ND	0.62	2.0	U *	ND	0.62	2.0	U *
Methylene chloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.63	2.0	U *	ANR	ANR	ANR	ANR
Naphthalene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Naphthalene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ND	0.17	1.0	U *	ANR	ANR	ANR	ANR
Nickel	Composite	µg/L	E200.8	1	94	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Nickel	Composite	lbs/day	CALC	-	92.4	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Nickel, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Nitrate - N	Composite	mg/L	E300	-	8	-	1/Discharge	0.30	0.020	0.10	*	ND	0.039	0.20	U *
Nitrate - N	Composite	lbs/day	CALC	-	7,862	-	1/Discharge	0.8	NA	NA	*	ND	NA	NA	U *
Nitrate + Nitrite as Nitrogen (N)	Composite	mg/L	E300	-	8	-	1/Discharge	0.30	0.020	0.10	*	ND	0.039	0.20	U *
Nitrate + Nitrite as Nitrogen (N)	Composite	lbs/day	CALC	-	7,862	-	1/Discharge	0.8	NA	NA	*	ND	NA	NA	U *
Nitrite - N	Composite	mg/L	E300	-	1	-	1/Discharge	ND	0.091	0.10	U *	ND	0.18	0.20	U *
Nitrite - N	Composite	lbs/day	CALC	-	983	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Nitrobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
N-Nitrosodimethylamine	Composite	µg/L	E625.1SIM	5	16	1/Year	1/Discharge	ND	0.088	0.19	U *	ND	0.088	0.19	U *
N-Nitrosodimethylamine	Composite	lbs/day	CALC	-	15.72	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
N-Nitroso-di-n-propylamine	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
N-Nitrosodiphenylamine	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Oil & Grease	Grab	mg/L	E1664	-	15	-	1/Discharge	ND	0.50	0.97	U *	ND	0.50	0.98	U *
Oil & Grease	Grab	lbs/day	CALC	-	14,741	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Pentachlorophenol	Composite	µg/L	E625.1SIM	5	1	1/Year	1/Discharge	ND	0.093	0.96	U *	ND	0.092	0.96	U *
Pentachlorophenol	Composite	lbs/day	CALC	-	0.98	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Perchlorate	Composite	µg/L	E314.0	-	6.0	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Perchlorate	Composite	lbs/day	CALC	-	5.9	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
pH (Field)	Grab	s.u.	FIELDPARAM	-	6.5-8.5	1/Quarter	1/Discharge	7.04	NM	NM	*	8.31	NM	NM	*
Phenanthrene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Phenol	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Selenium	Composite	µg/L	E200.8	2	8.2	1/Year	1/Discharge	0.85	0.52	2.0	J (DNQ)	ND	0.52	2.0	U *
Selenium	Composite	lbs/day	CALC	-	8.1	-	1/Discharge	0.0022	NA	NA	J (DNQ)	ND	NA	NA	U *
Selenium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	0.52	2.0	U *	ND	0.52	2.0	U *
Settleable solids	Grab	mL/L	SM2540F	-	-	-	1/Discharge	ND	0.10	0.10	U *	ND	0.10	0.10	U *
Silver	Composite	µg/L	E200.8	0.25	4.1	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Silver	Composite	lbs/day	CALC	-	4.03	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Silver, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Sulfate	Composite	mg/L	E300	-	300	-	1/Discharge	190	1.8	10	*	210	1.8	10	*
Sulfate	Composite	lbs/day	CALC	-	294,810	-	1/Discharge	500	NA	NA	*	330	NA	NA	*
Temperature (Field)	Grab	Deg F	FIELDPARAM	-	80	1/Quarter	1/Discharge	50.9	NM	NM	*	52.8	NM	NM	*
Tetrachloroethene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.14	0.50	U *	ANR	ANR	ANR	ANR
Thallium	Composite	µg/L	E200.8	1	2.0	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Thallium	Composite	lbs/day	CALC	-	1.97	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Thallium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Toluene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.11	0.50	U *	ANR	ANR	ANR	ANR
Total Dissolved Solids	Composite	mg/L	SM2540C	-	950	-	1/Discharge	480	8.4	10	*	640	8.4	10	*
Total Dissolved Solids	Composite	lbs/day	CALC	-	933,565	-	1/Discharge	1,300	NA	NA	*	990	NA	NA	*
Total Organic Carbon	Composite	mg/L	SM5310D	-	-	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Total Residual Chlorine, Field	Grab	mg/L	FIELDPARAM	-	0.1	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

							LOCATION	Outfall 002 and Bell Creek Receiving Water (RSW-001)				Outfall 002			
							DATE RANGE	02/13/2025 07:00 - 02/14/2025 07:45				03/05/2025 10:15 - 03/06/2025 10:10			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Total Residual Chlorine, Field	Grab	lbs/day	CALC	-	98.3	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Total Suspended Solids	Composite	mg/L	SM2540D	-	-	1/Year	1/Discharge	ANR	ANR	ANR	ANR	1.9	0.80	1.0	*
Toxaphene	Composite	µg/L	E608.3	0.5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
trans-1,2-Dichloroethene	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.19	0.50	U *	ANR	ANR	ANR	ANR
trans-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.16	0.50	U *	ANR	ANR	ANR	ANR
Trichloroethene	Grab	µg/L	E624.1	2	5	1/Year	1/Discharge	ND	0.11	0.50	U *	ND	0.11	0.50	U *
Trichloroethene	Grab	lbs/day	CALC	-	4.9	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Turbidity	Composite	NTU	SM2130	-	-	-	1/Discharge	190	0.40	0.50	*	0.70	0.40	0.50	*
Vanadium	Composite	µg/L	E200.8	-	-	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Vanadium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Vinyl chloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.16	0.50	U *	ANR	ANR	ANR	ANR
Zinc	Composite	µg/L	E200.8	1	159	1/Year	1/Discharge	32	2.8	20	--	ND	2.8	20	U *
Zinc	Composite	lbs/day	CALC	-	156.25	-	1/Discharge	0.084	NA	NA	--	ND	NA	NA	U *
Zinc, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	2.8	20	U *	ND	2.8	20	U *

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 002				Outfall 002 and Bell Creek Receiving Water (RSW-001)			
							LOCATION								
							DATE RANGE	03/11/2025 10:40 - 03/12/2025 10:50				03/31/2025 07:25 - 04/01/2025 08:45			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
1,1,1-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,1,2-Trichloro-1,2,2-trifluoroethane	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	1.1	2.0	U *	ND	1.1	2.0	U *
1,1,2-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,1-Dichloroethane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,1-Dichloroethene	Grab	µg/L	E624.1	2	6.0	1/Year	1/Discharge	ND	0.19	0.50	U *	ND	0.19	0.50	U *
1,1-Dichloroethene	Grab	lbs/day	CALC	-	5.9	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
1,2,4-Trichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,2,4-Trichlorobenzene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,2-Dichloro-1,1,2-trifluoroethane	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	0.78	2.0	U *	ND	0.78	2.0	U *
1,2-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,2-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,2-Dichloroethane	Grab	µg/L	E624.1	2	0.5	1/Year	1/Discharge	ND	0.17	0.50	U *	ND	0.17	0.50	U *
1,2-Dichloroethane	Grab	lbs/day	CALC	-	0.49	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
1,2-Dichloropropane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,3-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,3-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,4-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,4-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
1,4-Dioxane	Composite	µg/L	SW8260SIM	-	-	-	1/Discharge	ND	0.55	1.0	U *	ND	0.55	1.0	U *
2,4,6-Trichlorophenol	Composite	µg/L	E625.1SIM	10	13	1/Year	1/Discharge	ND	0.056	0.95	U *	ND	0.063	1.1	U *
2,4,6-Trichlorophenol	Composite	lbs/day	CALC	-	12.8	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
2,4-Dichlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2,4-Dimethylphenol	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2,4-Dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2,4-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	18	1/Year	1/Discharge	ND	0.12	0.19	U *	ND	0.14	0.22	U *
2,4-Dinitrotoluene	Composite	lbs/day	CALC	-	17.7	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
2,6-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Chloroethyl vinyl ether (EUR)	Grab	µg/L	E624.1	-	-	1/Year	Additional[(i)]	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Chloroethyl vinyl ether (WECC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Chloronaphthalene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Chlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Methyl-4,6-dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
2-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
3,3'-Dichlorobenzidine	Composite	µg/L	E625.1SIM	5	0.077	1/Year	1/Discharge	ND	0.52	4.8	U *	ND	0.59	5.4	U *
3,3'-Dichlorobenzidine	Composite	lbs/day	CALC	-	0.076	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
4,4'-DDD	Composite	µg/L	E608.3	0.05	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
4,4'-DDE	Composite	µg/L	E608.3	0.05	0.00059	1/Year	1/Discharge	ND	0.0018	0.005	U *	ND	0.009	0.025	U *
4,4'-DDE	Composite	lbs/day	CALC	-	0.00058	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
4,4'-DDT	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
4-Bromophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
4-Chloro-3-methylphenol	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
4-Chlorophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
4-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Acenaphthene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Acenaphthylene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Acrolein	Grab	µg/L	E624.1	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Acrylonitrile	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Aldrin	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
alpha-BHC	Composite	µg/L	E608.3	0.01	0.03	1/Year	1/Discharge	ND	0.0024	0.005	U *	ND	0.012	0.025	U *
alpha-BHC	Composite	lbs/day	CALC	-	0.03	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
alpha-Endosulfan	Composite	µg/L	E608.3	0.02	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Aluminum	Composite	mg/L	E200.8	-	1.0	-	1/Discharge	0.013	0.0086	0.015	J (DNQ*)	ND	0.0086	0.015	U *
Aluminum	Composite	lbs/day	CALC	-	983	-	1/Discharge	0.017	NA	NA	J (DNQ*)	ND	NA	NA	U *
Aluminum, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Discharge	ND	0.0086	0.015	U *	ND	0.0086	0.015	U *
Ammonia - N	Composite	mg/L	E350.1	-	10.1	-	1/Discharge	ND	0.023	0.075	U *	ND	0.023	0.075	U *

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 002				Outfall 002 and Bell Creek Receiving Water (RSW-001)			
							LOCATION								
							DATE RANGE	03/11/2025 10:40 - 03/12/2025 10:50				03/31/2025 07:25 - 04/01/2025 08:45			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Ammonia - N	Composite	lbs/day	CALC	-	9,925	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Antimony	Composite	µg/L	E200.8	0.5	6.0	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Antimony	Composite	lbs/day	CALC	-	5.9	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Antimony, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Aroclor 1016	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ANR	ANR	ANR	ANR	ND	0.0005	0.5	U *
Aroclor 1221	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ANR	ANR	ANR	ANR	ND	0.0005	0.5	U *
Aroclor 1232	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ANR	ANR	ANR	ANR	ND	0.0005	0.5	U *
Aroclor 1242	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ANR	ANR	ANR	ANR	ND	0.0005	0.5	U *
Aroclor 1248	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ANR	ANR	ANR	ANR	ND	0.0005	0.5	U *
Aroclor 1254	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ANR	ANR	ANR	ANR	ND	0.0005	0.5	U *
Aroclor 1260	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ANR	ANR	ANR	ANR	ND	0.0005	0.5	U *
Arsenic	Composite	µg/L	E200.8	2	10.0	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Arsenic	Composite	lbs/day	CALC	-	9.83	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Arsenic, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Barium	Composite	mg/L	E200.8	-	1.0	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Barium	Composite	lbs/day	CALC	-	983	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Barium, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Benzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Benzidine	Composite	µg/L	E625.1SIM	5	0.00054	1/Year	1/Discharge	ND	0.89	4.8	U *	ND	1.0	5.4	U *
Benzidine	Composite	lbs/day	CALC	-	0.00053	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Benzo(a)anthracene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Benzo(a)pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Benzo(b)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Benzo(g,h,i)perylene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Benzo(k)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Beryllium	Composite	µg/L	E200.8	0.5	4.0	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Beryllium	Composite	lbs/day	CALC	-	3.93	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Beryllium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
beta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
beta-Endosulfan	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C)	Composite	mg/L	SM5210B	-	30	-	1/Discharge	1.3	1.0	2.0	J (DNQ*)	2.0	1.0	2.0	*
Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C)	Composite	lbs/day	CALC	-	29,481	-	1/Discharge	1.7	NA	NA	J (DNQ*)	3.0	NA	NA	*
Bis (2-Chloroethoxy) Methane	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Bis (2-Chloroethyl) Ether	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Bis (2-Chloroisopropyl) Ether	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Bis (2-Ethylhexyl) Phthalate	Composite	µg/L	E625.1SIM	5	4	1/Year	1/Discharge	ND	1.0	4.8	U *	ND	1.2	5.4	U *
Bis (2-Ethylhexyl) Phthalate	Composite	lbs/day	CALC	-	3.93	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Boron	Composite	mg/L	E200.7	-	-	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Boron, dissolved	Composite	mg/L	E200.7	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Bromodichloromethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Bromoform	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Bromomethane (Methyl Bromide)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Butyl benzylphthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Cadmium	Composite	µg/L	E200.8	0.25	3.1	1/Year	1/Discharge	ND	0.13	1.0	U *	ND	0.13	1.0	U *
Cadmium	Composite	lbs/day	CALC	-	3.05	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Cadmium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	0.13	1.0	U *	ND	0.13	1.0	U *
Carbon tetrachloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chlordane	Composite	µg/L	E608.3	0.1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chloride	Composite	mg/L	E300	-	150	-	1/Discharge	43	0.36	1.0	*	41	0.36	1.0	*
Chloride	Composite	lbs/day	CALC	-	147,405	-	1/Discharge	55	NA	NA	*	65	NA	NA	*
Chlorobenzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chlorodibromomethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chloroform	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chloromethane (Methyl Chloride)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chromium	Composite	µg/L	E200.8	0.5	16[(q)]	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR

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OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 002				Outfall 002 and Bell Creek Receiving Water (RSW-001)			
							LOCATION								
							DATE RANGE	03/11/2025 10:40 - 03/12/2025 10:50				03/31/2025 07:25 - 04/01/2025 08:45			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Chromium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chromium III (Trivalent)	Composite	µg/L	E218.6	-	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chromium III (Trivalent), dissolved	Composite	µg/L	E218.6	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent)	Composite	µg/L	E218.6	-	16	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent)	Composite	lbs/day	CALC	-	15.72	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent), dissolved	Composite	µg/L	E218.6	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chronic Toxicity, Fathead Minnow	Composite	Pass or Fail and % Effect	EPA-821-R-02-013	-	Pass or % Effect <50	-	1st & 2nd rain event/year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Chrysene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
cis-1,2-Dichloroethene	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	0.24	0.50	U *	ND	0.24	0.50	U *
cis-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Cobalt	Composite	µg/L	E200.8	-	-	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Cobalt, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Conductivity at 25 deg. C	Grab	µmhos/cm	SM2510	-	-	-	1/Discharge	930	1.0	1.0	*	920	1.0	1.0	*
Copper	Composite	µg/L	E200.8	0.5	67.5	1/Year	1/Discharge	0.74	0.32	2.0	J (DNQ*)	0.76	0.32	2.0	J (DNQ*)
Copper	Composite	lbs/day	CALC	-	66.3	-	1/Discharge	0.00094	NA	NA	J (DNQ*)	0.0012	NA	NA	J (DNQ*)
Copper, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	0.59	0.32	2.0	J (DNQ*)	0.53	0.32	2.0	J (DNQ*)
Cyanide	Composite	µg/L	KELADA-01	5	8.5	1/Year	1/Discharge	ND	2.7	5.0	U *	ND	2.7	5.0	U *
Cyanide	Composite	lbs/day	CALC	-	8.4	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Cyclohexane	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	0.80	2.0	U *	ND	0.80	2.0	U *
delta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Detergents (as MBAS)	Composite	mg/L	SM5540	-	0.5	-	1/Discharge	ND	0.052	0.20	U *	ND	0.052	0.20	U *
Detergents (as MBAS)	Composite	lbs/day	CALC	-	491.4	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Dibenzo(a,h)anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Dieldrin	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Diethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Dimethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Di-n-butyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Di-n-octyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Dissolved Oxygen (Field)	Grab	mg/L	FIELDPARAM	-	-	-	1/Discharge	7.64	NM	NM	*	7.17	NM	NM	*
Endosulfan sulfate	Composite	µg/L	E608.3	0.05	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Endrin	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Endrin aldehyde	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Ethylbenzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Flow**	Meas	mgd	FIELDPARAM	-	117.83	1/Quarter	1/Discharge	0.15273	NA	NA	*	0.19144	NA	NA	*
Fluoranthene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Fluorene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Fluoride	Composite	mg/L	E300	-	1.6	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Fluoride	Composite	lbs/day	CALC	-	1,572	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
gamma-BHC (Lindane)	Composite	µg/L	E608.3	0.02	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hardness, Dissolved (as CaCO3)	Composite	mg/L	SM2340	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	290	0.50	7.1	*
Hardness, Total (as CaCO3)	Composite	mg/L	SM2340	-	-	1/Quarter	1/Year	ANR	ANR	ANR	ANR	300	0.50	7.1	*
Heptachlor	Composite	µg/L	E608.3	0.01	0.00042	1/Year	1/Discharge	ND	0.0023	0.005	U *	ND	0.012	0.025	U *
Heptachlor	Composite	lbs/day	CALC	-	0.00041	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Heptachlor epoxide	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hexachlorobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hexachlorobutadiene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hexachlorobutadiene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hexachlorocyclopentadiene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Hexachloroethane	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Human Bacteroides	Grab	CEs/100mL	DHC qPCR	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene (EUR)	Composite	µg/L	E625.1SIM	10	0.1	1/Year	Additional[(j)]	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene (EMAX)	Composite	µg/L	SW8270CSIM	10	0.1	1/Year	1/Discharge	ND	0.10	0.31	U *	ND	0.12	0.35	U *
Indeno(1,2,3-cd)pyrene (EUR)	Composite	lbs/day	CALC	-	0.1	-	Additional[(j)]	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene (EMAX)	Composite	lbs/day	CALC	-	0.1	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Iron	Composite	mg/L	E200.8	-	-	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Iron, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR

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ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Isophorone	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Lead	Composite	µg/L	E200.8	0.5	5.2	1/Year	1/Discharge	ND	0.12	1.0	U *	0.12	0.12	1.0	J (DNQ*)
Lead	Composite	lbs/day	CALC	-	5.1	-	1/Discharge	ND	NA	NA	U *	0.00019	NA	NA	J (DNQ*)
Lead, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	0.12	1.0	U *	ND	0.12	1.0	U *
Manganese	Composite	µg/L	E200.8	-	50	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Manganese	Composite	lbs/day	CALC	-	49.1	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Manganese, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Mercury	Composite	µg/L	E1631E	0.5	0.1	1/Year	1/Discharge	0.0014	0.0002	0.0005	*	0.0013	0.0002	0.0005	*
Mercury	Composite	lbs/day	CALC	-	0.1	-	1/Discharge	0.0000018	NA	NA	*	0.0000021	NA	NA	*
Mercury, dissolved	Composite	µg/L	E1631E	-	-	-	Additional/Discharge	0.0013	0.0002	0.0005	*	0.0011	0.0002	0.0005	*
Monomethyl hydrazine	Composite	µg/L	SW8315	-	-	-	1/Discharge	ND	0.62	2.0	U *	ND	0.62	2.0	U *
Methylene chloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Naphthalene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Naphthalene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Nickel	Composite	µg/L	E200.8	1	94	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Nickel	Composite	lbs/day	CALC	-	92.4	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Nickel, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Nitrate - N	Composite	mg/L	E300	-	8	-	1/Discharge	ND	0.020	0.10	U *	ND	0.020	0.10	U *
Nitrate - N	Composite	lbs/day	CALC	-	7,862	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Nitrate + Nitrite as Nitrogen (N)	Composite	mg/L	E300	-	8	-	1/Discharge	ND	0.020	0.10	U *	ND	0.020	0.10	U *
Nitrate + Nitrite as Nitrogen (N)	Composite	lbs/day	CALC	-	7,862	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Nitrite - N	Composite	mg/L	E300	-	1	-	1/Discharge	ND	0.091	0.10	U *	ND	0.091	0.10	U *
Nitrite - N	Composite	lbs/day	CALC	-	983	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Nitrobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
N-Nitrosodimethylamine	Composite	µg/L	E625.1SIM	5	16	1/Year	1/Discharge	ND	0.087	0.19	U *	ND	0.099	0.22	U *
N-Nitrosodimethylamine	Composite	lbs/day	CALC	-	15.72	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
N-Nitroso-di-n-propylamine	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
N-Nitrosodiphenylamine	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Oil & Grease	Grab	mg/L	E1664	-	15	-	1/Discharge	ND	0.50	0.97	U *	ND	0.50	0.98	U *
Oil & Grease	Grab	lbs/day	CALC	-	14,741	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Pentachlorophenol	Composite	µg/L	E625.1SIM	5	1	1/Year	1/Discharge	ND	0.092	0.95	U *	ND	0.10	1.1	U *
Pentachlorophenol	Composite	lbs/day	CALC	-	0.98	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Perchlorate	Composite	µg/L	E314.0	-	6.0	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Perchlorate	Composite	lbs/day	CALC	-	5.9	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
pH (Field)	Grab	s.u.	FIELDPARAM	-	6.5-8.5	1/Quarter	1/Discharge	8.16	NM	NM	*	6.68	NM	NM	*
Phenanthrene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Phenol	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Selenium	Composite	µg/L	E200.8	2	8.2	1/Year	1/Discharge	ND	0.52	2.0	U *	ND	0.52	2.0	U *
Selenium	Composite	lbs/day	CALC	-	8.1	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Selenium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	0.52	2.0	U *	ND	0.52	2.0	U *
Settleable solids	Grab	mL/L	SM2540F	-	-	-	1/Discharge	ND	0.10	0.10	U *	ND	0.10	0.10	U *
Silver	Composite	µg/L	E200.8	0.25	4.1	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Silver	Composite	lbs/day	CALC	-	4.03	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Silver, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Sulfate	Composite	mg/L	E300	-	300	-	1/Discharge	230	0.92	5.0	*	200	1.8	10	*
Sulfate	Composite	lbs/day	CALC	-	294,810	-	1/Discharge	290	NA	NA	*	300	NA	NA	*
Temperature (Field)	Grab	Deg F	FIELDPARAM	-	80	1/Quarter	1/Discharge	49.2	NM	NM	*	56.4	NM	NM	*
Tetrachloroethene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Thallium	Composite	µg/L	E200.8	1	2.0	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Thallium	Composite	lbs/day	CALC	-	1.97	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Thallium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Toluene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Total Dissolved Solids	Composite	mg/L	SM2540C	-	950	-	1/Discharge	760	8.4	10	*	590	8.4	10	*
Total Dissolved Solids	Composite	lbs/day	CALC	-	933,565	-	1/Discharge	970	NA	NA	*	940	NA	NA	*
Total Organic Carbon	Composite	mg/L	SM5310D	-	-	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Total Residual Chlorine, Field	Grab	mg/L	FIELDPARAM	-	0.1	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 002				Outfall 002 and Bell Creek Receiving Water (RSW-001)			
							LOCATION								
							DATE RANGE	03/11/2025 10:40 - 03/12/2025 10:50				03/31/2025 07:25 - 04/01/2025 08:45			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Total Residual Chlorine, Field	Grab	lbs/day	CALC	-	98.3	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Total Suspended Solids	Composite	mg/L	SM2540D	-	-	1/Year	1/Discharge	1.1	0.80	1.0	*	0.90	0.80	1.0	J (DNQ*)
Toxaphene	Composite	µg/L	E608.3	0.5	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
trans-1,2-Dichloroethene	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
trans-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Trichloroethene	Grab	µg/L	E624.1	2	5	1/Year	1/Discharge	ND	0.11	0.50	U *	ND	0.11	0.50	U *
Trichloroethene	Grab	lbs/day	CALC	-	4.9	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Turbidity	Composite	NTU	SM2130	-	-	-	1/Discharge	0.40	0.40	0.50	J (DNQ*)	ND	0.40	0.50	U *
Vanadium	Composite	µg/L	E200.8	-	-	-	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Vanadium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Vinyl chloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Zinc	Composite	µg/L	E200.8	1	159	1/Year	1/Discharge	3.2	2.8	20	J (DNQ*)	ND	2.8	20	U *
Zinc	Composite	lbs/day	CALC	-	156.25	-	1/Discharge	0.0041	NA	NA	J (DNQ*)	ND	NA	NA	U *
Zinc, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	2.8	20	U *	ND	2.8	20	U *

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 018				Outfall 018			
							LOCATION								
							DATE RANGE	02/19/2025 14:20 - 02/21/2025 08:00				03/17/2025 13:10 - 03/18/2025 11:30			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
1,1,1-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.19	0.50	U *	ANR	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.15	0.50	U *	ANR	ANR	ANR	ANR
1,1,2-Trichloro-1,2,2-trifluoroethane	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	1.1	2.0	U *	ND	1.1	2.0	U *
1,1,2-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.20	0.50	U *	ANR	ANR	ANR	ANR
1,1-Dichloroethane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.23	0.50	U *	ANR	ANR	ANR	ANR
1,1-Dichloroethene	Grab	µg/L	E624.1	2	6.0	1/Year	1/Discharge	ND	0.19	0.50	U *	ND	0.19	0.50	U *
1,1-Dichloroethene	Grab	lbs/day	CALC	-	5.9	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
1,2,4-Trichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.080	0.19	U *	ANR	ANR	ANR	ANR
1,2,4-Trichlorobenzene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ND	0.18	1.0	U *	ANR	ANR	ANR	ANR
1,2-Dichloro-1,1,2-trifluoroethane	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	0.78	2.0	U *	ND	0.78	2.0	U *
1,2-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ND	0.075	0.19	U *	ANR	ANR	ANR	ANR
1,2-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.16	0.50	U *	ANR	ANR	ANR	ANR
1,2-Dichloroethane	Grab	µg/L	E624.1	2	0.5	1/Year	1/Discharge	ND	0.17	0.50	U *	ND	0.17	0.50	U *
1,2-Dichloroethane	Grab	lbs/day	CALC	-	0.49	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
1,2-Dichloropropane	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.17	0.50	U *	ANR	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.023	0.19	U *	ANR	ANR	ANR	ANR
1,3-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.077	0.19	U *	ANR	ANR	ANR	ANR
1,3-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.13	0.50	U *	ANR	ANR	ANR	ANR
1,4-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.074	0.19	U *	ANR	ANR	ANR	ANR
1,4-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.12	0.50	U *	ANR	ANR	ANR	ANR
1,4-Dioxane	Composite	µg/L	SW8260SIM	-	-	-	1/Discharge	ND	0.55	1.0	U *	ND	0.55	1.0	U *
2,4,6-Trichlorophenol	Composite	µg/L	E625.1SIM	10	13	1/Year	1/Discharge	ND	0.057	0.97	U *	ND	0.056	0.95	U *
2,4,6-Trichlorophenol	Composite	lbs/day	CALC	-	12.8	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
2,4-Dichlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.045	0.97	U *	ANR	ANR	ANR	ANR
2,4-Dimethylphenol	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ND	0.062	0.19	U *	ANR	ANR	ANR	ANR
2,4-Dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	2.5	4.8	U *	ANR	ANR	ANR	ANR
2,4-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	18	1/Year	1/Discharge	ND	0.12	0.19	U *	ND	0.12	0.19	U *
2,4-Dinitrotoluene	Composite	lbs/day	CALC	-	17.7	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
2,6-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.064	0.19	U *	ANR	ANR	ANR	ANR
2-Chloroethyl vinyl ether (EUR)	Grab	µg/L	E624.1	-	-	1/Year	Additional[(i)]	ND	0.92	2.0	U *	ANR	ANR	ANR	ANR
2-Chloroethyl vinyl ether (WECC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ND	0.59	5.0	U *	ANR	ANR	ANR	ANR
2-Chloronaphthalene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.064	0.19	U *	ANR	ANR	ANR	ANR
2-Chlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.056	0.19	U *	ANR	ANR	ANR	ANR
2-Methyl-4,6-dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	1.7	4.8	U *	ANR	ANR	ANR	ANR
2-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	1.4	4.8	U *	ANR	ANR	ANR	ANR
3,3'-Dichlorobenzidine	Composite	µg/L	E625.1SIM	5	0.077	1/Year	1/Discharge	ND	0.53	4.8	U *	ND	0.52	4.8	U *
3,3'-Dichlorobenzidine	Composite	lbs/day	CALC	-	0.076	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
4,4'-DDD	Composite	µg/L	E608.3	0.05	-	1/Year	1/Year	ND	0.014	0.025	U *	ANR	ANR	ANR	ANR
4,4'-DDE	Composite	µg/L	E608.3	0.05	0.00059	1/Year	1/Discharge	ND	0.009	0.025	U *	ND	0.009	0.025	U *
4,4'-DDE	Composite	lbs/day	CALC	-	0.00058	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
4,4'-DDT	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.014	0.025	U *	ANR	ANR	ANR	ANR
4-Bromophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.052	0.19	U *	ANR	ANR	ANR	ANR
4-Chloro-3-methylphenol	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.053	0.97	U *	ANR	ANR	ANR	ANR
4-Chlorophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.059	0.19	U *	ANR	ANR	ANR	ANR
4-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.76	4.8	U *	ANR	ANR	ANR	ANR
Acenaphthene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.063	0.19	U *	ANR	ANR	ANR	ANR
Acenaphthylene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.062	0.19	U *	ANR	ANR	ANR	ANR
Acrolein	Grab	µg/L	E624.1	5	-	1/Year	1/Year	ND	1.8	5.0	U *	ANR	ANR	ANR	ANR
Acrylonitrile	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.98	2.0	U *	ANR	ANR	ANR	ANR
Aldrin	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year	ND	0.015	0.025	U *	ANR	ANR	ANR	ANR
alpha-BHC	Composite	µg/L	E608.3	0.01	0.03	1/Year	1/Discharge	ND	0.012	0.025	U *	ND	0.012	0.025	U *
alpha-BHC	Composite	lbs/day	CALC	-	0.03	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
alpha-Endosulfan	Composite	µg/L	E608.3	0.02	-	1/Year	1/Year	ND	0.0095	0.025	U *	ANR	ANR	ANR	ANR
Aluminum	Composite	mg/L	E200.8	-	1.0	-	1/Discharge	0.054	0.0086	0.015	*	0.089	0.0086	0.015	*
Aluminum	Composite	lbs/day	CALC	-	983	-	1/Discharge	0.68	NA	NA	*	1.0	NA	NA	*
Aluminum, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Discharge	0.049	0.0086	0.015	*	0.063	0.0086	0.015	*
Ammonia - N	Composite	mg/L	E350.1	-	10.1	-	1/Discharge	0.049	0.023	0.075	J (DNQ*)	0.030	0.023	0.075	J (DNQ*)

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 018				Outfall 018			
							LOCATION								
							DATE RANGE	02/19/2025 14:20 - 02/21/2025 08:00				03/17/2025 13:10 - 03/18/2025 11:30			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Ammonia - N	Composite	lbs/day	CALC	-	9,925	-	1/Discharge	0.62	NA	NA	J (DNQ*)	0.3	NA	NA	J (DNQ*)
Anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.025	0.19	U *	ANR	ANR	ANR	ANR
Antimony	Composite	µg/L	E200.8	0.5	6.0	1/Year	1/Year	1.3	0.36	2.0	J (DNQ*)	ANR	ANR	ANR	ANR
Antimony	Composite	lbs/day	CALC	-	5.9	-	1/Year	0.016	NA	NA	J (DNQ*)	ANR	ANR	ANR	ANR
Antimony, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ND	0.36	2.0	U *	ANR	ANR	ANR	ANR
Aroclor 1016	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	0.50	0.50	U *	ANR	ANR	ANR	ANR
Aroclor 1221	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	0.50	0.50	U *	ANR	ANR	ANR	ANR
Aroclor 1232	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	0.50	0.50	U *	ANR	ANR	ANR	ANR
Aroclor 1242	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	0.50	0.50	U *	ANR	ANR	ANR	ANR
Aroclor 1248	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	0.50	0.50	U *	ANR	ANR	ANR	ANR
Aroclor 1254	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	0.50	0.50	U *	ANR	ANR	ANR	ANR
Aroclor 1260	Composite	µg/L	E608.3	0.5	-	1/Quarter	1/Year	ND	0.50	0.50	U *	ANR	ANR	ANR	ANR
Arsenic	Composite	µg/L	E200.8	2	10.0	1/Year	1/Year	0.22	0.16	1.0	J (DNQ*)	ANR	ANR	ANR	ANR
Arsenic	Composite	lbs/day	CALC	-	9.83	-	1/Year	0.0028	NA	NA	J (DNQ*)	ANR	ANR	ANR	ANR
Arsenic, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	0.21	0.16	1.0	J (DNQ*)	ANR	ANR	ANR	ANR
Barium	Composite	mg/L	E200.8	-	1.0	-	1/Year	0.024	0.00017	0.001	*	ANR	ANR	ANR	ANR
Barium	Composite	lbs/day	CALC	-	983	-	1/Year	0.30	NA	NA	*	ANR	ANR	ANR	ANR
Barium, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Year	0.022	0.00017	0.001	*	ANR	ANR	ANR	ANR
Benzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.10	0.50	U *	ANR	ANR	ANR	ANR
Benzidine	Composite	µg/L	E625.1SIM	5	0.00054	1/Year	1/Discharge	ND	0.90	4.8	U *	ND	0.89	4.8	U *
Benzidine	Composite	lbs/day	CALC	-	0.00053	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Benzo(a)anthracene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.057	0.19	U *	ANR	ANR	ANR	ANR
Benzo(a)pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.028	0.19	U *	ANR	ANR	ANR	ANR
Benzo(b)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.066	0.19	U *	ANR	ANR	ANR	ANR
Benzo(g,h,i)perylene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.058	0.19	U *	ANR	ANR	ANR	ANR
Benzo(k)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.066	0.19	U *	ANR	ANR	ANR	ANR
Beryllium	Composite	µg/L	E200.8	0.5	4.0	1/Year	1/Year	ND	0.26	0.50	U *	ANR	ANR	ANR	ANR
Beryllium	Composite	lbs/day	CALC	-	3.93	-	1/Year	ND	NA	NA	U *	ANR	ANR	ANR	ANR
Beryllium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ND	0.26	0.50	U *	ANR	ANR	ANR	ANR
beta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year	ND	0.0075	0.025	U *	ANR	ANR	ANR	ANR
beta-Endosulfan	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.0095	0.025	U *	ANR	ANR	ANR	ANR
Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C)	Composite	mg/L	SM5210B	-	30	-	1/Discharge	1.6	1.0	2.0	J (DNQ*)	1.1	1.0	2.0	J (DNQ*)
Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C)	Composite	lbs/day	CALC	-	29,481	-	1/Discharge	20	NA	NA	J (DNQ*)	12	NA	NA	J (DNQ*)
Bis (2-Chloroethoxy) Methane	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.068	0.19	U *	ANR	ANR	ANR	ANR
Bis (2-Chloroethyl) Ether	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.066	0.19	U *	ANR	ANR	ANR	ANR
Bis (2-Chloroisopropyl) Ether	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ND	0.084	0.19	U *	ANR	ANR	ANR	ANR
Bis (2-Ethylhexyl) Phthalate	Composite	µg/L	E625.1SIM	5	4	1/Year	1/Discharge	ND	1.0	4.8	U *	ND	1.0	4.8	U *
Bis (2-Ethylhexyl) Phthalate	Composite	lbs/day	CALC	-	3.93	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Boron	Composite	mg/L	E200.7	-	-	-	1/Year	0.039	0.0035	0.50	J (DNQ*)	ANR	ANR	ANR	ANR
Boron, dissolved	Composite	mg/L	E200.7	-	-	-	Additional/Year	0.037	0.0035	0.50	J (DNQ*)	ANR	ANR	ANR	ANR
Bromodichloromethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.13	0.50	U *	ANR	ANR	ANR	ANR
Bromoform	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.25	1.0	U *	ANR	ANR	ANR	ANR
Bromomethane (Methyl Bromide)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.38	0.50	U *	ANR	ANR	ANR	ANR
Butyl benzylphthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.34	0.97	U *	ANR	ANR	ANR	ANR
Cadmium	Composite	µg/L	E200.8	0.25	3.1	1/Year	1/Discharge	ND	0.13	1.0	U *	ND	0.13	1.0	U *
Cadmium	Composite	lbs/day	CALC	-	3.05	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Cadmium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	0.13	1.0	U *	ND	0.13	1.0	U *
Carbon tetrachloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.20	0.50	U *	ANR	ANR	ANR	ANR
Chlordane	Composite	µg/L	E608.3	0.1	-	1/Year	1/Year	ND	0.22	0.50	U *	ANR	ANR	ANR	ANR
Chloride	Composite	mg/L	E300	-	150	-	1/Discharge	8.9	0.36	1.0	*	13	0.36	1.0	*
Chloride	Composite	lbs/day	CALC	-	147,405	-	1/Discharge	110	NA	NA	*	150	NA	NA	*
Chlorobenzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.14	0.50	U *	ANR	ANR	ANR	ANR
Chlorodibromomethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.13	0.50	U *	ANR	ANR	ANR	ANR
Chloroethane	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.36	1.0	U *	ANR	ANR	ANR	ANR
Chloroform	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.25	0.50	U *	ANR	ANR	ANR	ANR
Chloromethane (Methyl Chloride)	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.23	0.50	U *	ANR	ANR	ANR	ANR
Chromium	Composite	µg/L	E200.8	0.5	16[(q)]	1/Year	1/Year	0.20	0.14	2.0	J (DNQ*)	ANR	ANR	ANR	ANR

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 018				Outfall 018			
							LOCATION								
							DATE RANGE	02/19/2025 14:20 - 02/21/2025 08:00				03/17/2025 13:10 - 03/18/2025 11:30			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Chromium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	0.17	0.14	2.0	J (DNQ*)	ANR	ANR	ANR	ANR
Chromium III (Trivalent)	Composite	µg/L	E218.6	-	-	1/Year	1/Year	ND	3.0	50	U *	ANR	ANR	ANR	ANR
Chromium III (Trivalent), dissolved	Composite	µg/L	E218.6	-	-	-	Additional/Year	ND	3.0	50	U *	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent)	Composite	µg/L	E218.6	-	16	1/Year	1/Year	0.14	0.051	0.20	J (DNQ*)	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent)	Composite	lbs/day	CALC	-	15.72	-	1/Year	0.0018	NA	NA	J (DNQ*)	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent), dissolved	Composite	µg/L	E218.6	-	-	-	Additional/Year	0.21	0.051	0.20	*	ANR	ANR	ANR	ANR
Chronic Toxicity, Fathead Minnow	Composite	Pass or Fail and % Effect	EPA-821-R-02-013	-	Pass or % Effect <50	-	1st & 2nd rain event/year	SURVIVAL = PASS, % EFFECT= 8.55%	NM	NM	*	SURVIVAL = PASS, % EFFECT=0.00%	NM	NM	*
Chrysene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.054	0.19	U *	ANR	ANR	ANR	ANR
cis-1,2-Dichloroethene	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	0.24	0.50	U *	ND	0.24	0.50	U *
cis-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.14	0.50	U *	ANR	ANR	ANR	ANR
Cobalt	Composite	µg/L	E200.8	-	-	-	1/Year	ND	0.14	1.0	U *	ANR	ANR	ANR	ANR
Cobalt, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ND	0.14	1.0	U *	ANR	ANR	ANR	ANR
Conductivity at 25 deg. C	Grab	µmhos/cm	SM2510	-	-	-	1/Discharge	400	1.0	1.0	*	590	1.0	1.0	*
Copper	Composite	µg/L	E200.8	0.5	67.5	1/Year	1/Discharge	1.6	0.32	2.0	J (DNQ*)	1.5	0.32	2.0	J (DNQ*)
Copper	Composite	lbs/day	CALC	-	66.3	-	1/Discharge	0.020	NA	NA	J (DNQ*)	0.017	NA	NA	J (DNQ*)
Copper, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	1.5	0.32	2.0	J (DNQ*)	1.2	0.32	2.0	J (DNQ*)
Cyanide	Composite	µg/L	KELADA-01	5	8.5	1/Year	1/Discharge	ND	2.7	5.0	U *	ND	2.7	5.0	U *
Cyanide	Composite	lbs/day	CALC	-	8.4	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Cyclohexane	Grab	µg/L	E624.1	-	-	-	1/Discharge	ND	0.80	2.0	U *	ND	0.80	2.0	U *
delta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	1/Year	ND	0.0095	0.025	U *	ANR	ANR	ANR	ANR
Detergents (as MBAS)	Composite	mg/L	SM5540	-	0.5	-	1/Discharge	ND	0.052	0.20	U *	0.090	0.052	0.20	J (DNQ*)
Detergents (as MBAS)	Composite	lbs/day	CALC	-	491.4	-	1/Discharge	ND	NA	NA	U *	1	NA	NA	J (DNQ*)
Dibenzo(a,h)anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.14	0.19	U *	ANR	ANR	ANR	ANR
Dieldrin	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.0085	0.025	U *	ANR	ANR	ANR	ANR
Diethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ND	0.20	1.9	U *	ANR	ANR	ANR	ANR
Dimethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	1/Year	ND	1.6	1.9	U *	ANR	ANR	ANR	ANR
Di-n-butyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.68	1.9	U *	ANR	ANR	ANR	ANR
Di-n-octyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.073	2.9	U *	ANR	ANR	ANR	ANR
Dissolved Oxygen (Field)	Grab	mg/L	FIELDPARAM	-	-	-	1/Discharge	13.57	NM	NM	*	16.34	NM	NM	*
Endosulfan sulfate	Composite	µg/L	E608.3	0.05	-	1/Year	1/Year	ND	0.014	0.025	U *	ANR	ANR	ANR	ANR
Endrin	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.020	0.025	U *	ANR	ANR	ANR	ANR
Endrin aldehyde	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.020	0.025	U *	ANR	ANR	ANR	ANR
Ethylbenzene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.090	0.50	U *	ANR	ANR	ANR	ANR
Flow**	Meas	mgd	FIELDPARAM	-	117.83	1/Quarter	1/Discharge	1.5056	NA	NA	*	1.358	NA	NA	*
Fluoranthene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.054	0.19	U *	ANR	ANR	ANR	ANR
Fluorene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.058	0.19	U *	ANR	ANR	ANR	ANR
Fluoride	Composite	mg/L	E300	-	1.6	-	1/Year	ND	0.046	0.10	U *	ANR	ANR	ANR	ANR
Fluoride	Composite	lbs/day	CALC	-	1,572	-	1/Year	ND	NA	NA	U *	ANR	ANR	ANR	ANR
gamma-BHC (Lindane)	Composite	µg/L	E608.3	0.02	-	1/Year	1/Year	ND	0.0075	0.025	U *	ANR	ANR	ANR	ANR
Hardness, Dissolved (as CaCO3)	Composite	mg/L	SM2340	-	-	-	Additional/Year	86	0.50	7.1	*	ANR	ANR	ANR	ANR
Hardness, Total (as CaCO3)	Composite	mg/L	SM2340	-	-	1/Quarter	1/Year	88	0.50	7.1	*	ANR	ANR	ANR	ANR
Heptachlor	Composite	µg/L	E608.3	0.01	0.00042	1/Year	1/Discharge	ND	0.012	0.025	U *	ND	0.012	0.025	U *
Heptachlor	Composite	lbs/day	CALC	-	0.00041	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Heptachlor epoxide	Composite	µg/L	E608.3	0.01	-	1/Year	1/Year	ND	0.009	0.025	U *	ANR	ANR	ANR	ANR
Hexachlorobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.067	0.19	U *	ANR	ANR	ANR	ANR
Hexachlorobutadiene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.11	0.19	U *	ANR	ANR	ANR	ANR
Hexachlorobutadiene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ND	0.22	0.50	U *	ANR	ANR	ANR	ANR
Hexachlorocyclopentadiene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.10	0.19	U *	ANR	ANR	ANR	ANR
Hexachloroethane	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.094	0.19	U *	ANR	ANR	ANR	ANR
Human Bacteroides	Grab	CEs/100mL	DHC qPCR	-	-	-	Additional/Year	ND	0	0	U *	ANR	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene (EUR)	Composite	µg/L	E625.1SIM	10	0.1	1/Year	Additional[(j)]	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene (EMAX)	Composite	µg/L	SW8270CSIM	10	0.1	1/Year	1/Discharge	ND	0.099	0.30	U *	ND	0.12	0.35	U *
Indeno(1,2,3-cd)pyrene (EUR)	Composite	lbs/day	CALC	-	0.1	-	Additional[(j)]	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene (EMAX)	Composite	lbs/day	CALC	-	0.1	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Iron	Composite	mg/L	E200.8	-	-	-	1/Year	0.0088	0.0037	0.020	J (DNQ*)	ANR	ANR	ANR	ANR
Iron, dissolved	Composite	mg/L	E200.8	-	-	-	Additional/Year	0.0058	0.0037	0.020	J (DNQ*)	ANR	ANR	ANR	ANR

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								Outfall 018				Outfall 018			
							LOCATION								
							DATE RANGE	02/19/2025 14:20 - 02/21/2025 08:00				03/17/2025 13:10 - 03/18/2025 11:30			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	RECEIVING WATER SAMPLE FREQUENCY	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Isophorone	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.068	0.19	U *	ANR	ANR	ANR	ANR
Lead	Composite	µg/L	E200.8	0.5	5.2	1/Year	1/Discharge	ND	0.12	1.0	U *	ND	0.12	1.0	U *
Lead	Composite	lbs/day	CALC	-	5.1	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Lead, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	0.12	1.0	U *	ND	0.12	1.0	U *
Manganese	Composite	µg/L	E200.8	-	50	-	1/Year	17	0.41	1.0	*	ANR	ANR	ANR	ANR
Manganese	Composite	lbs/day	CALC	-	49.1	-	1/Year	0.21	NA	NA	*	ANR	ANR	ANR	ANR
Manganese, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	16	0.41	1.0	*	ANR	ANR	ANR	ANR
Mercury	Composite	µg/L	E1631E	0.5	0.1	1/Year	1/Discharge	0.0026	0.0002	0.0005	*	0.0012	0.0002	0.0005	*
Mercury	Composite	lbs/day	CALC	-	0.1	-	1/Discharge	0.000033	NA	NA	*	0.000014	NA	NA	*
Mercury, dissolved	Composite	µg/L	E1631E	-	-	-	Additional/Discharge	0.0016	0.0002	0.0005	*	0.0023	0.0002	0.0005	*
Monomethyl hydrazine	Composite	µg/L	SW8315	-	-	-	1/Discharge	ND	0.62	2.0	U *	ND	0.62	2.0	U *
Methylene chloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.63	2.0	U *	ANR	ANR	ANR	ANR
Naphthalene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.054	0.19	U *	ANR	ANR	ANR	ANR
Naphthalene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	1/Year	ND	0.17	1.0	U *	ANR	ANR	ANR	ANR
Nickel	Composite	µg/L	E200.8	1	94	1/Year	1/Year	1.1	0.17	2.0	J (DNQ*)	ANR	ANR	ANR	ANR
Nickel	Composite	lbs/day	CALC	-	92.4	-	1/Year	0.014	NA	NA	J (DNQ*)	ANR	ANR	ANR	ANR
Nickel, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	0.84	0.17	2.0	J (DNQ*)	ANR	ANR	ANR	ANR
Nitrate - N	Composite	mg/L	E300	-	8	-	1/Discharge	1.6	0.020	0.10	*	0.097	0.020	0.10	J (DNQ*)
Nitrate - N	Composite	lbs/day	CALC	-	7,862	-	1/Discharge	20	NA	NA	*	1.1	NA	NA	J (DNQ*)
Nitrate + Nitrite as Nitrogen (N)	Composite	mg/L	E300	-	8	-	1/Discharge	1.6	0.020	0.10	*	0.097	0.020	0.10	J (DNQ*)
Nitrate + Nitrite as Nitrogen (N)	Composite	lbs/day	CALC	-	7,862	-	1/Discharge	20	NA	NA	*	1.1	NA	NA	J (DNQ*)
Nitrite - N	Composite	mg/L	E300	-	1	-	1/Discharge	ND	0.091	0.10	U *	ND	0.091	0.10	U *
Nitrite - N	Composite	lbs/day	CALC	-	983	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Nitrobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.082	0.19	U *	ANR	ANR	ANR	ANR
N-Nitrosodimethylamine	Composite	µg/L	E625.1SIM	5	16	1/Year	1/Discharge	ND	0.088	0.19	U *	ND	0.087	0.19	U *
N-Nitrosodimethylamine	Composite	lbs/day	CALC	-	15.72	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
N-Nitroso-di-n-propylamine	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.058	0.19	U *	ANR	ANR	ANR	ANR
N-Nitrosodiphenylamine	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.030	0.19	U *	ANR	ANR	ANR	ANR
Oil & Grease	Grab	mg/L	E1664	-	15	-	1/Discharge	ND	0.50	0.98	U *	ND	0.50	0.99	U *
Oil & Grease	Grab	lbs/day	CALC	-	14,741	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Pentachlorophenol	Composite	µg/L	E625.1SIM	5	1	1/Year	1/Discharge	0.45	0.093	0.97	J (DNQ*)	ND	0.092	0.95	U *
Pentachlorophenol	Composite	lbs/day	CALC	-	0.98	-	1/Discharge	0.0057	NA	NA	J (DNQ*)	ND	NA	NA	U *
Perchlorate	Composite	µg/L	E314.0	-	6.0	-	1/Year	ND	0.91	2.0	U *	ANR	ANR	ANR	ANR
Perchlorate	Composite	lbs/day	CALC	-	5.9	-	1/Year	ND	NA	NA	U *	ANR	ANR	ANR	ANR
pH (Field)	Grab	s.u.	FIELDPARAM	-	6.5-8.5	1/Quarter	1/Discharge	7.60	NM	NM	*	7.71	NM	NM	*
Phenanthrene	Composite	µg/L	E625.1SIM	5	-	1/Year	1/Year	ND	0.066	0.19	U *	ANR	ANR	ANR	ANR
Phenol	Composite	µg/L	E625.1SIM	1	-	1/Year	1/Year	ND	0.032	0.97	U *	ANR	ANR	ANR	ANR
Pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	1/Year	ND	0.065	0.19	U *	ANR	ANR	ANR	ANR
Selenium	Composite	µg/L	E200.8	2	8.2	1/Year	1/Discharge	ND	0.52	2.0	U *	ND	0.52	2.0	U *
Selenium	Composite	lbs/day	CALC	-	8.1	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Selenium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	0.52	2.0	U *	ND	0.52	2.0	U *
Settleable solids	Grab	mL/L	SM2540F	-	-	-	1/Discharge	ND	0.10	0.10	U *	ND	0.10	0.10	U *
Silver	Composite	µg/L	E200.8	0.25	4.1	1/Year	1/Year	ND	0.23	1.0	U *	ANR	ANR	ANR	ANR
Silver	Composite	lbs/day	CALC	-	4.03	-	1/Year	ND	NA	NA	U *	ANR	ANR	ANR	ANR
Silver, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	ND	0.23	1.0	U *	ANR	ANR	ANR	ANR
Sulfate	Composite	mg/L	E300	-	300	-	1/Discharge	140	0.37	2.0	*	160	0.37	2.0	*
Sulfate	Composite	lbs/day	CALC	-	294,810	-	1/Discharge	1,800	NA	NA	*	1,800	NA	NA	*
Temperature (Field)	Grab	Deg F	FIELDPARAM	-	80	1/Quarter	1/Discharge	76.7	NM	NM	*	61.7	NM	NM	*
Tetrachloroethene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.14	0.50	U *	ANR	ANR	ANR	ANR
Thallium	Composite	µg/L	E200.8	1	2.0	1/Year	1/Year	ND	0.11	1.0	U *	ANR	ANR	ANR	ANR
Thallium	Composite	lbs/day	CALC	-	1.97	-	1/Year	ND	NA	NA	U *	ANR	ANR	ANR	ANR
Thallium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	0.12	0.11	1.0	J (DNQ*)	ANR	ANR	ANR	ANR
Toluene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.11	0.50	U *	ANR	ANR	ANR	ANR
Total Dissolved Solids	Composite	mg/L	SM2540C	-	950	-	1/Discharge	250	8.4	10	*	310	8.4	10	*
Total Dissolved Solids	Composite	lbs/day	CALC	-	933,565	-	1/Discharge	3,100	NA	NA	*	3,500	NA	NA	*
Total Organic Carbon	Composite	mg/L	SM5310D	-	-	-	1/Year	6.0	1.1	2.0	*	ANR	ANR	ANR	ANR
Total Residual Chlorine, Field	Grab	mg/L	FIELDPARAM	-	0.1	-	1/Year	0	NM	NM	*	ANR	ANR	ANR	ANR

TABLE C-1.A
OUTFALLS 001, 002, AND 018
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

							LOCATION	**Outfall 018**				**Outfall 018**			
							DATE RANGE	**02/19/2025 14:20 - 02/21/2025 08:00**				**03/17/2025 13:10 - 03/18/2025 11:30**			
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**DAILY MAXIMUM LIMIT**	**RECEIVING WATER SAMPLE FREQUENCY**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
Total Residual Chlorine, Field	Grab	lbs/day	CALC	-	98.3	-	1/Year	0	NA	NA	*	ANR	ANR	ANR	ANR
Total Suspended Solids	Composite	mg/L	SM2540D	-	-	1/Year	1/Discharge	ND	0.80	1.0	U *	ND	0.80	1.0	U *
Toxaphene	Composite	µg/L	E608.3	0.5	-	1/Year	1/Year	ND	1.2	2.5	U *	ANR	ANR	ANR	ANR
trans-1,2-Dichloroethene	Grab	µg/L	E624.1	1	-	1/Year	1/Year	ND	0.19	0.50	U *	ANR	ANR	ANR	ANR
trans-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.16	0.50	U *	ANR	ANR	ANR	ANR
Trichloroethene	Grab	µg/L	E624.1	2	5	1/Year	1/Discharge	ND	0.11	0.50	U *	ND	0.11	0.50	U *
Trichloroethene	Grab	lbs/day	CALC	-	4.9	-	1/Discharge	ND	NA	NA	U *	ND	NA	NA	U *
Turbidity	Composite	NTU	SM2130	-	-	-	1/Discharge	ND	0.40	0.50	U *	ND	0.40	0.50	U *
Vanadium	Composite	µg/L	E200.8	-	-	-	1/Year	0.30	0.17	2.0	J (DNQ*)	ANR	ANR	ANR	ANR
Vanadium, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Year	0.30	0.17	2.0	J (DNQ*)	ANR	ANR	ANR	ANR
Vinyl chloride	Grab	µg/L	E624.1	2	-	1/Year	1/Year	ND	0.16	0.50	U *	ANR	ANR	ANR	ANR
Zinc	Composite	µg/L	E200.8	1	159	1/Year	1/Discharge	3.0	2.8	20	J (DNQ*)	ND	2.8	20	U *
Zinc	Composite	lbs/day	CALC	-	156.25	-	1/Discharge	0.040	NA	NA	J (DNQ*)	ND	NA	NA	U *
Zinc, dissolved	Composite	µg/L	E200.8	-	-	-	Additional/Discharge	ND	2.8	20	U *	ND	2.8	20	U *

TABLE C-1.B
OUTFALL 008
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION	Outfall 008			
						DATE RANGE	02/14/2025 09:20[f] - 02/14/2025 09:40			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
1,1,1-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.19	0.50	U *
1,1,2,2-Tetrachloroethane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.15	0.50	U *
1,1,2-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.20	0.50	U *
1,1-Dichloroethane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.23	0.50	U *
1,1-Dichloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.19	0.50	U *
1,2,4-Trichlorobenzene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.081	0.20	U *
1,2-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	2	-	1/Year	ND	0.076	0.20	U *
1,2-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
1,2-Dichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.17	0.50	U *
1,2-Dichloropropane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.17	0.50	U *
1,2-Diphenylhydrazine/Azobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.023	0.20	U *
1,3-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.078	0.20	U *
1,3-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
1,4-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.075	0.20	U *
1,4-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.12	0.50	U *
2,4,6-Trichlorophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.057	0.98	U *
2,4-Dichlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.045	0.98	U *
2,4-Dimethylphenol	Composite	µg/L	E625.1SIM	2	-	1/Year	ND	0.063	0.20	U *
2,4-Dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	3.1	2.5	4.9	J (DNQ*)
2,4-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.12	0.20	U *
2,6-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.065	0.20	U *
2-Chloroethyl vinyl ether (EUR)	Grab	µg/L	E624.1	-	-	Additional[i]	ND	0.92	2.0	U *
2-Chloroethyl vinyl ether (WECC)	Grab	µg/L	E624.1	-	-	1/Year	ND	3.0	25	U *
2-Chloronaphthalene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.065	0.20	U *
2-Chlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.057	0.20	U *
2-Methyl-4,6-dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	1.7	4.9	U *
2-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	1.4	4.9	U *
3,3'-Dichlorobenzidine	Composite	µg/L	E625.1SIM	5	0.077	1/Discharge	ND	0.53	4.9	U *
3,3'-Dichlorobenzidine	Composite	lbs/day	CALC	-	0.0046	1/Discharge	ND	NA	NA	U *
4,4'-DDD	Composite	µg/L	E608.3	0.05	-	1/Year	ND	0.0027	0.005	U *
4,4'-DDE	Composite	µg/L	E608.3	0.05	0.00059	1/Discharge	ND	0.0018	0.005	U *
4,4'-DDE	Composite	lbs/day	CALC	-	0.000035	1/Discharge	ND	NA	NA	U *
4,4'-DDT	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.010	0.010	U *
4-Bromophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.053	0.20	U *
4-Chloro-3-methylphenol	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.054	0.98	U *
4-Chlorophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.060	0.20	U *
4-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.77	4.9	U *
Acenaphthene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.064	0.20	U *
Acenaphthylene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.063	0.20	U *
Acrolein	Grab	µg/L	E624.1	5	-	1/Year	ND	1.8	5.0	U *
Acrylonitrile	Grab	µg/L	E624.1	2	-	1/Year	ND	0.98	2.0	U *
Aldrin	Composite	µg/L	E608.3	0.005	-	1/Year	ND	0.0031	0.005	U *
alpha-BHC	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.005	0.005	U *
alpha-Endosulfan	Composite	µg/L	E608.3	0.02	-	1/Year	ND	0.005	0.005	U *
Aluminum	Composite	mg/L	E200.8	-	1.0	1/Discharge	1.3	0.0086	0.015	--
Aluminum	Composite	lbs/day	CALC	-	60	1/Discharge	0.30	NA	NA	--
Aluminum, dissolved	Composite	mg/L	E200.8	-	-	Additional/Discharge	0.15	0.0086	0.015	--
Ammonia - N	Composite	mg/L	E350.1	-	10.1	1/Discharge	0.45	0.023	0.075	*
Ammonia - N	Composite	lbs/day	CALC	-	607.3	1/Discharge	0.11	NA	NA	*
Anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.025	0.20	U *
Antimony	Composite	µg/L	E200.8	0.5	6.0	1/Year	1.6	0.36	2.0	J (DNQ)
Antimony	Composite	lbs/day	CALC	-	0.36	1/Year	0.00037	NA	NA	J (DNQ)
Antimony, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	1.9	0.36	2.0	J (DNQ)
Aroclor 1016	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1221	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1232	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1242	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1248	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1254	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1260	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Arsenic	Composite	µg/L	E200.8	2	10	1/Discharge	1.3	0.16	1.0	--
Arsenic	Composite	lbs/day	CALC	-	0.6	1/Discharge	0.00030	NA	NA	--
Arsenic, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	0.94	0.16	1.0	J (DNQ)
Asbestos > 10 µm	Composite	MFL	EPA100.2	-	-	1/Year	ND	10.6	10.6	U *
Barium	Composite	mg/L	E200.8	-	-	1/Year	0.024	0.00017	0.001	--
Barium, dissolved	Composite	mg/L	E200.8	-	-	Additional/Year	0.014	0.00017	0.001	--
Benzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.10	0.50	U *
Benzidine	Composite	µg/L	E625.1SIM	5	0.00054	1/Discharge	ND	0.92	4.9	U *
Benzidine	Composite	lbs/day	CALC	-	0.000032	1/Discharge	ND	NA	NA	U *
Benzo(a)anthracene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.058	0.20	U *
Benzo(a)pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.028	0.20	U *
Benzo(b)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.067	0.20	U *
Benzo(g,h,i)perylene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.058	0.20	U *
Benzo(k)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.067	0.20	U *
Beryllium	Composite	µg/L	E200.8	0.5	-	1/Year	ND	0.26	0.50	U *
Beryllium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ND	0.26	0.50	U *
beta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	ND	0.0015	0.005	U *
beta-Endosulfan	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.0019	0.005	U *
Bis (2-Chloroethoxy) Methane	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.069	0.20	U *
Bis (2-Chloroethyl) Ether	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.067	0.20	U *
Bis (2-Chloroisopropyl) Ether	Composite	µg/L	E625.1SIM	2	-	1/Year	ND	0.085	0.20	U *
Bis (2-Ethylhexyl) Phthalate	Composite	µg/L	E625.1SIM	5	-	1/Discharge	ND	1.0	4.9	U *
Boron	Composite	mg/L	E200.7	-	1.0	1/Year	0.063	0.0035	0.50	J (DNQ)
Boron	Composite	lbs/day	CALC	-	60	1/Year	0.015	NA	NA	J (DNQ)
Boron, dissolved	Composite	mg/L	E200.7	-	-	Additional/Year	0.058	0.0035	0.50	J (DNQ)
Bromodichloromethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
Bromoform	Grab	µg/L	E624.1	2	-	1/Year	ND	0.25	1.0	U *
Bromomethane (Methyl Bromide)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.38	0.50	U *
Butyl benzylphthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.34	0.98	U *
Cadmium	Composite	µg/L	E200.8	0.25	3.1	1/Discharge	ND	0.13	1.0	U *
Cadmium	Composite	lbs/day	CALC	-	0.19	1/Discharge	ND	NA	NA	U *
Cadmium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	ND	0.13	1.0	U *
Carbon tetrachloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.20	0.50	U *
Chlordane	Composite	µg/L	E608.3	0.1	-	1/Year	ND	0.50	0.50	U *
Chloride	Composite	mg/L	CALC	-	150	1/Discharge	3.9	0.36	1.0	*
Chloride	Composite	lbs/day	E300	-	9,020	1/Discharge	0.91	NA	NA	*
Chlorobenzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Chlorodibromomethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
Chloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.36	1.0	U *
Chloroform	Grab	µg/L	E624.1	2	-	1/Year	ND	0.25	0.50	U *

TABLE C-1.B
OUTFALL 008
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION	**Outfall 008**			
						DATE RANGE	**02/14/2025 09:20[f] - 02/14/2025 09:40**			
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**DAILY MAXIMUM LIMIT**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
Chloromethane (Methyl Chloride)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.23	0.50	U *
Chlorpyrifos	Composite	µg/L	E525.2	-	-	1/Year	ND	0.004	0.010	U *
Chromium	Composite	µg/L	E200.8	0.5	-	1/Year	2.1	0.14	2.0	--
Chromium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	0.32	0.14	2.0	J (DNQ)
Chromium III (Trivalent)	Composite	µg/L	E218.6	-	-	1/Year	ND	3.0	50	U *
Chromium III (Trivalent), dissolved	Composite	µg/L	E218.6	-	-	Additional/Year	ND	3.0	50	U *
Chromium VI (Hexavalent)	Composite	µg/L	E218.6	-	-	1/Year	0.094	0.051	0.20	J (DNQ*)
Chromium VI (Hexavalent), dissolved	Composite	µg/L	E218.6	-	-	Additional/Year	0.18	0.051	0.20	J (DNQ*)
Chronic Toxicity, Fathead Minnow	Composite	Pass or Fail and % Effect	EPA-821-R-02-013	-	Pass or % Effect <50	1st & 2nd rain event/Year	SURVIVAL = PASS, % EFFECT = -1.69%	NM	NM	*
Chrysene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.055	0.20	U *
cis-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Cobalt	Composite	µg/L	E200.8	-	-	1/Year	0.99	0.14	1.0	J (DNQ)
Cobalt, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	0.21	0.14	1.0	J (DNQ)
Copper	Composite	µg/L	E200.8	0.5	67.5	1/Discharge	4.1	0.32	2.0	--
Copper	Composite	lbs/day	CALC	-	4.1	1/Discharge	0.00096	NA	NA	--
Copper, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	2.5	0.32	2.0	--
Cyanide	Composite	µg/L	KELADA-01	5	9.5	1/Discharge	ND	2.7	5.0	U *
Cyanide	Composite	lbs/day	CALC	-	0.57	1/Discharge	ND	NA	NA	U *
delta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	ND	0.005	0.005	U *
Detergents (as MBAS)	Composite	mg/L	SM5540	-	-	1/Discharge	0.11	0.052	0.20	J (DNQ*)
Diazinon	Composite	µg/L	E525.2	-	-	1/Year	ND	0.0034	0.010	U *
Dibenzo(a,h)anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.14	0.20	U *
Dieldrin	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.010	0.010	U *
Diethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	ND	0.20	2.0	U *
Dimethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	ND	1.6	2.0	U *
Di-n-butyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.69	2.0	U *
Di-n-octyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.074	2.9	U *
Dissolved Oxygen (Field)	Grab	mg/L	FIELDPARAM	-	-	1/Discharge	27.49	NM	NM	*
Endosulfan sulfate	Composite	µg/L	E608.3	0.05	-	1/Year	ND	0.0029	0.005	U *
Endrin	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.010	0.010	U *
Endrin aldehyde	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.0039	0.005	U *
Ethylbenzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.090	0.50	U *
Flow**	Meas	mgd	FIELDPARAM	-	7.21	1/Discharge	0.028	NA	NA	*
Fluoranthene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.054	0.20	U *
Fluorene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.058	0.20	U *
Fluoride	Composite	mg/L	CALC	-	1.6	1/Year	0.11	0.046	0.10	*
Fluoride	Composite	lbs/day	E300	-	96.2	1/Year	0.026	NA	NA	*
gamma-BHC (Lindane)	Composite	µg/L	E608.3	0.02	-	1/Year	ND	0.005	0.005	U *
Hardness, Dissolved (as CaCO3)	Composite	mg/L	SM2340	-	-	Additional/Year	35	0.50	7.1	*
Hardness, Total (as CaCO3)	Composite	mg/L	SM2340	-	-	1/Year	35	0.50	7.1	*
Heptachlor	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.005	0.005	U *
Heptachlor epoxide	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.005	0.005	U *
Hexachlorobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.068	0.20	U *
Hexachlorobutadiene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.11	0.20	U *
Hexachlorocyclopentadiene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.11	0.20	U *
Hexachloroethane	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.095	0.20	U *
Human Bacteroides	Grab	CEs/100mL	DHC qPCR	-	-	Additional/Year	ND	0	0	U *
Indeno(1,2,3-cd)pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.13	0.20	U *
Iron	Composite	mg/L	E200.8	-	-	1/Year	1.7	0.0037	0.020	--
Iron, dissolved	Composite	mg/L	E200.8	-	-	Additional/Year	0.14	0.0037	0.020	--
Isophorone	Composite	µg/L	E625.1SIM	1	-	1/Year	0.069	0.069	0.20	J (DNQ*)
Lead	Composite	µg/L	E200.8	0.5	5.2	1/Discharge	1.5	0.12	1.0	--
Lead	Composite	lbs/day	CALC	-	0.31	1/Discharge	0.00035	NA	NA	--
Lead, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	0.17	0.12	1.0	J (DNQ)
Manganese	Composite	µg/L	E200.8	-	-	1/Year	57	0.41	1.0	--
Manganese, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	4.8	0.41	1.0	--
Mercury	Composite	µg/L	E1631E	0.5	0.024	1/Discharge	0.021	0.0002	0.0005	*
Mercury	Composite	lbs/day	CALC	-	0.0014	1/Discharge	0.0000049	NA	NA	*
Mercury, dissolved	Composite	µg/L	E1631E	-	-	Additional/Discharge	0.013	0.0002	0.0005	*
Methylene chloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.63	2.0	U *
Naphthalene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.055	0.20	U *
Naphthalene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	ND	0.17	1.0	U *
Nickel	Composite	µg/L	E200.8	1	86	1/Year	2.5	0.17	2.0	--
Nickel	Composite	lbs/day	CALC	-	5.2	1/Year	0.00058	NA	NA	--
Nickel, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	1.2	0.17	2.0	J (DNQ)
Nitrate - N	Composite	mg/L	E300	-	8	1/Discharge	2.3	0.020	0.10	*
Nitrate - N	Composite	lbs/day	CALC	-	481	1/Discharge	0.54	NA	NA	*
Nitrate + Nitrite as Nitrogen (N)	Composite	mg/L	E300	-	8	1/Discharge	2.3	0.020	0.10	*
Nitrate + Nitrite as Nitrogen (N)	Composite	lbs/day	CALC	-	481	1/Discharge	0.54	NA	NA	*
Nitrite - N	Composite	mg/L	E300	-	1	1/Discharge	ND	0.091	0.10	U *
Nitrite - N	Composite	lbs/day	CALC	-	60	1/Discharge	ND	NA	NA	U *
Nitrobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.083	0.20	U *
N-Nitrosodimethylamine	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.089	0.20	U *
N-Nitroso-di-n-propylamine	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.059	0.20	U *
N-Nitrosodiphenylamine	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.030	0.20	U *
Oil & Grease	Grab	mg/L	E1664	-	15	1/Discharge	1.6	0.50	0.98	*
Oil & Grease	Grab	lbs/day	CALC	-	902	1/Discharge	0.37	NA	NA	*
Pentachlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Discharge	ND	0.094	0.98	U *
Perchlorate	Composite	µg/L	E314.0	-	6.0	1/Discharge	ND	4.5	10	U *
Perchlorate	Composite	lbs/day	CALC	-	0.36	1/Discharge	ND	NA	NA	U *
pH (Field)	Grab	s.u.	FIELDPARAM	-	6.5-8.5	1/Discharge	7.34	NM	NM	*
Phenanthrene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.067	0.20	U *
Phenol	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.033	0.98	U *
Pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.065	0.20	U *
Selenium	Composite	µg/L	E200.8	2	5	1/Year	0.56	0.52	2.0	J (DNQ)
Selenium	Composite	lbs/day	CALC	-	0.3	1/Year	0.00013	NA	NA	J (DNQ)
Selenium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ND	0.52	2.0	U *
Settleable solids	Grab	mL/L	SM2540F	-	-	1/Discharge	ND	0.10	0.10	U *
Silver	Composite	µg/L	E200.8	0.25	-	1/Year	ND	0.23	1.0	U *
Silver, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ND	0.23	1.0	U *
Sulfate	Composite	mg/L	E300	-	300	1/Discharge	3.1	0.18	1.0	*
Sulfate	Composite	lbs/day	CALC	-	18,039	1/Discharge	0.72	NA	NA	*
Temperature (Field)	Grab	Deg F	FIELDPARAM	-	80	1/Discharge	52.1	NM	NM	*
Tetrachloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Thallium	Composite	µg/L	E200.8	1	2.0	1/Year	ND	0.11	1.0	U *
Thallium	Composite	lbs/day	CALC	-	0.12	1/Year	ND	NA	NA	U *
Thallium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ND	0.11	1.0	U *
Toluene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.11	0.50	U *
Total Dissolved Solids	Composite	mg/L	SM2540C	-	950	1/Discharge	79	8.4	10	*

TABLE C-1.B
OUTFALL 008
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION	**Outfall 008**			
						DATE RANGE	**02/14/2025 09:20[f] - 02/14/2025 09:40**			
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**DAILY MAXIMUM LIMIT**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
Total Dissolved Solids	Composite	lbs/day	CALC	-	57,124	1/Discharge	18	NA	NA	*
Total Residual Chlorine, Field	Grab	mg/L	FIELDPARAM	-	-	1/Year	0	NM	NM	*
Total Suspended Solids	Composite	mg/L	SM2540D	-	-	1/Discharge	20	1.6	2.0	*
Toxaphene	Composite	µg/L	E608.3	0.5	-	1/Year	ND	2.5	2.5	U *
trans-1,2-Dichloroethene	Grab	µg/L	E624.1	1	-	1/Year	ND	0.19	0.50	U *
trans-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
Trichloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.11	0.50	U *
Vanadium	Composite	µg/L	E200.8	-	-	1/Year	4.1	0.17	2.0	--
Vanadium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	1.2	0.17	2.0	J (DNQ)
Vinyl chloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
Zinc	Composite	µg/L	E200.8	1	159	1/Discharge	16	2.8	20	J (DNQ)
Zinc	Composite	lbs/day	CALC	-	9.6	1/Discharge	0.0037	NA	NA	J (DNQ)
Zinc, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	7.4	2.8	20	J (DNQ)

TABLE C-1.C
OUTFALL 009
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION	Outfall 009			
						DATE RANGE	02/13/2025 14:10 - 02/15/2025 08:00			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
1,1,1-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.19	0.50	U *
1,1,2,2-Tetrachloroethane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.15	0.50	U *
1,1,2-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.20	0.50	U *
1,1-Dichloroethane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.23	0.50	U *
1,1-Dichloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.19	0.50	U *
1,2,4-Trichlorobenzene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.084	0.20	U *
1,2-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	2	-	1/Year	ND	0.079	0.20	U *
1,2-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
1,2-Dichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.17	0.50	U *
1,2-Dichloropropane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.17	0.50	U *
1,2-Diphenylhydrazine/Azobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.024	0.20	U *
1,3-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.081	0.20	U *
1,3-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
1,4-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.078	0.20	U *
1,4-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.12	0.50	U *
2,4,6-Trichlorophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.060	1.0	U *
2,4-Dichlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.047	1.0	U *
2,4-Dimethylphenol	Composite	µg/L	E625.1SIM	2	-	1/Year	ND	0.066	0.20	U *
2,4-Dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	2.6	5.1	U *
2,4-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.13	0.20	U *
2,6-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.068	0.20	U *
2-Chloroethyl vinyl ether (EUR)	Grab	µg/L	E624.1	-	-	Additional[(j)]	ND	0.92	2.0	U *
2-Chloroethyl vinyl ether (WECC)	Grab	µg/L	E624.1	-	-	1/Year	ND	3.0	25	U *
2-Chloronaphthalene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.068	0.20	U *
2-Chlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.059	0.20	U *
2-Methyl-4,6-dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	1.7	5.1	U *
2-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	1.5	5.1	U *
3,3'-Dichlorobenzidine	Composite	µg/L	E625.1SIM	5	-	1/Discharge	ND	0.56	5.1	U *
4,4'-DDD	Composite	µg/L	E608.3	0.05	-	1/Year	ND	0.0027	0.005	U *
4,4'-DDE	Composite	µg/L	E608.3	0.05	-	1/Year	ND	0.0018	0.005	U *
4,4'-DDT	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.0028	0.005	U *
4-Bromophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.055	0.20	U *
4-Chloro-3-methylphenol	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.056	1.0	U *
4-Chlorophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.063	0.20	U *
4-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.81	5.1	U *
Acenaphthene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.066	0.20	U *
Acenaphthylene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.066	0.20	U *
Acrolein	Grab	µg/L	E624.1	5	-	1/Year	ND	1.8	5.0	U *
Acrylonitrile	Grab	µg/L	E624.1	2	-	1/Year	ND	0.98	2.0	U *
Aldrin	Composite	µg/L	E608.3	0.005	-	1/Year	ND	0.0031	0.005	U *
alpha-BHC	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.0024	0.005	U *
alpha-Endosulfan	Composite	µg/L	E608.3	0.02	-	1/Year	ND	0.005	0.005	U *
Aluminum	Composite	mg/L	E200.8	-	1.0	1/Discharge	6.2	0.043	0.075	--
Aluminum	Composite	lbs/day	CALC	-	537	1/Discharge	41	NA	NA	--
Aluminum, dissolved	Composite	mg/L	E200.8	-	-	Additional/Discharge	0.53	0.0086	0.015	--
Ammonia - N	Composite	mg/L	E350.1	-	-	1/Discharge	ND	0.023	0.075	U *
Anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.026	0.20	U *
Antimony	Composite	µg/L	E200.8	0.5	6.0	1/Year	2.1	0.36	2.0	J- (Q)
Antimony	Composite	lbs/day	CALC	-	3.2	1/Year	0.014	NA	NA	J- (Q)
Antimony, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	2.3	0.36	2.0	--
Aroclor 1016	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1221	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1232	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1242	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1248	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1254	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Aroclor 1260	Composite	µg/L	E608.3	0.5	-	1/Year	ND	1.0	1.0	U *
Arsenic	Composite	µg/L	E200.8	2	-	1/Discharge	3.2	0.16	1.0	--
Arsenic, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	1.3	0.16	1.0	--
Asbestos > 10 µm	Composite	MFL	EPA100.2	-	-	1/Year	ND	21.2	21.2	U *
Barium	Composite	mg/L	E200.8	-	-	1/Year	0.071	0.00017	0.001	--
Barium, dissolved	Composite	mg/L	E200.8	-	-	Additional/Year	0.015	0.00017	0.001	*
Benzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.10	0.50	U *
Benzidine	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.95	5.1	U *
Benzo(a)anthracene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.060	0.20	U *
Benzo(a)pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.029	0.20	U *
Benzo(b)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.070	0.20	U *
Benzo(g,h,i)perylene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.061	0.20	U *
Benzo(k)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.070	0.20	U *
Beryllium	Composite	µg/L	E200.8	0.5	-	1/Year	0.55	0.26	0.50	--
Beryllium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ND	0.26	0.50	U *
beta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	ND	0.0015	0.005	U *
beta-Endosulfan	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.0019	0.005	U *
Bis (2-Chloroethoxy) Methane	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.072	0.20	U *
Bis (2-Chloroethyl) Ether	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.070	0.20	U *
Bis (2-Chloroisopropyl) Ether	Composite	µg/L	E625.1SIM	2	-	1/Year	ND	0.088	0.20	U *
Bis (2-Ethylhexyl) Phthalate	Composite	µg/L	E625.1SIM	5	4.0	1/Discharge	ND	1.1	5.1	U *
Bis (2-Ethylhexyl) Phthalate	Composite	lbs/day	CALC	-	2.1	1/Discharge	ND	NA	NA	U *
Boron	Composite	mg/L	E200.7	-	1.0	1/Year	0.030	0.0035	0.50	J (DNQ)
Boron	Composite	lbs/day	CALC	-	537	1/Year	0.2	NA	NA	J (DNQ)
Boron, dissolved	Composite	mg/L	E200.7	-	-	Additional/Year	0.028	0.0035	0.50	J (DNQ)
Bromodichloromethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
Bromoform	Grab	µg/L	E624.1	2	-	1/Year	ND	0.25	1.0	U *
Bromomethane (Methyl Bromide)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.38	0.50	U *
Butyl benzylphthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.35	1.0	U *
Cadmium	Composite	µg/L	E200.8	0.25	4.0	1/Discharge	0.17	0.13	1.0	J (DNQ)
Cadmium	Composite	lbs/day	CALC	-	2.1	1/Discharge	0.0011	NA	NA	J (DNQ)
Cadmium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	ND	0.13	1.0	U *
Carbon tetrachloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.20	0.50	U *
Chlordane	Composite	µg/L	E608.3	0.1	-	1/Year	ND	0.50	0.50	U *
Chloride	Composite	mg/L	E300	-	150	1/Discharge	3.8	0.72	2.0	*
Chloride	Composite	lbs/day	CALC	-	80,477	1/Discharge	25	NA	NA	*
Chlorobenzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Chlorodibromomethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
Chloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.36	1.0	U *
Chloroform	Grab	µg/L	E624.1	2	-	1/Year	ND	0.25	0.50	U *
Chloromethane (Methyl Chloride)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.23	0.50	U *
Chlorpyrifos	Composite	µg/L	E525.2	-	-	1/Year	ND	0.004	0.010	U *
Chromium	Composite	µg/L	E200.8	0.5	-	1/Year	9.2	0.14	2.0	--

TABLE C-1.C
OUTFALL 009
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION	**Outfall 009**			
						DATE RANGE	**02/13/2025 14:10 - 02/15/2025 08:00**			
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**DAILY MAXIMUM LIMIT**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
Chromium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	0.61	0.14	2.0	J (DNQ)
Chromium III (Trivalent)	Composite	µg/L	E218.6	-	-	1/Year	9.1	3.0	50	J (DNQ*)
Chromium III (Trivalent), dissolved	Composite	µg/L	E218.6	-	-	Additional/Year	ND	3.0	50	U *
Chromium VI (Hexavalent)	Composite	µg/L	E218.6	-	-	1/Year	0.092	0.051	0.20	J (DNQ*)
Chromium VI (Hexavalent), dissolved	Composite	µg/L	E218.6	-	-	Additional/Year	0.099	0.051	0.20	J (DNQ*)
Chronic Toxicity, Fathead Minnow	Composite	Pass or Fail and % Effect	EPA-821-R-02-013	-	Pass or % Effect <50	1st & 2nd rain event/Year	SURVIVAL = PASS, % EFFECT=0.00%	NM	NM	*
Chrysene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.057	0.20	U *
cis-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Cobalt	Composite	µg/L	E200.8	-	-	1/Year	3.3	0.14	1.0	--
Cobalt, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	0.19	0.14	1.0	J (DNQ*)
Copper	Composite	µg/L	E200.8	0.5	31	1/Discharge	8.3	0.32	2.0	--
Copper	Composite	lbs/day	CALC	-	16.6	1/Discharge	0.055	NA	NA	--
Copper, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	2.6	0.32	2.0	--
Cyanide	Composite	µg/L	KELADA-01	5	9.5	1/Discharge	ND	2.7	5.0	U *
Cyanide	Composite	lbs/day	CALC	-	5.1	1/Discharge	ND	NA	NA	U *
delta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	ND	0.005	0.005	U *
Detergents (as MBAS)	Composite	mg/L	SM5540	-	-	1/Discharge	ND	0.052	0.20	U *
Diazinon	Composite	µg/L	E525.2	-	-	1/Year	ND	0.0034	0.010	U *
Dibenzo(a,h)anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.14	0.20	U *
Dieldrin	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.0017	0.005	U *
Diethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	ND	0.21	2.0	U *
Dimethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	ND	1.7	2.0	U *
Di-n-butyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.72	2.0	U *
Di-n-octyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.077	3.1	U *
Dissolved Oxygen (Field)	Grab	mg/L	FIELDPARAM	-	-	1/Discharge	48.3	NM	NM	*
Endosulfan sulfate	Composite	µg/L	E608.3	0.05	-	1/Year	ND	0.0029	0.005	U *
Endrin	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.004	0.005	U *
Endrin aldehyde	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.0039	0.005	U *
Ethylbenzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.090	0.50	U *
Flow**	Meas	mgd	FIELDPARAM	-	64.33	1/Discharge	0.7932	NA	NA	*
Fluoranthene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.057	0.20	U *
Fluorene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.061	0.20	U *
Fluoride	Composite	mg/L	E300	-	1.6	1/Year	ND	0.092	0.20	U *
Fluoride	Composite	lbs/day	CALC	-	858	1/Year	ND	NA	NA	U *
gamma-BHC (Lindane)	Composite	µg/L	E608.3	0.02	-	1/Year	ND	0.0015	0.005	U *
Hardness, Dissolved (as CaCO3)	Composite	mg/L	SM2340	-	-	Additional/Year	26	0.50	7.1	*
Hardness, Total (as CaCO3)	Composite	mg/L	SM2340	-	-	1/Year	45	0.42	2.0	*
Heptachlor	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.005	0.005	U *
Heptachlor epoxide	Composite	µg/L	E608.3	0.01	-	1/Year	ND	0.0018	0.005	U *
Hexachlorobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.071	0.20	U *
Hexachlorobutadiene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.11	0.20	U *
Hexachlorocyclopentadiene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.11	0.20	U *
Hexachloroethane	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.099	0.20	U *
Human Bacteroides	Grab	CEs/100mL	DHC qPCR	-	-	Additional/Year	1,096	NM	NM	*
Indeno(1,2,3-cd)pyrene	Composite	µg/L	SW8270CSIM	10	-	1/Year	ND	0.11	0.32	U *
Iron	Composite	mg/L	E200.8	-	-	1/Year	7.9	0.0037	0.020	--
Iron, dissolved	Composite	mg/L	E200.8	-	-	Additional/Year	0.38	0.0037	0.020	--
Isophorone	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.072	0.20	U *
Lead	Composite	µg/L	E200.8	0.5	5.2	1/Discharge	22	0.12	1.0	--
Lead	Composite	lbs/day	CALC	-	2.8	1/Discharge	0.15	NA	NA	--
Lead, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	1.3	0.12	1.0	--
Manganese	Composite	µg/L	E200.8	-	-	1/Year	150	0.41	1.0	--
Manganese, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	4.3	0.41	1.0	*
Mercury	Composite	µg/L	E1631E	0.5	0.024	1/Discharge	0.032	0.0002	0.0005	--
Mercury	Composite	lbs/day	CALC	-	0.013	1/Discharge	0.00021	NA	NA	--
Mercury, dissolved	Composite	µg/L	E1631E	-	-	Additional/Discharge	0.0084	0.0002	0.0005	*
Methylene chloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.63	2.0	U *
Naphthalene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.057	0.20	U *
Naphthalene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	ND	0.17	1.0	U *
Nickel	Composite	µg/L	E200.8	1	100	1/Year	6.7	0.17	2.0	--
Nickel	Composite	lbs/day	CALC	-	53.7	1/Year	0.044	NA	NA	--
Nickel, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	2.3	0.17	2.0	--
Nitrate - N	Composite	mg/L	E300	-	-	1/Discharge	1.4	0.039	0.20	*
Nitrate + Nitrite as Nitrogen (N)	Composite	mg/L	E300	-	10	1/Discharge	1.4	0.020	0.10	*
Nitrate + Nitrite as Nitrogen (N)	Composite	lbs/day	CALC	-	5,365	1/Discharge	9.3	NA	NA	*
Nitrite - N	Composite	mg/L	E300	-	-	1/Discharge	ND	0.18	0.20	U *
Nitrobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.086	0.20	U *
N-Nitrosodimethylamine	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.093	0.20	U *
N-Nitroso-di-n-propylamine	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.061	0.20	U *
N-Nitrosodiphenylamine	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.031	0.20	U *
Oil & Grease	Grab	mg/L	E1664	-	15	1/Discharge	1.3	0.50	0.97	*
Oil & Grease	Grab	lbs/day	CALC	-	8,048	1/Discharge	8.6	NA	NA	*
Pentachlorophenol	Composite	µg/L	E625.1SIM	5	1.0	1/Discharge	0.50	0.098	1.0	J (DNQ*)
Pentachlorophenol	Composite	lbs/day	CALC	-	0.54	1/Discharge	0.0030	NA	NA	J (DNQ*)
Perchlorate	Composite	µg/L	E314.0	-	6.0	1/Discharge	ND	4.5	10	U *
Perchlorate	Composite	lbs/day	CALC	-	3.22	1/Discharge	ND	NA	NA	U *
pH (Field)	Grab	s.u.	FIELDPARAM	-	6.5-8.5	1/Discharge	7.80	NM	NM	*
Phenanthrene	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.069	0.20	U *
Phenol	Composite	µg/L	E625.1SIM	1	-	1/Year	ND	0.034	1.0	U *
Pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	ND	0.068	0.20	U *
Selenium	Composite	µg/L	E200.8	2	-	1/Year	0.61	0.52	2.0	J (DNQ)
Selenium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	0.53	0.52	2.0	J (DNQ)
Settleable solids	Grab	mL/L	SM2540F	-	-	1/Discharge	0.20	0.10	0.10	*
Silver	Composite	µg/L	E200.8	0.25	-	1/Year	0.46	0.23	1.0	J (DNQ)
Silver, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ND	0.23	1.0	U *
Sulfate	Composite	mg/L	E300	-	250	1/Discharge	6.2	0.37	2.0	*
Sulfate	Composite	lbs/day	CALC	-	134,128	1/Discharge	41	NA	NA	*
Temperature (Field)	Grab	Deg F	FIELDPARAM	-	80	1/Discharge	53.1	NM	NM	*
Tetrachloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Thallium	Composite	µg/L	E200.8	1	2	1/Year	0.12	0.11	1.0	J (DNQ)
Thallium	Composite	lbs/day	CALC	-	1.1	1/Year	0.00079	NA	NA	J (DNQ)
Thallium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ND	0.11	1.0	U *
Toluene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.11	0.50	U *
Total Dissolved Solids	Composite	mg/L	SM2540C	-	850	1/Discharge	120	8.4	10	*
Total Dissolved Solids	Composite	lbs/day	CALC	-	456,034	1/Discharge	790	NA	NA	*
Total Residual Chlorine, Field	Grab	mg/L	FIELDPARAM	-	-	1/Year	0	NM	NM	*
Total Suspended Solids	Composite	mg/L	SM2540D	-	-	1/Discharge	130	3.2	4.0	*
Toxaphene	Composite	µg/L	E608.3	0.5	-	1/Year	ND	2.5	2.5	U *

TABLE C-1.C
OUTFALL 009
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION	**Outfall 009**			
						DATE RANGE	**02/13/2025 14:10 - 02/15/2025 08:00**			
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**DAILY MAXIMUM LIMIT**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
trans-1,2-Dichloroethene	Grab	µg/L	E624.1	1	-	1/Year	ND	0.19	0.50	U *
trans-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
Trichloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.11	0.50	U *
Vanadium	Composite	µg/L	E200.8	-	-	1/Year	16	0.17	2.0	--
Vanadium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	1.8	0.17	2.0	J (DNQ)
Vinyl chloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
Zinc	Composite	µg/L	E200.8	1	120	1/Discharge	35	2.8	20	--
Zinc	Composite	lbs/day	CALC	-	64.4	1/Discharge	0.23	NA	NA	--
Zinc, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	4.4	2.8	20	J (DNQ)

TABLE C-1.C
OUTFALL 009
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION	Outfall 009			
						DATE RANGE	03/13/2025 07:15 - 03/14/2025 07:40			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
1,1,1-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	Grab	µg/L	E624.1	1	-	1/Year	ANR	ANR	ANR	ANR
1,1,2-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
1,1-Dichloroethane	Grab	µg/L	E624.1	1	-	1/Year	ANR	ANR	ANR	ANR
1,1-Dichloroethene	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
1,2,4-Trichlorobenzene	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
1,2-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	2	-	1/Year	ANR	ANR	ANR	ANR
1,2-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
1,2-Dichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
1,2-Dichloropropane	Grab	µg/L	E624.1	1	-	1/Year	ANR	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
1,3-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
1,3-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
1,4-Dichlorobenzene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
1,4-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
2,4,6-Trichlorophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
2,4-Dichlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
2,4-Dimethylphenol	Composite	µg/L	E625.1SIM	2	-	1/Year	ANR	ANR	ANR	ANR
2,4-Dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
2,4-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
2,6-Dinitrotoluene	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
2-Chloroethyl vinyl ether (EUR)	Grab	µg/L	E624.1	-	-	Additional[(j)]	ANR	ANR	ANR	ANR
2-Chloroethyl vinyl ether (WECC)	Grab	µg/L	E624.1	-	-	1/Year	ANR	ANR	ANR	ANR
2-Chloronaphthalene	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
2-Chlorophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
2-Methyl-4,6-dinitrophenol	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
2-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
3,3'-Dichlorobenzidine	Composite	µg/L	E625.1SIM	5	-	1/Discharge	ND	0.53	4.8	U *
4,4'-DDD	Composite	µg/L	E608.3	0.05	-	1/Year	ANR	ANR	ANR	ANR
4,4'-DDE	Composite	µg/L	E608.3	0.05	-	1/Year	ND	0.009	0.025	U *
4,4'-DDT	Composite	µg/L	E608.3	0.01	-	1/Year	ANR	ANR	ANR	ANR
4-Bromophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
4-Chloro-3-methylphenol	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
4-Chlorophenyl phenyl ether	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
4-Nitrophenol	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Acenaphthene	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
Acenaphthylene	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Acrolein	Grab	µg/L	E624.1	5	-	1/Year	ANR	ANR	ANR	ANR
Acrylonitrile	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Aldrin	Composite	µg/L	E608.3	0.005	-	1/Year	ANR	ANR	ANR	ANR
alpha-BHC	Composite	µg/L	E608.3	0.01	-	1/Year	ANR	ANR	ANR	ANR
alpha-Endosulfan	Composite	µg/L	E608.3	0.02	-	1/Year	ANR	ANR	ANR	ANR
Aluminum	Composite	mg/L	E200.8	-	1.0	1/Discharge	1.9	0.0086	0.015	--
Aluminum	Composite	lbs/day	CALC	-	537	1/Discharge	3.5	NA	NA	--
Aluminum, dissolved	Composite	mg/L	E200.8	-	-	Additional/Discharge	0.58	0.0086	0.015	--
Ammonia - N	Composite	mg/L	E350.1	-	-	1/Discharge	ND	0.023	0.075	U *
Anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Antimony	Composite	µg/L	E200.8	0.5	6.0	1/Year	ANR	ANR	ANR	ANR
Antimony	Composite	lbs/day	CALC	-	3.2	1/Year	ANR	ANR	ANR	ANR
Antimony, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
Aroclor 1016	Composite	µg/L	E608.3	0.5	-	1/Year	ANR	ANR	ANR	ANR
Aroclor 1221	Composite	µg/L	E608.3	0.5	-	1/Year	ANR	ANR	ANR	ANR
Aroclor 1232	Composite	µg/L	E608.3	0.5	-	1/Year	ANR	ANR	ANR	ANR
Aroclor 1242	Composite	µg/L	E608.3	0.5	-	1/Year	ANR	ANR	ANR	ANR
Aroclor 1248	Composite	µg/L	E608.3	0.5	-	1/Year	ANR	ANR	ANR	ANR
Aroclor 1254	Composite	µg/L	E608.3	0.5	-	1/Year	ANR	ANR	ANR	ANR
Aroclor 1260	Composite	µg/L	E608.3	0.5	-	1/Year	ANR	ANR	ANR	ANR
Arsenic	Composite	µg/L	E200.8	2	-	1/Discharge	1.9	0.16	1.0	--
Arsenic, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	1.2	0.16	1.0	--
Asbestos > 10 µm	Composite	MFL	EPA100.2	-	-	1/Year	ANR	ANR	ANR	ANR
Barium	Composite	mg/L	E200.8	-	-	1/Year	ANR	ANR	ANR	ANR
Barium, dissolved	Composite	mg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
Benzene	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Benzidine	Composite	µg/L	E625.1SIM	5	-	1/Year	ND	0.90	4.8	U *
Benzo(a)anthracene	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
Benzo(a)pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Benzo(b)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Benzo(g,h,i)perylene	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
Benzo(k)fluoranthene	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Beryllium	Composite	µg/L	E200.8	0.5	-	1/Year	ANR	ANR	ANR	ANR
Beryllium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
beta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	ANR	ANR	ANR	ANR
beta-Endosulfan	Composite	µg/L	E608.3	0.01	-	1/Year	ANR	ANR	ANR	ANR
Bis (2-Chloroethoxy) Methane	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
Bis (2-Chloroethyl) Ether	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
Bis (2-Chloroisopropyl) Ether	Composite	µg/L	E625.1SIM	2	-	1/Year	ANR	ANR	ANR	ANR
Bis (2-Ethylhexyl) Phthalate	Composite	µg/L	E625.1SIM	5	4.0	1/Discharge	ND	1.0	4.8	U *
Bis (2-Ethylhexyl) Phthalate	Composite	lbs/day	CALC	-	2.1	1/Discharge	ND	NA	NA	U *
Boron	Composite	mg/L	E200.7	-	1.0	1/Year	ANR	ANR	ANR	ANR
Boron	Composite	lbs/day	CALC	-	537	1/Year	ANR	ANR	ANR	ANR
Boron, dissolved	Composite	mg/L	E200.7	-	-	Additional/Year	ANR	ANR	ANR	ANR
Bromodichloromethane	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Bromoform	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Bromomethane (Methyl Bromide)	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Butyl benzylphthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Cadmium	Composite	µg/L	E200.8	0.25	4.0	1/Discharge	ND	0.13	1.0	U *
Cadmium	Composite	lbs/day	CALC	-	2.1	1/Discharge	ND	NA	NA	U *
Cadmium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	ND	0.13	1.0	U *
Carbon tetrachloride	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Chlordane	Composite	µg/L	E608.3	0.1	-	1/Year	ANR	ANR	ANR	ANR
Chloride	Composite	mg/L	E300	-	150	1/Discharge	3.9	0.72	2.0	*
Chloride	Composite	lbs/day	CALC	-	80,477	1/Discharge	7.2	NA	NA	*
Chlorobenzene	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Chlorodibromomethane	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Chloroethane	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Chloroform	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Chloromethane (Methyl Chloride)	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Chlorpyrifos	Composite	µg/L	E525.2	-	-	1/Year	ANR	ANR	ANR	ANR
Chromium	Composite	µg/L	E200.8	0.5	-	1/Year	ANR	ANR	ANR	ANR

