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

Via Email to losangeles@waterboards.ca.gov

November 13, 2020

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

Subject: Third Quarter 2020 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 July 1 through September 30, 2020 (Third Quarter 2020). 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 2015. The NPDES Permit covers the entire Santa Susana Site, which includes approximately 2,400 acres owned by Boeing, approximately 450 acres owned by the United States and administered by the National Aeronautics and Space Administration (NASA), and approximately 290 acres of Boeing's land for which the Department of Energy (DOE) has assumed responsibility for soil remediation.

Hard copies of this DMR are available to the public at the California State University Northridge Oviatt Library, the Simi Valley Public Library, and the Platt Branch of the Los Angeles Public Library. An electronic version of this DMR is located at: http://www.boeing.com/principles/environment/santa-susana/monitoring-reports.page.

THIRD QUARTER 2020 DMR CONTENTS

This DMR includes the following sections and appendices:

- **Discharge and Sample Collection Summary:** This section describes the number of rain events, the number of samples collected, sample dates, and sample locations during the Third Quarter 2020. Table I summarizes the Third Quarter 2020 sampling record by outfall or location, sample frequency, and sample type collected per the requirements of the NPDES Permit.
- **Receiving Water Surveys:** This section summarizes the receiving water surveys required by the NPDES Permit.
- **Summary of Exceedances and/or Non-Compliance:** This section summarizes the Third Quarter 2020 sample results that exceeded NPDES Permit Limits, Benchmarks, and Receiving Water Limits, and the potential causes thereof.
- **Stormwater Treatment System at Outfall 011 Activities:** This section summarizes the Third Quarter 2020 activities at the stormwater treatment system (SWTS) at Outfall 011.
- **Stormwater Treatment System at Outfall 018 Activities:** This section summarizes the Third Quarter 2020 activities at the SWTS at Outfall 018.

- **Stormwater Pollution Prevention Plan/Best Management Practice Activities:** This section presents the Santa Susana Site-Wide Stormwater Pollution Prevention Plan (SWPPP) and Best Management Practice (BMP)-related activities implemented in the Third Quarter 2020, as well as activities associated with NASA, DOE, the Stormwater Expert Panel (Expert Panel), NASA and Boeing BMP Monitoring-related activities, the Northern Drainage, the Outfall 001/002 BMP Compliance Report, and Other BMP Activities. Table II summarizes typical BMP-related activities that occur at outfalls every quarter. Table III summarizes specific BMP activities completed during the Third Quarter 2020 by outfall location.
- **Figure 1** shows the stormwater collection and conveyance system, the Bell Creek Receiving Water sampling location (RSW-001, Outfall 002), and Santa Susana Site features; **Figure 2** shows the Arroyo Simi Receiving Water sampling location (RSW 002, Frontier Park) and upstream monitoring location.
- **Appendix A** summarizes the rainfall measured at the Santa Susana Site during the Third Quarter 2020.
- **Appendix B** tabulates waste shipments during the Third Quarter 2020.
- **Appendix C** presents chemical analytical results from the Third Quarter 2020 stormwater and/or receiving water sample discharge monitoring in tabular form by outfall locations, constituents evaluated (analytes), sample dates, and data validation qualifiers.
- **Appendix D** contains copies of the laboratory analytical reports, chain-of-custody forms, and data validation reports (if validation was performed).

DISCHARGE AND SAMPLE COLLECTION SUMMARY

The Santa Susana Site had no qualifying rain events during the Third Quarter 2020 that measured greater than 0.1 inch of rainfall within a 24-hour period and were preceded by at least 72 hours of dry weather (Appendix A). Automated flow-weighted composite samplers (autosamplers) were set in preparation for all rain events. No discharge occurred at any of the outfalls; therefore, no samples were collected. There were no changes in the discharge as described in the NPDES Permit during the reporting period.

One quarterly offsite receiving water sample was collected at the Arroyo Simi location (RSW-002, Frontier Park; see Figure 2). An additional sample was collected at Arroyo Simi to replace data validated as unusable in the original sample due to laboratory sample preparation error.

Table I summarizes the Third Quarter 2020 sampling record by outfall or location, sample frequency, and sample type collected per NPDES Permit requirements, and results are included in Appendix C.

TABLE I: Sampling Record during the Third Quarter 2020

Date	Outfall/Location	Sample Frequency	Sample Type
8/6/2020 9/30/2020	Arroyo Simi Receiving Water (RSW-002, Frontier Park)	Quarterly Surface Water	Grab

All analyses were conducted at analytical laboratories certified by the State Water Resources Control Board (SWRCB) for such analyses (i.e., all have current certification from the Environmental Laboratory Accreditation Program [ELAP] established by the California Environmental Laboratory Improvement Act) or have been approved by the SWRCB Executive Officer in accordance with current U.S. Environmental Protection Agency (EPA) guideline

procedures or as specified in the NPDES Permit. Laboratory analytical reports, including validation reports and notes (if validation was performed), are included in Appendix D. Attachment H of the NPDES Permit presents the SWRCB's minimum levels laboratories are expected to achieve for reporting and determining compliance with NPDES Permit Limits. The analytical laboratory achieved these minimum levels in the Third Quarter 2020 except when reporting limits were above the minimum levels (generally because of matrix interference). In cases where the NPDES Permit Limit was less than the reporting limit and minimum level, the reporting limit was used to determine compliance.