TABLE C-1.C
OUTFALL 009
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

							LOCATION	Outfall 009			
							DATE RANGE	03/13/2025 07:15 - 03/14/2025 07:40			
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**DAILY MAXIMUM LIMIT**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
Chromium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
Chromium III (Trivalent)	Composite	µg/L	E218.6	-	-	1/Year	ANR	ANR	ANR	ANR
Chromium III (Trivalent), dissolved	Composite	µg/L	E218.6	-	-	Additional/Year	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent)	Composite	µg/L	E218.6	-	-	1/Year	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent), dissolved	Composite	µg/L	E218.6	-	-	Additional/Year	ANR	ANR	ANR	ANR
Chronic Toxicity, Fathead Minnow	Composite	Pass or Fail and % Effect	EPA-821-R-02-013	-	Pass or % Effect <50	1st & 2nd rain event/Year	SURVIVAL = PASS, % EFFECT=1.67%	NM	NM	*
Chrysene	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
cis-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Cobalt	Composite	µg/L	E200.8	-	-	1/Year	ANR	ANR	ANR	ANR
Cobalt, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
Copper	Composite	µg/L	E200.8	0.5	31	1/Discharge	4.3	0.32	2.0	--
Copper	Composite	lbs/day	CALC	-	16.6	1/Discharge	0.0079	NA	NA	--
Copper, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	2.5	0.32	2.0	--
Cyanide	Composite	µg/L	KELADA-01	5	9.5	1/Discharge	ND	2.7	5.0	U *
Cyanide	Composite	lbs/day	CALC	-	5.1	1/Discharge	ND	NA	NA	U *
delta-BHC	Composite	µg/L	E608.3	0.005	-	1/Year	ANR	ANR	ANR	ANR
Detergents (as MBAS)	Composite	mg/L	SM5540	-	-	1/Discharge	0.081	0.052	0.20	J (DNQ*)
Diazinon	Composite	µg/L	E525.2	-	-	1/Year	ANR	ANR	ANR	ANR
Dibenzo(a,h)anthracene	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Dieldrin	Composite	µg/L	E608.3	0.01	-	1/Year	ANR	ANR	ANR	ANR
Diethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	ANR	ANR	ANR	ANR
Dimethyl phthalate	Composite	µg/L	E625.1SIM	2	-	1/Year	ANR	ANR	ANR	ANR
Di-n-butyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Di-n-octyl phthalate	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Dissolved Oxygen (Field)	Grab	mg/L	FIELDPARAM	-	-	1/Discharge	19.87	NM	NM	*
Endosulfan sulfate	Composite	µg/L	E608.3	0.05	-	1/Year	ANR	ANR	ANR	ANR
Endrin	Composite	µg/L	E608.3	0.01	-	1/Year	ANR	ANR	ANR	ANR
Endrin aldehyde	Composite	µg/L	E608.3	0.01	-	1/Year	ANR	ANR	ANR	ANR
Ethylbenzene	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Flow**	Meas	mgd	FIELDPARAM	-	64.33	1/Discharge	0.2209	NA	NA	*
Fluoranthene	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
Fluorene	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Fluoride	Composite	mg/L	E300	-	1.6	1/Year	ANR	ANR	ANR	ANR
Fluoride	Composite	lbs/day	CALC	-	858	1/Year	ANR	ANR	ANR	ANR
gamma-BHC (Lindane)	Composite	µg/L	E608.3	0.02	-	1/Year	ANR	ANR	ANR	ANR
Hardness, Dissolved (as CaCO3)	Composite	mg/L	SM2340	-	-	Additional/Year	ANR	ANR	ANR	ANR
Hardness, Total (as CaCO3)	Composite	mg/L	SM2340	-	-	1/Year	ANR	ANR	ANR	ANR
Heptachlor	Composite	µg/L	E608.3	0.01	-	1/Year	ANR	ANR	ANR	ANR
Heptachlor epoxide	Composite	µg/L	E608.3	0.01	-	1/Year	ANR	ANR	ANR	ANR
Hexachlorobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
Hexachlorobutadiene	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
Hexachlorocyclopentadiene	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
Hexachloroethane	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
Human Bacteroides	Grab	CEs/100mL	DHC qPCR	-	-	Additional/Year	ANR	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene	Composite	µg/L	SW8270CSIM	10	-	1/Year	ANR	ANR	ANR	ANR
Iron	Composite	mg/L	E200.8	-	-	1/Year	ANR	ANR	ANR	ANR
Iron, dissolved	Composite	mg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
Isophorone	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
Lead	Composite	µg/L	E200.8	0.5	5.2	1/Discharge	5.9	0.12	1.0	--
Lead	Composite	lbs/day	CALC	-	2.8	1/Discharge	0.011	NA	NA	--
Lead, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	1.1	0.12	1.0	--
Manganese	Composite	µg/L	E200.8	-	-	1/Year	ANR	ANR	ANR	ANR
Manganese, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
Mercury	Composite	µg/L	E1631E	0.5	0.024	1/Discharge	0.016	0.0002	0.0005	*
Mercury	Composite	lbs/day	CALC	-	0.013	1/Discharge	0.000029	NA	NA	*
Mercury, dissolved	Composite	µg/L	E1631E	-	-	Additional/Discharge	0.0096	0.0002	0.0005	*
Methylene chloride	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Naphthalene (SVOC)	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
Naphthalene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	ANR	ANR	ANR	ANR
Nickel	Composite	µg/L	E200.8	1	100	1/Year	ANR	ANR	ANR	ANR
Nickel	Composite	lbs/day	CALC	-	53.7	1/Year	ANR	ANR	ANR	ANR
Nickel, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
Nitrate - N	Composite	mg/L	E300	-	-	1/Discharge	1.1	0.039	0.20	*
Nitrate + Nitrite as Nitrogen (N)	Composite	mg/L	E300	-	10	1/Discharge	1.1	0.039	0.20	*
Nitrate + Nitrite as Nitrogen (N)	Composite	lbs/day	CALC	-	5,365	1/Discharge	2.0	NA	NA	*
Nitrite - N	Composite	mg/L	E300	-	-	1/Discharge	ND	0.18	0.20	U *
Nitrobenzene	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
N-Nitrosodimethylamine	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
N-Nitroso-di-n-propylamine	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
N-Nitrosodiphenylamine	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
Oil & Grease	Grab	mg/L	E1664	-	15	1/Discharge	ND	0.50	0.98	U *
Oil & Grease	Grab	lbs/day	CALC	-	8,048	1/Discharge	ND	NA	NA	U *
Pentachlorophenol	Composite	µg/L	E625.1SIM	5	1.0	1/Discharge	ND	0.093	0.97	U *
Pentachlorophenol	Composite	lbs/day	CALC	-	0.54	1/Discharge	ND	NA	NA	U *
Perchlorate	Composite	µg/L	E314.0	-	6.0	1/Discharge	ND	0.91	2.0	U *
Perchlorate	Composite	lbs/day	CALC	-	3.22	1/Discharge	ND	NA	NA	U *
pH (Field)	Grab	s.u.	FIELDPARAM	-	6.5-8.5	1/Discharge	7.31	NM	NM	*
Phenanthrene	Composite	µg/L	E625.1SIM	5	-	1/Year	ANR	ANR	ANR	ANR
Phenol	Composite	µg/L	E625.1SIM	1	-	1/Year	ANR	ANR	ANR	ANR
Pyrene	Composite	µg/L	E625.1SIM	10	-	1/Year	ANR	ANR	ANR	ANR
Selenium	Composite	µg/L	E200.8	2	-	1/Year	ANR	ANR	ANR	ANR
Selenium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
Settleable solids	Grab	mL/L	SM2540F	-	-	1/Discharge	ND	0.10	0.10	U *
Silver	Composite	µg/L	E200.8	0.25	-	1/Year	ANR	ANR	ANR	ANR
Silver, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
Sulfate	Composite	mg/L	E300	-	250	1/Discharge	6.3	0.37	2.0	*
Sulfate	Composite	lbs/day	CALC	-	134,128	1/Discharge	12	NA	NA	*
Temperature (Field)	Grab	Deg F	FIELDPARAM	-	80	1/Discharge	44.8	NM	NM	*
Tetrachloroethene	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Thallium	Composite	µg/L	E200.8	1	2	1/Year	ANR	ANR	ANR	ANR
Thallium	Composite	lbs/day	CALC	-	1.1	1/Year	ANR	ANR	ANR	ANR
Thallium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
Toluene	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Total Dissolved Solids	Composite	mg/L	SM2540C	-	850	1/Discharge	95	8.4	10	*
Total Dissolved Solids	Composite	lbs/day	CALC	-	456,034	1/Discharge	180	NA	NA	*
Total Residual Chlorine, Field	Grab	mg/L	FIELDPARAM	-	-	1/Year	ANR	ANR	ANR	ANR
Total Suspended Solids	Composite	mg/L	SM2540D	-	-	1/Discharge	31	1.6	2.0	*
Toxaphene	Composite	µg/L	E608.3	0.5	-	1/Year	ANR	ANR	ANR	ANR

TABLE C-1.C
OUTFALL 009
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION	**Outfall 009**			
						DATE RANGE	**03/13/2025 07:15 - 03/14/2025 07:40**			
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**DAILY MAXIMUM LIMIT**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
trans-1,2-Dichloroethene	Grab	µg/L	E624.1	1	-	1/Year	ANR	ANR	ANR	ANR
trans-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Trichloroethene	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Vanadium	Composite	µg/L	E200.8	-	-	1/Year	ANR	ANR	ANR	ANR
Vanadium, dissolved	Composite	µg/L	E200.8	-	-	Additional/Year	ANR	ANR	ANR	ANR
Vinyl chloride	Grab	µg/L	E624.1	2	-	1/Year	ANR	ANR	ANR	ANR
Zinc	Composite	µg/L	E200.8	1	120	1/Discharge	14	2.8	20	J (DNQ)
Zinc	Composite	lbs/day	CALC	-	64.4	1/Discharge	0.026	NA	NA	J (DNQ)
Zinc, dissolved	Composite	µg/L	E200.8	-	-	Additional/Discharge	3.4	2.8	20	J (DNQ)

TABLE C-2
SWTS 018 (INF-002)
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						SWTS 018 (INF-002) 2/19/2025 07:45			
LOCATION DATE RANGE									
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
1,1,1-Trichloroethane	Grab	µg/L	E624.1	2	1/Year	ND	0.19	0.50	U *
1,1,2,2-Tetrachloroethane	Grab	µg/L	E624.1	1	1/Year	ND	0.15	0.50	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	Grab	µg/L	E624.1	-	1/Discharge	ND	1.1	2.0	U *
1,1,2-Trichloroethane	Grab	µg/L	E624.1	2	1/Year	ND	0.20	0.50	U *
1,1-Dichloroethane	Grab	µg/L	E624.1	1	1/Year	ND	0.23	0.50	U *
1,1-Dichloroethene	Grab	µg/L	E624.1	2	1/Discharge	ND	0.19	0.50	U *
1,2,4-Trichlorobenzene	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.081	0.19	U *
1,2-Dichloro-1,1,2-trifluoroethane	Grab	µg/L	E624.1	-	1/Discharge	ND	0.78	2.0	U *
1,2-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	2	1/Year	ND	0.075	0.19	U *
1,2-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	1/Year	ND	0.16	0.50	U *
1,2-Dichloroethane	Grab	µg/L	E624.1	2	1/Discharge	ND	0.17	0.50	U *
1,2-Dichloropropane	Grab	µg/L	E624.1	1	1/Year	ND	0.17	0.50	U *
1,2-Diphenylhydrazine/Azobenzene	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.023	0.19	U *
1,3-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.077	0.19	U *
1,3-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	1/Year	ND	0.13	0.50	U *
1,4-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.074	0.19	U *
1,4-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	1/Year	ND	0.12	0.50	U *
1,4-Dioxane	Grab	µg/L	SW8260SIM	-	1/Discharge	ND	0.55	1.0	U *
2,4,6-Trichlorophenol	Grab	µg/L	E625.1SIM	10	1/Discharge	ND	0.057	0.97	U *
2,4-Dichlorophenol	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.045	0.97	U *
2,4-Dimethylphenol	Grab	µg/L	E625.1SIM	2	1/Year	ND	0.063	0.19	U *
2,4-Dinitrophenol	Grab	µg/L	E625.1SIM	5	1/Year	ND	2.5	4.9	U *
2,4-Dinitrotoluene	Grab	µg/L	E625.1SIM	5	1/Discharge	ND	0.12	0.19	U *
2,6-Dinitrotoluene	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.065	0.19	U *
2-Chloroethyl vinyl ether	Grab	µg/L	E624.1	-	1/Year	ND	3.0	25	U *
2-Chloronaphthalene	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.065	0.19	U *
2-Chlorophenol	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.056	0.19	U *
2-Methyl-4,6-dinitrophenol	Grab	µg/L	E625.1SIM	5	1/Year	ND	1.7	4.9	U *
2-Nitrophenol	Grab	µg/L	E625.1SIM	10	1/Year	ND	1.4	4.9	U *
3,3'-Dichlorobenzidine	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.53	4.9	U *
4,4'-DDD	Grab	µg/L	E608.3	0.05	1/Year	ND	0.014	0.025	U *
4,4'-DDE	Grab	µg/L	E608.3	0.05	1/Discharge	ND	0.009	0.025	U *
4,4'-DDT	Grab	µg/L	E608.3	0.01	1/Year	ND	0.014	0.025	U *
4-Bromophenyl phenyl ether	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.053	0.19	U *
4-Chloro-3-methylphenol	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.053	0.97	U *
4-Chlorophenyl phenyl ether	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.060	0.19	U *
4-Nitrophenol	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.77	4.9	U *
Acenaphthene	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.063	0.19	U *
Acenaphthylene	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.063	0.19	U *
Acrolein	Grab	µg/L	E624.1	5	1/Year	ND	1.8	5.0	U *
Acrylonitrile	Grab	µg/L	E624.1	2	1/Year	ND	0.98	2.0	U *
Aldrin	Grab	µg/L	E608.3	0.005	1/Year	ND	0.015	0.025	U *
alpha-BHC	Grab	µg/L	E608.3	0.01	1/Discharge	ND	0.012	0.025	U *
alpha-Endosulfan	Grab	µg/L	E608.3	0.02	1/Year	ND	0.0095	0.025	U *
Aluminum	Grab	mg/L	E200.8	-	1/Year	0.94	0.0086	0.015	*
Aluminum, dissolved	Grab	mg/L	E200.8	-	Additional/Year	0.12	0.0086	0.015	*
Ammonia - N	Grab	mg/L	E350.1	-	1/Discharge	ND	0.023	0.075	U *
Anthracene	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.025	0.19	U *
Antimony	Grab	µg/L	E200.8	0.5	1/Year	1.8	0.36	2.0	J (DNQ*)
Antimony, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ND	0.36	2.0	U *
Aroclor-1016 (PCB-1016)	Grab	µg/L	E608.3	0.5	1/Year	ND	0.50	0.50	U *
Aroclor-1221 (PCB-1221)	Grab	µg/L	E608.3	0.5	1/Year	ND	0.50	0.50	U *
Aroclor-1232 (PCB-1232)	Grab	µg/L	E608.3	0.5	1/Year	ND	0.50	0.50	U *
Aroclor-1242 (PCB-1242)	Grab	µg/L	E608.3	0.5	1/Year	ND	0.50	0.50	U *
Aroclor-1248 (PCB-1248)	Grab	µg/L	E608.3	0.5	1/Year	ND	0.50	0.50	U *
Aroclor-1254 (PCB-1254)	Grab	µg/L	E608.3	0.5	1/Year	ND	0.50	0.50	U *
Aroclor-1260 (PCB-1260)	Grab	µg/L	E608.3	0.5	1/Year	ND	0.50	0.50	U *
Arsenic	Grab	µg/L	E200.8	2	1/Year	1.3	0.16	1.0	*
Arsenic, dissolved	Grab	µg/L	E200.8	-	Additional/Year	0.93	0.16	1.0	J (DNQ*)
Barium	Grab	mg/L	E200.8	-	1/Year	0.029	0.00017	0.001	*
Barium, dissolved	Grab	mg/L	E200.8	-	Additional/Year	0.019	0.00017	0.001	*
Benzene	Grab	µg/L	E624.1	2	1/Year	ND	0.10	0.50	U *
Benzidine	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.91	4.9	U *
Benzo(a)anthracene	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.058	0.19	U *
Benzo(a)pyrene	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.028	0.19	U *
Benzo(b)fluoranthene	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.067	0.19	U *
Benzo(g,h,i)perylene	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.058	0.19	U *
Benzo(k)fluoranthene	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.067	0.19	U *
Beryllium	Grab	µg/L	E200.8	0.5	1/Year	ND	0.26	0.50	U *
Beryllium, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ND	0.26	0.50	U *
beta-BHC	Grab	µg/L	E608.3	0.005	1/Year	ND	0.0075	0.025	U *
beta-Endosulfan	Grab	µg/L	E608.3	0.01	1/Year	ND	0.0095	0.025	U *
Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C)	Grab	mg/L	SM5210B	-	1/Discharge	1.8	1.0	2.0	J (DNQ*)
Bis (2-Chloroethoxy) Methane	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.069	0.19	U *
Bis (2-Chloroethyl) Ether	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.067	0.19	U *
Bis (2-Chloroisopropyl) Ether	Grab	µg/L	E625.1SIM	2	1/Year	ND	0.084	0.19	U *
Bis (2-Ethylhexyl) Phthalate	Grab	µg/L	E625.1SIM	5	1/Discharge	ND	1.0	4.9	U *
Boron	Grab	mg/L	E200.7	-	1/Year	0.036	0.0035	0.50	J (DNQ*)
Boron, dissolved	Grab	mg/L	E200.7	-	Additional/Year	0.040	0.0035	0.50	J (DNQ*)
Bromodichloromethane	Grab	µg/L	E624.1	2	1/Year	ND	0.13	0.50	U *
Bromoform	Grab	µg/L	E624.1	2	1/Year	ND	0.25	1.0	U *
Bromomethane (Methyl Bromide)	Grab	µg/L	E624.1	2	1/Year	ND	0.38	0.50	U *
Butyl benzylphthalate	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.34	0.97	U *
Cadmium	Grab	µg/L	E200.8	0.25	1/Discharge	ND	0.13	1.0	U *
Cadmium, dissolved	Grab	µg/L	E200.8	-	Additional/Discharge	ND	0.13	1.0	U *
Carbon tetrachloride	Grab	µg/L	E624.1	2	1/Year	ND	0.20	0.50	U *
Chlordane	Grab	µg/L	E608.3	0.1	1/Year	ND	0.22	0.50	U *
Chloride	Grab	mg/L	E300	-	1/Discharge	8.2	0.72	2.0	*
Chlorine, Total Residual (Field)	Grab	mg/L	FIELDPARAM	-	1/Year	0	NM	NM	*
Chlorobenzene	Grab	µg/L	E624.1	2	1/Year	ND	0.14	0.50	U *
Chloroethane	Grab	µg/L	E624.1	2	1/Year	ND	0.36	1.0	U *
Chloroform	Grab	µg/L	E624.1	2	1/Year	ND	0.25	0.50	U *
Chlorodibromomethane	Grab	µg/L	E624.1	2	1/Year	ND	0.13	0.50	U *
Chloromethane (Methyl Chloride)	Grab	µg/L	E624.1	2	1/Year	ND	0.23	0.50	U *
Chromium	Grab	µg/L	E200.8	0.5	1/Year	1.6	0.14	2.0	J (DNQ*)
Chromium, dissolved	Grab	µg/L	E200.8	-	Additional/Year	0.30	0.14	2.0	J (DNQ*)
Chromium III (Trivalent)	Grab	µg/L	E218.6	-	1/Year	ND	3.0	50	U *

TABLE C-2
SWTS 018 (INF-002)
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						SWTS 018 (INF-002) 2/19/2025 07:45			
LOCATION / DATE RANGE									
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
Chromium III (Trivalent), dissolved	Grab	µg/L	E218.6	-	Additional/Year	ND	3.0	50	U *
Chromium VI (Hexavalent)	Grab	µg/L	E218.6	-	1/Year	0.067	0.051	0.20	J (DNQ*)
Chromium VI (Hexavalent), dissolved	Grab	µg/L	E218.6	-	Additional/Year	0.056	0.051	0.20	J (DNQ*)
Chronic Toxicity, Fathead Minnow	Grab	Pass or Fail and % Effect	EPA-821-R-02-013	-	1/Year	SURVIVAL = PASS, % EFFECT = 0.00%	NM	NM	*
Chrysene	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.055	0.19	U *
cis-1,2-Dichloroethene	Grab	µg/L	E624.1	-	1/Discharge	ND	0.24	0.50	U *
cis-1,3-Dichloropropene	Grab	µg/L	E624.1	2	1/Year	ND	0.14	0.50	U *
Cobalt	Grab	µg/L	E200.8	-	1/Year	0.60	0.14	1.0	J (DNQ*)
Cobalt, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ND	0.14	1.0	U *
Conductivity at 25 deg. C	Grab	µmhos/cm	SM2510	-	1/Discharge	240	1.0	1.0	*
Copper	Grab	µg/L	E200.8	0.5	1/Discharge	4.5	0.32	2.0	*
Copper, dissolved	Grab	µg/L	E200.8	-	Additional/Discharge	2.6	0.32	2.0	*
Cyanide	Grab	µg/L	KELADA-01	5	1/Discharge	ND	2.7	5.0	U *
Cyclohexane	Grab	µg/L	E624.1	-	1/Discharge	ND	0.80	2.0	U *
delta-BHC	Grab	µg/L	E608.3	0.005	1/Year	ND	0.0095	0.025	U *
Detergents (as MBAS)	Grab	mg/L	SM5540	-	1/Discharge	ND	0.052	0.20	U *
Dibenzo(a,h)anthracene	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.14	0.19	U *
Dieldrin	Grab	µg/L	E608.3	0.01	1/Year	ND	0.0085	0.025	U *
Diethyl phthalate	Grab	µg/L	E625.1SIM	2	1/Year	ND	0.20	1.9	U *
Dimethyl phthalate	Grab	µg/L	E625.1SIM	2	1/Year	ND	1.6	1.9	U *
Di-n-butyl phthalate	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.69	1.9	U *
Di-n-octyl phthalate	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.073	2.9	U *
Dissolved Oxygen (Field)	Grab	mg/L	FIELDPARAM	-	1/Discharge	29.60	NM	NM	*
Endosulfan sulfate	Grab	µg/L	E608.3	0.05	1/Year	ND	0.014	0.025	U *
Endrin	Grab	µg/L	E608.3	0.01	1/Year	ND	0.020	0.025	U *
Endrin aldehyde	Grab	µg/L	E608.3	0.01	1/Year	ND	0.020	0.025	U *
Ethylbenzene	Grab	µg/L	E624.1	2	1/Year	ND	0.090	0.50	U *
Fluoranthene	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.054	0.19	U *
Fluorene	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.058	0.19	U *
Fluoride	Grab	mg/L	E300	-	1/Year	ND	0.092	0.20	U *
gamma-BHC (Lindane)	Grab	µg/L	E608.3	0.02	1/Year	ND	0.0075	0.025	U *
Hardness, Dissolved (as CaCO3)	Grab	mg/L	SM2340	-	Additional/Year	77	0.50	7.1	*
Hardness, Total (as CaCO3)	Grab	mg/L	SM2340	-	1/Year	86	0.50	7.1	*
Heptachlor	Grab	µg/L	E608.3	0.01	1/Discharge	ND	0.025	0.025	U *
Heptachlor epoxide	Grab	µg/L	E608.3	0.01	1/Year	ND	0.009	0.025	U *
Hexachlorobenzene	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.068	0.19	U *
Hexachlorobutadiene (SVOC)	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.11	0.19	U *
Hexachlorobutadiene (VOC)	Grab	µg/L	E624.1	-	1/Year	ND	0.22	0.50	U *
Hexachlorocyclopentadiene	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.11	0.19	U *
Hexachloroethane	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.094	0.19	U *
Indeno(1,2,3-cd)pyrene	Grab	µg/L	SW8270CSIM	10	1/Discharge	ND	0.096	0.29	U *
Iron	Grab	mg/L	E200.8	-	1/Year	1.1	0.0037	0.020	*
Iron, dissolved	Grab	mg/L	E200.8	-	Additional/Year	0.11	0.0037	0.020	*
Isophorone	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.069	0.19	U *
Lead	Grab	µg/L	E200.8	0.5	1/Discharge	1.4	0.12	1.0	*
Lead, dissolved	Grab	µg/L	E200.8	-	Additional/Discharge	0.14	0.12	1.0	J (DNQ*)
Manganese	Grab	µg/L	E200.8	-	1/Year	79	0.41	1.0	*
Manganese, dissolved	Grab	µg/L	E200.8	-	Additional/Year	36	0.41	1.0	*
Mercury	Grab	µg/L	E1631E	0.5	1/Discharge	0.015	0.0002	0.0005	*
Mercury, dissolved	Grab	µg/L	E1631E	-	Additional/Discharge	ND	0.0002	0.0005	U *
Methylene chloride	Grab	µg/L	E624.1	2	1/Year	ND	0.63	2.0	U *
Monomethyl hydrazine	Grab	µg/L	SW8315	-	1/Discharge	ND	0.62	2.0	U *
Naphthalene (SVOC)	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.055	0.19	U *
Naphthalene (VOC)	Grab	µg/L	E624.1	-	1/Year	ND	0.17	1.0	U *
Nickel	Grab	µg/L	E200.8	1	1/Year	2.5	0.17	2.0	*
Nickel, dissolved	Grab	µg/L	E200.8	-	Additional/Year	0.95	0.17	2.0	J (DNQ*)
Nitrate - N	Grab	mg/L	E300	-	1/Discharge	1.6	0.039	0.20	*
Nitrate + Nitrite as Nitrogen (N)	Grab	mg/L	E300	-	1/Discharge	1.6	0.020	0.10	*
Nitrite - N	Grab	mg/L	E300	-	1/Discharge	ND	0.18	0.20	U *
Nitrobenzene	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.082	0.19	U *
N-Nitrosodimethylamine	Grab	µg/L	E625.1SIM	5	1/Discharge	ND	0.089	0.19	U *
N-Nitroso-di-n-propylamine	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.058	0.19	U *
N-Nitrosodiphenylamine	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.030	0.19	U *
Oil & Grease	Grab	mg/L	E1664	-	1/Discharge	ND	0.50	0.98	U *
Pentachlorophenol	Grab	µg/L	E625.1SIM	5	1/Discharge	0.43	0.094	0.97	J (DNQ*)
Perchlorate	Grab	µg/L	E314.0	-	1/Year	ND	4.5	10	U *
pH (Field)	Grab	s.u.	FIELDPARAM	-	1/Discharge	7.02	NM	NM	*
Phenanthrene	Grab	µg/L	E625.1SIM	5	1/Year	ND	0.066	0.19	U *
Phenol	Grab	µg/L	E625.1SIM	1	1/Year	ND	0.032	0.97	U *
Pyrene	Grab	µg/L	E625.1SIM	10	1/Year	ND	0.065	0.19	U *
Selenium	Grab	µg/L	E200.8	2	1/Discharge	0.58	0.52	2.0	J (DNQ*)
Selenium, dissolved	Grab	µg/L	E200.8	-	Additional/Discharge	ND	0.52	2.0	U *
Silver	Grab	µg/L	E200.8	0.25	1/Year	ND	0.23	1.0	U *
Silver, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ND	0.23	1.0	U *
Sulfate	Grab	mg/L	E300	-	1/Discharge	47	0.37	2.0	*
Temperature (Field)	Grab	Deg F	FIELDPARAM	-	1/Discharge	51.9	NM	NM	*
Tetrachloroethene	Grab	µg/L	E624.1	2	1/Year	ND	0.14	0.50	U *
Thallium	Grab	µg/L	E200.8	1	1/Year	ND	0.11	1.0	U *
Thallium, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ND	0.11	1.0	U *
Toluene	Grab	µg/L	E624.1	2	1/Year	ND	0.11	0.50	U *
Total Dissolved Solids	Grab	mg/L	SM2540C	-	1/Discharge	190	8.4	10	*
Total Organic Carbon	Grab	mg/L	SM5310D	-	1/Year	13	1.1	2.0	*
Total Suspended Solids	Grab	mg/L	SM2540D	-	Additional/Discharge	21	1.6	2.0	*
Toxaphene	Grab	µg/L	E608.3	0.5	1/Year	ND	1.2	2.5	U *
trans-1,2-Dichloroethene	Grab	µg/L	E624.1	1	1/Year	ND	0.19	0.50	U *
trans-1,3-Dichloropropene	Grab	µg/L	E624.1	2	1/Year	ND	0.16	0.50	U *
Trichloroethene	Grab	µg/L	E624.1	2	1/Discharge	ND	0.11	0.50	U *
Turbidity	Grab	NTU	SM2130	-	1/Discharge	27	0.40	0.50	*
Vanadium	Grab	µg/L	E200.8	-	1/Year	3.5	0.17	2.0	*
Vanadium, dissolved	Grab	µg/L	E200.8	-	Additional/Year	1.3	0.17	2.0	J (DNQ*)
Vinyl chloride	Grab	µg/L	E624.1	2	1/Year	ND	0.16	0.50	U *
Zinc	Grab	µg/L	E200.8	1	1/Discharge	16	2.8	20	J (DNQ*)
Zinc, dissolved	Grab	µg/L	E200.8	-	Additional/Discharge	6.1	2.8	20	J (DNQ*)

TABLE C-2
SWTS 018 (INF-002)
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

					LOCATION DATE RANGE	SWTS 018 (INF-002) 3/17/2025 08:30			
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
1,1,1-Trichloroethane	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	Grab	µg/L	E624.1	1	1/Year	ANR	ANR	ANR	ANR
1,1,2-Trichloro-1,2,2-trifluoroethane	Grab	µg/L	E624.1	-	1/Discharge	ND	1.1	2.0	U *
1,1,2-Trichloroethane	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
1,1-Dichloroethane	Grab	µg/L	E624.1	1	1/Year	ANR	ANR	ANR	ANR
1,1-Dichloroethene	Grab	µg/L	E624.1	2	1/Discharge	ND	0.19	0.50	U *
1,2,4-Trichlorobenzene	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
1,2-Dichloro-1,1,2-trifluoroethane	Grab	µg/L	E624.1	-	1/Discharge	ND	0.78	2.0	U *
1,2-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	2	1/Year	ANR	ANR	ANR	ANR
1,2-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
1,2-Dichloroethane	Grab	µg/L	E624.1	2	1/Discharge	ND	0.17	0.50	U *
1,2-Dichloropropane	Grab	µg/L	E624.1	1	1/Year	ANR	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
1,3-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
1,3-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
1,4-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
1,4-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
1,4-Dioxane	Grab	µg/L	SW8260SIM	-	1/Discharge	ND	0.55	1.0	U *
2,4,6-Trichlorophenol	Grab	µg/L	E625.1SIM	10	1/Discharge	ND	0.057	0.97	U *
2,4-Dichlorophenol	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
2,4-Dimethylphenol	Grab	µg/L	E625.1SIM	2	1/Year	ANR	ANR	ANR	ANR
2,4-Dinitrophenol	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
2,4-Dinitrotoluene	Grab	µg/L	E625.1SIM	5	1/Discharge	ND	0.12	0.19	U *
2,6-Dinitrotoluene	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
2-Chloroethyl vinyl ether	Grab	µg/L	E624.1	-	1/Year	ANR	ANR	ANR	ANR
2-Chloronaphthalene	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
2-Chlorophenol	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
2-Methyl-4,6-dinitrophenol	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
2-Nitrophenol	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
3,3'-Dichlorobenzidine	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
4,4'-DDD	Grab	µg/L	E608.3	0.05	1/Year	ANR	ANR	ANR	ANR
4,4'-DDE	Grab	µg/L	E608.3	0.05	1/Discharge	ND	0.009	0.025	U *
4,4'-DDT	Grab	µg/L	E608.3	0.01	1/Year	ANR	ANR	ANR	ANR
4-Bromophenyl phenyl ether	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
4-Chloro-3-methylphenol	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
4-Chlorophenyl phenyl ether	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
4-Nitrophenol	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Acenaphthene	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
Acenaphthylene	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Acrolein	Grab	µg/L	E624.1	5	1/Year	ANR	ANR	ANR	ANR
Acrylonitrile	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Aldrin	Grab	µg/L	E608.3	0.005	1/Year	ANR	ANR	ANR	ANR
alpha-BHC	Grab	µg/L	E608.3	0.01	1/Discharge	ND	0.012	0.025	U *
alpha-Endosulfan	Grab	µg/L	E608.3	0.02	1/Year	ANR	ANR	ANR	ANR
Aluminum	Grab	mg/L	E200.8	-	1/Year	ANR	ANR	ANR	ANR
Aluminum, dissolved	Grab	mg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Ammonia - N	Grab	mg/L	E350.1	-	1/Discharge	ND	0.023	0.075	U *
Anthracene	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Antimony	Grab	µg/L	E200.8	0.5	1/Year	ANR	ANR	ANR	ANR
Antimony, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Aroclor-1016 (PCB-1016)	Grab	µg/L	E608.3	0.5	1/Year	ANR	ANR	ANR	ANR
Aroclor-1221 (PCB-1221)	Grab	µg/L	E608.3	0.5	1/Year	ANR	ANR	ANR	ANR
Aroclor-1232 (PCB-1232)	Grab	µg/L	E608.3	0.5	1/Year	ANR	ANR	ANR	ANR
Aroclor-1242 (PCB-1242)	Grab	µg/L	E608.3	0.5	1/Year	ANR	ANR	ANR	ANR
Aroclor-1248 (PCB-1248)	Grab	µg/L	E608.3	0.5	1/Year	ANR	ANR	ANR	ANR
Aroclor-1254 (PCB-1254)	Grab	µg/L	E608.3	0.5	1/Year	ANR	ANR	ANR	ANR
Aroclor-1260 (PCB-1260)	Grab	µg/L	E608.3	0.5	1/Year	ANR	ANR	ANR	ANR
Arsenic	Grab	µg/L	E200.8	2	1/Year	ANR	ANR	ANR	ANR
Arsenic, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Barium	Grab	mg/L	E200.8	-	1/Year	ANR	ANR	ANR	ANR
Barium, dissolved	Grab	mg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Benzene	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Benzidine	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
Benzo(a)anthracene	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
Benzo(a)pyrene	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Benzo(b)fluoranthene	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Benzo(g,h,i)perylene	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
Benzo(k)fluoranthene	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Beryllium	Grab	µg/L	E200.8	0.5	1/Year	ANR	ANR	ANR	ANR
Beryllium, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
beta-BHC	Grab	µg/L	E608.3	0.005	1/Year	ANR	ANR	ANR	ANR
beta-Endosulfan	Grab	µg/L	E608.3	0.01	1/Year	ANR	ANR	ANR	ANR
Biochemical Oxygen Demand (BOD)(5-Day @ 20 deg. C)	Grab	mg/L	SM5210B	-	1/Discharge	4.4	1.0	2.0	*
Bis (2-Chloroethoxy) Methane	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
Bis (2-Chloroethyl) Ether	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
Bis (2-Chloroisopropyl) Ether	Grab	µg/L	E625.1SIM	2	1/Year	ANR	ANR	ANR	ANR
Bis (2-Ethylhexyl) Phthalate	Grab	µg/L	E625.1SIM	5	1/Discharge	ND	1.0	4.9	U *
Boron	Grab	mg/L	E200.7	-	1/Year	ANR	ANR	ANR	ANR
Boron, dissolved	Grab	mg/L	E200.7	-	Additional/Year	ANR	ANR	ANR	ANR
Bromodichloromethane	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Bromoform	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Bromomethane (Methyl Bromide)	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Butyl benzylphthalate	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Cadmium	Grab	µg/L	E200.8	0.25	1/Discharge	ND	0.13	1.0	U *
Cadmium, dissolved	Grab	µg/L	E200.8	-	Additional/Discharge	ND	0.13	1.0	U *
Carbon tetrachloride	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Chlordane	Grab	µg/L	E608.3	0.1	1/Year	ANR	ANR	ANR	ANR
Chloride	Grab	mg/L	E300	-	1/Discharge	12	0.72	2.0	*
Chlorine, Total Residual (Field)	Grab	mg/L	FIELDPARAM	-	1/Year	ANR	ANR	ANR	ANR
Chlorobenzene	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Chloroethane	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Chloroform	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Chlorodibromomethane	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Chloromethane (Methyl Chloride)	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Chromium	Grab	µg/L	E200.8	0.5	1/Year	ANR	ANR	ANR	ANR
Chromium, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Chromium III (Trivalent)	Grab	µg/L	E218.6	-	1/Year	ANR	ANR	ANR	ANR

TABLE C-2
SWTS 018 (INF-002)
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						SWTS 018 (INF-002)			
					LOCATION DATE RANGE	3/17/2025 08:30			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Chromium III (Trivalent), dissolved	Grab	µg/L	E218.6	-	Additional/Year	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent)	Grab	µg/L	E218.6	-	1/Year	ANR	ANR	ANR	ANR
Chromium VI (Hexavalent), dissolved	Grab	µg/L	E218.6	-	Additional/Year	ANR	ANR	ANR	ANR
Chronic Toxicity, Fathead Minnow	Grab	Pass or Fail and % Effect	EPA-821-R-02-013	-	1/Year	ANR	ANR	ANR	ANR
Chrysene	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
cis-1,2-Dichloroethene	Grab	µg/L	E624.1	-	1/Discharge	ND	0.24	0.50	U *
cis-1,3-Dichloropropene	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Cobalt	Grab	µg/L	E200.8	-	1/Year	ANR	ANR	ANR	ANR
Cobalt, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Conductivity at 25 deg. C	Grab	µmhos/cm	SM2510	-	1/Discharge	360	1.0	1.0	*
Copper	Grab	µg/L	E200.8	0.5	1/Discharge	3.1	0.32	2.0	*
Copper, dissolved	Grab	µg/L	E200.8	-	Additional/Discharge	2.3	0.32	2.0	*
Cyanide	Grab	µg/L	KELADA-01	5	1/Discharge	ND	2.7	5.0	U *
Cyclohexane	Grab	µg/L	E624.1	-	1/Discharge	ND	0.80	2.0	U *
delta-BHC	Grab	µg/L	E608.3	0.005	1/Year	ANR	ANR	ANR	ANR
Detergents (as MBAS)	Grab	mg/L	SM5540	-	1/Discharge	0.054	0.052	0.20	J (DNQ*)
Dibenzo(a,h)anthracene	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Dieldrin	Grab	µg/L	E608.3	0.01	1/Year	ANR	ANR	ANR	ANR
Diethyl phthalate	Grab	µg/L	E625.1SIM	2	1/Year	ANR	ANR	ANR	ANR
Dimethyl phthalate	Grab	µg/L	E625.1SIM	2	1/Year	ANR	ANR	ANR	ANR
Di-n-butyl phthalate	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Di-n-octyl phthalate	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Dissolved Oxygen (Field)	Grab	mg/L	FIELDPARAM	-	1/Discharge	8.59	NM	NM	*
Endosulfan sulfate	Grab	µg/L	E608.3	0.05	1/Year	ANR	ANR	ANR	ANR
Endrin	Grab	µg/L	E608.3	0.01	1/Year	ANR	ANR	ANR	ANR
Endrin aldehyde	Grab	µg/L	E608.3	0.01	1/Year	ANR	ANR	ANR	ANR
Ethylbenzene	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Fluoranthene	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
Fluorene	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Fluoride	Grab	mg/L	E300	-	1/Year	ANR	ANR	ANR	ANR
gamma-BHC (Lindane)	Grab	µg/L	E608.3	0.02	1/Year	ANR	ANR	ANR	ANR
Hardness, Dissolved (as CaCO3)	Grab	mg/L	SM2340	-	Additional/Year	ANR	ANR	ANR	ANR
Hardness, Total (as CaCO3)	Grab	mg/L	SM2340	-	1/Year	ANR	ANR	ANR	ANR
Heptachlor	Grab	µg/L	E608.3	0.01	1/Discharge	ND	0.012	0.025	U *
Heptachlor epoxide	Grab	µg/L	E608.3	0.01	1/Year	ANR	ANR	ANR	ANR
Hexachlorobenzene	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
Hexachlorobutadiene (SVOC)	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
Hexachlorobutadiene (VOC)	Grab	µg/L	E624.1	-	1/Year	ANR	ANR	ANR	ANR
Hexachlorocyclopentadiene	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
Hexachloroethane	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene	Grab	µg/L	SW8270CSIM	10	1/Discharge	ND	0.12	0.36	U *
Iron	Grab	mg/L	E200.8	-	1/Year	ANR	ANR	ANR	ANR
Iron, dissolved	Grab	mg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Isophorone	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
Lead	Grab	µg/L	E200.8	0.5	1/Discharge	0.43	0.12	1.0	J (DNQ*)
Lead, dissolved	Grab	µg/L	E200.8	-	Additional/Discharge	0.16	0.12	1.0	J (DNQ*)
Manganese	Grab	µg/L	E200.8	-	1/Year	ANR	ANR	ANR	ANR
Manganese, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Mercury	Grab	µg/L	E1631E	0.5	1/Discharge	0.0082	0.0002	0.0005	*
Mercury, dissolved	Grab	µg/L	E1631E	-	Additional/Discharge	0.0039	0.0002	0.0005	*
Methylene chloride	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Monomethyl hydrazine	Grab	µg/L	SW8315	-	1/Discharge	ND	0.62	2.0	U *
Naphthalene (SVOC)	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
Naphthalene (VOC)	Grab	µg/L	E624.1	-	1/Year	ANR	ANR	ANR	ANR
Nickel	Grab	µg/L	E200.8	1	1/Year	ANR	ANR	ANR	ANR
Nickel, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Nitrate - N	Grab	mg/L	E300	-	1/Discharge	0.12	0.039	0.20	J (DNQ*)
Nitrate + Nitrite as Nitrogen (N)	Grab	mg/L	E300	-	1/Discharge	0.12	0.039	0.20	J (DNQ*)
Nitrite - N	Grab	mg/L	E300	-	1/Discharge	ND	0.18	0.20	U *
Nitrobenzene	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
N-Nitrosodimethylamine	Grab	µg/L	E625.1SIM	5	1/Discharge	ND	0.089	0.19	U *
N-Nitroso-di-n-propylamine	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
N-Nitrosodiphenylamine	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
Oil & Grease	Grab	mg/L	E1664	-	1/Discharge	ND	0.51	0.99	U *
Pentachlorophenol	Grab	µg/L	E625.1SIM	5	1/Discharge	ND	0.094	0.97	U *
Perchlorate	Grab	µg/L	E314.0	-	1/Year	ANR	ANR	ANR	ANR
pH (Field)	Grab	s.u.	FIELDPARAM	-	1/Discharge	6.46	NM	NM	*
Phenanthrene	Grab	µg/L	E625.1SIM	5	1/Year	ANR	ANR	ANR	ANR
Phenol	Grab	µg/L	E625.1SIM	1	1/Year	ANR	ANR	ANR	ANR
Pyrene	Grab	µg/L	E625.1SIM	10	1/Year	ANR	ANR	ANR	ANR
Selenium	Grab	µg/L	E200.8	2	1/Discharge	ND	0.52	2.0	U *
Selenium, dissolved	Grab	µg/L	E200.8	-	Additional/Discharge	ND	0.52	2.0	U *
Silver	Grab	µg/L	E200.8	0.25	1/Year	ANR	ANR	ANR	ANR
Silver, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Sulfate	Grab	mg/L	E300	-	1/Discharge	77	0.37	2.0	*
Temperature (Field)	Grab	Deg F	FIELDPARAM	-	1/Discharge	49.1	NM	NM	*
Tetrachloroethene	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Thallium	Grab	µg/L	E200.8	1	1/Year	ANR	ANR	ANR	ANR
Thallium, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Toluene	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Total Dissolved Solids	Grab	mg/L	SM2540C	-	1/Discharge	240	8.4	10	*
Total Organic Carbon	Grab	mg/L	SM5310D	-	1/Year	ANR	ANR	ANR	ANR
Total Suspended Solids	Grab	mg/L	SM2540D	-	Additional/Discharge	11	1.6	2.0	*
Toxaphene	Grab	µg/L	E608.3	0.5	1/Year	ANR	ANR	ANR	ANR
trans-1,2-Dichloroethene	Grab	µg/L	E624.1	1	1/Year	ANR	ANR	ANR	ANR
trans-1,3-Dichloropropene	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Trichloroethene	Grab	µg/L	E624.1	2	1/Discharge	ND	0.11	0.50	U *
Turbidity	Grab	NTU	SM2130	-	1/Discharge	8.8	0.40	0.50	*
Vanadium	Grab	µg/L	E200.8	-	1/Year	ANR	ANR	ANR	ANR
Vanadium, dissolved	Grab	µg/L	E200.8	-	Additional/Year	ANR	ANR	ANR	ANR
Vinyl chloride	Grab	µg/L	E624.1	2	1/Year	ANR	ANR	ANR	ANR
Zinc	Grab	µg/L	E200.8	1	1/Discharge	7.8	2.8	20	J (DNQ*)
Zinc, dissolved	Grab	µg/L	E200.8	-	Additional/Discharge	ND	2.8	20	U *

TABLE C-3.A
RSW-002 (DOWNSTREAM)
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION	Arroyo Simi Receiving Water Downstream (RSW-002)			
						DATE RANGE	2/14/2025 12:15			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
1,1,1-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.19	0.50	U *
1,1,2,2-Tetrachloroethane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.15	0.50	U *
1,1,2-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.20	0.50	U *
1,1-Dichloroethane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.23	0.50	U *
1,1-Dichloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.19	0.50	U *
1,2,4-Trichlorobenzene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.085	0.21	U *
1,2-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	2	-	1/Year	ND	0.080	0.21	U *
1,2-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
1,2-Dichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.17	0.50	U *
1,2-Dichloropropane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.17	0.50	U *
1,2-Diphenylhydrazine/Azobenzene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.025	0.21	U *
1,3-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.082	0.21	U *
1,3-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
1,4-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.079	0.21	U *
1,4-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.12	0.50	U *
2,4,6-Trichlorophenol	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.060	1.0	U *
2,4-Dichlorophenol	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.048	1.0	U *
2,4-Dimethylphenol	Grab	µg/L	E625.1SIM	2	-	1/Year	ND	0.066	0.21	U *
2,4-Dinitrophenol	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	2.6	5.1	U *
2,4-Dinitrotoluene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.13	0.21	U *
2,6-Dinitrotoluene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.069	0.21	U *
2-Chloroethyl vinyl ether (EUR)	Grab	µg/L	E624.1	-	-	Additional[(j)]	ND	0.92	2.0	U *
2-Chloroethyl vinyl ether (WECC)	Grab	µg/L	E624.1	-	-	1/Year	ND	0.59	5.0	U *
2-Chloronaphthalene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.068	0.21	U *
2-Chlorophenol	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.059	0.21	U *
2-Methyl-4,6-dinitrophenol	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	1.8	5.1	U *
2-Nitrophenol	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	1.5	5.1	U *
3,3'-Dichlorobenzidine	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.56	5.1	U *
4,4'-DDD	Grab	µg/L	E608.3	0.05	-	1/Quarter	ND	0.014	0.025	U *
4,4'-DDE	Grab	µg/L	E608.3	0.05	-	1/Quarter	ND	0.009	0.025	U *
4,4'-DDT	Grab	µg/L	E608.3	0.01	-	1/Quarter	ND	0.014	0.025	U *
4-Bromophenyl phenyl ether	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.056	0.21	U *
4-Chloro-3-methylphenol	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.056	1.0	U *
4-Chlorophenyl phenyl ether	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.063	0.21	U *
4-Nitrophenol	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.81	5.1	U *
Acenaphthene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.067	0.21	U *
Acenaphthylene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.066	0.21	U *
Acrolein	Grab	µg/L	E624.1	5	-	1/Year	2.1	1.8	5.0	J (DNQ*)
Acrylonitrile	Grab	µg/L	E624.1	2	-	1/Year	ND	0.98	2.0	U *
Aldrin	Grab	µg/L	E608.3	0.005	-	1/Year	ND	0.015	0.025	U *
alpha-BHC	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.012	0.025	U *
alpha-Endosulfan	Grab	µg/L	E608.3	0.02	-	1/Year	ND	0.0095	0.025	U *
Anthracene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.027	0.21	U *
Antimony	Grab	µg/L	E200.8	0.5	-	1/Year	1.3	0.36	2.0	J (DNQ*)
Aroclor-1016 (PCB-1016)	Grab	µg/L	E608.3	0.5	-	1/Quarter	ND	2.5	2.5	U *
Aroclor-1221 (PCB-1221)	Grab	µg/L	E608.3	0.5	-	1/Quarter	ND	2.5	2.5	U *
Aroclor-1232 (PCB-1232)	Grab	µg/L	E608.3	0.5	-	1/Quarter	ND	2.5	2.5	U *
Aroclor-1242 (PCB-1242)	Grab	µg/L	E608.3	0.5	-	1/Quarter	ND	2.5	2.5	U *
Aroclor-1248 (PCB-1248)	Grab	µg/L	E608.3	0.5	-	1/Quarter	ND	2.5	2.5	U *
Aroclor-1254 (PCB-1254)	Grab	µg/L	E608.3	0.5	-	1/Quarter	ND	2.5	2.5	U *
Aroclor-1260 (PCB-1260)	Grab	µg/L	E608.3	0.5	-	1/Quarter	ND	2.5	2.5	U *
Arsenic	Grab	µg/L	E200.8	2	-	1/Year	3.9	0.16	1.0	*
Asbestos > 10 um	Grab	MFL	EPA100.2	-	-	1/Year	ND	5.3	5.3	U *
Benzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.10	0.50	U *
Benzidine	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.96	5.1	U *
Benzo(a)anthracene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.061	0.21	U *
Benzo(a)pyrene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.030	0.21	U *
Benzo(b)fluoranthene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.070	0.21	U *
Benzo(g,h,i)perylene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.061	0.21	U *
Benzo(k)fluoranthene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.071	0.21	U *
Beryllium	Grab	µg/L	E200.8	0.5	-	1/Year	0.43	0.26	0.50	J (DNQ*)
beta-BHC	Grab	µg/L	E608.3	0.005	-	1/Year	ND	0.0075	0.025	U *
beta-Endosulfan	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.0095	0.025	U *
Bis (2-Chloroethoxy) Methane	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.073	0.21	U *
Bis (2-Chloroethyl) Ether	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.071	0.21	U *
Bis (2-Chloroisopropyl) Ether	Grab	µg/L	E625.1SIM	2	-	1/Year	ND	0.089	0.21	U *
Bis (2-Ethylhexyl) Phthalate	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	1.1	5.1	U *
Bromodichloromethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
Bromoform	Grab	µg/L	E624.1	2	-	1/Year	ND	0.25	1.0	U *
Bromomethane (Methyl Bromide)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.38	0.50	U *
Butyl benzylphthalate	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.36	1.0	U *
Cadmium	Grab	µg/L	E200.8	0.25	-	1/Year	1.4	0.13	1.0	*
Carbon tetrachloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.20	0.50	U *
Chlordane	Grab	µg/L	E608.3	0.1	-	1/Quarter	ND	0.50	0.50	U *
Chlorobenzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Chlorodibromomethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
Chloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.36	1.0	U *
Chloroform	Grab	µg/L	E624.1	2	-	1/Year	ND	0.25	0.50	U *
Chloromethane (Methyl Chloride)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.23	0.50	U *
Chlorpyrifos	Grab	µg/L	E525.2	-	0.014	1/Quarter	ND	0.004	0.010	U *
Chromium	Grab	µg/L	E200.8	0.5	-	1/Year	10	0.14	2.0	*
Chromium III (Trivalent)	Grab	µg/L	E218.6	-	-	1/Year	9.7	3.0	50	J (DNQ*)
Chromium VI (Hexavalent)	Grab	µg/L	E218.6	-	-	1/Year	0.33	0.051	0.20	*
Chrysene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.058	0.21	U *
cis-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Copper	Grab	µg/L	E200.8	0.5	-	1/Year	15	0.32	2.0	*
Cyanide	Grab	µg/L	KELADA-01	5	-	1/Year	ND	2.7	5.0	U *
delta-BHC	Grab	µg/L	E608.3	0.005	-	1/Year	ND	0.0095	0.025	U *
Diazinon	Grab	µg/L	E525.2	-	0.010	1/Quarter	ND	0.0034	0.010	U *
Dibenzo(a,h)anthracene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.15	0.21	U *
Dieldrin	Grab	µg/L	E608.3	0.01	-	1/Quarter	ND	0.0085	0.025	U *
Diethyl phthalate	Grab	µg/L	E625.1SIM	2	-	1/Year	ND	0.21	2.1	U *
Dimethyl phthalate	Grab	µg/L	E625.1SIM	2	-	1/Year	ND	1.7	2.1	U *
Di-n-butyl phthalate	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.73	2.1	U *
Di-n-octyl phthalate	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.078	3.1	U *
Endosulfan sulfate	Grab	µg/L	E608.3	0.05	-	1/Year	ND	0.014	0.025	U *
Endrin	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.020	0.025	U *
Endrin aldehyde	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.020	0.025	U *
Ethylbenzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.090	0.50	U *

TABLE C-3.A
RSW-002 (DOWNSTREAM)
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION	Arroyo Simi Receiving Water Downstream (RSW-002)			
						DATE RANGE	2/14/2025 12:15			
ANALYTE	SAMPLE TYPE	UNITS	METHOD	ML	DAILY MAXIMUM LIMIT	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
Fluoranthene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.057	0.21	U *
Fluorene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.061	0.21	U *
gamma-BHC (Lindane)	Grab	µg/L	E608.3	0.02	-	1/Year	ND	0.0075	0.025	U *
Hardness (as CaCO3)	Grab	mg/L	SM2340	-	-	1/Quarter	450	0.42	2.0	*
Heptachlor	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.012	0.025	U *
Heptachlor epoxide	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.009	0.025	U *
Hexachlorobenzene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.072	0.21	U *
Hexachlorobutadiene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.12	0.21	U *
Hexachlorocyclopentadiene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.11	0.21	U *
Hexachloroethane	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.10	0.21	U *
Indeno(1,2,3-cd)pyrene (EUR)	Grab	µg/L	E625.1SIM	10	-	Additional[(j)]	ND	0.14	0.21	U *
Indeno(1,2,3-cd)pyrene (EMAX)	Grab	µg/L	SW8270CSIM	10	-	1/Year	ND	0.10	0.30	U *
Isophorone	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.073	0.21	U *
Lead	Grab	µg/L	E200.8	0.5	-	1/Year	3.7	0.12	1.0	*
Mercury	Grab	µg/L	E1631E	0.5	-	1/Year	0.023	0.0002	0.0005	*
Methylene chloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.63	2.0	U *
Naphthalene (SVOC)	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.058	0.21	U *
Naphthalene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	ND	0.17	1.0	U *
Nickel	Grab	µg/L	E200.8	1	-	1/Year	21	0.17	2.0	*
Nitrobenzene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.087	0.21	U *
N-Nitrosodimethylamine	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.094	0.21	U *
N-Nitroso-di-n-propylamine	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.062	0.21	U *
N-Nitrosodiphenylamine	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.032	0.21	U *
Pentachlorophenol	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.099	1.0	U *
pH (Field)	Grab	s.u.	FIELDPARAM	-	6.5-8.5	1/Quarter	7.05	NM	NM	*
Phenanthrene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.070	0.21	U *
Phenol	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.034	1.0	U *
Pyrene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.069	0.21	U *
Selenium	Grab	µg/L	E200.8	2	-	1/Year	5.2	0.52	2.0	*
Silver	Grab	µg/L	E200.8	0.25	-	1/Year	ND	0.23	1.0	U *
Temperature (Field)	Grab	Deg F	FIELDPARAM	-	80	1/Quarter	56.0	NM	NM	*
Tetrachloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Thallium	Grab	µg/L	E200.8	1	-	1/Year	0.19	0.11	1.0	J (DNQ*)
Toluene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.11	0.50	U *
Total Suspended Solids	Grab	mg/L	SM2540D	-	-	1/Year	120	1.6	2.0	*
Toxaphene	Grab	µg/L	E608.3	0.5	-	1/Quarter	ND	5.0	5.0	U *
trans-1,2-Dichloroethene	Grab	µg/L	E624.1	1	-	1/Year	ND	0.19	0.50	U *
trans-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
Trichloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.11	0.50	U *
Vinyl chloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
Water Velocity	Grab	ft/sec	FIELDPARAM	-	-	1/Quarter	0	NM	NM	*
Zinc	Grab	µg/L	E200.8	1	-	1/Year	48	2.8	20	*

TABLE C-3.B
RSW-003 (UPSTREAM)
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION DATE RANGE	Arroyo Simi Receiving Water Upstream (RSW-003) 2/14/2025 12:45			
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**DAILY MAXIMUM LIMIT**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
1,1,1-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.19	0.50	U *
1,1,2,2-Tetrachloroethane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.15	0.50	U *
1,1,2-Trichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.20	0.50	U *
1,1-Dichloroethane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.23	0.50	U *
1,1-Dichloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.19	0.50	U *
1,2,4-Trichlorobenzene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.085	0.20	U *
1,2-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	2	-	1/Year	ND	0.079	0.20	U *
1,2-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
1,2-Dichloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.17	0.50	U *
1,2-Dichloropropane	Grab	µg/L	E624.1	1	-	1/Year	ND	0.17	0.50	U *
1,2-Diphenylhydrazine/Azobenzene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.024	0.20	U *
1,3-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.081	0.20	U *
1,3-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
1,4-Dichlorobenzene (SVOC)	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.078	0.20	U *
1,4-Dichlorobenzene (VOC)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.12	0.50	U *
2,4,6-Trichlorophenol	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.060	1.0	U *
2,4-Dichlorophenol	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.047	1.0	U *
2,4-Dimethylphenol	Grab	µg/L	E625.1SIM	2	-	1/Year	ND	0.066	0.20	U *
2,4-Dinitrophenol	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	2.6	5.1	U *
2,4-Dinitrotoluene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.13	0.20	U *
2,6-Dinitrotoluene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.068	0.20	U *
2-Chloroethyl vinyl ether (EUR)	Grab	µg/L	E624.1	-	-	Additional[(i)]	ND	0.92	2.0	U *
2-Chloroethyl vinyl ether (WECC)	Grab	µg/L	E624.1	-	-	1/Year	ND	0.59	5.0	U *
2-Chloronaphthalene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.068	0.20	U *
2-Chlorophenol	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.059	0.20	U *
2-Methyl-4,6-dinitrophenol	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	1.7	5.1	U *
2-Nitrophenol	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	1.5	5.1	U *
3,3'-Dichlorobenzidine	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.56	5.1	U *
4,4'-DDD	Grab	µg/L	E608.3	0.05	-	1/Year	ND	0.016	0.029	U *
4,4'-DDE	Grab	µg/L	E608.3	0.05	-	1/Year	ND	0.010	0.029	U *
4,4'-DDT	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.016	0.029	U *
4-Bromophenyl phenyl ether	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.055	0.20	U *
4-Chloro-3-methylphenol	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.056	1.0	U *
4-Chlorophenyl phenyl ether	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.063	0.20	U *
4-Nitrophenol	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.81	5.1	U *
Acenaphthene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.066	0.20	U *
Acenaphthylene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.066	0.20	U *
Acrolein	Grab	µg/L	E624.1	5	-	1/Year	ND	1.8	5.0	U *
Acrylonitrile	Grab	µg/L	E624.1	2	-	1/Year	ND	0.98	2.0	U *
Aldrin	Grab	µg/L	E608.3	0.005	-	1/Year	ND	0.018	0.029	U *
alpha-BHC	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.014	0.029	U *
alpha-Endosulfan	Grab	µg/L	E608.3	0.02	-	1/Year	ND	0.011	0.029	U *
Anthracene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.026	0.20	U *
Antimony	Grab	µg/L	E200.8	0.5	-	1/Year	0.73	0.36	2.0	J (DNQ*)
Aroclor-1016 (PCB-1016)	Grab	µg/L	E608.3	0.5	-	1/Year	ND	2.9	2.9	U *
Aroclor-1221 (PCB-1221)	Grab	µg/L	E608.3	0.5	-	1/Year	ND	2.9	2.9	U *
Aroclor-1232 (PCB-1232)	Grab	µg/L	E608.3	0.5	-	1/Year	ND	2.9	2.9	U *
Aroclor-1242 (PCB-1242)	Grab	µg/L	E608.3	0.5	-	1/Year	ND	2.9	2.9	U *
Aroclor-1248 (PCB-1248)	Grab	µg/L	E608.3	0.5	-	1/Year	ND	2.9	2.9	U *
Aroclor-1254 (PCB-1254)	Grab	µg/L	E608.3	0.5	-	1/Year	ND	2.9	2.9	U *
Aroclor-1260 (PCB-1260)	Grab	µg/L	E608.3	0.5	-	1/Year	ND	2.9	2.9	U *
Arsenic	Grab	µg/L	E200.8	2	-	1/Year	2.2	0.16	1.0	*
Asbestos > 10 µm	Grab	MFL	EPA100.2	-	-	1/Year	ND	10.6	10.6	U *
Benzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.10	0.50	U *
Benzidine	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.95	5.1	U *
Benzo(a)anthracene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.060	0.20	U *
Benzo(a)pyrene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.029	0.20	U *
Benzo(b)fluoranthene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.070	0.20	U *
Benzo(g,h,i)perylene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.061	0.20	U *
Benzo(k)fluoranthene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.070	0.20	U *
Beryllium	Grab	µg/L	E200.8	0.5	-	1/Year	ND	0.26	0.50	U *
beta-BHC	Grab	µg/L	E608.3	0.005	-	1/Year	ND	0.0087	0.029	U *
beta-Endosulfan	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.011	0.029	U *
Bis (2-Chloroethoxy) Methane	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.072	0.20	U *
Bis (2-Chloroethyl) Ether	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.070	0.20	U *
Bis (2-Chloroisopropyl) Ether	Grab	µg/L	E625.1SIM	2	-	1/Year	ND	0.088	0.20	U *
Bis (2-Ethylhexyl) Phthalate	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	1.1	5.1	U *
Bromodichloromethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
Bromoform	Grab	µg/L	E624.1	2	-	1/Year	ND	0.25	1.0	U *
Bromomethane (Methyl Bromide)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.38	0.50	U *
Butyl benzylphthalate	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.35	1.0	U *
Cadmium	Grab	µg/L	E200.8	0.25	-	1/Year	0.24	0.13	1.0	J (DNQ*)
Carbon tetrachloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.20	0.50	U *
Chlordane	Grab	µg/L	E608.3	0.1	-	1/Year	ND	0.58	0.58	U *
Chlorobenzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Chlorodibromomethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.13	0.50	U *
Chloroethane	Grab	µg/L	E624.1	2	-	1/Year	ND	0.36	1.0	U *
Chloroform	Grab	µg/L	E624.1	2	-	1/Year	ND	0.25	0.50	U *
Chloromethane (Methyl Chloride)	Grab	µg/L	E624.1	2	-	1/Year	ND	0.23	0.50	U *
Chromium	Grab	µg/L	E200.8	0.5	-	1/Year	4.1	0.14	2.0	*
Chromium III (Trivalent)	Grab	µg/L	E218.6	-	-	1/Year	3.8	3.0	50	J (DNQ*)
Chromium VI (Hexavalent)	Grab	µg/L	E218.6	-	-	1/Year	0.30	0.051	0.20	*
Chrysene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.057	0.20	U *
cis-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Copper	Grab	µg/L	E200.8	0.5	-	1/Year	8.6	0.32	2.0	*
Cyanide	Grab	µg/L	KELADA-01	5	-	1/Year	ND	2.7	5.0	U *
delta-BHC	Grab	µg/L	E608.3	0.005	-	1/Year	ND	0.011	0.029	U *
Dibenzo(a,h)anthracene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.14	0.20	U *
Dieldrin	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.0098	0.029	U *
Diethyl phthalate	Grab	µg/L	E625.1SIM	2	-	1/Year	ND	0.21	2.0	U *
Dimethyl phthalate	Grab	µg/L	E625.1SIM	2	-	1/Year	ND	1.7	2.0	U *
Di-n-butyl phthalate	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.72	2.0	U *
Di-n-octyl phthalate	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.077	3.1	U *
Endosulfan sulfate	Grab	µg/L	E608.3	0.05	-	1/Year	ND	0.017	0.029	U *
Endrin	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.023	0.029	U *
Endrin aldehyde	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.023	0.029	U *
Ethylbenzene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.090	0.50	U *
Fluoranthene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.057	0.20	U *
Fluorene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.061	0.20	U *

TABLE C-3.B
RSW-003 (UPSTREAM)
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

						LOCATION DATE RANGE	Arroyo Simi Receiving Water Upstream (RSW-003) 2/14/2025 12:45			
ANALYTE	**SAMPLE TYPE**	**UNITS**	**METHOD**	**ML**	**DAILY MAXIMUM LIMIT**	**SAMPLE FREQUENCY**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
gamma-BHC (Lindane)	Grab	µg/L	E608.3	0.02	-	1/Year	ND	0.0087	0.029	U *
Hardness (as CaCO3)	Grab	mg/L	SM2340	-	-	1/Quarter	450	0.42	2.0	*
Heptachlor	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.013	0.029	U *
Heptachlor epoxide	Grab	µg/L	E608.3	0.01	-	1/Year	ND	0.010	0.029	U *
Hexachlorobenzene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.071	0.20	U *
Hexachlorobutadiene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.11	0.20	U *
Hexachlorocyclopentadiene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.11	0.20	U *
Hexachloroethane	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.099	0.20	U *
Indeno(1,2,3-cd)pyrene (EUR)	Grab	µg/L	E625.1SIM	10	-	Additional[(j)]	ND	0.14	0.20	U *
Indeno(1,2,3-cd)pyrene (EMAX)	Grab	µg/L	SW8270CSIM	10	-	1/Year	ND	0.11	0.33	U *
Isophorone	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.072	0.20	U *
Lead	Grab	µg/L	E200.8	0.5	-	1/Year	2.2	0.12	1.0	*
Mercury	Grab	µg/L	E1631E	0.5	-	1/Year	0.014	0.0002	0.0005	*
Methylene chloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.63	2.0	U *
Naphthalene (SVOC)	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.057	0.20	U *
Naphthalene (VOC)	Grab	µg/L	E624.1	-	-	1/Year	ND	0.17	1.0	U *
Nickel	Grab	µg/L	E200.8	1	-	1/Year	6.1	0.17	2.0	*
Nitrobenzene	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.086	0.20	U *
N-Nitrosodimethylamine	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.093	0.20	U *
N-Nitroso-di-n-propylamine	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.061	0.20	U *
N-Nitrosodiphenylamine	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.032	0.20	U *
Pentachlorophenol	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.098	1.0	U *
pH (Field)	Grab	s.u.	FIELDPARAM	-	6.5-8.5	1/Quarter	7.70	NM	NM	*
Phenanthrene	Grab	µg/L	E625.1SIM	5	-	1/Year	ND	0.069	0.20	U *
Phenol	Grab	µg/L	E625.1SIM	1	-	1/Year	ND	0.034	1.0	U *
Pyrene	Grab	µg/L	E625.1SIM	10	-	1/Year	ND	0.068	0.20	U *
Selenium	Grab	µg/L	E200.8	2	-	1/Year	2.5	0.52	2.0	*
Silver	Grab	µg/L	E200.8	0.25	-	1/Year	ND	0.23	1.0	U *
Temperature (Field)	Grab	Deg F	FIELDPARAM	-	80	1/Quarter	57.2	NM	NM	*
Tetrachloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.14	0.50	U *
Thallium	Grab	µg/L	E200.8	1	-	1/Year	ND	0.11	1.0	U *
Toluene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.11	0.50	U *
Total Suspended Solids	Grab	mg/L	SM2540D	-	-	1/Year	120	1.6	2.0	*
Toxaphene	Grab	µg/L	E608.3	0.5	-	1/Year	ND	5.8	5.8	U *
trans-1,2-Dichloroethene	Grab	µg/L	E624.1	1	-	1/Year	ND	0.19	0.50	U *
trans-1,3-Dichloropropene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
Trichloroethene	Grab	µg/L	E624.1	2	-	1/Year	ND	0.11	0.50	U *
Vinyl chloride	Grab	µg/L	E624.1	2	-	1/Year	ND	0.16	0.50	U *
Water Velocity	Grab	ft/sec	FIELDPARAM	-	-	1/Quarter	0	NM	NM	*
Zinc	Grab	µg/L	E200.8	1	-	1/Year	24	2.8	20	*

TABLE C-4
E. COLI
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

				E. Coli (MPN/100mL)				
LOCATION	**SAMPLE DATE AND TIME**	**RECEIVING WATER LIMIT**	**METHOD**	**SAMPLE TYPE**	**RESULT**	**MDL**	**RL**	**LAB/ VALIDATION QUALIFIER**
Outfall 001	2/14/2025 10:20[f]	-	SM9223B	Grab	2,400	NA	NA	*
RSW-001 at Outfall 002	2/7/2025 07:35	235	SM9223B	Grab	33	NA	NA	*
RSW-001 at Outfall 002	2/8/2025 08:30	235	SM9223B	Grab	170	NA	NA	*
RSW-001 at Outfall 002	2/9/2025 07:15	235	SM9223B	Grab	2.0	NA	NA	*
RSW-001 at Outfall 002	2/13/2025 07:00	235	SM9223B	Grab	690	NA	NA	*
RSW-001 at Outfall 002	2/14/2025 07:45	235	SM9223B	Grab	1,400	NA	NA	*
RSW-001 at Outfall 002	2/15/2025 08:35	235	SM9223B	Grab	46	NA	NA	*
RSW-001 at Outfall 002	2/16/2025 07:20	235	SM9223B	Grab	25	NA	NA	*
RSW-001 at Outfall 002	2/17/2025 07:00	235	SM9223B	Grab	21	NA	NA	*
RSW-001 at Outfall 002	2/18/2025 07:00	235	SM9223B	Grab	11	NA	NA	*
RSW-001 at Outfall 002	2/19/2025 08:35	235	SM9223B	Grab	7.4	NA	NA	*
RSW-001 at Outfall 002	2/20/2025 07:20	235	SM9223B	Grab	120	NA	NA	*
RSW-001 at Outfall 002	2/21/2025 06:30	235	SM9223B	Grab	28	NA	NA	*
RSW-001 at Outfall 002	2/22/2025 07:35	235	SM9223B	Grab	28	NA	NA	*
RSW-001 at Outfall 002	2/23/2025 07:40	235	SM9223B	Grab	8.5	NA	NA	*
RSW-001 at Outfall 002	2/24/2025 06:40	235	SM9223B	Grab	5.2	NA	NA	*
RSW-001 at Outfall 002	2/25/2025 08:25	235	SM9223B	Grab	3.1	NA	NA	*
RSW-001 at Outfall 002	2/26/2025 08:30	235	SM9223B	Grab	3.1	NA	NA	*
RSW-001 at Outfall 002	2/27/2025 08:30	235	SM9223B	Grab	1.0	NA	NA	*
RSW-001 at Outfall 002	2/28/2025 06:50	235	SM9223B	Grab	1.0	NA	NA	*
Geomean		126		Calc	18			
Outfall 008	2/14/2025 09:20[f]	-	SM9223B	Grab	75	NA	NA	*
Outfall 009	2/13/2025 14:10	-	SM9223B	Grab	1,500	NA	NA	*
Outfall 018	2/19/2025 14:20	-	SM9223B	Grab	440	NA	NA	*
RSW-002	2/14/2025 12:15	320[r]	SM9223B	Grab	5,400	NA	NA	*
RSW-002	2/15/2025 09:15	320[r]	SM9223B	Grab	2,400	NA	NA	*
RSW-002	2/16/2025 08:25	320[r]	SM9223B	Grab	1,700	NA	NA	*
RSW-002	2/17/2025 08:00	320[r]	SM9223B	Grab	580	NA	NA	*
RSW-002	2/18/2025 08:00	320[r]	SM9223B	Grab	130	NA	NA	*
RSW-002	2/19/2025 06:40	320[r]	SM9223B	Grab	84	NA	NA	*
RSW-002	2/20/2025 06:30	320[r]	SM9223B	Grab	55	NA	NA	*
Geomean		100		Calc	499			
RSW-003	2/14/2025 12:45	320[r]	SM9223B	Grab	8,000	NA	NA	*
RSW-003	2/15/2025 9:45	320[r]	SM9223B	Grab	9,200	NA	NA	*
RSW-003	2/16/2025 8:05	320[r]	SM9223B	Grab	2,400	NA	NA	*
Geomean		100		Calc	5,611			
SWTS 018 (INF-002)	2/19/2025 07:45	-	SM9223B	Grab	36	NA	NA	*

TABLE C-5
RADIONUCLIDES
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

Analyte		Cesium-137, Total			Gross Alpha Analytes, Total			Gross Beta Analytes, Total			Gross Beta Analytes			Potassium-40, Total		
Method		E901.1			E900			E900			E900			E901.1		
Units		pCi/L			pCi/L			pCi/L			millirem/yr			pCi/L		
Daily Maximum Limit		-			15			4 millirem/yr			4			-		
Sample Frequency		1/Discharge			1/Discharge			1/Discharge			1/Discharge			1/Discharge		
LOCATION	SAMPLE DATE AND TIME	RESULT	MDA	LAB/VALIDATION QUALIFIER	RESULT	MDA	LAB/VALIDATION QUALIFIER	RESULT	MDA	LAB/VALIDATION QUALIFIER	RESULT	MDA	LAB/ VALIDATION QUALIFIER	RESULT	MDA	LAB/VALIDATION QUALIFIER
Outfall 001	2/14/2025 11:00	-5.41 ± 15.1	18.4	U *	5.46 ± 2.21	2.44	*	7.24 ± 1.71	1.67	*	<4	NA	NA	-71.1 ± 181	256	U *
Outfall 002	2/8/2025 08:30	0.828 ± 10.1	14.4	U *	0.607 ± 2.95	5.55	U *	3.16 ± 1.38	1.85	*	<4	NA	NA	-20.2 ± 115	179	U *
Outfall 002	2/14/2025 07:45	-3.54 ± 14.3	19.8	U *	9.61 ± 4.1	4.80	*	8.00 ± 1.85	1.78	*	<4	NA	NA	124 ± 154	201	U *
Outfall 002	3/6/2025 10:10	3.90 ± 7.75	10.1	U *	7.44 ± 5.58	8.42	U *	3.55 ± 1.78	2.48	*	<4	NA	NA	-53.2 ± 78.0	164	U *
Outfall 002	3/12/2025 10:50	1.51 ± 12.0	14.8	U *	3.91 ± 3.56	5.48	U *	1.71 ± 1.34	2.04	U *	<4	NA	NA	-15.8 ± 137	205	U *
Outfall 002	4/1/2025 08:45	-11.0 ± 13.5	19.7	U *	1.47 ± 2.84	4.96	U *	-0.188 ± 1.02	1.83	U *	<4	NA	NA	39.4 ± 139	192	U *
Outfall 008	2/14/2025 09:40	6.93 ± 6.99	8.06	U *	0.808 ± 0.884	1.43	U *	4.37 ± 0.960	0.927	*	<4	NA	NA	-145 ± 169	294	U *
Outfall 009	2/15/2025 08:00	-0.115 ± 9.97	14.4	U *	9.33 ± 2.40	1.83	*	7.41 ± 1.36	1.12	*	<4	NA	NA	-20.2 ± 115	179	U *
Outfall 009[(i)]	2/15/2025 08:00	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Outfall 009	3/14/2025 07:40	3.05 ± 10.6	13.9	U *	1.83 ± 1.11	1.55	*	1.62 ± 0.706	0.922	*	<4	NA	NA	51.0 ± 104	172	U *
Outfall 018	2/21/2025 08:00	-9.32 ± 22.6	21.0	U *	0.339 ± 0.771	1.41	U *	3.53 ± 0.936	1.08	*	<4	NA	NA	-4.55 ± 195	243	U *
Outfall 018	3/18/2025 11:30	0.311 ± 11.6	15.5	U *	0.912 ± 1.37	2.33	U *	3.30 ± 0.863	0.942	*	<4	NA	NA	32.5 ± 100	172	U *
SWTS 018 (INF-002)	2/19/2025 07:45	-8.95 ± 14.3	18.7	U *	1.95 ± 1.51	2.31	U *	3.70 ± 0.979	1.12	*	<4	NA	NA	48.0 ± 103	170	U *
SWTS 018 (INF-002)	3/17/2025 08:30	-1.28 ± 11.3	15.0	U *	3.58 ± 2.04	2.86	*	4.47 ± 1.06	1.11	*	<4	NA	NA	-43.9 ± 120	193	U *

TABLE C-5
RADIONUCLIDES
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

Analyte		Radium-226 & 228			Strontium-90, Total			Total Uranium			Tritium, Total		
Method		E903/904			E905.0			HASL-300 U Mod			E906.0		
Units		pCi/L			pCi/L			pCi/L			pCi/L		
Daily Maximum Limit		5.0			8.0			20			20,000		
Sample Frequency		1/Discharge			1/Discharge			1/Discharge			1/Discharge		
LOCATION	SAMPLE DATE AND TIME	RESULT	MDA	LAB/VALIDATION QUALIFIER	RESULT	MDA	LAB/VALIDATION QUALIFIER	RESULT	MDA	LAB/VALIDATION QUALIFIER	RESULT	MDA	LAB/VALIDATION QUALIFIER
Outfall 001	2/14/2025 11:00	0.646 ± 0.670	NM	*	0.324 ± 0.445	0.742	U *	0.799 ± 0.414	0.317	*	123 ± 227	399	U *
Outfall 002	2/8/2025 08:30	0.822 ± 0.461	NM	U *	0.365 ± 0.317	0.506	U *	1.76 ± 0.601	0.326	*	31.1 ± 204	371	U *
Outfall 002	2/14/2025 07:45	3.18 ± 1.75	NM	U *	0.247 ± 0.285	0.467	U *	1.20 ± 0.483	0.297	*	150 ± 259	467	U *
Outfall 002	3/6/2025 10:10	0.620 ± 0.378	NM	U *	0.0653 ± 0.296	0.518	U *	2.83 ± 0.538	0.129	*	-94.6 ± 198	367	U *
Outfall 002	3/12/2025 10:50	0.510 ± 0.290	NM	U *	0.349 ± 0.305	0.483	U *	2.22 ± 0.469	0.152	*	185 ± 218	355	U *
Outfall 002	4/1/2025 08:45	0.573 ± 0.363	NM	U *	0.422 ± 0.437	0.708	U *	1.78 ± 0.427	0.164	*	-148 ± 117	227	U *
Outfall 008	2/14/2025 09:40	1.74 ± 0.861	NM	U *	0.0820 ± 0.267	0.467	U *	0.168 ± 0.223	0.312	U *	-35.6 ± 232	463	U *
Outfall 009	2/15/2025 08:00	6.63 ± 2.29	NM	B, *III	0.119 ± 0.329	0.571	U *	0.537 ± 0.351	0.350	*	54.5 ± 212	382	U *
Outfall 009[(i)]	2/15/2025 08:00	1.12 ± 0.693	NM	U *	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR	ANR
Outfall 009	3/14/2025 07:40	2.11 ± 1.16	NM	U *	0.500 ± 0.396	0.623	U *	0.472 ± 0.317	0.304	*	351 ± 239	367	U *
Outfall 018	2/21/2025 08:00	0.534 ± 0.323	NM	U *	0.235 ± 0.306	0.508	U *	0.148 ± 0.1280	0.153	U *	-0.901 ± 138	248	U *
Outfall 018	3/18/2025 11:30	0.535 ± 0.338	NM	U *	0.719 ± 0.314	0.433	*	0.0907 ± 0.1018	0.114	U *	-68.0 ± 126	234	U *
SWTS 018 (INF-002)	2/19/2025 07:45	1.97 ± 1.12	NM	U *	0.260 ± 0.454	0.772	U *	0.664 ± 0.412	0.401	*	-73.4 ± 129	243	U *
SWTS 018 (INF-002)	3/17/2025 08:30	1.02 ± 0.57	NM	U *	0.423 ± 0.283	0.435	U *	1.18 ± 0.495	0.307	*	179 ± 203	332	U *

TABLE C-6
TCDD TEQ
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

							LOCATION	Outfall 001					Outfall 002 and Bell Creek Receiving Water (RSW-001)				
							DATE RANGE	02/14/2025 10:20[f] - 02/14/2025 11:00					02/07/2025 07:35 - 02/08/2025 08:30				
ANALYTE	METHOD	ML	INFLUENT AND OUTFALLS 001, 002, 011, 018 SAMPLE FREQUENCY	RECEIVING WATER AND OUTFALLS 003 THROUGH 010 SAMPLE FREQUENCY	1998 WHO TEF	BEF GREAT LAKES WATER QUALITY INITIATIVE	UNITS	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)
1,2,3,4,6,7,8-HpCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.05	µg/L	3.3E-06	4.8E-05	0.00036	--	1.8E-07	3.9E-07	4.8E-05	ND	U	ND
1,2,3,4,6,7,8-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.01	µg/L	2.6E-06	4.8E-05	0.00013	--	1.3E-08	9.6E-07	4.8E-05	ND	U	ND
1,2,3,4,7,8,9-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.4	µg/L	3.1E-06	4.8E-05	0.0000081	J (DNQ)	ND	1.3E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.3	µg/L	2.1E-06	4.8E-05	ND	UJ (*10)	ND	1.7E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.08	µg/L	1.4E-06	4.8E-05	0.0000066	J (DNQ)	ND	9.9E-07	4.8E-05	ND	U	ND
1,2,3,6,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	2.0E-06	4.8E-05	0.000012	J (DNQ)	ND	1.6E-06	4.8E-05	ND	U	ND
1,2,3,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.2	µg/L	1.3E-06	4.8E-05	0.0000069	J (DNQ)	ND	9.0E-07	4.8E-05	ND	U	ND
1,2,3,7,8,9-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	1.8E-06	4.8E-05	9.0E-06	J (DNQ)	ND	1.4E-06	4.8E-05	ND	U	ND
1,2,3,7,8,9-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.6	µg/L	1.2E-06	4.8E-05	ND	U (B)	ND	8.8E-07	4.8E-05	ND	U	ND
1,2,3,7,8-PeCDD	E1613B	5.00E-05	1/Discharge	1/Year	1	0.9	µg/L	1.7E-06	4.8E-05	ND	U	ND	1.5E-06	4.8E-05	ND	U	ND
1,2,3,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.05	0.2	µg/L	1.4E-06	4.8E-05	ND	U	ND	1.6E-06	4.8E-05	ND	U	ND
2,3,4,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.7	µg/L	1.2E-06	4.8E-05	5.0E-06	J (DNQ)	ND	7.5E-07	4.8E-05	ND	U	ND
2,3,4,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.5	1.6	µg/L	1.5E-06	4.8E-05	ND	U	ND	1.4E-06	4.8E-05	ND	U	ND
2,3,7,8-TCDD	E1613B	0.00001	1/Discharge	1/Year	1	1	µg/L	1.4E-06	9.6E-06	ND	U	ND	1.1E-06	9.6E-06	ND	U	ND
2,3,7,8-TCDF	E1613B	0.00001	1/Discharge	1/Year	0.1	0.8	µg/L	9.0E-07	9.6E-06	ND	U	ND	6.5E-07	9.6E-06	ND	U	ND
OCDD	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.01	µg/L	6.8E-06	9.6E-05	0.0041	--	4.1E-09	1.4E-06	9.6E-05	ND	U (B)	ND
OCDF	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.02	µg/L	2.1E-06	9.6E-05	0.00033	--	6.6E-10	1.1E-06	9.6E-05	ND	U	ND

TCDD TEQ w/out DNQ Values in µg/L	**2.0E-07**	**TCDD TEQ w/out DNQ Values in µg/L**	**ND**
TCDD TEQ w/out DNQ Values in lbs/day	**6.0E-11**	**TCDD TEQ w/out DNQ Values in lbs/day**	**ND**

TCDD TEQ Limit (µg/L)	**2.8E-08**	**TCDD TEQ Limit (µg/L)[n]**	**2.8E-08**
TCDD TEQ Limit (lbs/day)	**2.75E-08**	**TCDD TEQ Limit (lbs/day)[n]**	**2.75E-08**

TABLE C-6
TCDD TEQ
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

							LOCATION	Outfall 002					Outfall 002				
							DATE RANGE	02/13/2025 07:00 - 02/14/2025 07:45					03/05/2025 10:15 - 03/06/2025 10:10				
ANALYTE	METHOD	ML	INFLUENT AND OUTFALLS 001, 002, 011, 018 SAMPLE FREQUENCY	RECEIVING WATER AND OUTFALLS 003 THROUGH 010 SAMPLE FREQUENCY	1998 WHO TEF	BEF GREAT LAKES WATER QUALITY INITIATIVE	UNITS	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)
1,2,3,4,6,7,8-HpCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.05	µg/L	1.4E-06	4.8E-05	8.5E-05	--	4.25E-08	6.0E-07	4.8E-05	ND	U (B)	ND
1,2,3,4,6,7,8-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.01	µg/L	9.9E-07	4.8E-05	2.80E-05	J (DNQ)	ND	2.1E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8,9-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.4	µg/L	1.0E-06	4.8E-05	ND	U	ND	2.4E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.3	µg/L	7.2E-07	4.8E-05	ND	U	ND	2.9E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.08	µg/L	5.6E-07	4.8E-05	ND	U	ND	1.7E-06	4.8E-05	ND	U	ND
1,2,3,6,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	7.1E-07	4.8E-05	ND	U	ND	3.0E-06	4.8E-05	ND	U	ND
1,2,3,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.2	µg/L	5.3E-07	4.8E-05	ND	U	ND	1.4E-06	4.8E-05	ND	U	ND
1,2,3,7,8,9-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	6.2E-07	4.8E-05	ND	U	ND	2.6E-06	4.8E-05	ND	U	ND
1,2,3,7,8,9-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.6	µg/L	4.4E-07	4.8E-05	ND	U	ND	1.3E-06	4.8E-05	ND	U	ND
1,2,3,7,8-PeCDD	E1613B	5.00E-05	1/Discharge	1/Year	1	0.9	µg/L	7.2E-07	4.8E-05	ND	U	ND	4.0E-06	4.8E-05	ND	U	ND
1,2,3,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.05	0.2	µg/L	7.9E-07	4.8E-05	ND	U	ND	1.7E-06	4.8E-05	ND	U	ND
2,3,4,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.7	µg/L	4.7E-07	4.8E-05	ND	U	ND	1.2E-06	4.8E-05	ND	U	ND
2,3,4,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.5	1.6	µg/L	9.2E-07	4.8E-05	ND	U	ND	1.8E-06	4.8E-05	ND	U	ND
2,3,7,8-TCDD	E1613B	0.00001	1/Discharge	1/Year	1	1	µg/L	4.9E-07	9.6E-06	ND	U	ND	1.2E-06	9.6E-06	ND	U	ND
2,3,7,8-TCDF	E1613B	0.00001	1/Discharge	1/Year	0.1	0.8	µg/L	5.8E-07	9.6E-06	ND	U	ND	8.1E-07	9.6E-06	ND	U	ND
OCDD	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.01	µg/L	2.3E-06	9.6E-05	0.001	--	1.0E-09	2.5E-06	9.6E-05	ND	U (B)	ND
OCDF	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.02	µg/L	1.0E-06	9.6E-05	ND	U (B)	ND	1.4E-06	9.6E-05	0.0000042	J (DNQ)	ND

TCDD TEQ w/out DNQ Values in µg/L	**4.4E-08**	**TCDD TEQ w/out DNQ Values in µg/L**	**ND**
TCDD TEQ w/out DNQ Values in lbs/day	**1.2E-10**	**TCDD TEQ w/out DNQ Values in lbs/day**	**ND**

TCDD TEQ Limit (µg/L)	**2.8E-08**	**TCDD TEQ Limit (µg/L)**	**2.8E-08**
TCDD TEQ Limit (lbs/day)	**2.75E-08**	**TCDD TEQ Limit (lbs/day)**	**2.75E-08**

TABLE C-6
TCDD TEQ
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

							LOCATION	Outfall 002					Outfall 002				
							DATE RANGE	03/11/2025 10:40 - 03/12/2025 10:50					03/31/2025 07:25 - 04/01/2025 08:45				
ANALYTE	METHOD	ML	INFLUENT AND OUTFALLS 001, 002, 011, 018 SAMPLE FREQUENCY	RECEIVING WATER AND OUTFALLS 003 THROUGH 010 SAMPLE FREQUENCY	1998 WHO TEF	BEF GREAT LAKES WATER QUALITY INITIATIVE	UNITS	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)
1,2,3,4,6,7,8-HpCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.05	µg/L	5.8E-07	4.9E-05	ND	U (B)	ND	1.9E-06	4.8E-05	ND	U	ND
1,2,3,4,6,7,8-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.01	µg/L	1.3E-06	4.9E-05	ND	U	ND	2.1E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8,9-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.4	µg/L	1.5E-06	4.9E-05	ND	U	ND	2.3E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.3	µg/L	2.1E-06	4.9E-05	ND	U	ND	2.5E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.08	µg/L	1.1E-06	4.9E-05	ND	U	ND	1.8E-06	4.8E-05	ND	U	ND
1,2,3,6,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	2.2E-06	4.9E-05	ND	U	ND	2.3E-06	4.8E-05	ND	U	ND
1,2,3,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.2	µg/L	9.2E-07	4.9E-05	ND	U	ND	1.7E-06	4.8E-05	ND	U	ND
1,2,3,7,8,9-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	1.9E-06	4.9E-05	ND	U	ND	2.1E-06	4.8E-05	ND	U	ND
1,2,3,7,8,9-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.6	µg/L	8.8E-07	4.9E-05	ND	U	ND	1.4E-06	4.8E-05	ND	U (B)	ND
1,2,3,7,8-PeCDD	E1613B	5.00E-05	1/Discharge	1/Year	1	0.9	µg/L	2.5E-06	4.9E-05	ND	U	ND	2.2E-06	4.8E-05	ND	U	ND
1,2,3,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.05	0.2	µg/L	1.3E-06	4.9E-05	ND	U	ND	1.3E-06	4.8E-05	ND	U	ND
2,3,4,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.7	µg/L	8.5E-07	4.9E-05	ND	U	ND	1.4E-06	4.8E-05	ND	U	ND
2,3,4,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.5	1.6	µg/L	1.6E-06	4.9E-05	ND	U	ND	1.4E-06	4.8E-05	ND	U	ND
2,3,7,8-TCDD	E1613B	0.00001	1/Discharge	1/Year	1	1	µg/L	7.2E-07	9.9E-06	ND	U	ND	1.4E-06	9.5E-06	ND	U	ND
2,3,7,8-TCDF	E1613B	0.00001	1/Discharge	1/Year	0.1	0.8	µg/L	6.5E-07	9.9E-06	ND	U	ND	5.8E-07	9.5E-06	ND	U	ND
OCDD	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.01	µg/L	1.8E-06	9.9E-05	ND	U (B)	ND	3.6E-06	9.5E-05	ND	U (B)	ND
OCDF	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.02	µg/L	1.2E-06	9.9E-05	ND	U	ND	2.0E-06	9.5E-05	ND	U	ND

TCDD TEQ w/out DNQ Values in µg/L	ND	TCDD TEQ w/out DNQ Values in µg/L	ND
TCDD TEQ w/out DNQ Values in lbs/day	ND	TCDD TEQ w/out DNQ Values in lbs/day	ND

TCDD TEQ Limit (µg/L)	2.8E-08	TCDD TEQ Limit (µg/L)	2.8E-08
TCDD TEQ Limit (lbs/day)	2.75E-08	TCDD TEQ Limit (lbs/day)	2.75E-08

TABLE C-6
TCDD TEQ
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

							LOCATION	Outfall 008					Outfall 009				
							DATE RANGE	02/14/2025 09:20[f] - 02/14/2025 09:40					02/13/2025 14:10 - 02/15/2025 08:00				
ANALYTE	METHOD	ML	INFLUENT AND OUTFALLS 001, 002, 011, 018 SAMPLE FREQUENCY	RECEIVING WATER AND OUTFALLS 003 THROUGH 010 SAMPLE FREQUENCY	1998 WHO TEF	BEF GREAT LAKES WATER QUALITY INITIATIVE	UNITS	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)
1,2,3,4,6,7,8-HpCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.05	µg/L	1.2E-06	4.9E-05	1.0E-05	J (DNQ)	ND	1.1E-06	4.8E-05	1.1E-04	--	5.5E-08
1,2,3,4,6,7,8-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.01	µg/L	6.3E-07	4.9E-05	ND	U	ND	1.4E-06	4.8E-05	3.9E-05	J (DNQ)	ND
1,2,3,4,7,8,9-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.4	µg/L	7.1E-07	4.9E-05	ND	U	ND	1.8E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.3	µg/L	6.6E-07	4.9E-05	ND	U	ND	2.3E-06	4.8E-05	0.0000037	J (DNQ)	ND
1,2,3,4,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.08	µg/L	5.3E-07	4.9E-05	ND	U	ND	1.4E-06	4.8E-05	ND	UJ (*10)	ND
1,2,3,6,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	6.4E-07	4.9E-05	ND	U	ND	2.2E-06	4.8E-05	0.0000049	J (DNQ)	ND
1,2,3,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.2	µg/L	5.1E-07	4.9E-05	ND	U	ND	1.3E-06	4.8E-05	ND	U	ND
1,2,3,7,8,9-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	5.7E-07	4.9E-05	ND	U	ND	1.9E-06	4.8E-05	0.0000054	J (DNQ)	ND
1,2,3,7,8,9-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.6	µg/L	4.5E-07	4.9E-05	ND	U	ND	1.2E-06	4.8E-05	ND	U	ND
1,2,3,7,8-PeCDD	E1613B	5.00E-05	1/Discharge	1/Year	1	0.9	µg/L	6.6E-07	4.9E-05	ND	U	ND	1.9E-06	4.8E-05	ND	U	ND
1,2,3,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.05	0.2	µg/L	6.9E-07	4.9E-05	ND	U	ND	1.3E-06	4.8E-05	ND	U	ND
2,3,4,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.7	µg/L	4.7E-07	4.9E-05	ND	U	ND	1.2E-06	4.8E-05	ND	U	ND
2,3,4,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.5	1.6	µg/L	7.8E-07	4.9E-05	ND	U	ND	1.6E-06	4.8E-05	ND	U	ND
2,3,7,8-TCDD	E1613B	0.00001	1/Discharge	1/Year	1	1	µg/L	6.2E-07	9.7E-06	ND	U	ND	8.3E-07	9.5E-06	ND	U	ND
2,3,7,8-TCDF	E1613B	0.00001	1/Discharge	1/Year	0.1	0.8	µg/L	6.0E-07	9.7E-06	ND	U	ND	8.0E-07	9.5E-06	ND	U	ND
OCDD	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.01	µg/L	1.2E-06	9.7E-05	ND	U (B)	ND	2.7E-06	9.5E-05	0.0012	--	1.2E-09
OCDF	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.02	µg/L	8.2E-07	9.7E-05	ND	U	ND	1.8E-06	9.5E-05	7.9E-05	J (DNQ)	ND

TCDD TEQ w/out DNQ Values in µg/L	ND	TCDD TEQ w/out DNQ Values in µg/L	5.6E-08
TCDD TEQ w/out DNQ Values in lbs/day	ND	TCDD TEQ w/out DNQ Values in lbs/day	3.7E-10

TCDD TEQ Limit (µg/L)	2.8E-08	TCDD TEQ Limit (µg/L)	2.8E-08
TCDD TEQ Limit (lbs/day)	1.7E-09	TCDD TEQ Limit (lbs/day)	1.5E-08

TABLE C-6
TCDD TEQ
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

							LOCATION	Outfall 018					Outfall 018				
							DATE RANGE	02/19/2025 14:20 - 02/21/2025 08:00					03/17/2025 13:10 - 03/18/2025 11:30				
ANALYTE	METHOD	ML	INFLUENT AND OUTFALLS 001, 002, 011, 018 SAMPLE FREQUENCY	RECEIVING WATER AND OUTFALLS 003 THROUGH 010 SAMPLE FREQUENCY	1998 WHO TEF	BEF GREAT LAKES WATER QUALITY INITIATIVE	UNITS	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)
1,2,3,4,6,7,8-HpCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.05	µg/L	3.0E-07	4.8E-05	ND	U	ND	9.6E-07	4.8E-05	ND	U (B)	ND
1,2,3,4,6,7,8-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.01	µg/L	3.8E-07	4.8E-05	ND	U	ND	2.7E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8,9-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.4	µg/L	4.7E-07	4.8E-05	ND	U	ND	3.4E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.3	µg/L	5.2E-07	4.8E-05	0.0000013	J (DNQ)	ND	3.5E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.08	µg/L	2.1E-07	4.8E-05	ND	U	ND	2.2E-06	4.8E-05	ND	U	ND
1,2,3,6,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	5.1E-07	4.8E-05	ND	UJ (*10)	ND	3.7E-06	4.8E-05	ND	U	ND
1,2,3,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.2	µg/L	2.0E-07	4.8E-05	ND	U	ND	2.0E-06	4.8E-05	ND	U	ND
1,2,3,7,8,9-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	4.5E-07	4.8E-05	ND	U	ND	3.1E-06	4.8E-05	ND	U	ND
1,2,3,7,8,9-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.6	µg/L	1.9E-07	4.8E-05	ND	U	ND	1.9E-06	4.8E-05	ND	U	ND
1,2,3,7,8-PeCDD	E1613B	5.00E-05	1/Discharge	1/Year	1	0.9	µg/L	4.6E-07	4.8E-05	ND	U	ND	5.1E-06	4.8E-05	ND	U	ND
1,2,3,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.05	0.2	µg/L	3.4E-07	4.8E-05	ND	U	ND	2.2E-06	4.8E-05	ND	U	ND
2,3,4,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.7	µg/L	1.8E-07	4.8E-05	ND	U	ND	1.8E-06	4.8E-05	ND	U	ND
2,3,4,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.5	1.6	µg/L	3.9E-07	4.8E-05	ND	U	ND	2.4E-06	4.8E-05	ND	U	ND
2,3,7,8-TCDD	E1613B	0.00001	1/Discharge	1/Year	1	1	µg/L	3.1E-07	9.7E-06	ND	U	ND	3.2E-06	9.5E-06	ND	U	ND
2,3,7,8-TCDF	E1613B	0.00001	1/Discharge	1/Year	0.1	0.8	µg/L	2.7E-07	9.7E-06	ND	U	ND	1.6E-06	9.5E-06	ND	U	ND
OCDD	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.01	µg/L	2.9E-07	9.7E-05	ND	U (B)	ND	4.2E-06	9.5E-05	ND	U (B)	ND
OCDF	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.02	µg/L	3.3E-07	9.7E-05	ND	U	ND	2.9E-06	9.5E-05	ND	UJ (*10)	ND

TCDD TEQ w/out DNQ Values in µg/L	ND	TCDD TEQ w/out DNQ Values in µg/L	ND
TCDD TEQ w/out DNQ Values in lbs/day	ND	TCDD TEQ w/out DNQ Values in lbs/day	ND

TCDD TEQ Limit (µg/L)	2.8E-08	TCDD TEQ Limit (µg/L)	2.8E-08
TCDD TEQ Limit (lbs/day)	2.75E-08	TCDD TEQ Limit (lbs/day)	2.75E-08

TABLE C-6
TCDD TEQ
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

								LOCATION	Arroyo Simi Receiving Water Downstream (RSW-002)					Arroyo Simi Receiving Water Upstream (RSW-003)				
								DATE RANGE	2/14/2025 12:15					2/14/2025 12:45				
ANALYTE	METHOD	ML	INFLUENT AND OUTFALLS 001, 002, 011, 018 SAMPLE FREQUENCY	RECEIVING WATER AND OUTFALLS 003 THROUGH 010 SAMPLE FREQUENCY	1998 WHO TEF	BEF GREAT LAKES WATER QUALITY INITIATIVE	UNITS	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)
1,2,3,4,6,7,8-HpCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.05	µg/L	4.5E-07	4.9E-05	ND	UJ (*10)	ND	1.0E-06	5.1E-05	4.4E-05	J (DNQ)	ND
1,2,3,4,6,7,8-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.01	µg/L	9.2E-07	4.9E-05	3.5E-05	J (DNQ)	ND	1.5E-06	5.1E-05	1.3E-05	J (DNQ)	ND
1,2,3,4,7,8,9-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.4	µg/L	9.9E-07	4.9E-05	ND	UJ (*10)	ND	1.9E-06	5.1E-05	ND	U	ND
1,2,3,4,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.3	µg/L	4.1E-07	4.9E-05	ND	UJ (*10)	ND	1.5E-06	5.1E-05	ND	U	ND
1,2,3,4,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.08	µg/L	4.4E-07	4.9E-05	ND	U	ND	8.6E-07	5.1E-05	ND	U	ND
1,2,3,6,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	4.4E-07	4.9E-05	0.00000067	J (DNQ)	ND	1.5E-06	5.1E-05	ND	U	ND
1,2,3,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.2	µg/L	3.9E-07	4.9E-05	ND	UJ (*10)	ND	8.2E-07	5.1E-05	ND	U	ND
1,2,3,7,8,9-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	3.7E-07	4.9E-05	ND	U	ND	1.3E-06	5.1E-05	ND	U	ND
1,2,3,7,8,9-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.6	µg/L	3.8E-07	4.9E-05	0.0000035	J (DNQ)	ND	8.2E-07	5.1E-05	ND	U	ND
1,2,3,7,8-PeCDD	E1613B	5.00E-05	1/Discharge	1/Year	1	0.9	µg/L	6.9E-07	4.9E-05	ND	U	ND	1.6E-06	5.1E-05	ND	U	ND
1,2,3,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.05	0.2	µg/L	4.8E-07	4.9E-05	ND	U	ND	9.2E-07	5.1E-05	ND	U	ND
2,3,4,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.7	µg/L	4.2E-07	4.9E-05	0.0000028	J (DNQ)	ND	9.6E-07	5.1E-05	ND	U	ND
2,3,4,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.5	1.6	µg/L	6.1E-07	4.9E-05	ND	U	ND	1.3E-06	5.1E-05	ND	U	ND
2,3,7,8-TCDD	E1613B	0.00001	1/Discharge	1/Year	1	1	µg/L	4.6E-07	9.7E-06	ND	U	ND	9.4E-07	1.0E-05	ND	U	ND
2,3,7,8-TCDF	E1613B	0.00001	1/Discharge	1/Year	0.1	0.8	µg/L	4.0E-07	9.7E-06	ND	U	ND	8.0E-07	1.0E-05	ND	U	ND
OCDD	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.01	µg/L	1.3E-06	9.7E-05	0.00026	--	2.6E-10	2.2E-06	1.0E-04	0.00042	--	4.2E-10
OCDF	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.02	µg/L	4.9E-07	9.7E-05	7.3E-05	J (DNQ)	ND	1.2E-06	1.0E-04	ND	U (B)	ND
									TCDD TEQ w/out DNQ Values in µg/L			2.6E-10	TCDD TEQ w/out DNQ Values in µg/L				4.2E-10

TABLE C-6
TCDD TEQ
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

							LOCATION	SWTS 018 (INF-002)					SWTS 018 (INF-002)				
							DATE RANGE	2/19/2025 07:45					3/17/2025 08:30				
ANALYTE	METHOD	ML	INFLUENT AND OUTFALLS 001, 002, 011, 018 SAMPLE FREQUENCY	RECEIVING WATER AND OUTFALLS 003 THROUGH 010 SAMPLE FREQUENCY	1998 WHO TEF	BEF GREAT LAKES WATER QUALITY INITIATIVE	UNITS	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)	LAB MDL	LAB RL	LAB RESULT	LAB/ VALIDATION QUALIFIER	TCDD EQUIVALENT (w/out DNQ Values)
1,2,3,4,6,7,8-HpCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.05	µg/L	1.1E-06	4.9E-05	0.000078	--	3.9E-08	1.2E-06	4.8E-05	ND	U (B)	ND
1,2,3,4,6,7,8-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.01	µg/L	2.1E-06	4.9E-05	0.000019	J (DNQ)	ND	3.4E-06	4.8E-05	0.0000096	J (DNQ)	ND
1,2,3,4,7,8,9-HpCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.01	0.4	µg/L	2.6E-06	4.9E-05	ND	U	ND	3.8E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.3	µg/L	3.1E-06	4.9E-05	ND	U	ND	5.0E-06	4.8E-05	ND	U	ND
1,2,3,4,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.08	µg/L	1.8E-06	4.9E-05	ND	U	ND	2.8E-06	4.8E-05	ND	U	ND
1,2,3,6,7,8-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	3.1E-06	4.9E-05	ND	U	ND	4.8E-06	4.8E-05	ND	U	ND
1,2,3,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.2	µg/L	1.8E-06	4.9E-05	ND	U	ND	2.3E-06	4.8E-05	ND	U	ND
1,2,3,7,8,9-HxCDD	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.1	µg/L	2.7E-06	4.9E-05	ND	U	ND	4.2E-06	4.8E-05	ND	U	ND
1,2,3,7,8,9-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.6	µg/L	1.7E-06	4.9E-05	ND	U	ND	2.1E-06	4.8E-05	ND	U	ND
1,2,3,7,8-PeCDD	E1613B	5.00E-05	1/Discharge	1/Year	1	0.9	µg/L	2.5E-06	4.9E-05	ND	U	ND	4.9E-06	4.8E-05	ND	U	ND
1,2,3,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.05	0.2	µg/L	1.8E-06	4.9E-05	ND	U	ND	2.3E-06	4.8E-05	ND	U	ND
2,3,4,6,7,8-HxCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.1	0.7	µg/L	1.7E-06	4.9E-05	ND	U	ND	1.9E-06	4.8E-05	ND	U	ND
2,3,4,7,8-PeCDF	E1613B	5.00E-05	1/Discharge	1/Year	0.5	1.6	µg/L	2.1E-06	4.9E-05	ND	U	ND	2.7E-06	4.8E-05	ND	U	ND
2,3,7,8-TCDD	E1613B	0.00001	1/Discharge	1/Year	1	1	µg/L	1.1E-06	9.7E-06	ND	U	ND	3.3E-06	9.6E-06	ND	U	ND
2,3,7,8-TCDF	E1613B	0.00001	1/Discharge	1/Year	0.1	0.8	µg/L	1.3E-06	9.7E-06	ND	U	ND	1.5E-06	9.6E-06	ND	U	ND
OCDD	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.01	µg/L	3.2E-06	9.7E-05	0.00079	--	7.9E-10	3.6E-06	9.6E-05	0.00031	--	3.1E-10
OCDF	E1613B	0.0001	1/Discharge	1/Year	0.0001	0.02	µg/L	2.2E-06	9.7E-05	ND	U (B)	ND	2.2E-06	9.6E-05	1.4E-05	J (DNQ)	ND
								TCDD TEQ w/out DNQ Values in µg/L				4.0E-08	TCDD TEQ w/out DNQ Values in µg/L				3.1E-10

TABLE C-7
PCBs
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

					LOCATION	Outfall 001				Outfall 001 (Field Duplicate)				Outfall 002			
					DATE RANGE	02/14/2025 10:20[f] - 02/14/2025 11:00				02/14/2025 10:20[f] - 02/14/2025 11:00				02/07/2025 07:35 - 02/08/2025 08:30			
ANALYTE	CAS NUMBER	SAMPLE TYPE	METHOD	UNITS	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
(PCB 8) 2,4'-Dichlorobiphenyl	34883-43-7	Grab	E1668C	pg/L	1/Year	ND	2.7	190	U	ND	3.2	190	U (B)	ND	4.1	190	U
(PCB 18) 2,2',5-Trichlorobiphenyl	37680-65-2	Grab	E1668C	pg/L	1/Year	ND	1.5	390	U (B)	ND	1.9	380	U (B)	ND	2.2	380	U
(PCB 28) 2,4,4'-Trichlorobiphenyl	7012-37-5	Grab	E1668C	pg/L	1/Year	ND	2.8	390	U (B)	ND	3.5	380	U (B)	ND	3.2	380	U (B)
(PCB 37) 3,4,4'-Trichlorobiphenyl	38444-90-5	Grab	E1668C	pg/L	1/Year	ND	2.7	19	UJ (*10)	ND	3.4	19	UJ (*10)	ND	3.2	19	U
(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	41464-39-5	Grab	E1668C	pg/L	1/Year	ND	3.5	580	U (B)	ND	3.6	570	U (B)	ND	3.4	570	U (B)
(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	41464-40-8	Grab	E1668C	pg/L	1/Year	28	3.4	390	J (DNQ)	27	3.5	380	J (DNQ)	ND	3.3	380	U
(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	35693-99-3	Grab	E1668C	pg/L	1/Year	98	3.7	190	J (DNQ)	86	3.9	190	J (DNQ)	ND	3.6	190	U
(PCB 66) 2,3',4,4'-Tetrachlorobiphenyl	32598-10-0	Grab	E1668C	pg/L	1/Year	40	4.6	190	J (DNQ)	44	5.5	190	J (DNQ)	ND	5.5	190	U
(PCB 70) 2,3',4',5-Tetrachlorobiphenyl	32598-11-1	Grab	E1668C	pg/L	1/Year	77	4.8	770	J (DNQ)	91	5.8	760	J (DNQ)	ND	5.7	760	U
(PCB 74) 2,4,4',5-Tetrachlorobiphenyl	32690-93-0	Grab	E1668C	pg/L	1/Year	77	4.8	770	J (DNQ)	91	5.8	760	J (DNQ)	ND	5.7	760	U
(PCB 77) 3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	Grab	E1668C	pg/L	1/Year	ND	5.5	19	U	ND	6.3	19	UJ (*10)	ND	6.6	19	U
(PCB 81) 3,4,4',5-Tetrachlorobiphenyl	70362-50-4	Grab	E1668C	pg/L	1/Year	ND	5.6	19	U	ND	6.8	19	U	ND	7.1	19	U
(PCB 87) 2,2',3,4,5'-Pentachlorobiphenyl	38380-02-8	Grab	E1668C	pg/L	1/Year	270	32	1,200	J (DNQ)	270	12	1,100	J (DNQ)	ND	10	1,100	U
(PCB 99) 2,2',4,4',5-Pentachlorobiphenyl	38380-01-7	Grab	E1668C	pg/L	1/Year	260	41	390	J (DNQ)	240	15	380	J (DNQ)	ND	13	380	U
(PCB 101) 2,2',4,5,5'-Pentachlorobiphenyl	37680-73-2	Grab	E1668C	pg/L	1/Year	420	36	580	J (DNQ)	410	13	570	J (DNQ)	ND	11	570	U
(PCB 105) 2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	Grab	E1668C	pg/L	1/Year	120	28	28	--	120	9.8	19	--	ND	8.6	19	U
(PCB 110) 2,3,3',4',6-Pentachlorobiphenyl	38380-03-9	Grab	E1668C	pg/L	1/Year	730	28	390	--	730	10	380	--	ND	8.8	380	U
(PCB 114) 2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	Grab	E1668C	pg/L	1/Year	ND	30	30	U	ND	11	19	U	ND	9.4	19	U
(PCB 118) 2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	Grab	E1668C	pg/L	1/Year	280	28	28	--	260	9.6	19	--	ND	9.0	19	U
(PCB 119) 2,3',4,4',6-Pentachlorobiphenyl	56558-17-9	Grab	E1668C	pg/L	1/Year	270	32	1,200	J (DNQ)	270	12	1,100	J (DNQ)	ND	10	1,100	U
(PCB 123) 2',3,4,4',5-Pentachlorobiphenyl	65510-44-3	Grab	E1668C	pg/L	1/Year	ND	33	33	U	ND	12	19	U	ND	11	19	U
(PCB 126) 3,3',4,4',5-Pentachlorobiphenyl	57465-28-8	Grab	E1668C	pg/L	1/Year	ND	30	30	U	ND	10	19	U	ND	9.3	19	U
(PCB 128) 2,2',3,3',4,4'-Hexachlorobiphenyl	38380-07-3	Grab	E1668C	pg/L	1/Year	240	7.9	390	J (DNQ)	200	9.3	380	J (DNQ)	ND	1.2	380	UJ (*10)
(PCB 138) 2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	Grab	E1668C	pg/L	1/Year	1,200	8.1	770	--	1,000	9.5	760	--	26	1.2	760	J (DNQ)
(PCB 149) 2,2',3,4',5',6-Hexachlorobiphenyl	38380-04-0	Grab	E1668C	pg/L	1/Year	660	8.7	390	--	520	10	380	--	13	1.3	380	J (DNQ)
(PCB 151) 2,2',3,5,5',6-Hexachlorobiphenyl	52663-63-5	Grab	E1668C	pg/L	1/Year	230	9.1	390	J (DNQ)	200	11	380	J (DNQ)	ND	1.3	380	U
(PCB 153) 2,2',4,4',5,5'-Hexachlorobiphenyl	35065-27-1	Grab	E1668C	pg/L	1/Year	650	6.8	390	--	540	8.0	380	--	ND	1.0	380	U
(PCB 156) 2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	Grab	E1668C	pg/L	1/Year	100	5.7	39	--	100	4.4	38	--	ND	5.8	38	U
(PCB 157) 2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	Grab	E1668C	pg/L	1/Year	100	5.7	39	--	100	4.4	38	--	ND	5.8	38	U
(PCB 158) 2,3,3',4,4',6-Hexachlorobiphenyl	74472-42-7	Grab	E1668C	pg/L	1/Year	100	6.2	190	J (DNQ)	87	7.3	190	J (DNQ)	ND	0.90	190	U
(PCB 167) 2,3',4,4',5,5'-Hexachlorobiphenyl	52663-72-6	Grab	E1668C	pg/L	1/Year	52	3.7	19	--	54	2.9	19	--	ND	4.1	19	U
(PCB 168) 2,3',4,4',5',6-Hexachlorobiphenyl	59291-65-5	Grab	E1668C	pg/L	1/Year	650	6.8	390	--	540	8.0	380	--	ND	1.0	380	U
(PCB 169) 3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	Grab	E1668C	pg/L	1/Year	ND	4.7	19	U	ND	3.5	19	U	ND	5.1	19	U
(PCB 170) 2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	Grab	E1668C	pg/L	1/Year	210	6.6	190	--	190	4.3	190	J (DNQ)	ND	11	190	U
(PCB 177) 2,2',3,3',4',5,6-Heptachlorobiphenyl	52663-70-4	Grab	E1668C	pg/L	1/Year	98	6.1	190	J (DNQ)	85	4.0	190	J (DNQ)	ND	10	190	U
(PCB 180) 2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	Grab	E1668C	pg/L	1/Year	340	5.0	390	J (DNQ)	310	3.2	380	J (DNQ)	ND	8.4	380	U
(PCB 183) 2,2',3,4,4',5',6-Heptachlorobiphenyl	52663-69-1	Grab	E1668C	pg/L	1/Year	98	5.6	190	J (DNQ)	85	3.7	190	J (DNQ)	ND	9.6	190	U
(PCB 187) 2,2',3,4',5,5',6-Heptachlorobiphenyl	52663-68-0	Grab	E1668C	pg/L	1/Year	130	0.95	190	J (DNQ)	110	0.30	190	J (DNQ)	ND	0.23	190	U
(PCB 189) 2,3,3',4,4',5,5'-Heptachlorobiphenyl	39635-31-9	Grab	E1668C	pg/L	1/Year	ND	3.0	19	UJ (*10)	ND	2.4	19	U	ND	3.6	19	U
(PCB 194) 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	35694-08-7	Grab	E1668C	pg/L	1/Year	63	2.6	190	J (DNQ)	61	1.3	190	J (DNQ)	ND	2.2	190	U
(PCB 195) 2,2',3,3',4,4',5,6-Octachlorobiphenyl	52663-78-2	Grab	E1668C	pg/L	1/Year	ND	2.7	190	UJ (*10)	25	1.4	190	J (DNQ)	ND	2.3	190	U
(PCB 201) 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	40186-71-8	Grab	E1668C	pg/L	1/Year	ND	7.3	190	U	ND	1.2	190	U	ND	9.1	190	U
(PCB 206) 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	40186-72-9	Grab	E1668C	pg/L	1/Year	ND	37	37	U	ND	28	28	U	ND	69	69	U
(PCB 209) Decachlorobiphenyl	2051-24-3	Grab	E1668C	pg/L	1/Year	17	1.2	19	J (DNQ)	ND	0.43	19	U	ND	0.78	19	U
Sum						7,608				6,846				39			

TABLE C-7
PCBs
FIRST QUARTER 2025
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

					LOCATION	Outfall 002 (Field Duplicate)				Outfall 018				Outfall 018 (Field Duplicate)			
					DATE RANGE	02/07/2025 07:35 - 02/08/2025 08:30				02/19/2025 14:20 - 02/21/2025 08:00				02/19/2025 14:20 - 02/21/2025 08:00			
ANALYTE	CAS NUMBER	SAMPLE TYPE	METHOD	UNITS	SAMPLE FREQUENCY	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER	RESULT	MDL	RL	LAB/ VALIDATION QUALIFIER
(PCB 8) 2,4'-Dichlorobiphenyl	34883-43-7	Grab	E1668C	pg/L	1/Year	ND	4.1	190	U	ND	2.3	190	U	ND	1.9	190	U
(PCB 18) 2,2',5-Trichlorobiphenyl	37680-65-2	Grab	E1668C	pg/L	1/Year	ND	1.1	380	U (B)	ND	0.69	390	U	ND	0.74	390	U (B)
(PCB 28) 2,4,4'-Trichlorobiphenyl	7012-37-5	Grab	E1668C	pg/L	1/Year	ND	1.4	380	U (B)	ND	1.6	390	U (B)	ND	1.7	390	U (B)
(PCB 37) 3,4,4'-Trichlorobiphenyl	38444-90-5	Grab	E1668C	pg/L	1/Year	ND	1.4	19	U	ND	1.5	19	U (B)	ND	1.7	19	U
(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	41464-39-5	Grab	E1668C	pg/L	1/Year	ND	2.7	570	U (B)	ND	2.9	580	U (B)	ND	2.6	580	U (B)
(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	41464-40-8	Grab	E1668C	pg/L	1/Year	ND	2.5	380	UJ (*10)	ND	2.7	390	U (B)	ND	2.4	390	U (B)
(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	35693-99-3	Grab	E1668C	pg/L	1/Year	ND	2.7	190	U (B)	ND	2.9	190	U (B)	ND	2.6	190	U (B)
(PCB 66) 2,3',4,4'-Tetrachlorobiphenyl	32598-10-0	Grab	E1668C	pg/L	1/Year	ND	2.9	190	U	ND	3.2	190	U	ND	3.7	190	U
(PCB 70) 2,3',4',5-Tetrachlorobiphenyl	32598-11-1	Grab	E1668C	pg/L	1/Year	ND	3.1	760	U	ND	3.4	780	U (B)	ND	3.9	770	U (B)
(PCB 74) 2,4,4',5-Tetrachlorobiphenyl	32690-93-0	Grab	E1668C	pg/L	1/Year	ND	3.1	760	U	ND	3.4	780	U (B)	ND	3.9	770	U (B)
(PCB 77) 3,3',4,4'-Tetrachlorobiphenyl	32598-13-3	Grab	E1668C	pg/L	1/Year	ND	3.5	19	U	ND	3.6	19	U	ND	4.1	19	U
(PCB 81) 3,4,4',5-Tetrachlorobiphenyl	70362-50-4	Grab	E1668C	pg/L	1/Year	ND	4.0	19	U	ND	4.0	19	U	ND	4.8	19	U
(PCB 87) 2,2',3,4,5'-Pentachlorobiphenyl	38380-02-8	Grab	E1668C	pg/L	1/Year	ND	2.0	1,100	U	ND	1.7	1,200	UJ (*10)	19	1.5	1,200	J (DNQ)
(PCB 99) 2,2',4,4',5-Pentachlorobiphenyl	38380-01-7	Grab	E1668C	pg/L	1/Year	ND	2.4	380	U	15	2.1	390	J (DNQ)	19	1.8	390	J (DNQ)
(PCB 101) 2,2',4,5,5'-Pentachlorobiphenyl	37680-73-2	Grab	E1668C	pg/L	1/Year	ND	2.1	570	UJ (*10)	25	1.8	580	J (DNQ)	24	1.6	580	J (DNQ)
(PCB 105) 2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4	Grab	E1668C	pg/L	1/Year	ND	1.6	19	UJ (*10)	11	1.3	19	J (DNQ)	9.9	1.2	19	J (DNQ)
(PCB 110) 2,3,3',4',6-Pentachlorobiphenyl	38380-03-9	Grab	E1668C	pg/L	1/Year	ND	1.7	380	U	30	1.5	390	J (DNQ)	32	1.3	390	J (DNQ)
(PCB 114) 2,3,4,4',5-Pentachlorobiphenyl	74472-37-0	Grab	E1668C	pg/L	1/Year	ND	1.7	19	U	ND	1.5	19	U	2.4	1.3	19	J (DNQ)
(PCB 118) 2,3',4,4',5-Pentachlorobiphenyl	31508-00-6	Grab	E1668C	pg/L	1/Year	ND	1.7	19	UJ (*10)	23	1.4	19	--	23	1.2	19	--
(PCB 119) 2,3',4,4',6-Pentachlorobiphenyl	56558-17-9	Grab	E1668C	pg/L	1/Year	ND	2.0	1,100	U	ND	1.7	1,200	UJ (*10)	19	1.5	1,200	J (DNQ)
(PCB 123) 2',3,4,4',5-Pentachlorobiphenyl	65510-44-3	Grab	E1668C	pg/L	1/Year	ND	2.0	19	U	ND	1.7	19	UJ (*10)	ND	1.5	19	U
(PCB 126) 3,3',4,4',5-Pentachlorobiphenyl	57465-28-8	Grab	E1668C	pg/L	1/Year	ND	1.6	19	U	ND	1.4	19	U	ND	1.2	19	U
(PCB 128) 2,2',3,3',4,4'-Hexachlorobiphenyl	38380-07-3	Grab	E1668C	pg/L	1/Year	ND	1.3	380	U	ND	0.47	390	U	ND	0.54	390	U
(PCB 138) 2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2	Grab	E1668C	pg/L	1/Year	ND	1.4	760	UJ (*10)	ND	0.49	780	UJ (*10)	31	0.56	770	J (DNQ)
(PCB 149) 2,2',3,4',5',6-Hexachlorobiphenyl	38380-04-0	Grab	E1668C	pg/L	1/Year	ND	1.5	380	UJ (*10)	8.3	0.52	390	J (DNQ)	9.4	0.59	390	J (DNQ)
(PCB 151) 2,2',3,5,5',6-Hexachlorobiphenyl	52663-63-5	Grab	E1668C	pg/L	1/Year	ND	1.6	380	U	ND	0.55	390	UJ (*10)	6.0	0.62	390	J (DNQ)
(PCB 153) 2,2',4,4',5,5'-Hexachlorobiphenyl	35065-27-1	Grab	E1668C	pg/L	1/Year	28	1.2	380	J (DNQ)	21	0.41	390	J (DNQ)	24	0.46	390	J (DNQ)
(PCB 156) 2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4	Grab	E1668C	pg/L	1/Year	ND	2.5	38	U	7.8	1.5	39	J (DNQ)	ND	1.7	39	UJ (*10)
(PCB 157) 2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7	Grab	E1668C	pg/L	1/Year	ND	2.5	38	U	7.8	1.5	39	J (DNQ)	ND	1.7	39	UJ (*10)
(PCB 158) 2,3,3',4,4',6-Hexachlorobiphenyl	74472-42-7	Grab	E1668C	pg/L	1/Year	ND	1.0	190	U	ND	0.37	190	UJ (*10)	ND	0.41	190	U
(PCB 167) 2,3',4,4',5,5'-Hexachlorobiphenyl	52663-72-6	Grab	E1668C	pg/L	1/Year	ND	1.6	19	U	ND	1.0	19	U	ND	1.1	19	UJ (*10)
(PCB 168) 2,3',4,4',5',6-Hexachlorobiphenyl	59291-65-5	Grab	E1668C	pg/L	1/Year	28	1.2	380	J (DNQ)	21	0.41	390	J (DNQ)	24	0.46	390	J (DNQ)
(PCB 169) 3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6	Grab	E1668C	pg/L	1/Year	ND	1.6	19	U	ND	1.1	19	U	ND	1.2	19	UJ (*10)
(PCB 170) 2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6	Grab	E1668C	pg/L	1/Year	ND	7.3	190	U	ND	1.6	190	U	ND	2.4	190	U
(PCB 177) 2,2',3,3',4',5,6-Heptachlorobiphenyl	52663-70-4	Grab	E1668C	pg/L	1/Year	ND	6.7	190	U	ND	1.5	190	U	ND	2.2	190	U
(PCB 180) 2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3	Grab	E1668C	pg/L	1/Year	ND	5.4	380	U	ND	1.2	390	U	ND	1.8	390	UJ (*10)
(PCB 183) 2,2',3,4,4',5',6-Heptachlorobiphenyl	52663-69-1	Grab	E1668C	pg/L	1/Year	ND	6.1	190	U	ND	1.4	190	U	ND	2.0	190	U
(PCB 187) 2,2',3,4',5,5',6-Heptachlorobiphenyl	52663-68-0	Grab	E1668C	pg/L	1/Year	ND	0.11	190	U	ND	0.092	190	U	3.8	0.090	190	J (DNQ)
(PCB 189) 2,3,3',4,4',5,5'-Heptachlorobiphenyl	39635-31-9	Grab	E1668C	pg/L	1/Year	ND	1.0	19	U	ND	0.66	19	U	ND	0.93	19	U
(PCB 194) 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	35694-08-7	Grab	E1668C	pg/L	1/Year	ND	0.54	190	U	ND	0.27	190	U	ND	0.45	190	U
(PCB 195) 2,2',3,3',4,4',5,6-Octachlorobiphenyl	52663-78-2	Grab	E1668C	pg/L	1/Year	ND	0.55	190	U	ND	0.27	190	U	ND	0.46	190	U
(PCB 201) 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	40186-71-8	Grab	E1668C	pg/L	1/Year	ND	1.5	190	U	ND	0.68	190	U	ND	0.85	190	U
(PCB 206) 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	40186-72-9	Grab	E1668C	pg/L	1/Year	ND	23	23	U	ND	14	19	U	ND	14	19	U
(PCB 209) Decachlorobiphenyl	2051-24-3	Grab	E1668C	pg/L	1/Year	ND	0.77	19	U	ND	0.12	19	U	ND	0.24	19	U
Sum						56				169.9				246.5			

APPENDIX D

NPDES Permit Limit Exceedances and/or Non-Compliance,

First Quarter 2025

SUMMARY OF PERMIT LIMIT EXCEEDANCES AND/OR NON-COMPLIANCE

FIRST QUARTER 2025

THE BOEING COMPANY

SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

Daily Maximum Permit Limit Exceedances and/or Non-Compliance							
Outfall	**Sample Date**	**Sample Type**	**Analyte**	**Permit Limit Daily Max**	**Result**	**Units**	**Laboratory/ Validation Qualifier**
OUTFALL 001	2/14/2025	Comp	Aluminum	1.0	16	mg/L	--
OUTFALL 001	2/14/2025	Comp	Lead	5.2	13	µg/L	--
OUTFALL 001	2/14/2025	Comp	Manganese	50	400	µg/L	--
OUTFALL 001	2/14/2025	Comp	2,3,7,8-TCDD TEQ	2.8E-08	2.0E-07	µg/L	*
OUTFALL 002	2/14/2025	Comp	Aluminum	1.0	5.5	mg/L	--
OUTFALL 002	2/14/2025	Comp	2,3,7,8-TCDD TEQ	2.8E-08	4.4E-08	µg/L	*
OUTFALL 008	2/14/2025	Comp	Aluminum	1.0	1.3	mg/L	--
OUTFALL 009	2/15/2025	Comp	Aluminum	1.0	6.2	mg/L	--
OUTFALL 009	2/15/2025	Comp	Lead	5.2	22	µg/L	--
OUTFALL 009	2/15/2025	Comp	Mercury	0.024	0.032	µg/L	--
OUTFALL 009	2/15/2025	Comp	2,3,7,8-TCDD TEQ	2.8E-08	5.6E-08	µg/L	*
OUTFALL 009	3/14/2025	Comp	Aluminum	1.0	1.9	mg/L	--
OUTFALL 009	3/14/2025	Comp	Lead	5.2	5.9	µg/L	--

Indeterminate Daily Maximum Permit Limit Exceedances and/or Non-Compliance							
Outfall	**Sample Date**	**Sample Type**	**Analyte**	**Permit Limit Daily Max**	**Result**	**Units**	**Laboratory/ Validation Qualifier**
OUTFALL 009	2/15/2025	Comp	Radium-226 & 228	5.0	6.63 ± 2.29	pCi/L	B, *III

See reporting summary notes for abbreviations, definitions, and other explanations for the data presented.

SUMMARY OF PERMIT LIMIT EXCEEDANCES AND/OR NON-COMPLIANCE

FIRST QUARTER 2025

THE BOEING COMPANY

SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

Statistical Threshold Value Receiving Water Limit Exceedances							
Location	**Sample Dates**	**Sample Type**	**Analyte**	**Statistical Threshold Value**	**Percentage of Sample Results Exceeding Statistical Threshold Value in Calendar Month**	**Units**	**Laboratory/ Validation Qualifier**
Arroyo Simi (RSW-002, Downstream)	2/14/2025-2/20/2025	Grab	E. coli	320	>10%	MPN/100 ml	*
Arroyo Simi (RSW-003, Upstream)	2/14/2025-2/16/2025	Grab	E. coli	320	>10%	MPN/100 ml	*

Single Sample Maximum Receiving Water Limit Exceedances							
Location	**Sample Date**	**Sample Type**	**Analyte**	**Single Sample Maximum Limit**	**Daily Max Result**	**Units**	**Laboratory/ Validation Qualifier**
Bell Creek (RSW-001 at Outfall 002)	2/13/2025	Grab	E. coli	235	690	MPN/100 ml	*
Bell Creek (RSW-001 at Outfall 002)	2/14/2025	Grab	E. coli	235	1,400	MPN/100 ml	*

Geometric Mean Receiving Water Limit Exceedances							
Location	**Sample Dates**	**Sample Type**	**Analyte**	**Geometric Mean Limit**	**Geometric Mean Result**	**Units**	**Laboratory/ Validation Qualifier**
Arroyo Simi (RSW-002, Downstream)	2/14/2025-2/20/2025	Grab	E. coli	100	499	MPN/100 ml	*
Arroyo Simi (RSW-003, Upstream)	2/14/2025-2/16/2025	Grab	E. coli	100	5,611	MPN/100 ml	*

See reporting summary notes for abbreviations, definitions, and other explanations for the data presented.

APPENDIX E

Toxicity Laboratory Reports and Validation Reports,

First Quarter 2025

APPENDIX E

TABLE OF CONTENTS

Number	Outfall/Location	Toxicity Laboratory Report Number	Sampling Date
1	Outfall 002	570-217375-5	February 8, 2025
2	Outfall 008	570-218361-7	February 14, 2025
3	Outfall 002	570-218404-6	February 14, 2025
4	Outfall 001	570-218413-4	February 14, 2025
5	Outfall 009	570-218637-5	February 15, 2025
6	INF-002	570-218918-5	February 19, 2025
7	Outfall 018	570-219358-4	February 21, 2025
8	Outfall 009	570-222284-4	March 14, 2025
9	Outfall 018	570-222920-4	March 18, 2025
Number	**Outfall/Location**	**Data Usability Summary Reports (Validation Reports)**	**Sampling Date**
10	Various	Dioxins, First Quarter 2025	February 8, 2025 through April 1, 2025
11	Various	PCBs and Metals Exceedances, First Quarter 2025	January 13, 2025 through March 14, 2025
12	Outfall 009	Radiological Exceedance, First Quarter 2025	February 15, 2025

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 3/18/2025 3:26:30 PM

JOB DESCRIPTION

Boeing NPDES SSFL Annual Outfall 002 COMP

JOB NUMBER

570-217375-5

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization

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3/18/2025 3:26:30 PM

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Definitions/Glossary

Client: Haley & Aldrich, Inc. Job ID: 570-217375-5
Project/Site: Boeing NPDES SSFL Annual Outfall 002 COMP

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)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
570-217375-5

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 2/10/2025 5:05 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 5.1°C and 5.8°C.

Subcontract Work
Method Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013): This method was subcontracted to Aquatic Bioassay. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Method Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-217375-5
Project/Site: Boeing NPDES SSFL Annual Outfall 002 COMP

Method	Method Description	Protocol	Laboratory
EPA	Bioassay	EPA	Aquatic

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

Aquatic = Aquatic Bioassay & Consulting, 29 North Olive Street, Ventura, CA 93001

Sample Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-217375-5
Project/Site: Boeing NPDES SSFL Annual Outfall 002 COMP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-217375-1	Outfall002_20250208_Comp	Water	02/08/25 08:30	02/10/25 17:05

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID: CSE0225.059

March 17, 2025

Mr. Virendra Patel
Eurofins Calscience
2841 Dow Avenue, Suite #100
Tustin, CA 92780

Dear Mr. Patel:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013.* " Results were as follows:*

CLIENT:	Eurofins Calscience
SAMPLE I.D.:	Outfall_002_20250208_Comp
DATE RECEIVED:	10 Feb - 2025
ABC LAB. NO.:	CSE0225.059

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

IWC = 100.00%

TST RESULT

SURVIVAL = PASS % EFFECT = 0.00 %

GROWTH = PASS % EFFECT = 1.28 %

Yours very truly,

Joe Freas
President

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	07-3153-3763	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	11 Feb-25 13:40	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	18 Feb-25 13:55	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	20-5808-1637	**Code:**	CSE0225.059fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	08 Feb-25	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	10 Feb-25 10:14	**CAS (PC):**		**Station:**	Outfall 002
Sample Age:	86h (2.5 °C)	**Client:**	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.059

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
08-1357-2496	7d Survival Rate	TST-Welch's t Test	<0.25	100% passed 7d survival rate
02-4057-9624	Mean Dry Biomass-mg	TST-Welch's t Test	<1.0E-05	100% passed mean dry biomass-mg

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	8	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		8	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%

Mean Dry Biomass-mg Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	8	0.3508	0.3422	0.3595	0.3407	0.3733	0.00366	0.01035	2.95%	0.00%
100		8	0.3463	0.3403	0.3523	0.3373	0.3607	0.002532	0.007163	2.07%	1.28%

7d Survival Rate Detail — MD5: F33D79D05FEF902C5DB24788526CB24A

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Mean Dry Biomass-mg Detail — MD5: D1AFA766265E3D74FB2B26A0A4C3AA41

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	0.3427	0.3507	0.356	0.346	0.346	0.3407	0.3513	0.3733
100		0.3607	0.3433	0.3447	0.3373	0.352	0.3433	0.342	0.3473

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15
100		15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	08-1357-2496	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	07 Mar-25 17:16	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	07 Mar-25 0:00	**MD5 Hash:**	F33D79D05FEF902C5DB24788526CB24A	**Editor ID:**	009-702-627-3
Batch ID:	07-3153-3763	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	11 Feb-25 13:40	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	18 Feb-25 13:55	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	20-5808-1637	**Code:**	CSE0225.059fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	08 Feb-25	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	10 Feb-25 10:14	**CAS (PC):**		**Station:**	Outfall 002
Sample Age:	86h (2.5 °C)	**Client:**	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.059

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed 7d survival rate endpoint

TST-Welch's t Test

Control	vs	Conc-%	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	0.3603	---		<0.25	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0	0	1			Indeterminate
Error	0	0	14			
Total	0		15			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Variance Ratio F Test				Indeterminate
Distribution	Shapiro-Wilk W Normality Test				Indeterminate

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	02-4057-9624	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	07 Mar-25 17:16	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	07 Mar-25 0:00	**MD5 Hash:**	D1AFA766265E3D74FB2B26A0A4C3AA41	**Editor ID:**	009-702-627-3
Batch ID:	07-3153-3763	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	11 Feb-25 13:40	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	18 Feb-25 13:55	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	20-5808-1637	**Code:**	CSE0225.059fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	08 Feb-25	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	10 Feb-25 10:14	**CAS (PC):**		**Station:**	Outfall 002
Sample Age:	86h (2.5 °C)	**Client:**	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.059

Data Transform	Alt Hyp	TST_b	Comparison Result
Untransformed	C*b < T	0.75	100% passed mean dry biomass-mg endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	13	22.28	0.6938	CDF	<1.0E-05	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	8.100E-05	8.100E-05	1	1.022	0.3291	Non-Significant Effect
Error	0.0011091	7.922E-05	14			
Total	0.0011901		15			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	0.3654	8.862	0.5552	Equal Variances
	Mod Levene Equality of Variance Test	0.4214	8.862	0.5267	Equal Variances
	Variance Ratio F Test	2.088	8.885	0.3523	Equal Variances
Distribution	Anderson-Darling A2 Test	0.8407	3.878	0.0302	Normal Distribution
	D'Agostino Skewness Test	2.416	2.576	0.0157	Normal Distribution
	Kolmogorov-Smirnov D Test	0.2037	0.2471	0.0747	Normal Distribution
	Shapiro-Wilk W Normality Test	0.8747	0.8408	0.0321	Normal Distribution

Analysis ID:	02-4057-9624	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	07 Mar-25 17:16	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	07 Mar-25 0:00	**MD5 Hash:**	D1AFA766265E3D74FB2B26A0A4C3AA41	**Editor ID:**	009-702-627-3

CETIS Measurement Report

Report Date: 07 Mar-25 17:16 (p 1 of 1)
Test Code/ID: CSE0225.059fml / 20-8885-0135

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	07-3153-3763	Test Type:	Growth-Survival (7d)	Analyst:	Beth Maturino
Start Date:	11 Feb-25 13:40	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	18 Feb-25 13:55	Species:	Pimephales promelas	Brine:	Not Applicable
Test Length:	7d 0h	Taxon:	Actinopterygii	Source:	Aquatic Biosystems, CO Age: 1d
Sample ID:	20-5808-1637	Code:	CSE0225.059fml	Project:	Boeing-SSFL NPDES
Sample Date:	08 Feb-25	Material:	Sample Water	Source:	Bioassay Report
Receipt Date:	10 Feb-25 10:14	CAS (PC):		Station:	Outfall 002
Sample Age:	86h (2.5 °C)	Client:	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.059

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	62	62	62	62	62	0	0	0.00%	0
100		8	209	209	209	209	209	0	0	0.00%	0
Overall		16	135.5	95.05	175.9	62	209	18.98	75.91	56.02%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	264	261.2	266.8	260	268	0.4173	3.338	1.26%	0
100		8	758.8	531.1	986.4	85	859	34.03	272.2	35.88%	0
Overall		16	511.4	343	679.8	85	859	79	316	61.80%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.125	7.731	8.519	7.1	8.5	0.05891	0.4713	5.80%	0
100		8	8.1	7.9	8.3	7.6	8.4	0.02988	0.239	2.95%	0
Overall		16	8.112	7.92	8.305	7.1	8.5	0.09031	0.3612	4.45%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.00%	0
100		8	393	393	393	393	393	0	0	0.00%	0
Overall		16	243.5	161.2	325.8	94	393	38.6	154.4	63.41%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.875	7.816	7.934	7.7	7.9	0.008837	0.0707	0.90%	0
100		8	8	8	8	8	8	0	0	0.00%	0
Overall		16	7.938	7.895	7.98	7.7	8	0.02016	0.08062	1.02%	0 (0%)

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
100		8	24.09	24.02	24.16	24	24.2	0.01042	0.08336	0.35%	0
Overall		16	24.04	24	24.08	24	24.2	0.01819	0.07274	0.30%	0 (0%)

CHAIN OF CUSTODY FORM

AB&C

Added C.F. = 4.08
Therm. = sample receiving
Temp. deg. C = 2.5
Chrlorine (mg/L) = 2.01
NH3 (mg/L) = 20.0

3/18/2025

Client Name/Address:
Haley & Aldrich
5333 Mission Center Rd Suite 300
San Diego, CA 92108

Eurofins Calscience Project Manager: Virendra Patel
2841 Dow Avenue, Suite #100
Tustin, CA 92780
Tel: 714-895-5494

ECI Project #57013187

TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement# 2019-22-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.

Sampler:

Project:
Boeing-SSFL NPDES
Permit 2023
Annual Outfall 002
Outfall 002
COMPOSITE

Project Manager: Katherine Miller
520.289.8606, 520.904.6944 (cell)

Field Manager: Mark Dominick
978.234.5033, 818.599.0702 (cell)

							A/R	A	R	A	R	A	R	R	R		
							ANALYSIS REQUIRED										
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	Cr (VI), Total Dissolved (E218.6)	Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium [H-3] (E906.0) - **Sub to St. Louis**	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) **ABC Labs in Ventura, CA**	1,4-Dioxane (E624 (SW8260M_SIM))	Total Organic Carbon (415.2 (SM 5310D))	Monomethyl hydrazine (SW8315M/DV-WC-0077) **Weck Labs in Hacienda Heights, CA**	LL Mercury (E1631E) -- Total Dissolved	Cyanide (Kelada)			Comments
Outfall 002	Outfall002_20250208_Comp_F	2/8/2025	WM	~~250~~ 500 mL Poly	~~3~~ 2	None	Yes	X										Filter and preserve w/in 24hrs of receipt at lab.
			WM	250 mL Poly	1	None	No		X									Filter and preserve w/in 24hrs of receipt at lab.
			WM	250mL Clear Glass, double bagged	3	None	Yes								X			Filter and preserve w/in 24hrs of receipt at lab.
	Outfall002_20250208_Comp	2/8/2025	WM	500 mL Poly	3	NaOH	Yes									X		
			WM	1 L Poly	4	HNO3	No			X								Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None	No											
			* WM	1 Gal Cube	5	None	No				X							Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	40 mL VOA	3	HCl	Yes					X						
			WM	40 ml VOA	3	H2SO4	No						X					
			WM	1 L Glass Amber	1	None	No							X				Segregate into a cooler for Weck Labs.
QA/QC	Outfall002_20250208_Grab_F-04	2/8/2025	WM	250mL Clear Glass, double bagged	1	None	No								X			Filter and preserve w/in 24hrs of receipt at lab.

* Hand-delived to Aquatic Bioassay with This copy of the COC

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Mark Dominick	2-10-25/1013	H&A	Victor Magy	2/10/25 1014
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: ___X___
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X___

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 11 February 2025 Report ID: CSE0225.059

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 19.00 ug/l

EC25 = 35.29 ug/l
EC50 = 103.00 ug/l

ENDPOINT: GROWTH

NOEC = 19.00 ug/l

IC25 = 34.10 ug/l
IC50 = 79.94 ug/l

Yours very truly,

Joe Freas
President

29 N. OLIVE STREET, VENTURA, CALIFORNIA 93001 | 805-643-5621 | WWW.AQUATICBIOASSAY.COM

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	16-5311-3579	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	11 Feb-25 12:15	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	18 Feb-25 13:19	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	01-7254-9445	**Code:**	FML021125	**Project:**	REF TOX
Sample Date:	11 Feb-25 12:15	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	11 Feb-25 12:15	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	PMSD
01-5482-6680	7d Survival Rate	Steel Many-One Rank Sum Test	19	38	26.87	10.9%
11-9072-0202	Mean Dry Biomass-mg	Steel Many-One Rank Sum Test	19	38	26.87	22.6%

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL
13-5437-1451	7d Survival Rate	Linear Interpolation (ICPIN)	EC15	28.77	27.54	34.18
			EC20	32.03	30.38	39.24
			EC25	35.29	33.23	105.5
			EC40	89.55	46.54	103.5
			EC50	103	75.99	120.3
16-9131-3620	Mean Dry Biomass-mg	Linear Interpolation (ICPIN)	IC15	27.96	24.43	30.63
			IC20	31.03	26.97	34.54
			IC25	34.1	29.28	38.44
			IC40	58.05	30.74	111.5
			IC50	79.94	38.88	113.6

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
10		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
19		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
38		4	0.7000	0.6388	0.7612	0.6667	0.7333	0.0193	0.0385	5.50%	30.00%
75		4	0.7167	0.4377	0.9957	0.5333	0.8667	0.0877	0.1753	24.46%	28.33%
150		4	0.1500	0.0000	0.3852	0.0000	0.3333	0.0739	0.1478	98.55%	85.00%

Mean Dry Biomass-mg Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3492	0.3363	0.3621	0.342	0.36	0.004059	0.008117	2.32%	0.00%
10		4	0.3475	0.3232	0.3718	0.3373	0.37	0.007637	0.01527	4.40%	0.48%
19		4	0.348	0.3337	0.3623	0.338	0.3593	0.004505	0.00901	2.59%	0.33%
38		4	0.2397	0.1992	0.2801	0.202	0.2573	0.01272	0.02544	10.62%	31.36%
75		4	0.184	0.02123	0.3468	0.082	0.2753	0.05115	0.1023	55.59%	47.30%
150		4	0.041	-0.01958	0.1016	0	0.08533	0.01904	0.03807	92.86%	88.26%

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail
MD5: 7BD87E43D242C617B4E252CAD38235DE

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000
19		1.0000	1.0000	1.0000	1.0000
38		0.7333	0.7333	0.6667	0.6667
75		0.6000	0.8667	0.8667	0.5333
150		0.2000	0.0667	0.0000	0.3333

Mean Dry Biomass-mg Detail
MD5: CBBB4B61B63ECC923D91023C3B9BD115

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.36	0.344	0.342	0.3507
10		0.3387	0.37	0.3373	0.344
19		0.3447	0.35	0.3593	0.338
38		0.202	0.252	0.2473	0.2573
75		0.11	0.2753	0.2687	0.082
150		0.058	0.02067	0	0.08533

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	15/15	15/15
38		11/15	11/15	10/15	10/15
75		9/15	13/15	13/15	8/15
150		3/15	1/15	0/15	5/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	01-5482-6680	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	07 Mar-25 16:34	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	07 Mar-25 0:00	**MD5 Hash:**	7BD87E43D242C617B4E252CAD38235DE	**Editor ID:**	009-702-627-3
Batch ID:	16-5311-3579	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	11 Feb-25 12:15	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	18 Feb-25 13:19	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	01-7254-9445	**Code:**	FML021125	**Project:**	REF TOX
Sample Date:	11 Feb-25 12:15	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	11 Feb-25 12:15	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Angular (Corrected)	C > T	19	38	26.87	---	0.1087	10.87%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	18	10	1	CDF	0.8333	Non-Significant Effect
		19	6	18	10	1	CDF	0.8333	Non-Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.60652	0.721303	5	48.99	<1.0E-05	Significant Effect
Error	0.265022	0.0147234	18			
Total	3.87154		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test				Indeterminate
	Levene Equality of Variance Test	23.38	4.248	<1.0E-05	Unequal Variances
	Mod Levene Equality of Variance Test	22.16	4.248	<1.0E-05	Unequal Variances
Distribution	Anderson-Darling A2 Test	1.843	3.878	<1.0E-05	Non-Normal Distribution
	D'Agostino Kurtosis Test	1.39	2.576	0.1645	Normal Distribution
	D'Agostino Skewness Test	0.02613	2.576	0.9791	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	1.933	9.21	0.3805	Normal Distribution
	Kolmogorov-Smirnov D Test	0.25	0.2056	0.0004	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.8794	0.884	0.0081	Non-Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	01-5482-6680	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	07 Mar-25 16:34	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	07 Mar-25 0:00	**MD5 Hash:**	7BD87E43D242C617B4E252CAD38235DE	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	11-9072-0202	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	07 Mar-25 16:34	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	07 Mar-25 0:00	**MD5 Hash:**	CBBB4B61B63ECC923D91023C3B9BD11	**Editor ID:**	009-702-627-3
Batch ID:	16-5311-3579	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	11 Feb-25 12:15	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	18 Feb-25 13:19	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	01-7254-9445	**Code:**	FML021125	**Project:**	REF TOX
Sample Date:	11 Feb-25 12:15	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	11 Feb-25 12:15	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C > T	19	38	26.87	---	0.07905	22.64%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	15.5	10	1	CDF	0.5438	Non-Significant Effect
		19	6	17	10	0	CDF	0.7334	Non-Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.308294	0.0616588	5	28.59	<1.0E-05	Significant Effect
Error	0.038822	0.0021568	18			
Total	0.347116		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	23.94	15.09	0.0002	Unequal Variances
	Levene Equality of Variance Test	38.55	4.248	<1.0E-05	Unequal Variances
	Mod Levene Equality of Variance Test	22.72	4.248	<1.0E-05	Unequal Variances
Distribution	Anderson-Darling A2 Test	1.057	3.878	0.0091	Non-Normal Distribution
	D'Agostino Kurtosis Test	1.746	2.576	0.0809	Normal Distribution
	D'Agostino Skewness Test	0.1811	2.576	0.8563	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	3.08	9.21	0.2144	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1939	0.2056	0.0200	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9191	0.884	0.0558	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	11-9072-0202	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	07 Mar-25 16:34	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	07 Mar-25 0:00	**MD5 Hash:**	CBBB4B61B63ECC923D91023C3B9BD11	**Editor ID:**	009-702-627-3

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	13-5437-1451	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	07 Mar-25 16:34	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	07 Mar-25 0:00	**MD5 Hash:**	7BD87E43D242C617B4E252CAD38235DE	**Editor ID:**	009-702-627-3
Batch ID:	16-5311-3579	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	11 Feb-25 12:15	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	18 Feb-25 13:19	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	01-7254-9445	**Code:**	FML021125	**Project:**	REF TOX
Sample Date:	11 Feb-25 12:15	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	11 Feb-25 12:15	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC15	28.77	27.54	34.18
EC20	32.03	30.38	39.24
EC25	35.29	33.23	105.5
EC40	89.55	46.54	103.5
EC50	103	75.99	120.3

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000
19		1.0000	1.0000	1.0000	1.0000
38		0.7333	0.7333	0.6667	0.6667
75		0.6000	0.8667	0.8667	0.5333
150		0.2000	0.0667	0.0000	0.3333

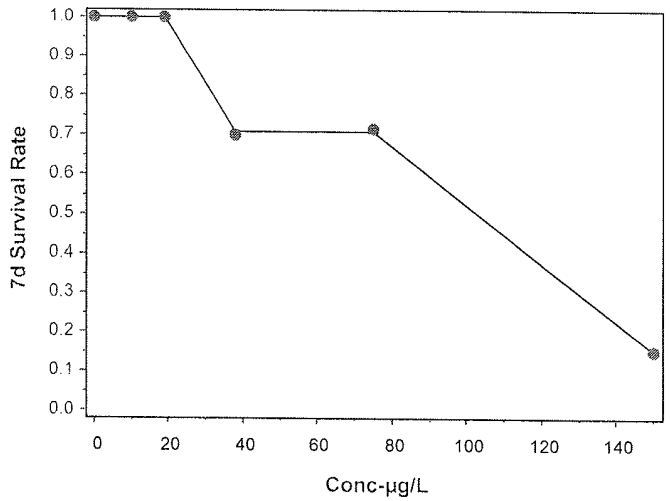
7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	15/15	15/15
38		11/15	11/15	10/15	10/15
75		9/15	13/15	13/15	8/15
150		3/15	1/15	0/15	5/15

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	13-5437-1451	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	07 Mar-25 16:34	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	07 Mar-25 0:00	**MD5 Hash:**	7BD87E43D242C617B4E252CAD38235DE	**Editor ID:**	009-702-627-3

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	16-9131-3620	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	07 Mar-25 16:34	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	07 Mar-25 0:00	**MD5 Hash:**	CBBB4B61B63ECC923D91023C3B9BD11	**Editor ID:**	009-702-627-3
Batch ID:	16-5311-3579	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	11 Feb-25 12:15	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	18 Feb-25 13:19	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	01-7254-9445	**Code:**	FML021125	**Project:**	REF TOX
Sample Date:	11 Feb-25 12:15	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	11 Feb-25 12:15	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1939146	280	Yes	Two-Point Interpolation

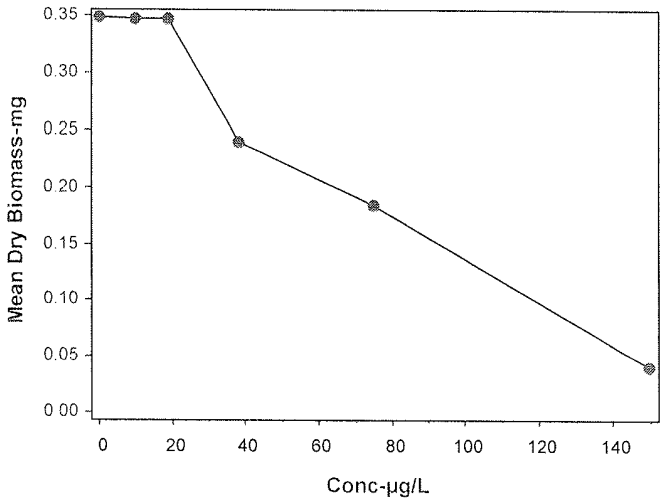
Point Estimates

Level	µg/L	95% LCL	95% UCL
IC15	27.96	24.43	30.63
IC20	31.03	26.97	34.54
IC25	34.1	29.28	38.44
IC40	58.05	30.74	111.5
IC50	79.94	38.88	118.6

Mean Dry Biomass-mg Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.36	0.344	0.342	0.3507
10		0.3387	0.37	0.3373	0.344
19		0.3447	0.35	0.3593	0.338
38		0.202	0.252	0.2473	0.2573
75		0.11	0.2753	0.2687	0.082
150		0.058	0.02067	0	0.08533

Graphics



CETIS Measurement Report

Report Date: 07 Mar-25 16:34 (p 1 of 2)
Test Code/ID: FML021125 / 16-8104-1835

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	16-5311-3579	Test Type:	Growth-Survival (7d)	Analyst:	Beth Maturino
Start Date:	11 Feb-25 12:15	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	18 Feb-25 13:19	Species:	Pimephales promelas	Brine:	Not Applicable
Test Length:	7d 1h	Taxon:	Actinopterygii	Source:	Aquatic Biosystems, CO Age: 1d
Sample ID:	01-7254-9445	Code:	FML021125	Project:	REF TOX
Sample Date:	11 Feb-25 12:15	Material:	Copper chloride	Source:	Reference Toxicant
Receipt Date:	11 Feb-25 12:15	CAS (PC):		Station:	REF TOX
Sample Age:	---	Client:	ABC Labs		

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	62	62	62	62	62	0	0	0.00%	0
150		8	61	61	61	61	61	0	0	0.00%	0
Overall		16	61.5	61.22	61.78	61	62	0.1291	0.5164	0.84%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	264.6	261.5	267.8	260	269	0.4722	3.777	1.43%	0
10		8	256.6	254	259.3	250	259	0.3949	3.159	1.23%	0
19		8	256.1	254.1	258.2	252	259	0.3094	2.475	0.97%	0
38		8	254.1	251.7	256.6	250	258	0.3686	2.949	1.16%	0
75		8	255	253.1	256.9	252	258	0.2835	2.268	0.89%	0
150		8	255.4	253.1	257.6	250	259	0.3337	2.669	1.05%	0
Overall		48	257	255.7	258.3	250	269	0.6493	4.498	1.75%	0 (0%)

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.125	7.731	8.519	7.1	8.5	0.05891	0.4713	5.80%	0
10		8	8.062	7.705	8.42	7.1	8.4	0.05343	0.4274	5.30%	0
19		8	8.025	7.68	8.37	7.1	8.4	0.05165	0.4132	5.15%	0
38		8	8.038	7.692	8.383	7.1	8.4	0.05173	0.4138	5.15%	0
75		8	7.988	7.667	8.308	7.1	8.3	0.04792	0.3834	4.80%	0
150		8	7.975	7.663	8.287	7.1	8.3	0.04665	0.3732	4.68%	0
Overall		48	8.035	7.921	8.15	7.1	8.5	0.05708	0.3954	4.92%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.00%	0
150		8	126	126	126	126	126	0	0	0.00%	0
Overall		16	110	101.2	118.8	94	126	4.131	16.52	15.02%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.875	7.816	7.934	7.7	7.9	0.008837	0.0707	0.90%	0
10		8	7.85	7.787	7.913	7.7	7.9	0.009448	0.07559	0.96%	0
19		8	7.838	7.775	7.9	7.7	7.9	0.0093	0.0744	0.95%	0
38		8	7.813	7.759	7.866	7.7	7.9	0.008011	0.06409	0.82%	0
75		8	7.825	7.766	7.884	7.7	7.9	0.008839	0.07071	0.90%	0
150		8	7.838	7.775	7.9	7.7	7.9	0.0093	0.0744	0.95%	0
Overall		48	7.84	7.819	7.86	7.7	7.9	0.0102	0.07068	0.90%	0 (0%)

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Temperature-°C

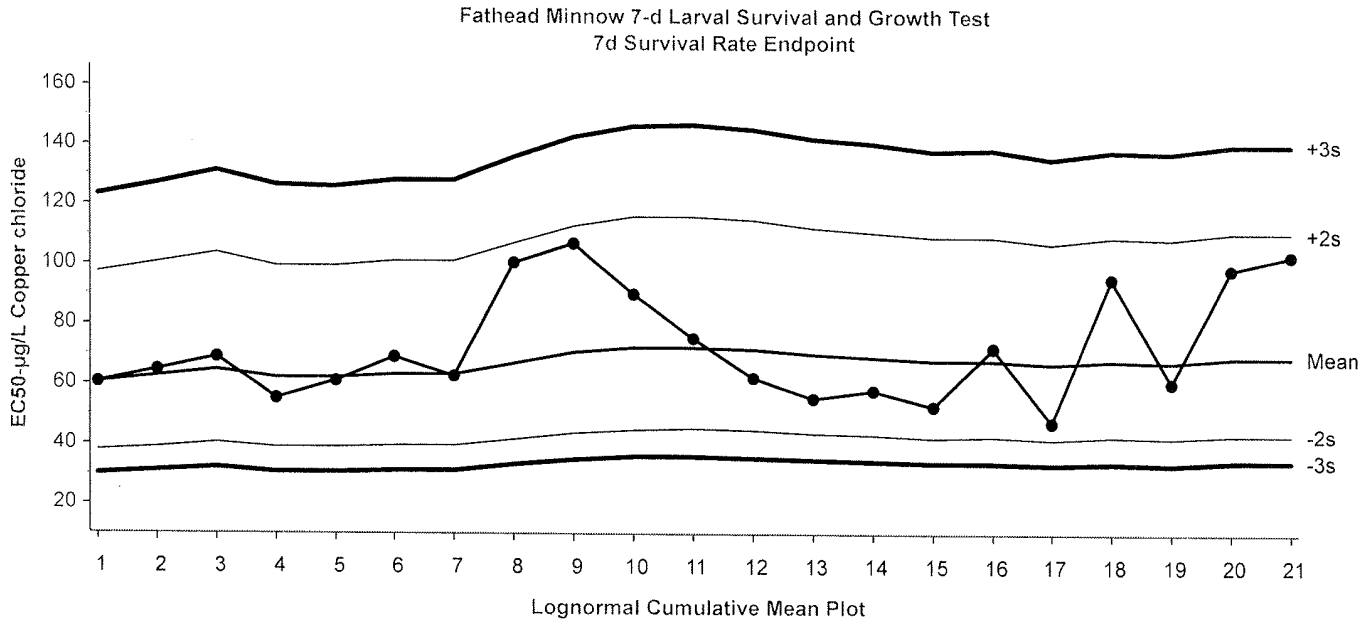
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
10		8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
19		8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
38		8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
75		8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
150		8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
Overall		48	24.01	24	24.02	24	24.1	0.004456	0.03087	0.13%	0 (0%)

CETIS QC Plot

Report Date: 07 Mar-25 16:35 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	7d Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	68.79	**Count:**	20	**-2s Warning Limit:**	42.8	**-3s Action Limit:**	33.8
Sigma:	NA	**CV:**	24.00%	**+2s Warning Limit:**	110	**+3s Action Limit:**	140

Quality Control Data

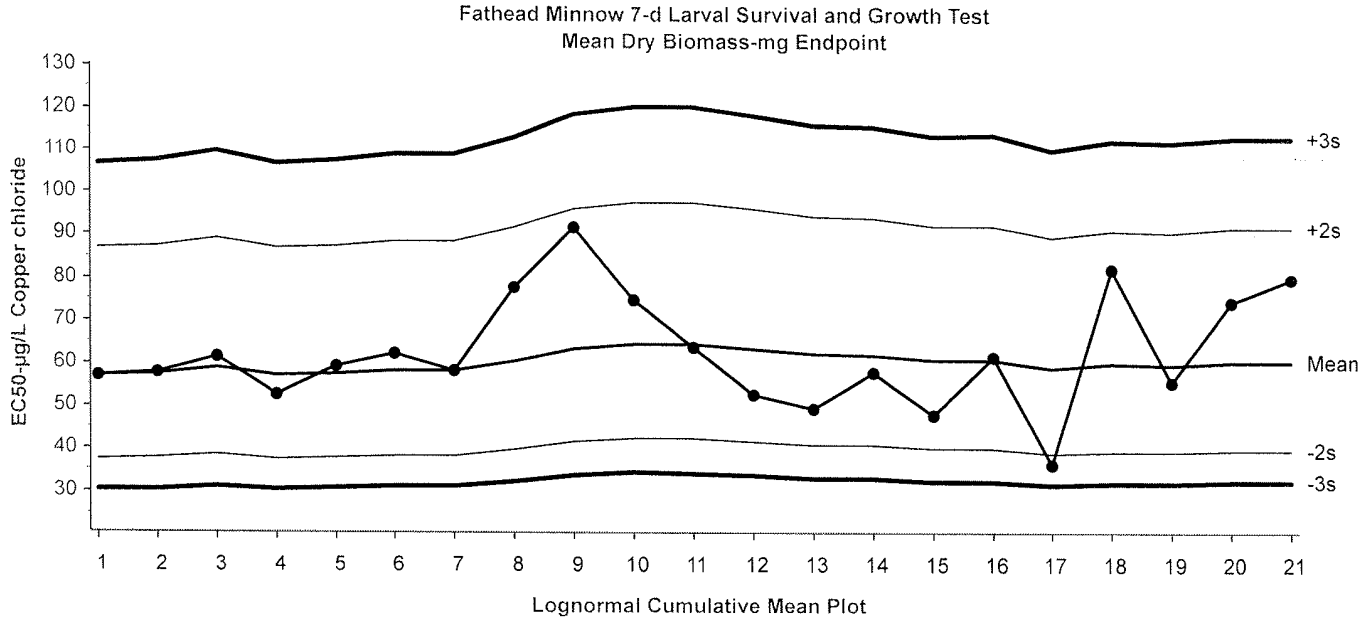
Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Sep	17	14:19	60.56	-8.225	-0.538			10-5636-1261	12-1980-4343
2			25	11:45	64.43	-4.357	-0.2765			01-5919-2751	13-4347-5647
3		Oct	1	13:23	68.83	0.04736	0.002907			06-3098-0701	10-1538-0549
4			8	15:03	55.4	-13.39	-0.9144			20-1568-7440	19-5114-8844
5			15	13:50	60.9	-7.881	-0.5141			10-8673-2368	00-1359-2096
6			17	16:00	68.62	-0.1653	-0.01016			18-3095-1642	15-4710-9161
7			22	15:10	62.33	-6.453	-0.4162			19-0912-1140	09-6377-1541
8			29	15:20	100.8	32	1.614			09-4550-3995	21-4284-6798
9		Nov	5	15:50	106.8	38.03	1.859			09-2403-5441	04-5593-3187
10			12	14:48	89.73	20.95	1.123			10-1731-0740	16-4707-0068
11			19	15:15	75	6.214	0.3654			20-3806-2820	02-3661-4487
12			20	15:00	61.98	-6.805	-0.4401			06-8037-9008	21-4619-7329
13		Dec	3	13:00	55.22	-13.56	-0.9278			18-1540-2996	05-6522-4940
14			10	15:20	57.87	-10.92	-0.73			19-9851-1845	18-5768-6591
15			17	13:13	52.39	-16.4	-1.15			09-4375-8924	01-3886-6616
16	2025	Jan	7	14:40	71.92	3.131	0.188			21-0637-0547	11-1485-0637
17			14	12:00	47.25	-21.54	-1.587			05-6088-9362	03-4082-7382
18			28	15:46	95.12	26.34	1.369			04-9084-2249	19-5925-0077
19		Feb	4	17:01	60.42	-8.362	-0.5476			00-6241-7952	01-1979-8744
20			6	15:40	98.28	29.49	1.507			06-9427-5319	01-8738-7815
21			11	12:15	103	34.2	1.705			16-8104-1835	13-5437-1451

CETIS QC Plot

Report Date: 07 Mar-25 16:35 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Mean Dry Biomass-mg	**Source:**	Reference Toxicant-REF



Mean:	60.34	**Count:**	20	**-2s Warning Limit:**	39.7	**-3s Action Limit:**	32.2
Sigma:	NA	**CV:**	21.10%	**+2s Warning Limit:**	91.7	**+3s Action Limit:**	113

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Sep	17	14:19	57.09	-3.251	-0.2649			10-5636-1261	18-7973-5507
2			25	11:45	57.56	-2.784	-0.2259			01-5919-2751	01-2712-5265
3		Oct	1	13:23	61.45	1.114	0.08751			06-3098-0701	02-0894-3808
4			8	15:03	52.57	-7.769	-0.6592			20-1568-7440	12-2151-5153
5			15	13:50	59.05	-1.291	-0.1035			10-8673-2368	03-9604-2764
6			17	16:00	62.29	1.951	0.1521			18-3095-1642	07-4065-3814
7			22	15:10	58.04	-2.301	-0.1859			19-0912-1140	02-9413-3326
8			29	15:20	77.69	17.35	1.209			09-4550-3995	00-4441-3224
9		Nov	5	15:50	91.55	31.21	1.994			09-2403-5441	07-6830-2851
10			12	14:48	74.54	14.2	1.011			10-1731-0740	21-2736-3990
11			19	15:15	63.69	3.354	0.2587			20-3806-2820	13-6596-6601
12			20	15:00	52.74	-7.604	-0.6442			06-8037-9008	02-1196-1356
13		Dec	3	13:00	49.26	-11.08	-0.9703			18-1540-2996	06-7062-0437
14			10	15:20	57.69	-2.653	-0.215			19-9851-1845	02-6664-5479
15			17	13:13	47.7	-12.64	-1.125			09-4375-8924	15-9519-3400
16	2025	Jan	7	14:40	61.37	1.031	0.08099			21-0637-0547	16-6875-9592
17			14	12:00	36.34	-24	-2.424	(-)		05-6088-9362	03-9030-1419
18			28	15:46	81.96	21.62	1.465			04-9084-2249	06-9280-3288
19		Feb	4	17:01	55.44	-4.904	-0.4054			00-6241-7952	10-0544-6264
20			6	15:40	74.2	13.86	0.9891			06-9427-5319	09-6653-1378
21			11	12:15	79.94	19.6	1.345			16-8104-1835	16-9131-3620

CHAIN OF CUSTODY FORM

Client Name/Address:
Haley & Aldrich
5333 Mission Center Rd Suite 300
San Diego, CA 92108

Eurofins Calscience Project Manager: Virendra Patel
2841 Dow Avenue, Suite #100
Tustin, CA 92780
Tel: 714-895-5494

ECI Project #570131187

TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement# 2019-22-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.

Sampler:

Project:
Boeing-SSFL NPDES
Permit 2023
Annual Outfall 002
Outfall 002
COMPOSITE

Project Manager: Katherine Miller
520.289.8606, 520.904.6944 (cell)

Field Manager: Mark Dominick
978.234.5033, 818.599.0702 (cell)

									ANALYSIS REQUIRED																			
									A/R	R	R	R	A/R	R	R	A	A		R	A	R	A					
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Recoverable Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	TCDD (and all congeners) (E16138) - **Sub to Sacramento**	BOD5 (20 degrees C) (E405.1 (SM5210B_BODCalc))	LL Mercury (E1631E) – Total Recoverable	Flouride [F-], Chloride [Cl-], Sulfate [SO4], Nitrate-N, Nitrite-N, NO3+NO2-N (E300); Perchlorate (E314.0)	Turbidity, TDS (SM2540C/E180.1)	TSS (160.2 (SM25400))	Priority Pollutants-Pesticides+PCBs (E608) Weck Labs in Hacienda Heights, CA	Priority Pollutants-SVOCs (E625.1 SIM)	Priority Pollutants-SVOCs (E625.1 SIM) Sub Indeno[1,2,3-cd]pyrene to EMAX	Ammonia-N (E351.1)	PCBs (1668C) - **Sub to Sacramento**	Detergents (MBAS) (SM5540C/E425.1)	Cr (VI), Total Recoverable (E218.6)		Comments
Outfall 002	Outfall002_20250208_Comp	2/8/2025 0830	WM	500 mL Poly	3	HNO3	Yes	X																			48 hours Holding Time NO_3 & NO_2
			WM	1 L Glass Amber	2	None	No		X																		48 hour holding time for turbidity
			WM	1 L Poly	1	None	No			X																	
			WM	250mL Clear Glass, double bagged	3	HCL	Yes				X																Segregate into a cooler for Weck Labs.
			WM	250 mL Poly	1	None	No					X															
			WM	500 mL Poly	1	None	No						X														Segregate into a cooler for EMAX.
			WM	1 L Poly	1	None	No							X													
			WM	1 L Glass Amber	4	None	No								X												
			WM	1 L Glass Amber	12	None	Yes									X											
			WM	1 L Glass Amber	4	None	No										X										
			WM	500 mL Poly	1	H_2SO_4	No											X									
			WM	1 L Glass Amber	12	None	Yes												X								
			WM	1 L Poly	1	None	No													X							
			WM	250 mL Poly	1	None	No														X						
QA/QC	Outfall002_20250208_Comp-02	2/8/2025 0830	WM	1 L Glass Amber	4	None	No												X								
	Outfall002_20250208 ~~Grab 04~~ MD	2/8/2025 0830	WM	1 L Glass Amber	4	None	No												X								
		2/8/2025 0830	WM	250mL Clear Glass, double bagged	1	HCL	No				X																
		2/8/2025 0830	WM	1 L Glass Amber	4	None	No									X											

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/10/2025	H&A		
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: __X__

CHAIN OF CUSTODY FORM

Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Project: Boeing-SSFL NPDES Permit 2023 **Annual Outfall 002** **Outfall 002** **COMPOSITE**
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187** TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement# 2019-12-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)
Sampler:	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)

								ANALYSIS REQUIRED												
								A/R	A	R	A	R	A	R	R	R				
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	Cr (VI), Total Dissolved (E218.6)	Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium [H-3] (E906.0) - **Sub to St. Louis**	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) **ABC Labs in Ventura, CA**	1,4-Dioxane (E624 (SW8260M_SIM))	Total Organic Carbon (415.2 (SM 5310D))	Monomethyl hydrazine (SW8315M/DV-WC-0077) **Weck Labs in Hacienda Heights, CA**	LL Mercury (E1631E) -- Total Dissolved	Cyanide (Kelada)		Comments
Outfall 002	Outfall002_20250208_Comp_F	2/8/2025 0830	WM	~~500~~ 1 mL Poly	3	None	Yes	X												Filter and preserve w/in 24hrs of receipt at lab.
			WM	250 mL Poly	1	None	No		X											Filter and preserve w/in 24hrs of receipt at lab.
			WM	250mL Clear Glass, double bagged	3	None	Yes									X				Filter and preserve w/in 24hrs of receipt at lab.
	Outfall002_20250208_Comp	2/8/2025 0830	WM	500 mL Poly	3	NaOH	Yes										X			
			WM	1 L Poly	4	HNO3	No			X										Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None	No													
			WM	1 Gal Cube	5	None	No				X									Only test if first or second rain events of the year. Deliver to ABC Labs in Ventura, CA
			WM	40 mL VOA	3	HCl	Yes					X								
			WM	40 ml VOA	3	H2SO4	No						X							
			WM	1 L Glass Amber	1	None	No							X						Segregate into a cooler for Weck Labs.
QA/QC	Outfall002_20250208_Grab_F-04	2/8/2025 0830	WM	250mL Clear Glass, double bagged	1	None	No									X				Filter and preserve w/in 24hrs of receipt at lab.

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by: Michelle Dallalah	Date/Time: 2/10/2025	Company: H&A	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: ___X____
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice:_____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV:____X_____

2023-2024 Rainy Season
Version 1

Loc: 570
217375

217375

CHAIN OF CUSTODY FORM

217375

| | | |

CHAIN OF CUSTODY FORM

217375

Client Name/Address:	Project:	ANALYSIS REQUIRED																
Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Boeing-SSFL NPDES Permit 2023 **Annual Outfall 002** **Outfall 002** **COMPOSITE**	A/R	A	R		A	R	A	R	R	R							
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)	Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	Cr (VI), Total Dissolved (E218.6)	Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium [H-3] (E906.0) - Sub to St. Louis	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) ABC Labs in Ventura, CA	1,4-Dioxane (E624 (SW8260M_SIM))	Total Organic Carbon (415.2 (SM 5310D))	Monomethyl hydrazine (SW8315M/DV-WC-0077) Weck Labs in Hacienda Heights, CA	LL Mercury (E1631E) -- Total Dissolved	Cyanide (Kelada)							
TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement# 2019-22-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.																		
Sampler:	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)																	

Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD												Comments
4	Outfall002_20250208_Comp_F	2/8/2025 0830	WM	~~500~~ mL Poly	3	None	Yes	X											Filter and preserve w/in 24hrs of receipt at lab.
			WM	250 mL Poly	1	None	No		X										Filter and preserve w/in 24hrs of receipt at lab.
			WM	250mL Clear Glass, double bagged	3	None	Yes										X		Filter and preserve w/in 24hrs of receipt at lab.
Outfall 002	Outfall002_20250208_Comp	2/8/2025 0830	WM	500 mL Poly	3	NaOH	Yes											X	
			WM	1 L Poly	4	HNO3	No			X									Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None	No												
5/1			WM	1 Gal Cube	5	None	No				X								Only test if first or second rain events of the year. Deliver to ABC Labs in Ventura, CA
			WM	40 mL VOA	3	HCl	~~No~~ Yes					X							
			WM	40 ml VOA	3	H2SO4	No						X						
			WM	1 L Glass Amber	1	None	No							X					Segregate into a cooler for Weck Labs.
5 QA/QC	Outfall002_20250208_Grab_F-04	2/8/2025 0830	WM	250mL Clear Glass, double bagged	1	None	No										X		Filter and preserve w/in 24hrs of receipt at lab.

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/10/2025 12:35	H&A		2/10/25 1235
	2/10/25	1705		2/10/25 17:05

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: __X__

2023-2024 Rainy Season
Version 1

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-217375-5

Login Number: 217375
List Number: 1
Creator: Patel, Virendra

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 3/30/2025 11:23:53 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Outfall 008 COMP

JOB NUMBER

570-218361-7

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

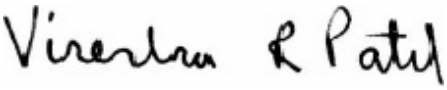
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494

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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)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-218361-7 Eurofins Calscience

Job Narrative
570-218361-7

Receipt
The samples were received on 2/14/2025 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.0º C and 2.8º C.

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

Subcontract Work
Method Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013): This method was subcontracted to Aquatic Bioassay. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Detection Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-218361-7
Project/Site: Boeing NPDES SSFL - Outfall 008 COMP

Client Sample ID: Outfall008_20250214_Comp
Lab Sample ID: 570-218361-1

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience

Method Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-218361-7
Project/Site: Boeing NPDES SSFL - Outfall 008 COMP

Method	Method Description	Protocol	Laboratory
EPA	Bioassay	EPA	Aquatic

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

Aquatic = Aquatic Bioassay & Consulting, 29 North Olive Street, Ventura, CA 93001

Sample Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-218361-7
Project/Site: Boeing NPDES SSFL - Outfall 008 COMP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-218361-1	Outfall008_20250214_Comp	Water	02/14/25 09:40	02/14/25 18:30

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID: CSE0225.220

March 26, 2025

Mr. Virendra Patel
Eurofins Calscience
2841 Dow Avenue, Suite #100
Tustin, CA 92780

Dear Mr. Patel:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013.* " Results were as follows:*

CLIENT:	Eurofins Calscience
SAMPLE I.D.:	Outfall_008_20250214_Comp
DATE RECEIVED:	14 Feb - 2025
ABC LAB. NO.:	CSE0225.220

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

IWC = 100.00%

TST RESULT

SURVIVAL = PASS % EFFECT = -1.69 %

GROWTH = PASS % EFFECT = -1.61 %

Yours very truly,

Joe Freas
President

CETIS Summary Report

Report Date: 25 Mar-25 07:39 (p 1 of 1)
Test Code/ID: CSE0225.220fml / 14-0280-8491

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	05-1302-4025	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:05	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	09-3717-8864	**Code:**	CSE0225.220fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 09:40	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfa11008_20250214_Comp
Sample Age:	6h (5 °C)	**Client:**	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.220

SIngle Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
17-8470-6280	7d Survival Rate	TST-Welch's t Test	0.0003	100% passed 7d survival rate
01-6132-5152	Mean Dry Biomass-mg	TST-Welch's t Test	0.0005	100% passed mean dry biomass-mg

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.9833	0.9303	1.0000	0.9333	1.0000	0.0167	0.0333	3.39%	0.00%
100		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	-1.69%

Mean Dry Biomass-mg Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3522	0.3504	0.354	0.3507	0.3533	0.000569	0.001139	0.32%	0.00%
100		4	0.3578	0.3346	0.3811	0.3427	0.374	0.007315	0.01463	4.09%	-1.61%

7d Survival Rate Detail — MD5: 47CD82190AA5D13B6B41F7B66F469EEF

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	0.9333
100		1.0000	1.0000	1.0000	1.0000

Mean Dry Biomass-mg Detail — MD5: C19F4AC17446EA46496C23DBBB8EA2EE

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.352	0.3507	0.3533	0.3527
100		0.374	0.3427	0.3487	0.366

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	14/15
100		15/15	15/15	15/15	15/15

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	17-8470-6280	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:39	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	47CD82190AA5D13B6B41F7B66F469EEF	**Editor ID:**	009-702-627-3
Batch ID:	05-1302-4025	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:05	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	09-3717-8864	**Code:**	CSE0225.220fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 09:40	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfa11008_20250214_Comp
Sample Age:	6h (5 °C)	**Client:**	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.220

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed 7d survival rate endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	3	15.59	0.7649	CDF	0.0003	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.002168	0.002168	1	1	0.3559	Non-Significant Effect
Error	0.013008	0.002168	6			
Total	0.015176		7			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	9	13.75	0.0240	Equal Variances
	Mod Levene Equality of Variance Test	1	13.75	0.3559	Equal Variances
	Variance Ratio F Test				Indeterminate
Distribution	Anderson-Darling A2 Test	1.162	3.878	0.0049	Non-Normal Distribution
	Kolmogorov-Smirnov D Test	0.375	0.3313	0.0015	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.7065	0.6451	0.0027	Non-Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	17-8470-6280	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:39	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	47CD82190AA5D13B6B41F7B66F469EEF	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	01-6132-5152	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:39	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	C19F4AC17446EA46496C23DBBB8EA2E	**Editor ID:**	009-702-627-3
Batch ID:	05-1302-4025	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:05	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	09-3717-8864	**Code:**	CSE0225.220fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 09:40	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfa11008_20250214_Comp
Sample Age:	6h (5 °C)	**Client:**	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.220

Data Transform	Alt Hyp	TST_b	Comparison Result
Untransformed	C*b < T	0.75	100% passed mean dry biomass-mg endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	3	12.79	0.7649	CDF	0.0005	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	6.422E-05	6.422E-05	1	0.5965	0.4692	Non-Significant Effect
Error	0.0006460	0.0001077	6			
Total	0.0007102		7			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	30.16	13.75	0.0015	Unequal Variances
	Mod Levene Equality of Variance Test	29.51	13.75	0.0016	Unequal Variances
	Variance Ratio F Test	165.1	47.47	0.0016	Unequal Variances
Distribution	Anderson-Darling A2 Test	0.2952	3.878	0.6264	Normal Distribution
	Kolmogorov-Smirnov D Test	0.2017	0.3313	0.5177	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9633	0.6451	0.8409	Normal Distribution

Analysis ID:	01-6132-5152	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:39	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	C19F4AC17446EA46496C23DBBB8EA2E	**Editor ID:**	009-702-627-3

CETIS Measurement Report

Report Date: 25 Mar-25 07:39 (p 1 of 1)
Test Code/ID: CSE0225.220fml / 14-0280-8491

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	05-1302-4025	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:05	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	09-3717-8864	**Code:**	CSE0225.220fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 09:40	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfa11008_20250214_Comp
Sample Age:	6h (5 °C)	**Client:**	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.220

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	62	62	62	62	62	0	0	0.00%	0
100		8	19	19	19	19	19	0	0	0.00%	0
Overall		16	40.5	28.67	52.33	19	62	5.551	22.21	54.83%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	264.4	261.6	267.2	260	268	0.4169	3.335	1.26%	0
100		8	82.75	81.28	84.22	80	85	0.2191	1.753	2.12%	0
Overall		16	173.6	123.6	223.6	80	268	23.46	93.83	54.06%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.05	7.797	8.303	7.4	8.4	0.0378	0.3024	3.76%	0
100		8	8.137	7.91	8.365	7.6	8.5	0.03403	0.2722	3.35%	0
Overall		16	8.094	7.944	8.244	7.4	8.5	0.0704	0.2816	3.48%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.00%	0
100		8	40	40	40	40	40	0	0	0.00%	0
Overall		16	67	52.14	81.86	40	94	6.971	27.89	41.62%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
100		8	8	7.955	8.045	7.9	8.1	0.006682	0.05345	0.67%	0
Overall		16	7.944	7.905	7.983	7.8	8.1	0.01819	0.07274	0.92%	0 (0%)

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
100		8	24.06	23.99	24.14	24	24.2	0.01145	0.09156	0.38%	0
Overall		16	24.03	23.99	24.07	24	24.2	0.0176	0.07042	0.29%	0 (0%)

Eurofins Calscience Tustin

CHAIN OF CUSTODY FORM

3/30/2025

Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Project: Boeing-SSFL NPDES 2023 Permit **Annual** **Outfall 008** **COMPOSITE** Stormwater at Happy Valley
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)
Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)
Sampler:	

Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	ANALYSIS REQUIRED: Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) ABC Labs in Ventura, CA	Comments
Outfall 008	Outfall008_20250214_Comp	2/14/2025 0940	*WM	1 Gal Cube	5	None		X	Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**

R/A R R/A R A R/A R R R R R A R R

220

Added C.F. = -0.5°C
Therm. = sample receiving
Temp. deg. C = 5.0
Chlorine (mg/L) = <0.1
NH3 (mg/L) = <0.1

Hand delivered to ABC with this copy of CoC

Legend: R= Routine, A = Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
[signature]	2-14-25/1415	GH4	[signature]	2/14/25 1415
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.