RECEIVING WATER SURVEYS

The receiving water monitoring program required by the Permit includes surveys of Bell Creek, Dayton Canyon Creek, and Arroyo Simi. Observations are made only during discharge from Outfalls 002, 008, and 009, respectively, and at most monthly during periods of multiple flow events. During Third Quarter 2020, Outfalls 002, 008, and 009 did not discharge, thus, no receiving water surveys were conducted.

SUMMARY OF EXCEEDANCES AND/OR NON-COMPLIANCE

No surface water discharges occurred from the Santa Susana Site during Third Quarter 2020. As such, there are no onsite compliance issues to report for this period. Additionally, in the quarterly surface water sample collected at Arroyo Simi sampling location (RSW-002, Frontier Park) in Simi Valley, no constituents exceeded receiving water limits.

STORMWATER TREATMENT SYSTEM AT OUTFALL 011 ACTIVITIES

The SWTS located near R-1 Pond is situated to discharge through Outfall 011. Maintenance items were completed in the Third Quarter 2020 as follows:

- Replaced the drain valves for ACTIFLO;
- Replaced the air solenoids on the backwash lines of the sand filters;
- Installed a new peristaltic pump in the alum shed and re-plumbed the suction and discharge line in the skid;
- Modified the water line in the potassium permanganate ($KMnO_4$) skid; and
- Modified the suction and discharge lines for the peristaltic pumps in the sodium hydroxide (NaOH) and $KMnO_4$ skids.

The SWTS did not operate in the Third Quarter 2020.

STORMWATER TREATMENT SYSTEM AT OUTFALL 018 ACTIVITIES

The SWTS located at Silvernale Pond discharges through Outfall 018. Maintenance items were completed in the Third Quarter 2020 as follows:

- Hydro blasted the main line from ACTIFLO to ChemBox 4;
- Hydro blasted the plate settler line as well as the sump line;

- Rebuilt the sludge pump for the screw press; and
- Removed and then reinstalled the media for the sand filters.

The SWTS did not operate in the Third Quarter 2020.

STORMWATER POLLUTION PREVENTION PLAN/BEST MANAGEMENT PRACTICE ACTIVITIES

Boeing implemented significant BMP activities in compliance with the Site-Wide SWPPP (Haley & Aldrich, 2019) to assist in improving stormwater quality and compliance at the Santa Susana Site. Table II summarizes typical BMP-related activities that occur at outfalls every quarter.

TABLE II: Routine Quarterly Outfall BMP Activities

BMP Activities	Outfalls											
	001	002	003	004	005	006	007	008	009	010	011	018
Conducted erosion and sediment control, and drainage stabilization inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation.	X	X	X	X	X	X	X	X	X	X	X	X
Inspected the flume for sediment/debris.	X	X	X	X	N/A	X	N/A	X	X	X	N/A	X
Inspected the weir for sediment/debris.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	X	N/A
Cleaned the sample box of sediment and debris, checked for the presence of animals, and performed weed abatement as needed.	X	X	X	X	X	X	X	X	N/A	X	X	X
Checked the flow meter control box for the presence of debris and/or animals.	X	X	X	X	N/A	X	N/A	X	X	X	X	X
Cleaned the outfall area of sediment and debris and performed weed abatement as needed.	X	X	X	X	X	X	X	X	X	X	X	X
Reset the flow meter and replaced the tape monthly.	X	X	X	X	N/A	X	N/A	X	X	X	X	X
Conducted maintenance inspections of the stormwater conveyance system.	N/A	N/A	X	X	X	X	X	N/A	N/A	X	X	X
Conducted maintenance inspections of the stormwater retention system.	N/A	N/A	X	X	X	X	X	N/A	N/A	X	X	X
Conducted maintenance inspections of the flow-through structure.	N/A	N/A	X	X	N/A	X	N/A	N/A	N/A	X	X	N/A

Notes:

X = BMP activity is applicable to the outfall and was completed in Third Quarter 2020.

N/A = BMP activity is not applicable to the outfall because the outfall does not have a flume, sample box, flow meter, retention system or flow-through structure or is not part of the stormwater conveyance system.

Table III summarizes the additional activities completed during the Third Quarter 2020 by outfall or BMP location.

TABLE III: Additional Third Quarter 2020 BMP Activities

Outfall or BMP Location	BMP Activities During Third Quarter 2020
001, 002, 003, 004, 006, 008, 009, 010, 011, and 018	Calibrated flow meters and Autosamplers.
010	Installed a new submersible pump.
Perimeter Pond	Performed weed abatement and brush clearance along conveyance line. Installed a check valve on the line serviced by the backup Charles King pump.
Area I – Former Building 1408 Contractor Staging Area	Placed drip pans under the small engines of infrequently used equipment.
Area III – SWTS 18	Installed a containment pan under the portable toilet.
Admin Area Culvert; Area I Road/Bowl Road Culvert	Removed sediment and dried vegetation debris at culvert entrances.
CM-4	Removed damaged and spent fiber rolls.
CM-5	Repositioned riprap to prohibit sediment transport to weir board.
CM-6	Removed accumulated sediment from behind the weir board.
CM-7	Removed broken gravel bags and dried vegetation debris.
CM-8 and CM-12	Performed weed abatement.
CM-10	Applied additional gravel to exposed areas.

In addition to Site-Wide SWPPP-related activities, specific BMP projects included: NASA, DOE, Expert Panel, Northern Drainage, and Outfall 001/002 BMP Compliance Report. These are discussed in more detail below.

NASA-Related Activities

Demolition BMPs and stormwater activities covered by NASA's Construction SWPPP for the Alfa and Bravo areas are inspected in accordance with the Construction General Permit (CGP) (NASA, 2017a). All demolition and soil disturbance activities were completed in 2018. During the Third Quarter 2020, NASA maintained wattles as perimeter and linear sediment controls, maintained silt fencing, and installed gravel/riprap in areas within these sites where construction activities had been completed. A Notice of Termination (NOT) was submitted to Regional Water Quality Control Board (RWQCB) in Second Quarter 2020.

Demolition BMPs and stormwater control activities covered by NASA's Construction SWPPP in the Coca Test Stand Area are inspected in accordance with the CGP (NASA, 2017b). All demolition and soil disturbance activities in the Coca Test Stand Area were completed in Fourth Quarter 2018. During Third Quarter 2020, NASA maintained sandbags, maintained wattles as perimeter and linear sediment controls, and installed gravel/riprap in areas within these sites where construction activities had been completed. A NOT was submitted to RWQCB in Second Quarter 2020 and granted in August 2020.

DOE-Related Activities

DOE reported no BMP-related activities during the Third Quarter 2020.

Expert Panel-Related Activities

The BMP activities discussed below were performed, commenced, or completed during the Third Quarter 2020 in coordination with the Expert Panel.

Culvert Modifications

Twelve culvert modifications (CMs) were constructed in 2009 at various locations at or along the main road adjacent to the Northern Drainage. The CMs were designed to treat stormwater from roads and/or the surrounding hillsides. The Third Quarter 2020 activities included:

- BMP inspections, including the culvert inlets and riprap check dams;
- Cleaning CM basins and weir boards of debris, as needed;
- Removal of damaged and spent fiber rolls at CM-4;
- Repositioning riprap to prohibit sediment transport to the weir board at CM-5;
- Removal of accumulated sediment from behind the weir board at CM-6;
- Removal of broken gravel bags and dried vegetation debris at CM-7;
- Weed abatement at CM-8 and CM-12; and
- Application of additional gravel to exposed areas of CM-10.

NASA Expendable Launch Vehicle (ELV) Area BMPs

BMPs and drainage improvements were installed between June and October 2013 at the NASA ELV to improve the quality of stormwater from the ELV area. After being pumped from the cistern at the bottom of the swale to the ELV system, stormwater is gravity-driven through the tank system, starting with the settling tanks, then through the filter media tank, before discharging to a tributary that flows to Outfall 009. In the Second Quarter 2016, a sandbag berm was placed across the ELV asphalt swale to divert stormwater toward CM-1 for treatment instead of directly discharging to the Northern Drainage. A generator was installed at the ELV system during the Third Quarter 2019. The Third Quarter 2020 activities included BMP inspections.

Well 13 Road

Sandbag berms located near the culvert inlet and downgradient of the hydroseeded area were reinforced and increased in height during Fourth Quarter 2017. The Third Quarter 2020 activities included BMP inspections, weed abatement and brush clearance along the road, and removal of debris in culvert at the top of the road.

B-1 Area

The B-1 Area BMPs include:

- A sedimentation basin, constructed in 2012;
- A media filter, constructed in 2012; and
- An upper parking lot media filter, constructed in 2017.

The Third Quarter 2020 activities included continued BMP inspections, clearing the areas of sediment and debris, and removal of damaged and spent fiber rolls.

Upper Parking Lot Media Filter

Construction of a media filter at the northeast corner of the upper parking lot was completed during the Second Quarter 2017. This BMP included a new media filter similar in style to the B-1 media filter and designed to treat

runoff from parts of the parking lot as well as parts of the adjacent entrance road. The Third Quarter 2020 activities included BMP inspections and sediment and debris removal in and around the media bed.

Former Building 1436 Detention Bioswales

Two detention bioswales were constructed at the former Building 1436 following its removal in Third Quarter 2014. The graded surface was hydroseeded, and more than 2,900 native plantings were installed in December 2014. The bioswales were designed to capture, pretreat, and detain stormwater from the adjacent parking lot and from approximately 13.9 acres of drainage area east and upgradient prior to releasing the stormwater to the former Instrument and Equipment Laboratories (IEL) storm drain, where flow is diverted to the lower lot biofilter for treatment. The Third Quarter 2020 activities included BMP inspections and removal of damaged and spent fiber rolls.

Lower Lot Biofilter

The lower lot biofilter is a stormwater treatment BMP designed and built to capture, convey, and treat stormwater from the lower parking lot and former IEL watershed. The lower lot biofilter consists of a 30,000-gallon cistern, a stormwater conveyance line, a sedimentation basin, and a media biofilter.

The Third Quarter 2020 activities included inspections to verify that the sedimentation basin and biofilter were free of sediment and debris, checks of the cistern area and pump, weed abatement as needed, and inspections of surrounding BMPs.