Data Requirements: (Check)
No Level IV: _____ All Level IV: __X__

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 14 February 2025 Report ID:

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 10.00 ug/l

EC25 = 18.06 ug/l
EC50 = 91.07 ug/l

ENDPOINT: GROWTH

NOEC = 10.00 ug/l

IC25 = 17.61 ug/l
IC50 = 61.26 ug/l

Yours very truly,

Joe Freas
President

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	PMSD
04-3713-5813	7d Survival Rate	Dunnett Multiple Comparison Test	10	19	13.78	10.2%
04-4026-9421	Mean Dry Biomass-mg	Steel Many-One Rank Sum Test	10	19	13.78	25.5%

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL
20-8031-7528	7d Survival Rate	Linear Interpolation (ICPIN)	EC15	13.64	10.9	19.85
			EC20	15.85	12.66	26.36
			EC25	18.06	14.46	51.37
			EC40	78.43	6.447	91.11
			EC50	91.07	69.97	102.7
06-2322-2824	Mean Dry Biomass-mg	Linear Interpolation (ICPIN)	IC15	14.07	10.21	16.5
			IC20	15.84	12.36	19.11
			IC25	17.61	14.71	50.86
			IC40	34.28	19.77	106
			IC50	61.26	16.37	110.4

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.9833	0.9303	1.0000	0.9333	1.0000	0.0167	0.0333	3.39%	0.00%
10		4	0.9167	0.8636	0.9697	0.8667	0.9333	0.0167	0.0333	3.64%	6.78%
19		4	0.7167	0.5575	0.8758	0.6667	0.8667	0.0500	0.1000	13.95%	27.12%
38		4	0.6333	0.4125	0.8542	0.4667	0.8000	0.0694	0.1388	21.91%	35.59%
75		4	0.6167	0.4355	0.7978	0.4667	0.7333	0.0569	0.1139	18.46%	37.29%
150		4	0.0333	0.0000	0.1394	0.0000	0.1333	0.0333	0.0667	200.00%	96.61%

Mean Dry Biomass-mg Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3513	0.3385	0.3642	0.3393	0.3567	0.004028	0.008055	2.29%	0.00%
10		4	0.339	0.278	0.4	0.2893	0.3827	0.01916	0.03832	11.30%	3.51%
19		4	0.2497	0.2043	0.295	0.2167	0.2767	0.01425	0.0285	11.42%	28.94%
38		4	0.2013	0.06978	0.3329	0.1393	0.3153	0.04134	0.08267	41.06%	42.69%
75		4	0.1605	0.02658	0.2944	0.07333	0.2493	0.04208	0.08416	52.44%	54.32%
150		4	0.01017	-0.02219	0.04252	0	0.04067	0.01017	0.02033	200.00%	97.11%

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail
MD5: 134E388E0CE6F5AF396526BA0DAA6763

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	0.9333
10		0.9333	0.9333	0.8667	0.9333
19		0.6667	0.8667	0.6667	0.6667
38		0.6000	0.4667	0.6667	0.8000
75		0.7333	0.4667	0.6667	0.6000
150		0.1333	0.0000	0.0000	0.0000

Mean Dry Biomass-mg Detail
MD5: 55D0BEBE3B1AB715D139DFD26EEF3FE9

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3393	0.3567	0.3547	0.3547
10		0.3827	0.3393	0.2893	0.3447
19		0.27	0.2767	0.2353	0.2167
38		0.1413	0.1393	0.2093	0.3153
75		0.2133	0.106	0.2493	0.07333
150		0.04067	0	0	0

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	14/15
10		14/15	14/15	13/15	14/15
19		10/15	13/15	10/15	10/15
38		9/15	7/15	10/15	12/15
75		11/15	7/15	10/15	9/15
150		2/15	0/15	0/15	0/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	04-3713-5813	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3
Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Angular (Corrected)	C > T	10	19	13.78	---	0.1007	10.25%

Dunnett Multiple Comparison Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	MSD	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	1.631	2.407	0.1874	CDF	0.1885	Non-Significant Effect
		19*	6	5.045	2.407	0.1874	CDF	0.0002	Significant Effect
		38*	6	6.209	2.407	0.1874	CDF	4.3E-05	Significant Effect
		75*	6	6.463	2.407	0.1874	CDF	3.6E-05	Significant Effect
		150*	6	15.65	2.407	0.1874	CDF	2.7E-05	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.61442	0.722883	5	59.66	<1.0E-05	Significant Effect
Error	0.218087	0.0121159	18			
Total	3.8325		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	3.325	15.09	0.6501	Equal Variances
	Levene Equality of Variance Test	0.7932	4.248	0.5684	Equal Variances
	Mod Levene Equality of Variance Test	0.452	4.248	0.8064	Equal Variances
Distribution	Anderson-Darling A2 Test	0.8095	3.878	0.0360	Normal Distribution
	D'Agostino Kurtosis Test	0.04405	2.576	0.9649	Normal Distribution
	D'Agostino Skewness Test	0.9695	2.576	0.3323	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	0.9418	9.21	0.6244	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1593	0.2056	0.1166	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9281	0.884	0.0886	Normal Distribution

Analysis ID:	04-3713-5813	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	04-4026-9421	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	55D0BEBE3B1AB715D139DFD26EEF3FE	**Editor ID:**	009-702-627-3
Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C > T	10	19	13.78	---	0.08974	25.54%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	15.5	10	1	CDF	0.5438	Non-Significant Effect
		19*	6	10	10	0	CDF	0.0417	Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.32079	0.0641581	5	23.08	<1.0E-05	Significant Effect
Error	0.0500327	0.0027796	18			
Total	0.370823		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	15.13	15.09	0.0098	Unequal Variances
	Levene Equality of Variance Test	5.283	4.248	0.0037	Unequal Variances
	Mod Levene Equality of Variance Test	4.065	4.248	0.0121	Equal Variances
Distribution	Anderson-Darling A2 Test	0.4666	3.878	0.2560	Normal Distribution
	D'Agostino Kurtosis Test	0.9275	2.576	0.3537	Normal Distribution
	D'Agostino Skewness Test	1.056	2.576	0.2910	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	1.975	9.21	0.3724	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1402	0.2056	0.2535	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9623	0.884	0.4856	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	04-4026-9421	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	55D0BEBE3B1AB715D139DFD26EEF3FE	**Editor ID:**	009-702-627-3

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	20-8031-7528	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3
Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC15	13.64	10.9	19.85
EC20	15.85	12.66	26.36
EC25	18.06	14.46	51.37
EC40	78.43	6.447	91.11
EC50	91.07	69.97	102.7

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	0.9333
10		0.9333	0.9333	0.8667	0.9333
19		0.6667	0.8667	0.6667	0.6667
38		0.6000	0.4667	0.6667	0.8000
75		0.7333	0.4667	0.6667	0.6000
150		0.1333	0.0000	0.0000	0.0000

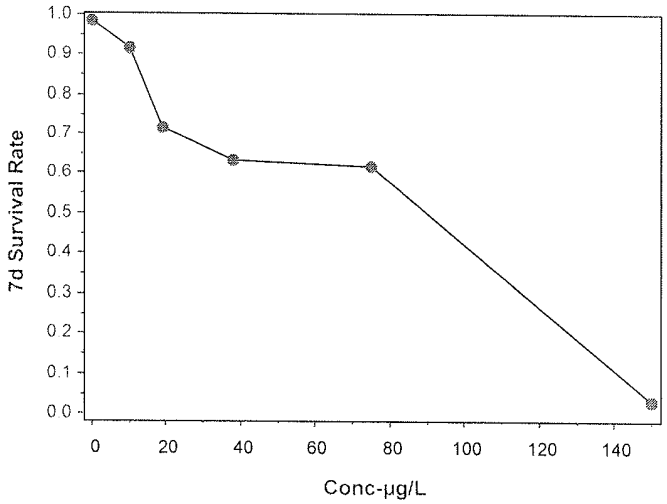
7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	14/15
10		14/15	14/15	13/15	14/15
19		10/15	13/15	10/15	10/15
38		9/15	7/15	10/15	12/15
75		11/15	7/15	10/15	9/15
150		2/15	0/15	0/15	0/15

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	20-8031-7528	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	06-2322-2824	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	55D0BEBE3B1AB715D139DFD26EEF3FE	**Editor ID:**	009-702-627-3
Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1074536	280	Yes	Two-Point Interpolation

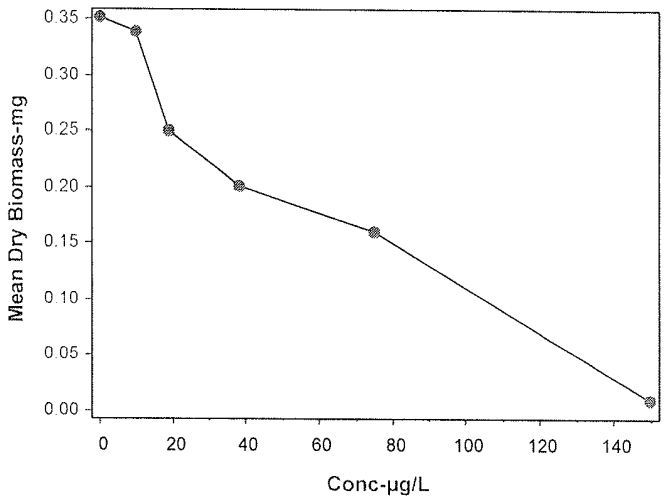
Point Estimates

Level	µg/L	95% LCL	95% UCL
IC15	14.07	10.21	16.5
IC20	15.84	12.36	19.11
IC25	17.61	14.71	50.86
IC40	34.28	19.77	106
IC50	61.26	16.37	110.4

Mean Dry Biomass-mg Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3393	0.3567	0.3547	0.3547
10		0.3827	0.3393	0.2893	0.3447
19		0.27	0.2767	0.2353	0.2167
38		0.1413	0.1393	0.2093	0.3153
75		0.2133	0.106	0.2493	0.07333
150		0.04067	0	0	0

Graphics



CETIS Measurement Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	62	62	62	62	62	0	0	0.00%	0
150		8	61	61	61	61	61	0	0	0.00%	0
Overall		16	61.5	61.22	61.78	61	62	0.1291	0.5164	0.84%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	264	261.5	266.5	260	268	0.378	3.024	1.15%	0
10		8	258	254.4	261.6	250	265	0.5387	4.309	1.67%	0
19		8	256.5	254.1	258.9	252	260	0.3598	2.878	1.12%	0
38		8	254.8	251.5	258	250	259	0.4807	3.845	1.51%	0
75		8	254.5	252.3	256.7	251	258	0.3341	2.673	1.05%	0
150		8	256.1	254.8	257.5	254	259	0.2053	1.642	0.64%	0
Overall		48	257.3	256	258.6	250	268	0.638	4.42	1.72%	0 (0%)

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.05	7.797	8.303	7.4	8.4	0.0378	0.3024	3.76%	0
10		8	8.038	7.752	8.323	7.3	8.5	0.04275	0.342	4.26%	0
19		8	7.975	7.704	8.246	7.2	8.2	0.0405	0.324	4.06%	0
38		8	7.963	7.695	8.23	7.2	8.2	0.04005	0.3204	4.02%	0
75		8	7.925	7.64	8.21	7.1	8.1	0.04265	0.3412	4.31%	0
150		8	7.925	7.64	8.21	7.1	8.1	0.04265	0.3412	4.31%	0
Overall		48	7.979	7.888	8.071	7.1	8.5	0.04544	0.3149	3.95%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.00%	0
150		8	126	126	126	126	126	0	0	0.00%	0
Overall		16	110	101.2	118.8	94	126	4.131	16.52	15.02%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
10		8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
19		8	7.875	7.836	7.914	7.8	7.9	0.005785	0.04628	0.59%	0
38		8	7.863	7.819	7.906	7.8	7.9	0.006468	0.05175	0.66%	0
75		8	7.875	7.836	7.914	7.8	7.9	0.005785	0.04628	0.59%	0
150		8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
Overall		48	7.879	7.867	7.891	7.8	7.9	0.005924	0.04104	0.52%	0 (0%)

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Temperature-°C

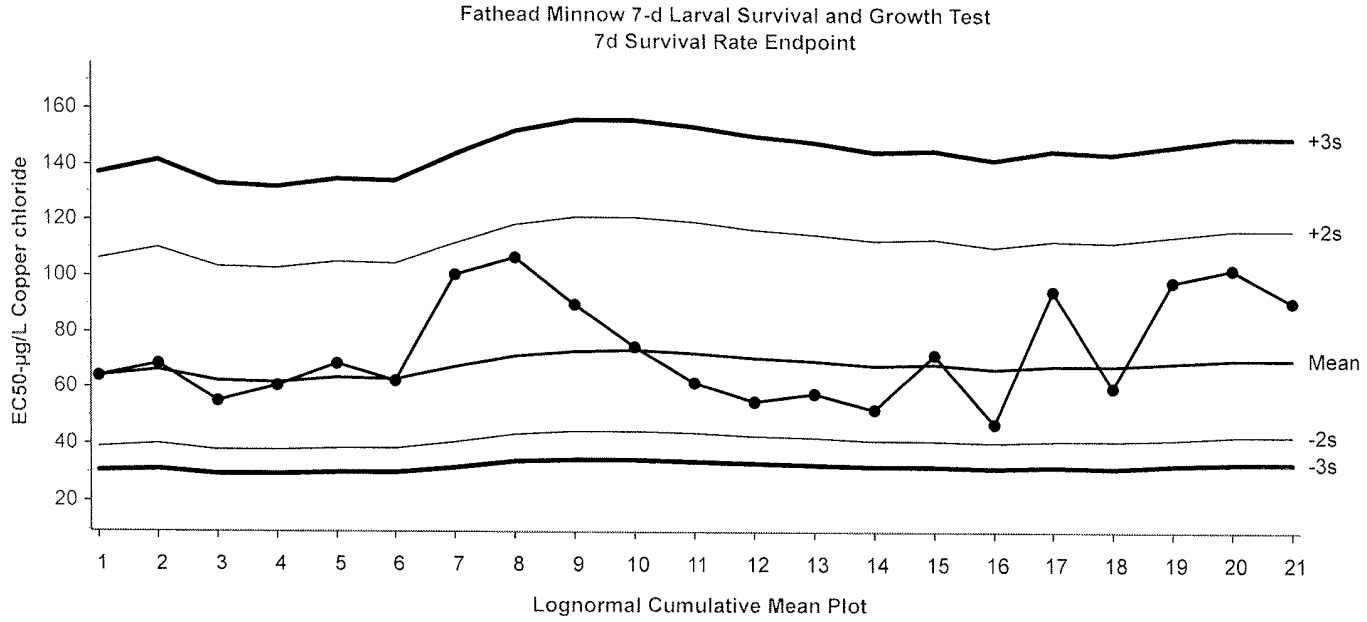
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
10		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
19		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
38		8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
75		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
150		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
Overall		48	24.02	24.01	24.03	24	24.1	0.005924	0.04104	0.17%	0 (0%)

CETIS QC Plot

Report Date: 11 Mar-25 14:30 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	7d Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	70.6	**Count:**	20	**-2s Warning Limit:**	42.7	**-3s Action Limit:**	33.2
Sigma:	NA	**CV:**	25.50%	**+2s Warning Limit:**	117	**+3s Action Limit:**	150

Quality Control Data

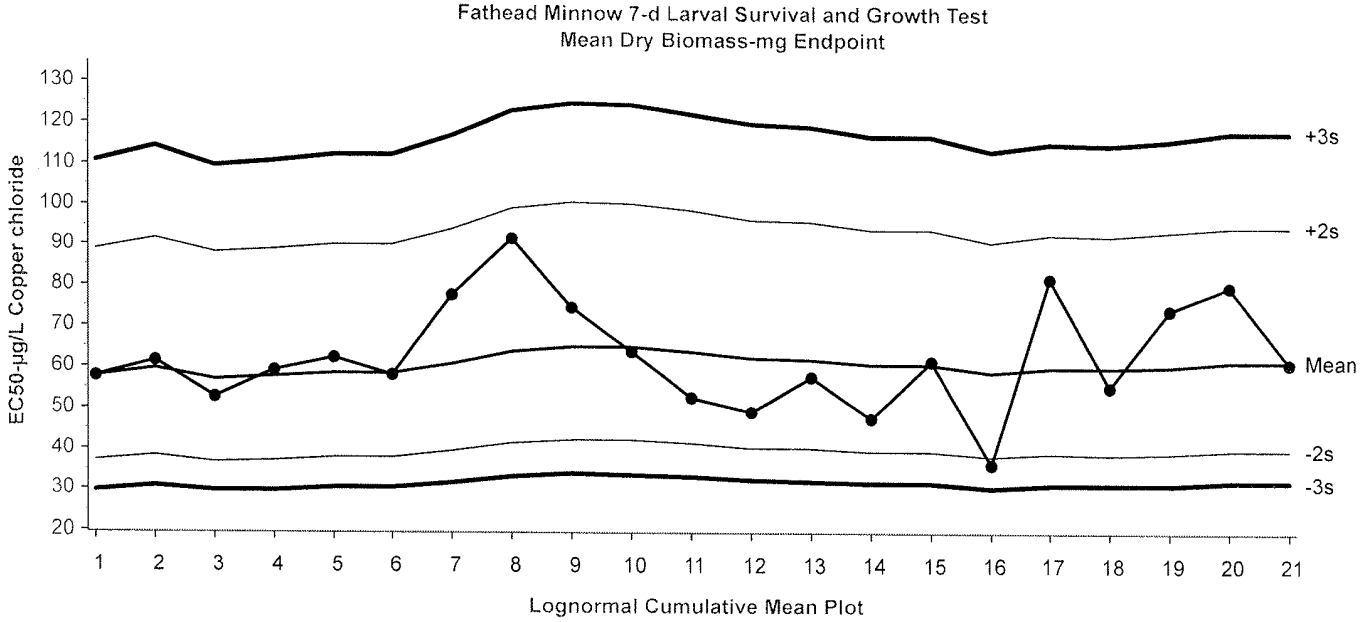
Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Sep	25	11:45	64.43	-6.169	-0.3642			01-5919-2751	13-4347-5647
2		Oct	1	13:23	68.83	-1.765	-0.1008			06-3098-0701	10-1538-0549
3			8	15:03	55.4	-15.2	-0.9655			20-1568-7440	19-5114-8844
4			15	13:50	60.9	-9.693	-0.5882			10-8673-2368	00-1359-2096
5			17	16:00	68.62	-1.977	-0.1131			18-3095-1642	15-4710-9161
6			22	15:10	62.33	-8.265	-0.4958			19-0912-1140	09-6377-1541
7			29	15:20	100.8	30.18	1.418			09-4550-3995	21-4284-6798
8		Nov	5	15:50	106.8	36.22	1.649			09-2403-5441	04-5593-3187
9			12	14:48	89.73	19.13	0.9551			10-1731-0740	16-4707-0068
10			19	15:15	75	4.402	0.2409			20-3806-2820	02-3661-4487
11			20	15:00	61.98	-8.616	-0.5184			06-8037-9008	21-4619-7329
12		Dec	3	13:00	55.22	-15.37	-0.9781			18-1540-2996	05-6522-4940
13			10	15:20	57.87	-12.73	-0.7917			19-9851-1845	18-5768-6591
14			17	13:13	52.39	-18.21	-1.188			09-4375-8924	01-3886-6616
15	2025	Jan	7	14:40	71.92	1.319	0.07371			21-0637-0547	11-1485-0637
16			14	12:00	47.25	-23.35	-1.599			05-6088-9362	03-4082-7382
17			28	15:46	95.12	24.52	1.187			04-9084-2249	19-5925-0077
18		Feb	4	17:01	60.42	-10.17	-0.6197			00-6241-7952	01-1979-8744
19			6	15:40	98.28	27.68	1.317			06-9427-5319	01-8738-7815
20			11	12:15	103	32.39	1.504			16-8104-1835	13-5437-1451
21			14	15:22	91.07	20.47	1.014			02-3244-8004	20-8031-7528

CETIS QC Plot

Report Date: 11 Mar-25 14:30 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Mean Dry Biomass-mg	**Source:**	Reference Toxicant-REF



Mean:	61.37	**Count:**	20	**-2s Warning Limit:**	39.7	**-3s Action Limit:**	31.9
Sigma:	NA	**CV:**	22.00%	**+2s Warning Limit:**	94.9	**+3s Action Limit:**	118

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Sep	25	11:45	57.56	-3.819	-0.2951			01-5919-2751	01-2712-5265
2		Oct	1	13:23	61.45	0.0797	0.005961			06-3098-0701	02-0894-3808
3			8	15:03	52.57	-8.804	-0.7112			20-1568-7440	12-2151-5153
4			15	13:50	59.05	-2.326	-0.1775			10-8673-2368	03-9604-2764
5			17	16:00	62.29	0.9159	0.06805			18-3095-1642	07-4065-3814
6			22	15:10	58.04	-3.336	-0.2567			19-0912-1140	02-9413-3326
7			29	15:20	77.69	16.31	1.083			09-4550-3995	00-4441-3224
8		Nov	5	15:50	91.55	30.18	1.837			09-2403-5441	07-6830-2851
9			12	14:48	74.54	13.17	0.8928			10-1731-0740	21-2736-3990
10			19	15:15	63.69	2.32	0.1704			20-3806-2820	13-6596-6601
11			20	15:00	52.74	-8.639	-0.6969			06-8037-9008	02-1196-1356
12		Dec	3	13:00	49.26	-12.11	-1.01			18-1540-2996	06-7062-0437
13			10	15:20	57.69	-3.687	-0.2846			19-9851-1845	02-6664-5479
14			17	13:13	47.7	-13.68	-1.158			09-4375-8924	15-9519-3400
15	2025	Jan	7	14:40	61.37	-0.00402	-0.00030			21-0637-0547	16-6875-9592
16			14	12:00	36.34	-25.03	-2.407	(-)		05-6088-9362	03-9030-1419
17			28	15:46	81.96	20.58	1.329			04-9084-2249	06-9280-3288
18		Feb	4	17:01	55.44	-5.939	-0.4675			00-6241-7952	10-0544-6264
19			6	15:40	74.2	12.83	0.8719			06-9427-5319	09-6653-1378
20			11	12:15	79.94	18.56	1.214			16-8104-1835	16-9131-3620
21			14	15:22	61.26	-0.1177	-0.00882			02-3244-8004	06-2322-2824

Loc: 570
218361

218361

Eurofins Calscience Tustin

CHAIN OF CUSTODY FORM

Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	**Project:** Boeing-SSFL NPDES 2023 Permit Annual Outfall 008 COMPOSITE Stormwater at Happy Valley
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**	
Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	**Project Manager: Katherine Miller** 520.289.8606, 520.904.6944 (cell)
Sampler:	**Field Manager: Mark Dominick** 978.234.5033, 818.599.0702 (cell)

								ANALYSIS REQUIRED																
								R/A	R	R/A	R	A	R/A	R	R	R	R	A	R	R				
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Recoverable Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, As, Ba, Be, Co, Cr, Fe, Mn, Ni, V, Zn, Ag, Cd, Cu, Pb, Sb, Se, Tl	TCDD (and all congeners) (E1613B) -sub to Sacramento	Flouride [F-], Chloride [Cl-], Sulfate [SO4], Nitrate-N, Nitrite-N, NO3+NO2-N (E300); Perchlorate (E314.0)	TDS (SM2540C/E160.1)	TSS (160.2 (SM2540D))	Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, As, Ba, Be, Co, Cr, Fe, Mn, Ni, V, Zn, Ag, Cd, Cu, Pb, Sb, Se, Tl	Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) - sub to St. Louis	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) ABC Labs in Ventura, CA	Ammonia-N (351.1)	Cyanide (Kaleda)	Priority Pollutants-Pesticides+PCBs (E608) Weck Labs in Hacienda Heights, CA	LL Mercury (1631) Total Recoverable	LL Mercury (1631) Total Dissolved	Cr (VI), total dissolved (E218.6)	Comments
1	Outfall008_20250214_Comp	2/14/2025 0940	WM	500 mL Poly	3	HNO_3	Yes	X																
			WM	1 L Glass Amber	2	None			X															
			WM	250 mL Poly	3	None	Yes			X														48 hours Holding Time NO_3 & NO_2
			WM	500 mL Poly	1	None					X													
			WM	500 mL Poly	3	H2SO4	Yes										X							
			WM	1 L Poly	1	None						X												
			WM	500 mL Poly	3	NaOH	Yes											X						
			WM	1 L Poly	4	HNO3								X										Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None																		
Outfall 008			WM	1 Gal Cube	5	None										X								Only test if first or second rain events of the year. Deliver to ABC Labs in Ventura, CA
			WM	1 L Glass Amber	12	None	Yes												X					Segregate into a cooler for Weck Labs.
			WM	8oz Clear Glass, dbl bagged	3	HCL	Yes													X				Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures.
2	Outfall008_20250214_Comp_F	2/14/2025 0940	WM	500 mL Poly	3	None	Yes						X											Filter and preserve w/in 24hrs of receipt at lab
			WM	8oz Clear Glass, dbl bagged	3	None	Yes														X			Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. Filter and preserve w/in 24hrs of receipt at lab
			WM	250 mL Poly	3	None	Yes															X		Filter and preserve w/in 24hrs of receipt at lab

Legend: R = Routine, A = Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/14/2025 2:00PM	H&A	EC	2/14/25 1400
EC	2/14/25 1830	EC	[illegible]	2/14/25 1430

570-218361 Chain of Custody

No Level IV: _____ All Level IV: ___X___

2024-2025 Rainy Season
Version 1

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:	ANALYSIS REQUIRED
Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Boeing-SSFL **NPDES** 2023 Permit **Annual** **Outfall 008** **COMPOSITE** Stormwater at Happy Valley	A A A A R R R
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)	
Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)	
Sampler:		

Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Priority Pollutants-SVOCs (E6251 SIM)		Cr (VI), total recoverable (E218.6)	Asbestos (EPA100.2)	Chlorpyrifos, Diazinon (E525.2) Weck Labs in Hacienda Heights, CA	Detergents (MBAS) (SM5540C/E425.1)	LL Mercury (1631) Total Recoverable	LL Mercury (1631) Total Dissolved					Comments
1 Outfall 008	Outfall008_20250214_Comp	2/14/2025 0940	WM	1 L Glass Amber	12	None	Yes	X												
			WM	250 mL Poly	3	None	Yes			X										
			WM	1 L Poly	1	None					X									
			WM	1 L Glass Amber	2	None						X								**Segregate into a cooler for Weck Labs. Extract within 24-Hours of sampling.**
			WM	1 L Poly	3	None	Yes						X							
3 QA/QC	Outfall008_20250214_Grab-04	2/14/2025 0940	WM	8oz Clear Glass, dbl bagged	1	HCL								X						Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures.
			WM	1 L Glass Amber	4	None		X												
4	Outfall008_20250214_Grab_F-04	2/14/2025 0940	WM	8oz Clear Glass, dbl bagged	1	None									X					Filter and preserve w/in 24hrs of receipt at lab.

Legend: R = Routine, A = Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/14/2025 2:00 PM	H&A		2/14/25 1400
	2/14/25 1830	EC		2/14/25 1830

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: ___X___
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X___

2024-2025 Rainy Season
Version 1

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel Virendra	Carrier Tracking No(s): N/A	COC No: 570-428490.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): State California; State Program California		Job #: 570-218361-2
Address: 880 Riverside Parkway	Due Date Requested: 3/6/2025			
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Outfall 008 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B/1613B_Sox_Sep_P (MOD) Standard List w/ Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Outfall008_20250214_Comp (570-218361-1)	2/14/25	09:40 Pacific	G	Water			X	3	See QAS, Boeing_w/u to zero; Use Boeing glassware.

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

3/30/2025

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428514.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State California; State Program California		Job #: 570-218361-5
Address: 13715 Rider Trail North	Due Date Requested: 3/12/2025			
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Outfall 008 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	901.1_Cs/Fill_Geo_0 K-40 and Cesium-137	A01R_U/ExtChrom_Actin Total Uranium	900.0/Evaporation Gross Alpha/Beta	903.0/PrecSep_21 Radium-226	904.0/PrecSep_0 Radium-228	905_Sr90/PrecSep_7 Strontium-90	906.0/LSC_Dist_Susp Tritium	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
Outfall008_20250214_Comp (570-218361 1)	2/14/25	09:40 Pacific	G	Water			X	X	X	X	X	X	X	5	Boeing SSFL, DO NOT FILTER; use prep date from preservation. Ok to Preserve

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time: 2-18-25 1230	Company EC	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428525.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State California; State Program California		Job #: 570-218361-1
Address: 5755 8th Street East,	Due Date Requested: 2/28/2025			
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Outfall 008 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631E/ Mercury, Total	1631E/Filtration_ME Mercury, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall008_20250214_Comp (570-218361-1MS)	2/14/25	09:40 Pacific	G	Water			X		1	
Outfall008_20250214_Comp (570-218361-1MSD)	2/14/25	09:40 Pacific	G	Water			X		1	
Outfall008_20250214_Comp_F (570-218361-2MS)	2/14/25	09:40 Pacific	G	Water				X	1	
Outfall008_20250214_Comp_F (570-218361-2MSD)	2/14/25	09:40 Pacific	G	Water				X	1	

Analysis Requested

Preservation Codes:

Other: N/A

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III, IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 2-18 1230	Company EC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428525.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State California; State Program California		Job #: 570-218361-3
Address: 5755 8th Street East,	Due Date Requested: 2/27/2025			
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Outfall 008 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631E/ Mercury, Total	1631E/Filtration_ME Mercury, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall008_20250214_Comp (570-218361 1)	2/14/25	09:40 Pacific	G	Water			X		1	
Outfall008_20250214_Comp_F (570-218361-2)	2/14/25	09:40 Pacific	G	Water				X	1	
Outfall008_20250214_Grab-04 (570-218361-3)	2/14/25	09:40 Pacific	G	Water			X		1	
Outfall008_20250214_Grab_F-04 (570-218361-4)	2/14/25	09:40 Pacific	G	Water				X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2-18-25 1230	EC			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

3/30/2025

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel Virendra	Carrier Tracking No(s): N/A	COC No: 570-428754.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State California; State Program California		Job #: 570-218361-5
Address: 13715 Rider Trail North	Due Date Requested: 3/12/2025			
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Outfall 008 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	901.1_Cs/Fill_Geo_0 K-40 and Cesium-137	A01R_U/ExtChrom_Actin Total Uranium	900.0/Evaporation Gross Alpha/Beta	903.0/PrecSep_21 Radium-226	904.0/PrecSep_0 Radium-228	905_Sr90/PrecSep_7 Strontium-90	906.0/LSC_Dist_Susp Tritium	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
Outfall008_20250214_Comp (570-218361-1MS)	2/14/25	09:40 Pacific	G	Water			X	X	X	X	X	X	X	5	Boeing SSFL, DO NOT FILTER; use prep date from preservation. Ok to Preserve
Outfall008_20250214_Comp (570-218361-1MSD)	2/14/25	09:40 Pacific	G	Water			X	X	X	X	X	X	X	5	Boeing SSFL, DO NOT FILTER; use prep date from preservation. Ok to Preserve

Analysis Requested

Preservation Codes:

Other: N/A

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2-19 1230	EC			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

3/30/2025

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel Virendra	Carrier Tracking No(s): N/A	COC No: 570-428525.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State California; State Program California		Job #: 570-218361 1
Address: 5755 8th Street East,	Due Date Requested: 2/28/2025			Preservation Codes:
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Outfall 008 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631E/ Mercury, Total	1631E/Filtration_ME Mercury, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall008_20250214_Comp (570-218361-1MS)	2/14/25	09:40 Pacific	G	Water			X		1	
Outfall008_20250214_Comp (570-218361 1MSD)	2/14/25	09:40 Pacific	G	Water			X		1	
Outfall008_20250214_Comp_F (570-218361-2MS)	2/14/25	09:40 Pacific	G	Water				X	1	
Outfall008_20250214_Comp_F (570-218361-2MSD)	2/14/25	09:40 Pacific	G	Water				X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2-18 19 1230	EC			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428525.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State California, State Program California		Job #: 570-218361-3
Address: 5755 8th Street East,	Due Date Requested: 2/27/2025			
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Outfall 008 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631E/ Mercury, Total	1631E/Filtration_ME Mercury, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall008_20250214_Comp (570-218361 1)	2/14/25	09:40 Pacific	G	Water			X		1	
Outfall008_20250214_Comp_F (570-218361-2)	2/14/25	09:40 Pacific	G	Water				X	1	
Outfall008_20250214_Grab-04 (570-218361-3)	2/14/25	09:40 Pacific	G	Water			X		1	
Outfall008_20250214_Grab_F-04 (570-218361-4)	2/14/25	09:40 Pacific	G	Water				X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III, IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 2-14-2019 1230	Company: EC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Loc: 570
218361

Sierra Worthington

From: Virendra Patel
Sent: Friday, February 21, 2025 5:47 PM
To: Meadow Pinette; Calscience - Sample Receiving
Cc: St. Louis - SampleReceiving
Subject: RE: 570-218361

570-218361 Chain of Custody

Verified Sender: This email is from an internal and/or verified domain which passed security verifications. Remember to still be cautious with personal data and follow company policies.

Meadow – Please ship these back to our location at your earliest convenience.

Kind Regards,

Virendra Patel
Client Services Manager – Operations /
Senior Project Manager
(He/Him/His)

Eurofins Environment Testing Southwest - Calscience (USA)
2841 Dow Avenue, Suite 100 • Tustin, CA • 92780
Direct: 657-210-6327 • Mobile: 714-887-9901
Email: Virendra.Patel@ET.EurofinsUS.com

www.EurofinsUS.com/Env • LinkedIn

Relig: Sierra Worthington 2/24/25 0800

This email including its attachments may contain confidential and proprietary information. Any unauthorized disclosure or use of this email including its attachments is prohibited and may be prosecuted. If you are not the intended recipient, please inform the sender by an email reply and delete the message. Transmission by email is not secure and can result in errors or omissions in the content of the message. Despite state-of-the-art precautions we cannot guarantee that emails and attachments are free from viruses. We accept no liability for viruses or any transmission-related errors and omissions. You need to always virus check any emails and attachments. Eurofins companies are independent legal entities that are bound only by acts of members of their respective management bodies. No other persons, legal or natural, have representation power unless specifically authorized by proxy or other legal means.

From: Meadow Pinette <Meadow.Pinette@et.eurofinsus.com>
Sent: Friday, February 21, 2025 1:54 PM
To: Virendra Patel <Virendra.Patel@et.eurofinsus.com>; Calscience - Sample Receiving <Calscience-SampleReceiving@et.eurofinsus.com>
Cc: St. Louis - SampleReceiving <St.Louis-SampleReceiving@et.eurofinsus.com>
Subject: 570-218361

Verified Sender: This email is from an internal and/or verified domain which passed security verifications. Remember to still be cautious with personal data and follow company policies.

Hello,

Today in St. Louis we received the job above but upon arrival we saw that there are two containers that are preserved with Sulfuric Acid and two containers preserved with Sodium Hydroxide and we do not run samples that are preserved with those. Were we supposed to get these containers?

Thank you,

1

Meadow Pinette
She/her
Sample Receiving

eurofins | Environment Testing TestAmerica

13715 Rider Trail North
Earth City, MO 63045 USA
E-mail: *M2FV@ET.EurofinsUS.com*

www.EurofinsUS.com | www.TestAmericainc.com

570-218361 Waybill

TESTAMERICA ST. LOUIS
13715 RIDER TRAIL NORTH
EARTH CITY, MO 63045
UNITED STATES US

CAD: 0353803/CAFE 2.0
DIMS: 14x14x9 IN

BILL RECIPIENT

TO RECEIVING
EUROFINS TESTING CALSCIENCE
2841 DOW AVENUE
SUITE 100
TUSTIN CA 92780

REF:
INV:
PO:
DEPT:

FedEx Express

J243024070401uv

TUE - 25 FEB 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7081 0152 4879

NW DTHA

92780
CA-US SNA

Int'l # 1551-6984-4 MTN EXP 0625

589C4/25DE/FE2D

3/30/2025

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-218361-7

Login Number: 218361

List Source: Eurofins Calscience

List Number: 1

Creator: Chapman, Allyson

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 3/30/2025 11:53:28 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Routine Outfall 002 COMP

JOB NUMBER

570-218404-6

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

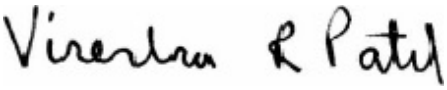
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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3/30/2025 11:53:28 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494

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Definitions/Glossary

Client: Haley & Aldrich, Inc. Job ID: 570-218404-6
Project/Site: Boeing NPDES SSFL - Routine Outfall 002 COMF

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)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-218404-6 Eurofins Calscience

Job Narrative
570-218404-6

Receipt
The samples were received on 2/14/2025 6:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.0º C, 2.2º C, 2.4º C and 2.9º C.

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

Subcontract Work
Methods Chronic Toxicity - Ceriodaphnia (EPA-821-R-02-013), Chronic-Selenestrum: These methods were subcontracted to Aquatic Bioassay. The subcontract laboratory certifications are different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Detection Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-218404-6
Project/Site: Boeing NPDES SSFL - Routine Outfall 002 COMF

Client Sample ID: Outfall002_20250214_Comp
Lab Sample ID: 570-218404-1

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-218404-6
Project/Site: Boeing NPDES SSFL - Routine Outfall 002 COMF

Method	Method Description	Protocol	Laboratory
EPA	Bioassay	EPA	Aquatic

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

Aquatic = Aquatic Bioassay & Consulting, 29 North Olive Street, Ventura, CA 93001

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Routine Outfall 002 COMF

Job ID: 570-218404-6

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-218404-1	Outfall002_20250214_Comp	Water	02/14/25 07:45	02/14/25 18:30

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID: CSE0225.222

March 26, 2025

Mr. Virendra Patel
Eurofins Calscience
2841 Dow Avenue, Suite #100
Tustin, CA 92780

Dear Mr. Patel:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013.* " Results were as follows:

CLIENT:	Eurofins Calscience
SAMPLE I.D.:	Outfall002_20250214_Comp
DATE RECEIVED:	14 Feb - 2025
ABC LAB. NO.:	CSE0225.222

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

IWC = 100.00%

TST RESULT

SURVIVAL = PASS % EFFECT = 0.00 %

GROWTH = PASS % EFFECT = 2.04 %

Yours very truly,

Joe Freas
President

CETIS Summary Report

Report Date: 25 Mar-25 07:21 (p 1 of 1)
Test Code/ID: CSE0225.222fml / 01-0959-5884

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	19-5094-0386	Test Type:	Growth-Survival (7d)	Analyst:	Beth Maturino
Start Date:	14 Feb-25 16:10	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	21 Feb-25 16:15	Species:	Pimephales promelas	Brine:	Not Applicable
Test Length:	7d 0h	Taxon:	Actinopterygii	Source:	Aquatic Biosystems, CO Age: 1d
Sample ID:	17-5264-2269	Code:	CSE0225.222fml	Project:	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 07:45	Material:	Sample Water	Source:	Bioassay Report
Receipt Date:	14 Feb-25 14:15	CAS (PC):		Station:	Outfall002_20250214_Comp
Sample Age:	8h (5 °C)	Client:	Eurofins Calscience		

Comments: Report ID: CSE0225.222

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
09-4088-8494	7d Survival Rate	TST-Welch's t Test	0.0002	100% passed 7d survival rate
05-6056-0873	Mean Dry Biomass-mg	TST-Welch's t Test	3.4E-05	100% passed mean dry biomass-mg

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.9833	0.9303	1.0000	0.9333	1.0000	0.0167	0.0333	3.39%	0.00%
100		4	0.9833	0.9303	1.0000	0.9333	1.0000	0.0167	0.0333	3.39%	0.00%

Mean Dry Biomass-mg Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3522	0.3504	0.354	0.3507	0.3533	0.000569	0.001139	0.32%	0.00%
100		4	0.345	0.337	0.353	0.3393	0.3507	0.002502	0.005004	1.45%	2.04%

7d Survival Rate Detail

MD5: 4F19B761AF7F49893A39257194355EDB

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	0.9333
100		0.9333	1.0000	1.0000	1.0000

Mean Dry Biomass-mg Detail

MD5: CF2FB7C9D053E9DDB66DF7DAF5B97BA3

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.352	0.3507	0.3533	0.3527
100		0.3507	0.3393	0.3427	0.3473

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	14/15
100		14/15	15/15	15/15	15/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	09-4088-8494	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:20	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	4F19B761AF7F49893A39257194355EDB	**Editor ID:**	009-702-627-3
Batch ID:	19-5094-0386	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-5264-2269	**Code:**	CSE0225.222fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall002_20250214_Comp
Sample Age:	8h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.222

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed 7d survival rate endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	5	8.555	0.7267	CDF	0.0002	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0	0	1	0	1.0000	Non-Significant Effect
Error	0.026016	0.004336	6			
Total	0.026016		7			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	0	13.75	1.0000	Equal Variances
	Mod Levene Equality of Variance Test	0	13.75	1.0000	Equal Variances
	Variance Ratio F Test	1	47.47	1.0000	Equal Variances
Distribution	Anderson-Darling A2 Test	1.973	3.878	<1.0E-05	Non-Normal Distribution
	Kolmogorov-Smirnov D Test	0.4554	0.3313	2.1E-05	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.5659	0.6451	6.3E-05	Non-Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	09-4088-8494	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:20	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	4F19B761AF7F49893A39257194355EDB	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	05-6056-0873	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:20	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	CF2FB7C9D053E9DDB66DF7DAF5B97BA	**Editor ID:**	009-702-627-3
Batch ID:	19-5094-0386	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-5264-2269	**Code:**	CSE0225.222fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall002_20250214_Comp
Sample Age:	8h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.222

Data Transform	Alt Hyp	TST_b	Comparison Result
Untransformed	C*b < T	0.75	100% passed mean dry biomass-mg endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	3	31.87	0.7649	CDF	3.4E-05	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0001027	0.0001027	1	7.802	0.0314	Significant Effect
Error	7.9E-05	1.317E-05	6			
Total	0.0001817		7			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	9.846	13.75	0.0201	Equal Variances
	Mod Levene Equality of Variance Test	9.757	13.75	0.0205	Equal Variances
	Variance Ratio F Test	19.31	47.47	0.0365	Equal Variances
Distribution	Anderson-Darling A2 Test	0.1765	3.878	0.9779	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1187	0.3313	1.0000	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9887	0.6451	0.9929	Normal Distribution

Analysis ID:	05-6056-0873	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:20	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	CF2FB7C9D053E9DDB66DF7DAF5B97BA	**Editor ID:**	009-702-627-3

CETIS Measurement Report

Report Date: 25 Mar-25 07:21 (p 1 of 1)
Test Code/ID: CSE0225.222fml / 01-0959-5884

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	19-5094-0386	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino		
Start Date:	14 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water		
Ending Date:	21 Feb-25 16:15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable		
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO	**Age:**	1d
Sample ID:	17-5264-2269	**Code:**	CSE0225.222fml	**Project:**	Boeing-SSFL NPDES		
Sample Date:	14 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report		
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall002_20250214_Comp		
Sample Age:	8h (5 °C)	**Client:**	Eurofins Calscience				

Comments: Report ID: CSE0225.222

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	62	62	62	62	62	0	0	0.00%	0
100		8	128	128	128	128	128	0	0	0.00%	0
Overall		16	95	76.84	113.2	62	128	8.521	34.08	35.88%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	264.4	261.6	267.2	260	268	0.4169	3.335	1.26%	0
100		8	621.8	614.9	628.6	610	635	1.024	8.19	1.32%	0
Overall		16	443.1	344.7	541.5	260	635	46.16	184.6	41.68%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.05	7.797	8.303	7.4	8.4	0.0378	0.3024	3.76%	0
100		8	8.05	7.822	8.278	7.5	8.5	0.03407	0.2726	3.39%	0
Overall		16	8.05	7.902	8.198	7.4	8.5	0.06952	0.2781	3.46%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.00%	0
100		8	275	275	275	275	275	0	0	0.00%	0
Overall		16	184.5	134.7	234.3	94	275	23.37	93.47	50.66%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.9	7.899	7.901	7.9	7.9	0	0	0.00%	0
100		8	7.9	7.899	7.901	7.9	7.9	0	0	0.00%	0
Overall		16	7.9	7.9	7.9	7.9	7.9	0	0	0.00%	0 (0%)

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
100		8	24.09	23.97	24.2	24	24.3	0.01695	0.1356	0.56%	0
Overall		16	24.04	23.99	24.1	24	24.3	0.02577	0.1031	0.43%	0 (0%)

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID: CSE0225.222

March 26, 2025

Mr. Virendra Patel
Eurofins Calscience
2841 Dow Avenue, Suite #100
Tustin, CA 92780

Dear Mr. Patel:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013.* " Results were as follows:*

CLIENT:	Eurofins Calscience
SAMPLE I.D.:	Outfall002_20250214_Comp
DATE RECEIVED:	14 Feb - 2025
ABC LAB. NO.:	CSE0225.222

CHRONIC CERIODAPHNIA SURVIVAL & REPRODUCTION BIOASSAY

IWC = 100.00%

TST RESULT

SURVIVAL = PASS % EFFECT = 0.00 %

REPRODUCTION = PASS % EFFECT = -2.97 %

Yours very truly,

Joe Freas
President

*Note: The chronic survival TST analysis is not available for ceriodaphnia dubia.

CETIS Summary Report

Report Date: 10 Mar-25 17:07 (p 1 of 1)
Test Code/ID: CSE0225.222cer / 09-6325-9364

Ceriodaphnia 7-d Survival and Reproduction Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	02-8386-5860	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:15	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Branchiopoda	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	09-2793-6073	**Code:**	CSE0225.222cer	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall002_20250214_Comp
Sample Age:	8h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID:CSE0225.222

SIngle Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
05-0778-3820	7d Survival Rate	Fisher Exact Test	1.0000	100% passed 7d survival rate
09-6335-9591	Reproduction	TST-Welch's t Test	<1.0E-05	100% passed reproduction

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%

Reproduction Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	23.6	21.33	25.87	20	31	1.002	3.169	13.43%	0.00%
100		10	24.3	23.34	25.26	22	27	0.423	1.337	5.50%	-2.97%

7d Survival Rate Detail — MD5: BE15B5EC1D07BF3A56AAC3CD8BFBC6F

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Reproduction Detail — MD5: BFF9EEEAD2E0EBC1F1594CCA5B1AEFC

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	24	24	21	24	22	23	31	20	21	26
100		25	27	25	22	24	24	24	23	25	24

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
100		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	09-6335-9591	**Endpoint:**	Reproduction	**CETIS Version:**	CETIS v2.1.5
Analyzed:	10 Mar-25 17:07	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	05 Mar-25 10:15	**MD5 Hash:**	BFF9EEEAD2E0EBC1F1594CCA5B1AEF	**Editor ID:**	006-853-889-6
Batch ID:	02-8386-5860	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:15	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Branchiopoda	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	09-2793-6073	**Code:**	CSE0225.222cer	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall002_20250214_Comp
Sample Age:	8h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID:CSE0225.222

Data Transform	Alt Hyp	TST_b	Comparison Result
Untransformed	C*b < T	0.75	100% passed reproduction endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:20%)
Negative Control		100*	14	7.652	0.8681	CDF	<1.0E-05	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.45	2.45	1	0.4141	0.5280	Non-Significant Effect
Error	106.5	5.91667	18			
Total	108.95		19			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	2.831	8.285	0.1097	Equal Variances
	Mod Levene Equality of Variance Test	2.982	8.285	0.1013	Equal Variances
	Variance Ratio F Test	5.615	6.541	0.0170	Equal Variances
Distribution	Anderson-Darling A2 Test	0.8947	3.878	0.0223	Normal Distribution
	D'Agostino Kurtosis Test	2.613	2.576	0.0090	Non-Normal Distribution
	D'Agostino Skewness Test	2.696	2.576	0.0070	Non-Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	14.09	9.21	0.0009	Non-Normal Distribution
	Kolmogorov-Smirnov D Test	0.2337	0.2235	0.0055	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.8747	0.866	0.0142	Normal Distribution

Analysis ID:	09-6335-9591	**Endpoint:**	Reproduction	**CETIS Version:**	CETIS v2.1.5
Analyzed:	10 Mar-25 17:07	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	05 Mar-25 10:15	**MD5 Hash:**	BFF9EEEAD2E0EBC1F1594CCA5B1AEF	**Editor ID:**	006-853-889-6

CETIS Analytical Report

Report Date: 10 Mar-25 17:07 (p 1 of 1)
Test Code/ID: CSE0225.222cer / 09-6325-9364

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	05-0778-3820	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.4
Analyzed:	05 Mar-25 10:15	**Analysis:**	Single 2x2 Contingency Table	**Status Level:**	1
Edit Date:	05 Mar-25 10:15	**MD5 Hash:**	BE15B5EC1D07BF3A56AAC3CD8BFBC6F	**Editor ID:**	006-853-889-6
Batch ID:	02-8386-5860	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:15	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Branchiopoda	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	09-2793-6073	**Code:**	CSE0225.222cer	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall002_20250214_Comp
Sample Age:	8h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID:CSE0225.222

Data Transform	Alt Hyp	Comparison Result
Untransformed	C > T	100% passed 7d survival rate endpoint

Fisher Exact Test

Control	vs	Conc-%	Test Stat	P-Type	P-Value	Decision(α:5%)
Negative Control		100	1.0000	Exact	1.0000	Non-Significant Effect

CETIS Measurement Report

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	02-8386-5860	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:15	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Branchiopoda	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	09-2793-6073	**Code:**	CSE0225.222cer	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall002_20250214_Comp
Sample Age:	8h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID:CSE0225.222

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	62	62	62	62	62	0	0	0.00%	0
100		8	128	128	128	128	128	0	0	0.00%	0
Overall		16	95	76.84	113.2	62	128	8.521	34.08	35.88%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	264.4	261.6	267.2	260	268	0.4169	3.335	1.26%	0
100		8	621.8	614.9	628.6	610	635	1.024	8.19	1.32%	0
Overall		16	443.1	344.7	541.5	260	635	46.16	184.6	41.68%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.05	7.797	8.303	7.4	8.4	0.0378	0.3024	3.76%	0
100		8	7.925	7.565	8.285	7.1	8.5	0.05376	0.4301	5.43%	0
Overall		16	7.988	7.793	8.182	7.1	8.5	0.09123	0.3649	4.57%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.00%	0
100		8	275	275	275	275	275	0	0	0.00%	0
Overall		16	184.5	134.7	234.3	94	275	23.37	93.47	50.66%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
100		8	7.9	7.899	7.901	7.9	7.9	0	0	0.00%	0
Overall		16	7.894	7.88	7.907	7.8	7.9	0.00625	0.025	0.32%	0 (0%)

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
100		8	24.09	23.97	24.2	24	24.3	0.01695	0.1356	0.56%	0
Overall		16	24.04	23.99	24.1	24	24.3	0.02577	0.1031	0.43%	0 (0%)

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID: CSE0225.222

March 26, 2025

Mr. Virendra Patel
Eurofins Calscience
2841 Dow Avenue, Suite #100
Tustin, CA 92780

Dear Mr. Patel:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013.* " Results were as follows:

CLIENT:	Eurofins Calscience
SAMPLE I.D.:	Outfall002_20250214_Comp
DATE RECEIVED:	14 Feb - 2025
ABC LAB. NO.:	CSE0225.222

CHRONIC SELENASTRUM ALGAE GROWTH BIOASSAY

IWC = 100.00%

TST RESULT

GROWTH = PASS % EFFECT = - 14.39 %

Yours very truly,

Joe Freas
President

CETIS Summary Report

Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	11-9553-5131	**Test Type:**	Cell Growth	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 14:24	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:00	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Chlorophyta	**Source:**	Aquatic Biosystems, CO **Age:** 7d
Sample ID:	20-1338-3861	**Code:**	CSE0225.222sel	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall002_20250214_Comp
Sample Age:	7h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID:CSE0225.222

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
12-4346-8580	Cell Density	TST-Welch's t Test	0.0006	100% passed cell density

Cell Density Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	1.171E+6	1.133E+6	1.209E+6	1.151E+6	1.200E+6	1.191E+4	2.382E+4	2.03%	0.00%
100		4	1.340E+6	1.225E+6	1.454E+6	1.256E+6	1.429E+6	3.607E+4	7.214E+4	5.39%	-14.39%

Cell Density Detail — MD5: 8393FDC3F1351662DE075F1E311FE207

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.200E+6	1.151E+6	1.181E+6	1.152E+6
100		1.256E+6	1.319E+6	1.429E+6	1.354E+6

Selenastrum Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	12-4346-8580	**Endpoint:**	Cell Density	**CETIS Version:**	CETIS v2.1.5
Analyzed:	10 Mar-25 17:13	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	05 Mar-25 10:16	**MD5 Hash:**	8393FDC3F1351662DE075F1E311FE207	**Editor ID:**	
Batch ID:	11-9553-5131	**Test Type:**	Cell Growth	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 14:24	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:00	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Chlorophyta	**Source:**	Aquatic Biosystems, CO **Age:** 7d
Sample ID:	20-1338-3861	**Code:**	CSE0225.222sel	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall002_20250214_Comp
Sample Age:	7h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID:CSE0225.222

Data Transform	Alt Hyp	TST_b	Comparison Result
Untransformed	C*b < T	0.75	100% passed cell density endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	3	12.41	0.7649	CDF	0.0006	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.678E+10	5.678E+10	1	19.68	0.0044	Significant Effect
Error	1.732E+10	2.886E+09	6			
Total	7.41E+10		7			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	2.546	13.75	0.1617	Equal Variances
	Mod Levene Equality of Variance Test	2.488	13.75	0.1658	Equal Variances
	Variance Ratio F Test	9.173	47.47	0.1015	Equal Variances
Distribution	Anderson-Darling A2 Test	0.3705	3.878	0.4287	Normal Distribution
	Kolmogorov-Smirnov D Test	0.2151	0.3313	0.3869	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9464	0.6451	0.6750	Normal Distribution

Analysis ID:	12-4346-8580	**Endpoint:**	Cell Density	**CETIS Version:**	CETIS v2.1.5
Analyzed:	10 Mar-25 17:13	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	05 Mar-25 10:16	**MD5 Hash:**	8393FDC3F1351662DE075F1E311FE207	**Editor ID:**	

CETIS Measurement Report

Report Date: 10 Mar-25 17:14 (p 1 of 1)
Test Code/ID: CSE0225.222sel / 03-0197-7774

Selenastrum Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	11-9553-5131	**Test Type:**	Cell Growth	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 14:24	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:00	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Chlorophyta	**Source:**	Aquatic Biosystems, CO **Age:** 7d
Sample ID:	20-1338-3861	**Code:**	CSE0225.222sel	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall002_20250214_Comp
Sample Age:	7h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID:CSE0225.222

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	1	66	---	---	66	66	---	---	---	0
100		1	128	---	---	128	128	---	---	---	0
Overall		2	97	-296.9	490.9	66	128	31	43.84	45.20%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	5	340.2	338.8	341.6	339	342	0.2191	1.095	0.32%	0
100		5	693.8	692.4	695.2	692	695	0.2191	1.095	0.16%	0
Overall		10	517	383.7	650.3	339	695	58.93	186.4	36.05%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	1	127	---	---	127	127	---	---	---	0
100		1	275	---	---	275	275	---	---	---	0
Overall		2	201	-739.3	1141	127	275	74	104.7	52.07%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	5	7.62	7.564	7.676	7.6	7.7	0.008944	0.04472	0.59%	0
100		5	7.9	7.812	7.988	7.8	8	0.01414	0.0707	0.89%	0
Overall		10	7.76	7.647	7.873	7.6	8	0.04989	0.1578	2.03%	0 (0%)

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	5	24.34	24.23	24.45	24.3	24.5	0.01792	0.0896	0.37%	0
100		5	24.26	24.09	24.43	24.2	24.5	0.02682	0.1341	0.55%	0
Overall		10	24.3	24.22	24.38	24.2	24.5	0.03651	0.1155	0.48%	0 (0%)

CHAIN OF CUSTODY FORM

3/30/2025

Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Project: Boeing-SSFL NPDES Permit 2023 **Routine** **Outfall 002** **COMPOSITE**
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)
Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	
Sampler:	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)

Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	ANALYSIS REQUIRED: Total Dissolved Metals: (E200.8): Al, Cd, Cu, Pb, Se, Zn (R)	LL Mercury (E1631E) -- Total Dissolved (R)	Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium [H-3] (E906.0) - **Sub to St. Louis** (R)	Chronic Toxicity - Species Sensitivity (EPA-821-R-02-013) **ABC Labs in Ventura, CA** (A) *	1,4-Dioxane (E624 (SW8260M_SIM)) (R)	Cyanide (Kelada) (R)	Monomethyl hydrazine (SW8315M(D)-WC-0077) **Weck Labs in City of Industry, CA** (R)		Comments
Outfall 002	Outfall002_202502XX_Comp_F	2/14/2025 0745	WM	500 mL Poly	3	None	Yes	X								Filter and preserve w/in 24hrs of receipt at lab.
			WM	8oz Clear Glass, dbl bagged	3	None	Yes		X							Filter and preserve w/in 24hrs of receipt at lab.
	Outfall002_20250214_Comp	2/14/2025 0745 *	WM	500 mL Poly	3	NaOH	Yes						X			
			WM	1 L Poly	4	HNO3				X						Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None										
			WM	2.5 Gal Cube	3	None					.222 X					Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	40 mL VOA	3	HCl						X				
			WM	1 L Glass Amber	1	None								X		**Segregate into a cooler for Weck Labs.**
QA/QC	Outfall002_20250214_Grab_F-04	2/14/2025 0745	WM	8oz Clear Glass, dbl bagged	1	None			X							Filter and preserve w/in 24hrs of receipt at lab.

ABC: Added C.F. = +0.5°C; Therm. = sample receiving; Temp. deg. C = 5.0; Chrlorine (mg/L) = <0.1; NH3 (mg/L) = <0.1

* Hand-delivered to ABC with this copy of COC

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallabah	2/14/2025 1140	H&A	[signature]	2/14/25 1140
[signature]	2.14.25 1415	H.A	[signature]	2/14/25 1415

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____

Store samples for 6 months.

Data Requirements: (Check)
No Level IV: _____ All Level IV: __X__

2024-2025 Rainy Season
Version 1

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 14 February 2025 Report ID:

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 10.00 ug/l

EC25 = 18.06 ug/l
EC50 = 91.07 ug/l

ENDPOINT: GROWTH

NOEC = 10.00 ug/l

IC25 = 17.61 ug/l
IC50 = 61.26 ug/l

Yours very truly,

Joe Freas
President

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	PMSD
04-3713-5813	7d Survival Rate	Dunnett Multiple Comparison Test	10	19	13.78	10.2%
04-4026-9421	Mean Dry Biomass-mg	Steel Many-One Rank Sum Test	10	19	13.78	25.5%

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL
20-8031-7528	7d Survival Rate	Linear Interpolation (ICPIN)	EC15	13.64	10.9	19.85
			EC20	15.85	12.66	26.36
			EC25	18.06	14.46	51.37
			EC40	78.43	6.447	91.11
			EC50	91.07	69.97	102.7
06-2322-2824	Mean Dry Biomass-mg	Linear Interpolation (ICPIN)	IC15	14.07	10.21	16.5
			IC20	15.84	12.36	19.11
			IC25	17.61	14.71	50.86
			IC40	34.28	19.77	106
			IC50	61.26	16.37	110.4

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.9833	0.9303	1.0000	0.9333	1.0000	0.0167	0.0333	3.39%	0.00%
10		4	0.9167	0.8636	0.9697	0.8667	0.9333	0.0167	0.0333	3.64%	6.78%
19		4	0.7167	0.5575	0.8758	0.6667	0.8667	0.0500	0.1000	13.95%	27.12%
38		4	0.6333	0.4125	0.8542	0.4667	0.8000	0.0694	0.1388	21.91%	35.59%
75		4	0.6167	0.4355	0.7978	0.4667	0.7333	0.0569	0.1139	18.46%	37.29%
150		4	0.0333	0.0000	0.1394	0.0000	0.1333	0.0333	0.0667	200.00%	96.61%

Mean Dry Biomass-mg Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3513	0.3385	0.3642	0.3393	0.3567	0.004028	0.008055	2.29%	0.00%
10		4	0.339	0.278	0.4	0.2893	0.3827	0.01916	0.03832	11.30%	3.51%
19		4	0.2497	0.2043	0.295	0.2167	0.2767	0.01425	0.0285	11.42%	28.94%
38		4	0.2013	0.06978	0.3329	0.1393	0.3153	0.04134	0.08267	41.06%	42.69%
75		4	0.1605	0.02658	0.2944	0.07333	0.2493	0.04208	0.08416	52.44%	54.32%
150		4	0.01017	-0.02219	0.04252	0	0.04067	0.01017	0.02033	200.00%	97.11%

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail

MD5: 134E388E0CE6F5AF396526BA0DAA6763

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	0.9333
10		0.9333	0.9333	0.8667	0.9333
19		0.6667	0.8667	0.6667	0.6667
38		0.6000	0.4667	0.6667	0.8000
75		0.7333	0.4667	0.6667	0.6000
150		0.1333	0.0000	0.0000	0.0000

Mean Dry Biomass-mg Detail

MD5: 55D0BEBE3B1AB715D139DFD26EEF3FE9

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3393	0.3567	0.3547	0.3547
10		0.3827	0.3393	0.2893	0.3447
19		0.27	0.2767	0.2353	0.2167
38		0.1413	0.1393	0.2093	0.3153
75		0.2133	0.106	0.2493	0.07333
150		0.04067	0	0	0

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	14/15
10		14/15	14/15	13/15	14/15
19		10/15	13/15	10/15	10/15
38		9/15	7/15	10/15	12/15
75		11/15	7/15	10/15	9/15
150		2/15	0/15	0/15	0/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	04-3713-5813	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3
Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Angular (Corrected)	C > T	10	19	13.78	---	0.1007	10.25%

Dunnett Multiple Comparison Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	MSD	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	1.631	2.407	0.1874	CDF	0.1885	Non-Significant Effect
		19*	6	5.045	2.407	0.1874	CDF	0.0002	Significant Effect
		38*	6	6.209	2.407	0.1874	CDF	4.3E-05	Significant Effect
		75*	6	6.463	2.407	0.1874	CDF	3.6E-05	Significant Effect
		150*	6	15.65	2.407	0.1874	CDF	2.7E-05	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.61442	0.722883	5	59.66	<1.0E-05	Significant Effect
Error	0.218087	0.0121159	18			
Total	3.8325		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	3.325	15.09	0.6501	Equal Variances
	Levene Equality of Variance Test	0.7932	4.248	0.5684	Equal Variances
	Mod Levene Equality of Variance Test	0.452	4.248	0.8064	Equal Variances
Distribution	Anderson-Darling A2 Test	0.8095	3.878	0.0360	Normal Distribution
	D'Agostino Kurtosis Test	0.04405	2.576	0.9649	Normal Distribution
	D'Agostino Skewness Test	0.9695	2.576	0.3323	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	0.9418	9.21	0.6244	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1593	0.2056	0.1166	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9281	0.884	0.0886	Normal Distribution

Analysis ID:	04-3713-5813	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	04-4026-9421	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	55D0BEBE3B1AB715D139DFD26EEF3FE	**Editor ID:**	009-702-627-3
Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C > T	10	19	13.78	---	0.08974	25.54%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	15.5	10	1	CDF	0.5438	Non-Significant Effect
		19*	6	10	10	0	CDF	0.0417	Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.32079	0.0641581	5	23.08	<1.0E-05	Significant Effect
Error	0.0500327	0.0027796	18			
Total	0.370823		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	15.13	15.09	0.0098	Unequal Variances
	Levene Equality of Variance Test	5.283	4.248	0.0037	Unequal Variances
	Mod Levene Equality of Variance Test	4.065	4.248	0.0121	Equal Variances
Distribution	Anderson-Darling A2 Test	0.4666	3.878	0.2560	Normal Distribution
	D'Agostino Kurtosis Test	0.9275	2.576	0.3537	Normal Distribution
	D'Agostino Skewness Test	1.056	2.576	0.2910	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	1.975	9.21	0.3724	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1402	0.2056	0.2535	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9623	0.884	0.4856	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	04-4026-9421	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	55D0BEBE3B1AB715D139DFD26EEF3FE	**Editor ID:**	009-702-627-3

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	20-8031-7528	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3
Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC15	13.64	10.9	19.85
EC20	15.85	12.66	26.36
EC25	18.06	14.46	51.37
EC40	78.43	6.447	91.11
EC50	91.07	69.97	102.7

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	0.9333
10		0.9333	0.9333	0.8667	0.9333
19		0.6667	0.8667	0.6667	0.6667
38		0.6000	0.4667	0.6667	0.8000
75		0.7333	0.4667	0.6667	0.6000
150		0.1333	0.0000	0.0000	0.0000

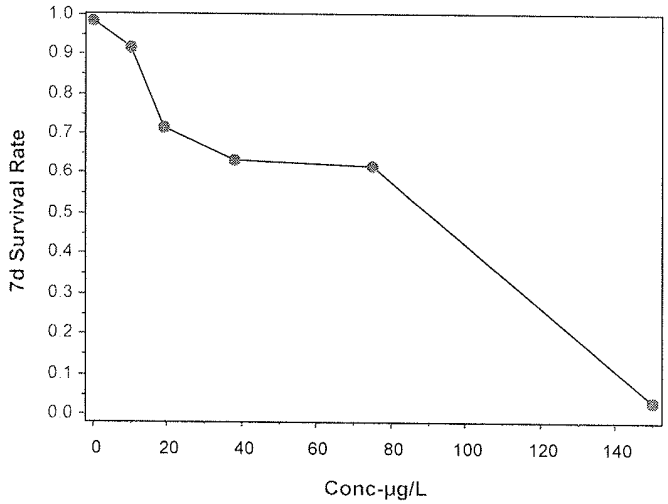
7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	14/15
10		14/15	14/15	13/15	14/15
19		10/15	13/15	10/15	10/15
38		9/15	7/15	10/15	12/15
75		11/15	7/15	10/15	9/15
150		2/15	0/15	0/15	0/15

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	20-8031-7528	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	06-2322-2824	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	55D0BEBE3B1AB715D139DFD26EEF3FE	**Editor ID:**	009-702-627-3
Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1074536	280	Yes	Two-Point Interpolation

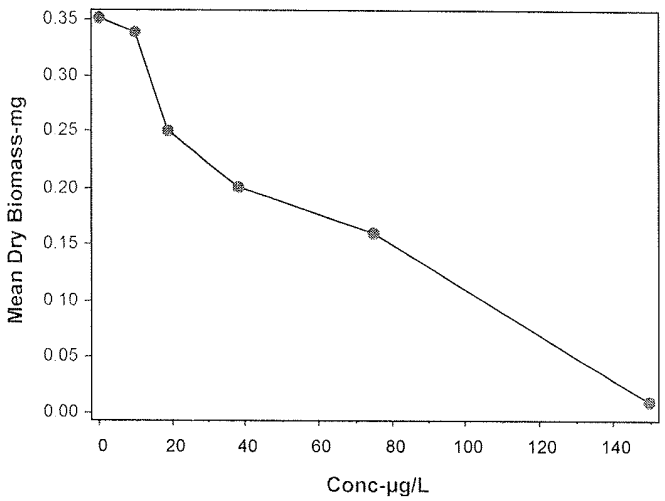
Point Estimates

Level	µg/L	95% LCL	95% UCL
IC15	14.07	10.21	16.5
IC20	15.84	12.36	19.11
IC25	17.61	14.71	50.86
IC40	34.28	19.77	106
IC50	61.26	16.37	110.4

Mean Dry Biomass-mg Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3393	0.3567	0.3547	0.3547
10		0.3827	0.3393	0.2893	0.3447
19		0.27	0.2767	0.2353	0.2167
38		0.1413	0.1393	0.2093	0.3153
75		0.2133	0.106	0.2493	0.07333
150		0.04067	0	0	0

Graphics



CETIS Measurement Report

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	62	62	62	62	62	0	0	0.00%	0
150		8	61	61	61	61	61	0	0	0.00%	0
Overall		16	61.5	61.22	61.78	61	62	0.1291	0.5164	0.84%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	264	261.5	266.5	260	268	0.378	3.024	1.15%	0
10		8	258	254.4	261.6	250	265	0.5387	4.309	1.67%	0
19		8	256.5	254.1	258.9	252	260	0.3598	2.878	1.12%	0
38		8	254.8	251.5	258	250	259	0.4807	3.845	1.51%	0
75		8	254.5	252.3	256.7	251	258	0.3341	2.673	1.05%	0
150		8	256.1	254.8	257.5	254	259	0.2053	1.642	0.64%	0
Overall		48	257.3	256	258.6	250	268	0.638	4.42	1.72%	0 (0%)

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.05	7.797	8.303	7.4	8.4	0.0378	0.3024	3.76%	0
10		8	8.038	7.752	8.323	7.3	8.5	0.04275	0.342	4.26%	0
19		8	7.975	7.704	8.246	7.2	8.2	0.0405	0.324	4.06%	0
38		8	7.963	7.695	8.23	7.2	8.2	0.04005	0.3204	4.02%	0
75		8	7.925	7.64	8.21	7.1	8.1	0.04265	0.3412	4.31%	0
150		8	7.925	7.64	8.21	7.1	8.1	0.04265	0.3412	4.31%	0
Overall		48	7.979	7.888	8.071	7.1	8.5	0.04544	0.3149	3.95%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.00%	0
150		8	126	126	126	126	126	0	0	0.00%	0
Overall		16	110	101.2	118.8	94	126	4.131	16.52	15.02%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
10		8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
19		8	7.875	7.836	7.914	7.8	7.9	0.005785	0.04628	0.59%	0
38		8	7.863	7.819	7.906	7.8	7.9	0.006468	0.05175	0.66%	0
75		8	7.875	7.836	7.914	7.8	7.9	0.005785	0.04628	0.59%	0
150		8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
Overall		48	7.879	7.867	7.891	7.8	7.9	0.005924	0.04104	0.52%	0 (0%)

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Temperature-°C

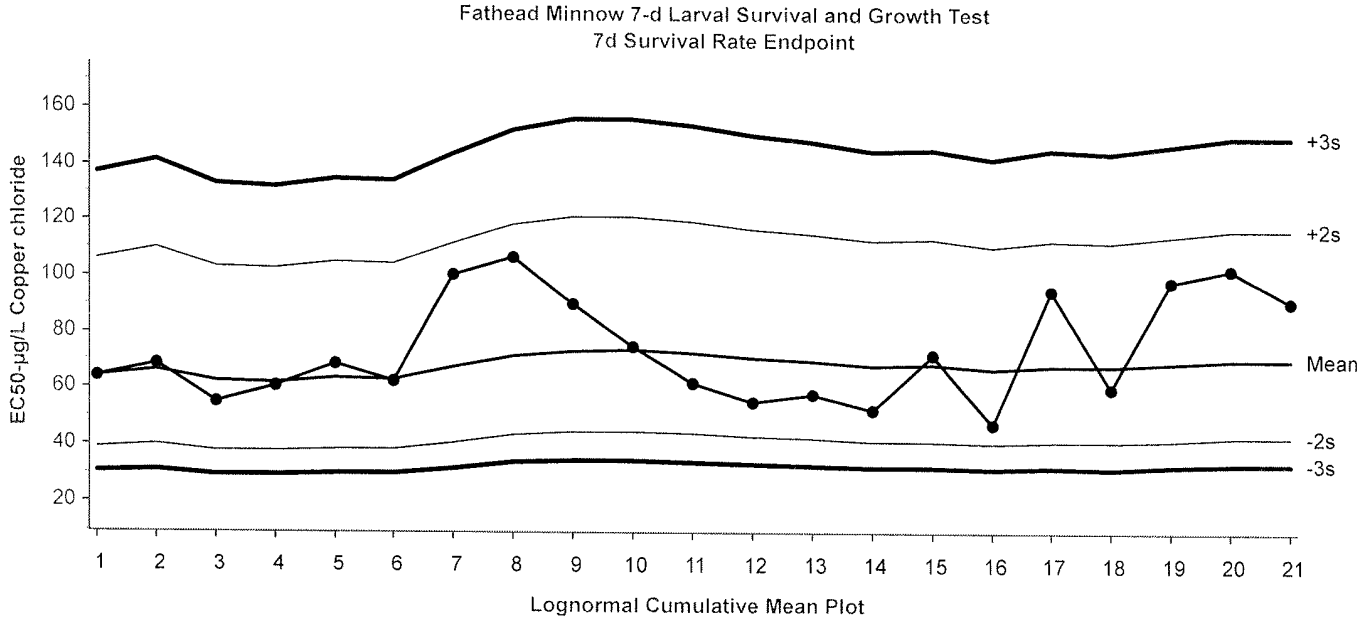
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
10		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
19		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
38		8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
75		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
150		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
Overall		48	24.02	24.01	24.03	24	24.1	0.005924	0.04104	0.17%	0 (0%)

CETIS QC Plot

Report Date: 11 Mar-25 14:30 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	7d Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	70.6	**Count:**	20	**-2s Warning Limit:**	42.7	**-3s Action Limit:**	33.2
Sigma:	NA	**CV:**	25.50%	**+2s Warning Limit:**	117	**+3s Action Limit:**	150

Quality Control Data

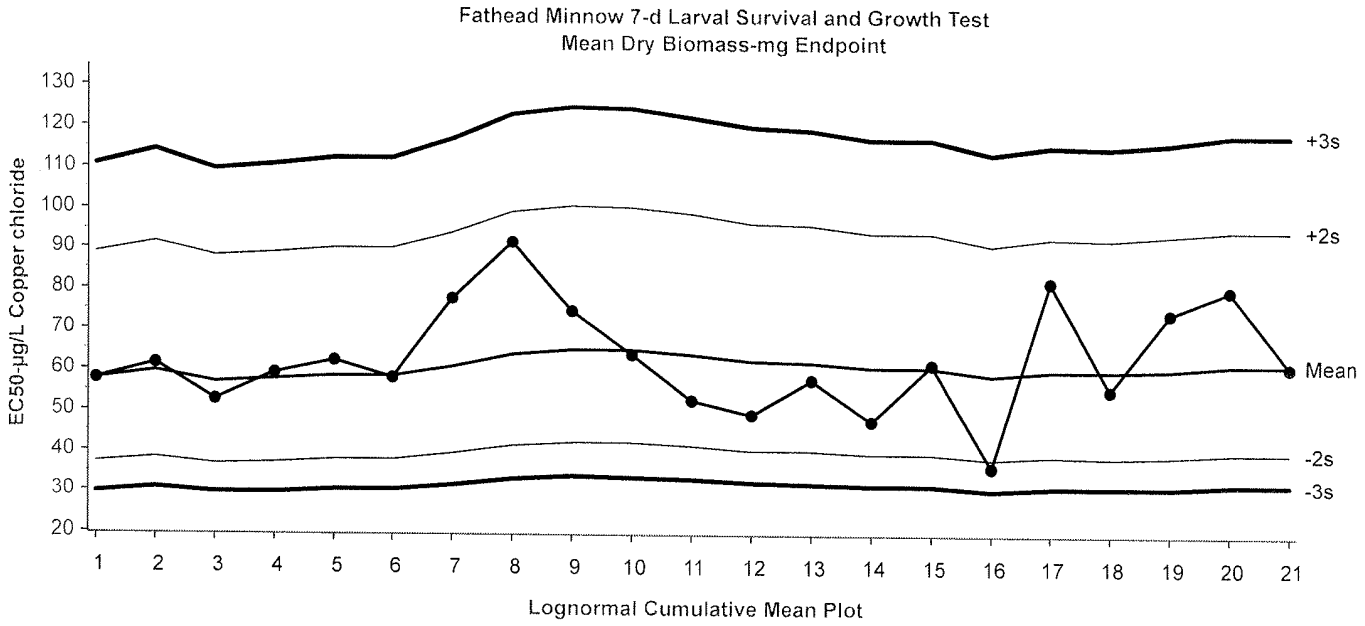
Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Sep	25	11:45	64.43	-6.169	-0.3642			01-5919-2751	13-4347-5647
2		Oct	1	13:23	68.83	-1.765	-0.1008			06-3098-0701	10-1538-0549
3			8	15:03	55.4	-15.2	-0.9655			20-1568-7440	19-5114-8844
4			15	13:50	60.9	-9.693	-0.5882			10-8673-2368	00-1359-2096
5			17	16:00	68.62	-1.977	-0.1131			18-3095-1642	15-4710-9161
6			22	15:10	62.33	-8.265	-0.4958			19-0912-1140	09-6377-1541
7			29	15:20	100.8	30.18	1.418			09-4550-3995	21-4284-6798
8		Nov	5	15:50	106.8	36.22	1.649			09-2403-5441	04-5593-3187
9			12	14:48	89.73	19.13	0.9551			10-1731-0740	16-4707-0068
10			19	15:15	75	4.402	0.2409			20-3806-2820	02-3661-4487
11			20	15:00	61.98	-8.616	-0.5184			06-8037-9008	21-4619-7329
12		Dec	3	13:00	55.22	-15.37	-0.9781			18-1540-2996	05-6522-4940
13			10	15:20	57.87	-12.73	-0.7917			19-9851-1845	18-5768-6591
14			17	13:13	52.39	-18.21	-1.188			09-4375-8924	01-3886-6616
15	2025	Jan	7	14:40	71.92	1.319	0.07371			21-0637-0547	11-1485-0637
16			14	12:00	47.25	-23.35	-1.599			05-6088-9362	03-4082-7382
17			28	15:46	95.12	24.52	1.187			04-9084-2249	19-5925-0077
18		Feb	4	17:01	60.42	-10.17	-0.6197			00-6241-7952	01-1979-8744
19			6	15:40	98.28	27.68	1.317			06-9427-5319	01-8738-7815
20			11	12:15	103	32.39	1.504			16-8104-1835	13-5437-1451
21			14	15:22	91.07	20.47	1.014			02-3244-8004	20-8031-7528

CETIS QC Plot

Report Date: 11 Mar-25 14:30 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Mean Dry Biomass-mg	**Source:**	Reference Toxicant-REF



Mean:	61.37	**Count:**	20	**-2s Warning Limit:**	39.7	**-3s Action Limit:**	31.9
Sigma:	NA	**CV:**	22.00%	**+2s Warning Limit:**	94.9	**+3s Action Limit:**	118

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Sep	25	11:45	57.56	-3.819	-0.2951			01-5919-2751	01-2712-5265
2		Oct	1	13:23	61.45	0.0797	0.005961			06-3098-0701	02-0894-3808
3			8	15:03	52.57	-8.804	-0.7112			20-1568-7440	12-2151-5153
4			15	13:50	59.05	-2.326	-0.1775			10-8673-2368	03-9604-2764
5			17	16:00	62.29	0.9159	0.06805			18-3095-1642	07-4065-3814
6			22	15:10	58.04	-3.336	-0.2567			19-0912-1140	02-9413-3326
7			29	15:20	77.69	16.31	1.083			09-4550-3995	00-4441-3224
8		Nov	5	15:50	91.55	30.18	1.837			09-2403-5441	07-6830-2851
9			12	14:48	74.54	13.17	0.8928			10-1731-0740	21-2736-3990
10			19	15:15	63.69	2.32	0.1704			20-3806-2820	13-6596-6601
11			20	15:00	52.74	-8.639	-0.6969			06-8037-9008	02-1196-1356
12		Dec	3	13:00	49.26	-12.11	-1.01			18-1540-2996	06-7062-0437
13			10	15:20	57.69	-3.687	-0.2846			19-9851-1845	02-6664-5479
14			17	13:13	47.7	-13.68	-1.158			09-4375-8924	15-9519-3400
15	2025	Jan	7	14:40	61.37	-0.00402	-0.00030			21-0637-0547	16-6875-9592
16			14	12:00	36.34	-25.03	-2.407	(-)		05-6088-9362	03-9030-1419
17			28	15:46	81.96	20.58	1.329			04-9084-2249	06-9280-3288
18		Feb	4	17:01	55.44	-5.939	-0.4675			00-6241-7952	10-0544-6264
19			6	15:40	74.2	12.83	0.8719			06-9427-5319	09-6653-1378
20			11	12:15	79.94	18.56	1.214			16-8104-1835	16-9131-3620
21			14	15:22	61.26	-0.1177	-0.00882			02-3244-8004	06-2322-2824

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID:

7-Day Chronic Ceriodaphnia dubia Survival and Reproduction Bioassay
Standard Reference Toxicant

Start Date: February 4, 2025

Standard Toxicant: Copper Chloride

Endpoint: Survival

NOEC = 10.00 ug/L

EC25 = 15.00 ug/L
EC50 = 20.00 ug/L

Endpoint: Reproduction

NOEC = 10.00 ug/L

IC25 = 13.90 ug/L
IC50 = 19.27 ug/L

Yours very truly,

Joe Freas
President

CETIS Summary Report

Ceriodaphnia 7-d Survival and Reproduction Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	14-3241-2302	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	04 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	11 Feb-25 14:44	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Branchiopoda	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	03-8120-6559	**Code:**	CER020425	**Project:**	REF TOX
Sample Date:	04 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	04 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	PMSD
12-8100-4506	7d Survival Rate	Fisher Exact/Bonferroni-Holm Test	10	30	17.32	---
14-2667-7376	Reproduction	Dunnett Multiple Comparison Test	10	30	17.32	11.2%

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL
20-0777-5260	7d Survival Rate	Linear Interpolation (ICPIN)	EC15	13	13	13
			EC20	14	14	14
			EC25	15	15	15
			EC40	18	18	18
			EC50	20	20	20
07-1303-4628	Reproduction	Linear Interpolation (ICPIN)	IC15	11.76	7.257	13
			IC20	12.83	10.78	14
			IC25	13.9	11.98	15
			IC40	17.12	15.59	18
			IC50	19.27	17.99	20

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
3		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
5		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
10		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
30		10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	---	100.00%
50		10	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	---	100.00%

Reproduction Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	10	35.2	30.75	39.65	23	42	1.965	6.215	17.66%	0.00%
3		10	32.5	30.04	34.96	26	36	1.088	3.44	10.58%	7.67%
5		10	35	33.09	36.91	29	39	0.8433	2.667	7.62%	0.57%
10		10	32.8	30.4	35.2	27	37	1.062	3.36	10.24%	6.82%
30		10	0	0	0	0	0	0	0	---	100.00%
50		10	0	0	0	0	0	0	0	---	100.00%

Ceriodaphnia 7-d Survival and Reproduction Test
Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail
MD5: E68F14682D021D024F00396964E3E9BD

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
50		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Reproduction Detail
MD5: 8955381B838B0DB1BD96BC3B2D5D34D9

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	23	41	30	29	40	35	42	39	39	34
3		36	32	30	30	30	26	36	36	35	34
5		37	35	39	36	35	36	33	36	34	29
10		36	33	27	37	31	29	31	37	34	33
30		0	0	0	0	0	0	0	0	0	0
50		0	0	0	0	0	0	0	0	0	0

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
3		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
10		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
30		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
50		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1

CETIS Analytical Report

Ceriodaphnia 7-d Survival and Reproduction Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	14-2667-7376	**Endpoint:**	Reproduction	**CETIS Version:**	CETIS v2.1.5
Analyzed:	28 Feb-25 13:20	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:	27 Feb-25 16:36	**MD5 Hash:**	8955381B838B0DB1BD96BC3B2D5D34D9	**Editor ID:**	
Batch ID:	14-3241-2302	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	04 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	11 Feb-25 14:44	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Branchiopoda	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	03-8120-6559	**Code:**	CER020425	**Project:**	REF TOX
Sample Date:	04 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	04 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C > T	10	30	17.32	---	3.957	11.24%

Dunnett Multiple Comparison Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	MSD	P-Type	P-Value	Decision(α:5%)
Negative Control		3	18	1.455	2.133	3.957	CDF	0.1728	Non-Significant Effect
		5	18	0.1078	2.133	3.957	CDF	0.7095	Non-Significant Effect
		10	18	1.293	2.133	3.957	CDF	0.2207	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	60.675	20.225	3	1.175	0.3328	Non-Significant Effect
Error	619.7	17.2139	36			
Total	680.375		39			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	7.506	11.34	0.0574	Equal Variances
	Levene Equality of Variance Test	3.63	4.377	0.0219	Equal Variances
	Mod Levene Equality of Variance Test	3.001	4.377	0.0431	Equal Variances
Distribution	Anderson-Darling A2 Test	0.551	3.878	0.1594	Normal Distribution
	D'Agostino Kurtosis Test	1.226	2.576	0.2203	Normal Distribution
	D'Agostino Skewness Test	2.085	2.576	0.0370	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	5.85	9.21	0.0537	Normal Distribution
	Kolmogorov-Smirnov D Test	0.09028	0.1617	0.5477	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9533	0.9236	0.0988	Normal Distribution

Ceriodaphnia 7-d Survival and Reproduction Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	14-2667-7376	**Endpoint:**	Reproduction	**CETIS Version:**	CETIS v2.1.5
Analyzed:	28 Feb-25 13:20	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:	27 Feb-25 16:36	**MD5 Hash:**	8955381B838B0DB1BD96BC3B2D5D34D9	**Editor ID:**	

CETIS Analytical Report

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	20-0777-5260	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	28 Feb-25 13:20	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	27 Feb-25 16:36	**MD5 Hash:**	E68F14682D021D024F00396964E3E9BD	**Editor ID:**	
Batch ID:	14-3241-2302	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	04 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	11 Feb-25 14:44	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Branchiopoda	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	03-8120-6559	**Code:**	CER020425	**Project:**	REF TOX
Sample Date:	04 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	04 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC15	13	13	13
EC20	14	14	14
EC25	15	15	15
EC40	18	18	18
EC50	20	20	20

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
50		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7d Survival Rate Binomials

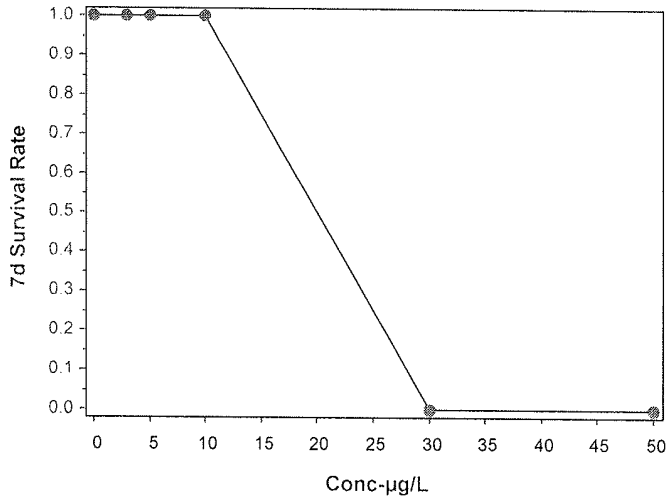
Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
3		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
5		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
10		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
30		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1
50		0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1	0/1

Ceriodaphnia 7-d Survival and Reproduction Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	20-0777-5260	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	28 Feb-25 13:20	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	27 Feb-25 16:36	**MD5 Hash:**	E68F14682D021D024F00396964E3E9BD	**Editor ID:**	

Graphics



Ceriodaphnia 7-d Survival and Reproduction Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	07-1303-4628	Endpoint:	Reproduction	CETIS Version:	CETIS v2.1.5
Analyzed:	28 Feb-25 13:20	Analysis:	Linear Interpolation (ICPIN)	Status Level:	1
Edit Date:	27 Feb-25 16:36	MD5 Hash:	8955381B838B0DB1BD96BC3B2D5D34D9	Editor ID:	
Batch ID:	14-3241-2302	Test Type:	Reproduction-Survival (7d)	Analyst:	Beth Maturino
Start Date:	04 Feb-25 15:00	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	11 Feb-25 14:44	Species:	Ceriodaphnia dubia	Brine:	Not Applicable
Test Length:	7d	Taxon:	Branchiopoda	Source:	Aquatic Biosystems, CO Age: <24
Sample ID:	03-8120-6559	Code:	CER020425	Project:	REF TOX
Sample Date:	04 Feb-25 15:00	Material:	Copper chloride	Source:	Reference Toxicant
Receipt Date:	04 Feb-25 15:00	CAS (PC):		Station:	REF TOX
Sample Age:	---	Client:	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	585943	280	Yes	Two-Point Interpolation

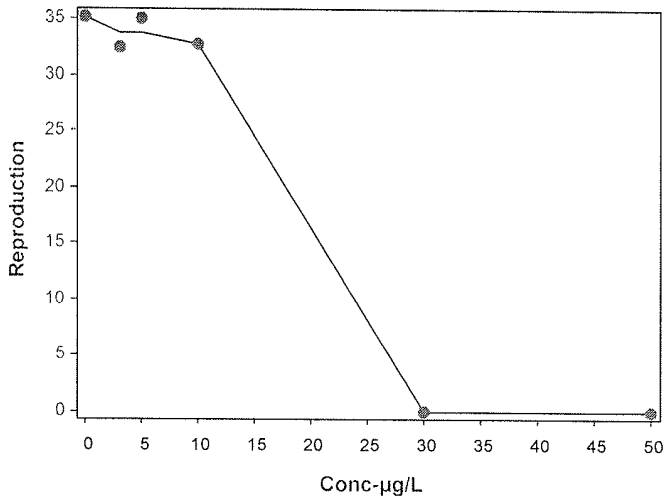
Point Estimates

Level	µg/L	95% LCL	95% UCL
IC15	11.76	7.257	13
IC20	12.83	10.78	14
IC25	13.9	11.98	15
IC40	17.12	15.59	18
IC50	19.27	17.99	20

Reproduction Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	N	23	41	30	29	40	35	42	39	39	34
3		36	32	30	30	30	26	36	36	35	34
5		37	35	39	36	35	36	33	36	34	29
10		36	33	27	37	31	29	31	37	34	33
30		0	0	0	0	0	0	0	0	0	0
50		0	0	0	0	0	0	0	0	0	0

Graphics



CETIS Analytical Report

Report Date: 28 Feb-25 13:21 (p 1 of 1)
Test Code/ID: CER020425 / 02-9272-9208

Ceriodaphnia 7-d Survival and Reproduction Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	12-8100-4506	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	28 Feb-25 13:20	**Analysis:**	STP 2xK Contingency Tables	**Status Level:**	1
Edit Date:	27 Feb-25 16:36	**MD5 Hash:**	E68F14682D021D024F00396964E3E9BD	**Editor ID:**	
Batch ID:	14-3241-2302	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	04 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	11 Feb-25 14:44	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Branchiopoda	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	03-8120-6559	**Code:**	CER020425	**Project:**	REF TOX
Sample Date:	04 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	04 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units
Untransformed	C > T	10	30	17.32	---

Fisher Exact/Bonferroni-Holm Test

Control	vs	Conc-µg/L	Test Stat	P-Type	P-Value	Decision(α:5%)
Negative Control		3	1.0000	Exact	1.0000	Non-Significant Effect
		5	1.0000	Exact	1.0000	Non-Significant Effect
		10	1.0000	Exact	1.0000	Non-Significant Effect
		30*	0.0000	Exact	2.7E-05	Significant Effect
		50*	0.0000	Exact	2.7E-05	Significant Effect

CETIS Measurement Report

Ceriodaphnia 7-d Survival and Reproduction Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	14-3241-2302	**Test Type:**	Reproduction-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	04 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	11 Feb-25 14:44	**Species:**	Ceriodaphnia dubia	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Branchiopoda	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	03-8120-6559	**Code:**	CER020425	**Project:**	REF TOX
Sample Date:	04 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	04 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	61	61	61	61	61	0	0	0.00%	0
50		3	60	60	60	60	60	0	0	0.00%	0
Overall		11	60.73	60.41	61.04	60	61	0.1408	0.4671	0.77%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	266.9	262.6	271.1	260	276	0.6389	5.111	1.92%	0
3		8	254.6	251.8	257.4	250	258	0.4222	3.378	1.33%	0
5		8	250.6	247.4	253.9	246	255	0.4861	3.889	1.55%	0
10		8	249.8	249.4	250.1	249	250	0.05786	0.4629	0.19%	0
30		6	247.7	244.4	251	242	250	0.5235	3.141	1.27%	0
50		2	243	217.6	268.4	241	245	1.414	2.828	1.16%	0
Overall		40	253.7	251.1	256.2	241	276	1.259	7.959	3.14%	0 (0%)

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.05	7.722	8.378	7.1	8.3	0.0491	0.3928	4.88%	0
3		8	7.963	7.625	8.3	7	8.2	0.05042	0.4033	5.07%	0
5		8	7.963	7.631	8.294	7	8.2	0.04952	0.3962	4.98%	0
10		8	7.963	7.628	8.297	7	8.3	0.04997	0.3998	5.02%	0
30		5	8.08	7.976	8.184	8	8.2	0.01673	0.08367	1.04%	0
50		2	8.15	7.514	8.786	8.1	8.2	0.03537	0.07073	0.87%	0
Overall		39	8.005	7.892	8.118	7	8.3	0.05571	0.3479	4.35%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	92	92	92	92	92	0	0	0.00%	0
50		3	911	911	911	911	911	0	0	0.00%	0
Overall		11	315.4	58.36	572.4	92	911	115.3	382.6	121.30%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.15	8.041	8.259	7.9	8.3	0.01637	0.1309	1.61%	0
3		8	8.038	7.949	8.126	7.8	8.1	0.01326	0.1061	1.32%	0
5		8	8.038	7.949	8.126	7.8	8.1	0.01326	0.1061	1.32%	0
10		8	8.025	7.938	8.112	7.8	8.1	0.01294	0.1035	1.29%	0
30		5	7.96	7.818	8.102	7.8	8.1	0.0228	0.114	1.43%	0
50		2	7.85	7.215	8.485	7.8	7.9	0.03535	0.07071	0.90%	0
Overall		39	8.038	7.997	8.08	7.8	8.3	0.02033	0.1269	1.58%	0 (0%)

Ceriodaphnia 7-d Survival and Reproduction Test
Aquatic Bioassay & Consulting Labs, Inc.