No stormwater was pumped from the cistern to the sedimentation basin during the Third Quarter 2020.

Administration Area Inlet Filters

Four storm drain inlets were modified with either drop inlet filters or weighted wattles filled with media mixtures during the Second Quarter 2017. At the inlet closest to the lower lot, a storm drain filter sock was placed upstream of the inlet to increase solids settling. The Third Quarter 2020 activities included BMP inspections and accumulated sediment removal from the inlet structures.

Former Shooting Range

BMPs at the Former Shooting Range consist of:

- Slope stabilization measures (i.e., vegetation planting areas);
- Riprap berms along the Northern Drainage;
- A culvert maintenance media filter;
- Fiber rolls;
- Sandbag berm;
- Silt fencing;
- Water bar across the trail;
- Three check structures on the Northern Drainage Trail;
- Sandbags with fiber rolls;

- A check structure at the dissipater; and
- Hydroseeding.

The entire area continues to benefit from the growth of dense vegetation that shields lead shot from direct contact with or dislodging during precipitation events and prevents soil erosion and mobility of the shot to downstream areas.

The Third Quarter 2020 activities included BMP inspections. At the request of the Expert Panel, the Sage Ranch side of the Former Shooting Range was inspected to confirm that BMPs (i.e., fiber rolls, silt fence, etc.) control and/or treat stormwater runoff from that side of the Former Shooting Range to the Northern Drainage.

Northern Drainage BMPs

Boeing restored the Northern Drainage (Outfall 009) following cleanup activities performed under the Department of Toxic Substance Control (DTSC) oversight and in accordance with the requirements of the Regional Board's Cleanup and Abatement Order No. R4-2007-0054 (Regional Water Quality Control Board, 2007). The restoration and mitigation activities proposed in the Northern Drainage Restoration, Mitigation, and Monitoring Plan (RMMP)[1] were implemented in 2012. In accordance with the RMMP, regular maintenance, monitoring, and reporting were implemented in the Northern Drainage from 2012 through the Third Quarter 2017 for the stream's plant biology and geomorphology. The successful restoration and mitigation of the Northern Drainage according to the success criteria of the RMMP were documented in the fifth and final Annual Mitigation Monitoring Report (Haley & Aldrich, 2017). Based on the success of the project, Boeing requested that the Regional Board provide written notice stating that Boeing had complied with all terms of the Cleanup and Abatement Order and Boeing's obligations under the Order would therefore be terminated. Boeing will continue to inspect the Northern Drainage BMPs annually and maintain them on an as-needed basis. No RMMP-related inspections of Northern Drainage BMPs were performed during Third Quarter 2020.

Outfall 001/002 BMP Compliance Report Related Activities

Boeing and the Expert Panel will continue to monitor and evaluate the effectiveness of BMPs within the watersheds of Outfall 001 and Outfall 002. Recommendations for these watersheds are provided in the 2019 Expert Panel Annual Report (Geosyntec and the Expert Panel, 2019).

Other BMP Activities

BMP observations and maintenance inspections were conducted in conformance with the Site-Wide SWPPP (Haley & Aldrich, 2019) at and around the former test stands Alfa and Bravo and former Advanced Propulsion Test Facility.

CONCLUSIONS

Boeing 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 by implementing distributed, sustainable

[1] Available at: http://www.boeing.com/principles/environment/santa-susana/technical-reports.page

erosion control/restoration measures. The Expert Panel is reviewing the data collected this year and will make BMP and monitoring recommendations that will be communicated in the Expert Panel's 2020 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 13th of November 2020 at The Boeing Company, Seal Beach, California Site.

Sincerely,

Kim O'Rourke

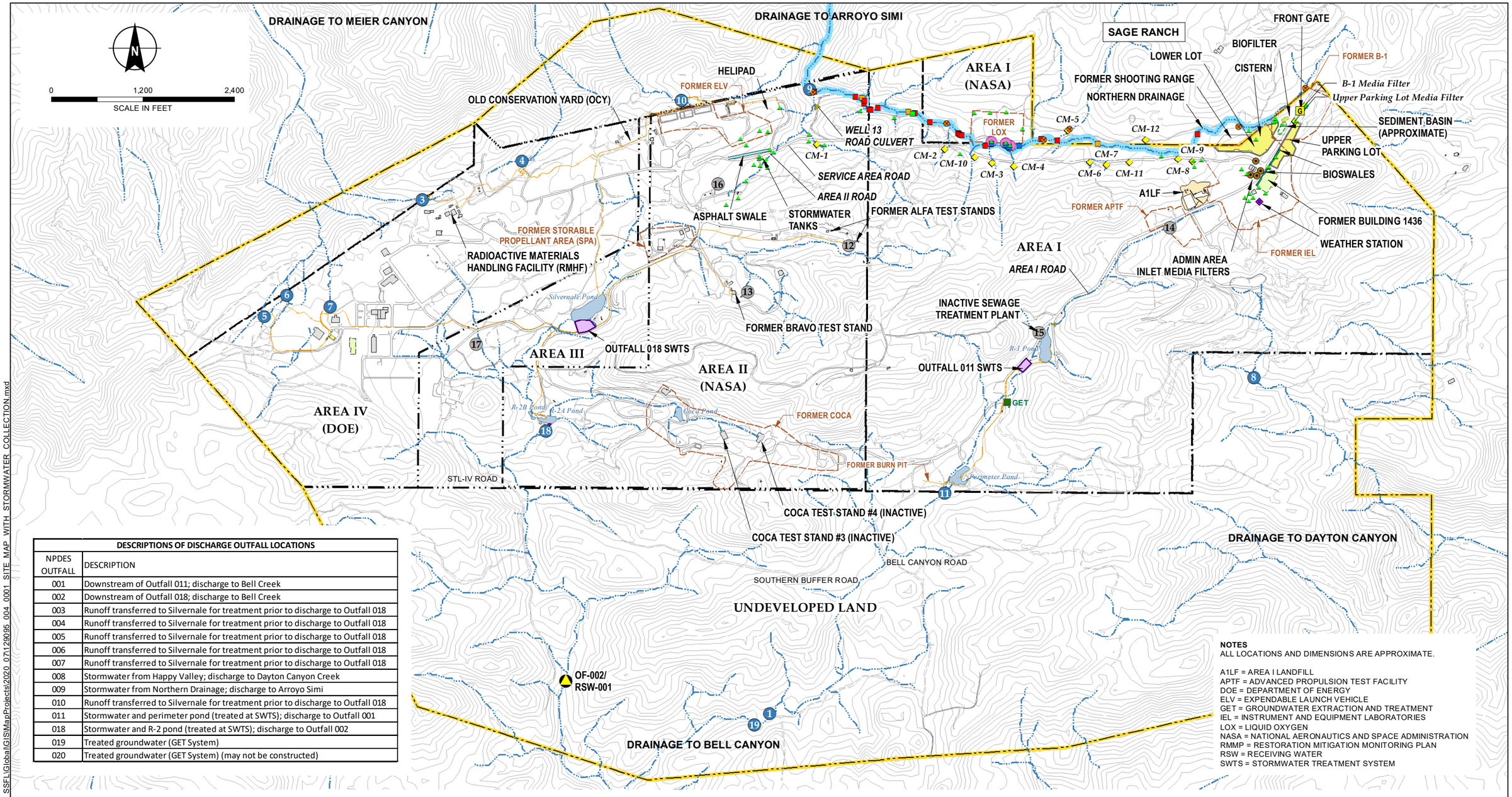
Kim O'Rourke
Remediation Program Manager
Environment, Health & Safety

Enclosures:

References
Figure 1 – Site Map with Stormwater Collection and Conveyance System and Site Features
Figure 2 – Arroyo Simi Receiving Water (RSW-002, Frontier Park) Sampling Location and Upstream Monitoring Point
Appendix A – Third Quarter 2020 Rainfall Data Summary
Appendix B – Third Quarter 2020 Waste Shipment Summary Tables
Appendix C – Third Quarter 2020 Discharge Monitoring Data Summary Tables
Appendix D – Third Quarter 2020 Analytical Laboratory Reports, Chain of Custody Forms, and Validation Reports

c: Los Angeles Regional Water Quality Control Board; Attn: Mr. Duong H. Trinh
California Department of Toxic Substances Control; Attn: Mr. Mark Malinowski
California State University Northridge Oviatt Library
Simi Valley Public Library
Los Angeles Public Library, Platt Branch

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
019	Treated groundwater (GET System)
020	Treated groundwater (GET System) (may not be constructed)

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

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)
- INLET MEDIA FILTER
- BMP MONITORING LOCATION
- SPECIAL STUDIES 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
- BIOSWALE
- SEDIMENT BASIN
- STORMWATER TANK
- 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