Temperature-°C

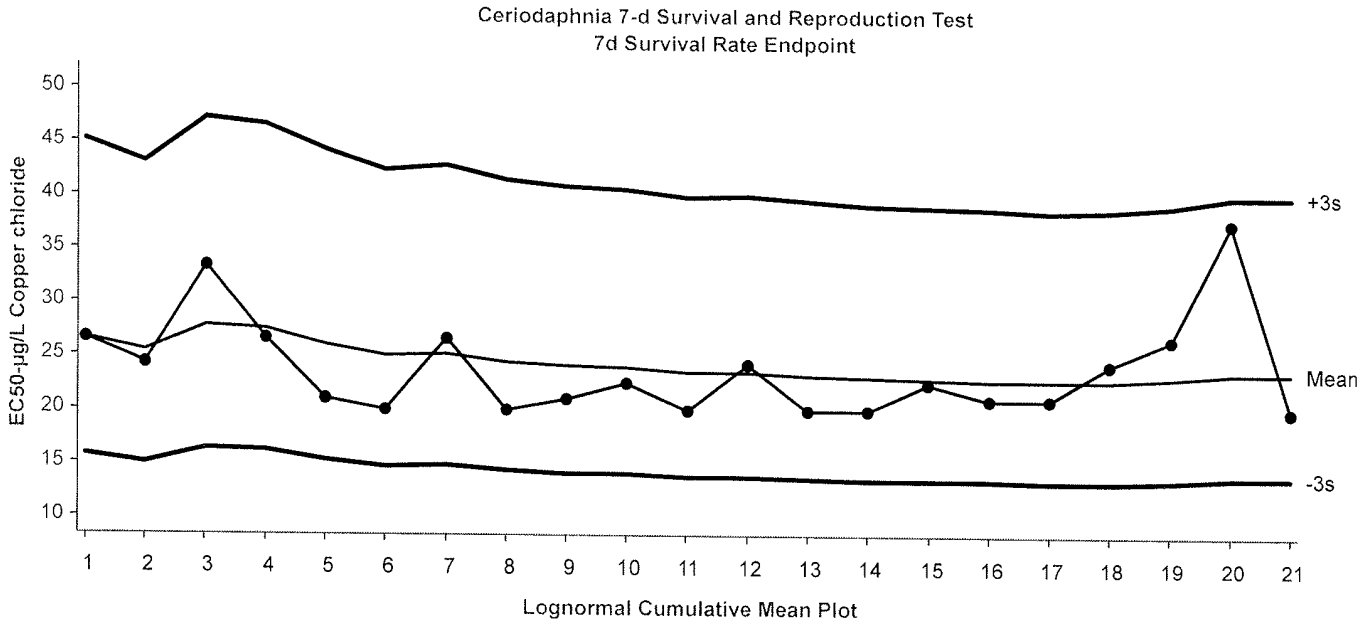
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
3		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
5		8	24.04	23.98	24.1	24	24.2	0.009295	0.07436	0.31%	0
10		8	24.05	23.97	24.13	24	24.2	0.01157	0.09255	0.38%	0
30		5	24.1	23.92	24.28	24	24.3	0.02829	0.1414	0.59%	0
50		2	24	24	24	24	24	0	0	0.00%	0
Overall		39	24.04	24.01	24.06	24	24.3	0.01245	0.07776	0.32%	0 (0%)

CETIS QC Plot

Report Date: 28 Feb-25 13:22 (1 of 1)

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type: Reproduction-Survival (7d) **Organism:** Ceriodaphnia dubia **Material:** Copper chloride
Protocol: EPA/821/R-02-013 (2002) **Endpoint:** 7d Survival Rate **Source:** Reference Toxicant-REF



Mean: 23.62 **Count:** 20 **-3s Action Limit:** 13.9
Sigma: NA **CV:** 17.70% **+3s Action Limit:** 40

Quality Control Data

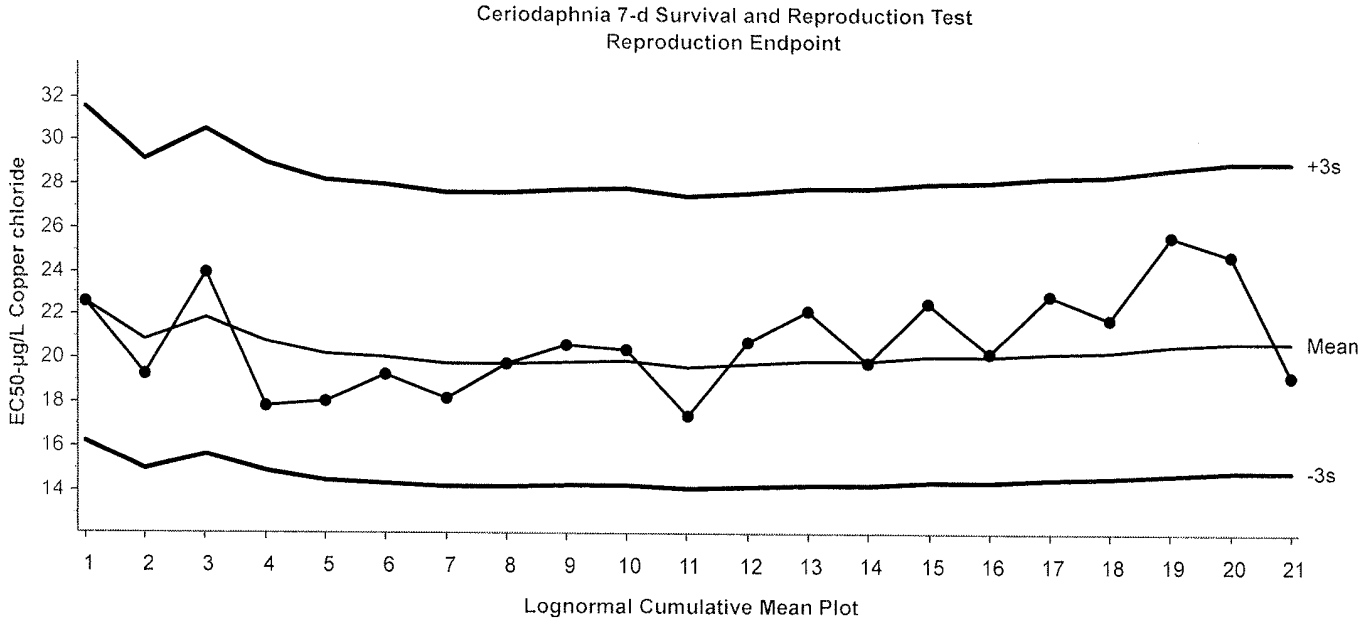
Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	May	14	15:45	26.67	3.049	0.6906			19-5825-6496	16-8121-0716
2		Jun	4	15:00	24.29	0.6679	0.1586			16-5697-8527	12-7036-6352
3			26	12:45	33.33	9.716	1.96			20-8875-2022	19-7980-9424
4		Jul	9	14:00	26.67	3.049	0.6906			14-4477-1637	19-8824-1716
5			30	12:30	21.11	-2.507	-0.6382			12-6966-1332	02-6127-9067
6		Aug	6	14:30	20	-3.618	-0.9458			02-6750-4503	02-3651-5164
7			29	13:30	26.67	3.049	0.6906			17-1571-6899	20-8819-2990
8		Sep	3	13:35	20	-3.618	-0.9458			09-7180-0215	19-5882-1862
9		Oct	3	15:00	21.11	-2.507	-0.6382			16-4893-0395	16-2285-0643
10			8	14:16	22.5	-1.118	-0.2758			01-5498-9995	19-3589-1039
11			24	14:35	20	-3.618	-0.9458			09-7104-4642	11-6680-8362
12		Nov	5	15:10	24.29	0.6679	0.1586			18-4037-1304	17-4729-4791
13			13	14:02	20	-3.618	-0.9458			15-9739-7624	02-5509-8680
14			20	14:10	20	-3.618	-0.9458			11-7275-3928	01-3393-7518
15		Dec	3	14:35	22.5	-1.118	-0.2758			11-4434-7688	11-0886-6071
16			10	15:30	21.11	-2.507	-0.6382			13-5127-4842	06-5334-7470
17			13	12:13	21.11	-2.507	-0.6382			14-6038-5580	09-9945-3835
18	2025	Jan	7	14:30	24.29	0.6679	0.1586			13-2001-9508	00-8335-6888
19			17	15:00	26.67	3.049	0.6906			18-1511-3100	16-6575-0438
20			28	13:00	37.5	13.88	2.63			15-0397-4136	15-0246-6251
21		Feb	4	15:00	20	-3.618	-0.9458			02-9272-9208	20-0777-5260

CETIS QC Plot

Report Date: 28 Feb-25 13:22 (1 of 1)

Ceriodaphnia 7-d Survival and Reproduction Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Reproduction-Survival (7d)	**Organism:**	Ceriodaphnia dubia	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Reproduction	**Source:**	Reference Toxicant-REF



Mean:	20.82	**Count:**	20	**-3s Action Limit:**	14.9
Sigma:	NA	**CV:**	11.20%	**+3s Action Limit:**	29.1

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	May	14	15:45	22.59	1.765	0.7304			19-5825-6496	13-8263-4890
2		Jun	4	15:00	19.32	-1.499	-0.6707			16-5697-8527	04-6394-2129
3			26	12:45	23.97	3.149	1.264			20-8875-2022	14-6568-2018
4		Jul	9	14:00	17.82	-2.998	-1.395			14-4477-1637	03-4080-9199
5			30	12:30	18.08	-2.738	-1.266			12-6966-1332	10-5364-2418
6		Aug	6	14:30	19.3	-1.522	-0.6816			02-6750-4503	09-5206-8084
7			29	13:30	18.22	-2.607	-1.201			17-1571-6899	04-6187-2969
8		Sep	3	13:35	19.82	-1.006	-0.4445			09-7180-0215	04-7133-9382
9		Oct	3	15:00	20.69	-0.1349	-0.05837			16-4893-0395	16-5735-3526
10			8	14:16	20.42	-0.406	-0.1768			01-5498-9995	11-2941-0819
11			24	14:35	17.4	-3.417	-1.609			09-7104-4642	03-0470-0238
12		Nov	5	15:10	20.83	0.003451	0.001489			18-4037-1304	07-4650-6055
13			13	14:02	22.25	1.429	0.596			15-9739-7624	00-7407-4417
14			20	14:10	19.9	-0.9179	-0.4047			11-7275-3928	12-8059-9528
15		Dec	3	14:35	22.63	1.812	0.7491			11-4434-7688	14-1454-3376
16			10	15:30	20.3	-0.5172	-0.2258			13-5127-4842	04-7232-3210
17			13	12:13	22.94	2.123	0.8716			14-6038-5580	17-9184-9266
18	2025	Jan	7	14:30	21.91	1.093	0.4591			13-2001-9508	09-3771-7003
19			17	15:00	25.69	4.866	1.885			18-1511-3100	12-9035-0063
20			28	13:00	24.81	3.986	1.572			15-0397-4136	20-2820-0089
21		Feb	4	15:00	19.27	-1.553	-0.696			02-9272-9208	07-1303-4628

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID:

Chronic *Selenastrum* Growth Bioassay
Standard Reference Toxicant

Date: February 6, 2025

Standard Toxicant: Cadmium Chloride

NOEC = 40.00 ug/l

IC25 = 109.80 ug/l
IC50 = >180.00 ug/l

Yours very truly,

Joe Freas
President

CETIS Summary Report

Selenastrum Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	19-3495-7884	**Test Type:**	Cell Growth	**Analyst:**	Beth Maturino
Start Date:	06 Feb-25 11:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	10 Feb-25 13:00	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Test Length:	4d 2h	**Taxon:**	Chlorophyta	**Source:**	Aquatic Biosystems, CO **Age:** 7d
Sample ID:	18-4040-2624	**Code:**	SEL020625	**Project:**	REF TOX
Sample Date:	06 Feb-25 11:00	**Material:**	Cadmium chloride	**Source:**	Reference Toxicant
Receipt Date:	06 Feb-25 11:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	Internal Lab		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	PMSD
12-2666-3583	Cell Density	Dunnett Multiple Comparison Test	40	80	56.57	10.1%

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL
05-2119-2359	Cell Density	Linear Interpolation (ICPIN)	IC15	81.25	14.95	98.37
			IC20	95.51	75.79	110.9
			IC25	109.8	91.45	125.9
			IC40	153.2	133.7	172.3
			IC50	>180	---	---

Cell Density Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	1.235E+6	1.142E+6	1.328E+6	1.148E+6	1.273E+6	2.927E+4	5.854E+4	4.74%	0.00%
20		4	1.266E+6	1.154E+6	1.378E+6	1.161E+6	1.309E+6	3.511E+4	7.023E+4	5.55%	-2.49%
40		4	1.159E+6	9.801E+5	1.338E+6	1.060E+6	1.301E+6	5.631E+4	1.126E+5	9.71%	6.15%
80		4	1.068E+6	9.829E+5	1.154E+6	1.015E+6	1.143E+6	2.690E+4	5.380E+4	5.04%	13.50%
140		4	8.055E+5	7.140E+5	8.970E+5	7.300E+5	8.560E+5	2.874E+4	5.749E+4	7.14%	34.79%
180		4	6.385E+5	5.261E+5	7.509E+5	5.790E+5	7.360E+5	3.532E+4	7.064E+4	11.06%	48.31%

Cell Density Detail

MD5: 5C23802F5A7BD4D0E918301C6C573AE2

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.263E+6	1.257E+6	1.148E+6	1.273E+6
20		1.297E+6	1.297E+6	1.161E+6	1.309E+6
40		1.078E+6	1.198E+6	1.060E+6	1.301E+6
80		1.053E+6	1.063E+6	1.015E+6	1.143E+6
140		8.560E+5	7.300E+5	7.920E+5	8.440E+5
180		5.950E+5	6.440E+5	7.360E+5	5.790E+5

CETIS Analytical Report

Selenastrum Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	12-2666-3583	**Endpoint:**	Cell Density	**CETIS Version:**	CETIS v2.1.5
Analyzed:	28 Feb-25 14:11	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:	28 Feb-25 0:00	**MD5 Hash:**	5C23802F5A7BD4D0E918301C6C573AE2	**Editor ID:**	009-702-627-3
Batch ID:	19-3495-7884	**Test Type:**	Cell Growth	**Analyst:**	Beth Maturino
Start Date:	06 Feb-25 11:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	10 Feb-25 13:00	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Test Length:	4d 2h	**Taxon:**	Chlorophyta	**Source:**	Aquatic Biosystems, CO **Age:** 7d
Sample ID:	18-4040-2624	**Code:**	SEL020625	**Project:**	REF TOX
Sample Date:	06 Feb-25 11:00	**Material:**	Cadmium chloride	**Source:**	Reference Toxicant
Receipt Date:	06 Feb-25 11:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	Internal Lab		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C > T	40	80	56.57	---	124700	10.10%

Dunnett Multiple Comparison Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	MSD	P-Type	P-Value	Decision(α:5%)
Negative Control		20	6	-0.5933	2.407	124700	CDF	0.9514	Non-Significant Effect
		40	6	1.466	2.407	124700	CDF	0.2389	Non-Significant Effect
		80*	6	3.218	2.407	124700	CDF	0.0098	Significant Effect
		140*	6	8.292	2.407	124700	CDF	2.7E-05	Significant Effect
		180*	6	11.51	2.407	124700	CDF	2.7E-05	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1.279E+12	2.557E+11	5	47.61	<1.0E-05	Significant Effect
Error	9.669E+10	5.372E+09	18			
Total	1.375E+12		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	2.267	15.09	0.8111	Equal Variances
	Levene Equality of Variance Test	1.21	4.248	0.3442	Equal Variances
	Mod Levene Equality of Variance Test	0.8103	4.248	0.5575	Equal Variances
Distribution	Anderson-Darling A2 Test	0.4704	3.878	0.2506	Normal Distribution
	D'Agostino Kurtosis Test	0.4438	2.576	0.6572	Normal Distribution
	D'Agostino Skewness Test	0.1717	2.576	0.8636	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	0.2264	9.21	0.8930	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1314	0.2056	0.3475	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9589	0.884	0.4166	Normal Distribution

Analysis ID:	12-2666-3583	**Endpoint:**	Cell Density	**CETIS Version:**	CETIS v2.1.5
Analyzed:	28 Feb-25 14:11	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:	28 Feb-25 0:00	**MD5 Hash:**	5C23802F5A7BD4D0E918301C6C573AE2	**Editor ID:**	009-702-627-3

CETIS Analytical Report

Report Date: 28 Feb-25 14:12 (p 1 of 1)
Test Code/ID: SEL020625 / 09-6868-8232

Selenastrum Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	05-2119-2359	**Endpoint:**	Cell Density	**CETIS Version:**	CETIS v2.1.5
Analyzed:	28 Feb-25 14:11	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	28 Feb-25 0:00	**MD5 Hash:**	5C23802F5A7BD4D0E918301C6C573AE2	**Editor ID:**	009-702-627-3
Batch ID:	19-3495-7884	**Test Type:**	Cell Growth	**Analyst:**	Beth Maturino
Start Date:	06 Feb-25 11:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	10 Feb-25 13:00	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Test Length:	4d 2h	**Taxon:**	Chlorophyta	**Source:**	Aquatic Biosystems, CO **Age:** 7d
Sample ID:	18-4040-2624	**Code:**	SEL020625	**Project:**	REF TOX
Sample Date:	06 Feb-25 11:00	**Material:**	Cadmium chloride	**Source:**	Reference Toxicant
Receipt Date:	06 Feb-25 11:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	Internal Lab		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

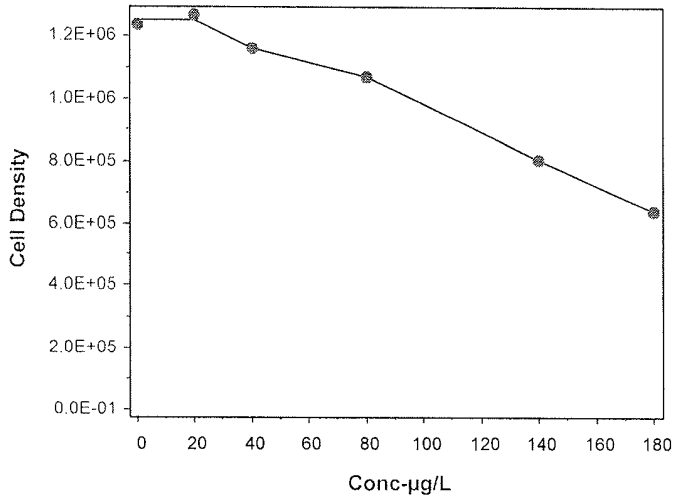
Point Estimates

Level	µg/L	95% LCL	95% UCL
IC15	81.25	14.95	98.37
IC20	95.51	75.79	110.9
IC25	109.8	91.45	125.9
IC40	153.2	133.7	172.3
IC50	>180	---	---

Cell Density Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.263E+6	1.257E+6	1.148E+6	1.273E+6
20		1.297E+6	1.297E+6	1.161E+6	1.309E+6
40		1.078E+6	1.198E+6	1.060E+6	1.301E+6
80		1.053E+6	1.063E+6	1.015E+6	1.143E+6
140		8.560E+5	7.300E+5	7.920E+5	8.440E+5
180		5.950E+5	6.440E+5	7.360E+5	5.790E+5

Graphics



CETIS Measurement Report

Selenastrum Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	19-3495-7884	**Test Type:**	Cell Growth	**Analyst:**	Beth Maturino
Start Date:	06 Feb-25 11:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	10 Feb-25 13:00	**Species:**	Selenastrum capricornutum	**Brine:**	Not Applicable
Test Length:	4d 2h	**Taxon:**	Chlorophyta	**Source:**	Aquatic Biosystems, CO **Age:** 7d
Sample ID:	18-4040-2624	**Code:**	SEL020625	**Project:**	REF TOX
Sample Date:	06 Feb-25 11:00	**Material:**	Cadmium chloride	**Source:**	Reference Toxicant
Receipt Date:	06 Feb-25 11:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	Internal Lab		

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	1	65	---	---	65	65	---	---	---	0
20		1	65	---	---	65	65	---	---	---	0
40		1	60	---	---	60	60	---	---	---	0
80		1	62	---	---	62	62	---	---	---	0
140		1	53	---	---	53	53	---	---	---	0
180		1	52	---	---	52	52	---	---	---	0
Overall		6	59.5	53.46	65.54	52	65	2.349	5.753	9.67%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	5	361.2	357.9	364.5	360	366	0.5367	2.683	0.74%	0
20		5	367	364.2	369.8	364	370	0.4472	2.236	0.61%	0
40		5	293	124.3	461.7	50	360	27.18	135.9	46.38%	0
80		5	340.4	336.5	344.3	339	346	0.6261	3.13	0.92%	0
140		5	316.4	313	319.8	312	319	0.5404	2.702	0.85%	0
180		5	306.4	304.1	308.7	304	308	0.3633	1.817	0.59%	0
Overall		30	330.7	309.2	352.3	50	370	10.55	57.78	17.47%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	1	80	---	---	80	80	---	---	---	0
20		1	85	---	---	85	85	---	---	---	0
40		1	85	---	---	85	85	---	---	---	0
80		1	95	---	---	95	95	---	---	---	0
140		1	70	---	---	70	70	---	---	---	0
180		1	92	---	---	92	92	---	---	---	0
Overall		6	84.5	75.14	93.86	70	95	3.64	8.916	10.55%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	5	7.56	7.393	7.727	7.5	7.8	0.02683	0.1342	1.77%	0
20		5	7.66	7.452	7.868	7.5	7.9	0.03347	0.1673	2.18%	0
40		5	7.6	7.385	7.815	7.5	7.9	0.03464	0.1732	2.28%	0
80		5	7.56	7.303	7.817	7.4	7.9	0.04147	0.2074	2.74%	0
140		5	7.48	7.171	7.789	7.3	7.9	0.0498	0.249	3.33%	0
180		5	7.46	7.203	7.717	7.3	7.8	0.04147	0.2074	2.78%	0
Overall		30	7.553	7.483	7.624	7.3	7.9	0.03449	0.1889	2.50%	0 (0%)

Temperature-°C

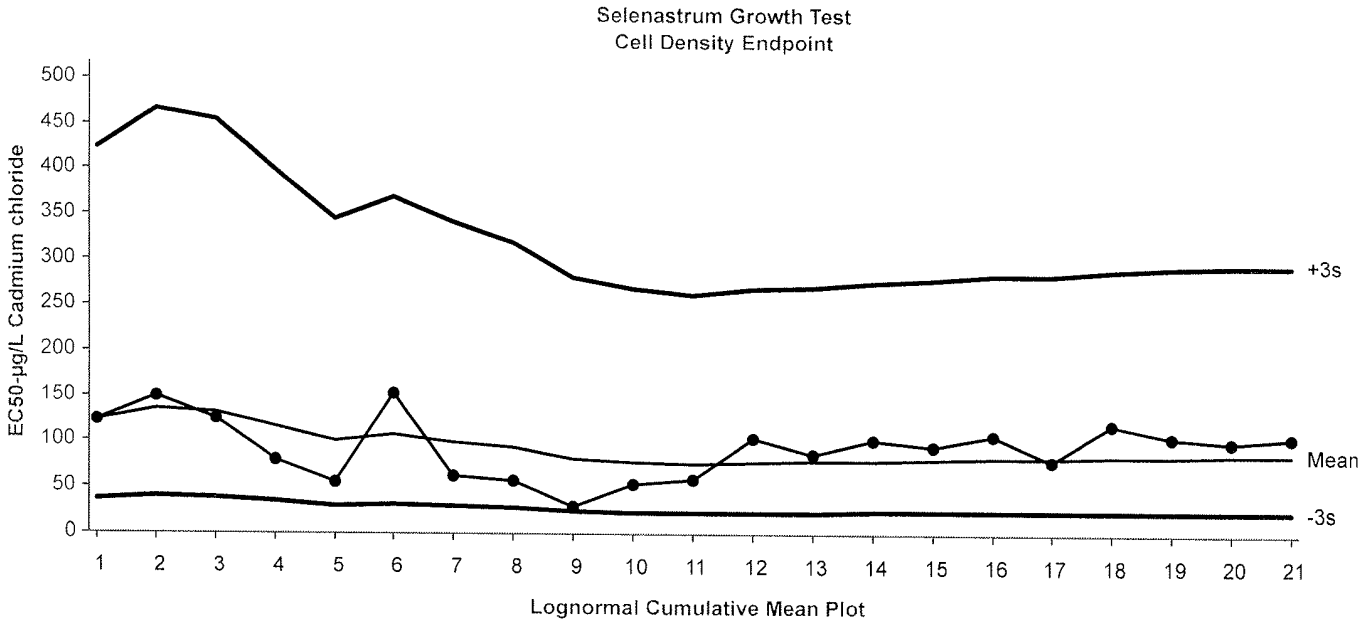
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	5	24.26	24.05	24.47	24.1	24.5	0.03347	0.1673	0.69%	0
20		5	24.26	24.05	24.47	24.1	24.5	0.03347	0.1673	0.69%	0
40		5	24.26	24.05	24.47	24.1	24.5	0.03347	0.1673	0.69%	0
80		5	24.2	24.05	24.35	24.1	24.4	0.02448	0.1224	0.51%	0
140		5	24.2	24.05	24.35	24.1	24.4	0.02448	0.1224	0.51%	0
180		5	24.16	24.05	24.27	24.1	24.3	0.01787	0.08936	0.37%	0
Overall		30	24.22	24.17	24.27	24.1	24.5	0.02477	0.1357	0.56%	0 (0%)

CETIS QC Plot

Report Date: 28 Feb-25 14:13 (1 of 1)

Selenastrum Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Cell Growth	**Organism:**	Selenastrum capricornutum	**Material:**	Cadmium chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Cell Density	**Source:**	Reference Toxicant-REF



Mean:	86.14	**Count:**	20	**-3s Action Limit:**	25.1
Sigma:	NA	**CV:**	42.90%	**+3s Action Limit:**	296

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2023	Nov	9	14:36	123.5	37.36	0.8761			18-1968-9109	03-4845-3669
2		Dec	7	13:02	149.8	63.62	1.345			14-4776-3774	20-7264-0544
3	2024	Jan	11	13:06	125.2	39.01	0.9084			12-9043-2177	17-7744-5581
4		Feb	8	14:05	78.93	-7.209	-0.2125			01-0111-3502	06-5378-0342
5		Mar	8	13:11	55.64	-30.5	-1.063			02-8929-1956	13-1377-0540
6			21	12:02	152.9	66.75	1.395			17-7870-6371	20-0654-3833
7		Apr	4	11:34	62.9	-23.24	-0.7647			00-8366-9627	11-1323-9492
8			18	14:09	56.93	-29.21	-1.007			21-1139-6393	16-8367-8623
9		May	30	10:42	29.29	-56.85	-2.623			08-8525-0374	12-7836-9586
10		Jun	6	12:39	53.34	-32.8	-1.166			12-3174-4187	21-4539-7085
11			26	13:24	59.69	-26.45	-0.892			13-6784-9769	13-6843-2179
12		Jul	11	13:03	103.9	17.72	0.4548			02-8354-0484	20-2357-4072
13		Aug	15	14:33	86.15	0.0033	9.33E-05			03-4734-6446	14-8817-9628
14			29	13:04	102.6	16.48	0.4257			12-7188-9284	07-1500-9810
15		Sep	12	12:35	96.01	9.869	0.2638			02-8231-1340	02-0136-2811
16		Oct	3	14:51	107.8	21.61	0.5443			16-4388-6636	12-9959-3670
17			10	13:34	79.88	-6.261	-0.1835			04-3203-6444	11-5295-1567
18		Nov	14	10:05	119.9	33.77	0.8044			17-7975-1690	16-3559-4731
19			20	12:56	106.4	20.25	0.5134			04-6870-3119	18-7629-8344
20		Dec	5	12:57	100.4	14.27	0.3727			00-7106-3432	21-1500-0653
21	2025	Jan	9	13:03	105.1	19.01	0.4849			08-4968-9945	20-0836-7010

Loc: 570
218404

218404

CHAIN OF CUSTODY FORM

Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Project: Boeing-SSFL NPDES Permit 2023 **Routine** **Outfall 002** **COMPOSITE**
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**	
Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)
Sampler:	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)

								ANALYSIS REQUIRED															
								A/R	R	R	R	A/R	R	R	A	A/R	A/R	R	R				
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Recoverable Metals:(E200.8): Al, Cd, Cu, Pb, Se, Zn	TCDD (and all congeners) (E1613B) - **Sub to Sacramento**	BOD5 (20 degrees C) (E405.1 (SM5210B_BODCalc))	LL Mercury (E1631E) -- Total Recoverable	Chloride [Cl-], Sulfate [SO4], Nitrate-N, Nitrite-N, NO3+NO2-N (E300)	Turbidity, TDS (SM2540C/E180.1)	TSS (160.2 (SM2540D))	Routine Pesticides - alpha-BHC, 4,4-DDE, Heptachlor (E608) **Weck Labs in Hacienda Heights, CA**	Routine SVOCs - 2,4,6 Trichlorophenol; 2,4 Dinitrotoluene; Bis(2-ethylhexyl)phthalate, NDMA, Pentachlorophenol, Benzidine; 3,3-Dichlorobenzidene (E625)	Routine SVOCs (E6251 SIM) **Sub Indeno(1,2,3-cd)pyrene to EMAX**	Ammonia-N (E351.1)	Detergents (MBAS) (SM5540C/E425.1)	**Comments**
Outfall 002	Outfall002_20250214_Comp	2/14/2025 0745	WM	250 mL Poly	3	HNO3	Yes	X												
			WM	1 L Glass Amber	2	None			X											
			WM	1 L Poly	1	None				X										
			WM	8oz Clear Glass, dbl bagged	3	HCL	Yes				X									
			WM	250 mL Poly	1	None						X								48 hours Holding Time NO_3 & NO_2
			WM	500 mL Poly	1	None							X							48 hour holding time for turbidity
			WM	1 L Poly	1	None								X						
			WM	1 L Glass Amber	4	None									X					**Segregate into a cooler for Weck Labs.**
			WM	1 L Glass Amber	12	None	Yes									X				
			WM	1 L Glass Amber	4	None											X			**Segregate into a cooler for EMAX.**
			WM	500 mL Poly	1	H_2SO_4												X		
			WM	1 L Poly	1	None													X	
QA/QC	Outfall002_20250214_Grab-04	2/14/2025 0745	WM	8oz Clear Glass, dbl bagged	1	HCL					X									
			WM	1 L Glass Amber	4	None										X				

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/14/2025 2:00PM	H&A	EC	2/14/25 1400
	2/14/25 1830	EC		2/14/25 1830

570-218404 Chain of Custody

No Level IV: _____ All Level IV: __X__

2024-2025 Rainy Season
Version 1

218404

CHAIN OF CUSTODY FORM

								R	R	R	A	R	R	R		
Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187** Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. Sampler:				Project: Boeing-SSFL NPDES Permit 2023 **Routine** **Outfall 002** **COMPOSITE** Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)				ANALYSIS REQUIRED								
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Dissolved Metals: (E200.8); Al, Cd, Cu, Pb, Se, Zn	LL Mercury (E1631E) -- Total Dissolved	Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium [H-3] (E906.0) - **Sub to St. Louis**	Chronic Toxicity - Species Sensitivity (EPA-821-R-02-013) **ABC Labs in Ventura, CA**	1,4-Dioxane (E624 (SW8260M_SIM))	Cyanide (Kelada)	Monomethyl hydrazine (SW8315M/DV-WC-0077) **Weck Labs in Hacienda Heights, CA**		Comments
Outfall 002	Outfall002_20250214_Comp_F	2/14/2025 0745	WM	500 mL Poly	3	None	Yes	X								Filter and preserve w/in 24hrs of receipt at lab.
			WM	8oz Clear Glass, dbl bagged	3	None	Yes		X							Filter and preserve w/in 24hrs of receipt at lab.
	Outfall002_20250214_Comp	2/14/2025 0745	WM	500 mL Poly	3	NaOH	Yes							X		
			WM	1 L Poly	4	HNO3				X						Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None										
			WM	2.5 Gal Cube	3	None					X					Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	40 mL VOA	3	HCl						X				
			WM	1 L Glass Amber	1	None								X		**Segregate into a cooler for Weck Labs.**
QA/QC	Outfall002_20250214_Grab_F-04	2/14/2025 0745	WM	8oz Clear Glass, dbl bagged	1	None			X							Filter and preserve w/in 24hrs of receipt at lab.

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by: Michelle Dallalah	Date/Time: 2/14/2025 2:00PM	Company: H&A	Received by: EC	Date/Time: 2/14/25 1400
Relinquished by:	Date/Time: 2/14/25	Company: EC 1830	Received by:	Date/Time: 2/14/25 1830
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: ___X___
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X___

2024-2025 Rainy Season
Version 1

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel Virendra	Carrier Tracking No(s): N/A	COC No: 570-428544.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State California; State Program California		Job #: 570-218404-3
Address: 5755 8th Street East,	Due Date Requested: 3/6/2025			
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Routine Outfall 002 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631E/ Mercury, Total	1631E/Filtration_ME Mercury, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall002_20250214_Comp (570-218404-1)	2/14/25	07:45 Pacific	G	Water			X		1	
Outfall002_20250214_Comp (570-218404-1MS)	2/14/25	07:45 Pacific	G	Water			X		1	
Outfall002_20250214_Comp (570-218404-1MSD)	2/14/25	07:45 Pacific	G	Water			X		1	
Outfall002_20250214_Grab-04 (570-218404-2)	2/14/25	07:45 Pacific	G	Water			X		1	
Outfall002_20250214_Comp_F (570-218404-3)	2/14/25	07:45 Pacific	G	Water				X	1	
Outfall002_20250214_Comp_F (570-218404-3MS)	2/14/25	07:45 Pacific	G	Water				X	1	
Outfall002_20250214_Comp_F (570-218404-3MSD)	2/14/25	07:45 Pacific	G	Water				X	1	
Outfall002_20250214_Grab_F-04 (570-218404-4)	2/14/25	07:45 Pacific	G	Water				X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2-19 ~~1300~~ 1340	EC			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428593.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): State California; State Program California		Job #: 570-218404-2
Address: 880 Riverside Parkway	Due Date Requested: 3/6/2025			
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Routine Outfall 002 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B/1613B_Sox_Sep_P (MOD) Standard List w/ Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Outfall002_20250214_Comp (570-218404-1)	2/14/25	07:45 Pacific	G	Water			X	3	See QAS, Boeing_w/u to zero, ug/L, Use Boeing glassware.
								2	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2-10 15	EC			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

3/30/2025

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428677 1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State California; State Program California		Job #: 570-218404-4
Address: 13715 Rider Trail North,	Due Date Requested: 3/12/2025			
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Routine Outfall 002 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	900.0/Evaporation Gross Alpha/Beta	906.0/LSC_Dist_Susp Tritium	905_Sr90/PrecSep_7 Strontium-90	903.0/PrecSep_21 Radium-226	904.0/PrecSep_0 Radium-228	A01R_U/ExtChrom_Actin Total Uranium	901 1_Cs/Fill_Geo_0 K-40 and Ceslum-137	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
Outfall002_20250214_Comp (570-218404-1)	2/14/25	07:45 Pacific	G	Water			X	X	X	X	X	X	X	5	Boeing SSFL, DO NOT FILTER; use prep date from preservation. Ok to Preserve

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III, IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

3/30/2025

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-218404-6

Login Number: 218404
List Number: 1
Creator: Chapman, Allyson

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 3/30/2025 11:40:38 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Annual Outfall 001 COMP

JOB NUMBER

570-218413-4

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

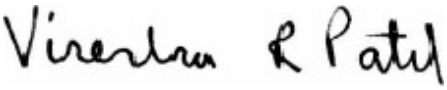
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494

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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)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-218413-4 Eurofins Calscience

Job Narrative
570-218413-4

Receipt
The samples were received on 2/14/2025 6:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.4º C, 1.9º C, 2.1º C and 2.5º C.

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

Subcontract Work
Method Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013): This method was subcontracted to Aquatic Bioassay. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Detection Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-218413-4
Project/Site: Boeing NPDES SSFL - Annual Outfall 001 COMP

Client Sample ID: Outfall001_20250214_Comp
Lab Sample ID: 570-218413-1

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-218413-4
Project/Site: Boeing NPDES SSFL - Annual Outfall 001 COMP

Method	Method Description	Protocol	Laboratory
EPA	Bioassay	EPA	Aquatic

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

Aquatic = Aquatic Bioassay & Consulting, 29 North Olive Street, Ventura, CA 93001

Sample Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-218413-4
Project/Site: Boeing NPDES SSFL - Annual Outfall 001 COMP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-218413-1	Outfall001_20250214_Comp	Water	02/14/25 11:00	02/14/25 18:20

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID: CSE0225.221

March 26, 2025

Mr. Virendra Patel
Eurofins Calscience
2841 Dow Avenue, Suite #100
Tustin, CA 92780

Dear Mr. Patel:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013.* " Results were as follows:*

CLIENT:	Eurofins Calscience
SAMPLE I.D.:	Outfall001_20250214_Comp
DATE RECEIVED:	14 Feb - 2025
ABC LAB. NO.:	CSE0225.221

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

IWC = 100.00%

TST RESULT

SURVIVAL = PASS % EFFECT = -1.69 %

GROWTH = PASS % EFFECT = 1.23 %

Yours very truly,

Joe Freas
President

CETIS Summary Report

Report Date: 25 Mar-25 07:41 (p 1 of 1)
Test Code/ID: CSE0225.221fml / 03-1986-3275

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	21-1392-4344	Test Type:	Growth-Survival (7d)	Analyst:	Beth Maturino
Start Date:	14 Feb-25 16:05	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	21 Feb-25 16:11	Species:	Pimephales promelas	Brine:	Not Applicable
Test Length:	7d 0h	Taxon:	Actinopterygii	Source:	Aquatic Biosystems, CO Age: 1d
Sample ID:	20-4953-3564	Code:	CSE0225.221fml	Project:	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 11:00	Material:	Sample Water	Source:	Bioassay Report
Receipt Date:	14 Feb-25 14:15	CAS (PC):		Station:	Outfall001_20250214_Comp
Sample Age:	5h (5 °C)	Client:	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.221

SIngle Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
17-4475-5509	7d Survival Rate	TST-Welch's t Test	0.0003	100% passed 7d survival rate
02-6550-3585	Mean Dry Biomass-mg	TST-Welch's t Test	1.5E-05	100% passed mean dry biomass-mg

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.9833	0.9303	1.0000	0.9333	1.0000	0.0167	0.0333	3.39%	0.00%
100		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	-1.69%

Mean Dry Biomass-mg Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3522	0.3504	0.354	0.3507	0.3533	0.000569	0.001139	0.32%	0.00%
100		4	0.3478	0.3416	0.3541	0.344	0.3527	0.00197	0.003939	1.13%	1.23%

7d Survival Rate Detail

MD5: 47CD82190AA5D13B6B41F7B66F469EEF

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	0.9333
100		1.0000	1.0000	1.0000	1.0000

Mean Dry Biomass-mg Detail

MD5: 61F3A34C8592096514D0E19FA7F40487

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.352	0.3507	0.3533	0.3527
100		0.3453	0.3527	0.344	0.3493

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	14/15
100		15/15	15/15	15/15	15/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	17-4475-5509	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:40	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	47CD82190AA5D13B6B41F7B66F469EEF	**Editor ID:**	009-702-627-3
Batch ID:	21-1392-4344	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:05	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:11	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	20-4953-3564	**Code:**	CSE0225.221fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 11:00	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall001_20250214_Comp
Sample Age:	5h (5 °C)	**Client:**	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.221

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed 7d survival rate endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	3	15.59	0.7649	CDF	0.0003	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.002168	0.002168	1	1	0.3559	Non-Significant Effect
Error	0.013008	0.002168	6			
Total	0.015176		7			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	9	13.75	0.0240	Equal Variances
	Mod Levene Equality of Variance Test	1	13.75	0.3559	Equal Variances
	Variance Ratio F Test				Indeterminate
Distribution	Anderson-Darling A2 Test	1.162	3.878	0.0049	Non-Normal Distribution
	Kolmogorov-Smirnov D Test	0.375	0.3313	0.0015	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.7065	0.6451	0.0027	Non-Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	17-4475-5509	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:40	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	47CD82190AA5D13B6B41F7B66F469EEF	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	02-6550-3585	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:40	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	61F3A34C8592096514D0E19FA7F40487	**Editor ID:**	009-702-627-3
Batch ID:	21-1392-4344	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:05	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:11	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	20-4953-3564	**Code:**	CSE0225.221fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 11:00	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall001_20250214_Comp
Sample Age:	5h (5 °C)	**Client:**	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.221

Data Transform	Alt Hyp	TST_b	Comparison Result
Untransformed	C*b < T	0.75	100% passed mean dry biomass-mg endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	3	41.53	0.7649	CDF	1.5E-05	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.756E-05	3.756E-05	1	4.467	0.0790	Non-Significant Effect
Error	5.044E-05	8.407E-06	6			
Total	8.800E-05		7			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	8.647	13.75	0.0259	Equal Variances
	Mod Levene Equality of Variance Test	7.538	13.75	0.0335	Equal Variances
	Variance Ratio F Test	11.97	47.47	0.0710	Equal Variances
Distribution	Anderson-Darling A2 Test	0.1958	3.878	0.9386	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1632	0.3313	1.0000	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9752	0.6451	0.9352	Normal Distribution

Analysis ID:	02-6550-3585	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 7:40	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	61F3A34C8592096514D0E19FA7F40487	**Editor ID:**	009-702-627-3

CETIS Measurement Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	21-1392-4344	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 16:05	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 16:11	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	20-4953-3564	**Code:**	CSE0225.221fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	14 Feb-25 11:00	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Feb-25 14:15	**CAS (PC):**		**Station:**	Outfall001_20250214_Comp
Sample Age:	5h (5 °C)	**Client:**	Eurofins Eaton Analytical Pomona		

Comments: Report ID: CSE0225.221

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	62	62	62	62	62	0	0	0.00%	0
100		8	26	26	26	26	26	0	0	0.00%	0
Overall		16	44	34.09	53.91	26	62	4.648	18.59	42.25%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	264.4	261.6	267.2	260	268	0.4169	3.335	1.26%	0
100		8	127.9	122.3	133.4	120	135	0.8303	6.643	5.19%	0
Overall		16	196.1	158.5	233.8	120	268	17.67	70.67	36.03%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.05	7.797	8.303	7.4	8.4	0.0378	0.3024	3.76%	0
100		8	8.088	7.924	8.251	7.7	8.3	0.02449	0.1959	2.42%	0
Overall		16	8.069	7.937	8.2	7.4	8.4	0.06172	0.2469	3.06%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.00%	0
100		8	57	57	57	57	57	0	0	0.00%	0
Overall		16	75.5	65.32	85.68	57	94	4.777	19.11	25.31%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
100		8	7.663	7.515	7.81	7.4	7.8	0.0221	0.1768	2.31%	0
Overall		16	7.775	7.685	7.865	7.4	7.9	0.04233	0.1693	2.18%	0 (0%)

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
100		8	24.1	23.98	24.22	24	24.4	0.01767	0.1414	0.59%	0
Overall		16	24.05	23.99	24.11	24	24.4	0.02739	0.1095	0.46%	0 (0%)

3/30/2025

CHAIN OF CUSTODY FORM

Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Project: Boeing-SSFL NPDES Permit 2023 **Annual Outfall 001** **Outfall 001** **COMPOSITE**
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**	
TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement# 2019-22-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)
Sampler:	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)

Added C.F. = 0.5°C
Therm. = sample receiving Temp. deg. C = 5.0
Chlorine (mg/L) = <0.1
NH3 (mg/L) = <0.1

								ANALYSIS REQUIRED											
								A/R	A	R	A	R	A	R	R	R			
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	Cr (VI), Total Dissolved (E218.6)	Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium [H-3] (E906.0) - **Sub to St. Louis**	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) **ABC Labs in Ventura, CA**	1,4-Dioxane (E624 (SW8260M_SIM))	Total Organic Carbon (415.2 (SM 5310D))	Monomethyl hydrazine (SW8315M/DV-WC-0077) **Weck Labs in Hacienda Heights, CA**	LL Mercury (E1631E) -- Total Dissolved	Cyanide (Kelada)		Comments
Outfall 001	Outfall001_20250214_Comp_F	2/14/2025 1100	WM	250 mL Poly	3	None	Yes	X											Filter and preserve w/in 24hrs of receipt at lab.
			WM	250 mL Poly	1	None			X										Filter and preserve w/in 24hrs of receipt at lab.
			WM	8oz Clear Glass, double bagged	3	None	Yes								X				Filter and preserve w/in 24hrs of receipt at lab.
	Outfall001_20250214_Comp	2/14/2025 1100	WM	500 mL Poly	3	NaOH	Yes									X			
			WM	1 L Poly	4	HNO3				X									Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None													
			* WM	2.5 Gal Cube	2	None					22\ X								Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	40 mL VOA	3	HCl						X							
			WM	40 mL VOA	3	H2SO4							X						
			WM	1 L Glass Amber	1	None								X					**Segregate into a cooler for Weck Labs.**
QA/QC	Outfall001_20250214_Grab_F-04	2/14/2025 1100	WM	8oz Clear Glass, double bagged	1	None									X				Filter and preserve w/in 24hrs of receipt at lab.

* Hand delivered to ABC w/ the first copy of COC

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/14/2025 1146	H&A	[signature]	2-14-25 1646
[signature]	2-14-25 1645	H&A	[signature]	2/14/25 1945

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: ___X___
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____

Store samples for 6 months.

Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X___

2023-2024 Rainy Season
Version 1

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 14 February 2025 Report ID:

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 10.00 ug/l

EC25 = 18.06 ug/l
EC50 = 91.07 ug/l

ENDPOINT: GROWTH

NOEC = 10.00 ug/l

IC25 = 17.61 ug/l
IC50 = 61.26 ug/l

Yours very truly,

Joe Freas
President

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	PMSD
04-3713-5813	7d Survival Rate	Dunnett Multiple Comparison Test	10	19	13.78	10.2%
04-4026-9421	Mean Dry Biomass-mg	Steel Many-One Rank Sum Test	10	19	13.78	25.5%

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL
20-8031-7528	7d Survival Rate	Linear Interpolation (ICPIN)	EC15	13.64	10.9	19.85
			EC20	15.85	12.66	26.36
			EC25	18.06	14.46	51.37
			EC40	78.43	6.447	91.11
			EC50	91.07	69.97	102.7
06-2322-2824	Mean Dry Biomass-mg	Linear Interpolation (ICPIN)	IC15	14.07	10.21	16.5
			IC20	15.84	12.36	19.11
			IC25	17.61	14.71	50.86
			IC40	34.28	19.77	106
			IC50	61.26	16.37	110.4

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.9833	0.9303	1.0000	0.9333	1.0000	0.0167	0.0333	3.39%	0.00%
10		4	0.9167	0.8636	0.9697	0.8667	0.9333	0.0167	0.0333	3.64%	6.78%
19		4	0.7167	0.5575	0.8758	0.6667	0.8667	0.0500	0.1000	13.95%	27.12%
38		4	0.6333	0.4125	0.8542	0.4667	0.8000	0.0694	0.1388	21.91%	35.59%
75		4	0.6167	0.4355	0.7978	0.4667	0.7333	0.0569	0.1139	18.46%	37.29%
150		4	0.0333	0.0000	0.1394	0.0000	0.1333	0.0333	0.0667	200.00%	96.61%

Mean Dry Biomass-mg Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3513	0.3385	0.3642	0.3393	0.3567	0.004028	0.008055	2.29%	0.00%
10		4	0.339	0.278	0.4	0.2893	0.3827	0.01916	0.03832	11.30%	3.51%
19		4	0.2497	0.2043	0.295	0.2167	0.2767	0.01425	0.0285	11.42%	28.94%
38		4	0.2013	0.06978	0.3329	0.1393	0.3153	0.04134	0.08267	41.06%	42.69%
75		4	0.1605	0.02658	0.2944	0.07333	0.2493	0.04208	0.08416	52.44%	54.32%
150		4	0.01017	-0.02219	0.04252	0	0.04067	0.01017	0.02033	200.00%	97.11%

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail
MD5: 134E388E0CE6F5AF396526BA0DAA6763

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	0.9333
10		0.9333	0.9333	0.8667	0.9333
19		0.6667	0.8667	0.6667	0.6667
38		0.6000	0.4667	0.6667	0.8000
75		0.7333	0.4667	0.6667	0.6000
150		0.1333	0.0000	0.0000	0.0000

Mean Dry Biomass-mg Detail
MD5: 55D0BEBE3B1AB715D139DFD26EEF3FE9

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3393	0.3567	0.3547	0.3547
10		0.3827	0.3393	0.2893	0.3447
19		0.27	0.2767	0.2353	0.2167
38		0.1413	0.1393	0.2093	0.3153
75		0.2133	0.106	0.2493	0.07333
150		0.04067	0	0	0

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	14/15
10		14/15	14/15	13/15	14/15
19		10/15	13/15	10/15	10/15
38		9/15	7/15	10/15	12/15
75		11/15	7/15	10/15	9/15
150		2/15	0/15	0/15	0/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	04-3713-5813	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3
Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Angular (Corrected)	C > T	10	19	13.78	---	0.1007	10.25%

Dunnett Multiple Comparison Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	MSD	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	1.631	2.407	0.1874	CDF	0.1885	Non-Significant Effect
		19*	6	5.045	2.407	0.1874	CDF	0.0002	Significant Effect
		38*	6	6.209	2.407	0.1874	CDF	4.3E-05	Significant Effect
		75*	6	6.463	2.407	0.1874	CDF	3.6E-05	Significant Effect
		150*	6	15.65	2.407	0.1874	CDF	2.7E-05	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	3.61442	0.722883	5	59.66	<1.0E-05	Significant Effect
Error	0.218087	0.0121159	18			
Total	3.8325		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	3.325	15.09	0.6501	Equal Variances
	Levene Equality of Variance Test	0.7932	4.248	0.5684	Equal Variances
	Mod Levene Equality of Variance Test	0.452	4.248	0.8064	Equal Variances
Distribution	Anderson-Darling A2 Test	0.8095	3.878	0.0360	Normal Distribution
	D'Agostino Kurtosis Test	0.04405	2.576	0.9649	Normal Distribution
	D'Agostino Skewness Test	0.9695	2.576	0.3323	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	0.9418	9.21	0.6244	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1593	0.2056	0.1166	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9281	0.884	0.0886	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	04-3713-5813	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Parametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	04-4026-9421	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	55D0BEBE3B1AB715D139DFD26EEF3FE	**Editor ID:**	009-702-627-3
Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C > T	10	19	13.78	---	0.08974	25.54%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	15.5	10	1	CDF	0.5438	Non-Significant Effect
		19*	6	10	10	0	CDF	0.0417	Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.32079	0.0641581	5	23.08	<1.0E-05	Significant Effect
Error	0.0500327	0.0027796	18			
Total	0.370823		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	15.13	15.09	0.0098	Unequal Variances
	Levene Equality of Variance Test	5.283	4.248	0.0037	Unequal Variances
	Mod Levene Equality of Variance Test	4.065	4.248	0.0121	Equal Variances
Distribution	Anderson-Darling A2 Test	0.4666	3.878	0.2560	Normal Distribution
	D'Agostino Kurtosis Test	0.9275	2.576	0.3537	Normal Distribution
	D'Agostino Skewness Test	1.056	2.576	0.2910	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	1.975	9.21	0.3724	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1402	0.2056	0.2535	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9623	0.884	0.4856	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	04-4026-9421	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	55D0BEBE3B1AB715D139DFD26EEF3FE	**Editor ID:**	009-702-627-3

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	20-8031-7528	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3
Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC15	13.64	10.9	19.85
EC20	15.85	12.66	26.36
EC25	18.06	14.46	51.37
EC40	78.43	6.447	91.11
EC50	91.07	69.97	102.7

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	0.9333
10		0.9333	0.9333	0.8667	0.9333
19		0.6667	0.8667	0.6667	0.6667
38		0.6000	0.4667	0.6667	0.8000
75		0.7333	0.4667	0.6667	0.6000
150		0.1333	0.0000	0.0000	0.0000

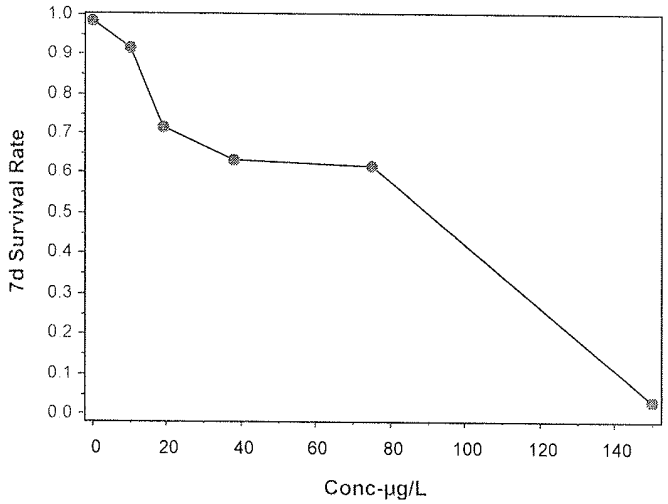
7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	14/15
10		14/15	14/15	13/15	14/15
19		10/15	13/15	10/15	10/15
38		9/15	7/15	10/15	12/15
75		11/15	7/15	10/15	9/15
150		2/15	0/15	0/15	0/15

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	20-8031-7528	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	11 Mar-25 0:00	**MD5 Hash:**	134E388E0CE6F5AF396526BA0DAA6763	**Editor ID:**	009-702-627-3

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	06-2322-2824	Endpoint:	Mean Dry Biomass-mg	CETIS Version:	CETIS v2.1.5
Analyzed:	11 Mar-25 14:28	Analysis:	Linear Interpolation (ICPIN)	Status Level:	1
Edit Date:	11 Mar-25 0:00	MD5 Hash:	55D0BEBE3B1AB715D139DFD26EEF3FE	Editor ID:	009-702-627-3
Batch ID:	09-0728-3101	Test Type:	Growth-Survival (7d)	Analyst:	Beth Maturino
Start Date:	14 Feb-25 15:22	Protocol:	EPA/821/R-02-013 (2002)	Diluent:	Laboratory Water
Ending Date:	21 Feb-25 15:01	Species:	Pimephales promelas	Brine:	Not Applicable
Test Length:	7d	Taxon:	Actinopterygii	Source:	Aquatic Biosystems, CO Age: 1d
Sample ID:	17-4857-7619	Code:	FML021425	Project:	REF TOX
Sample Date:	14 Feb-25 15:22	Material:	Copper chloride	Source:	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	CAS (PC):		Station:	REF TOX
Sample Age:	---	Client:	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1074536	280	Yes	Two-Point Interpolation

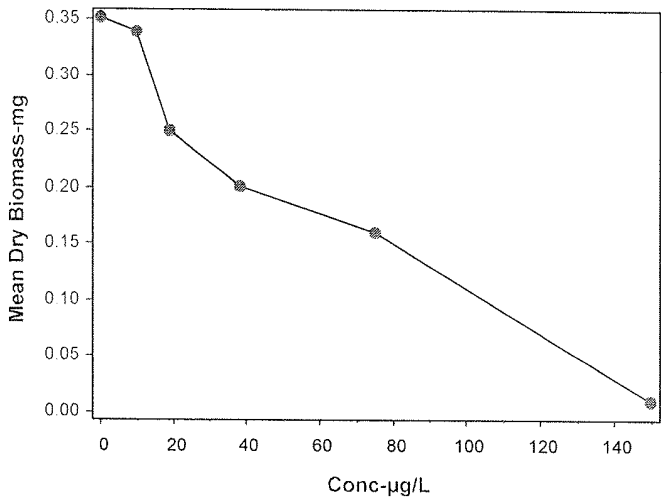
Point Estimates

Level	µg/L	95% LCL	95% UCL
IC15	14.07	10.21	16.5
IC20	15.84	12.36	19.11
IC25	17.61	14.71	50.86
IC40	34.28	19.77	106
IC50	61.26	16.37	110.4

Mean Dry Biomass-mg Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3393	0.3567	0.3547	0.3547
10		0.3827	0.3393	0.2893	0.3447
19		0.27	0.2767	0.2353	0.2167
38		0.1413	0.1393	0.2093	0.3153
75		0.2133	0.106	0.2493	0.07333
150		0.04067	0	0	0

Graphics



CETIS Measurement Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	09-0728-3101	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Feb-25 15:22	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Feb-25 15:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	17-4857-7619	**Code:**	FML021425	**Project:**	REF TOX
Sample Date:	14 Feb-25 15:22	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Feb-25 15:22	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	62	62	62	62	62	0	0	0.00%	0
150		8	61	61	61	61	61	0	0	0.00%	0
Overall		16	61.5	61.22	61.78	61	62	0.1291	0.5164	0.84%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	264	261.5	266.5	260	268	0.378	3.024	1.15%	0
10		8	258	254.4	261.6	250	265	0.5387	4.309	1.67%	0
19		8	256.5	254.1	258.9	252	260	0.3598	2.878	1.12%	0
38		8	254.8	251.5	258	250	259	0.4807	3.845	1.51%	0
75		8	254.5	252.3	256.7	251	258	0.3341	2.673	1.05%	0
150		8	256.1	254.8	257.5	254	259	0.2053	1.642	0.64%	0
Overall		48	257.3	256	258.6	250	268	0.638	4.42	1.72%	0 (0%)

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.05	7.797	8.303	7.4	8.4	0.0378	0.3024	3.76%	0
10		8	8.038	7.752	8.323	7.3	8.5	0.04275	0.342	4.26%	0
19		8	7.975	7.704	8.246	7.2	8.2	0.0405	0.324	4.06%	0
38		8	7.963	7.695	8.23	7.2	8.2	0.04005	0.3204	4.02%	0
75		8	7.925	7.64	8.21	7.1	8.1	0.04265	0.3412	4.31%	0
150		8	7.925	7.64	8.21	7.1	8.1	0.04265	0.3412	4.31%	0
Overall		48	7.979	7.888	8.071	7.1	8.5	0.04544	0.3149	3.95%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	94	94	94	94	94	0	0	0.00%	0
150		8	126	126	126	126	126	0	0	0.00%	0
Overall		16	110	101.2	118.8	94	126	4.131	16.52	15.02%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
10		8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
19		8	7.875	7.836	7.914	7.8	7.9	0.005785	0.04628	0.59%	0
38		8	7.863	7.819	7.906	7.8	7.9	0.006468	0.05175	0.66%	0
75		8	7.875	7.836	7.914	7.8	7.9	0.005785	0.04628	0.59%	0
150		8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
Overall		48	7.879	7.867	7.891	7.8	7.9	0.005924	0.04104	0.52%	0 (0%)

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Temperature-°C

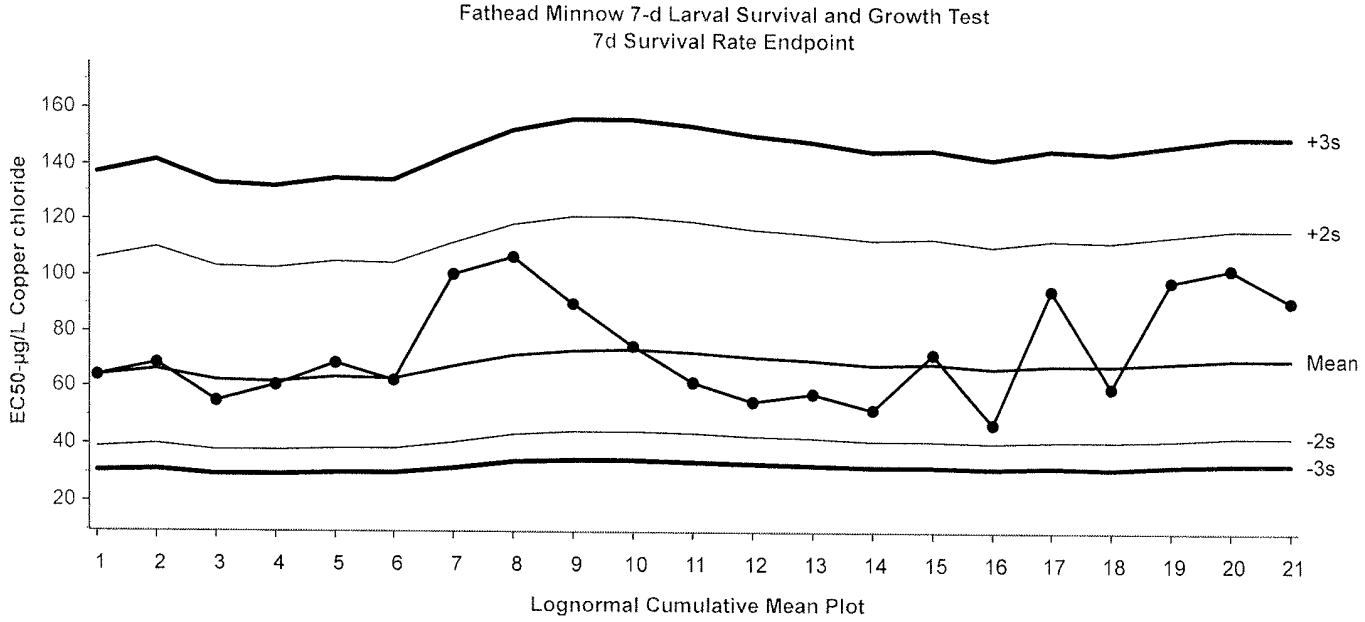
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
10		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
19		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
38		8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
75		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
150		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
Overall		48	24.02	24.01	24.03	24	24.1	0.005924	0.04104	0.17%	0 (0%)

CETIS QC Plot

Report Date: 11 Mar-25 14:30 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	7d Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	70.6	**Count:**	20	**-2s Warning Limit:**	42.7	**-3s Action Limit:**	33.2
Sigma:	NA	**CV:**	25.50%	**+2s Warning Limit:**	117	**+3s Action Limit:**	150

Quality Control Data

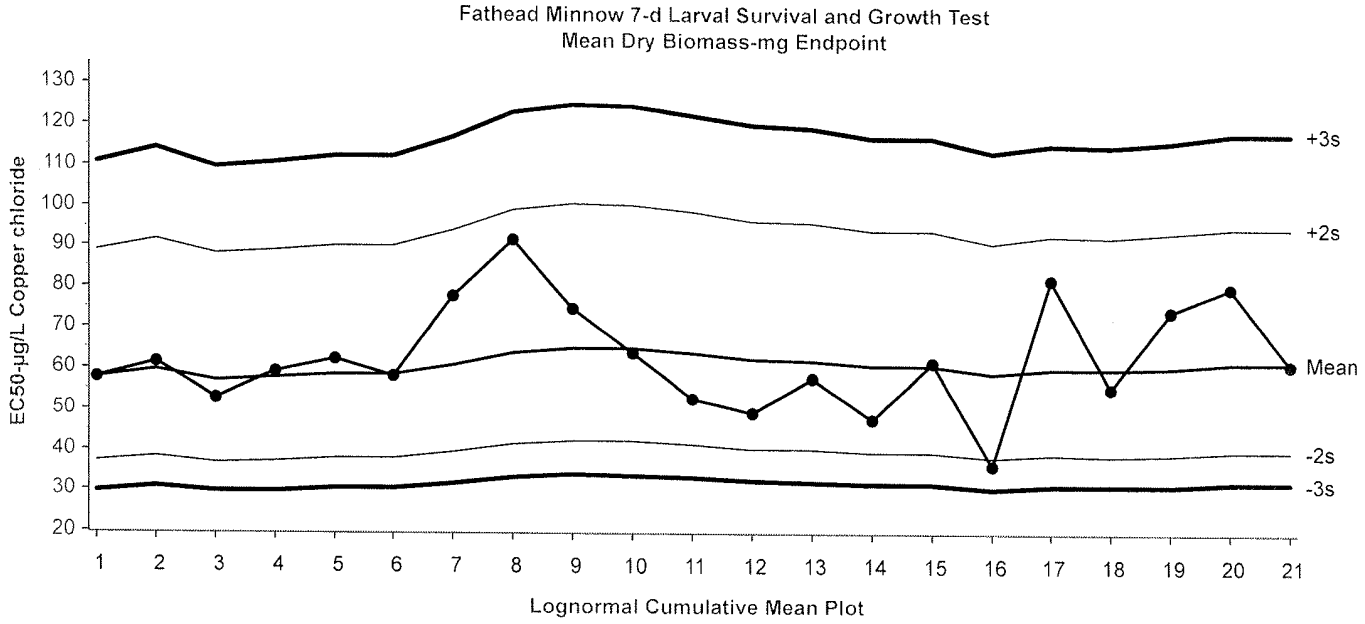
Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Sep	25	11:45	64.43	-6.169	-0.3642			01-5919-2751	13-4347-5647
2		Oct	1	13:23	68.83	-1.765	-0.1008			06-3098-0701	10-1538-0549
3			8	15:03	55.4	-15.2	-0.9655			20-1568-7440	19-5114-8844
4			15	13:50	60.9	-9.693	-0.5882			10-8673-2368	00-1359-2096
5			17	16:00	68.62	-1.977	-0.1131			18-3095-1642	15-4710-9161
6			22	15:10	62.33	-8.265	-0.4958			19-0912-1140	09-6377-1541
7			29	15:20	100.8	30.18	1.418			09-4550-3995	21-4284-6798
8		Nov	5	15:50	106.8	36.22	1.649			09-2403-5441	04-5593-3187
9			12	14:48	89.73	19.13	0.9551			10-1731-0740	16-4707-0068
10			19	15:15	75	4.402	0.2409			20-3806-2820	02-3661-4487
11			20	15:00	61.98	-8.616	-0.5184			06-8037-9008	21-4619-7329
12		Dec	3	13:00	55.22	-15.37	-0.9781			18-1540-2996	05-6522-4940
13			10	15:20	57.87	-12.73	-0.7917			19-9851-1845	18-5768-6591
14			17	13:13	52.39	-18.21	-1.188			09-4375-8924	01-3886-6616
15	2025	Jan	7	14:40	71.92	1.319	0.07371			21-0637-0547	11-1485-0637
16			14	12:00	47.25	-23.35	-1.599			05-6088-9362	03-4082-7382
17			28	15:46	95.12	24.52	1.187			04-9084-2249	19-5925-0077
18		Feb	4	17:01	60.42	-10.17	-0.6197			00-6241-7952	01-1979-8744
19			6	15:40	98.28	27.68	1.317			06-9427-5319	01-8738-7815
20			11	12:15	103	32.39	1.504			16-8104-1835	13-5437-1451
21			14	15:22	91.07	20.47	1.014			02-3244-8004	20-8031-7528

CETIS QC Plot

Report Date: 11 Mar-25 14:30 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Mean Dry Biomass-mg	**Source:**	Reference Toxicant-REF



Mean:	61.37	**Count:**	20	**-2s Warning Limit:**	39.7	**-3s Action Limit:**	31.9
Sigma:	NA	**CV:**	22.00%	**+2s Warning Limit:**	94.9	**+3s Action Limit:**	118

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Sep	25	11:45	57.56	-3.819	-0.2951			01-5919-2751	01-2712-5265
2		Oct	1	13:23	61.45	0.0797	0.005961			06-3098-0701	02-0894-3808
3			8	15:03	52.57	-8.804	-0.7112			20-1568-7440	12-2151-5153
4			15	13:50	59.05	-2.326	-0.1775			10-8673-2368	03-9604-2764
5			17	16:00	62.29	0.9159	0.06805			18-3095-1642	07-4065-3814
6			22	15:10	58.04	-3.336	-0.2567			19-0912-1140	02-9413-3326
7			29	15:20	77.69	16.31	1.083			09-4550-3995	00-4441-3224
8		Nov	5	15:50	91.55	30.18	1.837			09-2403-5441	07-6830-2851
9			12	14:48	74.54	13.17	0.8928			10-1731-0740	21-2736-3990
10			19	15:15	63.69	2.32	0.1704			20-3806-2820	13-6596-6601
11			20	15:00	52.74	-8.639	-0.6969			06-8037-9008	02-1196-1356
12		Dec	3	13:00	49.26	-12.11	-1.01			18-1540-2996	06-7062-0437
13			10	15:20	57.69	-3.687	-0.2846			19-9851-1845	02-6664-5479
14			17	13:13	47.7	-13.68	-1.158			09-4375-8924	15-9519-3400
15	2025	Jan	7	14:40	61.37	-0.00402	-0.00030			21-0637-0547	16-6875-9592
16			14	12:00	36.34	-25.03	-2.407	(-)		05-6088-9362	03-9030-1419
17			28	15:46	81.96	20.58	1.329			04-9084-2249	06-9280-3288
18		Feb	4	17:01	55.44	-5.939	-0.4675			00-6241-7952	10-0544-6264
19			6	15:40	74.2	12.83	0.8719			06-9427-5319	09-6653-1378
20			11	12:15	79.94	18.56	1.214			16-8104-1835	16-9131-3620
21			14	15:22	61.26	-0.1177	-0.00882			02-3244-8004	06-2322-2824

Loc: 570
218413

218412
3

CHAIN OF CUSTODY FORM

								A/R	R	R	R	A/R	R	R	A	A	A	R	A	R	A		
Client Name/Address: Haley & Aldrich, 5333 Mission Center Rd Suite 300, San Diego, CA 92108				Project: Boeing-SSFL NPDES Permit 2023 Annual Outfall 001 Outfall 001 COMPOSITE				ANALYSIS REQUIRED															
Eurofins Calscience Project Manager: Virendra Patel, 2841 Dow Avenue, Suite #100, Tustin, CA 92780, Tel: 714-895-5494				Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)																			
ECI Project #57013187				Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)																			
TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement# 2019-22-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.																							
Sampler:																							
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Recoverable Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	TCDD (and all congeners) (E1613B) -Sub to Sacramento	BOD5 (20 degrees C) (E405.1 (SM5210B_BODCalc))	LL Mercury (E1631E) – Total Recoverable	Flouride (F-), Chloride (Cl-), Sulfate (SO4), Nitrate-N, Nitrite-N, NO3+NO2-N (E300); Perchlorate (E314.0)	Turbidity, TDS (SM2540C/E180.1)	TSS (160.2 (SM2540D))	Priority Pollutants-Pesticides+PCBs (E608) Weck Labs in Hacienda Heights, CA	Priority Pollutants-SVOCs (E6251 SIM)	Priority Pollutants-SVOCs (E6251 SIM) Sub Indeno(1,2,3-cd)pyrene to EMAX	Ammonia-N (E351.1)	PCBs - 44 Congeners only (1668C) - Sub to Sacramento	Detergents (MBAS) (SM5540C/E425.1)	Cr (VI), Total Recoverable (E218.6)		Comments
1	Outfall001_20250214_Comp	2/14/2025 1100	WM	250 mL Poly	3	HNO3	Yes	X															
			WM	1 L Glass Amber	2	None			X														
			WM	1 L Poly	1	None				X													
			WM	8oz Clear Glass, double bagged	3	HCL	Yes				X												
			WM	250 mL Poly	1	None						X											48 hours Holding Time NO_3 & NO_2
			WM	500 mL Poly	1	None							X										48 hour holding time for turbidity
Outfall 001			WM	1 L Poly	1	None								X									
			WM	1 L Glass Amber	4	None									X								Segregate into a cooler for Weck Labs.
			WM	1 L Glass Amber	12	None	Yes									X							
			WM	1 L Glass Amber	4	None											X						Segregate into a cooler for EMAX.
			WM	500 mL Poly	1	H_2SO_4												X					
			WM	1 L Glass Amber	12	None	Yes												X				
			WM	1 L Poly	1	None														X			
			WM	250 mL Poly	1	None															X		
2	Outfall001_20250214_Comp-02	2/14/2025 1100	WM	1 L Glass Amber	4	None													X				
QA/QC	Outfall001_20250214_Grab-04	2/14/2025 1100	WM	1 L Glass Amber	4	None													X				
3			WM	8oz Clear Glass, double bagged	1	HCL					X												
			WM	1 L Glass Amber	4	None										~~X~~							

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/14/2025 ~~1330~~ 1430	H&A	EC	2/14/25 1430
EC	2/14/25 1820			2/14/25 1820

570-218413 Chain of Custody

Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: __X__

1.9/2.1 1.7/1.9 2.3/2.5 1.2/1.4 5C14

2023-2024 Rainy Season
Version 1

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:	ANALYSIS REQUIRED
Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Boeing-SSFL NPDES Permit 2023 **Annual Outfall 001** **Outfall 001** **COMPOSITE**	
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**		
TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement# 2019-22-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)	
Sampler:	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)	

Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	A/R: Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	A: Cr (VI), Total Dissolved (E218.6)	R: Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium [H-3] (E906.0) - **Sub to St. Louis**	A: Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) **ABC Labs in Ventura, CA**	R: 1,4-Dioxane (E624 (SW8260M_SIM))	A: Total Organic Carbon (415.2 (SM 5310D))	R: Monomethyl hydrazine (SW8315M/DV-WC-0077) **Weck Labs in Hacienda Heights, CA**	R: Lt. Mercury (E1631E) -- Total Dissolved	Cyanide (Kelada)		Comments
4	Outfall001_20250214_Comp_F	2/14/2025 1100	WM	250 mL Poly	3	None	Yes	X											Filter and preserve w/in 24hrs of receipt at lab.
			WM	250 mL Poly	1	None			X										Filter and preserve w/in 24hrs of receipt at lab.
			WM	8oz Clear Glass, double bagged	3	None	Yes									X			Filter and preserve w/in 24hrs of receipt at lab.
Outfall 001	Outfall001_20250214_Comp	2/14/2025 1100	WM	500 mL Poly	3	NaOH	Yes										X		
			WM	1 L Poly	4	HNO3				X									Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None													
1			WM	2.5 Gal Cube	2	None					X								Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	40 mL VOA	3	HCl						X							
			WM	40 mL VOA	3	H2SO4							X						
			WM	1 L Glass Amber	1	None								X					**Segregate into a cooler for Weck Labs.**
QA/QC	Outfall001_20250214_Grab_F-04	2/14/2025 1100	WM	8oz Clear Glass, double bagged	1	None									X				Filter and preserve w/in 24hrs of receipt at lab.

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/14/2025 1430	H&A	EC	2/14/25 1430
EC	2/14/25 1820			2/14/25 1820

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: ___X___
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.

Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X___

2023-2024 Rainy Season
Version 1

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428553.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State California; State Program California		Job #: 570-218413-1
Address: 5755 8th Street East,	Due Date Requested: 2/28/2025	Analysis Requested		Preservation Codes:
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Annual Outfall 001 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631E/Filtration_ME Mercury, Dissolved	1631E/ Mercury, Total	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall001_20250214_Grab-04 (570-218413-3)	2/14/25	11:00 Pacific	G	Water			X	X	1	
Outfall001_20250214_Grab_F-04 (570-218413-5)	2/14/25	11:00 Pacific	G	Water			X		1	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 2-18 13-	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428553.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State California; State Program California		Job #: 570-218413-3
Address: 5755 8th Street East,	Due Date Requested: 3/6/2025			Preservation Codes:
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Annual Outfall 001 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631E/ Mercury, Total	1631E/Filtration_ME Mercury, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall001_20250214_Comp (570-218413-1)	2/14/25	11.00 Pacific	G	Water			X		1	
Outfall001_20250214_Comp (570-218413-1MS)	2/14/25	11:00 Pacific	G	Water			X		1	
Outfall001_20250214_Comp (570-218413-1MSD)	2/14/25	11:00 Pacific	G	Water			X		1	
Outfall001_20250214_Comp_F (570-218413-4)	2/14/25	11:00 Pacific	G	Water				X	1	
Outfall001_20250214_Comp_F (570-218413-4MS)	2/14/25	11:00 Pacific	G	Water				X	1	
Outfall001_20250214_Comp_F (570-218413-4MSD)	2/14/25	11:00 Pacific	G	Water				X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested. I, II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2-19 13-	EC			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428584.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): State California; State Program California		Job #: 570-218413-1
Address: 880 Riverside Parkway	Due Date Requested: 2/28/2025			
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Annual Outfall 001 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668C/HRMS_Sep_P Full List (209)	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Outfall001_20250214_Comp (570-218413-1)	2/14/25	11:00 Pacific	G	Water			X	5	No CA for low LCS
Outfall001_20250214_Comp (570-218413-1MS)	2/14/25	11:00 Pacific	G	Water			X	4	No CA for low LCS
Outfall001_20250214_Comp (570-218413-1MSD)	2/14/25	11:00 Pacific	G	Water			X	4	No CA for low LCS
Outfall001_20250214_Comp-02 (570-218413-2)	2/14/25	11:00 Pacific	G	Water			X	2	No CA for low LCS
Outfall001_20250214_Grab-04 (570-218413-3)	2/14/25	11:00 Pacific	G	Water			X	2	No CA for low LCS

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2-18 15 -	EC			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428584.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): State - California; State Program - California		Job #: 570-218413-2
Address: 880 Riverside Parkway	Due Date Requested: 3/6/2025			
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Annual Outfall 001 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B/1613B_Sox_Sep_P (MOD) Standard List w/ Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Outfall001_20250214_Comp (570-218413-1)	2/14/25	11:00 Pacific	G	Water			X	5	See QAS, Boeing_w/u to zero, ug/L, Use Boeing glassware.

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	2-18 15	EC			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428678.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State California; State Program California		Job #: 570-218413-6
Address: 13715 Rider Trail North,	Due Date Requested: 3/12/2025			
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Annual Outfall 001 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	900.0/Evaporation Gross Alpha/Beta	901.1_Cs/FIII_Geo_0 K-40 and Cesium-137	A01R_U/ExtChrom_Actin Total Uranium	903.0/PrecSep_21 Radium-226	904.0/PrecSep_0 Radium-228	905_Sr90/PrecSep_7 Strontium-90	906.0/LSC_Dist_Susp Tritium	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
Outfall001_20250214_Comp (570-218413-1)	2/14/25	11:00 Pacific	G	Water			X	X	X	X	X	X	X	3	Boeing SSFL, DO NOT FILTER; use prep date from preservation

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		2-19 9 —	EC			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

3/30/2025

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-218413-4

Login Number: 218413
List Number: 1
Creator: Chapman, Allyson

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 3/30/2025 12:02:02 PM

JOB DESCRIPTION

Boeing NPDES SSFL - Annual Outfall 009 COMP

JOB NUMBER

570-218637-5

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

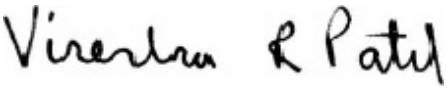
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



Generated
3/30/2025 12:02:02 PM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494

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Sample Summary 7
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Definitions/Glossary

Client: Haley & Aldrich, Inc. Job ID: 570-218637-5
Project/Site: Boeing NPDES SSFL - Annual Outfall 009 COMP

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)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-218637-5 Eurofins Calscience

Job Narrative
570-218637-5

Receipt
The samples were received on 2/17/2025 6:10 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 1.9º C, 2.0º C and 2.2º C.

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

Subcontract Work
Method Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013): This method was subcontracted to Aquatic Bioassay. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Method Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-218637-5
Project/Site: Boeing NPDES SSFL - Annual Outfall 009 COMP

Method	Method Description	Protocol	Laboratory
EPA	Bioassay	EPA	Aquatic

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

Aquatic = Aquatic Bioassay & Consulting, 29 North Olive Street, Ventura, CA 93001

Sample Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-218637-5
Project/Site: Boeing NPDES SSFL - Annual Outfall 009 COMP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-218637-1	Outfall009_20250215_Comp	Water	02/15/25 08:00	02/17/25 18:10

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID: CSE0225.234

March 26, 2025

Mr. Virendra Patel
Eurofins Calscience
2841 Dow Avenue, Suite #100
Tustin, CA 92780

Dear Mr. Patel:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013.* " Results were as follows:*

CLIENT:	Eurofins Calscience
SAMPLE I.D.:	Outfall009_20250215_Comp
DATE RECEIVED:	18 Feb - 2025
ABC LAB. NO.:	CSE0225.234

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

IWC = 100.00%

TST RESULT

SURVIVAL = PASS % EFFECT = 0.00 %

GROWTH = PASS % EFFECT = -0.29 %

Yours very truly,

Joe Freas
President

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	07-1839-9311	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 13:25	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 14:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	11-7012-0118	**Code:**	CSE0225.234fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	15 Feb-25 08:00	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	18 Feb-25 09:30	**CAS (PC):**		**Station:**	Outfall009 _202050215 Comp
Sample Age:	4d 5h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.234

SIngle Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
01-4931-5289	7d Survival Rate	TST-Welch's t Test	<0.25	100% passed 7d survival rate
13-9976-9452	Mean Dry Biomass-mg	TST-Welch's t Test	<1.0E-05	100% passed mean dry biomass-mg

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%

Mean Dry Biomass-mg Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3447	0.3352	0.3541	0.3393	0.3513	0.002969	0.005938	1.72%	0.00%
100		4	0.3457	0.3374	0.3539	0.3393	0.3513	0.002589	0.005178	1.50%	-0.29%

7d Survival Rate Detail — MD5: 02835A6FE1710696B7C8F79EC2C22377

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000

Mean Dry Biomass-mg Detail — MD5: F4E5C72BFC0E9BDB56098175830CB0A9

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.348	0.3513	0.34	0.3393
100		0.344	0.3393	0.348	0.3513

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
100		15/15	15/15	15/15	15/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	01-4931-5289	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 8:00	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	02835A6FE1710696B7C8F79EC2C22377	**Editor ID:**	009-702-627-3
Batch ID:	07-1839-9311	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 13:25	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 14:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	11-7012-0118	**Code:**	CSE0225.234fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	15 Feb-25 08:00	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	18 Feb-25 09:30	**CAS (PC):**		**Station:**	Outfall009 _202050215 Comp
Sample Age:	4d 5h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.234

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed 7d survival rate endpoint

TST-Welch's t Test

Control	vs	Conc-%	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	0.3603	---		<0.25	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0	0	1			Indeterminate
Error	0	0	6			
Total	0		7			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Variance Ratio F Test				Indeterminate
Distribution	Shapiro-Wilk W Normality Test				Indeterminate

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	13-9976-9452	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 8:00	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	F4E5C72BFC0E9BDB560981758 30CB0A9	**Editor ID:**	009-702-627-3
Batch ID:	07-1839-9311	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 13:25	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 14:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	11-7012-0118	**Code:**	CSE0225.234fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	15 Feb-25 08:00	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	18 Feb-25 09:30	**CAS (PC):**		**Station:**	Outfall009 _202050215 Comp
Sample Age:	4d 5h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.234

Data Transform	Alt Hyp	TST_b	Comparison Result
Untransformed	C*b < T	0.75	100% passed mean dry biomass-mg endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	5	25.52	0.7267	CDF	<1.0E-05	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2E-06	2E-06	1	0.06444	0.8081	Non-Significant Effect
Error	0.0001862	3.104E-05	6			
Total	0.0001882		7			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	0.54	13.75	0.4901	Equal Variances
	Mod Levene Equality of Variance Test	0.4909	13.75	0.5098	Equal Variances
	Variance Ratio F Test	1.315	47.47	0.8273	Equal Variances
Distribution	Anderson-Darling A2 Test	0.3861	3.878	0.3951	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1922	0.3313	0.6252	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9036	0.6451	0.3112	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	13-9976-9452	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 8:00	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	F4E5C72BFC0E9BDB56098175830CB0A9	**Editor ID:**	009-702-627-3

CETIS Measurement Report

Report Date: 25 Mar-25 08:00 (p 1 of 1)
Test Code/ID: CSE0225.234fml / 05-3119-7839

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	07-1839-9311	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 13:25	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 14:01	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 1h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	11-7012-0118	**Code:**	CSE0225.234fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	15 Feb-25 08:00	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	18 Feb-25 09:30	**CAS (PC):**		**Station:**	Outfall009 _202050215 Comp
Sample Age:	4d 5h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.234

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	59.75	58.59	60.91	59	62	0.1736	1.389	2.32%	0
100		8	19	19	19	19	19	0	0	0.00%	0
Overall		16	39.38	28.15	50.6	19	62	5.266	21.06	53.50%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	266.6	262.6	270.6	260	276	0.6011	4.809	1.80%	0
100		8	135.1	132	138.3	130	141	0.4698	3.758	2.78%	0
Overall		16	200.9	164.6	237.1	130	276	17.01	68.03	33.87%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.913	7.571	8.254	7	8.3	0.05108	0.4086	5.16%	0
100		8	7.888	7.546	8.229	6.9	8.1	0.05108	0.4086	5.18%	0
Overall		16	7.9	7.69	8.11	6.9	8.3	0.09874	0.395	5.00%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	98.5	96.18	100.8	94	100	0.3472	2.777	2.82%	0
100		8	33	33	33	33	33	0	0	0.00%	0
Overall		16	65.75	47.7	83.8	33	100	8.469	33.88	51.52%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.838	7.775	7.9	7.7	7.9	0.0093	0.0744	0.95%	0
100		8	7.712	7.608	7.817	7.5	7.9	0.01558	0.1246	1.62%	0
Overall		16	7.775	7.712	7.838	7.5	7.9	0.02958	0.1183	1.52%	0 (0%)

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
100		8	24.08	23.98	24.17	24	24.3	0.01456	0.1165	0.48%	0
Overall		16	24.04	23.99	24.08	24	24.3	0.02213	0.08851	0.37%	0 (0%)

3/30/2025

Eurofins Calscience Tustin

CHAIN OF CUSTODY FORM

Added C.F = +0.0
Therm = sample receiving
Temp. deg. C = 5.0
Chlorine (mg/L) = <0.1
pH 13 (mg/L) = <0.1

AB&C

Client Name/Address: Haley & Aldrich, 5333 Mission Center Rd Suite 300, San Diego, CA 92108	Project: Boeing-SSFL NPDES 2023 Permit **Annual** **Outfall 009** **COMPOSITE**
Eurofins Calscience Project Manager: Virendra Patel, 2841 Dow Avenue, Suite #100, Tustin, CA 92780, Tel: 714-895-5494 **ECI Project #57013187**	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)
Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)
Sampler:	

ANALYSIS REQUIRED

Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	R/A Total Recoverable Metals: (E200.7): B, Hardness as CaC) (E200.8): Al, As, Ba, Be, Co, Cr, Fe, Mn, Ni, V, Zn, Ag, Cd, Cu, Pb, Sb, Se, Tl	R TCDD (and all congeners) (E1613B) -sub to Sacramento	R/A Flouride [F-], Chloride [Cl-], Sulfate [SO4], Nitrate-N, Nitrite-N, NO3+NO2-N (E300); Perchlorate (E314.0)	R TDS (SM2540C/E160.1)	A TSS (160.2 (SM2540D))	R/A Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, As, Ba, Be, Co, Cr, Fe, Mn, Ni, V, Zn, Ag, Cd, Cu, Pb, Sb, Se, Tl	R Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) - sub to St. Louis	* Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) ABC Labs in Ventura, CA	R/A Ammonia-N (351.1)	R Cyanide (Kaleda)	R Priority Pollutants-Pesticides+PCBs (E608) Weck Labs in Hacienda Heights, CA	R LL Mercury (1631) Total Recoverable	R LL Mercury (1631) Total Dissolved	R Cr (VI), total dissolved (E218.6)	Comments
Outfall 009	Outfall009_202050215_Comp ESC .234	2/15/2025 0800	WM	500 mL Poly	3	HNO_3	Yes	X														
			WM	1 L Glass Amber	2	None			X													
			WM	250 mL Poly	1	None				X												48 hours Holding Time NO_3 & NO_2
			WM	500 mL Poly	1	None					X											
			WM	500 mL Poly	1	H2SO4										X						
			WM	1 L Poly	1	None						X										
			WM	500 mL Poly	3	NaOH	Yes										X					
			WM	1 L Poly	4	HNO3								X								Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None																
			* WM	1 Gal Cube	5	None									X							Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	1 L Glass Amber	4	None												X				**Segregate into a cooler for Weck Labs.**
			WM	8oz Clear Glass, dbl bagged	3	HCl	Yes												X			Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures.
	Outfall009_202050215_Comp_F	2/15/2025 0800	WM	500 ml Poly	3	None	Yes						X									Filter and preserve w/in 24hrs of receipt at lab
			WM	8oz Clear Glass, dbl bagged	3	None	Yes													X		Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. Filter and preserve w/in 24hrs of receipt at lab
			WM	250 mL Poly	1	None															X	

* Hand-delivered to Aquatic Biosurvey with hard copy of CoC

Legend: R = Routine, A = Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/18/2025 0930	H&A	AR	2/18/25 0930
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: ___X____
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X_____

2024-2025 Rainy Season
Version 1

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 19 February 2025 Report ID:

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 19.00 ug/l

EC25 = 34.20 ug/l
EC50 = 77.59 ug/l

ENDPOINT: GROWTH

NOEC = 19.00 ug/l

IC25 = 26.79 ug/l
IC50 = 47.09 ug/l

Yours very truly,

Joe Freas
President

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	PMSD
21-2321-5193	7d Survival Rate	Steel Many-One Rank Sum Test	19	38	26.87	10.4%
11-9116-6887	Mean Dry Biomass-mg	Steel Many-One Rank Sum Test	19	38	26.87	19.1%

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL
05-1062-8439	7d Survival Rate	Linear Interpolation (ICPIN)	EC15	26.6	14.44	39.31
			EC20	30.4	20.85	47.3
			EC25	34.2	23.39	53.44
			EC40	58.18	22.09	85.09
			EC50	77.59	55.23	94.62
20-4623-6693	Mean Dry Biomass-mg	Linear Interpolation (ICPIN)	IC15	21.44	9.71	29.86
			IC20	24.12	12.45	32.99
			IC25	26.79	14.1	37.68
			IC40	34.81	25.29	60.73
			IC50	47.09	24.32	71.64

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
10		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
19		4	0.9500	0.7909	1.0000	0.8000	1.0000	0.0500	0.1000	10.53%	5.00%
38		4	0.7000	0.4193	0.9807	0.4667	0.8667	0.0882	0.1764	25.20%	30.00%
75		4	0.5167	0.3575	0.6758	0.4000	0.6000	0.0500	0.1000	19.35%	48.33%
150		4	0.0333	0.0000	0.0946	0.0000	0.0667	0.0193	0.0385	115.47%	96.67%

Mean Dry Biomass-mg Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3597	0.3247	0.3947	0.3427	0.392	0.011	0.022	6.12%	0.00%
10		4	0.3488	0.3453	0.3523	0.3467	0.3513	0.001101	0.002203	0.63%	3.01%
19		4	0.3222	0.2339	0.4105	0.2393	0.356	0.02775	0.05549	17.23%	10.43%
38		4	0.1943	0.07666	0.312	0.126	0.2667	0.03698	0.07395	38.06%	45.97%
75		4	0.1353	0.09678	0.1739	0.09933	0.15	0.01211	0.02423	17.90%	62.37%
150		4	0.01083	-0.00930	0.03097	0	0.024	0.006327	0.01265	116.80%	96.99%

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail

MD5: 970FA95C599CF241FDEC56C1844CFF6D

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000
19		1.0000	1.0000	0.8000	1.0000
38		0.8667	0.4667	0.6667	0.8000
75		0.6000	0.4000	0.4667	0.6000
150		0.0667	0.0667	0.0000	0.0000

Mean Dry Biomass-mg Detail

MD5: EF41CFAC5674B2286400A69DB40EB0C5

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3427	0.392	0.352	0.352
10		0.35	0.3513	0.3473	0.3467
19		0.3427	0.3507	0.2393	0.356
38		0.2667	0.1353	0.126	0.2493
75		0.1427	0.09933	0.1493	0.15
150		0.01933	0.024	0	0

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	12/15	15/15
38		13/15	7/15	10/15	12/15
75		9/15	6/15	7/15	9/15
150		1/15	1/15	0/15	0/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	21-2321-5193	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	970FA95C599CF241FDEC56C1844CFF6D	**Editor ID:**	009-702-627-3
Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Angular (Corrected)	C > T	19	38	26.87	---	0.1039	10.39%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	18	10	1	CDF	0.8333	Non-Significant Effect
		19	6	16	10	1	CDF	0.6105	Non-Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.77818	0.955637	5	70.14	<1.0E-05	Significant Effect
Error	0.245232	0.013624	18			
Total	5.02342		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test				Indeterminate
	Levene Equality of Variance Test	5.813	4.248	0.0023	Unequal Variances
	Mod Levene Equality of Variance Test	2.031	4.248	0.1226	Equal Variances
Distribution	Anderson-Darling A2 Test	1.118	3.878	0.0064	Non-Normal Distribution
	D'Agostino Kurtosis Test	1.526	2.576	0.1269	Normal Distribution
	D'Agostino Skewness Test	1.976	2.576	0.0481	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	6.235	9.21	0.0443	Normal Distribution
	Kolmogorov-Smirnov D Test	0.2083	0.2056	0.0084	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.896	0.884	0.0178	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	21-2321-5193	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	970FA95C599CF241FDEC56C1844CFF6D	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	11-9116-6887	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	EF41CFAC5674B2286400A69DB40EB0C5	**Editor ID:**	009-702-627-3
Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C > T	19	38	26.87	---	0.06873	19.11%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	14	10	0	CDF	0.3451	Non-Significant Effect
		19	6	14.5	10	1	CDF	0.4092	Non-Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.390738	0.0781475	5	47.92	<1.0E-05	Significant Effect
Error	0.0293539	0.0016308	18			
Total	0.420092		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	22.65	15.09	0.0004	Unequal Variances
	Levene Equality of Variance Test	10.96	4.248	5.9E-05	Unequal Variances
	Mod Levene Equality of Variance Test	3.448	4.248	0.0233	Equal Variances
Distribution	Anderson-Darling A2 Test	0.6381	3.878	0.0967	Normal Distribution
	D'Agostino Kurtosis Test	1.032	2.576	0.3019	Normal Distribution
	D'Agostino Skewness Test	1.118	2.576	0.2635	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	2.316	9.21	0.3141	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1725	0.2056	0.0628	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9514	0.884	0.2908	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	11-9116-6887	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	EF41CFAC5674B2286400A69DB40EB0C5	**Editor ID:**	009-702-627-3

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	05-1062-8439	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	970FA95C599CF241FDEC56C1844CFF6D	**Editor ID:**	009-702-627-3
Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC15	26.6	14.44	39.31
EC20	30.4	20.85	47.3
EC25	34.2	23.39	53.44
EC40	58.18	22.09	85.09
EC50	77.59	55.23	94.62

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000
19		1.0000	1.0000	0.8000	1.0000
38		0.8667	0.4667	0.6667	0.8000
75		0.6000	0.4000	0.4667	0.6000
150		0.0667	0.0667	0.0000	0.0000

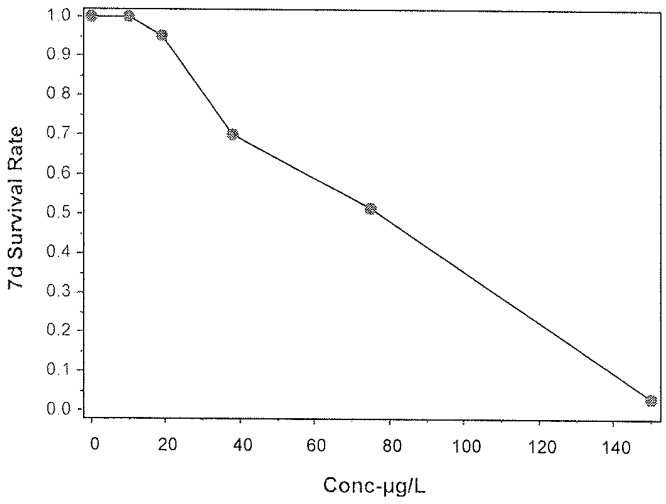
7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	12/15	15/15
38		13/15	7/15	10/15	12/15
75		9/15	6/15	7/15	9/15
150		1/15	1/15	0/15	0/15

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	05-1062-8439	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	970FA95C599CF241FDEC56C1844CFF6D	**Editor ID:**	009-702-627-3

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	20-4623-6693	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	EF41CFAC5674B2286400A69DB40EB0C5	**Editor ID:**	009-702-627-3
Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1032428	280	Yes	Two-Point Interpolation

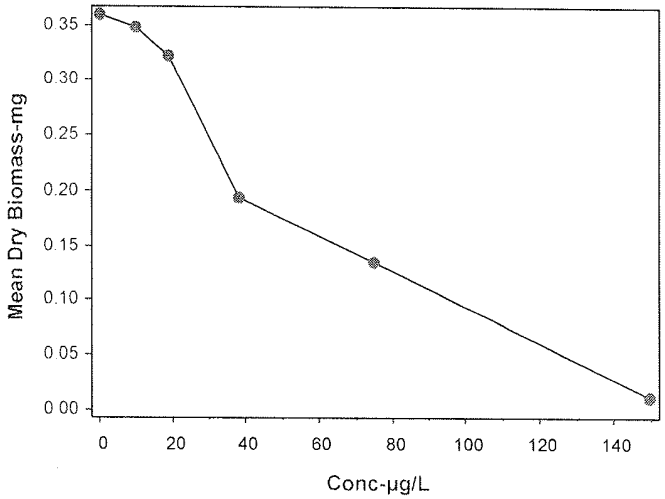
Point Estimates

Level	µg/L	95% LCL	95% UCL
IC15	21.44	9.71	29.86
IC20	24.12	12.45	32.99
IC25	26.79	14.1	37.68
IC40	34.81	25.29	60.73
IC50	47.09	24.32	71.64

Mean Dry Biomass-mg Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3427	0.392	0.352	0.352
10		0.35	0.3513	0.3473	0.3467
19		0.3427	0.3507	0.2393	0.356
38		0.2667	0.1353	0.126	0.2493
75		0.1427	0.09933	0.1493	0.15
150		0.01933	0.024	0	0

Graphics



CETIS Measurement Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	59.75	58.59	60.91	59	62	0.1736	1.389	2.32%	0
150		8	60	60	60	60	60	0	0	0.00%	0
Overall		16	59.88	59.36	60.39	59	62	0.2394	0.9574	1.60%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	267.6	262.9	272.4	260	276	0.7069	5.655	2.11%	0
10		8	263	260.6	265.4	260	267	0.3536	2.828	1.08%	0
19		8	260.2	258.5	262	258	265	0.2566	2.053	0.79%	0
38		8	258.6	256.8	260.4	255	262	0.2667	2.134	0.83%	0
75		8	258.1	256.8	259.4	255	260	0.1941	1.553	0.60%	0
150		8	258.4	257.1	259.6	255	260	0.1882	1.506	0.58%	0
Overall		48	261	259.7	262.3	255	276	0.6414	4.443	1.70%	0 (0%)

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.775	7.376	8.174	7	8.3	0.05967	0.4773	6.14%	0
10		8	7.763	7.402	8.123	7	8.2	0.05384	0.4307	5.55%	0
19		8	7.7	7.337	8.063	7	8.2	0.05428	0.4342	5.64%	0
38		8	7.7	7.366	8.034	7	8.1	0.05	0.4	5.19%	0
75		8	7.675	7.307	8.043	7	8.1	0.055	0.44	5.73%	0
150		8	7.675	7.307	8.043	7	8.1	0.055	0.44	5.73%	0
Overall		48	7.715	7.594	7.835	7	8.3	0.05999	0.4156	5.39%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	98.5	96.18	100.8	94	100	0.3472	2.777	2.82%	0
150		8	109	109	109	109	109	0	0	0.00%	0
Overall		16	103.8	100.7	106.8	94	109	1.436	5.745	5.54%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.813	7.718	7.907	7.6	7.9	0.01407	0.1126	1.44%	0
10		8	7.825	7.728	7.922	7.6	7.9	0.01456	0.1165	1.49%	0
19		8	7.825	7.728	7.922	7.6	7.9	0.01456	0.1165	1.49%	0
38		8	7.813	7.699	7.926	7.6	7.9	0.01695	0.1356	1.74%	0
75		8	7.788	7.693	7.882	7.6	7.9	0.01407	0.1126	1.45%	0
150		8	7.763	7.637	7.888	7.5	7.9	0.01882	0.1506	1.94%	0
Overall		48	7.804	7.769	7.839	7.5	7.9	0.01735	0.1202	1.54%	0 (0%)

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Temperature-°C

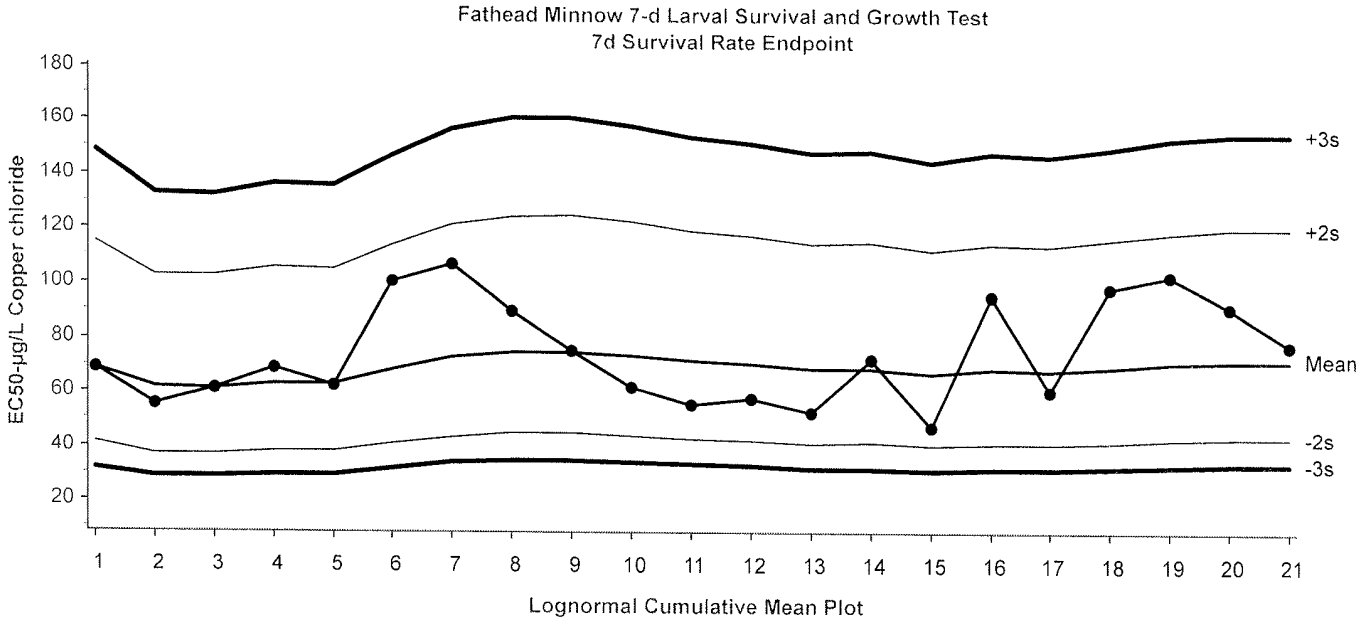
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
10		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
19		8	24.05	23.97	24.13	24	24.2	0.01157	0.09255	0.38%	0
38		8	24.08	23.98	24.17	24	24.3	0.01456	0.1165	0.48%	0
75		8	24.08	23.95	24.2	24	24.4	0.0186	0.1488	0.62%	0
150		8	24.1	23.97	24.23	24	24.4	0.02005	0.1604	0.67%	0
Overall		48	24.05	24.02	24.09	24	24.4	0.01574	0.1091	0.45%	0 (0%)

CETIS QC Plot

Report Date: 18 Mar-25 16:57 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	7d Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	71.88	**Count:**	20	**-2s Warning Limit:**	43	**-3s Action Limit:**	33.3
Sigma:	NA	**CV:**	26.10%	**+2s Warning Limit:**	120	**+3s Action Limit:**	155

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Oct	1	13:23	68.83	-3.047	-0.169			06-3098-0701	10-1538-0549
2			8	15:03	55.4	-16.48	-1.016			20-1568-7440	19-5114-8844
3			15	13:50	60.9	-10.98	-0.6465			10-8673-2368	00-1359-2096
4			17	16:00	68.62	-3.259	-0.1811			18-3095-1642	15-4710-9161
5			22	15:10	62.33	-9.547	-0.556			19-0912-1140	09-6377-1541
6			29	15:20	100.8	28.9	1.319			09-4550-3995	21-4284-6798
7		Nov	5	15:50	106.8	34.94	1.546			09-2403-5441	04-5593-3187
8			12	14:48	89.73	17.85	0.8655			10-1731-0740	16-4707-0068
9			19	15:15	75	3.12	0.1658			20-3806-2820	02-3661-4487
10			20	15:00	61.98	-9.899	-0.5781			06-8037-9008	21-4619-7329
11		Dec	3	13:00	55.22	-16.66	-1.028			18-1540-2996	05-6522-4940
12			10	15:20	57.87	-14.01	-0.8459			19-9851-1845	18-5768-6591
13			17	13:13	52.39	-19.49	-1.234			09-4375-8924	01-3886-6616
14	2025	Jan	7	14:40	71.92	0.03652	0.001982			21-0637-0547	11-1485-0637
15			14	12:00	47.25	-24.63	-1.637			05-6088-9362	03-4082-7382
16			28	15:46	95.12	23.24	1.093			04-9084-2249	19-5925-0077
17		Feb	4	17:01	60.42	-11.46	-0.6774			00-6241-7952	01-1979-8744
18			6	15:40	98.28	26.4	1.22			06-9427-5319	01-8738-7815
19			11	12:15	103	31.1	1.403			16-8104-1835	13-5437-1451
20			14	15:22	91.07	19.19	0.9233			02-3244-8004	20-8031-7528
21			19	15:00	77.59	5.706	0.298			03-7585-3495	05-1062-8439

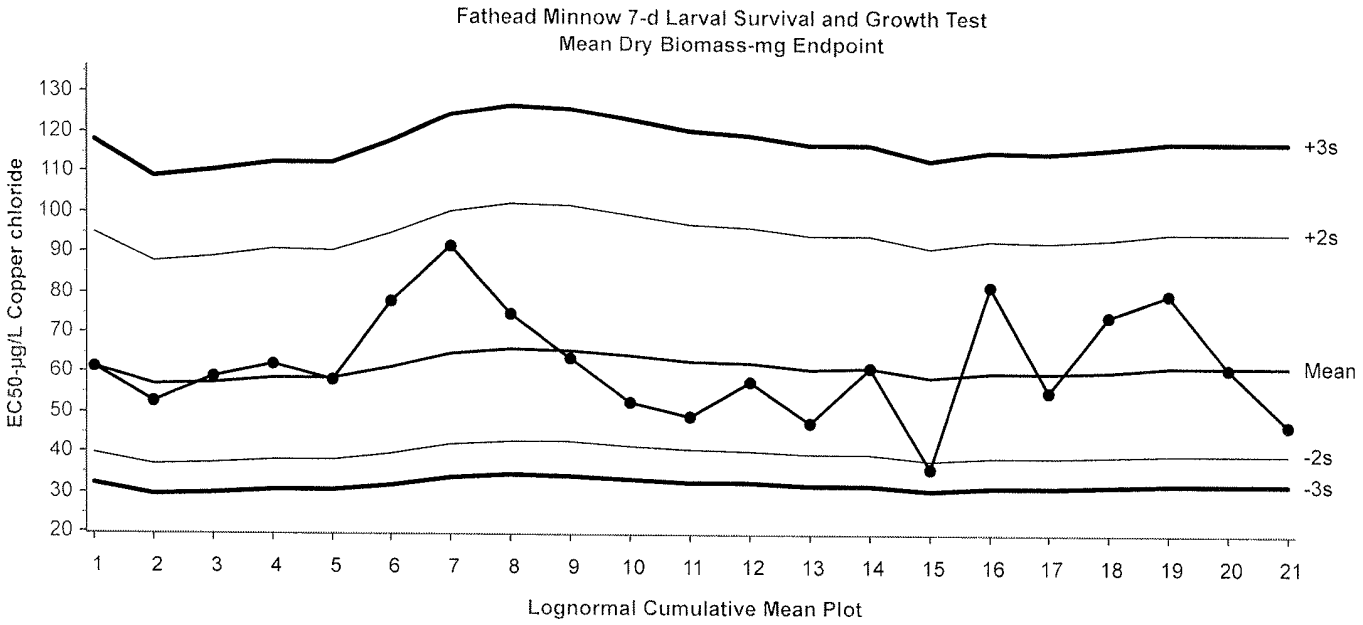
Analyst: _____ QA: _____ 3/30/2025

CETIS QC Plot

Report Date: 18 Mar-25 16:57 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Mean Dry Biomass-mg	**Source:**	Reference Toxicant-REF



Mean:	61.56	**Count:**	20	**-2s Warning Limit:**	39.9	**-3s Action Limit:**	32.1
Sigma:	NA	**CV:**	22.00%	**+2s Warning Limit:**	95.1	**+3s Action Limit:**	118

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Oct	1	13:23	61.45	-0.1047	-0.00784			06-3098-0701	02-0894-3808
2			8	15:03	52.57	-8.988	-0.7267			20-1568-7440	12-2151-5153
3			15	13:50	59.05	-2.51	-0.1917			10-8673-2368	03-9604-2764
4			17	16:00	62.29	0.7315	0.05439			18-3095-1642	07-4065-3814
5			22	15:10	58.04	-3.52	-0.2711			19-0912-1140	02-9413-3326
6			29	15:20	77.69	16.13	1.071			09-4550-3995	00-4441-3224
7		Nov	5	15:50	91.55	29.99	1.827			09-2403-5441	07-6830-2851
8			12	14:48	74.54	12.98	0.881			10-1731-0740	21-2736-3990
9			19	15:15	63.69	2.135	0.157			20-3806-2820	13-6596-6601
10			20	15:00	52.74	-8.823	-0.7123			06-8037-9008	02-1196-1356
11		Dec	3	13:00	49.26	-12.3	-1.026			18-1540-2996	06-7062-0437
12			10	15:20	57.69	-3.872	-0.2991			19-9851-1845	02-6664-5479
13			17	13:13	47.7	-13.86	-1.175			09-4375-8924	15-9519-3400
14	2025	Jan	7	14:40	61.37	-0.1884	-0.01411			21-0637-0547	16-6875-9592
15			14	12:00	36.34	-25.21	-2.426	(-)		05-6088-9362	03-9030-1419
16			28	15:46	81.96	20.4	1.318			04-9084-2249	06-9280-3288
17		Feb	4	17:01	55.44	-6.123	-0.4824			00-6241-7952	10-0544-6264
18			6	15:40	74.2	12.64	0.8601			06-9427-5319	09-6653-1378
19			11	12:15	79.94	18.38	1.203			16-8104-1835	16-9131-3620
20			14	15:22	61.26	-0.3021	-0.02265			02-3244-8004	06-2322-2824
21			19	15:00	47.09	-14.47	-1.233			03-7585-3495	20-4623-6693

Loc: 570
218637

Eurofins Calscience Tustin

CHAIN OF CUSTODY FORM

Client Name/Address:
Haley & Aldrich
5333 Mission Center Rd Suite 300
San Diego, CA 92108

Eurofins Calscience Project Manager: Virendra Patel
2841 Dow Avenue, Suite #100
Tustin, CA 92780
Tel: 714-895-5494

ECI Project #57013187

Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.