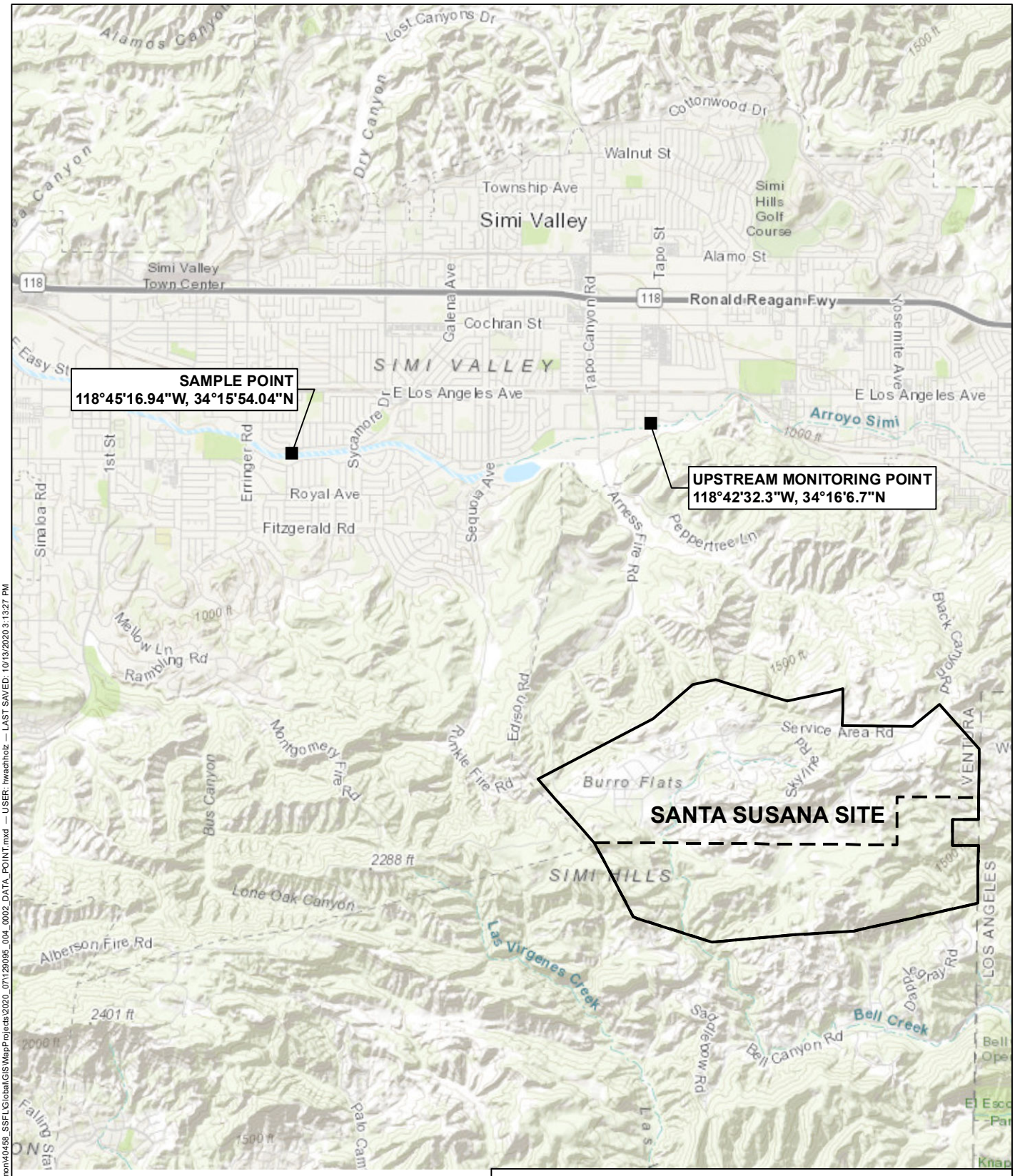
NPDES PERMIT COMPLIANCE THIRD QUARTER 2020
DISCHARGE MONITORING REPORT
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

SITE MAP WITH STORMWATER COLLECTION AND CONVEYANCE SYSTEM AND SITE FEATURES

NOVEMBER 2020

FIGURE 1

\\haleyaldrich.com\share\sdg_common\40458_SSFL\GlobalGIS\MapProjects\2020_07\129095_004_0001_SITE_MAP_WITH_STORMWATER_COLLECTION.mxd



NOTES

1. THE SAMPLE POINT IS FOR QUARTERLY WATER QUALITY AND ANNUAL SEDIMENT SAMPLING.

2. THE UPSTREAM SAMPLE POINT LOCATION WAS CHOSEN BASED ON IT BEING UPSTREAM OF ALL POSSIBLE DISCHARGE FROM THE SANTA SUSANA SITE.

N

0 0.5 1

SCALE IN MILES

HALEY ALDRICH

NPDES PERMIT COMPLIANCE THIRD QUARTER 2020
DISCHARGE MONITORING REPORT
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

ARROYO SIMI RECEIVING WATER (RSW-002, FRONTIER PARK) SAMPLING LOCATION AND UPSTREAM MONITORING POINT

NOVEMBER 2020

FIGURE 2

GIS FILE PATH: \\haleyaldrich.com\share\sdg_common\40458_SSFL\Global\GIS\MapProjects\2020_07\129095_004_0002_DATA_POINT.mxd — USER: hwachholz — LAST SAVED: 10/13/2020 3:13:27 PM

APPENDIX A

Third Quarter 2020 Rainfall Data Summary

APPENDIX A

TABLE OF CONTENTS

TABLE A
DAILY RAINFALL SUMMARY

THE BOEING COMPANY
NPDES PERMIT CA0001309

Station: AREA 1
Parameter: Rain
Month/Year: July 2020

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
	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

TABLE A
DAILY RAINFALL SUMMARY

THE BOEING COMPANY
NPDES PERMIT CA0001309

Station: AREA 1
Parameter: Rain
Month/Year: August 2020

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
	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

TABLE A
DAILY RAINFALL SUMMARY

THE BOEING COMPANY
NPDES PERMIT CA0001309

Station: AREA 1
Parameter: Rain
Month/Year: September 2020

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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
	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