Project:
Boeing-SSFL NPDES
2023 Permit
Annual
Outfall 009
COMPOSITE

Project Manager: Katherine Miller
520.289.8606, 520.904.6944 (cell)

Field Manager: Mark Dominick
978.234.5033, 818.599.0702 (cell)

Sampler: Adrien Mobeka

									ANALYSIS REQUIRED																							
									R/A	R	R/A	R	A	R/A	R	R	R	R	R	A	R	R									
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Recoverable Metals: (E200.7): B, Hardness as CaC) (E200.8): Al, As, Ba, Be, Co, Cr, Fe, Mn, Ni, V, Zn, Ag, Cd, Cu, Pb, Sb, Se, Tl	TCDD (and all congeners) (E1613B) -sub to Sacramento	Flouride [F-], Chloride [Cl-], Sulfate [SO4], Nitrate-N, Nitrite-N, NO3+NO2-N (E300); Perchlorate (E314.0)	TDS (SM2540C/E160.1)	TSS (160.2 (SM2540D))	Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, As, Ba, Be, Co, Cr, Fe, Mn, Ni, V, Zn, Ag, Cd, Cu, Pb, Sb, Se, Tl	Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) - sub to St. Louis	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) ABC Labs in Ventura, CA	Ammonia-N (351.1)	Cyanide (Kaleda)	Priority Pollutants-Pesticides+PCBs (E608) Weck Labs in Hacienda Heights, CA	LL Mercury (1631) Total Recoverable	LL Mercury (1631) Total Dissolved	Cr (VI), total dissolved (E218.6)	Comments
1	Outfall009_202050215_Comp	2/15/2025 0800	WM	500 mL Poly	3	HNO_3	Yes	X																							
			WM	1 L Glass Amber	2	None			X																						
			WM	250 mL Poly	1	None				X																				48 hours Holding Time NO_3 & NO_2
			WM	500 mL Poly	1	None					X																			
			WM	500 mL Poly	1	H_2SO_4											X													
			WM	1 L Poly	1	None						X																		
			WM	500 mL Poly	3	NaOH	Yes											X												
			WM	1 L Poly	4	HNO3									X															Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
Outfall 009			WM	1 L Glass Amber	1	None																								
			WM	1 Gal Cube	5	None										X													Only test if first or second rain events of the year. Deliver to ABC Labs in Ventura, CA
			WM	1 L Glass Amber	4	None														X								Segregate into a cooler for Weck Labs.
			WM	8oz Clear Glass, dbl bagged	3	HCl	Yes														X							Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures.
2	Outfall009_202050215_Comp_F	2/15/2025 0800	WM	500 ml Poly	3	None	Yes						X																Filter and preserve w/in 24hrs of receipt at lab
			WM	8oz Clear Glass, dbl bagged	3	None	Yes															X						Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. Filter and preserve w/in 24hrs of receipt at lab
			WM	250 mL Poly	1	None																				X		

Legend: R = Routine, A = Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/17/2025 12:00	H&A		2/17/25 1200
	2/17/25 1810			2/17/25 1810

570-218637 Chain of Custody

No Level IV: _____ All Level IV: ___X___

2024-2025 Rainy Season
Version 1

2.0/2.2, 1.8/2.0, 1.7/1.9 SC14

3/30/2025

218637

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:	ANALYSIS REQUIRED
Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Boeing-SSFL NPDES 2023 Permit Annual Outfall 009 COMPOSITE	
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)	
Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)	
Sampler: Adrien Mobeka		

								A	A	A	A	A	R	R	R								
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Priority Pollutants-SVOCs (E6251 SIM)	Priority Pollutants SVOCs (E6251 SIM) Sub Indeno(1,2,3-cd)pyrene to EMAX	Cr (VI), Total recoverable (E218.6)	Asbestos (EPA100.2)	Chlorpyrifos, Diazinon (E525.2) Weck Labs in Hacienda Heights, CA	Detergents (MBAS) (SM5540C/E425.1)	LL Mercury (1631) Total Recoverable	LL Mercury (1631) Total Dissolved								Comments
1 Outfall 009	Outfall009_20250215_Comp	2/15/2025 0800	WM	1 L Glass Amber	12	None	Yes	X															
			WM	1 L Glass Amber	4	None			X														**Segregate into a cooler for EMAX.**
			WM	250 mL Poly	1	None				X													
			WM	1 L Poly	1	None					X												
			WM	1 L Glass Amber	2	None						X											**Segregate into a cooler for Weck Labs. Extract within 24-Hours of sampling.**
			WM	1 L Poly	1	None							X										
3 QA/QC	Outfall009_20250215_Grab-04	2/15/2025 0800	WM	8oz Clear Glass, dbl bagged	1	HCL								X									
			WM	1 L Glass Amber	4	None		X															
4	Outfall009_20250215_Grab_F-04	2/15/2025 0800	WM	8oz Clear Glass, dbl bagged	1	None									X								Filter and preserve w/in 24hrs of receipt at lab.

Legend: R = Routine, A = Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/17/2025 12:00	H&A		2/17/25 1200
	2/17/25	1810		2/17/25 1610

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: __X__

2024-2025 Rainy Season
Version 1

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428904.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State California; State Program California		Job #: 570-218637-3
Address: 5755 8th Street East,	Due Date Requested: 3/10/2025			
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Annual Outfall 009 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631E/ Mercury, Total	1631E/Filtration_ME Mercury, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall009_20250215_Comp (570-218637 1)	2/8/25	08:00 Pacific	G	Water			X		1	
Outfall009_20250215_Comp (570-218637-1MS)	2/8/25	08:00 Pacific	G	Water			X		1	
Outfall009_20250215_Comp (570-218637-1MSD)	2/8/25	08:00 Pacific	G	Water			X		1	
Outfall009_20250215_Comp_F (570-218637-2)	2/8/25	08:00 Pacific	G	Water				X	1	
Outfall009_20250215_Comp_F (570-218637-2MS)	2/8/25	08:00 Pacific	G	Water				X	1	
Outfall009_20250215_Comp_F (570-218637-2MSD)	2/8/25	08:00 Pacific	G	Water				X	1	
Outfall009_20250215_Grab-04 (570-218637-3)	2/8/25	08:00 Pacific	G	Water			X		1	
Outfall009_20250215_Grab_F-04 (570-218637-4)	2/8/25	08:00 Pacific	G	Water				X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		2-20 8-				
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428912.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State California; State Program - California		Job #: 570-218637-6
Address: 13715 Rider Trail North,	Due Date Requested: 3/14/2025			
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Annual Outfall 009 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	901.1_Cs/Fill_Geo_0_K-40 and Cesium-137	A01R_U/ExtChrom_Actin Total Uranium	900.0/Evaporation Gross Alpha/Beta	903.0/PrecSep_21 Radium-226	904.0/PrecSep_0 Radium-228	905_Sr90/PrecSep_7 Strontium-90	906.0/LSC_Dist_Susp Trifium	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
Outfall009_20250215_Comp (570-218637-1)	2/8/25	08:00 Pacific	G	Water			X	X	X	X	X	X	X	5	Boeing SSFL, DO NOT FILTER; use prep date from preservation. Ok to Preserve

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 2-20	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

3/30/2025

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428925.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): State California; State Program California		Job #: 570-218637-2
Address: 880 Riverside Parkway	Due Date Requested: 3/10/2025			
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Annual Outfall 009 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B/1613B_Sox_Sep_P (MOD) Standard List w/ Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Outfall009_20250215_Comp (570-218637 1)	2/8/25	08:00 Pacific	G	Water			X	2	See QAS, Boeing_w/u to zero; Use Boeing glassware.

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III, IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 2-20 10-	Company EC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

3/30/2025

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-428959.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins CEI Inc		Accreditations Required (See note): State California; State Program California		Job #: 570-218637-4
Address: 730 SE Maynard Road	Due Date Requested: 3/4/2025			
City: Cary	TAT Requested (days): N/A			
State, Zip: NC, 27511				
Phone: N/A	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Annual Outfall 009 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Asbestos 100.2 "Wastewater" matrix / non-compliance / >0.5 um)/ Asbestos 100.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Outfall009_20250215_Comp (570-218637-1)	2/8/25	08:00 Pacific	G	Water			X	1	See Attached Instructions

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I II III, IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-218637-5

Login Number: 218637
List Number: 1
Creator: Chapman, Allyson

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

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1 2 3 4 5 6 7 8 9

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 3/30/2025 12:25:21 PM

JOB DESCRIPTION

Boeing NPDES SSFL - Annual INF Mont. SWTS 018 Grab
SWTS 018 INFLUENT GRAB

JOB NUMBER

570-218918-5

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization

Virendra R Patil

Generated
3/30/2025 12:25:21 PM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494

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Sample Summary 7
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Definitions/Glossary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Annual INF Mont. SWTS 018 Grab

Job ID: 570-218918-5
SDG: SWTS 018 INFLUENT GRAB

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)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-218918-5 Eurofins Calscience

Job Narrative
570-218918-5

Receipt
The samples were received on 2/19/2025 3:25 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 1.6º C, 1.8º C and 2.1º C.

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

Subcontract Work
Method Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013): This method was subcontracted to Aquatic Bioassay. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Annual INF Mont. SWTS 018 Grab

Job ID: 570-218918-5
SDG: SWTS 018 INFLUENT GRAB

Method	Method Description	Protocol	Laboratory
EPA	Bioassay	EPA	Aquatic

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

Aquatic = Aquatic Bioassay & Consulting, 29 North Olive Street, Ventura, CA 93001

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Annual INF Mont. SWTS 018 Grab

Job ID: 570-218918-5
SDG: SWTS 018 INFLUENT GRAB

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-218918-1	INF002_20250219_Grab	Water	02/19/25 07:45	02/19/25 15:25

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID: CSE0225.260

March 26, 2025

Mr. Virendra Patel
Eurofins Calscience
2841 Dow Avenue, Suite #100
Tustin, CA 92780

Dear Mr. Patel:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013.* " Results were as follows:*

CLIENT:	Eurofins Calscience
SAMPLE I.D.:	INF002_20250219
DATE RECEIVED:	19 Feb - 2025
ABC LAB. NO.:	CSE0225.260

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

IWC = 100.00%

TST RESULT

SURVIVAL = PASS % EFFECT = 0.00 %

GROWTH = PASS % EFFECT = 0.10 %

Yours very truly,

Joe Freas
President

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	09-4453-8984	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 13:51	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 14:16	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	18-8515-9931	**Code:**	CSE0225.260fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	19 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	19 Feb-25 12:30	**CAS (PC):**		**Station:**	INF002_20250219_Grab
Sample Age:	6h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.260

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
12-8488-4442	7d Survival Rate	TST-Welch's t Test	<0.25	100% passed 7d survival rate
20-4232-4966	Mean Dry Biomass-mg	TST-Welch's t Test	<1.0E-05	100% passed mean dry biomass-mg

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%

Mean Dry Biomass-mg Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3447	0.3352	0.3541	0.3393	0.3513	0.002969	0.005938	1.72%	0.00%
100		4	0.3443	0.3394	0.3493	0.3413	0.3487	0.001552	0.003103	0.90%	0.10%

7d Survival Rate Detail — MD5: 02835A6FE1710696B7C8F79EC2C22377

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000

Mean Dry Biomass-mg Detail — MD5: 117EEA53F73C8A245F5B9974A0CD38A9

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.348	0.3513	0.34	0.3393
100		0.3413	0.344	0.3433	0.3487

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
100		15/15	15/15	15/15	15/15

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	12-8488-4442	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 8:09	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	02835A6FE1710696B7C8F79EC2C22377	**Editor ID:**	009-702-627-3
Batch ID:	09-4453-8984	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 13:51	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 14:16	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	18-8515-9931	**Code:**	CSE0225.260fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	19 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	19 Feb-25 12:30	**CAS (PC):**		**Station:**	INF002_20250219_Grab
Sample Age:	6h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.260

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed 7d survival rate endpoint

TST-Welch's t Test

Control	vs	Conc-%	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	0.3603	---		<0.25	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0	0	1			Indeterminate
Error	0	0	6			
Total	0		7			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Variance Ratio F Test				Indeterminate
Distribution	Shapiro-Wilk W Normality Test				Indeterminate

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	20-4232-4966	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 8:09	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	117EEA53F73C8A245F5B9974A0CD38A9	**Editor ID:**	009-702-627-3
Batch ID:	09-4453-8984	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 13:51	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 14:16	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	18-8515-9931	**Code:**	CSE0225.260fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	19 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	19 Feb-25 12:30	**CAS (PC):**		**Station:**	INF002_20250219_Grab
Sample Age:	6h (5 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.260

Data Transform	Alt Hyp	TST_b	Comparison Result
Untransformed	C*b < T	0.75	100% passed mean dry biomass-mg endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	5	31.63	0.7267	CDF	<1.0E-05	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.222E-07	2.222E-07	1	0.009901	0.9240	Non-Significant Effect
Error	0.0001347	2.244E-05	6			
Total	0.0001349		7			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	6.063	13.75	0.0490	Equal Variances
	Mod Levene Equality of Variance Test	4.86	13.75	0.0697	Equal Variances
	Variance Ratio F Test	3.662	47.47	0.3147	Equal Variances
Distribution	Anderson-Darling A2 Test	0.267	3.878	0.7151	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1553	0.3313	1.0000	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9405	0.6451	0.6161	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	20-4232-4966	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 8:09	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	117EEA53F73C8A245F5B9974A0CD38A9	**Editor ID:**	009-702-627-3

CETIS Measurement Report

Report Date: 25 Mar-25 08:10 (p 1 of 1)
Test Code/ID: CSE0225.260fml / 10-5920-9122

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	09-4453-8984	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino	
Start Date:	19 Feb-25 13:51	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water	
Ending Date:	26 Feb-25 14:16	**Species:**	Pimephales promelas	**Brine:**	Not Applicable	
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO	**Age:** 1d
Sample ID:	18-8515-9931	**Code:**	CSE0225.260fml	**Project:**	Boeing-SSFL NPDES	
Sample Date:	19 Feb-25 07:45	**Material:**	Sample Water	**Source:**	Bioassay Report	
Receipt Date:	19 Feb-25 12:30	**CAS (PC):**		**Station:**	INF002_20250219_Grab	
Sample Age:	6h (5 °C)	**Client:**	Eurofins Calscience			

Comments: Report ID: CSE0225.260

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	59.75	58.59	60.91	59	62	0.1736	1.389	2.32%	0
100		8	31	31	31	31	31	0	0	0.00%	0
Overall		16	45.38	37.45	53.3	31	62	3.719	14.88	32.79%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	266.6	262.6	270.6	260	276	0.6011	4.809	1.80%	0
100		8	240.2	236.2	244.3	236	250	0.6041	4.833	2.01%	0
Overall		16	253.4	245.8	261.1	236	276	3.599	14.39	5.68%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.913	7.571	8.254	7	8.3	0.05108	0.4086	5.16%	0
100		8	7.85	7.501	8.199	6.9	8.2	0.05218	0.4175	5.32%	0
Overall		16	7.881	7.668	8.095	6.9	8.3	0.1001	0.4004	5.08%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	98.5	96.18	100.8	94	100	0.3472	2.777	2.82%	0
100		8	82	82	82	82	82	0	0	0.00%	0
Overall		16	90.25	85.6	94.9	82	100	2.182	8.729	9.67%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.838	7.775	7.9	7.7	7.9	0.0093	0.0744	0.95%	0
100		8	7.9	7.899	7.901	7.9	7.9	0	0	0.00%	0
Overall		16	7.869	7.837	7.901	7.7	7.9	0.01505	0.06021	0.77%	0 (0%)

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
100		8	24.08	23.98	24.17	24	24.3	0.01456	0.1165	0.48%	0
Overall		16	24.04	24	24.09	24	24.3	0.0223	0.08921	0.37%	0 (0%)

Client Name/Address: Haley & Aldrich, 5333 Mission Center Rd Suite 300, San Diego, CA 92108	Project: Boeing-SSFL NPDES 2023 Permit **Annual Influent Monitoring** **SWTS 018 INFLUENT** **GRAB**
Eurofins Calscience Project Manager: Virendra Patel, 2841 Dow Avenue, Suite #100, Tustin, CA 92780, Tel: 714.895.5494 **ECI Project #57013187**	Project Manager: Katherine Miller, 520.289.8606, 520.904.6944 (cell)
TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement # 2019-22-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.	
Sampler:	Field Manager: Mark Dominick, 978.234.5033, 818.599.0702 (cell)

Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	A/R: Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	A: Cr (VI), Total Dissolved (E218.6)	R: Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium [H-3] (E906.0)	A: Chronic Toxicity - Fathead minnow (EPA-821-R-02-013) ABC Labs in Ventura, CA	A: Total Organic Carbon (SM 5310D / E415.2)	A: Monomethyl hydrazine (SW8315M / DV-WC-0077) Weck Labs in Hacienda Heights, CA	R: Cyanide (SM 4500-CN-E / KELADA-01)	R: LL Mercury (E1631E) -- Total Dissolved		Comments
SWTS 018	INF002_20250219_Grab_F	2/19/2025 0745	WM	500 mL Poly	2	None	Yes	X									Filter and preserve w/in 24hrs of receipt at lab.
			WM	500 mL Poly	2	None	Yes		X								Filter and preserve w/in 24hrs of receipt at lab.
			WM	8oz Clear Glass, double bagged	3	None	Yes								X		Filter and preserve w/in 24hrs of receipt at lab.
	INF002_20250219_Grab	2/19/2025 0745	WM	1 L Poly	4	HNO3				X							Unfiltered and unpreserved analysis. Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None											
			* WM	2.5 Gal Cube	2	None				CSF	.260 X						**Deliver to ABC Labs in Ventura, CA**
			WM	40 mL VOA	3	H2SO4						X					
			WM	1 L Glass Amber	1	None							X				**Segregate into a cooler for Weck Labs.**
			WM	500 mL Poly	1	NaOH								X			

AB&C

Added C.F. = 1.05 2/
Therm. = sample receiving
Temp. deg. C = 5.7
Chrlorine (mg/L) = <0.1
NH3 (mg/L) = <0.1

* Hand-delivered to Aquatox Bioassay with this copy of COC

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
	2-19-25/1230	H:A	Cfarnia	2/19/25; 1230
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____

Store samples for 6 months.

Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X___

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 19 February 2025 Report ID:

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 19.00 ug/l

EC25 = 34.20 ug/l
EC50 = 77.59 ug/l

ENDPOINT: GROWTH

NOEC = 19.00 ug/l

IC25 = 26.79 ug/l
IC50 = 47.09 ug/l

Yours very truly,

Joe Freas
President

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	PMSD
21-2321-5193	7d Survival Rate	Steel Many-One Rank Sum Test	19	38	26.87	10.4%
11-9116-6887	Mean Dry Biomass-mg	Steel Many-One Rank Sum Test	19	38	26.87	19.1%

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL
05-1062-8439	7d Survival Rate	Linear Interpolation (ICPIN)	EC15	26.6	14.44	39.31
			EC20	30.4	20.85	47.3
			EC25	34.2	23.39	53.44
			EC40	58.18	22.09	85.09
			EC50	77.59	55.23	94.62
20-4623-6693	Mean Dry Biomass-mg	Linear Interpolation (ICPIN)	IC15	21.44	9.71	29.86
			IC20	24.12	12.45	32.99
			IC25	26.79	14.1	37.68
			IC40	34.81	25.29	60.73
			IC50	47.09	24.32	71.64

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
10		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
19		4	0.9500	0.7909	1.0000	0.8000	1.0000	0.0500	0.1000	10.53%	5.00%
38		4	0.7000	0.4193	0.9807	0.4667	0.8667	0.0882	0.1764	25.20%	30.00%
75		4	0.5167	0.3575	0.6758	0.4000	0.6000	0.0500	0.1000	19.35%	48.33%
150		4	0.0333	0.0000	0.0946	0.0000	0.0667	0.0193	0.0385	115.47%	96.67%

Mean Dry Biomass-mg Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3597	0.3247	0.3947	0.3427	0.392	0.011	0.022	6.12%	0.00%
10		4	0.3488	0.3453	0.3523	0.3467	0.3513	0.001101	0.002203	0.63%	3.01%
19		4	0.3222	0.2339	0.4105	0.2393	0.356	0.02775	0.05549	17.23%	10.43%
38		4	0.1943	0.07666	0.312	0.126	0.2667	0.03698	0.07395	38.06%	45.97%
75		4	0.1353	0.09678	0.1739	0.09933	0.15	0.01211	0.02423	17.90%	62.37%
150		4	0.01083	-0.00930	0.03097	0	0.024	0.006327	0.01265	116.80%	96.99%

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail

MD5: 970FA95C599CF241FDEC56C1844CFF6D

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000
19		1.0000	1.0000	0.8000	1.0000
38		0.8667	0.4667	0.6667	0.8000
75		0.6000	0.4000	0.4667	0.6000
150		0.0667	0.0667	0.0000	0.0000

Mean Dry Biomass-mg Detail

MD5: EF41CFAC5674B2286400A69DB40EB0C5

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3427	0.392	0.352	0.352
10		0.35	0.3513	0.3473	0.3467
19		0.3427	0.3507	0.2393	0.356
38		0.2667	0.1353	0.126	0.2493
75		0.1427	0.09933	0.1493	0.15
150		0.01933	0.024	0	0

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	12/15	15/15
38		13/15	7/15	10/15	12/15
75		9/15	6/15	7/15	9/15
150		1/15	1/15	0/15	0/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	21-2321-5193	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	970FA95C599CF241FDEC56C1844CFF6D	**Editor ID:**	009-702-627-3
Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Angular (Corrected)	C > T	19	38	26.87	---	0.1039	10.39%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	18	10	1	CDF	0.8333	Non-Significant Effect
		19	6	16	10	1	CDF	0.6105	Non-Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.77818	0.955637	5	70.14	<1.0E-05	Significant Effect
Error	0.245232	0.013624	18			
Total	5.02342		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test				Indeterminate
	Levene Equality of Variance Test	5.813	4.248	0.0023	Unequal Variances
	Mod Levene Equality of Variance Test	2.031	4.248	0.1226	Equal Variances
Distribution	Anderson-Darling A2 Test	1.118	3.878	0.0064	Non-Normal Distribution
	D'Agostino Kurtosis Test	1.526	2.576	0.1269	Normal Distribution
	D'Agostino Skewness Test	1.976	2.576	0.0481	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	6.235	9.21	0.0443	Normal Distribution
	Kolmogorov-Smirnov D Test	0.2083	0.2056	0.0084	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.896	0.884	0.0178	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	21-2321-5193	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	970FA95C599CF241FDEC56C1844CFF6D	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	11-9116-6887	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	EF41CFAC5674B2286400A69DB40EB0C5	**Editor ID:**	009-702-627-3
Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C > T	19	38	26.87	---	0.06873	19.11%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	14	10	0	CDF	0.3451	Non-Significant Effect
		19	6	14.5	10	1	CDF	0.4092	Non-Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.390738	0.0781475	5	47.92	<1.0E-05	Significant Effect
Error	0.0293539	0.0016308	18			
Total	0.420092		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	22.65	15.09	0.0004	Unequal Variances
	Levene Equality of Variance Test	10.96	4.248	5.9E-05	Unequal Variances
	Mod Levene Equality of Variance Test	3.448	4.248	0.0233	Equal Variances
Distribution	Anderson-Darling A2 Test	0.6381	3.878	0.0967	Normal Distribution
	D'Agostino Kurtosis Test	1.032	2.576	0.3019	Normal Distribution
	D'Agostino Skewness Test	1.118	2.576	0.2635	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	2.316	9.21	0.3141	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1725	0.2056	0.0628	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9514	0.884	0.2908	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	11-9116-6887	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	EF41CFAC5674B2286400A69DB40EB0C5	**Editor ID:**	009-702-627-3

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	05-1062-8439	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	970FA95C599CF241FDEC56C1844CFF6D	**Editor ID:**	009-702-627-3
Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC15	26.6	14.44	39.31
EC20	30.4	20.85	47.3
EC25	34.2	23.39	53.44
EC40	58.18	22.09	85.09
EC50	77.59	55.23	94.62

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000
19		1.0000	1.0000	0.8000	1.0000
38		0.8667	0.4667	0.6667	0.8000
75		0.6000	0.4000	0.4667	0.6000
150		0.0667	0.0667	0.0000	0.0000

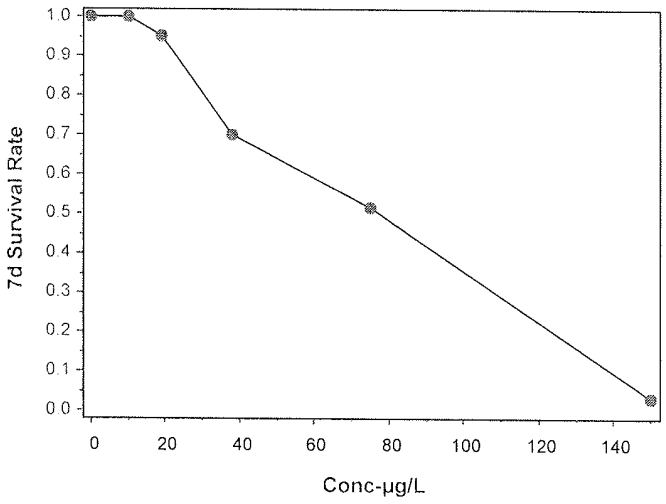
7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	12/15	15/15
38		13/15	7/15	10/15	12/15
75		9/15	6/15	7/15	9/15
150		1/15	1/15	0/15	0/15

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	05-1062-8439	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	970FA95C599CF241FDEC56C1844CFF6D	**Editor ID:**	009-702-627-3

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	20-4623-6693	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	18 Mar-25 16:55	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	18 Mar-25 0:00	**MD5 Hash:**	EF41CFAC5674B2286400A69DB40EB0C5	**Editor ID:**	009-702-627-3
Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1032428	280	Yes	Two-Point Interpolation

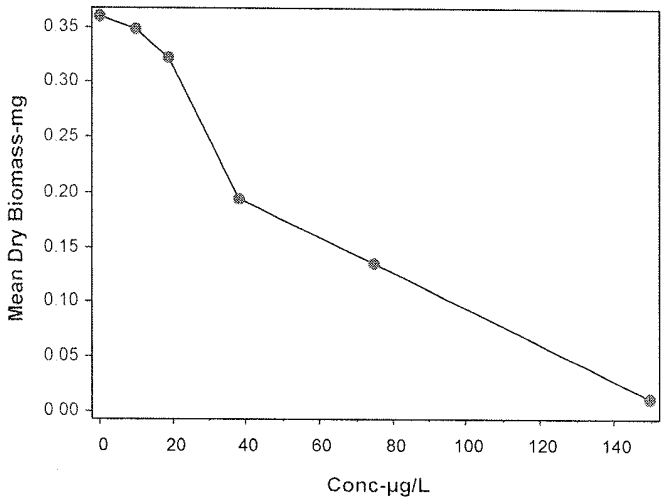
Point Estimates

Level	µg/L	95% LCL	95% UCL
IC15	21.44	9.71	29.86
IC20	24.12	12.45	32.99
IC25	26.79	14.1	37.68
IC40	34.81	25.29	60.73
IC50	47.09	24.32	71.64

Mean Dry Biomass-mg Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3427	0.392	0.352	0.352
10		0.35	0.3513	0.3473	0.3467
19		0.3427	0.3507	0.2393	0.356
38		0.2667	0.1353	0.126	0.2493
75		0.1427	0.09933	0.1493	0.15
150		0.01933	0.024	0	0

Graphics



CETIS Measurement Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	11-4903-3637	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Feb-25 15:00	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Feb-25 13:30	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 22h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	00-0273-9726	**Code:**	FML021925	**Project:**	REF TOX
Sample Date:	19 Feb-25 15:00	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Feb-25 15:00	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	59.75	58.59	60.91	59	62	0.1736	1.389	2.32%	0
150		8	60	60	60	60	60	0	0	0.00%	0
Overall		16	59.88	59.36	60.39	59	62	0.2394	0.9574	1.60%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	267.6	262.9	272.4	260	276	0.7069	5.655	2.11%	0
10		8	263	260.6	265.4	260	267	0.3536	2.828	1.08%	0
19		8	260.2	258.5	262	258	265	0.2566	2.053	0.79%	0
38		8	258.6	256.8	260.4	255	262	0.2667	2.134	0.83%	0
75		8	258.1	256.8	259.4	255	260	0.1941	1.553	0.60%	0
150		8	258.4	257.1	259.6	255	260	0.1882	1.506	0.58%	0
Overall		48	261	259.7	262.3	255	276	0.6414	4.443	1.70%	0 (0%)

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.775	7.376	8.174	7	8.3	0.05967	0.4773	6.14%	0
10		8	7.763	7.402	8.123	7	8.2	0.05384	0.4307	5.55%	0
19		8	7.7	7.337	8.063	7	8.2	0.05428	0.4342	5.64%	0
38		8	7.7	7.366	8.034	7	8.1	0.05	0.4	5.19%	0
75		8	7.675	7.307	8.043	7	8.1	0.055	0.44	5.73%	0
150		8	7.675	7.307	8.043	7	8.1	0.055	0.44	5.73%	0
Overall		48	7.715	7.594	7.835	7	8.3	0.05999	0.4156	5.39%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	98.5	96.18	100.8	94	100	0.3472	2.777	2.82%	0
150		8	109	109	109	109	109	0	0	0.00%	0
Overall		16	103.8	100.7	106.8	94	109	1.436	5.745	5.54%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.813	7.718	7.907	7.6	7.9	0.01407	0.1126	1.44%	0
10		8	7.825	7.728	7.922	7.6	7.9	0.01456	0.1165	1.49%	0
19		8	7.825	7.728	7.922	7.6	7.9	0.01456	0.1165	1.49%	0
38		8	7.813	7.699	7.926	7.6	7.9	0.01695	0.1356	1.74%	0
75		8	7.788	7.693	7.882	7.6	7.9	0.01407	0.1126	1.45%	0
150		8	7.763	7.637	7.888	7.5	7.9	0.01882	0.1506	1.94%	0
Overall		48	7.804	7.769	7.839	7.5	7.9	0.01735	0.1202	1.54%	0 (0%)

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Temperature-°C

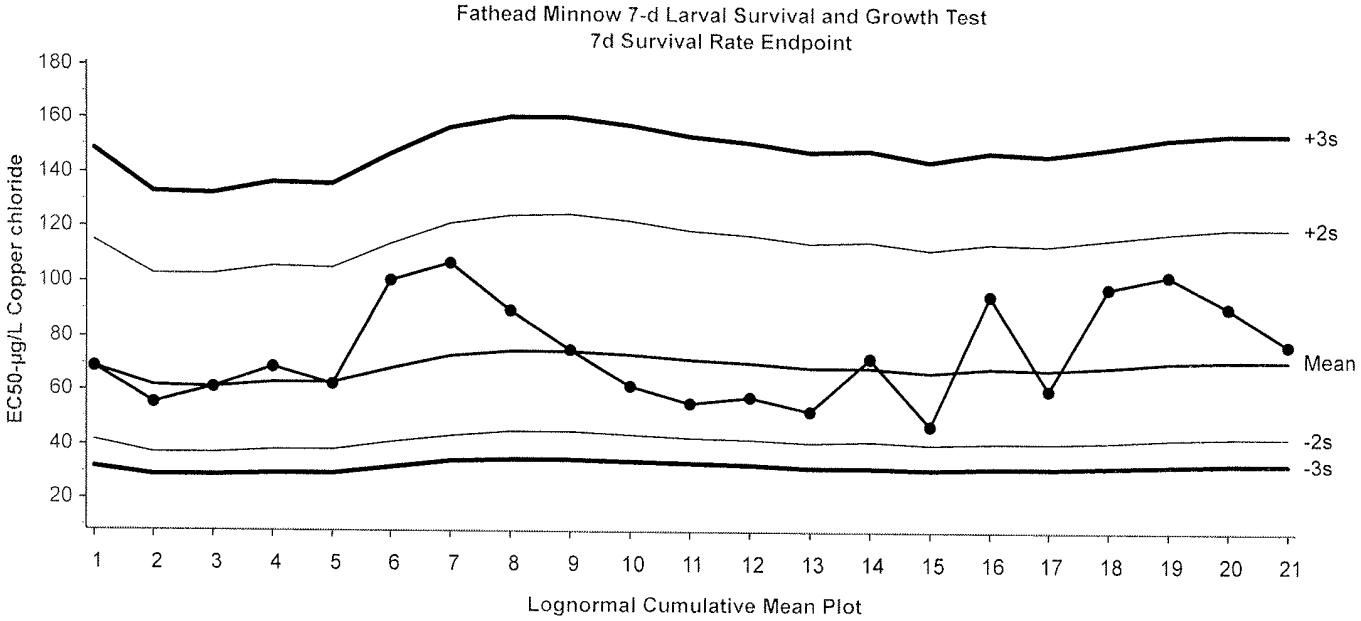
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
10		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
19		8	24.05	23.97	24.13	24	24.2	0.01157	0.09255	0.38%	0
38		8	24.08	23.98	24.17	24	24.3	0.01456	0.1165	0.48%	0
75		8	24.08	23.95	24.2	24	24.4	0.0186	0.1488	0.62%	0
150		8	24.1	23.97	24.23	24	24.4	0.02005	0.1604	0.67%	0
Overall		48	24.05	24.02	24.09	24	24.4	0.01574	0.1091	0.45%	0 (0%)

CETIS QC Plot

Report Date: 18 Mar-25 16:57 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	7d Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	71.88	**Count:**	20	**-2s Warning Limit:**	43	**-3s Action Limit:**	33.3
Sigma:	NA	**CV:**	26.10%	**+2s Warning Limit:**	120	**+3s Action Limit:**	155

Quality Control Data

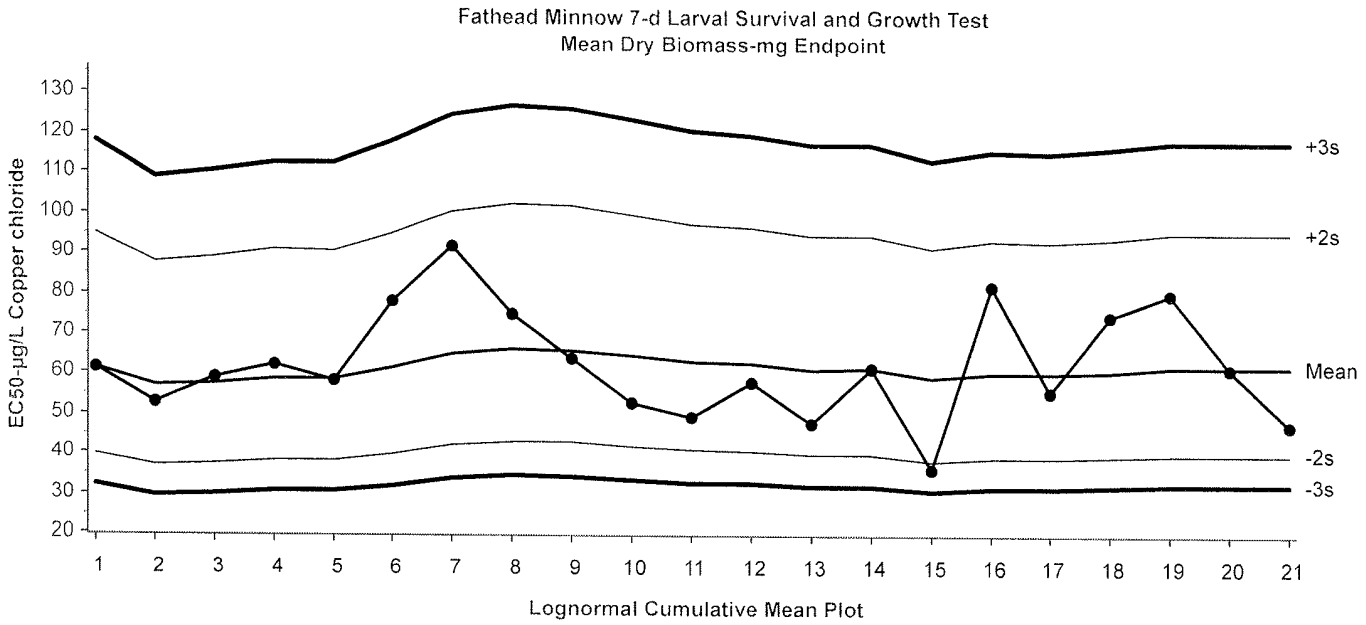
Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Oct	1	13:23	68.83	-3.047	-0.169			06-3098-0701	10-1538-0549
2			8	15:03	55.4	-16.48	-1.016			20-1568-7440	19-5114-8844
3			15	13:50	60.9	-10.98	-0.6465			10-8673-2368	00-1359-2096
4			17	16:00	68.62	-3.259	-0.1811			18-3095-1642	15-4710-9161
5			22	15:10	62.33	-9.547	-0.556			19-0912-1140	09-6377-1541
6			29	15:20	100.8	28.9	1.319			09-4550-3995	21-4284-6798
7		Nov	5	15:50	106.8	34.94	1.546			09-2403-5441	04-5593-3187
8			12	14:48	89.73	17.85	0.8655			10-1731-0740	16-4707-0068
9			19	15:15	75	3.12	0.1658			20-3806-2820	02-3661-4487
10			20	15:00	61.98	-9.899	-0.5781			06-8037-9008	21-4619-7329
11		Dec	3	13:00	55.22	-16.66	-1.028			18-1540-2996	05-6522-4940
12			10	15:20	57.87	-14.01	-0.8459			19-9851-1845	18-5768-6591
13			17	13:13	52.39	-19.49	-1.234			09-4375-8924	01-3886-6616
14	2025	Jan	7	14:40	71.92	0.03652	0.001982			21-0637-0547	11-1485-0637
15			14	12:00	47.25	-24.63	-1.637			05-6088-9362	03-4082-7382
16			28	15:46	95.12	23.24	1.093			04-9084-2249	19-5925-0077
17		Feb	4	17:01	60.42	-11.46	-0.6774			00-6241-7952	01-1979-8744
18			6	15:40	98.28	26.4	1.22			06-9427-5319	01-8738-7815
19			11	12:15	103	31.1	1.403			16-8104-1835	13-5437-1451
20			14	15:22	91.07	19.19	0.9233			02-3244-8004	20-8031-7528
21			19	15:00	77.59	5.706	0.298			03-7585-3495	05-1062-8439

CETIS QC Plot

Report Date: 18 Mar-25 16:57 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Mean Dry Biomass-mg	**Source:**	Reference Toxicant-REF



Mean:	61.56	**Count:**	20	**-2s Warning Limit:**	39.9	**-3s Action Limit:**	32.1
Sigma:	NA	**CV:**	22.00%	**+2s Warning Limit:**	95.1	**+3s Action Limit:**	118

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Oct	1	13:23	61.45	-0.1047	-0.00784			06-3098-0701	02-0894-3808
2			8	15:03	52.57	-8.988	-0.7267			20-1568-7440	12-2151-5153
3			15	13:50	59.05	-2.51	-0.1917			10-8673-2368	03-9604-2764
4			17	16:00	62.29	0.7315	0.05439			18-3095-1642	07-4065-3814
5			22	15:10	58.04	-3.52	-0.2711			19-0912-1140	02-9413-3326
6			29	15:20	77.69	16.13	1.071			09-4550-3995	00-4441-3224
7		Nov	5	15:50	91.55	29.99	1.827			09-2403-5441	07-6830-2851
8			12	14:48	74.54	12.98	0.881			10-1731-0740	21-2736-3990
9			19	15:15	63.69	2.135	0.157			20-3806-2820	13-6596-6601
10			20	15:00	52.74	-8.823	-0.7123			06-8037-9008	02-1196-1356
11		Dec	3	13:00	49.26	-12.3	-1.026			18-1540-2996	06-7062-0437
12			10	15:20	57.69	-3.872	-0.2991			19-9851-1845	02-6664-5479
13			17	13:13	47.7	-13.86	-1.175			09-4375-8924	15-9519-3400
14	2025	Jan	7	14:40	61.37	-0.1884	-0.01411			21-0637-0547	16-6875-9592
15			14	12:00	36.34	-25.21	-2.426	(-)		05-6088-9362	03-9030-1419
16			28	15:46	81.96	20.4	1.318			04-9084-2249	06-9280-3288
17		Feb	4	17:01	55.44	-6.123	-0.4824			00-6241-7952	10-0544-6264
18			6	15:40	74.2	12.64	0.8601			06-9427-5319	09-6653-1378
19			11	12:15	79.94	18.38	1.203			16-8104-1835	16-9131-3620
20			14	15:22	61.26	-0.3021	-0.02265			02-3244-8004	06-2322-2824
21			19	15:00	47.09	-14.47	-1.233			03-7585-3495	20-4623-6693

Loc: 570
218918

Eurofins Calscience Irvine

CHAIN OF CUSTODY FORM

								A	R	R	R	A/R	A	A	R	R
Client Name/Address: Haley & Aldrich, 5333 Mission Center Rd Suite 300, San Diego, CA 92108			Project: Boeing-SSFL NPDES 2023 Permit **Annual Influent Monitoring SWTS 018 INFLUENT GRAB**					ANALYSIS REQUIRED								
Eurofins Calscience Project Manager: Virendra Patel, 2841 Dow Avenue, Suite #100, Tustin, CA 92780, Tel: 714.895.5494			Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)					E. coli (SM9221/ SM9223B) **Enthalpy Analytical Orange, CA**	Conductivity (SM2510B / E120.1)	Oil & Grease (E1664A-HEM)	1,4-Dioxane (E624 (SW8260M_SIM))	Priority Pollutants VOCs and cis-1,2-DCE; 1,1,2-trichloro-1,2,2-trifluoroethane; 1,2-dichloro-1,1,2-trifluoroethane, Cyclohexane, and TCE (E624)	Priority Pollutants-VOCs: 2CVE only (E624) **Weck Labs in Hacienda Heights, CA**	Priority Pollutants-SVOCs (E6251 SIM)	LL Mercury (E1631E) -- Total Recoverable	LL Mercury (E1631E) -- Total Dissolved	Field Readings
ECI Project #57013187																Field Readings: (Include units) Time of Readings: 0745
TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement# 2019-22-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.																DO 29.60 mg/L; pH 7.02 pH unit; Temp 51.9 °C/(°F); TRC 0.0 mg/L; Meter serial # EDBPJ6UX
Sampler: Adrien Mobeka			Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)													Field readings QC Checked by: Michelle Dallalah Date/Time: 1000
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD									Comments
1 SWTS 018	INF002_20250219_Grab	2/19/2025 0745	WM	125 mL Poly	1	None	No		x							
			WM	1 L Glass Amber	2	HCl	No			x						
			WM	40 mL VOA	3	HCl	No				x					
			WM	40 mL VOA	3	HCl	No					x				
			~~WM~~	~~40 mL VOA~~	~~3~~	~~None~~	~~No~~									ME
			WM	40 mL VOA	3	None	No						x			Segregate into a cooler for Weck Labs.
			WM	125mL Sterile Poly	3	$Na_2S_2O_3$	No	x								Segregate into a cooler for Enthalpy. Deliver to lab ASAP 8 hr hold time. Need 1x, 10x, 100x dilutions.
2	INF002_20250219-05-01	2/19/2025 0745	WQ	40 mL VOA	2	HCl	No					x				
3	INF002_20250219-05-02		WQ	40 mL VOA	2	None	No						x			Add to cooler for Weck Labs.
4 QA/QC	INF002_20240102-04	2/19/2025 0745	WQ	1 L Glass Amber	4	None	No							x		
			WQ	8oz Clear Glass, double bagged	1	HCl	No								x	
5	INF002_20240102_F-04		WQ	8oz Clear Glass, double bagged	1	None	No									x

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/19/2025 1153	H&A	GC	2/19/25 1153
	2/19/25 1525	GC		2/19/25 1525

570-218918 Chain of Custody

Date requirements: (Check)
No Level IV: _____ All Level IV: ___x___

2023 -2024 Rainy Season

Version 1

1.6/1.8, 1.9/2.1, 1.4/1.6 SC14

VOP

218918

								A/R	R	R	R	R	R	A/R	R	A	A/R	A/R	R	A	
Client Name/Address: Haley & Aldrich, 5333 Mission Center Rd Suite 300, San Diego, CA 92108								ANALYSIS REQUIRED													
Eurofins Calscience Project Manager: Virendra Patel, 2841 Dow Avenue, Suite #100, Tustin, CA 92780, Tel: 714.895.5494, ECI Project #57013187								Total Recoverable Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	TCDD (and all congeners) (E1613B)	BOD5 (20 degrees C) (E405.1 (SM5210B_BODCalc))	Surfactants (MBAS) (SM 5540C / E425.1)	TSS (160.2 (SM2540D))	Turbidity, TDS (SM2540C/E180.1)	Orthophosphate (PO4), Flouride (F-), Chloride (Cl-), Sulfate (SO4), Nitrate-N, Nitrite-N, NO3+NO2-N (E300); Perchlorate (E314.0)	Ammonia-N (E351.1)	Priority Pollutants-Pesticides+PCBs (E608) Weck Labs in Hacienda Heights, CA	Priority Pollutants-SVOCs (E6251 SIM)	Priority Pollutants SVOCs (E8270 SIM) Sub Indeno(1,2,3-cd)pyrene to EMAX	LL Mercury (E1631E) – Total Recoverable	Cr (VI), Total Recoverable (E218.6)	Comments
Project: Boeing-SSFL NPDES 2023 Permit **Annual Influent Monitoring SWTS 018 INFLUENT GRAB**																					
Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)																					
Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)																					
TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement # 2019-22-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.																					
Sampler: Adrien Mobeka																					
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD														
SWTS 018	INF002_20250219_Grab	2/19/2025 0745	WM	250 mL Poly	3	HNO_3	Yes	X													
			WM	1 L Glass Amber	2	None			X												
			WM	1 L Poly	1	None				X											
			WM	1 L Poly	1	None					X										
			WM	1 L Poly	1	None						X									
			WM	500 mL Poly	1	None							X								48 hour holding time for turbidity
			WM	250 mL Poly	1	None								X							48 hours Holding Time NO3 & NO2
			WM	500 mL Poly	1	H_2SO_4									X						
			WM	1 L Glass Amber	4	None										X					Segregate into a cooler for Weck Labs.
			WM	1 L Glass Amber	12	None	Yes										X				
			WM	1 L Glass Amber	4	None												X			Segregate into a cooler for EMAX.
			WM	8oz Clear Glass, double bagged	3	HCL	Yes												X		
			WM	500 mL Poly	2	None	Yes													X	

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/19/2025 1153	H&A	EC	2/19/25 1153
	2/19/25 1525	EC		2/19/25 1525

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.

Data Requirements: (Check)
No Level IV: _____ All Level IV: __X__

2023-2024 Rainy Season
Version 1

CHAIN OF CUSTODY FORM

								A/R	A	R	A	A	A	R	R		
Client Name/Address: Haley & Aldrich, 5333 Mission Center Rd Suite 300, San Diego, CA 92108								ANALYSIS REQUIRED									
Eurofins Calscience Project Manager: Virendra Patel, 2841 Dow Avenue, Suite #100, Tustin, CA 92780, Tel: 714.895.5484, ECI Project #57813187								Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	Cr (VI), Total Dissolved (E218.6)	Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Tritium Uranium (HASL-300 U-02 or A-01-R); (H-3) (E906.0)	Chronic Toxicity - Fathead minnow (EPA-821-R-02-013) ABC Labs in Ventura, CA	Total Organic Carbon (SM 5310D / E415.2)	Monomethyl hydrazine (SW8315M / DV-WC-0077) Weck Labs in Hacienda Heights, CA	Cyanide (SM 4500-CN-E / KELADA-01)	LL Mercury (E1631E) – Total Dissolved		Comments
TestAmerica's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement # 2019-22-TestAmerica by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and TestAmerica Laboratories Inc.																	
Sampler: Adrien Mabeka																	
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD										
6	INF002_20250219_Grab_F	2/19/2025 0745	WM	500 mL Poly	2	None	Yes	X									Filter and preserve w/in 24hrs of receipt at lab.
			WM	500 mL Poly	2	None	Yes		X								Filter and preserve w/in 24hrs of receipt at lab.
			WM	8oz Clear Glass, double bagged	3	None	Yes								X		Filter and preserve w/in 24hrs of receipt at lab.
SWTS 018	INF002_20250219_Grab	2/19/2025 0745	WM	1 L Poly	4	HNO3				X							Unfiltered and unpreserved analysis. Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None											
			WM	2.5 Gal Cube	2	None					X						Deliver to ABC Labe in Ventura, CA
			WM	40 mL VOA	3	H2SO4						X					
			WM	1 L Glass Amber	1	None							X				Segregate into a cooler for Weck Labs.
			WM	500 mL Poly	1	NaOH								X			

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	2/19/2025	1153 H&A	EC	2/19/25 1153
	2/19/25	1525 EC		2/19/25 1525

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X___

2023-2024 Rainy Season
Version 1

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-218918-5
SDG Number: SWTS 018 INFLUENT GRAB

Login Number: 218918
List Number: 1
Creator: Chapman, Allyson

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 3/30/2025 12:40:34 PM

JOB DESCRIPTION

Boeing NPDES SSFL - Annual Outfall 018 Comp

JOB NUMBER

570-219358-4

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

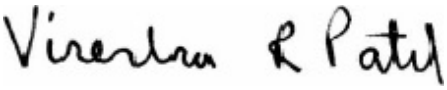
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494

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Definitions/Glossary

Client: Haley & Aldrich, Inc. Job ID: 570-219358-4
Project/Site: Boeing NPDES SSFL - Annual Outfall 018 Comp

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)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-219358-4 Eurofins Calscience

Job Narrative
570-219358-4

Receipt
The samples were received on 2/21/2025 5:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.5º C, 1.6º C, 1.9º C, 2.1º C and 2.4º C.

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

Subcontract Work
Method Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013): This method was subcontracted to Aquatic Bioassay. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Method Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-219358-4
Project/Site: Boeing NPDES SSFL - Annual Outfall 018 Comp

Method	Method Description	Protocol	Laboratory
EPA	Bioassay	EPA	Aquatic

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

Aquatic = Aquatic Bioassay & Consulting, 29 North Olive Street, Ventura, CA 93001

Sample Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-219358-4
Project/Site: Boeing NPDES SSFL - Annual Outfall 018 Comp

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-219358-1	Outfall018_20250221_Comp	Water	02/21/25 08:00	02/21/25 17:00

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID: CSE0225.268

March 26, 2025

Mr. Virendra Patel
Eurofins Calscience
2841 Dow Avenue, Suite #100
Tustin, CA 92780

Dear Mr. Patel:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013.* " Results were as follows:*

CLIENT:	Eurofins Calscience
SAMPLE I.D.:	Outfall018_20250221_Comp
DATE RECEIVED:	21 Feb - 2025
ABC LAB. NO.:	CSE0225.268

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

IWC = 100.00%

TST RESULT

SURVIVAL = PASS % EFFECT = 8.55 %

GROWTH = PASS % EFFECT = 7.53 %

Yours very truly,

Joe Freas
President

CETIS Summary Report

Report Date: 25 Mar-25 09:36 (p 1 of 1)
Test Code/ID: CSE0225.268fml / 11-9690-5053

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	11-4383-8261	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	21 Feb-25 10:20	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	28 Feb-25 15:10	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 5h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	01-3744-8892	**Code:**	CSE0225.268fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	21 Feb-25 08:00	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	21 Feb-25 11:25	**CAS (PC):**		**Station:**	Outfall018_20250221_Comp
Sample Age:	2h (3 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.268

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
14-9899-7102	7d Survival Rate	TST-Welch's t Test	0.0074	100% passed 7d survival rate
00-9879-8504	Mean Dry Biomass-mg	TST-Welch's t Test	0.0108	100% passed mean dry biomass-mg

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	8	0.9750	0.9159	1.0000	0.8000	1.0000	0.0250	0.0707	7.25%	0.00%
100		8	0.8917	0.7887	0.9946	0.6667	1.0000	0.0435	0.1231	13.81%	8.55%

Mean Dry Biomass-mg Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	8	0.3374	0.3189	0.356	0.284	0.3527	0.007847	0.0222	6.58%	0.00%
100		8	0.312	0.2651	0.3589	0.2047	0.3693	0.01984	0.05613	17.99%	7.53%

7d Survival Rate Detail

MD5: AA8919912DC51BE99D618141D039F1EC

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	1.0000	1.0000	0.8000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	0.8000	1.0000	1.0000	0.6667	0.8000	0.9333	0.9333

Mean Dry Biomass-mg Detail

MD5: E786BB0E0410A1E32BB6D8EB6FE37605

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	0.34	0.3427	0.284	0.3473	0.352	0.3407	0.3527	0.34
100		0.3393	0.268	0.354	0.3693	0.2047	0.2787	0.3427	0.3393

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	15/15	15/15	12/15	15/15	15/15	15/15	15/15	15/15
100		15/15	12/15	15/15	15/15	10/15	12/15	14/15	14/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	14-9899-7102	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 9:35	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	AA8919912DC51BE99D618141D039F1EC	**Editor ID:**	009-702-627-3
Batch ID:	11-4383-8261	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	21 Feb-25 10:20	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	28 Feb-25 15:10	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 5h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	01-3744-8892	**Code:**	CSE0225.268fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	21 Feb-25 08:00	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	21 Feb-25 11:25	**CAS (PC):**		**Station:**	Outfall018_20250221_Comp
Sample Age:	2h (3 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.268

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed 7d survival rate endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	10	2.94	0.6998	CDF	0.0074	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0733867	0.0733867	1	3.015	0.1044	Non-Significant Effect
Error	0.34072	0.0243372	14			
Total	0.414107		15			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	3.669	8.862	0.0761	Equal Variances
	Mod Levene Equality of Variance Test	3.086	8.862	0.1008	Equal Variances
	Variance Ratio F Test	2.487	8.885	0.2524	Equal Variances
Distribution	Anderson-Darling A2 Test	1.728	3.878	<1.0E-05	Non-Normal Distribution
	D'Agostino Skewness Test	1.765	2.576	0.0775	Normal Distribution
	Kolmogorov-Smirnov D Test	0.3592	0.2471	<1.0E-05	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.8067	0.8408	0.0034	Non-Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	14-9899-7102	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 9:35	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	AA8919912DC51BE99D618141D039F1EC	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	00-9879-8504	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 9:35	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	E786BB0E0410A1E32BB6D8EB6FE37605	**Editor ID:**	009-702-627-3
Batch ID:	11-4383-8261	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	21 Feb-25 10:20	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	28 Feb-25 15:10	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 5h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	01-3744-8892	**Code:**	CSE0225.268fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	21 Feb-25 08:00	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	21 Feb-25 11:25	**CAS (PC):**		**Station:**	Outfall018_20250221_Comp
Sample Age:	2h (3 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.268

Data Transform	Alt Hyp	TST_b	Comparison Result
Untransformed	C*b < T	0.75	100% passed mean dry biomass-mg endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	8	2.847	0.7064	CDF	0.0108	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0025840	0.0025840	1	1.419	0.2534	Non-Significant Effect
Error	0.0255017	0.0018216	14			
Total	0.0280858		15			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	8.584	8.862	0.0110	Equal Variances
	Mod Levene Equality of Variance Test	2.422	8.862	0.1419	Equal Variances
	Variance Ratio F Test	6.395	8.885	0.0257	Equal Variances
Distribution	Anderson-Darling A2 Test	0.8454	3.878	0.0294	Normal Distribution
	D'Agostino Skewness Test	2.187	2.576	0.0288	Normal Distribution
	Kolmogorov-Smirnov D Test	0.275	0.2471	0.0021	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.8923	0.8408	0.0606	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	00-9879-8504	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 9:35	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	E786BB0E0410A1E32BB6D8EB6FE37605	**Editor ID:**	009-702-627-3

CETIS Measurement Report

Report Date: 25 Mar-25 09:36 (p 1 of 1)
Test Code/ID: CSE0225.268fml / 11-9690-5053

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	11-4383-8261	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	21 Feb-25 10:20	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	28 Feb-25 15:10	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 5h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	01-3744-8892	**Code:**	CSE0225.268fml	**Project:**	Boeing-SSFL NPDES
Sample Date:	21 Feb-25 08:00	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	21 Feb-25 11:25	**CAS (PC):**		**Station:**	Outfall018_20250221_Comp
Sample Age:	2h (3 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0225.268

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	59	59	59	59	59	0	0	0.00%	0
100		8	28	28	28	28	28	0	0	0.00%	0
Overall		16	43.5	34.97	52.03	28	59	4.002	16.01	36.80%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	266.2	262.3	270.2	260	276	0.5967	4.773	1.79%	0
100		8	322.4	320	324.7	320	328	0.3532	2.825	0.88%	0
Overall		16	294.3	278.7	309.9	260	328	7.307	29.23	9.93%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.038	7.801	8.274	7.6	8.5	0.03532	0.2825	3.52%	0
100		8	8.088	7.966	8.209	7.9	8.3	0.01822	0.1458	1.80%	0
Overall		16	8.063	7.946	8.179	7.6	8.5	0.05468	0.2187	2.71%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	100	100	100	100	100	0	0	0.00%	0
100		8	90	90	90	90	90	0	0	0.00%	0
Overall		16	95	92.25	97.75	90	100	1.291	5.164	5.44%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.875	7.801	7.949	7.7	8	0.01108	0.08863	1.13%	0
100		8	7.888	7.858	7.917	7.8	7.9	0.004417	0.03533	0.45%	0
Overall		16	7.881	7.846	7.916	7.7	8	0.01638	0.06551	0.83%	0 (0%)

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
100		8	24.21	24.05	24.38	24	24.6	0.02449	0.1959	0.81%	0
Overall		16	24.11	24.01	24.2	24	24.6	0.04327	0.1731	0.72%	0 (0%)

CHAIN OF CUSTODY FORM

3/30/2025

Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Project: Boeing-SSFL NPDES Permit 2023 **Annual Outfall 018** **COMPOSITE**
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**	
Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)
Sampler:	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)

								ANALYSIS REQUIRED												
								A/R	A	R	A	R	A	R	R	R				
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	Cr (VI), Total Dissolved (E218.6)	Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium [H-3] (E906.0) - **Sub to St. Louis**	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) **ABC Labs in Ventura, CA** *	1,4-Dioxane (E624 (SW8260M_SIM))	Total Organic Carbon (415.2 (SM 5310D))	Monomethyl hydrazine (SW8315M/DV-WC-0077) **Weck Labs in Hacienda Heights, CA**	LL Mercury (E1631E) -- Total Dissolved	Cyanide (Kelada)		**Comments**
Outfall 018	Outfall018_20250221_Comp_F	2/21/2025 0800	WM	250 mL Poly	3	None	Yes	X												Filter and preserve w/in 24hrs of receipt at lab.
			WM	250 mL Poly	1	None			X											Filter and preserve w/in 24hrs of receipt at lab.
			WM	8oz Clear Glass, double bagged	3	None	Yes									X				Filter and preserve w/in 24hrs of receipt at lab.
	Outfall018_20250221_Comp	2/21/2025 0800	WM	500 mL Poly	3	NaOH	Yes										X			
			WM	1 L Poly	4	HNO3				X										Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None														
			* WM	1 Gal Cube	5	None					X									Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	40 mL VOA	3	HCl						X								
			WM	40 mL VOA	3	H2SO4							X							
			WM	1 L Glass Amber	1	None								X						**Segregate into a cooler for Weck Labs.**
QA/QC	Outfall018_20250221_Grab_F-04	2/21/2025 0800	WM	8oz Clear Glass, double bagged	1	None									X					Filter and preserve w/in 24hrs of receipt at lab.

* Hand delivered to Aquatic Bioassay w/ This copy of CoC

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
[signature]	2-21-2025/1125	H+A	[signature]	2/21/25 1125

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: ___X___
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X___

CSE - 202

Added C.F. = +0.5
Therm. = sample receiving
Temp. deg. C = 3.0
Chrlorine (mg/L) = <0.1
NH3 (mg/L) = <0.1

2024-2025 Rainy Season
Version 1

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 21 February 2025 Report ID:

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 19.00 ug/l

EC25 = 43.92 ug/l
EC50 = 66.12 ug/l

ENDPOINT: GROWTH

NOEC = 38.00 ug/l

IC25 = 38.00 ug/l
IC50 = 55.43 ug/l

Yours very truly,

Joe Freas
President

29 N. OLIVE STREET, VENTURA, CALIFORNIA 93001 | 805-643-5621 | WWW.AQUATICBIOASSAY.COM

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	13-8506-4858	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	21 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	28 Feb-25 15:02	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 23h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	09-8759-5698	**Code:**	FML022125	**Project:**	REF TOX
Sample Date:	21 Feb-25 16:10	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	21 Feb-25 16:10	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	PMSD
18-2779-8854	7d Survival Rate	Steel Many-One Rank Sum Test	19	38	26.87	10.1%
21-3273-5206	Mean Dry Biomass-mg	Steel Many-One Rank Sum Test	38	75	53.39	22.3%

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL
09-9513-1838	7d Survival Rate	Linear Interpolation (ICPIN)	EC15	30.4	7.84	44.84
			EC20	39.48	6.712	46.22
			EC25	43.92	25.76	50.39
			EC40	57.24	47.18	62.89
			EC50	66.12	59.61	71.22
02-0688-1543	Mean Dry Biomass-mg	Linear Interpolation (ICPIN)	IC15	20.01	11.1	52.64
			IC20	29.01	8.534	51.72
			IC25	38	5.967	50.77
			IC40	48.46	24.72	57.75
			IC50	55.43	32.12	62.52

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
10		4	0.9667	0.9054	1.0000	0.9333	1.0000	0.0193	0.0385	3.98%	3.33%
19		4	0.9000	0.6969	1.0000	0.7333	1.0000	0.0638	0.1277	14.18%	10.00%
38		4	0.8167	0.6575	0.9758	0.6667	0.8667	0.0500	0.1000	12.24%	18.33%
75		4	0.4000	0.3134	0.4866	0.3333	0.4667	0.0272	0.0544	13.61%	60.00%
150		4	0.0833	0.0000	0.1849	0.0000	0.1333	0.0319	0.0638	76.59%	91.67%

Mean Dry Biomass-mg Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3487	0.3421	0.3553	0.344	0.3533	0.002073	0.004146	1.19%	0.00%
10		4	0.3408	0.3275	0.3541	0.336	0.3533	0.004176	0.008351	2.45%	2.25%
19		4	0.2983	0.1824	0.4143	0.2013	0.3573	0.03643	0.07286	24.42%	14.44%
38		4	0.2615	0.1312	0.3918	0.1513	0.3493	0.04095	0.0819	31.32%	25.00%
75		4	0.0765	0.056	0.097	0.06467	0.09467	0.006443	0.01289	16.84%	78.06%
150		4	0.0235	-0.00305	0.05005	0	0.038	0.008342	0.01668	70.99%	93.26%

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail
MD5: B357F2FAC36677FBFC397CD81D31A6F3

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	0.9333	0.9333
19		0.7333	1.0000	1.0000	0.8667
38		0.8667	0.8667	0.8667	0.6667
75		0.4000	0.3333	0.4000	0.4667
150		0.1333	0.1333	0.0667	0.0000

Mean Dry Biomass-mg Detail
MD5: 8A5581D851469001A3E74448566F6307

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3507	0.344	0.3467	0.3533
10		0.3533	0.336	0.3373	0.3367
19		0.2013	0.3573	0.3513	0.2833
38		0.3493	0.2693	0.276	0.1513
75		0.07533	0.06467	0.09467	0.07133
150		0.032	0.038	0.024	0

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	14/15	14/15
19		11/15	15/15	15/15	13/15
38		13/15	13/15	13/15	10/15
75		6/15	5/15	6/15	7/15
150		2/15	2/15	1/15	0/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	18-2779-8854	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 9:25	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	B357F2FAC36677FBFC397CD81D31A6F3	**Editor ID:**	009-702-627-3
Batch ID:	13-8506-4858	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	21 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	28 Feb-25 15:02	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 23h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	09-8759-5698	**Code:**	FML022125	**Project:**	REF TOX
Sample Date:	21 Feb-25 16:10	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	21 Feb-25 16:10	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Angular (Corrected)	C > T	19	38	26.87	---	0.1009	10.09%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	14	10	1	CDF	0.3451	Non-Significant Effect
		19	6	14	10	1	CDF	0.3451	Non-Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	4.14436	0.828872	5	63.94	<1.0E-05	Significant Effect
Error	0.233342	0.0129634	18			
Total	4.3777		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test				Indeterminate
	Levene Equality of Variance Test	5.909	4.248	0.0021	Unequal Variances
	Mod Levene Equality of Variance Test	2.705	4.248	0.0541	Equal Variances
Distribution	Anderson-Darling A2 Test	0.6559	3.878	0.0872	Normal Distribution
	D'Agostino Kurtosis Test	0.8096	2.576	0.4182	Normal Distribution
	D'Agostino Skewness Test	1.468	2.576	0.1422	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	2.809	9.21	0.2454	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1667	0.2056	0.0833	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9422	0.884	0.1823	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	18-2779-8854	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 9:25	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	B357F2FAC36677FBFC397CD81D31A6F3	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	21-3273-5206	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 9:25	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	8A5581D851469001A3E74448566F6307	**Editor ID:**	009-702-627-3
Batch ID:	13-8506-4858	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	21 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	28 Feb-25 15:02	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 23h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	09-8759-5698	**Code:**	FML022125	**Project:**	REF TOX
Sample Date:	21 Feb-25 16:10	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	21 Feb-25 16:10	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C > T	38	75	53.39	---	0.07783	22.32%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	13.5	10	1	CDF	0.2853	Non-Significant Effect
		19	6	17	10	0	CDF	0.7334	Non-Significant Effect
		38	6	12	10	0	CDF	0.1424	Non-Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.392301	0.0784602	5	37.52	<1.0E-05	Significant Effect
Error	0.0376409	0.0020912	18			
Total	0.429942		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	28.3	15.09	3.2E-05	Unequal Variances
	Levene Equality of Variance Test	3.763	4.248	0.0165	Equal Variances
	Mod Levene Equality of Variance Test	2.69	4.248	0.0551	Equal Variances
Distribution	Anderson-Darling A2 Test	2.093	3.878	<1.0E-05	Non-Normal Distribution
	D'Agostino Kurtosis Test	2.362	2.576	0.0182	Normal Distribution
	D'Agostino Skewness Test	1.842	2.576	0.0655	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	8.973	9.21	0.0113	Normal Distribution
	Kolmogorov-Smirnov D Test	0.2409	0.2056	0.0009	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.83	0.884	0.0010	Non-Normal Distribution

Analysis ID:	21-3273-5206	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 9:25	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	8A5581D851469001A3E74448566F6307	**Editor ID:**	009-702-627-3

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	09-9513-1838	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 9:25	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	B357F2FAC36677FBFC397CD81D31A6F3	**Editor ID:**	009-702-627-3
Batch ID:	13-8506-4858	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	21 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	28 Feb-25 15:02	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 23h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	09-8759-5698	**Code:**	FML022125	**Project:**	REF TOX
Sample Date:	21 Feb-25 16:10	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	21 Feb-25 16:10	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC15	30.4	7.84	44.84
EC20	39.48	6.712	46.22
EC25	43.92	25.76	50.39
EC40	57.24	47.18	62.89
EC50	66.12	59.61	71.22

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	0.9333	0.9333
19		0.7333	1.0000	1.0000	0.8667
38		0.8667	0.8667	0.8667	0.6667
75		0.4000	0.3333	0.4000	0.4667
150		0.1333	0.1333	0.0667	0.0000

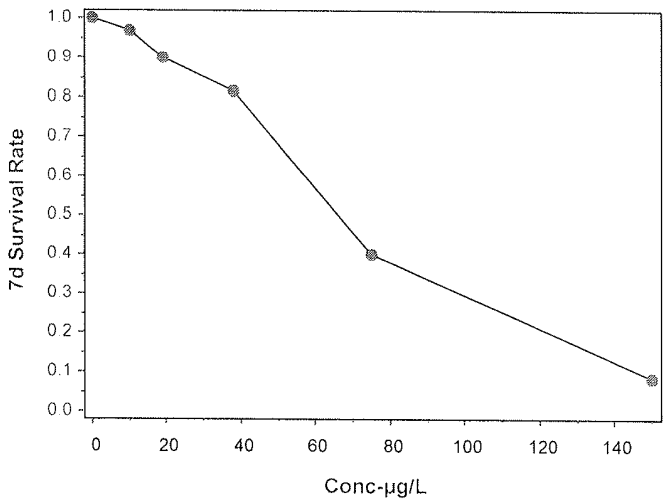
7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	14/15	14/15
19		11/15	15/15	15/15	13/15
38		13/15	13/15	13/15	10/15
75		6/15	5/15	6/15	7/15
150		2/15	2/15	1/15	0/15

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	09-9513-1838	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 9:25	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	B357F2FAC36677FBFC397CD81D31A6F3	**Editor ID:**	009-702-627-3

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	02-0688-1543	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	25 Mar-25 9:25	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	25 Mar-25 0:00	**MD5 Hash:**	8A5581D851469001A3E74448566F6307	**Editor ID:**	009-702-627-3
Batch ID:	13-8506-4858	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	21 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	28 Feb-25 15:02	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 23h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	09-8759-5698	**Code:**	FML022125	**Project:**	REF TOX
Sample Date:	21 Feb-25 16:10	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	21 Feb-25 16:10	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	472549	280	Yes	Two-Point Interpolation

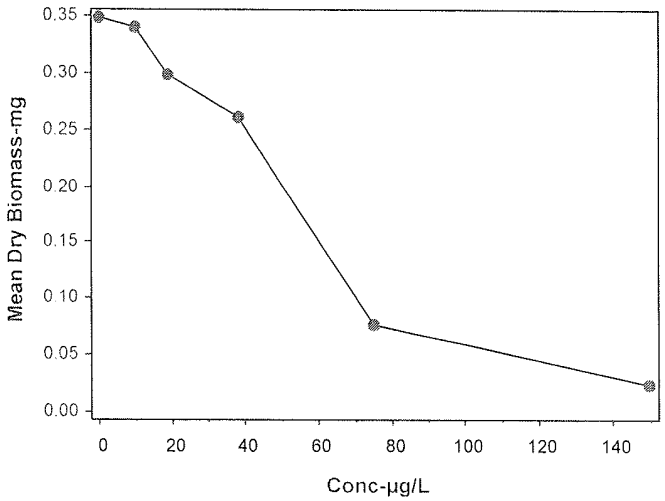
Point Estimates

Level	µg/L	95% LCL	95% UCL
IC15	20.01	11.1	52.64
IC20	29.01	8.534	51.72
IC25	38	5.967	50.77
IC40	48.46	24.72	57.75
IC50	55.43	32.12	62.52

Mean Dry Biomass-mg Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3507	0.344	0.3467	0.3533
10		0.3533	0.336	0.3373	0.3367
19		0.2013	0.3573	0.3513	0.2833
38		0.3493	0.2693	0.276	0.1513
75		0.07533	0.06467	0.09467	0.07133
150		0.032	0.038	0.024	0

Graphics



CETIS Measurement Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	13-8506-4858	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	21 Feb-25 16:10	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	28 Feb-25 15:02	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	6d 23h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	09-8759-5698	**Code:**	FML022125	**Project:**	REF TOX
Sample Date:	21 Feb-25 16:10	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	21 Feb-25 16:10	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	59	59	59	59	59	0	0	0.00%	0
150		8	60	60	60	60	60	0	0	0.00%	0
Overall		16	59.5	59.22	59.78	59	60	0.1291	0.5164	0.87%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	266.9	262.9	270.9	260	276	0.5955	4.764	1.79%	0
10		8	262.6	260.8	264.4	260	265	0.2667	2.134	0.81%	0
19		8	260.4	259.8	261	260	262	0.093	0.744	0.29%	0
38		8	259	258.2	259.8	257	260	0.1157	0.9258	0.36%	0
75		8	258.2	257	259.5	255	260	0.186	1.488	0.58%	0
150		8	258.6	258	259.2	258	260	0.093	0.744	0.29%	0
Overall		48	261	259.9	262	255	276	0.54	3.741	1.43%	0 (0%)

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.063	7.858	8.267	7.8	8.5	0.03057	0.2446	3.03%	0
10		8	8.013	7.843	8.182	7.8	8.4	0.02539	0.2031	2.53%	0
19		8	8.025	7.859	8.191	7.8	8.4	0.02478	0.1982	2.47%	0
38		8	7.988	7.85	8.125	7.8	8.3	0.02053	0.1642	2.06%	0
75		8	7.988	7.866	8.109	7.8	8.2	0.01822	0.1458	1.83%	0
150		8	7.988	7.866	8.109	7.8	8.2	0.01822	0.1458	1.83%	0
Overall		48	8.01	7.958	8.062	7.8	8.5	0.02583	0.1789	2.23%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	100	100	100	100	100	0	0	0.00%	0
150		8	109	109	109	109	109	0	0	0.00%	0
Overall		16	104.5	102	107	100	109	1.162	4.648	4.45%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.875	7.801	7.949	7.7	8	0.01108	0.08863	1.13%	0
10		8	7.875	7.801	7.949	7.7	8	0.01108	0.08863	1.13%	0
19		8	7.875	7.836	7.914	7.8	7.9	0.005785	0.04628	0.59%	0
38		8	7.875	7.836	7.914	7.8	7.9	0.005785	0.04628	0.59%	0
75		8	7.85	7.805	7.895	7.8	7.9	0.006681	0.05345	0.68%	0
150		8	7.863	7.819	7.906	7.8	7.9	0.006468	0.05175	0.66%	0
Overall		48	7.869	7.851	7.887	7.7	8	0.00901	0.06242	0.79%	0 (0%)

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Temperature-°C

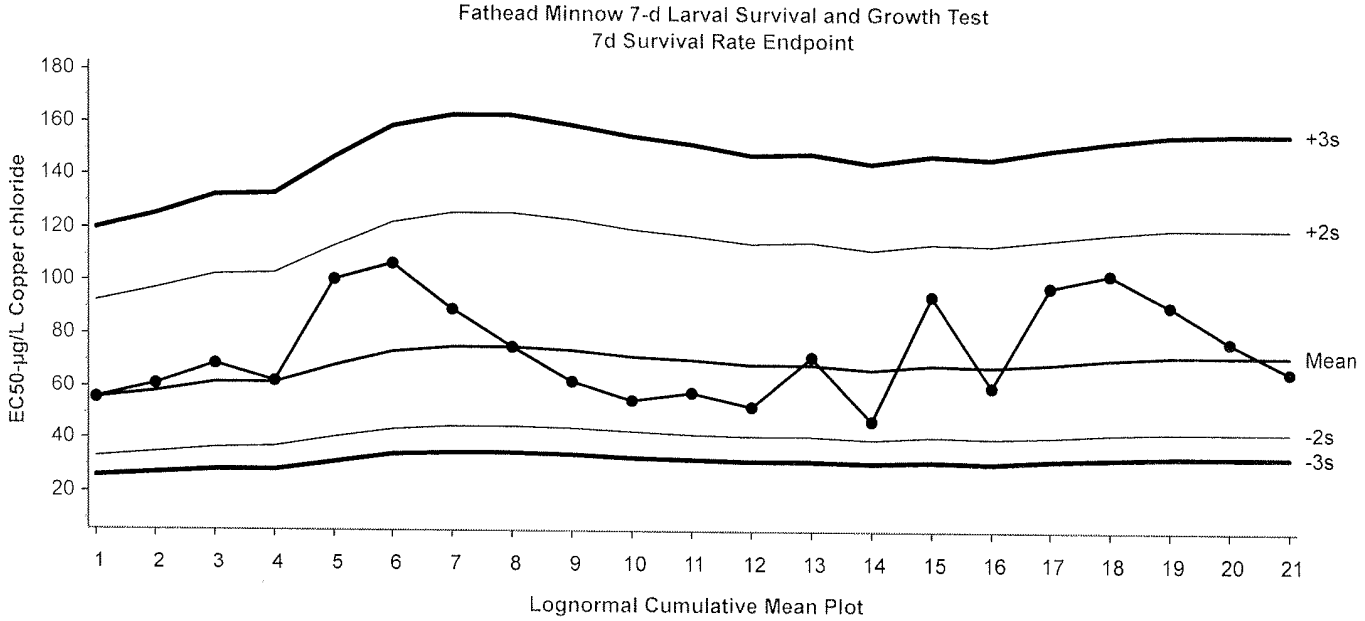
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
10		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
19		8	24.08	24	24.15	24	24.2	0.01107	0.08857	0.37%	0
38		8	24.09	23.99	24.18	24	24.3	0.01407	0.1126	0.47%	0
75		8	24.14	23.99	24.29	24	24.4	0.0221	0.1768	0.73%	0
150		8	24.14	23.99	24.29	24	24.4	0.0221	0.1768	0.73%	0
Overall		48	24.08	24.04	24.11	24	24.4	0.01792	0.1242	0.52%	0 (0%)

CETIS QC Plot

Report Date: 25 Mar-25 09:26 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	7d Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	72.31	**Count:**	20	**-2s Warning Limit:**	43.3	**-3s Action Limit:**	33.5
Sigma:	NA	**CV:**	26.10%	**+2s Warning Limit:**	121	**+3s Action Limit:**	156

Quality Control Data

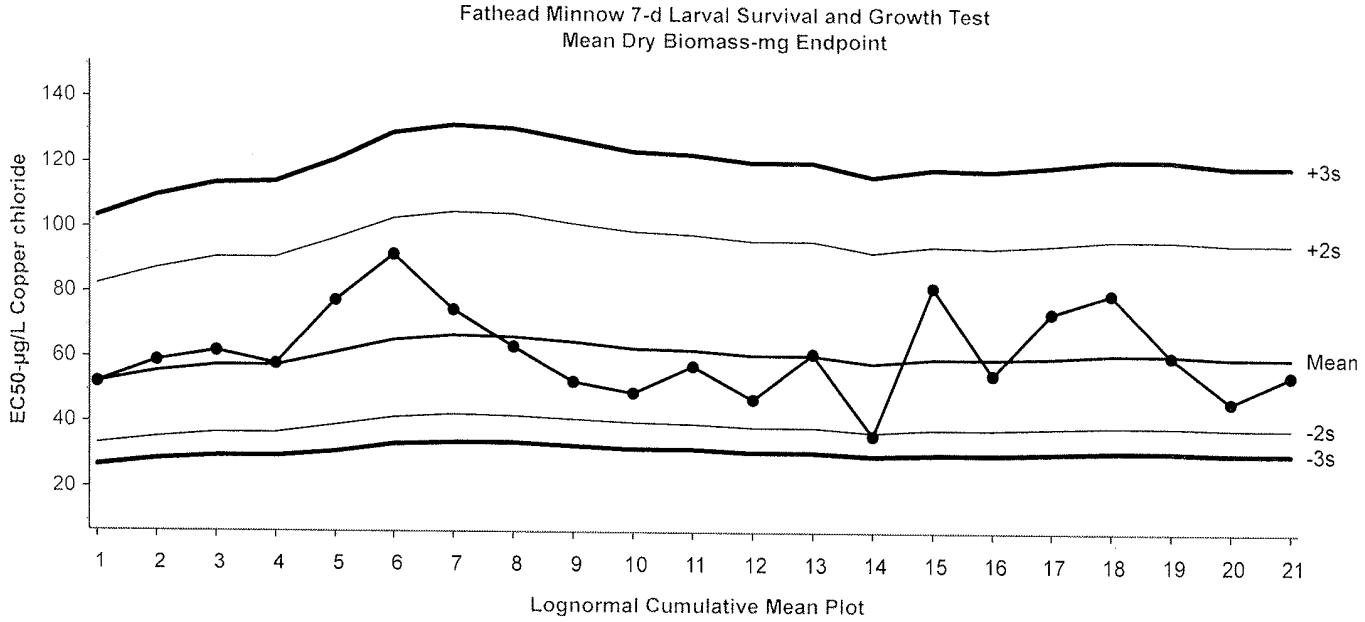
Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Oct	8	15:03	55.4	-16.91	-1.038			20-1568-7440	19-5114-8844
2			15	13:50	60.9	-11.41	-0.6691			10-8673-2368	00-1359-2096
3			17	16:00	68.62	-3.692	-0.2042			18-3095-1642	15-4710-9161
4			22	15:10	62.33	-9.979	-0.5787			19-0912-1140	09-6377-1541
5			29	15:20	100.8	28.47	1.294			09-4550-3995	21-4284-6798
6		Nov	5	15:50	106.8	34.51	1.52			09-2403-5441	04-5593-3187
7			12	14:48	89.73	17.42	0.8411			10-1731-0740	16-4707-0068
8			19	15:15	75	2.687	0.1422			20-3806-2820	02-3661-4487
9			20	15:00	61.98	-10.33	-0.6008			06-8037-9008	21-4619-7329
10		Dec	3	13:00	55.22	-17.09	-1.051			18-1540-2996	05-6522-4940
11			10	15:20	57.87	-14.44	-0.8683			19-9851-1845	18-5768-6591
12			17	13:13	52.39	-19.92	-1.256			09-4375-8924	01-3886-6616
13	2025	Jan	7	14:40	71.92	-0.3961	-0.0214			21-0637-0547	11-1485-0637
14			14	12:00	47.25	-25.06	-1.658			05-6088-9362	03-4082-7382
15			28	15:46	95.12	22.81	1.068			04-9084-2249	19-5925-0077
16		Feb	4	17:01	60.42	-11.89	-0.7			00-6241-7952	01-1979-8744
17			6	15:40	98.28	25.96	1.196			06-9427-5319	01-8738-7815
18			11	12:15	103	30.67	1.378			16-8104-1835	13-5437-1451
19			14	15:22	91.07	18.76	0.8988			02-3244-8004	20-8031-7528
20			19	15:00	77.59	5.273	0.2743			03-7585-3495	05-1062-8439
21			21	16:10	66.12	-6.193	-0.3489			04-2515-1876	09-9513-1838

CETIS QC Plot

Report Date: 25 Mar-25 09:27 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Mean Dry Biomass-mg	**Source:**	Reference Toxicant-REF



Mean:	60.76	**Count:**	20	**-2s Warning Limit:**	38.7	**-3s Action Limit:**	30.9
Sigma:	NA	**CV:**	22.80%	**+2s Warning Limit:**	95.3	**+3s Action Limit:**	119

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Oct	8	15:03	52.57	-8.193	-0.6429			20-1568-7440	12-2151-5153
2			15	13:50	59.05	-1.715	-0.1271			10-8673-2368	03-9604-2764
3			17	16:00	62.29	1.527	0.1101			18-3095-1642	07-4065-3814
4			22	15:10	58.04	-2.725	-0.2036			19-0912-1140	02-9413-3326
5			29	15:20	77.69	16.93	1.091			09-4550-3995	00-4441-3224
6		Nov	5	15:50	91.55	30.79	1.819			09-2403-5441	07-6830-2851
7			12	14:48	74.54	13.78	0.907			10-1731-0740	21-2736-3990
8			19	15:15	63.69	2.93	0.209			20-3806-2820	13-6596-6601
9			20	15:00	52.74	-8.028	-0.629			06-8037-9008	02-1196-1356
10		Dec	3	13:00	49.26	-11.5	-0.9316			18-1540-2996	06-7062-0437
11			10	15:20	57.69	-3.077	-0.2306			19-9851-1845	02-6664-5479
12			17	13:13	47.7	-13.07	-1.075			09-4375-8924	15-9519-3400
13	2025	Jan	7	14:40	61.37	0.6067	0.04409			21-0637-0547	16-6875-9592
14			14	12:00	36.34	-24.42	-2.281	(-)		05-6088-9362	03-9030-1419
15			28	15:46	81.96	21.2	1.328			04-9084-2249	06-9280-3288
16		Feb	4	17:01	55.44	-5.328	-0.4073			00-6241-7952	10-0544-6264
17			6	15:40	74.2	13.44	0.8869			06-9427-5319	09-6653-1378
18			11	12:15	79.94	19.17	1.217			16-8104-1835	16-9131-3620
19			14	15:22	61.26	0.493	0.03587			02-3244-8004	06-2322-2824
20			19	15:00	47.09	-13.67	-1.131			03-7585-3495	20-4623-6693
21			21	16:10	55.43	-5.331	-0.4075			04-2515-1876	02-0688-1543

Loc: 570
219358

CHAIN OF CUSTODY FORM

Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Project: Boeing-SSFL NPDES Permit 2023 Annual Outfall 018 COMPOSITE
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187** Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)
Sampler: Adrien Mokeka	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)

									ANALYSIS REQUIRED																	
									A/R	R	R	R	A/R	R	R	A	A	A	R	A	R	A			
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD		Total Recoverable Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	TCDD (and all congeners) (E1613B) - Sub to Sacramento	BODS (20 degrees C) (E405.1 (SM5210B_BODCalc))	LL Mercury (E1631E) -- Total Recoverable	Flouride (F-), Chloride (Cl-), Sulfate (SO4), Nitrate-N, Nitrite-N, NO3+NO2-N (E300); Perchlorate (E314.0)	Turbidity, TDS (SM2540C/E180.1)	TSS (160.2 (SM2540D))	Priority Pollutants-Pesticides+PCBs (E608) Weck Labs in Hacienda Heights, CA	Priority Pollutants-SVOCs (E6251 SIM)	Priority Pollutants-SVOCs (E6251 SIM) Sub Indeno(1,2,3-cd)pyrene to EMAX	Ammonia-N (E351.1)	PCBs - 44 Congeners only (1668C) - Sub to Sacramento	Detergents (MBAS) (SM5540C/E425.1)	Cr (VI), Total Recoverable (E218.6)			Comments
1																										
			WM	250 mL Poly	3	HNO3	Yes		X																	
			WM	1 L Glass Amber	2	None				X																
			WM	1 L Poly	1	None					X															
			WM	8oz Clear Glass, double bagged	3	HCL	Yes					X														
			WM	250 mL Poly	1	None							X													48 hours Holding Time NO_3 & NO_2
			WM	500 mL Poly	1	None								X												48 hour holding time for turbidity
Outfall 018	Outfall018_20250221_Comp	2/21/2025 0800	WM	1 L Poly	1	None									X											
			WM	1 L Glass Amber	4	None										X										Segregate into a cooler for Weck Labs.
			WM	1 L Glass Amber	12	None	Yes										X									
			WM	1 L Glass Amber	4	None												X								Segregate into a cooler for EMAX.
			WM	500 mL Poly	1	H_2SO_4													X							
			WM	1 L Glass Amber	12	None	Yes													X						
			WM	1 L Poly	1	None															X					
			WM	250 mL Poly	1	None																X				
2	Outfall018_20250221_Comp-02	2/21/2025 0800	WM	1 L Glass Amber	4	None														X						
QA/QC 3	Outfall018_20250221_Grab-04	2/21/2025 0800	WM	1 L Glass Amber	4	None														X						
			WM	8oz Clear Glass, double bagged	1	HCL						X														
			WM	1 L Glass Amber	4	None											X									

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by: Michelle Dallalah	Date/Time: 2/21/25 12:15	Company: H&A	Received by:	Date/Time: 2/21/25 1215	
Relinquished by:	Date/Time: 2/21/25	Company: EC 1700	Received by:	Date/Time: 2/21/25 1700	
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	

570-219358 Chain of Custody

Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: __X__

1.5/2.1 0.9/1.5 1.8/2.4 1.0/1.6 1.3/1.9 SC12

2024-2025 Rainy Season
Version 1

JJ&P

3/30/2025

CHAIN OF CUSTODY FORM

								A/R	A	R	A	R	A	R	R	R			
Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108			Project: Boeing-SSFL NPDES Permit 2023 **Annual Outfall 018** **COMPOSITE**					ANALYSIS REQUIRED											
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**			Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)					Total Dissolved Metals: (E200.7): B, Hardness as CaCO3 (E200.8): Al, Ag, As, Ba, Be, Cd, Co, Cu, Cr, Fe, Mn, Ni, Pb, Se, Sb, Tl, V, Zn	Cr (VI), Total Dissolved (E218.6)	Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium (H-3) (E906.0) - **Sub to St. Louis**	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) **ABC Labs in Ventura, CA**	1,4-Dioxane (E624 (SW8260M_SIM))	Total Organic Carbon (415.2 (SM 5310D))	Monomethyl hydrazine (SW8315M/DV-WC-0077) **Weck Labs in Hacienda Heights, CA**	LL Mercury (E1631E) – Total Dissolved	Cyanide (Kelada)		**Comments**
Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.			Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)																
Sampler: Adrien Mobeka																			
Sample Description	**Sample I.D.**	**Sampling Date/Time**	**Sample Matrix**	**Container Type**	**# of Cont.**	**Preservative**	**MS/MSD**												
4	Outfall018_20250221_Comp_F	2/21/2025/0800	WM	250 mL Poly	3	None	Yes	X											Filter and preserve w/in 24hrs of receipt at lab.
			WM	250 mL Poly	1	None			X										Filter and preserve w/in 24hrs of receipt at lab.
			WM	8oz Clear Glass, double bagged	3	None	Yes									X			Filter and preserve w/in 24hrs of receipt at lab.
Outfall 018	Outfall018_20250221_Comp	2/21/2025/0800	WM	500 mL Poly	3	NaOH	Yes										X		
			WM	1 L Poly	4	HNO3				X									Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None													
			WM	1 Gal Cube	5	None					X								Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	40 mL VOA	3	HCl						X							
			WM	40 mL VOA	3	H2SO4							X						
			WM	1 L Glass Amber	1	None								X					**Segregate into a cooler for Weck Labs.**
5 QA/QC	Outfall018_20250221_Grab_F-04	2/21/2025/0800	WM	8oz Clear Glass, double bagged	1	None										X			Filter and preserve w/in 24hrs of receipt at lab.

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by: Michelle Dallalah	Date/Time: 2/21/25 12:15	Company: H&A	Received by:	Date/Time: 2/21/25 1215
Relinquished by:	Date/Time: 2/21/25 1700	Company: EC	Received by:	Date/Time: 2/21/25 1700
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X___

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780
Phone: 714-895-5494

2 COOLERS

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-429347 1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note): State California; State Program California		Job #: 570-219358-2
Address: 880 Riverside Parkway	Due Date Requested: 3/7/2025			
City: West Sacramento	TAT Requested (days): N/A			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: PREOG-Boeing NPDES SSFL Annual Outfall 018 Comp	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668C/HRMS_Sep_P (MOD) 44 Congener List	1613B/1613B_Sox_Sep_P (MOD) Standard List w/ Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall018_20250221_Comp (570-219358-1)	2/21/25	08:00 Pacific	G	Water			X	X	4	No CA for low LCS, See QAS, Boeing_w/u to zero, ug/L, Use Boeing glassware.
Outfall018_20250221_Comp (570-219358-1MS)	2/21/25	08:00 Pacific	G	Water			X		2	No CA for low LCS
Outfall018_20250221_Comp (570-219358-1MSD)	2/21/25	08:00 Pacific	G	Water			X		2	No CA for low LCS
Outfall018_20250221_Comp-02 (570-219358-2)	2/21/25	08:00 Pacific	G	Water			X		2	No CA for low LCS
Outfall018_20250221_Grab-04 (570-219358-3)	2/21/25	08:00 Pacific	G	Water			X		2	No CA for low LCS

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II, III IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 2-24 8-	Company: E	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

3/30/2025

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-429354.1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State California; State Program California		Job #: 570-219358-3
Address: 5755 8th Street East,	Due Date Requested: 3/14/2025			
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: PREOG-Boeing NPDES SSFL Annual Outfall 018 Comp	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631E/ Mercury, Total	1631E/Filtration_ME Mercury, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall018_20250221_Comp (570-219358-1)	2/21/25	08:00 Pacific	G	Water			X		1	
Outfall018_20250221_Comp (570-219358-1MS)	2/21/25	08:00 Pacific	G	Water			X		1	
Outfall018_20250221_Comp (570-219358-1MSD)	2/21/25	08:00 Pacific	G	Water			X		1	
Outfall018_20250221_Grab-04 (570-219358-3)	2/21/25	08:00 Pacific	G	Water			X		1	
Outfall018_20250221_Comp_F (570-219358-4)	2/21/25	08:00 Pacific	G	Water				X	1	
Outfall018_20250221_Comp_F (570-219358-4MS)	2/21/25	08:00 Pacific	G	Water				X	1	
Outfall018_20250221_Comp_F (570-219358-4MSD)	2/21/25	08:00 Pacific	G	Water				X	1	
Outfall018_20250221_Comp_F-04 (570-219358-5)	2/21/25	08:00 Pacific	G	Water				X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 2-24 9	Company EC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-429371 1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State California; State Program California		Job #: 570-219358-6
Address: 13715 Rider Trail North	Due Date Requested: 3/20/2025			
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: PREOG-Boeing NPDES SSFL Annual Outfall 018 Comp	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	900.0/Evaporation Gross Alpha/Beta	901.1_Cs/FIII_Geo_0 K-40 and Cesium-137	A01R_U/ExtChrom_Actin Total Uranium	903.0/PrecSep_21 Radium-226	904.0/PrecSep_0 Radium-228	905_Sr90/PrecSep_7 Strontium-90	906.0/LSC_Dist_Susp Tritium	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
Outfall018_20250221_Comp (570-219358-1)	2/21/25	08:00 Pacific	G	Water			X	X	X	X	X	X	X	5	Boeing SSFL, DO NOT FILTER; use prep date from preservation

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification Unconfirmed	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)* ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 2-24 9-	Company EC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-219358-4

Login Number: 219358
List Number: 1
Creator: Patel, Virendra

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

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1 2 3 4 5 6 7 8 9

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 4/10/2025 7:50:44 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Routine Outfall 009 COMP

JOB NUMBER

570-222284-4

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

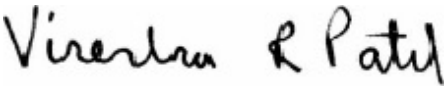
myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



Generated
4/10/2025 7:50:44 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494

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Definitions/Glossary

Client: Haley & Aldrich, Inc. Job ID: 570-222284-4
Project/Site: Boeing NPDES SSFL - Routine Outfall 009 COMF

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)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-222284-4 Eurofins Calscience

Job Narrative
570-222284-4

Receipt
The samples were received on 3/14/2025 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 1.3º C, 3.8º C, 4.3º C and 4.7º C.