APPENDIX B

Third Quarter 2020 Waste Shipment Summary Tables

APPENDIX B

TABLE OF CONTENTS

TABLE B
WASTE SHIPMENT SUMMARY TABLE

THIRD QUARTER 2020
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

TYPE OF WASTE	MATRIX	QTY.	UNITS	GENERATOR	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION
Hazardous Waste	Solid	7	P	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Basin Trans	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Clean Harbors Aragonite LLC 11600 North Aptus Road Grantsville, UT 84029
Hazardous Waste , Flammable	Aerosols	20	P	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Basin Trans	n/a	Clean Harbors Aragonite LLC 11600 North Aptus Road Grantsville, UT 84029
Non RCRA Hazardous Waste	Solid	28	P	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Basin Trans	n/a	Clean Harbors Aragonite LLC 11600 North Aptus Road Grantsville, UT 84029
Non RCRA Hazardous Waste	Solid	816	P	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Basin Trans	n/a	Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029
Non RCRA Hazardous Waste	Liquid	13	P	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Basin Trans	n/a	Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029
Hazardous Waste	Solid	67	P	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Tri-State Motor Transit	n/a	Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029
Hazardous Waste	Solid	33	P	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Tri-State Motor Transit	n/a	Clean Harbors Wilmington LLC 2247 South Highway 71 Kimball, NE 69145
Hazardous Waste	Liquid	3,548	P	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Tri-State Motor Transit	n/a	Clean Harbors Wilmington LLC 2247 South Highway 71 Kimball, NE 69145
Non Hazardous, Non D.O.T. Regulated Waste	Solid	190	Y	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Waste Management - Antelope Valley LF 1200 W. City Ranch Road Palmdale, CA 93551
Non Hazardous, Non D.O.T. Regulated Material	Solid	838	P	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Tri-State Motor Transit	n/a	Clean Harbors Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 84029
Universal Waste - Batteries	Solid	64	P	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
Universal Waste - Batteries	Solid	11	P	The Boeing Company	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Retriev Technologies, Inc. 8090 Lancaster-Newark Road Baltimore, OH 43105
Non Hazardous Waste	Liquid	35,000	G	The Boeing Company	Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058	n/a	n/a	Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058
Non Hazardous Water	Liquid	33,850	G	Department of Energy	American Integrated Services	n/a	n/a	Crosby and Overton. Inc. 1630 W. 17th Street Long Beach, CA 90813
Non Hazardous Soil	Solid	16	Y	Department of Energy	American Integrated Services	n/a	n/a	Chiquita Canyon Landfill 29201 Henry Mayo Dr. Castaic, CA 91384
Hazardous Waste	Solid	40	Y	Department of Energy	MP Environmental Services	n/a	n/a	Energy Solutions, LLC Clive Disposal Site, I-80 Exit 49 Clive, UT 84029
Non-DOT Radioactive Materials	Solid	32,100	CF	Department of Energy	MP Environmental Services	n/a	n/a	Energy Solutions, LLC Clive Disposal Site, I-80 Exit 49 Clive, UT 84029

Notes:
n/a = Not Applicable
G = Gallons
P = Pounds
Y = Yards
CF = Cubic Feet

APPENDIX C

Third Quarter 2020 Discharge Monitoring Data Summary Tables

APPENDIX C

TABLE OF CONTENTS

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

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

1. 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) toxic equivalents (TEQs) for the purpose of determining permit compliance are the sum of the products of the detected dioxin congener concentration multiplied by that congener's toxicity equivalency factor (TEF) and bioaccumulation equivalency factor (BEF). The resulting compliance TCDD TEQ does not include those congener concentrations that are reported as detected but not quantified (DNQ), as specified on page 26 of the NPDES permit (Water Board, 2015).

2. Temperature, total residual chlorine (TRC), dissolved oxygen (DO), and pH are measured in the field and are not validated.

3. pH and temperature are identified on the table as daily maximum discharge limits. The NPDES permit limit has an instantaneous minimum (6.5) and maximum (8.5) for pH and an instantaneous maximum of 86°F for temperature.

4. Exceedances are defined on page 6 of the NPDES permit as constituents in excess of daily maximum benchmark limits, daily maximum permit limits, or receiving water limits. Analytical concentrations or calculations to determine compliance to the NPDES permit are compared to the same number of significant figures as the daily maximum benchmark limits, daily maximum permit limits, or receiving water limits.

5. Priority pollutants, sampled once every five years, at Arroyo Simi Receiving Water sampling location (RSW-002, Frontier Park) were analyzed during the First Quarter 2018.

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

7. 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 water limit.
<(value)	Analyte not detected at a concentration greater than or equal to the detection limit (DL), method detection limit (MDL), or laboratory reporting limit (RL); see laboratory report for specific detail.
>(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-2 of attachment A of the NPDES permit.
*1	Improper preservation of sample.

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

*2	The inductively coupled plasma (ICP)/matrix spike (MS) parts per billion (ppb) check standard was recovered above the control limit; therefore, the constituent detected was qualified as estimated (J).
*3	Initial and or continuing calibration recoveries were outside acceptable control limits.
*5	Blank spike/blank spike duplicate relative percent difference was outside the control limit.
*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.
*11	No calibration was performed for this compound; result is reported as a tentatively identified compound (TIC).
*II *III	Unusual problems found with the data that have been described in Section II, “sample management”, or Section III, “method analysis”. The number following the asterisk (*) will indicated the validation report section where a description of the problem can be found.
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.).
Avg	Average.
B	Laboratory method blank contamination.
BA	Relative percent difference out of control.
BEF	Bioaccumulation equivalency factor.
BU	Analyzed out of holding time.
BV	Sample received after holding time expired.
C	Calibration percent relative standard deviation (%RSD) or percent difference (%D) were noncompliant.
CaCO3	Calcium carbonate
Chromium VI	Hexavalent chromium
Comp	Composite sample type.
C5	Calibration verification percent recovery (%R) was outside method control limits.
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.
%D	Percent difference between the initial and continuing calibration relative response factors.
Deg C	Degrees Celsius.
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.