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

Subcontract Work
Method Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013): This method was subcontracted to Aquatic Bioassay. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Routine Outfall 009 COMF

Job ID: 570-222284-4

Method	Method Description	Protocol	Laboratory
EPA	Bioassay	EPA	Aquatic

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

Aquatic = Aquatic Bioassay & Consulting, 29 North Olive Street, Ventura, CA 93001

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Boeing NPDES SSFL - Routine Outfall 009 COMF

Job ID: 570-222284-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-222284-1	Outfall009_20250314_Comp	Water	03/14/25 07:40	03/14/25 16:03

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID: CSE0325.109

April 7, 2025

Mr. Virendra Patel
Eurofins Calscience
2841 Dow Avenue, Suite #100
Tustin, CA 92780

Dear Mr. Patel:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013.* " Results were as follows:

CLIENT:	Eurofins Calscience
SAMPLE I.D.:	Outfall009_20250314_Comp
DATE RECEIVED:	14 March - 2025
ABC LAB. NO.:	CSE0325.109

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

IWC = 100.00%

TST RESULT

SURVIVAL = PASS % EFFECT = 1.67 %

GROWTH = PASS % EFFECT = -0.77 %

Yours very truly,

Joe Freas
President

CETIS Summary Report

Report Date: 04 Apr-25 13:26 (p 1 of 1)
Test Code/ID: CSE0325.109fml / 11-4620-6046

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	03-6011-5821	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	14 Mar-25 14:05	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Mar-25 14:17	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	18-9907-4457	**Code:**	CSE0325.109fml	**Project:**	Boeing-SSFL NPDES 2023 PERMIT
Sample Date:	14 Mar-25 07:40	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Mar-25 10:15	**CAS (PC):**		**Station:**	Outfall 009
Sample Age:	6h (3.4 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0325.109

SIngle Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
00-0697-6154	7d Survival Rate	TST-Welch's t Test	<1.0E-05	100% passed 7d survival rate
10-3316-2655	Mean Dry Biomass-mg	TST-Welch's t Test	<1.0E-05	100% passed mean dry biomass-mg

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	8	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		8	0.9833	0.9575	1.0000	0.9333	1.0000	0.0109	0.0309	3.14%	1.67%

Mean Dry Biomass-mg Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	8	0.3453	0.3395	0.351	0.336	0.3533	0.002435	0.006886	1.99%	0.00%
100		8	0.3479	0.3419	0.3539	0.3373	0.358	0.00254	0.007184	2.06%	-0.77%

7d Survival Rate Detail — MD5: C5B9F3FF1B4BC9FBBE1F305D2A64AE1D

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	0.9333	1.0000	1.0000	0.9333	1.0000	1.0000

Mean Dry Biomass-mg Detail — MD5: 50E4CE7BB4DFC1A370C0013ED80B8A3C

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	0.35	0.3533	0.3413	0.336	0.346	0.336	0.3527	0.3467
100		0.3513	0.358	0.3493	0.3373	0.3487	0.342	0.3413	0.3553

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15
100		15/15	15/15	14/15	15/15	15/15	14/15	15/15	15/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	00-0697-6154	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	04 Apr-25 13:24	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	04 Apr-25 0:00	**MD5 Hash:**	C5B9F3FF1B4BC9FBBE1F305D2A64AE1	**Editor ID:**	009-702-627-3
Batch ID:	03-6011-5821	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	14 Mar-25 14:05	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Mar-25 14:17	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	18-9907-4457	**Code:**	CSE0325.109fml	**Project:**	Boeing-SSFL NPDES 2023 PERMIT
Sample Date:	14 Mar-25 07:40	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Mar-25 10:15	**CAS (PC):**		**Station:**	Outfall 009
Sample Age:	6h (3.4 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0325.109

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed 7d survival rate endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	7	15.19	0.7111	CDF	<1.0E-05	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.004336	0.004336	1	2.333	0.1489	Non-Significant Effect
Error	0.026016	0.0018583	14			
Total	0.030352		15			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	21	8.862	0.0004	Unequal Variances
	Mod Levene Equality of Variance Test	2.333	8.862	0.1489	Equal Variances
	Variance Ratio F Test				Indeterminate
Distribution	Anderson-Darling A2 Test	2.447	3.878	<1.0E-05	Non-Normal Distribution
	D'Agostino Skewness Test	2.906	2.576	0.0037	Non-Normal Distribution
	Kolmogorov-Smirnov D Test	0.375	0.2471	<1.0E-05	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.677	0.8408	9.5E-05	Non-Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	00-0697-6154	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	04 Apr-25 13:24	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	04 Apr-25 0:00	**MD5 Hash:**	C5B9F3FF1B4BC9FBBE1F305D2A64AE1	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	10-3316-2655	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	04 Apr-25 13:24	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	04 Apr-25 0:00	**MD5 Hash:**	50E4CE7BB4DFC1A370C0013ED80B8A3	**Editor ID:**	009-702-627-3
Batch ID:	03-6011-5821	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	14 Mar-25 14:05	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Mar-25 14:17	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	18-9907-4457	**Code:**	CSE0325.109fml	**Project:**	Boeing-SSFL NPDES 2023 PERMIT
Sample Date:	14 Mar-25 07:40	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Mar-25 10:15	**CAS (PC):**		**Station:**	Outfall 009
Sample Age:	6h (3.4 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0325.109

Data Transform	Alt Hyp	TST_b	Comparison Result
Untransformed	C*b < T	0.75	100% passed mean dry biomass-mg endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	12	28.44	0.6955	CDF	<1.0E-05	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.844E-05	2.844E-05	1	0.5744	0.4611	Non-Significant Effect
Error	0.0006932	4.952E-05	14			
Total	0.0007217		15			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	0.00886	8.862	0.9263	Equal Variances
	Mod Levene Equality of Variance Test	0.006825	8.862	0.9353	Equal Variances
	Variance Ratio F Test	1.088	8.885	0.9139	Equal Variances
Distribution	Anderson-Darling A2 Test	0.4747	3.878	0.2448	Normal Distribution
	D'Agostino Skewness Test	0.3624	2.576	0.7170	Normal Distribution
	Kolmogorov-Smirnov D Test	0.1689	0.2471	0.2623	Normal Distribution
	Shapiro-Wilk W Normality Test	0.9307	0.8408	0.2500	Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	10-3316-2655	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	04 Apr-25 13:24	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	04 Apr-25 0:00	**MD5 Hash:**	50E4CE7BB4DFC1A370C0013ED80B8A3	**Editor ID:**	009-702-627-3

CETIS Measurement Report

Report Date: 04 Apr-25 13:26 (p 1 of 1)
Test Code/ID: CSE0325.109fml / 11-4620-6046

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	03-6011-5821	**Test Type:**	Growth-Survival (7d)	**Analyst:**	
Start Date:	14 Mar-25 14:05	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Mar-25 14:17	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	18-9907-4457	**Code:**	CSE0325.109fml	**Project:**	Boeing-SSFL NPDES 2023 PERMIT
Sample Date:	14 Mar-25 07:40	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	14 Mar-25 10:15	**CAS (PC):**		**Station:**	Outfall 009
Sample Age:	6h (3.4 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0325.109

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	58	58	58	58	58	0	0	0.00%	0
100		8	26	26	26	26	26	0	0	0.00%	0
Overall		16	42	33.19	50.81	26	58	4.131	16.52	39.34%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	269.4	259.2	279.6	262	299	1.524	12.19	4.52%	0
100		8	80.12	79.43	80.82	79	81	0.1043	0.8345	1.04%	0
Overall		16	174.8	122.5	227	79	299	24.52	98.08	56.13%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.088	7.793	8.382	7.3	8.5	0.04404	0.3523	4.36%	0
100		8	8.063	7.75	8.375	7.2	8.4	0.04674	0.3739	4.64%	0
Overall		16	8.075	7.888	8.262	7.2	8.5	0.0878	0.3512	4.35%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	100	100	100	100	100	0	0	0.00%	0
100		8	32	32	32	32	32	0	0	0.00%	0
Overall		16	66	47.29	84.71	32	100	8.779	35.12	53.20%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.863	7.786	7.939	7.7	8	0.01145	0.09161	1.17%	0
100		8	7.525	7.486	7.564	7.5	7.6	0.005786	0.04629	0.62%	0
Overall		16	7.694	7.594	7.794	7.5	8	0.04697	0.1879	2.44%	0 (0%)

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
100		8	24.12	23.97	24.28	24	24.4	0.0229	0.1832	0.76%	0
Overall		16	24.06	23.99	24.14	24	24.4	0.03521	0.1408	0.59%	0 (0%)

*Copy of original COC for delivery to ABC Labs

Eurofins Calscience Tustin

CHAIN OF CUSTODY FORM

AB&C

Added C.F = -0.1
Therm. = sample receiving 2
Temp. deg. C = 3.4
Chrlorine (mg/L) = <0.1
NH3 (mg/L) = <0.1

4/10/2025

Client Name/Address:
Haley & Aldrich
5333 Mission Center Rd Suite 300
San Diego, CA 92108

Eurofins Calscience Project Manager: Virendra Patel
2841 Dow Avenue, Suite #100
Tustin, CA 92780
Tel: 714-895-5494

ECI Project #57013187

Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.

Sampler: Adrien Mobeka

Project:
Boeing-SSFL NPDES
2023 Permit
Routine
Outfall 009
COMPOSITE

Project Manager: Katherine Miller
520.289.8606, 520.904.6944 (cell)

Field Manager: Mark Dominick
978.234.5033, 818.599.0702 (cell)

ANALYSIS REQUIRED

Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Recoverable Metals (E200.8): Al, As, Zn, Cd, Cu, Pb (R/A)	Chloride [Cl-], Sulfate [SO4], Nitrate-N, Nitrite-N, NO3+NO2-N (E300); Perchlorate (E314.0) (R/A)	TDS (SM2540C/E160.1) (R)	TSS (160.2 (SM2540D)) (R)	Total Dissolved Metals (E200.8): Al, As, Zn, Cd, Cu, Pb (R/A)	Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) - **sub to St. Louis** (R)	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) **ABC Labs in Ventura, CA** (A/R)	Ammonia-N (351.1) (R)	Cyanide (Kaleda) (R)	Detergents (MBAS) (SM5540C/E425.1) (R)	Routine Pesticides - only 4,4'-DDE (E608) **Weck Labs in Hacienda Heights, CA** (R)	LL Mercury (1631) Total Recoverable (R)	LL Mercury (1631) Total Dissolved (R)	Comments
Outfall 009	Outfall009_20250314_Comp	3/14/2025 0740	WM	250 mL Poly	3	HNO_3	Yes	X													
			WM	250 mL Poly	1	None			X												48 hours Holding Time NO_3 & NO_2
			WM	500 mL Poly	1	None				X											
			WM	250 mL Poly	1	H2SO4								X							
			WM	1L Poly	1	None					X										
			WM	500 mL Poly	3	NaOH	Yes									X					
			WM	1 L Poly	4	HNO3							X								Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None															
			WM	2.5 Gal Cube	2	None							X								Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	1 L Glass Amber	4	None											X				**Segregate into a cooler for Weck Labs.**
			WM	8oz Clear Glass, double bagged	3	HCL	Yes											X			Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures.
			WM	1 L Poly	1	None										X					
	Outfall009_20250314_Comp_F	3/14/2025 0740	WM	250 ml Poly	3	None	Yes					X									Filter and preserve w/in 24hrs of receipt at lab
			WM	8oz Clear Glass, double bagged	3	None	Yes													X	Filter and preserve w/in 24hrs of receipt at lab. Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures.

Comments: -109

Legend: R = Routine, A = Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	3/14/2025 1015	H&A		3/14/25 1015

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X____
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice:_____
Store samples for 6 months.

Data Requirements: (Check)
No Level IV: _____ All Level IV:___X_____

2024-2025 Rainy Season
Version 1

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 14 March 2025 Report ID: CSE0325.l09

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 19.00 ug/l

EC25 = 35.27 ug/l
EC50 = 53.86 ug/l

ENDPOINT: GROWTH

NOEC = 19.00 ug/l

IC25 = 27.17 ug/l
IC50 = 35.35 ug/l

Yours very truly,

Joe Freas
President

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	21-2297-4349	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Mar-25 13:30	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Mar-25 13:45	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	02-0073-7901	**Code:**	FML031425	**Project:**	REF TOX
Sample Date:	14 Mar-25 13:30	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Mar-25 13:30	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	PMSD
01-6382-9780	7d Survival Rate	Steel Many-One Rank Sum Test	19	38	26.87	10.5%
01-0549-5432	Mean Dry Biomass-mg	Steel Many-One Rank Sum Test	19	38	26.87	20.9%

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL
17-1584-9329	7d Survival Rate	Linear Interpolation (ICPIN)	EC15	27.14	24.25	36.91
			EC20	29.86	26	42.89
			EC25	32.57	27.75	46.48
			EC40	43.29	31.45	58.51
			EC50	53.86	39.25	69.47
08-7766-8898	Mean Dry Biomass-mg	Linear Interpolation (ICPIN)	IC15	23.9	21.55	30.4
			IC20	25.54	22.74	34.35
			IC25	27.17	23.94	38.23
			IC40	32.08	27.52	52
			IC50	35.35	29.87	62.51

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
10		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
19		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
38		4	0.6500	0.4148	0.8852	0.5333	0.8667	0.0739	0.1478	22.74%	35.00%
75		4	0.3000	0.0330	0.5670	0.0667	0.4667	0.0839	0.1678	55.92%	70.00%
150		4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	---	100.00%

Mean Dry Biomass-mg Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.349	0.3302	0.3678	0.3373	0.3653	0.005897	0.01179	3.38%	0.00%
10		4	0.3452	0.3286	0.3617	0.3387	0.3607	0.005195	0.01039	3.01%	1.10%
19		4	0.3537	0.3442	0.3631	0.3453	0.3593	0.002963	0.005925	1.68%	-1.34%
38		4	0.1463	-0.00313	0.2958	0.09267	0.2867	0.04696	0.09393	64.19%	58.07%
75		4	0.074	0.0384	0.1096	0.04067	0.08867	0.01119	0.02237	30.23%	78.80%
150		4	0	0	0	0	0	0	0	---	100.00%

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail

MD5: BD5AA450AFCC293433D0E7307ED934D9

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000
19		1.0000	1.0000	1.0000	1.0000
38		0.8667	0.6000	0.5333	0.6000
75		0.3333	0.4667	0.3333	0.0667
150		0.0000	0.0000	0.0000	0.0000

Mean Dry Biomass-mg Detail

MD5: 255DBB7435B4D2CEAE21B2E83162CC39

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3653	0.348	0.3453	0.3373
10		0.3607	0.34	0.3413	0.3387
19		0.3593	0.3547	0.3453	0.3553
38		0.2867	0.1113	0.09467	0.09267
75		0.08267	0.08867	0.084	0.04067
150		0	0	0	0

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	15/15	15/15
38		13/15	9/15	8/15	9/15
75		5/15	7/15	5/15	1/15
150		0/15	0/15	0/15	0/15

CETIS Analytical Report

Report Date: 04 Apr-25 13:22 (p 1 of 4)
Test Code/ID: FML031425 / 03-0453-9159

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	01-6382-9780	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	04 Apr-25 13:22	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	04 Apr-25 0:00	**MD5 Hash:**	BD5AA450AFCC293433D0E7307ED934D9	**Editor ID:**	009-702-627-3
Batch ID:	21-2297-4349	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Mar-25 13:30	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Mar-25 13:45	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	02-0073-7901	**Code:**	FML031425	**Project:**	REF TOX
Sample Date:	14 Mar-25 13:30	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Mar-25 13:30	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Angular (Corrected)	C > T	19	38	26.87	---	0.1054	10.54%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	18	10	1	CDF	0.8000	Non-Significant Effect
		19	6	18	10	1	CDF	0.8000	Non-Significant Effect
		38*	6	10	10	0	CDF	0.0350	Significant Effect
		75*	6	10	10	0	CDF	0.0350	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	2.5655	0.641376	4	43.99	<1.0E-05	Significant Effect
Error	0.21871	0.0145806	15			
Total	2.78421		19			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test				Indeterminate
	Levene Equality of Variance Test	5.204	4.893	0.0078	Unequal Variances
	Mod Levene Equality of Variance Test	1.462	4.893	0.2628	Equal Variances
Distribution	Anderson-Darling A2 Test	2.445	3.878	<1.0E-05	Non-Normal Distribution
	D'Agostino Kurtosis Test	2.505	2.576	0.0123	Normal Distribution
	D'Agostino Skewness Test	0.6441	2.576	0.5195	Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	6.688	9.21	0.0353	Normal Distribution
	Kolmogorov-Smirnov D Test	0.3	0.2235	5.0E-05	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.7933	0.866	0.0007	Non-Normal Distribution

Analysis ID:	01-6382-9780	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	04 Apr-25 13:22	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	04 Apr-25 0:00	**MD5 Hash:**	BD5AA450AFCC293433D0E7307ED934D9	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	01-0549-5432	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	04 Apr-25 13:22	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	04 Apr-25 0:00	**MD5 Hash:**	255DBB7435B4D2CEAE21B2E83162CC39	**Editor ID:**	009-702-627-3
Batch ID:	21-2297-4349	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Mar-25 13:30	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Mar-25 13:45	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	02-0073-7901	**Code:**	FML031425	**Project:**	REF TOX
Sample Date:	14 Mar-25 13:30	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Mar-25 13:30	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C > T	19	38	26.87	---	0.07302	20.92%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	16	10	0	CDF	0.5661	Non-Significant Effect
		19	6	20.5	10	1	CDF	0.9549	Non-Significant Effect
		38*	6	10	10	0	CDF	0.0350	Significant Effect
		75*	6	10	10	0	CDF	0.0350	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.285045	0.0712612	4	37.09	<1.0E-05	Significant Effect
Error	0.0288159	0.0019211	15			
Total	0.313861		19			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	24.69	13.28	5.8E-05	Unequal Variances
	Levene Equality of Variance Test	6.172	4.893	0.0038	Unequal Variances
	Mod Levene Equality of Variance Test	1.023	4.893	0.4270	Equal Variances
Distribution	Anderson-Darling A2 Test	2.004	3.878	<1.0E-05	Non-Normal Distribution
	D'Agostino Kurtosis Test	3.667	2.576	0.0002	Non-Normal Distribution
	D'Agostino Skewness Test	3.771	2.576	0.0002	Non-Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	27.66	9.21	<1.0E-05	Non-Normal Distribution
	Kolmogorov-Smirnov D Test	0.2875	0.2235	0.0001	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.7247	0.866	7.9E-05	Non-Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	01-0549-5432	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	04 Apr-25 13:22	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	04 Apr-25 0:00	**MD5 Hash:**	255DBB7435B4D2CEAE21B2E83162CC39	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	17-1584-9329	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	04 Apr-25 13:22	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	04 Apr-25 0:00	**MD5 Hash:**	BD5AA450AFCC293433D0E7307ED934D9	**Editor ID:**	009-702-627-3
Batch ID:	21-2297-4349	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Mar-25 13:30	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Mar-25 13:45	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	02-0073-7901	**Code:**	FML031425	**Project:**	REF TOX
Sample Date:	14 Mar-25 13:30	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Mar-25 13:30	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC15	27.14	24.25	36.91
EC20	29.86	26	42.89
EC25	32.57	27.75	46.48
EC40	43.29	31.45	58.51
EC50	53.86	39.25	69.47

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000
19		1.0000	1.0000	1.0000	1.0000
38		0.8667	0.6000	0.5333	0.6000
75		0.3333	0.4667	0.3333	0.0667
150		0.0000	0.0000	0.0000	0.0000

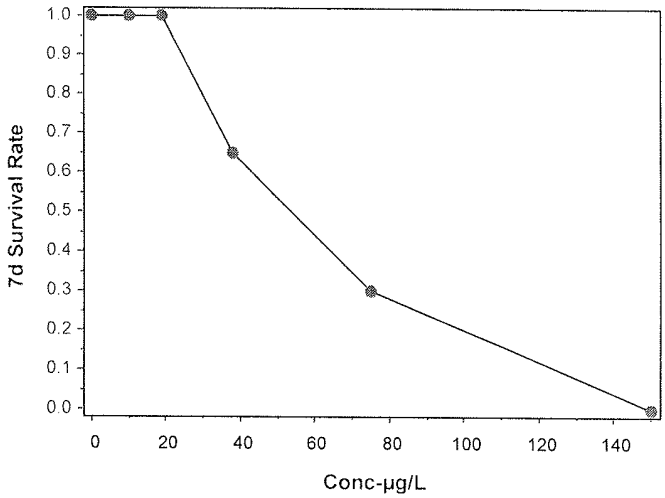
7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	15/15	15/15
38		13/15	9/15	8/15	9/15
75		5/15	7/15	5/15	1/15
150		0/15	0/15	0/15	0/15

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	17-1584-9329	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	04 Apr-25 13:22	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	04 Apr-25 0:00	**MD5 Hash:**	BD5AA450AFCC293433D0E7307ED934D9	**Editor ID:**	009-702-627-3

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	08-7766-8898	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	04 Apr-25 13:22	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	04 Apr-25 0:00	**MD5 Hash:**	255DBB7435B4D2CEAE21B2E83162CC39	**Editor ID:**	009-702-627-3
Batch ID:	21-2297-4349	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Mar-25 13:30	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Mar-25 13:45	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	02-0073-7901	**Code:**	FML031425	**Project:**	REF TOX
Sample Date:	14 Mar-25 13:30	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Mar-25 13:30	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	791418	280	Yes	Two-Point Interpolation

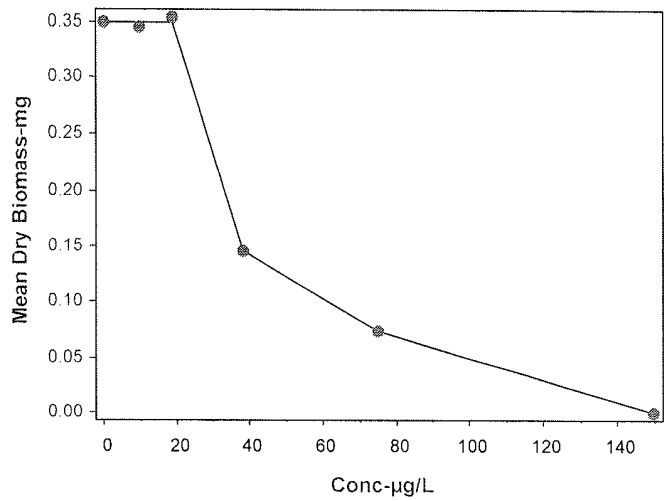
Point Estimates

Level	µg/L	95% LCL	95% UCL
IC15	23.9	21.55	30.4
IC20	25.54	22.74	34.35
IC25	27.17	23.94	38.23
IC40	32.08	27.52	52
IC50	35.35	29.87	62.51

Mean Dry Biomass-mg Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3653	0.348	0.3453	0.3373
10		0.3607	0.34	0.3413	0.3387
19		0.3593	0.3547	0.3453	0.3553
38		0.2867	0.1113	0.09467	0.09267
75		0.08267	0.08867	0.084	0.04067
150		0	0	0	0

Graphics



CETIS Measurement Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	21-2297-4349	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	14 Mar-25 13:30	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	21 Mar-25 13:45	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d 0h	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	02-0073-7901	**Code:**	FML031425	**Project:**	REF TOX
Sample Date:	14 Mar-25 13:30	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	14 Mar-25 13:30	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	58	58	58	58	58	0	0	0.00%	0
150		8	58	58	58	58	58	0	0	0.00%	0
Overall		16	58	58	58	58	58	0	0	0.00%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	269.4	259.2	279.6	262	299	1.524	12.19	4.52%	0
10		8	261.5	260.1	262.9	260	265	0.2113	1.69	0.65%	0
19		8	260.4	259.9	260.8	260	261	0.06469	0.5175	0.20%	0
38		8	259.6	259	260.2	259	261	0.093	0.744	0.29%	0
75		8	259.6	258.7	260.5	259	262	0.1326	1.061	0.41%	0
150		8	259	258.6	259.4	258	260	0.06682	0.5345	0.21%	0
Overall		48	261.6	259.8	263.3	258	299	0.8649	5.992	2.29%	0 (0%)

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.088	7.793	8.382	7.3	8.5	0.04404	0.3523	4.36%	0
10		8	7.987	7.696	8.279	7.2	8.4	0.04353	0.3482	4.36%	0
19		8	7.962	7.695	8.23	7.2	8.2	0.04005	0.3204	4.02%	0
38		8	7.95	7.686	8.214	7.2	8.2	0.03953	0.3162	3.98%	0
75		8	7.938	7.673	8.202	7.2	8.2	0.03949	0.3159	3.98%	0
150		8	7.938	7.673	8.202	7.2	8.2	0.03949	0.3159	3.98%	0
Overall		48	7.977	7.886	8.069	7.2	8.5	0.04547	0.315	3.95%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	100	100	100	100	100	0	0	0.00%	0
150		8	122	122	122	122	122	0	0	0.00%	0
Overall		16	111	104.9	117.1	100	122	2.84	11.36	10.23%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.863	7.786	7.939	7.7	8	0.01145	0.09161	1.17%	0
10		8	7.9	7.855	7.945	7.8	8	0.00668	0.05344	0.68%	0
19		8	7.9	7.855	7.945	7.8	8	0.00668	0.05344	0.68%	0
38		8	7.863	7.8	7.925	7.8	8	0.0093	0.0744	0.95%	0
75		8	7.863	7.8	7.925	7.8	8	0.0093	0.0744	0.95%	0
150		8	7.863	7.8	7.925	7.8	8	0.0093	0.0744	0.95%	0
Overall		48	7.875	7.855	7.895	7.7	8	0.0101	0.06995	0.89%	0 (0%)

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Temperature-°C

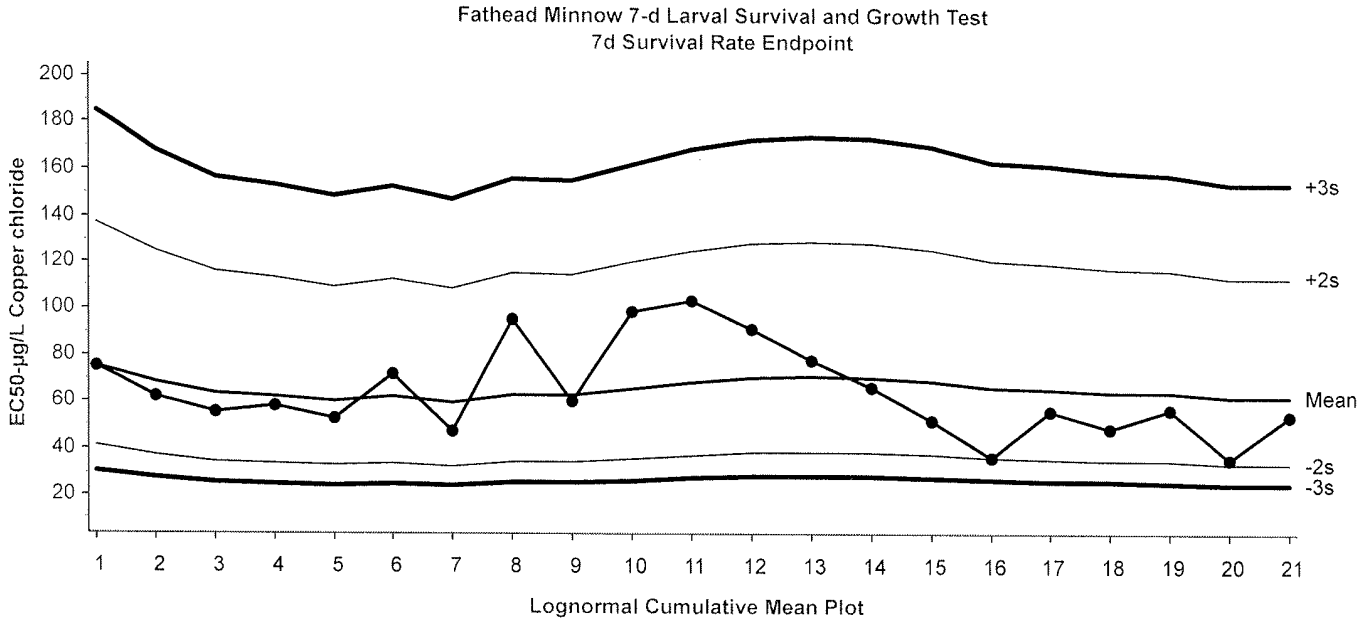
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
10		8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
19		8	24.04	23.98	24.1	24	24.2	0.009295	0.07436	0.31%	0
38		8	24.04	23.98	24.1	24	24.2	0.009295	0.07436	0.31%	0
75		8	24.05	23.97	24.13	24	24.2	0.01157	0.09255	0.38%	0
150		8	24.06	23.96	24.16	24	24.3	0.01485	0.1188	0.49%	0
Overall		48	24.03	24.01	24.06	24	24.3	0.01087	0.07532	0.31%	0 (0%)

CETIS QC Plot

Report Date: 04 Apr-25 13:27 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	7d Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	62.24	**Count:**	20	**-2s Warning Limit:**	34.1	**-3s Action Limit:**	25.2
Sigma:	NA	**CV:**	30.80%	**+2s Warning Limit:**	114	**+3s Action Limit:**	154

Quality Control Data

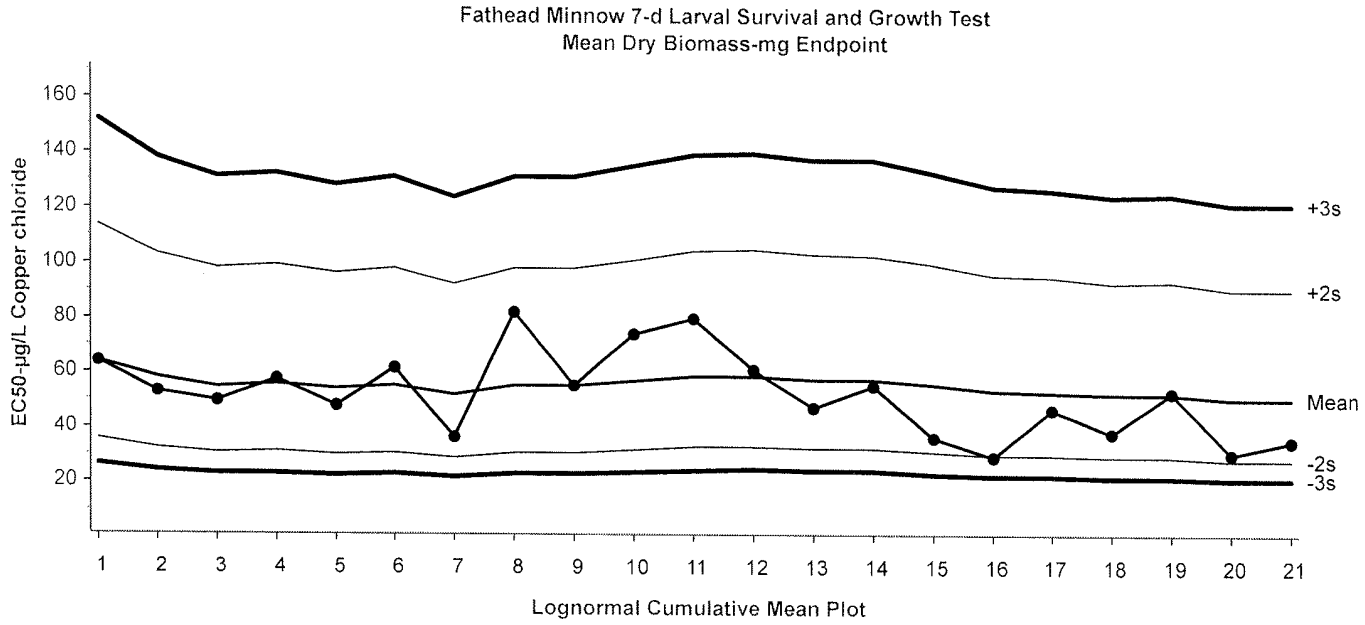
Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Nov	19	15:15	75	12.76	0.6189			20-3806-2820	02-3661-4487
2			20	15:00	61.98	-0.2587	-0.01382			06-8037-9008	21-4619-7329
3		Dec	3	13:00	55.22	-7.016	-0.3969			18-1540-2996	05-6522-4940
4			10	15:20	57.87	-4.37	-0.2416			19-9851-1845	18-5768-6591
5			17	13:13	52.39	-9.851	-0.5719			09-4375-8924	01-3886-6616
6	2025	Jan	7	14:40	71.92	9.677	0.4796			21-0637-0547	11-1485-0637
7			14	12:00	47.25	-14.99	-0.9145			05-6088-9362	03-4082-7382
8			28	15:46	95.12	32.88	1.408			04-9084-2249	19-5925-0077
9		Feb	4	17:01	60.42	-1.816	-0.09827			00-6241-7952	01-1979-8744
10			6	15:40	98.28	36.04	1.516			06-9427-5319	01-8738-7815
11			11	12:15	103	40.74	1.671			16-8104-1835	13-5437-1451
12			14	15:22	91.07	28.83	1.263			02-3244-8004	20-8031-7528
13			19	15:00	77.59	15.35	0.7315			03-7585-3495	05-1062-8439
14			21	16:10	66.12	3.88	0.2007			04-2515-1876	09-9513-1838
15			25	15:00	52.03	-10.21	-0.5944			06-9841-1254	05-3567-6484
16		Mar	4	11:55	36.54	-25.7	-1.768			09-8618-7900	21-0171-6369
17			6	15:00	55.94	-6.301	-0.3542			06-4992-6637	09-1125-3834
18			11	14:20	48.57	-13.67	-0.823			01-9738-2981	11-5744-4911
19			12	14:30	57	-5.24	-0.2919			15-9029-2948	08-4889-8948
20			13	15:00	35.76	-26.48	-1.839			15-0532-7978	01-4540-1204
21			14	13:30	53.86	-8.383	-0.4801			03-0453-9159	17-1584-9329

CETIS QC Plot

Report Date: 04 Apr-25 13:27 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Mean Dry Biomass-mg	**Source:**	Reference Toxicant-REF



Mean:	50.91	**Count:**	20	**-2s Warning Limit:**	28.5	**-3s Action Limit:**	21.3
Sigma:	NA	**CV:**	29.70%	**+2s Warning Limit:**	91	**+3s Action Limit:**	122

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Nov	19	15:15	63.69	12.79	0.7712			20-3806-2820	13-6596-6601
2			20	15:00	52.74	1.829	0.1215			06-8037-9008	02-1196-1356
3		Dec	3	13:00	49.26	-1.647	-0.1132			18-1540-2996	06-7062-0437
4			10	15:20	57.69	6.781	0.4303			19-9851-1845	02-6664-5479
5			17	13:13	47.7	-3.211	-0.2242			09-4375-8924	15-9519-3400
6	2025	Jan	7	14:40	61.37	10.46	0.6433			21-0637-0547	16-6875-9592
7			14	12:00	36.34	-14.56	-1.16			05-6088-9362	03-9030-1419
8			28	15:46	81.96	31.05	1.639			04-9084-2249	06-9280-3288
9		Feb	4	17:01	55.44	4.529	0.2933			00-6241-7952	10-0544-6264
10			6	15:40	74.2	23.3	1.297			06-9427-5319	09-6653-1378
11			11	12:15	79.94	29.03	1.553			16-8104-1835	16-9131-3620
12			14	15:22	61.26	10.35	0.6369			02-3244-8004	06-2322-2824
13			19	15:00	47.09	-3.814	-0.268			03-7585-3495	20-4623-6693
14			21	16:10	55.43	4.526	0.2931			04-2515-1876	02-0688-1543
15			25	15:00	36.25	-14.66	-1.169			06-9841-1254	04-9712-7662
16		Mar	4	11:55	29.52	-21.39	-1.876			09-8618-7900	16-0186-3037
17			6	15:00	46.84	-4.07	-0.2867			06-4992-6637	05-1468-2705
18			11	14:20	38.15	-12.76	-0.993			01-9738-2981	20-7282-5356
19			12	14:30	53.11	2.206	0.146			15-9029-2948	19-6773-3350
20			13	15:00	30.83	-20.08	-1.726			15-0532-7978	14-7293-6054
21			14	13:30	35.35	-15.56	-1.255			03-0453-9159	08-7766-8898

Loc: 570
222284

Eurofins Calscience Tustin

570-222284 Chain of Custody

CHAIN OF CUSTODY FORM

Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Project: Boeing-SSFL NPDES 2023 Permit Routine Outfall 009 COMPOSITE
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**	
Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)
Sampler: Adrien Malaska	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)

								ANALYSIS REQUIRED															
								R/A	R/A	R	R	R/A	R	A/R	R	R	R	R	R	R	R		
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Recoverable Metals (E200.8): Al, As, Zn, Cd, Cu, Pb	Chloride [Cl-], Sulfate [SO4], Nitrate-N, Nitrite-N, NO3+NO2-N (E300); Perchlorate (E314.0)	TDS (SM2540C/E160.1)	TSS (160.2 (SM2540D))	Total Dissolved Metals (E200.8): Al, As, Zn, Cd, Cu, Pb	Gross Alpha(E900.0), Gross Beta(E900.0), Tritium (H-3) (E906.0), Sr-90 (E905.0), Total Combined Radium 226 (E903.0 or E903.1) & Radium 228 (E904.0), Uranium (E908.0), K-40, CS-137 (E901.0 or E901.1) - **sub to St. Louis**	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) **ABC Labs in Ventura, CA**	Ammonia-N (351.1)	Cyanide (Kaleda)	Detergents (MBAS) (SM5540C/E425.1)	Routine Pesticides - only 4,4'-DDE (E608) **Weck Labs in Hacienda Heights, CA**	LL Mercury (1631) Total Recoverable	LL Mercury (1631) Total Dissolved	Comments
Outfall 009	Outfall009_20250314_Comp	3/14/2025 0740	WM	250 mL Poly	3	HNO_3	Yes	X															
			WM	250 mL Poly	1	None			X														48 hours Holding Time NO_3 & NO_2
			WM	500 mL Poly	1	None				X													
			WM	250 mL Poly	1	H2SO4									X								
			WM	1L Poly	1	None					X												
			WM	500 mL Poly	3	NaOH	Yes									X							
			WM	1 L Poly	4	HNO3																	
			WM	1 L Glass Amber	1	None							X										Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	2.5 Gal Cube	2	None								X									Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	1 L Glass Amber	4	None														X			**Segregate into a cooler for Weck Labs.**
			WM	8oz Clear Glass, double bagged	3	HCL	Yes														X		Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures.
			WM	1 L Poly	1	None										X						
	Outfall009_20250314_Comp_F	3/14/2025 0740	WM	250 ml Poly	3	None	Yes					X											Filter and preserve w/in 24hrs of receipt at lab
			WM	8oz Clear Glass, double bagged	3	None	Yes															X	Filter and preserve w/in 24hrs of receipt at lab. Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures.

Legend: R = Routine, A = Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	3/14/2025 11:33	H&A		3/14/25 1133
	3/14/25 1603			3/14/25 1603

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: ___X____
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X____

2024-2025 Rainy Season
Version 1

4.1 / 4.3 Sc 14

4/10/2025

222284

Eurofins Calscience Tustin

CHAIN OF CUSTODY FORM

Client Name/Address:
Haley & Aldrich
5333 Mission Center Rd Suite 300
San Diego, CA 92108

Eurofins Calscience Project Manager: Virendra Patel
2841 Dow Avenue, Suite #100
Tustin, CA 92780
Tel: 714-895-5494

ECI Project #57013187

Project:
Boeing-SSFL NPDES
2023 Permit
Routine
Outfall 009
COMPOSITE

Project Manager: Katherine Miller
520.289.8606, 520.904.6944 (cell)

Field Manager: Mark Dominick
978.234.5033, 818.599.0702 (cell)

Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.

Sampler: Adrian Mobeka

								ANALYSIS REQUIRED																	
								R	R	R															
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Routine SVOCs- Bis(2-ethylhexyl)phthalate, Pentachlorophenol, 3,3-Dichlorobenzidene, Benzidine (E625)	LL Mercury (1631) Total Recoverable	LL Mercury (1631) Total Dissolved															Comments
Outfall 009	Outfall009_20250314_Comp	3/14/2025 0740	WM	1 L Glass Amber	12	None	Yes	X																	
QA/QC	Outfall009_20250314_Grab-04	3/14/2025 0740	WM	8oz Clear Glass, double bagged	1	HCL			X																Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures.
			WM	1 L Glass Amber	4	None		X																	
	Outfall009_20250314_Grab_F-04	3/14/2025 0740	WM	8oz Clear Glass, double bagged	1	None				X															Filter and preserve w/in 24hrs of receipt at lab. Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures.

Legend: R = Routine, A = Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	3/14/2025 11:33	H&A		3/14/25 1133
	3/14/25 1603			3/14/25 1603

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: __X__

4.5 / 4.7 SC 14
3.6 / 3.8 SC 14
4.1 / 4.3

2024-2025 Rainy Season
Version 1

4/10/2025

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-433387 1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State California; State Program California		Job #: 570-222284-3
Address: 13715 Rider Trail North,	Due Date Requested: 4/11/2025			
City: Earth City	TAT Requested (days): N/A			
State, Zip: MO 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #: N/A			
Emai N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Routine Outfall 009 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Preservation Codes:

Other: N/A

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	900.0/Evaporation Gross Alpha/Beta	906.0/LSC_Dist_Susp Trillium	905_Sr90/PrecSep_7 Strontium-90	903.0/PrecSep_21 Radium-226	904.0/PrecSep_0 Radium-228	A01R_U/ExtChrom_Actin Total Uranium	901 1_Cs/FHL_Geo_0 K-40 and Cesium-137	Total Number of containers	Special Instructions/Note:
			Preservation Code:												
Outfall009_20250314_Comp (570-222284-1)	3/14/25	07:40 Pacific	G	Water			X	X	X	X	X	X	X	5	Boeing SSFL, DO NOT FILTER; use prep date from preservation. Ok to Preserve

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 3-17 8-	Company EC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

4/10/2025

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Phone: 714-895-5494

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler: N/A	Lab PM: Patel, Virendra	Carrier Tracking No(s): N/A	COC No: 570-433597 1
Client Contact: Shipping/Receiving	Phone: N/A	E-Mail: Virendra.Patel@et.eurofinsus.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Environment Testing Northwest,		Accreditations Required (See note): State California; State Program California		Job #: 570-222284-2
Address: 5755 8th Street East,	Due Date Requested: 4/7/2025			
City: Tacoma	TAT Requested (days): N/A			
State, Zip: WA, 98424				
Phone: 253-922-2310(Tel)	PO #: N/A			
Email: N/A	WO #: N/A			
Project Name: Boeing NPDES SSFL Routine Outfall 009 COMP	Project #: 57013187			
Site: N/A	SSOW#: N/A			

Analysis Requested

Sample Identification Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1631E/ Mercury, Total	1631E/Filtration_ME Mercury, Dissolved	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
Outfall009_20250314_Comp (570-222284-1)	3/14/25	07:40 Pacific	G	Water			X		1	
Outfall009_20250314_Comp (570-222284-1MS)	3/14/25	07:40 Pacific	G	Water			X		1	
Outfall009_20250314_Comp (570-222284-1MSD)	3/14/25	07:40 Pacific	G	Water			X		1	
Outfall009_20250314_Comp_F (570-222284-2)	3/14/25	07:40 Pacific	G	Water				X	1	
Outfall009_20250314_Comp_F (570-222284-2MS)	3/14/25	07:40 Pacific	G	Water				X	1	
Outfall009_20250314_Comp_F (570-222284-2MSD)	3/14/25	07:40 Pacific	G	Water				X	1	
Outfall009_20250314_Grab-04 (570-222284-3)	3/14/25	07:40 Pacific	G	Water			X		1	
Outfall009_20250314_Grab_F-04 (570-222284-4)	3/14/25	07:40 Pacific	G	Water				X	1	

Preservation Codes:
Other: N/A

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Calscience laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Calscience attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Calscience.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 3-17 13	Company EC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks:

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-222284-4

Login Number: 222284
List Number: 1
Creator: Chapman, Allyson

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Katherine Miller
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Generated 4/26/2025 8:41:31 AM

JOB DESCRIPTION

Boeing NPDES SSFL - Routine Outfall 018 COMP

JOB NUMBER

570-222920-4

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin CA 92780

See page two for job notes and contact information.

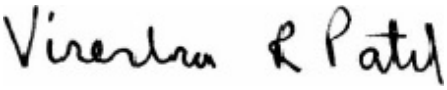
my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



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4/26/2025 8:41:31 AM

Authorized for release by
Virendra Patel, Project Manager I
Virendra.Patel@et.eurofinsus.com
(714)895-5494

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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)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 570-222920-4 Eurofins Calscience

Job Narrative
570-222920-4

Receipt
The samples were received on 3/19/2025 6:23 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 0.8º C, 0.9º C, 1.2º C, 1.7º C and 2.1º C.

Receipt Exceptions

Sample arrived outside filtration hold time. Client agreed to proceed with analysis.

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

Subcontract Work
Method Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013): This method was subcontracted to Aquatic Bioassay. The subcontract laboratory certification is different from that of the facility issuing the final report. The subcontract report is appended in its entirety.

Method Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-222920-4
Project/Site: Boeing NPDES SSFL - Routine Outfall 018 COMP

Method	Method Description	Protocol	Laboratory
EPA	Bioassay	EPA	Aquatic

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

Aquatic = Aquatic Bioassay & Consulting, 29 North Olive Street, Ventura, CA 93001

Sample Summary

Client: Haley & Aldrich, Inc.
Job ID: 570-222920-4
Project/Site: Boeing NPDES SSFL - Routine Outfall 018 COMP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-222920-1	Outfall018_20250318_Comp	Water	03/18/25 11:30	03/19/25 18:23

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

Report ID: CSE0325.152

April 24, 2025

Mr. Virendra Patel
Eurofins Calscience
2841 Dow Avenue, Suite #100
Tustin, CA 92780

Dear Mr. Patel:

We are pleased to present the enclosed bioassay report. The test was conducted under guidelines prescribed in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms EPA-821-R-02-013.* " Results were as follows:

CLIENT:	Eurofins Calscience
SAMPLE I.D.:	Outfall018_20250318_Comp
DATE RECEIVED:	19 March - 2025
ABC LAB. NO.:	CSE0325.152

CHRONIC FATHEAD LARVAE SURVIVAL & GROWTH BIOASSAY

IWC = 100.00%

TST RESULT

SURVIVAL = PASS % EFFECT = 0.00 %

GROWTH = PASS % EFFECT = -3.24 %

Yours very truly,

Joe Freas
President

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	06-9696-5386	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Mar-25 13:40	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Mar-25 13:18	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	07-6250-8222	**Code:**	CSE0325.152fml	**Project:**	Boeing-SSFL NPDES Permit 2023
Sample Date:	18 Mar-25 11:30	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	19 Mar-25 12:55	**CAS (PC):**		**Station:**	Outfall 018
Sample Age:	26h (0.8 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0325.152

Single Comparison Summary

Analysis ID	Endpoint	Comparison Method	P-Value	Comparison Result
01-4621-9010	7d Survival Rate	TST-Welch's t Test	<0.25	100% passed 7d survival rate
02-8890-5704	Mean Dry Biomass-mg	TST-Welch's t Test	1.3E-05	100% passed mean dry biomass-mg

7d Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	8	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
100		8	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%

Mean Dry Biomass-mg Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	8	0.3522	0.3458	0.3585	0.3413	0.3673	0.002681	0.007582	2.15%	0.00%
100		8	0.3636	0.3397	0.3875	0.3373	0.4273	0.0101	0.02856	7.86%	-3.24%

7d Survival Rate Detail — MD5: F33D79D05FEF902C5DB24788526CB24A

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Mean Dry Biomass-mg Detail — MD5: E1E0B50508828B78063BF17C2071CF54

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	0.3487	0.3673	0.3487	0.3507	0.354	0.3567	0.3413	0.35
100		0.4273	0.3627	0.354	0.3373	0.3787	0.352	0.344	0.3527

7d Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8
0	N	15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15
100		15/15	15/15	15/15	15/15	15/15	15/15	15/15	15/15

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Analysis ID:	01-4621-9010	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	23 Apr-25 15:59	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	23 Apr-25 0:00	**MD5 Hash:**	F33D79D05FEF902C5DB24788526CB24A	**Editor ID:**	009-702-627-3
Batch ID:	06-9696-5386	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Mar-25 13:40	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Mar-25 13:18	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	07-6250-8222	**Code:**	CSE0325.152fml	**Project:**	Boeing-SSFL NPDES Permit 2023
Sample Date:	18 Mar-25 11:30	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	19 Mar-25 12:55	**CAS (PC):**		**Station:**	Outfall 018
Sample Age:	26h (0.8 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0325.152

Data Transform	Alt Hyp	TST_b	Comparison Result
Angular (Corrected)	C*b < T	0.75	100% passed 7d survival rate endpoint

TST-Welch's t Test

Control	vs	Conc-%	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	0.3603	---		<0.25	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0	0	1			Indeterminate
Error	0	0	14			
Total	0		15			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Variance Ratio F Test				Indeterminate
Distribution	Shapiro-Wilk W Normality Test				Indeterminate

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	02-8890-5704	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	23 Apr-25 15:59	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	23 Apr-25 0:00	**MD5 Hash:**	E1E0B50508828B78063BF17C2071CF54	**Editor ID:**	009-702-627-3
Batch ID:	06-9696-5386	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Mar-25 13:40	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Mar-25 13:18	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** 1d
Sample ID:	07-6250-8222	**Code:**	CSE0325.152fml	**Project:**	Boeing-SSFL NPDES Permit 2023
Sample Date:	18 Mar-25 11:30	**Material:**	Sample Water	**Source:**	Bioassay Report
Receipt Date:	19 Mar-25 12:55	**CAS (PC):**		**Station:**	Outfall 018
Sample Age:	26h (0.8 °C)	**Client:**	Eurofins Calscience		

Comments: Report ID: CSE0325.152

Data Transform	Alt Hyp	TST_b	Comparison Result
Untransformed	C*b < T	0.75	100% passed mean dry biomass-mg endpoint

TST-Welch's t Test

Control	vs	Conc-%	df	Test Stat	Critical	P-Type	P-Value	Decision(α:25%)
Negative Control		100*	7	9.66	0.7111	CDF	1.3E-05	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0005214	0.0005214	1	1.194	0.2930	Non-Significant Effect
Error	0.0061126	0.0004366	14			
Total	0.006634		15			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Levene Equality of Variance Test	4.147	8.862	0.0611	Equal Variances
	Mod Levene Equality of Variance Test	1.839	8.862	0.1965	Equal Variances
	Variance Ratio F Test	14.19	8.885	0.0024	Unequal Variances
Distribution	Anderson-Darling A2 Test	1.299	3.878	0.0018	Non-Normal Distribution
	D'Agostino Skewness Test	3.341	2.576	0.0008	Non-Normal Distribution
	Kolmogorov-Smirnov D Test	0.2243	0.2471	0.0306	Normal Distribution
	Shapiro-Wilk W Normality Test	0.7902	0.8408	0.0020	Non-Normal Distribution

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	02-8890-5704	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	23 Apr-25 15:59	**Analysis:**	Parametric Bioequivalence-Two Sample	**Status Level:**	1
Edit Date:	23 Apr-25 0:00	**MD5 Hash:**	E1E0B50508828B78063BF17C2071CF54	**Editor ID:**	009-702-627-3

CETIS Measurement Report

Report Date: 23 Apr-25 16:00 (p 1 of 1)
Test Code/ID: CSE0325.152fml / 09-8951-3554

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	06-9696-5386	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino		
Start Date:	19 Mar-25 13:40	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water		
Ending Date:	26 Mar-25 13:18	**Species:**	Pimephales promelas	**Brine:**	Not Applicable		
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO	**Age:**	1d
Sample ID:	07-6250-8222	**Code:**	CSE0325.152fml	**Project:**	Boeing-SSFL NPDES Permit 2023		
Sample Date:	18 Mar-25 11:30	**Material:**	Sample Water	**Source:**	Bioassay Report		
Receipt Date:	19 Mar-25 12:55	**CAS (PC):**		**Station:**	Outfall 018		
Sample Age:	26h (0.8 °C)	**Client:**	Eurofins Calscience				

Comments: Report ID: CSE0325.152

Alkalinity (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	58	58	58	58	58	0	0	0.00%	0
100		8	52	52	52	52	52	0	0	0.00%	0
Overall		16	55	53.35	56.65	52	58	0.7746	3.098	5.63%	0 (0%)

Conductivity-µmhos

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	270.1	260	280.2	262	299	1.508	12.06	4.47%	0
100		8	394.9	391.5	398.3	389	399	0.5064	4.051	1.03%	0
Overall		16	332.5	297.9	367.1	262	399	16.25	65	19.55%	0 (0%)

Dissolved Oxygen-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.212	7.95	8.475	7.5	8.5	0.03921	0.3137	3.82%	0
100		8	8.137	7.91	8.365	7.6	8.4	0.03403	0.2722	3.35%	0
Overall		16	8.175	8.022	8.328	7.5	8.5	0.07159	0.2864	3.50%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	100	100	100	100	100	0	0	0.00%	0
100		8	122	122	122	122	122	0	0	0.00%	0
Overall		16	111	104.9	117.1	100	122	2.84	11.36	10.23%	0 (0%)

pH-Units

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.938	7.861	8.014	7.8	8	0.01145	0.09161	1.15%	0
100		8	7.712	7.659	7.766	7.6	7.8	0.008011	0.06409	0.83%	0
Overall		16	7.825	7.751	7.899	7.6	8	0.03476	0.139	1.78%	0 (0%)

Temperature-°C

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
100		8	24.09	23.97	24.21	24	24.4	0.01822	0.1458	0.61%	0
Overall		16	24.04	23.99	24.1	24	24.4	0.02734	0.1094	0.45%	0 (0%)

* Copy of original COC for hand delivery of sample to ABC Lab

-1.5°C

CHAIN OF CUSTODY FORM

Added C.F = -0.1 °C
Therm. = sample receiving
Temp. deg. C = 0.8 2
Chlorine (mg/L) = -0.1
NH3 (mg/L) = Ao 1

AB&C

Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Project: Boeing-SSFL NPDES Permit 2023 **Routine** **Outfall 018** **COMPOSITE**	
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 **ECI Project #57013187**	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)	
Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)	
Sampler: Adrien Mobeka		

Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Dissolved Metals: (E200.8): Al, Cd, Cu, Pb, Se, Zn	LL Mercury (E1631E) -- Total Dissolved	Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium [H-3] (E906.0) - **Sub to St. Louis**	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) **ABC Labs in Ventura, CA**	1,4-Dioxane (E624 (SW8260M_SIM))	Cyanide (Kelada)	Monomethyl hydrazine (SW8315M/DV-WC-0077) **Weck Labs in Hacienda Heights, CA**		Comments
Outfall 018	Outfall018_20250318_Comp_F	3/18/2025 1130	WM	~~500 mL Poly~~ 250mL 500 mL Poly	3	None	Yes	X								Filter and preserve w/in 24hrs of receipt at lab.
			WM	8oz Clear Glass, dbl bagged	3	None	Yes		X							Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. Filter and preserve w/in 24hrs of receipt at lab.
	Outfall018_20250318_Comp	3/18/2025 1130	WM	~~500 mL Poly~~	3	NaOH	Yes						X			
			WM	~~1 L Poly~~	4	HNO3				X						Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None										
			WM	2.5 Gal Cube	2	None					X					Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	40 mL VOA	3	HCl						X				
			WM	1 L Glass Amber	1	None								X		**Segregate into a cooler for Weck Labs.**
QA/QC	Outfall018_20250318_Grab_F-04	3/18/2025 1130	WQ	8oz Clear Glass, dbl bagged	1	None			X							Filter and preserve w/in 24hrs of receipt at lab.

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	3/18/2025	12:55 H&A		3/19/25 1255
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: __X__

Sample Receipt Summary

AQUATIC BIOASSAY & CONSULTING LABORATORIES, INC.

Client Name: CSE~ HALEY & ALDRICH

Project Name: BOEING ~SSFL NPDES

Receiving Information

1. Received By (initials): EM
2. Date Received: 3/19/25
3. Time Received: 1855
5. Courier Information (Circle One):
   - Client
   - FedEx
   - UPS
   - GLS
   - ABCL Driver
   - Ontrac
   - DHL
   - Other: _____
6. Shipping Container Information (Put the # of containers or circle none)
   - ___ Cooler
   - ___ Styrofoam Cooler
   - None
   - ___ Carboy
   - ___ Boxes
   - Other _____
7. Ice Type (Circle One)
   - Wet Ice
   - Blue Ice
   - Dry Ice
   - None

Inspection Information:

1. Inspected By (initials): EM

Sample Integrity Upon Receipt:

1. COC(s) included and completely filled out..... Yes / No
   a. If No was the client notified..... Yes / No
2. All sample containers arrived intact..... Yes / No
3. All samples listed on COC(s) are present..... Yes / No
4. Information on containers consistent with information on COC(s) ..... Yes / No
5. Correct containers and volume for all analyses indicated ..... Yes / No
6. All samples received within method holding time ..... Yes / No
7. Correct preservation used for all analyses indicated ..... Yes / No
8. Name of sampler included on COC(s) ..... Yes / No

Comments:

Rev. 003, March 18, 2024

AQUATIC BIOASSAY
& CONSULTING LABORATORIES, INC.

CHRONIC FATHEAD MINNOW SURVIVAL AND GROWTH BIOASSAY

DATE: 19 March 2025 Report ID: CSE0325.l52

STANDARD TOXICANT: Copper Chloride

ENDPOINT: SURVIVAL

NOEC = 19.00 ug/l

EC25 = 34.00 ug/l
EC50 = 53.65 ug/l

ENDPOINT: GROWTH

NOEC = 19.00 ug/l

IC25 = 30.51 ug/l
IC50 = 45.74 ug/l

Yours very truly,

Joe Freas
President

CETIS Summary Report

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Batch ID:	08-5818-3700	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino		
Start Date:	19 Mar-25 13:45	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water		
Ending Date:	26 Mar-25 13:15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable		
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO	**Age:**	<24
Sample ID:	10-7574-5977	**Code:**	FML031925	**Project:**	REF TOX		
Sample Date:	19 Mar-25 13:45	**Material:**	Copper chloride	**Source:**	Reference Toxicant		
Receipt Date:	19 Mar-25 13:45	**CAS (PC):**		**Station:**	REF TOX		
Sample Age:	---	**Client:**	ABC Labs				

Multiple Comparison Summary

Analysis ID	Endpoint	Comparison Method	NOEL	LOEL	TOEL	PMSD
10-5308-7795	7d Survival Rate	Steel Many-One Rank Sum Test	19	38	26.87	7.48%
12-4281-3404	Mean Dry Biomass-mg	Steel Many-One Rank Sum Test	19	38	26.87	12.5%

Point Estimate Summary

Analysis ID	Endpoint	Point Estimate Method	Level	µg/L	95% LCL	95% UCL
07-4602-0677	7d Survival Rate	Linear Interpolation (ICPIN)	EC15	28	24.54	30.7
			EC20	31	26.39	34.6
			EC25	34	28.24	38.5
			EC40	45.12	32.51	52.67
			EC50	53.65	40.94	61.76
14-7064-5296	Mean Dry Biomass-mg	Linear Interpolation (ICPIN)	IC15	25.54	22.02	29.61
			IC20	28.02	23.37	33.06
			IC25	30.51	24.71	36.57
			IC40	37.95	29.02	47.47
			IC50	45.74	30.04	53.72

7d Survival Rate Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
10		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
19		4	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%
38		4	0.6833	0.5242	0.8425	0.5333	0.7333	0.0500	0.1000	14.63%	31.67%
75		4	0.2500	0.0492	0.4508	0.0667	0.3333	0.0631	0.1262	50.48%	75.00%
150		4	0.0333	0.0000	0.0946	0.0000	0.0667	0.0193	0.0385	115.47%	96.67%

Mean Dry Biomass-mg Summary

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	N	4	0.3505	0.3332	0.3678	0.338	0.364	0.005425	0.01085	3.10%	0.00%
10		4	0.3597	0.3294	0.3899	0.3413	0.3807	0.009508	0.01902	5.29%	-2.62%
19		4	0.3487	0.3368	0.3605	0.3407	0.358	0.003722	0.007444	2.13%	0.52%
38		4	0.2127	0.1261	0.2993	0.1313	0.2447	0.02722	0.05443	25.59%	39.32%
75		4	0.04483	0.01598	0.07368	0.02	0.06267	0.009065	0.01813	40.44%	87.21%
150		4	0.0105	-0.00918	0.03018	0	0.024	0.006185	0.01237	117.80%	97.00%

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

7d Survival Rate Detail

MD5: 89BADE9DCC3FB1D13F727297614653D6

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000
19		1.0000	1.0000	1.0000	1.0000
38		0.7333	0.7333	0.7333	0.5333
75		0.0667	0.3333	0.3333	0.2667
150		0.0667	0.0000	0.0667	0.0000

Mean Dry Biomass-mg Detail

MD5: 15DDF5C22088C89F9E380AB982EF5190

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3527	0.338	0.3473	0.364
10		0.3807	0.346	0.3413	0.3707
19		0.358	0.3507	0.3407	0.3453
38		0.2333	0.2413	0.2447	0.1313
75		0.02	0.06267	0.052	0.04467
150		0.018	0	0.024	0

7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	15/15	15/15
38		11/15	11/15	11/15	8/15
75		1/15	5/15	5/15	4/15
150		1/15	0/15	1/15	0/15

CETIS Analytical Report

Report Date: 23 Apr-25 15:54 (p 1 of 4)
Test Code/ID: FML031925 / 02-2058-5503

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	10-5308-7795	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	23 Apr-25 15:53	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	23 Apr-25 0:00	**MD5 Hash:**	89BADE9DCC3FB1D13F727297614653D6	**Editor ID:**	009-702-627-3
Batch ID:	08-5818-3700	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Mar-25 13:45	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Mar-25 13:15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	10-7574-5977	**Code:**	FML031925	**Project:**	REF TOX
Sample Date:	19 Mar-25 13:45	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Mar-25 13:45	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Angular (Corrected)	C > T	19	38	26.87	---	0.07485	7.48%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	18	10	1	CDF	0.8333	Non-Significant Effect
		19	6	18	10	1	CDF	0.8333	Non-Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5.89531	1.17906	5	156.7	<1.0E-05	Significant Effect
Error	0.135464	0.0075258	18			
Total	6.03078		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test				Indeterminate
	Levene Equality of Variance Test	6.191	4.248	0.0017	Unequal Variances
	Mod Levene Equality of Variance Test	1.567	4.248	0.2196	Equal Variances
Distribution	Anderson-Darling A2 Test	2.075	3.878	<1.0E-05	Non-Normal Distribution
	D'Agostino Kurtosis Test	2.717	2.576	0.0066	Non-Normal Distribution
	D'Agostino Skewness Test	3.148	2.576	0.0016	Non-Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	17.29	9.21	0.0002	Non-Normal Distribution
	Kolmogorov-Smirnov D Test	0.3333	0.2056	<1.0E-05	Non-Normal Distribution
	Shapiro-Wilk W Normality Test	0.805	0.884	0.0004	Non-Normal Distribution

Analysis ID:	10-5308-7795	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	23 Apr-25 15:53	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	23 Apr-25 0:00	**MD5 Hash:**	89BADE9DCC3FB1D13F727297614653D6	**Editor ID:**	009-702-627-3

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	12-4281-3404	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	23 Apr-25 15:53	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	23 Apr-25 0:00	**MD5 Hash:**	15DDF5C22088C89F9E380AB982EF5190	**Editor ID:**	009-702-627-3
Batch ID:	08-5818-3700	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Mar-25 13:45	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Mar-25 13:15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	10-7574-5977	**Code:**	FML031925	**Project:**	REF TOX
Sample Date:	19 Mar-25 13:45	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Mar-25 13:45	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	Tox Units	MSDu	PMSD
Untransformed	C > T	19	38	26.87	---	0.04383	12.51%

Steel Many-One Rank Sum Test

Control	vs	Conc-µg/L	df	Test Stat	Critical	Ties	P-Type	P-Value	Decision(α:5%)
Negative Control		10	6	20	10	0	CDF	0.9516	Non-Significant Effect
		19	6	17	10	0	CDF	0.7334	Non-Significant Effect
		38*	6	10	10	0	CDF	0.0417	Significant Effect
		75*	6	10	10	0	CDF	0.0417	Significant Effect
		150*	6	10	10	0	CDF	0.0417	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.510847	0.102169	5	154.1	<1.0E-05	Significant Effect
Error	0.0119374	0.0006632	18			
Total	0.522784		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test	14.58	15.09	0.0123	Equal Variances
	Levene Equality of Variance Test	4.146	4.248	0.0111	Equal Variances
	Mod Levene Equality of Variance Test	0.6814	4.248	0.6433	Equal Variances
Distribution	Anderson-Darling A2 Test	0.8943	3.878	0.0223	Normal Distribution
	D'Agostino Kurtosis Test	3.255	2.576	0.0011	Non-Normal Distribution
	D'Agostino Skewness Test	3.445	2.576	0.0006	Non-Normal Distribution
	D'Agostino-Pearson K2 Omnibus Test	22.47	9.21	1.3E-05	Non-Normal Distribution
	Kolmogorov-Smirnov D Test	0.1493	0.2056	0.1783	Normal Distribution
	Shapiro-Wilk W Normality Test	0.8481	0.884	0.0020	Non-Normal Distribution

Analysis ID:	12-4281-3404	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	23 Apr-25 15:53	**Analysis:**	Nonparametric-Control vs Treatments	**Status Level:**	1
Edit Date:	23 Apr-25 0:00	**MD5 Hash:**	15DDF5C22088C89F9E380AB982EF5190	**Editor ID:**	009-702-627-3

CETIS Analytical Report

Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	07-4602-0677	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	23 Apr-25 15:53	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	23 Apr-25 0:00	**MD5 Hash:**	89BADE9DCC3FB1D13F727297614653D6	**Editor ID:**	009-702-627-3
Batch ID:	08-5818-3700	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Mar-25 13:45	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Mar-25 13:15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	10-7574-5977	**Code:**	FML031925	**Project:**	REF TOX
Sample Date:	19 Mar-25 13:45	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Mar-25 13:45	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	0	280	Yes	Two-Point Interpolation

Point Estimates

Level	µg/L	95% LCL	95% UCL
EC15	28	24.54	30.7
EC20	31	26.39	34.6
EC25	34	28.24	38.5
EC40	45.12	32.51	52.67
EC50	53.65	40.94	61.76

7d Survival Rate Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	1.0000	1.0000	1.0000	1.0000
10		1.0000	1.0000	1.0000	1.0000
19		1.0000	1.0000	1.0000	1.0000
38		0.7333	0.7333	0.7333	0.5333
75		0.0667	0.3333	0.3333	0.2667
150		0.0667	0.0000	0.0667	0.0000

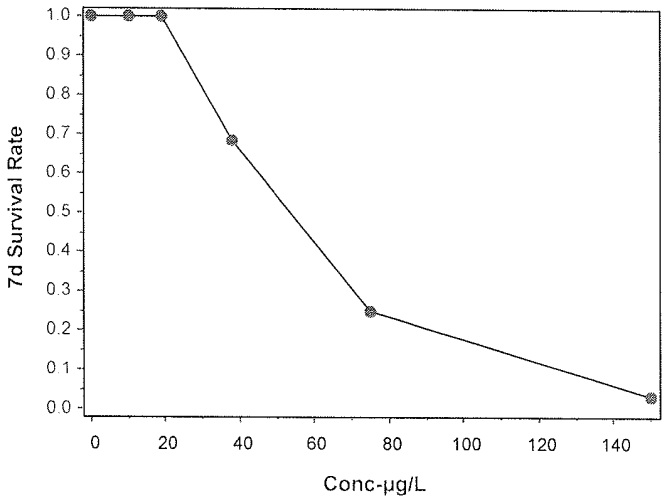
7d Survival Rate Binomials

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	15/15	15/15	15/15	15/15
10		15/15	15/15	15/15	15/15
19		15/15	15/15	15/15	15/15
38		11/15	11/15	11/15	8/15
75		1/15	5/15	5/15	4/15
150		1/15	0/15	1/15	0/15

Fathead Minnow 7-d Larval Survival and Growth Test
Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	07-4602-0677	**Endpoint:**	7d Survival Rate	**CETIS Version:**	CETIS v2.1.5
Analyzed:	23 Apr-25 15:53	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	23 Apr-25 0:00	**MD5 Hash:**	89BADE9DCC3FB1D13F727297614653D6	**Editor ID:**	009-702-627-3

Graphics



Fathead Minnow 7-d Larval Survival and Growth Test — Aquatic Bioassay & Consulting Labs, Inc.

Analysis ID:	14-7064-5296	**Endpoint:**	Mean Dry Biomass-mg	**CETIS Version:**	CETIS v2.1.5
Analyzed:	23 Apr-25 15:53	**Analysis:**	Linear Interpolation (ICPIN)	**Status Level:**	1
Edit Date:	23 Apr-25 0:00	**MD5 Hash:**	15DDF5C22088C89F9E380AB982EF5190	**Editor ID:**	009-702-627-3
Batch ID:	08-5818-3700	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Mar-25 13:45	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Mar-25 13:15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	10-7574-5977	**Code:**	FML031925	**Project:**	REF TOX
Sample Date:	19 Mar-25 13:45	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Mar-25 13:45	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Linear	Linear	1147668	280	Yes	Two-Point Interpolation

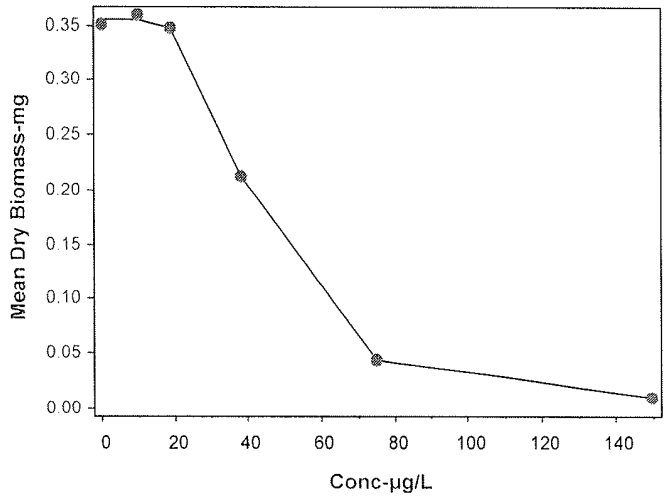
Point Estimates

Level	µg/L	95% LCL	95% UCL
IC15	25.54	22.02	29.61
IC20	28.02	23.37	33.06
IC25	30.51	24.71	36.57
IC40	37.95	29.02	47.47
IC50	45.74	30.04	53.72

Mean Dry Biomass-mg Detail

Conc-µg/L	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	N	0.3527	0.338	0.3473	0.364
10		0.3807	0.346	0.3413	0.3707
19		0.358	0.3507	0.3407	0.3453
38		0.2333	0.2413	0.2447	0.1313
75		0.02	0.06267	0.052	0.04467
150		0.018	0	0.024	0

Graphics



CETIS Measurement Report

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Batch ID:	08-5818-3700	**Test Type:**	Growth-Survival (7d)	**Analyst:**	Beth Maturino
Start Date:	19 Mar-25 13:45	**Protocol:**	EPA/821/R-02-013 (2002)	**Diluent:**	Laboratory Water
Ending Date:	26 Mar-25 13:15	**Species:**	Pimephales promelas	**Brine:**	Not Applicable
Test Length:	7d	**Taxon:**	Actinopterygii	**Source:**	Aquatic Biosystems, CO **Age:** <24
Sample ID:	10-7574-5977	**Code:**	FML031925	**Project:**	REF TOX
Sample Date:	19 Mar-25 13:45	**Material:**	Copper chloride	**Source:**	Reference Toxicant
Receipt Date:	19 Mar-25 13:45	**CAS (PC):**		**Station:**	REF TOX
Sample Age:	---	**Client:**	ABC Labs		

Alkalinity (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	58	58	58	58	58	0	0	0.00%	0
150		8	58	58	58	58	58	0	0	0.00%	0
Overall		16	58	58	58	58	58	0	0	0.00%	0 (0%)

Conductivity-µmhos

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	270.5	260.6	280.4	262	299	1.487	11.89	4.40%	0
10		8	260.8	259.2	262.3	259	265	0.2386	1.909	0.73%	0
19		8	260.1	259.8	260.4	260	261	0.04419	0.3536	0.14%	0
38		8	258.9	258.2	259.6	257	260	0.1043	0.8345	0.32%	0
75		8	258.2	257.5	259	257	259	0.1108	0.8864	0.34%	0
150		8	258.5	257.7	259.3	257	259	0.1157	0.9258	0.36%	0
Overall		48	261.2	259.3	263	257	299	0.9193	6.369	2.44%	0 (0%)

Dissolved Oxygen-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	8.212	7.95	8.475	7.5	8.5	0.03921	0.3137	3.82%	0
10		8	8.113	7.839	8.386	7.4	8.5	0.04088	0.3271	4.03%	0
19		8	8.075	7.831	8.319	7.4	8.4	0.03644	0.2915	3.61%	0
38		8	8.075	7.857	8.293	7.5	8.4	0.03256	0.2605	3.23%	0
75		8	8.063	7.858	8.267	7.5	8.3	0.03057	0.2446	3.03%	0
150		8	8.063	7.858	8.267	7.5	8.3	0.03057	0.2446	3.03%	0
Overall		48	8.1	8.021	8.179	7.4	8.5	0.03928	0.2721	3.36%	0 (0%)

Hardness (CaCO3)-mg/L

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	100	100	100	100	100	0	0	0.00%	0
150		8	122	122	122	122	122	0	0	0.00%	0
Overall		16	111	104.9	117.1	100	122	2.84	11.36	10.23%	0 (0%)

pH-Units

Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	7.938	7.861	8.014	7.8	8	0.01145	0.09161	1.15%	0
10		8	7.95	7.905	7.995	7.9	8	0.00668	0.05344	0.67%	0
19		8	7.95	7.905	7.995	7.9	8	0.00668	0.05344	0.67%	0
38		8	7.863	7.819	7.906	7.8	7.9	0.006468	0.05175	0.66%	0
75		8	7.875	7.816	7.934	7.8	8	0.008838	0.07071	0.90%	0
150		8	7.875	7.816	7.934	7.8	8	0.008838	0.07071	0.90%	0
Overall		48	7.908	7.887	7.93	7.8	8	0.01067	0.0739	0.93%	0 (0%)

Fathead Minnow 7-d Larval Survival and Growth Test

Aquatic Bioassay & Consulting Labs, Inc.

Temperature-°C

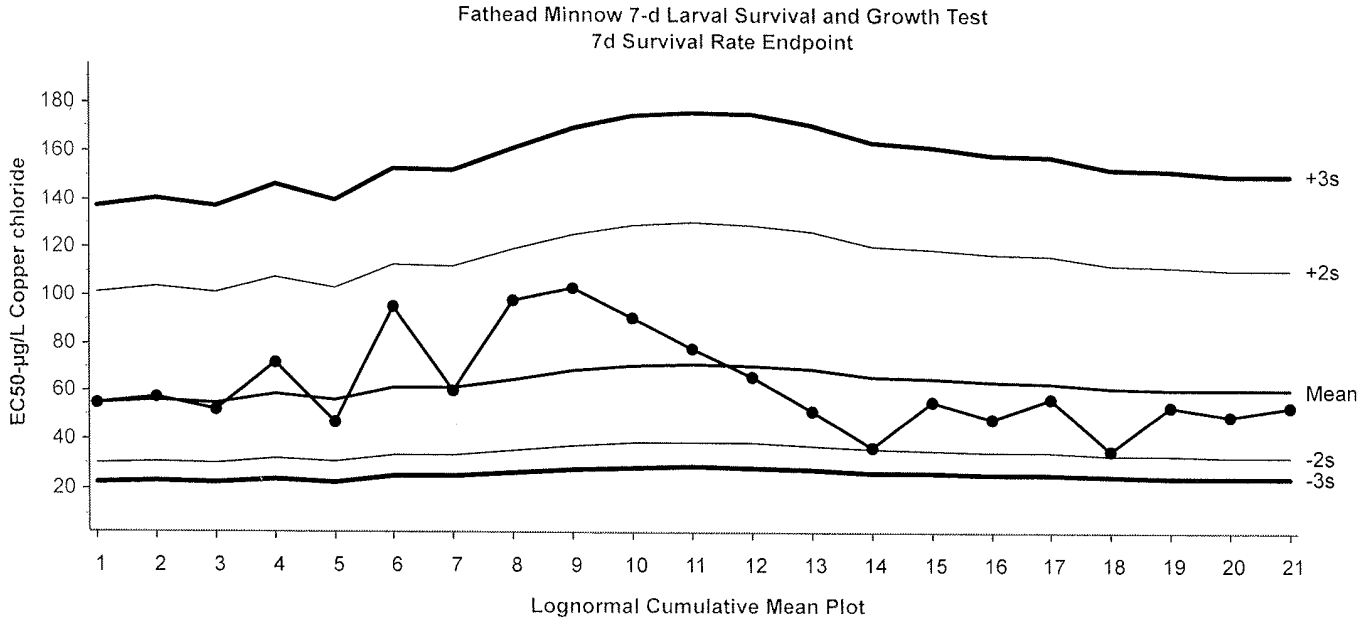
Conc-µg/L	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	QA Count
0	N	8	24	24	24	24	24	0	0	0.00%	0
10		8	24.01	23.98	24.04	24	24.1	0.004414	0.03531	0.15%	0
19		8	24.03	23.99	24.06	24	24.1	0.005778	0.04623	0.19%	0
38		8	24.05	23.97	24.13	24	24.2	0.01157	0.09255	0.38%	0
75		8	24.05	23.97	24.13	24	24.2	0.01157	0.09255	0.38%	0
150		8	24.06	23.96	24.16	24	24.3	0.01485	0.1188	0.49%	0
Overall		48	24.03	24.01	24.06	24	24.3	0.01087	0.07532	0.31%	0 (0%)

CETIS QC Plot

Report Date: 23 Apr-25 15:57 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	7d Survival Rate	**Source:**	Reference Toxicant-REF



Mean:	60.52	**Count:**	20	**-2s Warning Limit:**	33	**-3s Action Limit:**	24.4
Sigma:	NA	**CV:**	31.00%	**+2s Warning Limit:**	111	**+3s Action Limit:**	150

Quality Control Data

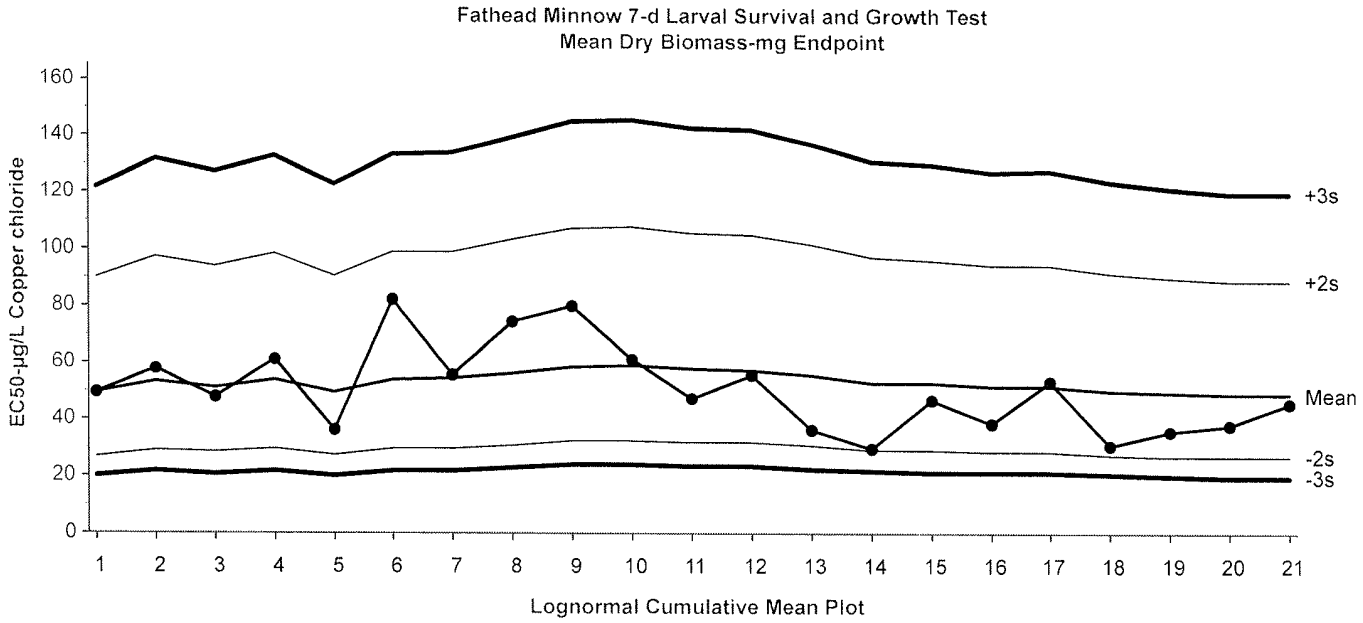
Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Dec	3	13:00	55.22	-5.297	-0.3023			18-1540-2996	05-6522-4940
2			10	15:20	57.87	-2.651	-0.1478			19-9851-1845	18-5768-6591
3			17	13:13	52.39	-8.133	-0.4763			09-4375-8924	01-3886-6616
4	2025	Jan	7	14:40	71.92	11.4	0.5693			21-0637-0547	11-1485-0637
5			14	12:00	47.25	-13.27	-0.817			05-6088-9362	03-4082-7382
6			28	15:46	95.12	34.6	1.492			04-9084-2249	19-5925-0077
7		Feb	4	17:01	60.42	-0.09734	-0.00531			00-6241-7952	01-1979-8744
8			6	15:40	98.28	37.75	1.6			06-9427-5319	01-8738-7815
9			11	12:15	103	42.46	1.754			16-8104-1835	13-5437-1451
10			14	15:22	91.07	30.55	1.349			02-3244-8004	20-8031-7528
11			19	15:00	77.59	17.06	0.8198			03-7585-3495	05-1062-8439
12			21	16:10	66.12	5.598	0.292			04-2515-1876	09-9513-1838
13			25	15:00	52.03	-8.487	-0.4987			06-9841-1254	05-3567-6484
14		Mar	4	11:55	36.54	-23.98	-1.665			09-8618-7900	21-0171-6369
15			6	15:00	55.94	-4.582	-0.2598			06-4992-6637	09-1125-3834
16			11	14:20	48.57	-11.95	-0.726			01-9738-2981	11-5744-4911
17			12	14:30	57	-3.522	-0.1979			15-9029-2948	08-4889-8948
18			13	15:00	35.76	-24.76	-1.736			15-0532-7978	01-4540-1204
19			14	13:30	53.86	-6.664	-0.385			03-0453-9159	17-1584-9329
20			18	16:14	49.89	-10.63	-0.6374			07-6980-9471	12-8616-4852
21			19	13:45	53.65	-6.868	-0.3975			02-2058-5503	07-4602-0677

CETIS QC Plot

Report Date: 23 Apr-25 15:57 (1 of 1)

Fathead Minnow 7-d Larval Survival and Growth Test — **Aquatic Bioassay & Consulting Labs, Inc.**

Test Type:	Growth-Survival (7d)	**Organism:**	Pimephales promelas	**Material:**	Copper chloride
Protocol:	EPA/821/R-02-013 (2002)	**Endpoint:**	Mean Dry Biomass-mg	**Source:**	Reference Toxicant-REF



Mean:	48.62	**Count:**	20	**-2s Warning Limit:**	26.6	**-3s Action Limit:**	19.7
Sigma:	NA	**CV:**	30.90%	**+2s Warning Limit:**	88.9	**+3s Action Limit:**	120

Quality Control Data

Point	Year	Month	Day	Time	QC Data	Delta	Sigma	Warning	Action	Test ID	Analysis ID
1	2024	Dec	3	13:00	49.26	0.6418	0.04345			18-1540-2996	06-7062-0437
2			10	15:20	57.69	9.069	0.5667			19-9851-1845	02-6664-5479
3			17	13:13	47.7	-0.9225	-0.06348			09-4375-8924	15-9519-3400
4	2025	Jan	7	14:40	61.37	12.75	0.7718			21-0637-0547	16-6875-9592
5			14	12:00	36.34	-12.27	-0.9641			05-6088-9362	03-9030-1419
6			28	15:46	81.96	33.34	1.73			04-9084-2249	06-9280-3288
7		Feb	4	17:01	55.44	6.818	0.4348			00-6241-7952	10-0544-6264
8			6	15:40	74.2	25.59	1.401			06-9427-5319	09-6653-1378
9			11	12:15	79.94	31.32	1.648			16-8104-1835	16-9131-3620
10			14	15:22	61.26	12.64	0.7657			02-3244-8004	06-2322-2824
11			19	15:00	47.09	-1.525	-0.1056			03-7585-3495	20-4623-6693
12			21	16:10	55.43	6.815	0.4347			04-2515-1876	02-0688-1543
13			25	15:00	36.25	-12.37	-0.973			06-9841-1254	04-9712-7662
14		Mar	4	11:55	29.52	-19.1	-1.654			09-8618-7900	16-0186-3037
15			6	15:00	46.84	-1.781	-0.1237			06-4992-6637	05-1468-2705
16			11	14:20	38.15	-10.47	-0.8037			01-9738-2981	20-7282-5356
17			12	14:30	53.11	4.495	0.293			15-9029-2948	19-6773-3350
18			13	15:00	30.83	-17.79	-1.51			15-0532-7978	14-7293-6054
19			14	13:30	35.35	-13.27	-1.056			03-0453-9159	08-7766-8898
20			18	16:14	37.93	-10.68	-0.8223			07-6980-9471	04-6294-3005
21			19	13:45	45.74	-2.875	-0.202			02-2058-5503	14-7064-5296

Loc: 570
222920

CHAIN OF CUSTODY FORM

570-222920 Chain of Custody

Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Project: Boeing-SSFL NPDES Permit 2023 **Routine** **Outfall 018** **COMPOSITE**
Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494	
ECI Project #57013187 Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc.	Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell)
Sampler: Adrien Mobeka	Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)

Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	ANALYSIS REQUIRED: Total Recoverable Metals:(E200.8): Al, Cd, Cu, Pb, Se, Zn (A/R)	TCDD (and all congeners) (E1613B) - Sub to Sacramento (R)	BOD5 (20 degrees C), (E405.1 (SM5210B_BODCalc)) (R)	LL Mercury (E1631E) - Total Recoverable (R)	Chloride [Cl-], Sulfate [SO4], Nitrate-N, Nitrite-N, NO3+NO2-N (E300) (A/R)	Turbidity, TDS (SM2540C/E180.1) (R)	TSS (160.2 (SM2540D)) (R)	Routine Pesticides - alpha-BHC, 4,4-DDE, Heptachlor (EC08) Weck Labs in Hacienda Heights, CA (A/R)	Routine SVOCs - 2,4,6-Trichlorophenol; 2,4 Dinitrotoluene; Bis(2-ethylhexyl)phthalate, NDMA, Pentachlorophenol, Benzidine; 3,3-Dichlorobenzidene (E625) (A/R)	Routine SVOCs (E8270C SIM) Sub Indeno(1,2,3-cd)pyrene to EMAX (A/R)	Ammonia-N (E351.1) (R)	Detergents (MBAS) (SM5540C/E425.1) (R)		Comments
Outfall 018	Outfall018_20250313_Comp	3/18/2025 1130	WM	~~250 mL Poly~~	3	HNO3	Yes	X													
			WM	1 L Glass Amber	2	None			X												
			WM	~~1 L Poly~~	1	None				X											
			WM	8oz Clear Glass, dbl bagged	3	HCL	Yes				X										Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures.
			WM	~~250 mL Poly~~	1	None						X									48 hours Holding Time NO_3 & NO_2
			WM	~~500 mL Poly~~	1	None							X								48 hour holding time for turbidity
			WM	~~1 L Poly~~	1	None								X							
			WM	1 L Glass Amber	4	None									X						Segregate into a cooler for Weck Labs.
			WM	1 L Glass Amber	12	None	Yes									X					
			WM	1 L Glass Amber	4	None											X				Segregate into a cooler for EMAX.
			WM	~~250 mL Poly~~	1	H_2SO_4												X			
			WM	~~1 L Poly~~	1	None													X		
QA/QC	Outfall018_20250318_Grab-04	3/18/2025 1130	WQ	8oz Clear Glass, dbl bagged	1	HCL					X										
			WQ	1 L Glass Amber	4	None										X					

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah	3/19/2025 1140	H&A		3/19/25 1140
	3/19/25 1308	EC		3/19/25 13:08
	3/19/25 1823	EC		3/19/25 1823

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: __X__
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.
Data Requirements: (Check)
No Level IV: _____ All Level IV: __X__

1.2/1.2 1.7/1.7 1.8 Wet
0.9/0.9 2.1/2.1 IR-92 T193

2024-2025 Rainy Season
Version 1

4/26/2025

222920

CHAIN OF CUSTODY FORM

								R	R	R	A/R	R	R	R		
Client Name/Address: Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108 Eurofins Calscience Project Manager: Virendra Patel 2841 Dow Avenue, Suite #100 Tustin, CA 92780 Tel: 714-895-5494 ECI Project #57013187 Eurofins Calscience's services under this CoC shall be performed in accordance with the T&Cs within Blanket Service Agreement#2022-24-Eurofins by and between Haley & Aldrich, Inc., its subsidiaries and affiliates, and Eurofins Calscience, Inc. Sampler: Adrien Moheka				Project: Boeing-SSFL NPDES Permit 2023 **Routine** **Outfall 018** **COMPOSITE** Project Manager: Katherine Miller 520.289.8606, 520.904.6944 (cell) Field Manager: Mark Dominick 978.234.5033, 818.599.0702 (cell)			ANALYSIS REQUIRED								
Sample Description	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	MS/MSD	Total Dissolved Metals (E200.8): Al, Cd, Cu, Pb, Se, Zn	LL Mercury (E1631E) -- Total Dissolved	Gross Alpha, Gross Beta (E900.0); Total Combined Radium 226 & 228 (E903, E904); K-40, Cesium-137 (E901); Strontium-90 (E905); Uranium (HASL-300 U-02 or A-01-R); Tritium [H-3] (E906.0) - **Sub to St. Louis**	Chronic Toxicity - Fathead Minnow (EPA-821-R-02-013) **ABC Labs in Ventura, CA**	1,4-Dioxane (E624 (SW8260M_SIM))	Cyanide (Kelada)	Monomethyl hydrazine (SW8315M/DV-WC-0077) **Weck Labs in Hacienda Heights, CA**		Comments
Outfall 018	Outfall018_20250318_Comp_F	3/18/2025 1130	WM	~~500 mL Poly~~ 250mL Poly ADL	3	None	Yes	X								Filter and preserve w/in 24hrs of receipt at lab.
			WM	8oz Clear Glass, dbl bagged	3	None	Yes		X							Sample receiving DO NOT OPEN BAG. Bag to be opened in Mercury Prep using clean procedures. Filter and preserve w/in 24hrs of receipt at lab.
	Outfall018_20250318_Comp	3/18/2025 1130	WM	500 mL Poly	3	NaOH	Yes						X			
			WM	1 L Poly	4	HNO3				X						Unfiltered analysis, Separate RAD onto another workorder. Analyze duplicate, not MS/MSD.
			WM	1 L Glass Amber	1	None										
			WM	2.5 Gal Cube	2	None					X					Only test if first or second rain events of the year. **Deliver to ABC Labs in Ventura, CA**
			WM	40 mL VOA	3	HCl						X				
			WM	1 L Glass Amber	1	None								X		**Segregate into a cooler for Weck Labs.**
QA/QC	Outfall018_20250318_Grab_F-04	3/18/2025 1130	WQ	8oz Clear Glass, dbl bagged	1	None			X							Filter and preserve w/in 24hrs of receipt at lab.

Legend: A=Annual, C=Conditional, EP=Expert Panel, R=Routine, Q=Quarterly, QRSW=Quarterly Receiving Water, S=Semi-Annual

Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:
Michelle Dallalah H&A	3/19/2025 1140			3/19/25 1440
	3/19/25	EC 1308		3/19/25 1300
				2/19/25 1823

Turn-around time: (Check)
24 Hour: _____ 72 Hour: _____ 10 Day: ___X___
48 Hour: _____ 5 Day: _____ Normal: _____

Sample Integrity: (Check)
Intact: _____ On Ice: _____
Store samples for 6 months.

Data Requirements: (Check)
No Level IV: _____ All Level IV: ___X___

1.2/1.2 1.7/1.7 1.6 WET
0.8/0.8 2.1/2.1 T-183
0.9/0.9
IR-92

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 570-222920-4

Login Number: 222920

List Source: Eurofins Calscience

List Number: 1

Creator: Chapman, Allyson

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Data Usability Summary Report

Project Name: The Boeing Company, Santa Susana Field Laboratory, NPDES

Project Description: First Quarter 2025 Stormwater Samples

Sample Date(s): February through March 2025

Analytical Laboratory: Eurofins Calscience, Tustin, CA

Validation Performed by: Gabrielle Davis

Validation Reviewed by: Katherine Miller

Validation Date: April 14, 2025

Haley & Aldrich, Inc. (Haley & Aldrich) prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group(s) (SDGs) listed. This DUSR is organized into the following sections:

1. **Level II, First Quarter 2025, Dioxins Data Validation**
2. **Explanations**
3. **Glossary**
4. **Abbreviations**
5. **Qualifiers**

References

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- USEPA Contract Laboratory Program (CLP) National Functional Guideline (NFG) for Chlorinated Dioxin/Furan Data Review;
- Project-specific Quality Assurance Project Plan (QAPP), herein referred to as the specified limits (see References section).

Data reported in this sampling event were reported to the laboratory estimated detection limit (EDL). Results found between the EDL and laboratory reporting limit (RL) are flagged "J" as estimated.

Sample data were qualified in accordance with the laboratory's standard operating procedures (SOPs). The results presented in each laboratory report were found to be compliant with the data quality objectives (DQO) for the project and are, therefore, usable; any exceptions are noted in the following pages.

1. Level II, First Quarter 2025, Dioxins Data Validation

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG numbers:

- 570-217375-2, dated March 28, 2025;
- 570-218361-2, dated March 19, 2025;
- 570-218404-2, dated March 19, 2025;
- 570-218413-2, dated March 24, 2025;
- 570-218615-2, dated March 21, 2025;
- 570-218619-2, dated March 24, 2025;
- 570-218637-2, dated March 24, 2025;
- 570-218918-2, dated March 24, 2025;
- 570-219358-2, dated March 30, 2025;
- 570-221020-2, dated March 31, 2025;
- 570-221866-2, dated April 1, 2025;
- 570-222647-2, dated April 1, 2025;
- 570-222920-2, dated March 31, 2025; and
- 570-224549-2, dated April 11, 2025.

Samples were collected, preserved, and shipped following standard chain of custody (COC) protocol.

- Samples for USEPA Method 1613B analysis were subcontracted to Eurofins Sacramento in West Sacramento, CA.

Samples were also received appropriately, identified correctly, and analyzed according to the COC.

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods	Holding Time
Outfall002_20250208_Comp	N	570-217375-1	02/08/2025	WM	High Resolution Analysis of Dioxins/Furans by USEPA 1613B	1 year, preserved
Outfall008_20250214_Comp	N	570-218361-1	02/14/2025	WM		
Outfall002_20250214_Comp	N	570-218404-1	02/14/2025	WM		
Outfall001_20250214_Comp	N	570-218413-1	02/14/2025	WM		
RSW-002_20250214_Grab	N	570-218615-1	02/14/2025	WM		
RSW-003_20250214_Grab	N	570-218619-1	02/14/2025	WM		
Outfall009_20250215_Comp	N	570-218637-1	02/15/2025	WM		
INF002_20250219_Grab	N	570-218918-1	02/19/2025	WM		
Outfall018_20250221_Comp	N	570-219358-1	02/21/2025	WM		
Outfall002_20250306_Comp	N	570-221020-2	03/06/2025	WM		
Outfall002_20250312_Comp	N	570-221866-1	03/12/2025	WM		
INF002_20250317_GRAB	N	570-222647-1	03/17/2025	WM		
Outfall018_20250318_Comp	N	570-222920-1	03/18/2025	WM		
Outfall002_20250401_Comp	N	570-224549-1	4/1/2025	WM		

1.2 CASE NARRATIVE

The laboratory report case narrative lists various additional quality control issues, such as continuing calibration verification (CCV) exceedances. Since these additional quality control issues were not required as per the QAPP, these quality control issues were not reviewed. Any additional issues are listed below:

The retention time difference between the recovery standards in the initial calibration and continuing calibration verification for 13C-1,2,3,4-TCDD and 13C-1,2,3,7,8,9-HxCDD run on instrument DFS 1 exceeded the +/-15 second difference specified in Method 1613B. The retention time shift is caused by column maintenance and does not impact the chromatographic resolution, sensitivity, or identification of analytes. System retention times were updated for proper analyte identification. No qualification of the reported results is recommended.

- 570-218361-2 and 570-218404-2: The automated ending resolution check scheduled to be performed for analytical batch 320-840626 did not print due to an Auto sampler malfunction. Upon arrival to work the next morning, the analyst performed a manual ending resolution check which indicated the instrument maintained greater than 10,000 resolution. No qualification of the reported results is recommended.

1.3 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol.

1.4 REPORTING LIMITS AND SAMPLE DILUTIONS

The RLs for the samples within this SDG met or were below the minimum RL requirements specified by the project specific QAPP.

- The reporting limits are influenced by sample volume and may be slighter greater than the QAPP target reporting limits.

No sample dilutions were performed for the analysis of the samples in these reports.

1.5 SURROGATE RECOVERY COMPLIANCE

Refer to Section E 1.2. The percent recovery (%R) for each surrogate compound added to each project sample were determined to be within the laboratory specified quality control (QC) limits.

1.6 LABORATORY CONTROL SAMPLES

Refer to Section E 1.3. Compounds associated with the laboratory control samples/laboratory control sample duplicates (LCS/LCSD) analyses associated with client samples exhibited recoveries and relative percent differences (RPDs) within the specified limits.

1.7 MATRIX SPIKE SAMPLES

Refer to Section E 1.4. The laboratory did not analyze any matrix spike/matrix spike duplicate (MS/MSD) analysis in these SDGs.

1.8 BLANK SAMPLE ANALYSIS

Refer to Section E 1.5. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred, with exceptions are noted in Table 1.

1.9 DUPLICATE SAMPLE ANALYSIS

Refer to Section E 1.6. The laboratory did not analyze any laboratory duplicates as per the method or laboratory SOP.

1.10 PRECISION AND ACCURACY

Refer to Section E 1.7. Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples.

1.11 ESTIMATED MAXIMUM POSSIBLE CONCENTRATION (EMPC)

Refer to Section E 1.9. A result previously qualified as a non-detect for method blank contamination was not further qualified as an EMPC. The EMPC flags reported by the laboratory are listed in Table 2.

1.12 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the data quality objectives for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable with no rejected data. A summary of qualifiers applied to this data set is shown in Table 3.

2. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.2 Surrogate Recovery Compliance
  - Surrogates, also known as system monitoring compounds, are compounds added to each sample prior to sample preparation to determining the efficiency of the extraction procedure by evaluating the %R of the compounds.
- E 1.3 Laboratory Control Samples
  - The LCS/LCSD analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.4 Matrix Spike Samples
  - MS/MSD data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
- E 1.5 Blank Sample Analysis
  - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
- E 1.6 Laboratory Duplicate Sample Analysis
  - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
- E 1.7 Precision and Accuracy
  - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the RPD found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.
  - Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the %R of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.
- E 1.9 Estimated Maximum Possible Concentration
  - An EMPC is a worst-case estimate of the concentration for a dioxin/furan or Polychlorinated Biphenyl (PCB) based on all identification criteria being met except the ion abundance ratio criteria, or if a peak representing a chlorinated diphenyl ether was detected.

3. Glossary

*Analyte names may be abbreviated for simplicity. Please reference the laboratory report for the full analyte name.

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
  - EB Equipment Blank Sample
  - FB Field Blank Sample
  - FD Field Duplicate Sample
  - N Primary Sample
  - TB Trip Blank Sample
- Units:
  - ng/kg nanograms per kilogram
  - µg/L micrograms per liter
  - µg/m^3 micrograms per cubic meter
  - mg/kg milligrams per kilogram
  - mg/L milligrams per liter
  - ppbv/v parts per billion volume/volume
  - pCi/L picocuries per liter
  - pg/g picograms per gram
  - pg/L picograms per liter
- Matrices:
  - AA Ambient Air
  - GS Soil Gas
  - GW/WG Groundwater
  - IA Indoor Air
  - SE Sediment
  - SO Soil
  - SSV Sub-slab Vapor
  - ST Solid Waste
  - WM Stormwater
  - WQ Water Quality control matrix
  - WS Surface Water
  - WW Waste Water
- Table Footnotes:
  - NA Not applicable
  - ND Non-detect
  - NR Not reported
- Common Symbols:
  - % percent
  - < less than
  - ≤ less than or equal to
  - > greater than
  - ≥ greater than or equal to
  - = equal
  - °C degrees Celsius
  - ± plus or minus
  - ~ approximately
  - x times (multiplier)
- Fractions:
  - N Normal (method cannot be filtered)
  - D Dissolved (filtered)
  - T Total (unfiltered)

4. Abbreviations

%D	Percent Difference
%R	Percent Recovery
%RSD	Percent Relative Standard Deviation
%v/v	Percent volume by volume
2s	2 sigma
4,4-DDT	4 4-dichlorodiphenyltrichloroethane
Abs Diff	Absolute Difference
amu	atomic mass unit
BPJ	Best Professional Judgement
BS	Blank Spike
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CCVL	Continuing Calibration Verification Low
CLP	Contract Laboratory Program
COC	Chain of Custody
COM	Combined Isotope Calculation
Cr (VI)	Hexavalent Chromium
CRI	Collision Reaction Interface
DoD	Department of Defense
DQO	data quality objective
DUSR	Data Usability Summary Report
EDL	estimated detection limit
EIS	Extraction Internal Standard
EMPC	Estimated Maximum Possible Concentration
FBK	Field Blank Contamination
FDP	Field Duplicate
GC	Gas Chromatograph
GC/MS	Gas Chromatography/Mass Spectrometry
GPC	Gel Permeation Chromatography
H_2	Hydrogen gas
HCl	Hydrochloric Acid
ICAL	Initial Calibration
ICB	Initial Calibration Blank
ICP/MS	Inductively Coupled Plasma/ Mass Spectrometry
ICV	Initial Calibration Verification
ICVL	Initial Calibration Verification Low
IPA	Isopropyl Alcohol
LC	Laboratory Control
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MBK	Method Blank Contamination
MDC	Minimum Detectable Concentration
MDL	Laboratory Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	not applicable
ND	Non-Detect
NFG	National Functional Guidelines
NH_3	Ammonia
NYSDEC	New York State Department of Environmental Conservation
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PDS	Post Digestion Spike
PEM	Performance Evaluation Mixture
PFAS	Per- and Polyfluoroalkyl Substances
PFBA	Perfluorbutanoic Acid
PFD	Perfluorodecalin
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane sulfonate
PFPeA	Perfluoropentanoic Acid
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
R^2	R-squared value
Ra-226	Radium-226
Ra-228	Radium-228
RESC	Resolution Check Measure
RER	Relative Error Ratio
RL	Laboratory Reporting Limit
RPD	Relative Percent Difference
RRF	Relative Response Factors
RT	Retention Time
SAP	sampling analysis plan
SDG	Sample Delivery Group
SIM	Selected ion monitoring
SOP	Standard Operating Procedures
SPE	Solid Phase Extraction
SVOC	Semi-Volatile Organic Compounds
TCLP	Toxicity Characteristic Leaching Procedure
TIC	Tentatively Identified Compound
TKN	Total Kjeldahl Nitrogen
TPH	Total Petroleum Hydrocarbon
TPU	Total Propagated Uncertainty
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compounds
WP	Work Plan

5. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Laboratory Qualifiers:

BA	Relative percent difference out of control.
BU	Analyzed out of holding time.
BV	Sample received after holding time expired.
J,DX	Results found between the EDL or MDL and laboratory RL.
LM	MS and/or MSD above acceptance limits. See Blank Spike (LCS).
LN	MS and/or MSD below acceptance limits. See Blank Spike (LCS).
LR	LCS/LCSD recovery below method control limits.
LQ	LCS/LCSD recovery above method control limits.
MB	Analyte present in the method blank.
PI	Primary and confirm results varied by > than 40% RPD.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio; the measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
U	Result is less than the sample detection limit.

- Validation Notes:

--	Based on validation of the data, a qualifier was not required.
*1	Improper preservation of sample.
*3	Initial and/or continuing calibration recoveries were outside acceptable control limits.
*10	Value was estimated detect or estimated non-detect (J, UJ) due to deficiencies in quantitation of the constituent, including constituents reported by the laboratory as estimated maximum possible concentration (EMPC) values.
*III	Unusual problems found with the data that have been described in the validation report.
B	Presumed contamination as indicated by the preparation (method) blank results.
C	Calibration %RSD or %D was noncompliant. [or] Correlation coefficient is <0.995.
D	The analysis with this flag should not be used because another more technically sound analysis is available.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.
E	Duplicates showed poor agreement.

F	Presumed contamination as indicated by the field blank (FB) or equipment blank (EB) results.
H	Holding times were exceeded.
I	Internal standard performance was unsatisfactory. [or] ICP ICS results were unsatisfactory.
L	LCS/LCSD % recovery or RPD was not within control limits.
L1	Laboratory control standard (LCS)/laboratory control standard duplicate (LCSD), relative percent difference (RPD) was outside the control limit.
Q	MS/MSD recovery or RPD was outside of control limits.
R	Calibration RRF was <0.05 or %R for calibration is not within control limits. [or] %R for calibration is not within control limits.
RPD	Pesticides and PCB Confirmation Column RPD Exceeded.
S	Surrogate recovery was outside QC limits. [or] The sequence or number of standards used for the calibration was incorrect.

- Validation Qualifiers:

=	No Qualifier.
J	Estimated value.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analyte has been "tentatively identified" or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	As a validation qualifier, results are rejected; the presence or absence of analyte cannot be verified.
U	Result not detected.
UJ	The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.

References

1. Haley & Aldrich, Inc., 2024. *Quality Assurance Project Field Plan for Santa Susana Field Laboratory Stormwater Sampling Program*. September.

2. United States Environmental Protection Agency (USEPA), 2011. *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Chlorinated Dibenzo-p-Dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) Data Review*. EPA-540-R-11-016. September.

Attachments:

Table 1 - Method Blanks Detections
Table 2 - EMPC Flags
Table 3 - Summary of Qualifiers

TABLE 1

METHOD BLANKS DETECTIONS

THE BOEING COMPANY

SANTA SUSANA FIELD LABORATORY

SDG	Batch	Analyte Detected in Blank	Concentration	Qualifier	Affected Samples
570-217375-2	839047	OCDD	0.0000071 J, DX	Result U	Outfall002_20250208_Comp
570-218361-2	840173	1,2,3,7,8,9-HxCDF	0.00000187 J,DX q	NA	None, sample is ND
		OCDD	0.0000139 J,DX q	Result U	Outfall008_20250214_Comp
		OCDF	0.00000347 J,DX q	NA	None, sample is ND
570-218404-2		1,2,3,7,8,9-HxCDF	0.00000187 J,DX q		
		OCDD	0.0000139 J,DX q		None, sample is >10x blank
		OCDF	0.00000347 J,DX q	Result U	Outfall002_20250214_Comp
570-218413-2		1,2,3,7,8,9-HxCDF	0.00000187 J,DX q		Outfall001_20250214_Comp
		OCDD	0.0000139 J,DX q	NA	None, sample is >10x blank
		OCDF	0.00000347 J,DX q		
570-218615-2	840199	OCDF	0.00000465 J,DX		
570-218619-2	840199	OCDF	0.00000465 J,DX	Result U	RSW-003_20250214_Grab
570-218637-2	840906	OCDD	0.0000569 J,DX q	NA	None, sample is >10x blank
570-218918-2	841403	OCDD	0.0000265 J,DX		
		OCDF	0.00000324 J,DX	Result U	INF002_20250219_Grab
570-219358-2	840173	1,2,3,7,8,9-HxCDF	0.00000187 J,DX q	NA	None, sample is ND
		OCDD	0.0000139 J,DX q	Result U	Outfall018_20250221_Comp
		OCDF	0.00000347 J,DX q	NA	None, sample is ND
570-221020-2	843121	1,2,3,4,6,7,8-HpCDD	0.00000210 J,DX q	Result U	Outfall002_20250306_Comp
		OCDD	0.0000108 J,DX		
570-221866-2	843121	1,2,3,4,6,7,8-HpCDD	0.00000210 J,DX q		Outfall002_20250312_Comp
		OCDD	0.0000108 J,DX		
570-222647-2	843121	1,2,3,4,6,7,8-HpCDD	0.00000210 J,DX q		INF002_20250317_GRAB
		OCDD	0.0000108 J,DX	NA	None, sample is >10x blank
570-222920-2	843121	1,2,3,4,6,7,8-HpCDD	0.00000210 J,DX q	Result U	Outfall018_20250318_Comp
		OCDD	0.0000108 J,DX		
570-224549-2	844959	1,2,3,7,8,9-HxCDF	0.00000215 J,DX q		Outfall002_20250401_Comp
		1,2,3,4,6,7,8-HpCDD	0.00000342 J,DX	NA	None, sample is ND
		OCDD	0.0000391 J,DX	Result U	Outfall002_20250401_Comp
		OCDF	0.00000278 J,DX q	NA	None, sample is ND

TABLE 2
EMPC FLAGS
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY

SDG #	Lab ID	Method	Analyte	Concentration (ug/L)	Qualifier	Affected Samples
5702184132	570-218413-1	E1613B	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.0000049	UJ	Outfall001_20250214_Comp
5702193582	570-219358-1	E1613B	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.00000054	UJ	Outfall018_20250221_Comp
5702229202	570-222920-1	E1613B	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	0.0000038	UJ	Outfall018_20250318_Comp
5702186152	570-218615-1	E1613B	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	0.000026	UJ	RSW-002_20250214_Grab
5702186152	570-218615-1	E1613B	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.0000026	UJ	RSW-002_20250214_Grab
5702186152	570-218615-1	E1613B	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	0.000012	UJ	RSW-002_20250214_Grab
5702186152	570-218615-1	E1613B	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	0.0000080	UJ	RSW-002_20250214_Grab
5702186372	570-218637-1	E1613B	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	0.0000019	UJ	Outfall009_20250215_Comp

TABLE 3
SUMMARY OF QUALIFIERS
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY

SDG#	Location	Sample ID	Sample Date	Lab ID	Method	Fraction	Analyte	Reportable Result	Result	Laboratory Qualifier	Final Validated Qualifier	Validation Note	Unit	Notes
5702183612	OUTFALL 008	Outfall008_20250214_Comp	2/14/2025	570-218361-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	Yes	0.00012	MB	U	B	ug/L	Report ND at sample concentration
5702183612	OUTFALL 008	Outfall008_20250214_Comp	2/14/2025	570-218361-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	Yes	0.000010	J,DX	J	DNQ	ug/L	
5702184132	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1613B	N	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	Yes	0.0000049	J,DXq	UJ	*10	ug/L	Report ND at sample concentration
5702184132	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1613B	N	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	Yes	0.0000081	J,DX	J	DNQ	ug/L	
5702184132	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1613B	N	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	Yes	0.0000069	J,DX	J	DNQ	ug/L	
5702184132	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1613B	N	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	Yes	0.000012	J,DX	J	DNQ	ug/L	
5702184132	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1613B	N	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	Yes	0.0000050	J,DX	J	DNQ	ug/L	
5702184132	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1613B	N	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	Yes	0.0000066	J,DX	J	DNQ	ug/L	
5702184132	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1613B	N	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	Yes	0.0000024	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702189182	SWTS018 (INF002)	INF002_20250219_Grab	2/19/2025	570-218918-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	Yes	0.000019	J,DX	J	DNQ	ug/L	
5702173752	OUTFALL 002	Outfall002_20250208_Comp	2/8/2025	570-217375-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	Yes	0.000010	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	Yes	0.000016	J,DXMBq	U	B	ug/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1613B	N	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	Yes	0.0000013	J,DX	J	DNQ	ug/L	
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1613B	N	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	Yes	0.00000054	J,DXq	UJ	*10	ug/L	Report ND at sample concentration
5702210202	OUTFALL 002	Outfall002_20250306_Comp	3/6/2025	570-221020-2	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	Yes	0.000021	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702210202	OUTFALL 002	Outfall002_20250306_Comp	3/6/2025	570-221020-2	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	Yes	0.0000038	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702210202	OUTFALL 002	Outfall002_20250306_Comp	3/6/2025	570-221020-2	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	Yes	0.0000042	J,DX	J	DNQ	ug/L	
5702218662	OUTFALL 002	Outfall002_20250312_Comp	3/12/2025	570-221866-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	Yes	0.000025	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702218662	OUTFALL 002	Outfall002_20250312_Comp	3/12/2025	570-221866-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	Yes	0.0000049	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702229202	OUTFALL 018	Outfall018_20250318_Comp	3/18/2025	570-222920-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	Yes	0.000038	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702229202	OUTFALL 018	Outfall018_20250318_Comp	3/18/2025	570-222920-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	Yes	0.0000058	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702229202	OUTFALL 018	Outfall018_20250318_Comp	3/18/2025	570-222920-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	Yes	0.0000038	J,DXq	UJ	*10	ug/L	Report ND at sample concentration
5702184042	OUTFALL 002	Outfall002_20250214_Comp	2/14/2025	570-218404-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	Yes	0.000085	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702184042	OUTFALL 002	Outfall002_20250214_Comp	2/14/2025	570-218404-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	Yes	0.000028	J,DX	J	DNQ	ug/L	
5702186152	Arroyo Simi	RSW-002_20250214_Grab	2/14/2025	570-218615-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	Yes	0.000026	J,DXq	UJ	*10	ug/L	Report ND at sample concentration
5702186152	Arroyo Simi	RSW-002_20250214_Grab	2/14/2025	570-218615-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	Yes	0.000073	J,DXMB	J	DNQ	ug/L	
5702186152	Arroyo Simi	RSW-002_20250214_Grab	2/14/2025	570-218615-1	E1613B	N	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	Yes	0.0000026	J,DXq	UJ	*10	ug/L	Report ND at sample concentration
5702186152	Arroyo Simi	RSW-002_20250214_Grab	2/14/2025	570-218615-1	E1613B	N	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	Yes	0.000012	J,DXq	UJ	*10	ug/L	Report ND at sample concentration
5702186152	Arroyo Simi	RSW-002_20250214_Grab	2/14/2025	570-218615-1	E1613B	N	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	Yes	0.0000080	J,DXq	UJ	*10	ug/L	Report ND at sample concentration
5702186152	Arroyo Simi	RSW-002_20250214_Grab	2/14/2025	570-218615-1	E1613B	N	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	Yes	0.00000067	J,DX	J	DNQ	ug/L	
5702186152	Arroyo Simi	RSW-002_20250214_Grab	2/14/2025	570-218615-1	E1613B	N	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	Yes	0.0000028	J,DX	J	DNQ	ug/L	
5702186152	Arroyo Simi	RSW-002_20250214_Grab	2/14/2025	570-218615-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	Yes	0.000035	J,DX	J	DNQ	ug/L	
5702186152	Arroyo Simi	RSW-002_20250214_Grab	2/14/2025	570-218615-1	E1613B	N	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	Yes	0.0000035	J,DX	J	DNQ	ug/L	
5702186192	Arroyo Simi	RSW-003_20250214_Grab	2/14/2025	570-218619-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	Yes	0.000044	J,DX	J	DNQ	ug/L	
5702186192	Arroyo Simi	RSW-003_20250214_Grab	2/14/2025	570-218619-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	Yes	0.000045	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702186192	Arroyo Simi	RSW-003_20250214_Grab	2/14/2025	570-218619-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	Yes	0.000013	J,DX	J	DNQ	ug/L	
5702184132	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1613B	N	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	Yes	0.0000090	J,DX	J	DNQ	ug/L	
5702186372	OUTFALL 009	Outfall009_20250215_Comp	2/15/2025	570-218637-1	E1613B	N	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	Yes	0.0000054	J,DX	J	DNQ	ug/L	
5702186372	OUTFALL 009	Outfall009_20250215_Comp	2/15/2025	570-218637-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	Yes	0.000079	J,DX	J	DNQ	ug/L	
5702186372	OUTFALL 009	Outfall009_20250215_Comp	2/15/2025	570-218637-1	E1613B	N	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	Yes	0.0000037	J,DX	J	DNQ	ug/L	
5702186372	OUTFALL 009	Outfall009_20250215_Comp	2/15/2025	570-218637-1	E1613B	N	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	Yes	0.0000049	J,DX	J	DNQ	ug/L	
5702186372	OUTFALL 009	Outfall009_20250215_Comp	2/15/2025	570-218637-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	Yes	0.000039	J,DX	J	DNQ	ug/L	
5702186372	OUTFALL 009	Outfall009_20250215_Comp	2/15/2025	570-218637-1	E1613B	N	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	Yes	0.0000019	J,DXq	UJ	*10	ug/L	Report ND at sample concentration
5702189182	SWTS018 (INF002)	INF002_20250219_Grab	2/19/2025	570-218918-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	Yes	0.000029	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702226472	SWTS018 (INF002)	INF002_20250317_GRAB	3/17/2025	570-222647-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	Yes	0.000032	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702226472	SWTS018 (INF002)	INF002_20250317_GRAB	3/17/2025	570-222647-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	Yes	0.000014	J,DX	J	DNQ	ug/L	
5702226472	SWTS018 (INF002)	INF002_20250317_GRAB	3/17/2025	570-222647-1	E1613B	N	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	Yes	0.0000096	J,DX	J	DNQ	ug/L	
5702245492	OUTFALL 002	Outfall002_20250401_Comp	4/1/2025	570-224549-1	E1613B	N	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	Yes	0.000027	J,DXMB	U	B	ug/L	Report ND at sample concentration
5702245492	OUTFALL 002	Outfall002_20250401_Comp	4/1/2025	570-224549-1	E1613B	N	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	Yes	0.0000032	J,DXMBq	U	B	ug/L	Report ND at sample concentration

Notes
U - Result not detected.
UJ - Result not detected at the estimated reporting limit.
J - Estimated value.
DNQ - The reported result is above the method detection limit but is less than the reporting limit.
B - Presumed contamination as indicated by the preparation (method) blank results.
**10 - Value was estimated detect or estimated non-detect (J, UJ) due to deficiencies in quantitation of the constituent, including constituents reported by the laboratory as estimated maximum possible concentration (EMPC) values.*

Data Usability Summary Report

Project Name: The Boeing Company, Santa Susana Field Laboratory, NPDES

Project Description: First Quarter 2025 Stormwater Samples

Sample Dates: January-March 2025

Analytical Laboratory: Eurofins Calscience - Tustin, CA

Validation Performed by: Eric Hitchens

Validation Reviewed by: Denis Conley

Validation Date: April 23, 2025

Haley & Aldrich, Inc. has prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for the Sample Delivery Groups (SDGs) listed. This DUSR is organized into the following sections:

1. **Sample Delivery Group Numbers**
2. **Explanations**
3. **Glossary**
4. **Abbreviations**
5. **Qualifiers**

References

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- National Functional Guidelines (NFG) for Inorganic Data Review (2020a, November).
- National Functional Guidelines (NFG) for Organic Data Review (2020b, November).

Data reported in this sampling event were reported to the laboratory method detection limit (MDL). Results found between the MDL and reporting limit (RL) are flagged “J” as estimated.

Sample data were qualified in accordance with the laboratory’s standard operating procedures (SOPs) and in accordance with the NFG where applicable. The results presented in each laboratory report were found to be compliant with the data quality objectives (DQOs) for the project and are therefore usable; any exceptions are noted in the following pages and listed below.

1. Sample Delivery Group Numbers

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG numbers listed in Table 1A. Samples were collected, preserved, and shipped following standard chain of custody (COC) protocols. Samples were also received appropriately, identified correctly, and analyzed according to the COC. Analyses were performed on the samples listed in Table 1B.

1.2 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified in accordance with the analytical method requirements, with the following exception:

- Field filtered samples were not analyzed within 15 minutes. No additional qualification of the project data is recommended.

1.3 REPORTING LIMITS AND SAMPLE DILUTIONS

All sample dilutions were reviewed and found to be justified.

1.4 SURROGATE RECOVERY COMPLIANCE

Refer to Section E 1.2. The percent recovery (%R) for each surrogate compound added to each project sample was determined to be within the laboratory-specified quality control (QC) limits.

1.5 ISOTOPE DILUTION

Refer to Section E 1.27. Isotope dilution compound recoveries were within the specified limits.

1.6 LABORATORY CONTROL SAMPLES

Refer to Section E 1.3. Compounds associated with the laboratory control samples/laboratory control sample duplicate (LCS/LCSD) analyses associated with client samples exhibited recoveries and relative percent differences (RPDs) within the specified limits.

1.7 MATRIX SPIKE SAMPLES

Refer to Section E 1.4. Multiple samples were used for matrix spike/matrix spike duplicate (MS/MSD) analysis. The MS/MSD recoveries and the RPD between the MS and MSD results were within the specified limits, with the following exceptions:

- In cases where the parent sample dilution factor was ≥ 5x, data was not qualified.
- In cases where the native sample results were ≥ 4x the spike added, data was not qualified.
- The MSD corresponding to Outfall001_20250214_Comp exhibited a recovery greater than the laboratory-specified QC limits for PCB-104; however, PCB-104 was not a requested target analyte. Therefore, no qualification of the data is recommended.

- MS/MSD recovery for total aluminum for sample Outfall008_20250214_Comp was above the laboratory-specified QC limits; therefore, the sample results for total aluminum was qualified "J+", indicating a potential high bias.
- The MS for mercury recovery for Outfall001_20250214_Comp was above the laboratory-specified QC Limits; therefore, the sample result was qualified J+ indicating a potential high bias.
- MS/MSD recovery for Outfall009_20250215_Comp was below the laboratory-specified QC limits; therefore, the sample result was qualified "J-" indicating a potential low bias.

1.8 BLANK SAMPLE ANALYSIS

Refer to Section E 1.5. Method blank samples did not exhibit detections of target analytes, indicating that no contamination from laboratory activities occurred, with the following exceptions:

- Sample results were not qualified when the detected concentrations of the target analytes were ≥ 10x the associated method blank concentration.
- Samples were not qualified due to the detection of target analytes in field blanks if they were qualified non-detect due to method blank contamination.
- Any additional exceptions are noted in Table 2 and qualified.

Target analytes were detected in the field blanks collected January 13, 2025; no qualification of the results is recommended as the field blank samples are used solely to assess equipment decontamination procedures.

1.9 DUPLICATE SAMPLE ANALYSIS

Refer to Section E 1.6. The RPDs for the laboratory duplicate samples were less than (<) 20 percent (%) and the RPDs for field duplicate sample analysis were < 100 % without exception. No data qualification is recommended.

1.10 CALCULATION ACCURACY

The concentration of total chromium was greater than the concentration of hexavalent chromium detected in the project samples, with the following exceptions:

- Trivalent chromium was greater than total chromium for Outfall002_20250208_Comp; Trivalent chromium was qualified "S" as suspect.

1.11 PRECISION AND ACCURACY

Refer to Section E 1.7. Where required by the method, a measurement of analytical accuracy and precision was reported with the project sample results for each method of analysis.

1.12 CONFIRMATION COLUMN REVIEW

Refer to Section E 1.8. RPDs were within control limits without exception. No qualification of the data is recommended.

1.13 ESTIMATED MAXIMUM POSSIBLE CONCENTRATION (EMPC)

Refer to Section E 1.9. The project sample results reported with EMPC data qualifiers were qualified "UJ" as an estimated reporting limit.

1.14 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the DQOs for the project and the analytical method requirements. Based on the review of this report, the data are useable and acceptable with the recommended data qualification. A summary of the data qualifiers applied to this data set is shown in Table 3.

2. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.2 Surrogate Recovery Compliance
  - Surrogates, also known as system monitoring compounds, are compounds added to each sample prior to sample preparation to determine the efficiency of the extraction procedure by evaluating the percent recovery (%R) of the compounds.
- E 1.3 Laboratory Control Samples
  - The LCS/LCSD analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.4 Matrix Spike Samples
  - MS/MSD data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
  - For inorganic methods, when a matrix spike recovery falls outside of the control limits and the sample result is less than four times the spike added, a post-digestion spike (PDS) is performed.
- E 1.5 Blank Sample Analysis
  - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
  - Field blanks are prepared to identify contamination that may have been introduced during field activity. Equipment blanks are prepared to identify contamination that may have been introduced while decontaminating sampling equipment. Trip blanks are prepared when volatile analysis is requested to identify contamination that may have been introduced during transport.
- E 1.6 Laboratory and Field Duplicate Sample Analysis
  - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
  - The field duplicate sample analysis is used to assess the precision of the field sampling procedures and analytical method. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
- E 1.7 Precision and Accuracy
  - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the RPD found between a primary and a duplicate sample. This can be an LCS/LCSD pair, an MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.

- Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the percent recovery (%R) of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.

- E 1.8 Confirmation Column Review
  - When analyzing for pesticides and polychlorinated biphenyls (PCBs), compound identification based on single-column analysis should be confirmed on a second column or supported by at least one other qualitative technique. When confirmed on a second column, the RPD should not exceed 40 percent.

- E 1.9 Estimated Maximum Possible Concentration
  - An Estimated Maximum Possible Concentration (EMPC) is a worst-case estimate of the concentration for a dioxin/furan or PCB based on all identification criteria being met except the ion abundance ratio criteria, or if a peak representing a chlorinated diphenyl ether was detected.

3. Glossary

*Analyte names may be abbreviated for simplicity. Please reference the laboratory report for the full analyte name.

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
  - EB Equipment Blank Sample
  - FB Field Blank Sample
  - FD Field Duplicate Sample
  - N Primary Sample
  - TB Trip Blank Sample
- Units:
  - ng/kg nanograms per kilogram
  - µg/kg micrograms per kilogram
  - µg/L micrograms per liter
  - µg/m^3 micrograms per cubic meter
  - mg/kg milligrams per kilogram
  - mg/L milligrams per liter
  - ppb v/v parts per billion volume/volume
  - pCi/L picocuries per liter
  - pg/g picograms per gram
  - pg/L picograms per liter
- Matrices:
  - AA Ambient Air
  - GS Soil Gas
  - GW/WG Groundwater
  - IA Indoor Air
  - SE Sediment
  - SO Soil
  - SSV Sub-slab Vapor
  - ST Solid Waste
  - WQ Water Quality control matrix
  - WS Surface Water
  - WW Waste Water
- Table Footnotes:
  - NA Not applicable
  - ND Non-detect
  - NR Not reported
- Common Symbols:
  - % percent
  - < less than
  - ≤ less than or equal to
  - > greater than
  - ≥ greater than or equal to

  - = equal
  - °C degrees Celsius
  - ± plus or minus
  - ~ approximately
  - x times (multiplier)

- Fractions:
  - N Normal (method cannot be filtered)
  - D Dissolved (filtered)
  - T Total (unfiltered)

4. Abbreviations

%D	Percent Difference
%R	Percent Recovery
%RSD	Percent Relative Standard Deviation
%v/v	Percent volume by volume
2s	2 sigma
4,4-DDT	4 4-dichlorodiphenyltrichloroethane
Abs Diff	Absolute Difference
amu	atomic mass unit
BPJ	Best Professional Judgement
BS	Blank Spike
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CCVL	Continuing Calibration Verification Low
COC	Chain of Custody
COM	Combined Isotope Calculation
Cr (VI)	Hexavalent Chromium
CRI	Collision Reaction Interface
DoD	Department of Defense
DQO	data quality objective
DUSR	Data Usability Summary Report
EIS	Extraction Internal Standard
EMPC	Estimated Maximum Possible Concentration
FBK	Field Blank Contamination
FDP	Field Duplicate
GC	Gas Chromatograph
GC/MS	Gas Chromatography/Mass Spectrometry
GPC	Gel Permeation Chromatography
H_2	Hydrogen gas
HCl	Hydrochloric Acid
ICAL	Initial Calibration
ICB	Initial Calibration Blank
ICP/MS	Inductively Coupled Plasma/Mass Spectrometry
ICV	Initial Calibration Verification
ICVL	Initial Calibration Verification Low
IPA	Isopropyl Alcohol
LC	Laboratory Control
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MBK	Method Blank Contamination
MDC	Minimum Detectable Concentration
MDL	Laboratory Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	not applicable
ND	Non-Detect
NFG	National Functional Guidelines
NH_3	Ammonia
NYSDEC	New York State Department of Environmental Conservation
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PDS	Post-Digestion Spike
PEM	Performance Evaluation Mixture
PFAS	Per- and Polyfluoroalkyl Substances
PFBA	Perfluorbutanoic Acid
PFD	Perfluorodecalin
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane sulfonate
PFPeA	Perfluoropentanoic Acid
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
R^2	R-squared value
Ra-226	Radium-226
Ra-228	Radium-228
RESC	Resolution Check Measure
RL	Laboratory Reporting Limit
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
SAP	Sampling Analysis Plan
SDG	Sample Delivery Group
SIM	Selected ion monitoring
SOP	Standard Operating Procedure
SPE	Solid-Phase Extraction
SVOC	Semi-Volatile Organic Compound
TCLP	Toxicity Characteristic Leaching Procedure
TIC	Tentatively Identified Compound
TKN	Total Kjeldahl Nitrogen
TPH	Total Petroleum Hydrocarbon
TPU	Total Propagated Uncertainty
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compound
WP	Work Plan

5. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Concentration (C) Qualifiers:

  U The compound was analyzed for but not detected. The associated value is either the compound quantitation limit if not detected by the analytical instrument or could be the reported or blank concentration if qualified by blank contamination. This can also be displayed as less than the associated compound quantitation limit (<RL or <MDL), or "ND".

  B The compound was found in the sample and its associated blank. Its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers:

  E The compound was quantitated above the calibration range.

  D The concentration is based on a diluted sample analysis.

- Validation Qualifiers:

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  J+ The result is an estimated quantity, but the result may be biased high.

  J- The result is an estimated quantity, but the result may be biased low.

  J/UJ as listed in exception tables J applies to detected data and UJ applies to non-detected data as reported by the laboratory.

  UJ The compound was not detected. The reported sample quantitation limit is approximate.

  NJ The analysis indicated the presence of a compound for which there is presumptive evidence to make a tentative identification; the associated numerical value is an estimated concentration only.

  R The sample results were rejected as unusable; the compound may or may not be present in the sample.

  S Result is suspect. See DUSR for details.

References

1. Haley & Aldrich, Inc., 2024. *Quality Assurance Project Field Plan for Santa Susana Field Laboratory Stormwater Sampling Program*. September.
2. United States Environmental Protection Agency, 2020a. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. EPA-542-R-20-006. November.
3. United States Environmental Protection Agency, 2020b. *National Functional Guidelines for Organic Superfund Methods Data Review*. EPA-540-R-20-005. November.

Attachments:

Table 1A - Sample Delivery Groups
Table 1B - Sample Information
Table 1C - Method Holding Times
Table 2 - Method Blanks
Table 3 - System Performance and Overall Assessment

TABLE 1A
SAMPLE DELIVERY GROUPS
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

SDG
5702137631
5702137641
5702137661
5702137681
5702170991
5702173731
5702173751
5702173752
5702183611
5702183751
5702184041
5702184131
5702184133
5702184138
5702186371
5702186373
5702193582
5702222841

TABLE 1B
SAMPLE INFORMATION
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Method(s)
EB_Outfall001_20250113_Grab	EB	570-213763-1	01/13/2025	WMQ	A
FB_Outfall001_20250113_Grab	FB	570-213763-2	01/13/2025	WMQ	A
EB_OUTFALL001_20250113_GRAB_EXTRA	EB	570-213763-3	01/13/2025	WMQ	A
EB_Outfall018_20250113_Grab	EB	570-213764-1	01/13/2025	WMQ	A
FB_Outfall018_20250113_Grab	FB	570-213764-2	01/13/2025	WMQ	A
EB_OUTFALL018_20250113_GRAB_EXTRA	EB	570-213764-3	01/13/2025	WMQ	A
EB_Outfall002_20250113_Grab	EB	570-213766-1	01/13/2025	WMQ	A
FB_Outfall002_20250113_Grab	FB	570-213766-2	01/13/2025	WMQ	A
EB_OUTFALL002_20250113_GRAB_EXTRA	EB	570-213766-3	01/13/2025	WMQ	A
SB_Outfall002_20250113_Grab	TB	570-213766-4	01/13/2025	WMQ	A
EB_Outfall011_20250113_Grab	EB	570-213768-1	01/13/2025	WMQ	A
FB_Outfall011_20250113_Grab	FB	570-213768-2	01/13/2025	WMQ	A
EB_OUTFALL011_20250113_GRAB_EXTRA	EB	570-213768-3	01/13/2025	WMQ	A
RW_20250207_Grab	N	570-217099-1	02/07/2025	W	A
Outfall002_20250208_Grab-03	EB	570-217373-1	02/08/2025	WMQ	A
Outfall002_20250208_Comp	N	570-217375-1	02/08/2025	WM	A, B
Outfall002_20250208_Comp-02	FD	570-217375-2	02/08/2025	WM	A
Outfall002_20250208_Grab-04	FB	570-217375-3	02/08/2025	WMQ	A
Outfall008_20250214_Comp	N	570-218361-1	02/14/2025	WM	C, D
Outfall008_20250214_Comp_F	N	570-218361-2	02/14/2025	WM	C, D
RW-20250213_Grab	N	570-218375-1	02/13/2025	W	A
RW-20250213_Grab-02	FD	570-218375-2	02/13/2025	W	A
Outfall002_20250214_Comp	N	570-218404-1	02/14/2025	WM	C
Outfall002_20250214_Comp_F	N	570-218404-3	02/14/2025	WM	C
Outfall001_20250214_Comp	N	570-218413-1	02/14/2025	WM	A, B, C, D, E
Outfall001_20250214_Comp_F	N	570-218413-4	02/14/2025	WM	C, D
Outfall001_20250214_Comp-02	FD	570-218413-2	02/14/2025	WM	A
Outfall001_20250214_Grab-04	FB	570-218413-3	02/14/2025	WMQ	A
Outfall009_20250215_Comp	N	570-218637-1	02/15/2025	WM	C, D, E
Outfall009_20250215_Comp_F	N	570-218637-2	02/15/2025	WM	C, D
Outfall018_20250221_Comp	N	570-219358-1	02/21/2025	WM	A
Outfall018_20250221_Comp-02	FD	570-219358-2	02/21/2025	WM	A
Outfall018_20250221_Grab-04	FB	570-219358-3	02/21/2025	WMQ	A
Outfall009_20250314_Comp	N	570-222284-1	03/14/2025	WM	C
Outfall009_20250314_Comp_F	N	570-222284-2	03/14/2025	WM	C

TABLE 1C
METHOD HOLDING TIMES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

Letter Code	Method	Description	Holding Time(s)
A	E1668C	PCBs	365 days
B	E218.6	Hexavalent Chromium	28 days for liquid, preserved 24 hours for liquid unpreserved
C	E200.8	Metals (by Mass Spectrometer)	180 days for liquid, preserved
D	E200.7	Metals	180 days for liquid, preserved
E	E1631E	E1631E	90 days

TABLE 2
METHOD BLANKS
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

SDG	Method	Test Batch ID	Chemical Detected in Method Blank	Concentration Detected in Method Blank (pg/L)	Affected Sample ID	Reported Sample Result (pg/L)	Qualification
5702137631	E1668C	320-835523	(PCB 18) 2,2',5-Trichlorobiphenyl	8.69 J	EB_OUTFALL001_20250113_GRAB_EXTRA	9.4 J	RL U
5702137631	E1668C	320-835523	(PCB 28) 2,4,4'-Trichlorobiphenyl	7.03 J	EB_OUTFALL001_20250113_GRAB_EXTRA	8.8 J	RL U
5702137631	E1668C	320-835523	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	14.7 J	EB_OUTFALL001_20250113_GRAB_EXTRA	12 J	RL U
5702137631	E1668C	320-835523	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	7.84 J	EB_OUTFALL001_20250113_GRAB_EXTRA	7.1 J	RL U
5702137631	E1668C	320-835523	(PCB 8) 2,4'-Dichlorobiphenyl	8.95 J	EB_OUTFALL001_20250113_GRAB_EXTRA	11 J	RL U
5702173751	E1668C	320-835523	(PCB 18) 2,2',5-Trichlorobiphenyl	8.69 J	Outfall002_20250208_Comp-02	12 J	RL U
5702173751	E1668C	320-835523	(PCB 28) 2,4,4'-Trichlorobiphenyl	7.03 J	Outfall002_20250208_Comp-02	13 J	RL U
5702173751	E1668C	320-835523	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	14.7 J	Outfall002_20250208_Comp-02	28 J	RL U
5702173751	E1668C	320-835523	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	7.84 J	Outfall002_20250208_Comp-02	12 J	RL U
5702173752	E1668C	320-835523	(PCB 18) 2,2',5-Trichlorobiphenyl	8.69 J	Outfall002_20250208_Grab-04	6.1 J	RL U
5702173752	E1668C	320-835523	(PCB 28) 2,4,4'-Trichlorobiphenyl	7.03 J	Outfall002_20250208_Grab-04	6.7 J	RL U
5702173752	E1668C	320-835523	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	14.7 J	Outfall002_20250208_Grab-04	14 J	RL U
5702173752	E1668C	320-835523	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	7.84 J	Outfall002_20250208_Grab-04	5.2 J	RL U
5702137641	E1668C	320-835535	(PCB 18) 2,2',5-Trichlorobiphenyl	8.69 J	EB_Outfall018_20250113_Grab	5.1 J	RL U
5702137641	E1668C	320-835535	(PCB 28) 2,4,4'-Trichlorobiphenyl	7.03 J	EB_Outfall018_20250113_Grab	5.4 J	RL U
5702137641	E1668C	320-835535	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	14.7 J	EB_Outfall018_20250113_Grab	7.9 J	RL U
5702137641	E1668C	320-835535	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	7.84 J	EB_Outfall018_20250113_Grab	5.6 J	RL U
5702137661	E1668C	320-835535	(PCB 18) 2,2',5-Trichlorobiphenyl	8.69 J	EB_OUTFALL002_20250113_GRAB_EXTRA	7.1 J	RL U
5702137661	E1668C	320-835535	(PCB 28) 2,4,4'-Trichlorobiphenyl	7.03 J	EB_OUTFALL002_20250113_GRAB_EXTRA	5.8 J	RL U
5702137661	E1668C	320-835535	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	14.7 J	EB_OUTFALL002_20250113_GRAB_EXTRA	13 J	RL U
5702137681	E1668C	320-835535	(PCB 18) 2,2',5-Trichlorobiphenyl	8.69 J	EB_OUTFALL011_20250113_GRAB_EXTRA	8.5 J	RL U
5702137681	E1668C	320-835535	(PCB 28) 2,4,4'-Trichlorobiphenyl	7.03 J	EB_OUTFALL011_20250113_GRAB_EXTRA	4.8 J	RL U
5702137681	E1668C	320-835535	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	14.7 J	EB_OUTFALL011_20250113_GRAB_EXTRA	14 J	RL U
5702137681	E1668C	320-835535	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	7.84 J	EB_OUTFALL011_20250113_GRAB_EXTRA	8.0 J	RL U
5702137641	E1668C	320-835628	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	23.8 J	FB_Outfall018_20250113_Grab	21 J	RL U
5702137641	E1668C	320-835628	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	2.60 J	FB_Outfall018_20250113_Grab	1.4 J	RL U
5702137661	E1668C	320-835628	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	23.8 J	EB_Outfall002_20250113_Grab	24 J	RL U
5702137661	E1668C	320-835628	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	23.8 J	FB_Outfall002_20250113_Grab	20 J	RL U
5702137661	E1668C	320-835628	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	23.8 J	SB_Outfall002_20250113_Grab	19 J	RL U
5702137661	E1668C	320-835628	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	2.60 J	EB_Outfall002_20250113_Grab	4.5 J	RL U
5702137661	E1668C	320-835628	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	2.60 J	FB_Outfall002_20250113_Grab	2.1 J	RL U
5702137661	E1668C	320-835628	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	2.60 J	SB_Outfall002_20250113_Grab	2.3 J	RL U
5702137681	E1668C	320-835628	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	23.8 J	EB_Outfall011_20250113_Grab	18 J	RL U
5702137681	E1668C	320-835628	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	23.8 J	FB_Outfall011_20250113_Grab	25 J	RL U
5702137681	E1668C	320-835628	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	2.60 J	EB_Outfall011_20250113_Grab	3.1 J	RL U
5702137681	E1668C	320-835628	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	2.60 J	FB_Outfall011_20250113_Grab	1.4 J	RL U
5702137681	E1668C	320-835628	(PCB 8) 2,4'-Dichlorobiphenyl	3.49 J	EB_Outfall011_20250113_Grab	13 J	RL U
5702137641	E1668C	320-836367	(PCB 138) 2,2',3,4,4',5'-Hexachlorobiphenyl	2.31 J	EB_OUTFALL018_20250113_GRAB_EXTRA	4.6 J	RL U
5702137641	E1668C	320-836367	(PCB 18) 2,2',5-Trichlorobiphenyl	5.46 J	EB_OUTFALL018_20250113_GRAB_EXTRA	8.4 J	RL U
5702137641	E1668C	320-836367	(PCB 28) 2,4,4'-Trichlorobiphenyl	6.24 J	EB_OUTFALL018_20250113_GRAB_EXTRA	11 J	RL U
5702137641	E1668C	320-836367	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	23.1 J	EB_OUTFALL018_20250113_GRAB_EXTRA	39 J	RL U

TABLE 2
METHOD BLANKS
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

SDG	Method	Test Batch ID	Chemical Detected in Method Blank	Concentration Detected in Method Blank (pg/L)	Affected Sample ID	Reported Sample Result (pg/L)	Qualification
5702137641	E1668C	320-836367	(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	1.89 J	EB_OUTFALL018_20250113_GRAB_EXTRA	4.4 J	RL U
5702137641	E1668C	320-836367	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	3.20 J	EB_OUTFALL018_20250113_GRAB_EXTRA	7.1 J	RL U
5702137641	E1668C	320-836367	(PCB 8) 2,4'-Dichlorobiphenyl	7.43 J	EB_OUTFALL018_20250113_GRAB_EXTRA	17 J	RL U
5702137631	E1668C	320-838978	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	12.6 J	EB_Outfall001_20250113_Grab	15 J	RL U
5702137631	E1668C	320-838978	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	12.6 J	FB_Outfall001_20250113_Grab	8.8 J	RL U
5702183751	E1668C	320-839498	(PCB 28) 2,4,4'-Trichlorobiphenyl	6.18 J	RW-20250213_Grab	7.5 J	RL U
5702183751	E1668C	320-839498	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	17.0 J	RW-20250213_Grab	27 J	RL U
5702184138	E1668C	320-839498	(PCB 18) 2,2',5-Trichlorobiphenyl	4.53 J	Outfall001_20250214_Comp	8.9 J	RL U
5702184138	E1668C	320-839498	(PCB 28) 2,4,4'-Trichlorobiphenyl	6.18 J	Outfall001_20250214_Comp	17 J	RL U
5702184138	E1668C	320-839498	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	17.0 J	Outfall001_20250214_Comp	76 J	RL U
5702193582	E1668C	320-839797	(PCB 18) 2,2',5-Trichlorobiphenyl	5.94 J	Outfall018_20250221_Comp-02	3.4 J	RL U
5702193582	E1668C	320-839797	(PCB 18) 2,2',5-Trichlorobiphenyl	5.94 J	Outfall018_20250221_Grab-04	8.5 J	RL U
5702193582	E1668C	320-839797	(PCB 28) 2,4,4'-Trichlorobiphenyl	14.3 J	Outfall018_20250221_Comp	4.9 J	RL U
5702193582	E1668C	320-839797	(PCB 28) 2,4,4'-Trichlorobiphenyl	14.3 J	Outfall018_20250221_Comp-02	3.9 J	RL U
5702193582	E1668C	320-839797	(PCB 28) 2,4,4'-Trichlorobiphenyl	14.3 J	Outfall018_20250221_Grab-04	4.9 J	RL U
5702193582	E1668C	320-839797	(PCB 37) 3,4,4'-Trichlorobiphenyl	3.42 J	Outfall018_20250221_Comp	3.3 J	RL U
5702193582	E1668C	320-839797	(PCB 37) 3,4,4'-Trichlorobiphenyl	3.42 J	Outfall018_20250221_Grab-04	2.0 J	RL U
5702193582	E1668C	320-839797	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	25.7 J	Outfall018_20250221_Comp	28 J	RL U
5702193582	E1668C	320-839797	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	25.7 J	Outfall018_20250221_Comp-02	31 J	RL U
5702193582	E1668C	320-839797	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	25.7 J	Outfall018_20250221_Grab-04	18 J	RL U
5702193582	E1668C	320-839797	(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	5.41 J	Outfall018_20250221_Comp	7.2 J	RL U
5702193582	E1668C	320-839797	(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	5.41 J	Outfall018_20250221_Comp-02	8.8 J	RL U
5702193582	E1668C	320-839797	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	7.51 J	Outfall018_20250221_Comp	19 J	RL U
5702193582	E1668C	320-839797	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	7.51 J	Outfall018_20250221_Comp-02	18 J	RL U
5702193582	E1668C	320-839797	(PCB 70) 2,3',4',5-Tetrachlorobiphenyl	8.82 J	Outfall018_20250221_Comp	14 J	RL U
5702193582	E1668C	320-839797	(PCB 70) 2,3',4',5-Tetrachlorobiphenyl	8.82 J	Outfall018_20250221_Comp-02	14 J	RL U
5702193582	E1668C	320-839797	(PCB 74) 2,4,4',5-Tetrachlorobiphenyl	8.82 J	Outfall018_20250221_Comp	14 J	RL U
5702193582	E1668C	320-839797	(PCB 74) 2,4,4',5-Tetrachlorobiphenyl	8.82 J	Outfall018_20250221_Comp-02	14 J	RL U
5702193582	E1668C	320-839797	(PCB 8) 2,4'-Dichlorobiphenyl	9.48 J	Outfall018_20250221_Grab-04	11 J	RL U
5702173752	E1668C	320-839856	(PCB 28) 2,4,4'-Trichlorobiphenyl	7.69 J	Outfall002_20250208_Comp	5.8 J	RL U
5702173752	E1668C	320-839856	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	21.9 J	Outfall002_20250208_Comp	21 J	RL U
5702183751	E1668C	320-839856	(PCB 28) 2,4,4'-Trichlorobiphenyl	7.69 J	RW-20250213_Grab-02	7.0 J	RL U
5702183751	E1668C	320-839856	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	21.9 J	RW-20250213_Grab-02	23 J	RL U
5702170991	E1668C	320-839858	(PCB 28) 2,4,4'-Trichlorobiphenyl	7.69 J	RW_20250207_Grab	8.0 J	RL U
5702170991	E1668C	320-839858	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	21.9 J	RW_20250207_Grab	25 J	RL U
5702173731	E1668C	320-839858	(PCB 28) 2,4,4'-Trichlorobiphenyl	7.69 J	Outfall002_20250208_Grab-03	14 J	RL U
5702173731	E1668C	320-839858	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	21.9 J	Outfall002_20250208_Grab-03	31 J	RL U
5702184138	E1668C	320-839858	(PCB 18) 2,2',5-Trichlorobiphenyl	4.53 J	Outfall001_20250214_Comp-02	11 J	RL U
5702184138	E1668C	320-839858	(PCB 28) 2,4,4'-Trichlorobiphenyl	6.18 J	Outfall001_20250214_Comp-02	19 J	RL U
5702184138	E1668C	320-839858	(PCB 28) 2,4,4'-Trichlorobiphenyl	6.18 J	Outfall001_20250214_Grab-04	6.9 J	RL U
5702184138	E1668C	320-839858	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	17.0 J	Outfall001_20250214_Comp-02	64 J	RL U

TABLE 2
METHOD BLANKS
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

SDG	Method	Test Batch ID	Chemical Detected in Method Blank	Concentration Detected in Method Blank (pg/L)	Affected Sample ID	Reported Sample Result (pg/L)	Qualification
5702184138	E1668C	320-839858	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	17.0 J	Outfall001_20250214_Grab-04	14 J	RL U
5702184138	E1668C	320-839858	(PCB 8) 2,4'-Dichlorobiphenyl	6.19 J	Outfall001_20250214_Comp-02	7.7 J	RL U
5702184138	E1668C	320-839858	(PCB 8) 2,4'-Dichlorobiphenyl	6.19 J	Outfall001_20250214_Grab-04	8.4 J	RL U

TABLE 3
SYSTEM PERFORMANCE AND OVERALL ASSESSMENT
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

SDG#	Location	Sample ID	Sample Date	Lab ID	Method	Fraction	Analyte	Reportable Result	Result	Laboratory Qualifier	Final Validated Qualifier	Validation Note	Unit	Notes
5702137641	EQUIPMENT BLANK	EB_OUTFALL018_20250113_GRAB_EXTRA	1/13/2025	570-213764-3	E1668C	N	(PCB 138) 2,2',3,4,4',5'-Hexachlorobiphenyl	Yes	4.6	J,DXMBq	U	B	pg/L	Report RL U.
5702137641	EQUIPMENT BLANK	EB_OUTFALL018_20250113_GRAB_EXTRA	1/13/2025	570-213764-3	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	8.4	J,DXMB	U	B	pg/L	Report RL U.
5702137641	EQUIPMENT BLANK	EB_OUTFALL018_20250113_GRAB_EXTRA	1/13/2025	570-213764-3	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	11	J,DXMB	U	B	pg/L	Report RL U.
5702184133	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1631E	T	Mercury	Yes	34		J+	Q	ng/L	
5702137641	EQUIPMENT BLANK	EB_OUTFALL018_20250113_GRAB_EXTRA	1/13/2025	570-213764-3	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	39	J,DXMB	U	B	pg/L	Report RL U.
5702137641	EQUIPMENT BLANK	EB_OUTFALL018_20250113_GRAB_EXTRA	1/13/2025	570-213764-3	E1668C	N	(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	Yes	4.4	J,DXMB	U	B	pg/L	Report RL U.
5702137641	EQUIPMENT BLANK	EB_OUTFALL018_20250113_GRAB_EXTRA	1/13/2025	570-213764-3	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	7.1	J,DXMBq	U	B	pg/L	Report RL U.
5702137641	EQUIPMENT BLANK	EB_OUTFALL018_20250113_GRAB_EXTRA	1/13/2025	570-213764-3	E1668C	N	(PCB 8) 2,4'-Dichlorobiphenyl	Yes	17	J,DXMB	U	B	pg/L	Report RL U.
5702137641	EQUIPMENT BLANK	EB_OUTFALL018_20250113_GRAB_EXTRA	1/13/2025	570-213764-3	E1668C	N	(PCB 180) 2,2',3,4,4',5,5'-Heptachlorobiphenyl	Yes	2.1	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137641	EQUIPMENT BLANK	EB_OUTFALL018_20250113_GRAB_EXTRA	1/13/2025	570-213764-3	E1668C	N	(PCB 149) 2,2',3,4',5',6-Hexachlorobiphenyl	Yes	3.9	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137641	EQUIPMENT BLANK	EB_OUTFALL018_20250113_GRAB_EXTRA	1/13/2025	570-213764-3	E1668C	N	(PCB 183) 2,2',3,4,4',5',6-Heptachlorobiphenyl	Yes	2.4	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137641	EQUIPMENT BLANK	EB_OUTFALL018_20250113_GRAB_EXTRA	1/13/2025	570-213764-3	E1668C	N	(PCB 158) 2,3,3',4,4',6-Hexachlorobiphenyl	Yes	1.6	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702186371	OUTFALL 009	Outfall009_20250215_Comp	2/15/2025	570-218637-1	E200.8	T	Antimony	Yes	2.1		J-	Q	ug/L	
5702137641	EQUIPMENT BLANK	EB_Outfall018_20250113_Grab	1/13/2025	570-213764-1	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	5.1	J,DXMB	U	B	pg/L	Report RL U.
5702137641	EQUIPMENT BLANK	EB_Outfall018_20250113_Grab	1/13/2025	570-213764-1	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	5.4	J,DXMBq	U	B	pg/L	Report RL U.
5702137641	EQUIPMENT BLANK	EB_Outfall018_20250113_Grab	1/13/2025	570-213764-1	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	7.9	J,DXMB	U	B	pg/L	Report RL U.
5702137641	EQUIPMENT BLANK	EB_Outfall018_20250113_Grab	1/13/2025	570-213764-1	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	5.6	J,DXMB	U	B	pg/L	Report RL U.
5702137661	EQUIPMENT BLANK	EB_OUTFALL002_20250113_GRAB_EXTRA	1/13/2025	570-213766-3	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	7.1	J,DXMBq	U	B	pg/L	Report RL U.
5702137661	EQUIPMENT BLANK	EB_OUTFALL002_20250113_GRAB_EXTRA	1/13/2025	570-213766-3	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	5.8	J,DXMBq	U	B	pg/L	Report RL U.
5702137661	EQUIPMENT BLANK	EB_OUTFALL002_20250113_GRAB_EXTRA	1/13/2025	570-213766-3	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	13	J,DXMBq	U	B	pg/L	Report RL U.
5702137631	EQUIPMENT BLANK	EB_OUTFALL001_20250113_GRAB_EXTRA	1/13/2025	570-213763-3	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	9.4	J,DXMB	U	B	pg/L	Report RL U.
5702137631	EQUIPMENT BLANK	EB_OUTFALL001_20250113_GRAB_EXTRA	1/13/2025	570-213763-3	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	8.8	J,DXMB	U	B	pg/L	Report RL U.
5702137631	EQUIPMENT BLANK	EB_OUTFALL001_20250113_GRAB_EXTRA	1/13/2025	570-213763-3	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	12	J,DXMB	U	B	pg/L	Report RL U.
5702137631	EQUIPMENT BLANK	EB_OUTFALL001_20250113_GRAB_EXTRA	1/13/2025	570-213763-3	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	7.1	J,DXMBq	U	B	pg/L	Report RL U.
5702137631	EQUIPMENT BLANK	EB_OUTFALL001_20250113_GRAB_EXTRA	1/13/2025	570-213763-3	E1668C	N	(PCB 8) 2,4'-Dichlorobiphenyl	Yes	11	J,DXMBq	U	B	pg/L	Report RL U.
5702137631	EQUIPMENT BLANK	EB_OUTFALL001_20250113_GRAB_EXTRA	1/13/2025	570-213763-3	E1668C	N	(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	Yes	3.9	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137681	EQUIPMENT BLANK	EB_OUTFALL011_20250113_GRAB_EXTRA	1/13/2025	570-213768-3	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	8.5	J,DXMB	U	B	pg/L	Report RL U.
5702137681	EQUIPMENT BLANK	EB_OUTFALL011_20250113_GRAB_EXTRA	1/13/2025	570-213768-3	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	4.8	J,DXqMB	U	B	pg/L	Report RL U.
5702137681	EQUIPMENT BLANK	EB_OUTFALL011_20250113_GRAB_EXTRA	1/13/2025	570-213768-3	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	14	J,DXqMB	U	B	pg/L	Report RL U.
5702137681	EQUIPMENT BLANK	EB_OUTFALL011_20250113_GRAB_EXTRA	1/13/2025	570-213768-3	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	8.0	J,DXMB	U	B	pg/L	Report RL U.
5702137681	EQUIPMENT BLANK	EB_OUTFALL011_20250113_GRAB_EXTRA	1/13/2025	570-213768-3	E1668C	N	(PCB 101) 2,2',4,5,5'-Pentachlorobiphenyl	Yes	6.1	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702170991	Rain Water	RW_20250207_Grab	2/7/2025	570-217099-1	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	25	J,DXMB	U	B	pg/L	Report RL U.
5702170991	Rain Water	RW_20250207_Grab	2/7/2025	570-217099-1	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	8.0	J,DXMBq	U	B	pg/L	Report RL U.
5702170991	Rain Water	RW_20250207_Grab	2/7/2025	570-217099-1	E1668C	N	(PCB 37) 3,4,4'-Trichlorobiphenyl	Yes	11	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702170991	Rain Water	RW_20250207_Grab	2/7/2025	570-217099-1	E1668C	N	(PCB 151) 2,2',3,5,5',6-Hexachlorobiphenyl	Yes	4.4	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702170991	Rain Water	RW_20250207_Grab	2/7/2025	570-217099-1	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	4.2	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702173731	EQUIPMENT BLANK	Outfall002_20250208_Grab-03	2/8/2025	570-217373-1	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	31	J,DXMBq	U	B	pg/L	Report RL U.
5702173731	EQUIPMENT BLANK	Outfall002_20250208_Grab-03	2/8/2025	570-217373-1	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	14	J,DXMB	U	B	pg/L	Report RL U.
5702173731	EQUIPMENT BLANK	Outfall002_20250208_Grab-03	2/8/2025	570-217373-1	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	7.5	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702183751	Rain Water	RW-20250213_Grab	2/13/2025	570-218375-1	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	7.5	J,DXMB	U	B	pg/L	Report RL U.
5702183751	Rain Water	RW-20250213_Grab-02	2/13/2025	570-218375-2	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	7.0	J,DXMBq	U	B	pg/L	Report RL U.
5702183751	Rain Water	RW-20250213_Grab-02	2/13/2025	570-218375-2	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	23	J,DXMB	U	B	pg/L	Report RL U.
5702183751	Rain Water	RW-20250213_Grab	2/13/2025	570-218375-1	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	27	J,DXMB	U	B	pg/L	Report RL U.
5702183751	Rain Water	RW-20250213_Grab	2/13/2025	570-218375-1	E1668C	N	(PCB 153) 2,2',4,4',5,5'-Hexachlorobiphenyl	Yes	4.8	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702183751	Rain Water	RW-20250213_Grab	2/13/2025	570-218375-1	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	4.4	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702183751	Rain Water	RW-20250213_Grab	2/13/2025	570-218375-1	E1668C	N	(PCB 168) 2,3',4,4',5',6-Hexachlorobiphenyl	Yes	4.8	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702173752	OUTFALL 002	Outfall002_20250208_Comp	2/8/2025	570-217375-1	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	5.8	J,DXMBq	U	B	pg/L	Report RL U.
5702173752	OUTFALL 002	Outfall002_20250208_Comp	2/8/2025	570-217375-1	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	21	J,DXMB	U	B	pg/L	Report RL U.
5702173752	OUTFALL 002	Outfall002_20250208_Comp	2/8/2025	570-217375-1	E1668C	N	(PCB 128) 2,2',3,3',4,4'-Hexachlorobiphenyl	Yes	1.3	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702193582	FIELD BLANK	Outfall018_20250221_Grab-04	2/21/2025	570-219358-3	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	8.5	J,DXqMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	3.4	J,DXqMB	U	B	pg/L	Report RL U.
5702193582	FIELD BLANK	Outfall018_20250221_Grab-04	2/21/2025	570-219358-3	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	4.9	J,DXqMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	4.9	J,DXMBq	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	3.9	J,DXqMB	U	B	pg/L	Report RL U.
5702193582	FIELD BLANK	Outfall018_20250221_Grab-04	2/21/2025	570-219358-3	E1668C	N	(PCB 37) 3,4,4'-Trichlorobiphenyl	Yes	2.0	J,DXqMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 37) 3,4,4'-Trichlorobiphenyl	Yes	3.3	J,DXMBq	U	B	pg/L	Report RL U.
5702193582	FIELD BLANK	Outfall018_20250221_Grab-04	2/21/2025	570-219358-3	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	18	J,DXqMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	28	J,DXMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	31	J,DXMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	Yes	7.2	J,DXMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	Yes	8.8	J,DXMB	U	B	pg/L	Report RL U.

TABLE 3
SYSTEM PERFORMANCE AND OVERALL ASSESSMENT
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

SDG#	Location	Sample ID	Sample Date	Lab ID	Method	Fraction	Analyte	Reportable Result	Result	Laboratory Qualifier	Final Validated Qualifier	Validation Note	Unit	Notes
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	19	J,DXMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	18	J,DXMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 70) 2,3',4',5-Tetrachlorobiphenyl	Yes	14	J,DXMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 70) 2,3',4',5-Tetrachlorobiphenyl	Yes	14	J,DXMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 74) 2,4,4',5-Tetrachlorobiphenyl	Yes	14	J,DXMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 74) 2,4,4',5-Tetrachlorobiphenyl	Yes	14	J,DXMB	U	B	pg/L	Report RL U.
5702193582	FIELD BLANK	Outfall018_20250221_Grab-04	2/21/2025	570-219358-3	E1668C	N	(PCB 8) 2,4'-Dichlorobiphenyl	Yes	11	J,DXMB	U	B	pg/L	Report RL U.
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 138) 2,2',3,4,4',5'-Hexachlorobiphenyl	Yes	20	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 87) 2,2',3,4,5'-Pentachlorobiphenyl	Yes	15	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 151) 2,2',3,5,5',6-Hexachlorobiphenyl	Yes	3.5	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 119) 2,3',4,4',6-Pentachlorobiphenyl	Yes	15	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 123) 2',3,4,4',5-Pentachlorobiphenyl	Yes	3.3	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp	2/21/2025	570-219358-1	E1668C	N	(PCB 158) 2,3,3',4,4',6-Hexachlorobiphenyl	Yes	2.3	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 169) 3,3',4,4',5,5'-Hexachlorobiphenyl	Yes	2.5	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 180) 2,2',3,4,4',5,5'-Heptachlorobiphenyl	Yes	7.5	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 156) 2,3,3',4,4',5-Hexachlorobiphenyl	Yes	7.4	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 167) 2,3',4,4',5,5'-Hexachlorobiphenyl	Yes	4.0	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702193582	OUTFALL 018	Outfall018_20250221_Comp-02	2/21/2025	570-219358-2	E1668C	N	(PCB 157) 2,3,3',4,4',5'-Hexachlorobiphenyl	Yes	7.4	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702184138	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	8.9	J,DXMBq	U	B	pg/L	Report RL U.
5702184138	OUTFALL 001	Outfall001_20250214_Comp-02	2/14/2025	570-218413-2	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	11	J,DXMB	U	B	pg/L	Report RL U.
5702184138	FIELD BLANK	Outfall001_20250214_Grab-04	2/14/2025	570-218413-3	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	6.9	J,DXMB	U	B	pg/L	Report RL U.
5702184138	OUTFALL 001	Outfall001_20250214_Comp-02	2/14/2025	570-218413-2	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	19	J,DXMB	U	B	pg/L	Report RL U.
5702184138	FIELD BLANK	Outfall001_20250214_Grab-04	2/14/2025	570-218413-3	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	14	J,DXqMB	U	B	pg/L	Report RL U.
5702184138	OUTFALL 001	Outfall001_20250214_Comp-02	2/14/2025	570-218413-2	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	64	J,DXMB	U	B	pg/L	Report RL U.
5702184138	FIELD BLANK	Outfall001_20250214_Grab-04	2/14/2025	570-218413-3	E1668C	N	(PCB 8) 2,4'-Dichlorobiphenyl	Yes	8.4	J,DXMB	U	B	pg/L	Report RL U.
5702184138	OUTFALL 001	Outfall001_20250214_Comp-02	2/14/2025	570-218413-2	E1668C	N	(PCB 8) 2,4'-Dichlorobiphenyl	Yes	7.7	J,DXqMB	U	B	pg/L	Report RL U.
5702184138	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	17	J,DXMB	U	B	pg/L	Report RL U.
5702184138	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	76	J,DXMB	U	B	pg/L	Report RL U.
5702184138	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1668C	N	(PCB 37) 3,4,4'-Trichlorobiphenyl	Yes	6.7	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702184138	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1668C	N	(PCB 189) 2,3,3',4,4',5,5'-Heptachlorobiphenyl	Yes	11	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702184138	OUTFALL 001	Outfall001_20250214_Comp	2/14/2025	570-218413-1	E1668C	N	(PCB 195) 2,2',3,3',4,4',5,6-Octachlorobiphenyl	Yes	27	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702184138	OUTFALL 001	Outfall001_20250214_Comp-02	2/14/2025	570-218413-2	E1668C	N	(PCB 77) 3,3',4,4'-Tetrachlorobiphenyl	Yes	9.9	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702184138	OUTFALL 001	Outfall001_20250214_Comp-02	2/14/2025	570-218413-2	E1668C	N	(PCB 37) 3,4,4'-Trichlorobiphenyl	Yes	6.8	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702173751	OUTFALL 002	Outfall002_20250208_Comp-02	2/8/2025	570-217375-2	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	12	J,DXMBq	U	B	pg/L	Report RL U.
5702173752	FIELD BLANK	Outfall002_20250208_Grab-04	2/8/2025	570-217375-3	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	6.1	J,DXMB	U	B	pg/L	Report RL U.
5702173751	OUTFALL 002	Outfall002_20250208_Comp-02	2/8/2025	570-217375-2	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	13	J,DXMB	U	B	pg/L	Report RL U.
5702173752	FIELD BLANK	Outfall002_20250208_Grab-04	2/8/2025	570-217375-3	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	6.7	J,DXMB	U	B	pg/L	Report RL U.
5702173751	OUTFALL 002	Outfall002_20250208_Comp-02	2/8/2025	570-217375-2	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	28	J,DXMB	U	B	pg/L	Report RL U.
5702173752	FIELD BLANK	Outfall002_20250208_Grab-04	2/8/2025	570-217375-3	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	14	J,DXMBq	U	B	pg/L	Report RL U.
5702173751	OUTFALL 002	Outfall002_20250208_Comp-02	2/8/2025	570-217375-2	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	12	J,DXMB	U	B	pg/L	Report RL U.
5702173752	FIELD BLANK	Outfall002_20250208_Grab-04	2/8/2025	570-217375-3	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	5.2	J,DXMB	U	B	pg/L	Report RL U.
5702173751	OUTFALL 002	Outfall002_20250208_Comp-02	2/8/2025	570-217375-2	E1668C	N	(PCB 118) 2,3',4,4',5-Pentachlorobiphenyl	Yes	9.6	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702173751	OUTFALL 002	Outfall002_20250208_Comp-02	2/8/2025	570-217375-2	E1668C	N	(PCB 105) 2,3,3',4,4'-Pentachlorobiphenyl	Yes	3.5	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702173751	OUTFALL 002	Outfall002_20250208_Comp-02	2/8/2025	570-217375-2	E1668C	N	(PCB 138) 2,2',3,4,4',5'-Hexachlorobiphenyl	Yes	37	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702173751	OUTFALL 002	Outfall002_20250208_Comp-02	2/8/2025	570-217375-2	E1668C	N	(PCB 101) 2,2',4,5,5'-Pentachlorobiphenyl	Yes	9.4	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702173751	OUTFALL 002	Outfall002_20250208_Comp-02	2/8/2025	570-217375-2	E1668C	N	(PCB 149) 2,2',3,4',5',6-Hexachlorobiphenyl	Yes	16	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702173751	OUTFALL 002	Outfall002_20250208_Comp-02	2/8/2025	570-217375-2	E1668C	N	(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	Yes	6.9	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137631	FIELD BLANK	FB_Outfall001_20250113_Grab	1/13/2025	570-213763-2	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	8.8	J,DXqMB	U	B	pg/L	Report RL U.
5702137631	EQUIPMENT BLANK	EB_Outfall001_20250113_Grab	1/13/2025	570-213763-1	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	15	J,DXMB	U	B	pg/L	Report RL U.
5702137631	EQUIPMENT BLANK	EB_Outfall001_20250113_Grab	1/13/2025	570-213763-1	E1668C	N	(PCB 118) 2,3',4,4',5-Pentachlorobiphenyl	Yes	3.7	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137631	EQUIPMENT BLANK	EB_Outfall001_20250113_Grab	1/13/2025	570-213763-1	E1668C	N	(PCB 8) 2,4'-Dichlorobiphenyl	Yes	13	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137631	EQUIPMENT BLANK	EB_Outfall001_20250113_Grab	1/13/2025	570-213763-1	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	3.1	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137631	EQUIPMENT BLANK	EB_Outfall001_20250113_Grab	1/13/2025	570-213763-1	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	2.7	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137661	TRIP BLANK	SB_Outfall002_20250113_Grab	1/13/2025	570-213766-4	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	19	J,DXMB	U	B	pg/L	Report RL U.
5702137661	TRIP BLANK	SB_Outfall002_20250113_Grab	1/13/2025	570-213766-4	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	2.3	J,DXMB	U	B	pg/L	Report RL U.
5702137641	FIELD BLANK	FB_Outfall018_20250113_Grab	1/13/2025	570-213764-2	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	21	J,DXMB	U	B	pg/L	Report RL U.
5702137641	FIELD BLANK	FB_Outfall018_20250113_Grab	1/13/2025	570-213764-2	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	1.4	J,DXMBq	U	B	pg/L	Report RL U.
5702137661	EQUIPMENT BLANK	EB_Outfall002_20250113_Grab	1/13/2025	570-213766-1	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	24	J,DXMB	U	B	pg/L	Report RL U.
5702137661	FIELD BLANK	FB_Outfall002_20250113_Grab	1/13/2025	570-213766-2	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	20	J,DXMB	U	B	pg/L	Report RL U.
5702137661	EQUIPMENT BLANK	EB_Outfall002_20250113_Grab	1/13/2025	570-213766-1	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	4.5	J,DXMB	U	B	pg/L	Report RL U.
5702137661	FIELD BLANK	FB_Outfall002_20250113_Grab	1/13/2025	570-213766-2	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	2.1	J,DXMB	U	B	pg/L	Report RL U.

TABLE 3
SYSTEM PERFORMANCE AND OVERALL ASSESSMENT
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

SDG#	Location	Sample ID	Sample Date	Lab ID	Method	Fraction	Analyte	Reportable Result	Result	Laboratory Qualifier	Final Validated Qualifier	Validation Note	Unit	Notes
5702137661	EQUIPMENT BLANK	EB_Outfall002_20250113_Grab	1/13/2025	570-213766-1	E1668C	N	(PCB 70) 2,3',4',5-Tetrachlorobiphenyl	Yes	4.2	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137661	EQUIPMENT BLANK	EB_Outfall002_20250113_Grab	1/13/2025	570-213766-1	E1668C	N	(PCB 74) 2,4,4',5-Tetrachlorobiphenyl	Yes	4.2	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137661	EQUIPMENT BLANK	EB_Outfall002_20250113_Grab	1/13/2025	570-213766-1	E1668C	N	(PCB 138) 2,2',3,4,4',5'-Hexachlorobiphenyl	Yes	9.2	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137681	FIELD BLANK	FB_Outfall011_20250113_Grab	1/13/2025	570-213768-2	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	25	J,DXMB	U	B	pg/L	Report RL U.
5702137681	EQUIPMENT BLANK	EB_Outfall011_20250113_Grab	1/13/2025	570-213768-1	E1668C	N	(PCB 44) 2,2',3,5'-Tetrachlorobiphenyl	Yes	18	J,DXMB	U	B	pg/L	Report RL U.
5702137681	EQUIPMENT BLANK	EB_Outfall011_20250113_Grab	1/13/2025	570-213768-1	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	3.1	J,DXMB	U	B	pg/L	Report RL U.
5702137681	FIELD BLANK	FB_Outfall011_20250113_Grab	1/13/2025	570-213768-2	E1668C	N	(PCB 52) 2,2',5,5'-Tetrachlorobiphenyl	Yes	1.4	J,DXMBq	U	B	pg/L	Report RL U.
5702137681	EQUIPMENT BLANK	EB_Outfall011_20250113_Grab	1/13/2025	570-213768-1	E1668C	N	(PCB 8) 2,4'-Dichlorobiphenyl	Yes	13	J,DXMB	U	B	pg/L	Report RL U.
5702137681	FIELD BLANK	FB_Outfall011_20250113_Grab	1/13/2025	570-213768-2	E1668C	N	(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	Yes	1.4	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137681	EQUIPMENT BLANK	EB_Outfall011_20250113_Grab	1/13/2025	570-213768-1	E1668C	N	(PCB 18) 2,2',5-Trichlorobiphenyl	Yes	4.5	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137681	EQUIPMENT BLANK	EB_Outfall011_20250113_Grab	1/13/2025	570-213768-1	E1668C	N	(PCB 49) 2,2',4,5'-Tetrachlorobiphenyl	Yes	1.2	J,DXq	UJ	*10	pg/L	Report ND at sample concentration
5702137681	EQUIPMENT BLANK	EB_Outfall011_20250113_Grab	1/13/2025	570-213768-1	E1668C	N	(PCB 28) 2,4,4'-Trichlorobiphenyl	Yes	2.3	J,DXq	UJ	*10	pg/L	Report ND at sample concentration

Data Usability Summary Report

Project Name: The Boeing Company, Santa Susana Field Laboratory, NPDES

Project Description: First Quarter 2025 Stormwater Samples

Sample Date(s): February 15, 2025

Analytical Laboratory: Eurofins Calscience, Tustin, CA

Validation Performed by: Gabrielle Davis

Validation Reviewed by: Vanessa Godard

Validation Date: April 23, 2025

Haley & Aldrich, Inc. (Haley & Aldrich) prepared this Data Usability Summary Report (DUSR) to summarize the review and validation of the analytical results for Sample Delivery Group(s) (SDGs) listed. This DUSR is organized into the following sections:

1. **Level II, First Quarter 2025, Radiological Exceedance Data Validation**
2. **Explanations**
3. **Glossary**
4. **Abbreviations**
5. **Qualifiers**

References

This data validation and usability assessment was performed per the guidance and requirements established by the United States Environmental Protection Agency (USEPA) using the following reference materials:

- Evaluation of Radiochemical Data Usability by J.G. Paar;
- Project-specific Quality Assurance Project Plan (QAPP), herein referred to as the specified limits (see References section).

Radiological data reported in this sampling event were reported to the Minimum Detectable Concentration (MDC).

Sample data were qualified in accordance with the laboratory's standard operating procedures (SOPs). The results presented in each laboratory report were found to be compliant with the data quality objectives (DQO) for the project and are, therefore, usable; any exceptions are noted in the following pages.

1. Level II, First Quarter 2025, Radiological Exceedance Data Validation

1.1 SAMPLE MANAGEMENT

This DUSR summarizes the review of SDG number 570-218637-6, dated March 20, 2025.

Samples were collected, preserved, and shipped following the standard chain of custody (COC) protocol.

- Samples for USEPA Method 903.0 and 904.0 analysis were subcontracted to Eurofins St. Louis in Earth City, MO.

Samples were also received appropriately, identified correctly, and analyzed according to the COC.

Analyses were performed on the following samples:

Sample ID	Sample Type	Lab ID	Sample Date	Matrix	Methods	Holding Time
Outfall009_20250215 _Comp	N	570-218637-1	2/15/2025	WM	Radium-226 and Radium-228 by USEPA 903.0 and 904.0	180 days, unpreserved

1.2 HOLDING TIMES/PRESERVATION

The samples arrived at the laboratory at the proper temperature and were prepared and analyzed within the holding time and preservation criteria specified per method protocol.

1.3 REPORTING LIMITS AND SAMPLE DILUTIONS

The Laboratory Reporting Limits (RLs) for the samples within this SDG met or were below the minimum RL requirements specified by the project-specific QAPP, with the following exception:

- The detection goal was not met for the following sample due to a reduced sample volume used in preparation attributed to the presence of matrix interferences.

No sample dilutions were performed for the analysis of the samples in these reports.

1.4 LABORATORY CONTROL SAMPLES

Refer to Section E 1.3. Compounds associated with the laboratory control samples (LCS) analyses associated with client samples exhibited recoveries within the specified limits.

1.5 MATRIX SPIKE SAMPLES

Refer to Section E 1.4. The laboratory did not analyze any matrix spike/matrix spike duplicate (MS/MSD) analysis in this SDG.

1.6 BLANK SAMPLE ANALYSIS

Refer to Section E 1.5. Method blank samples had no detections, indicating that no contamination from laboratory activities occurred, with the following exception:

Blank Type	Batch ID	Analyte Detected in Blank	Concentration (pCi/L)	Qualifier	Affected Samples
Method Blank	707492	Radium-228	1.120 ± 0.436 (0.512)	J	570-218637-1

**Note that combined radium 226 + 228 has been flagged J, see system performance.*

1.7 DUPLICATE SAMPLE ANALYSIS

Refer to Section E 1.6. The laboratory did not analyze any laboratory duplicates as per the method or laboratory SOP.

1.8 NEGATIVE RESULT CHECK

Refer to Section E 1.24. No negative results for radiochemistry were reported in this SDG; therefore, no action is required.

1.9 CHEMICAL YIELD - TRACERS AND CARRIERS

Refer to Section E 1.25. The reviewer verified that at least one carrier or tracer was reported per sample and that yields were not extreme.

1.10 COMBINED ISOTOPE CALCULATIONS

Refer to Section E 1.26. The reviewer took the actions indicated below in the "Combined Result" column depending on the individual isotope activities:

Isotope #1	Isotope #2	Combined Result	Combined Uncertainty	Samples Affected
>MDC	ND (positive)	Summed J	Square-root of Sum of Squares	570-218637-1

1.11 PRECISION AND ACCURACY

Refer to Section E 1.7. Where required by the method, some measurement of analytical accuracy and precision was reported for each method with the site samples.

1.12 SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The results presented in this report were found to comply with the data quality objectives for the project and the guidelines specified by the analytical method. Based on the review of this report, the data are useable and acceptable with no rejected data. A summary of qualifiers applied to this data set is shown below.

Sample ID	Method	Analyte	Result	Validation Qualifier	Validation Note
Outfall009_20250215_Comp	904.0	Radium-228	6.63 ± 2.28	6.63 J ± 2.28	B
	RADIUM	Radium-226 & 228	6.63 ± 2.292	6.63 J ± 2.292	B, *III

2. Explanations

The following explanations include more detailed information regarding each of the sections in the DUSR above. Not all sections in the Explanations are represented:

- E 1.3 Laboratory Control Samples
  - The laboratory control sample/laboratory control sample duplicate (LCS/LCSD) analyses are used to assess the precision and accuracy of the analytical method independent of matrix interferences.
- E 1.4 Matrix Spike Samples
  - Matrix spike/matrix spike duplicate (MS/MSD) data are used to assess the precision and accuracy of the analytical method and evaluate the effects of the sample matrix on the sample preparation procedures and measurement methodologies.
- E 1.5 Blank Sample Analysis
  - Method blanks are prepared by the analytical laboratory and analyzed concurrently with the project samples to assess possible laboratory contamination.
  - No statistical evaluation of radiological isotope method blanks needs to be performed if either of the following conditions are met:
    - Method blank is less than its MDC or less than its 2s counting uncertainty.
    - Method blank result is greater than its MDC with the sample result less than its MDC.
- E 1.6 Laboratory Duplicate Sample Analysis
  - The laboratory duplicate sample analysis is used by the laboratory at the time of the analysis to demonstrate acceptable method precision. The RPD or absolute difference was evaluated for each duplicate sample pair to monitor the reproducibility of the data.
- E 1.7 Precision and Accuracy
  - Precision measures the reproducibility of repetitive measurements. In a laboratory environment, this will be measured by determining the RPD found between a primary and a duplicate sample. This can be an LCS/LCSD pair, a MS/MSD pair, a laboratory duplicate performed on a site sample, or a field duplicate collected and analyzed concurrently with a site sample.
  - Accuracy is a statistical measurement of the correctness of a measured value and includes components of random error (variability caused by imprecision) and systematic error. In a laboratory environment, this will be measured by determining the %R of certain spiked compounds. This can be assessed using LCS, blank spike (BS), MS, and/or surrogate recoveries.
- E 1.24 Negative Results
  - Radiological data can produce negative results, and if those results have absolute values greater than their 2s counting uncertainty it is an indication that the instrument background has shifted. The implication of an unstable background is a possible negative bias in the sample result.

- E 1.25 Chemical Yield
  - Tracers and carriers are used in radiochemical separations methods to evaluate chemical separation. Chemical yield is evaluated by recovering the chemical species spiked into samples. Yield is evaluated radiometrically with a tracer and gravimetrically with a carrier. Each sample is spiked with either a carrier or tracer, and sample results are adjusted for yields greater or less than 100 percent. A low yield indicates tracer losses and radionuclide of interest through sample separation. A high yield indicates instrumental problems or contamination.
- E 1.26 Combined Isotope Calculation
  - Taking the direct sum of the individual isotopes for an element does not necessarily give the best representation of the combined radiological concentration. If negative results are reported, subtraction of activity should not occur. MDCs and individual uncertainties should be calculated as shown in the table for best representation of the combined result.

3. Glossary

*Analyte names may be abbreviated for simplicity. Please reference the laboratory report for the full analyte name.

Not all of the following symbols, acronyms, or qualifiers occur in this document.

- Sample Types:
  - EB Equipment Blank Sample
  - FB Field Blank Sample
  - FD Field Duplicate Sample
  - N Primary Sample
  - TB Trip Blank Sample
- Units:
  - ng/kg nanograms per kilogram
  - µg/L micrograms per liter
  - µg/m^3 micrograms per cubic meter
  - mg/kg milligrams per kilogram
  - mg/L milligrams per liter
  - ppbv/v parts per billion volume/volume
  - pCi/L picocuries per liter
  - pg/g picograms per gram
  - pg/L picograms per liter
- Matrices:
  - AA Ambient Air
  - GS Soil Gas
  - GW/WG Groundwater
  - IA Indoor Air
  - SE Sediment
  - SO Soil
  - SSV Sub-slab Vapor
  - ST Solid Waste
  - WM Stormwater
  - WQ Water Quality control matrix
  - WS Surface Water
  - WW Waste Water
- Table Footnotes:
  - NA Not applicable
  - ND Non-detect
  - NR Not reported
- Common Symbols:
  - % percent
  - < less than
  - ≤ less than or equal to
  - > greater than
  - ≥ greater than or equal to
  - = equal
  - °C degrees Celsius
  - ± plus or minus
  - ~ approximately
  - x times (multiplier)
- Fractions:
  - N Normal (method cannot be filtered)
  - D Dissolved (filtered)
  - T Total (unfiltered)

4. Abbreviations

%D	Percent Difference
%R	Percent Recovery
%RSD	Percent Relative Standard Deviation
%v/v	Percent volume by volume
2s	2 sigma
4,4-DDT	4 4-dichlorodiphenyltrichloroethane
Abs Diff	Absolute Difference
amu	atomic mass unit
BPJ	Best Professional Judgement
BS	Blank Spike
CCB	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CCVL	Continuing Calibration Verification Low
COC	Chain of Custody
COM	Combined Isotope Calculation
Cr (VI)	Hexavalent Chromium
CRI	Collision Reaction Interface
DoD	Department of Defense
DQO	data quality objective
DUSR	Data Usability Summary Report
EIS	Extraction Internal Standard
EMPC	Estimated Maximum Possible Concentration
FBK	Field Blank Contamination
FDP	Field Duplicate
GC	Gas Chromatograph
GC/MS	Gas Chromatography/Mass Spectrometry
GPC	Gel Permeation Chromatography
H_2	Hydrogen gas
HCl	Hydrochloric Acid
ICAL	Initial Calibration
ICB	Initial Calibration Blank
ICP/MS	Inductively Coupled Plasma/ Mass Spectrometry
ICV	Initial Calibration Verification
ICVL	Initial Calibration Verification Low
IPA	Isopropyl Alcohol
LC	Laboratory Control
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MBK	Method Blank Contamination
MDC	Minimum Detectable Concentration
MDL	Laboratory Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	not applicable
ND	Non-Detect
NFG	National Functional Guidelines
NH_3	Ammonia
NYSDEC	New York State Department of Environmental Conservation
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PDS	Post Digestion Spike
PEM	Performance Evaluation Mixture
PFAS	Per- and Polyfluoroalkyl Substances
PFBA	Perfluorbutanoic Acid
PFD	Perfluorodecalin
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane sulfonate
PFPeA	Perfluoropentanoic Acid
QAPP	Quality Assurance Project Plan
QC	Quality Control
QSM	Quality Systems Manual
R^2	R-squared value
Ra-226	Radium-226
Ra-228	Radium-228
RESC	Resolution Check Measure
RER	Relative Error Ratio
RL	Laboratory Reporting Limit
RPD	Relative Percent Difference
RRF	Relative Response Factors
RT	Retention Time
SAP	sampling analysis plan
SDG	Sample Delivery Group
SIM	Selected ion monitoring
SOP	Standard Operating Procedures
SPE	Solid Phase Extraction
SVOC	Semi-Volatile Organic Compounds
TCLP	Toxicity Characteristic Leaching Procedure
TIC	Tentatively Identified Compound
TKN	Total Kjeldahl Nitrogen
TPH	Total Petroleum Hydrocarbon
TPU	Total Propagated Uncertainty
USEPA	U.S. Environmental Protection Agency
VOC	Volatile Organic Compounds
WP	Work Plan

5. Qualifiers

The qualifiers below are from the USEPA National Functional Guidelines and the data in the DUSR may contain these qualifiers:

- Laboratory Qualifiers:

BA	Relative percent difference out of control.
BU	Analyzed out of holding time.
BV	Sample received after holding time expired.
J,DX	Results found between the EDL or MDL and laboratory RL.
LM	MS and/or MSD above acceptance limits. See Blank Spike (LCS).
LN	MS and/or MSD below acceptance limits. See Blank Spike (LCS).
LR	LCS/LCSD recovery below method control limits.
LQ	LCS/LCSD recovery above method control limits.
MB	Analyte present in the method blank.
PI	Primary and confirm results varied by > than 40% RPD.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio; the measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
U	Result is less than the sample detection limit.

- Validation Notes:

--	Based on validation of the data, a qualifier was not required.
*1	Improper preservation of sample.
*3	Initial and/or continuing calibration recoveries were outside acceptable control limits.
*10	Value was estimated detect or estimated non-detect (J, UJ) due to deficiencies in quantitation of the constituent, including constituents reported by the laboratory as estimated maximum possible concentration (EMPC) values.
*III	Unusual problems found with the data that have been described in the validation report.
B	Presumed contamination as indicated by the preparation (method) blank results.
C	Calibration %RSD or %D was noncompliant. [or] Correlation coefficient is <0.995.
D	The analysis with this flag should not be used because another more technically sound analysis is available.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.
E	Duplicates showed poor agreement.

F	Presumed contamination as indicated by the field blank (FB) or equipment blank (EB) results.
H	Holding times were exceeded.
I	Internal standard performance was unsatisfactory. [or] ICP ICS results were unsatisfactory.
L	LCS/LCSD % recovery or RPD was not within control limits.
L1	Laboratory control standard (LCS)/laboratory control standard duplicate (LCSD), relative percent difference (RPD) was outside the control limit.
Q	MS/MSD recovery or RPD was outside of control limits.
R	Calibration RRF was <0.05 or %R for calibration is not within control limits. [or] %R for calibration is not within control limits.
RPD	Pesticides and PCB Confirmation Column RPD Exceeded.
S	Surrogate recovery was outside QC limits. [or] The sequence or number of standards used for the calibration was incorrect.

- Validation Qualifiers:

=	No Qualifier.
J	Estimated value.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analyte has been "tentatively identified" or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.
R	As a validation qualifier, results are rejected; the presence or absence of analyte cannot be verified.
U	Result not detected.
UJ	The compound was not detected above the reported sample quantitation limit; however, the reported limit is estimated and may or may not represent the actual limit of quantitation.

References

1. Haley & Aldrich, Inc., 2024. *Quality Assurance Project Field Plan for Santa Susana Field Laboratory Stormwater Sampling Program*. September.

2. Paar, J.G., 1997. *Evaluation of Radiochemical Data Usability*. April.

APPENDIX F

Receiving Water Surveys, First Quarter 2025

TABLE F

RECEIVING WATER SURVEYS

FIRST QUARTER 2025

THE BOEING COMPANY - SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

Observation Requirements: General observations are required on a monthly basis when Outfall 002 (Bell Creek), Outfall 009 (Arroyo Simi), and/or Outfall 008 (Dayton Creek) are flowing.

FIRST QUARTER 2025 BELL CREEK OBSERVATIONS AT OUTFALL 002			
BELL CREEK OBSERVATIONS	**JANUARY**	**FEBRUARY**	**MARCH**
Date and time of inspection	N/A	2/7/2025, 07:05	3/11/2025, 10:35
Weather conditions	N/A	Light rain, cool, breezy, 58°F	Overcast, cold, calm, 48°F
Color of water	N/A	Pale brown	Pale brown
Appearance of oil films or grease, or floatable materials	N/A	None	None
Extent of visible turbidity or color patches	N/A	Uniform translucent	Uniform translucent
Description of odor, if any	N/A	None	None
Presence or activity of California Least Tern or California Brown Pelican	N/A	No	No

Notes:

N/A = not applicable. Since Outfall 002 did not flow in January, no monthly inspections were required at Outfall 002 for January

FIRST QUARTER 2025 ARROYO SIMI OBSERVATIONS AT ARROYO SIMI DOWNSTREAM			
ARROYO SIMI OBSERVATIONS	**JANUARY**	**FEBRUARY**	**MARCH**
Date and time of inspection	N/A	2/14/2025, 12:35	3/13/2025, 11:50
Weather conditions	N/A	Partly cloudy, cool, 58°F	Partly cloudy, cool, breezy, 58°F
Color of water	N/A	Pale brown	Brown
Appearance of oil films or grease, or floatable materials	N/A	None	None
Extent of visible turbidity or color patches	N/A	Uniform opaque	Uniform opaque
Description of odor, if any	N/A	None	None
Presence or activity of California Least Tern or California Brown Pelican	N/A	No	No

Notes:

N/A = not applicable. Since Outfall 009 did not flow in January, no monthly inspections were required at Arroyo Simi for January

FIRST QUARTER 2025 ARROYO SIMI OBSERVATIONS AT ARROYO SIMI UPSTREAM			
ARROYO SIMI OBSERVATIONS	**JANUARY**	**FEBRUARY**	**MARCH**
Date and time of inspection	N/A	2/14/2025, 13:00	3/13/2025, 12:05
Weather conditions	N/A	Partly cloudy, cool, 57°F	Partly cloudy, cool, breezy, 55°F
Color of water	N/A	Pale brown	Brown
Appearance of oil films or grease, or floatable materials	N/A	None	None
Extent of visible turbidity or color patches	N/A	Uniform opaque	Uniform opaque
Description of odor, if any	N/A	None	None
Presence or activity of California Least Tern or California Brown Pelican	N/A	No	No

Notes:

N/A = not applicable. Since Outfall 009 did not flow in January, no monthly inspections were required at Arroyo Simi for January

TABLE F

RECEIVING WATER SURVEYS

FIRST QUARTER 2025

THE BOEING COMPANY - SANTA SUSANA FIELD LABORATORY

NPDES PERMIT CA0001309

FIRST QUARTER 2025 DAYTON CANYON CREEK OBSERVATIONS AT OUTFALL 008			
DAYTON CANYON CREEK OBSERVATIONS	**JANUARY**	**FEBRUARY**	**MARCH**
Date and time of inspection	N/A	2/14/2025, 09:00	N/A
Weather conditions	N/A	Cloudy, drizzle, cool, 54°F	N/A
Color of water	N/A	Pale brown	N/A
Appearance of oil films or grease, or floatable materials	N/A	None	N/A
Extent of visible turbidity or color patches	N/A	Uniform translucent	N/A
Description of odor, if any	N/A	None	N/A
Presence or activity of California Least Tern or California Brown Pelican	N/A	No	N/A

Notes:

N/A = not applicable. Since Outfall 008 did not flow in January or March, no monthly inspections were required at Outfall 008 for January or March

APPENDIX G

Annual Comprehensive Site Compliance Evaluation Report

APPENDIX G

ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION REPORT
REPORTING YEAR 1 JULY 2023 THROUGH 30 JUNE 2024

This Annual Comprehensive Site Compliance Evaluation Report (Annual Evaluation) was prepared for The Boeing Company (Boeing) Santa Susana Field Laboratory (Site), located in Simi Hills, Ventura County, California in general accordance with Attachment G (Section 9.D.) of the Site's Waste Discharge Requirements (National Pollutant Discharge Elimination System [NPDES] Permit No. CA0001309, CI No. 6027). This Annual Evaluation evaluates compliance with the Site-Wide Stormwater Pollution Prevention Plan (SWPPP) during reporting year July 1, 2023 through June 30, 2024. The Annual Evaluation was conducted between October 14 and 18, 2024 by Mark Dominick, P.G., QSD of Haley & Aldrich, Inc. and reported in the First Quarter 2025 Discharge Monitoring Report (DMR).

REVIEW OF VISUAL OBSERVATION RECORDS, INSPECTION RECORDS, AND SAMPLING AND ANALYSIS RESULTS

For the reporting year, the Inspector reviewed all inspection forms during the Annual Evaluation, up to June 2024, that documented inspections/visual observations. Each inspection form was complete or revised as needed. A process exists and has been implemented for non-compliance items to be properly evaluated and corrected.

Sampling and analysis results were evaluated in each quarterly DMR.

POTENTIAL POLLUTANT SOURCE VISUAL INSPECTION

For the reporting year, the Inspector conducted visual inspections at the Site during the Annual Evaluation at buildings, equipment, and surrounding areas to evaluate the status of existing potential pollutant sources. The Inspector confirmed that areas where known potential pollutants exist have appropriate best management practices (BMPs) installed and maintained to minimize and/or eliminate the potential for pollutant releases to reach the drainage system. No additional BMPs requirements were identified at the time of the inspection. No additional buildings, equipment, or surrounding areas were identified that required BMPs at the time of the inspection.

BEST MANAGEMENT PRACTICE REVIEW

For the reporting year, the Inspector reviewed and evaluated the structural and non-structural BMPs at the Site during the Annual Evaluation. The Inspector determined the BMPs were adequate, properly implemented, required minor maintenance, and were in compliance with the SWPPP and BMP plan. The Inspector observed minor amounts of sediment delivered or accumulated around sediment control BMPs due to the upstream areas being well-vegetated with a diversity of plants. The on-site evaluation did result in recommendations which the Inspector identified on the inspection forms and verified that the corrective actions were completed prior to the issuance of the First Quarter 2025 DMR.

SWPPP REVISIONS AND SCHEDULE

The Regional Board adopted the 2015 NPDES Permit No. R4-2015-0033 on February 12, 2015, effective April 1, 2015, to revise the existing 2010 NPDES Permit No. R4-2010-0090. The 2015 NPDES Permit was then revised by the Regional Board in October 2023 and became effective on January 1, 2024. An initial version of the SWPPP (Version 1) for compliance with the 2023 Permit was completed in March 2024 after the new NPDES Permit became

effective but before the Annual Sitewide Evaluation was performed. Version 2 of the SWPPP was completed based on observations made during the Annual Evaluation and include the following revisions:

- Updated text to SWPPP objectives (Section 1.2);
- Updated the Pollution Prevention Team (Section 1.4);
- Updated Santa Susana Site Areas (Section 2.3);
- Updated text to Surface Water Drainages (Section 2.4.1);
- Updated text to Surface Water Ponds (Section 2.4.2);
- Updated text to Significant Materials and Potential Sources (Sections 2.9.1 through 2.9.4);
- Updated text to Non-Stormwater Sources (Section 3.1.4);
- Updated text to Pollutants with Potential to be Present (Section 3.2);
- Added text to BMPs to be Implemented (Section 4.3);
- Updated text to the Sampling and Analysis Plan section (Section 5);
- Updated figures;
- Updated Best Management Practices Plan (Appendix B),
- Updated Significant Materials Inventory (Appendix C); and
- Updated Spill Contingency Plan (heretofore referred to as the Spill Prevention and Response Plan [SPRP]) (Appendix E).

NON-COMPLIANCE INCIDENTS AND CORRECTIVE ACTIONS TAKEN

As part of the Annual Evaluation, the Inspector reviewed the non-compliance issues (Permit Limit exceedances) discussed in the DMRs and reviewed the corrective actions. The Inspector determined that the corrective actions were appropriate and have been completed. During the onsite portion of the annual evaluation, minor recommendations were made to Boeing and the Inspector determined that the recommendations were completed prior to the issuance of the First Quarter 2025 DMR.

SWPPP, BMP AND SPRP STATUS AND EFFECTIVENESS

The SWPPP, BMP Plan, and SPRP are implemented and the effectiveness evaluated concurrently by Boeing, then updated annually following completion of the annual comprehensive site compliance evaluation. Although the SWPPP, BMP Plan, and SPRP are fully implemented and substantially effective, the Expert Panel continues to collect and analyze additional data to further investigate any exceedances that occur throughout the year and make new BMP recommendations as needed.

CERTIFICATION

Per NPDES Permit Attachment G (Section 9.D.), the signature and certification requirements for this evaluation report are included in the DMR text.