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

EB	Equipment blank.
EMPC	Estimated maximum possible concentration.
F	The analyte was detected in an associated field blank (FB) or equipment blank (EB) as well as in the sample.
FB	Field blank.
F1	Matrix spike (MS) and/or matrix spike duplicate (MSD) recovery is outside acceptance limits.
ft/sec	Feet per second.
G	Gallons.
gpd	Gallons per day.
H	Holding time was exceeded.
Hardness	Equivalent of calcium carbonate (CaCO3).
Hp	Hepta.
Hx	Hexa.
ICP	Interference check solution results were 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.
J, DX	Estimated value, value < lowest standard method quantitation limit (MQL), but > than method detection limit (MDL).
K	The sample dilution's set-up did not meet the oxygen depletion criteria of at least 2 milligrams per liter (mg/L); therefore, the reported result is an estimated value only.
L	Laboratory control sample percent recovery (%R) was outside control limits.
L1	Laboratory control standard (LCS)/laboratory control standard duplicate (LCSD), relative percent difference (RPD) was outside the control limit.
L2	The laboratory control sample percent recovery (%R) was below the method control limits.
LBS/DAY	Pounds per day.
LCS	Laboratory control standard.
LCSD	Laboratory control standard duplicate.
LQ	Laboratory control standard (LCS)/ laboratory control standard duplicate (LCSD) recovery above method control limits.
M1	Matrix spike (MS) and/or matrix spike duplicate (MSD) were above the acceptance limits due to sample matrix interference.
M2	The matrix spike (MS) and/or matrix spike duplicate (MSD) were below the acceptance limits due to sample matrix interference.
Max	Maximum.
MB	Analyte present in the method blank.
MDA/MDC	Minimum detectable activity/minimum detectable concentration.

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

MDL	Method detection limit.
Meas	Measure sample type.
MFL	Million fibers per liter.
MGD	Million gallons per day.
MHA	Due to high level of analyte in the sample, the matrix spike (MS)/matrix spike duplicate (MSD) calculation does not provide useful spike recovery information.
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; no NPDES permit limit established for the constituent and/or outfall or analyte not required per receiving water monitoring requirements.
ND	Analyte not detected.
NM	Not measured or determined or minimum detectable activities (MDAs) are not calculated as there is no statistical method for combining MDAs.
NPDES	National Pollutant Discharge Elimination System.
NR	Not reported by laboratory by the deadline of this report.
NTU	Nephelometric turbidity unit.
OCDD	Octa CDD.
OCDF	Octa CDF.
P	Pounds.
ppb	Parts per billion.
pCi/L	PicoCuries per liter.
Pe	Penta.
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.
Q	Matrix spike (MS) recovery outside of control limits.
Q1	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.

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

RL-1	Reporting limit raised due to sample matrix effects.
RPD	Relative percent difference.
%R	Percent recovery.
%RSD	Percent relative standard deviation.
% Normal/Alive	Percent normal and alive.
% Survival	Percent survival.
S	Surrogate recovery was outside control limits.
s.u.	Standard unit.
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin.
TCDF	2,3,7,8-tetrachlorodibenzo-p-furan.
TEQ	Toxic equivalent.
TIC	Tentatively identified compound
TIE	Toxicity identification evaluation
TOC	Total organic carbon
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.
w/out	Without.
^	Analysis not completed due to hold time exceedance or insufficient sample volume.
#	Per Order No. R4-2015-0033, page 16, Footnote 1. The effluent limitations for total suspended solids and settleable solids are not applicable for discharges during wet weather. During wet weather flow, a discharge event is greater than 0.1 inch of rainfall in a 24-hour period. No more than one sample per week need be obtained during extended periods of rainfall or the discharge of collected stormwater. A storm event must be preceded by at least 72 hours of dry weather.
(1)	Based on the NPDES permit, table E-3a footnote 2, receiving water samples for pH, hardness, and priority pollutants must be collected on the same day as effluent samples.
(2)	Additional sample, not required by the NPDES permit.
(4.0)3.1/-	Represents (dry weather limit) wet weather limit / monthly average limit.
(3)	Secondary maximum contaminant level.

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

(4)	The drinking water maximum contaminant level of 3.00E-05 µg/L is for the dioxin congener 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). TCDD Toxic Equivalent (TEQ) without detected but not quantified (DNQ) values is the sum of the products of the detected dioxin congener concentration multiplied by that congener's toxic Equivalency factor (TEF) and bioaccumulation equivalency factor (BEF). There are 17 dioxin congeners.
(a)	Based on Order No. R4-2015-0033, page 17, footnote 7, sampling event is a dry discharge and the NPDES Permit Limit for cadmium is 4.0 ug/L and 3.93 lbs/day at OF001,002,011,018 and 0.24 lbs/day at OF008.
(b)	Based on Order No. R4-2015-0033, page 17, footnote 7, sampling event is a wet discharge and the NPDES Permit Limit for cadmium is 3.1 ug/L and 4.91 lbs/day at OF001,002,011,018 and 3.05 lbs/day at OF008.
(c)	Based on Order No. R4-2015-0033, page 16, footnote 1, sampled during wet weather flow. The effluent limitations for total suspended solids and/or settleable solids are not applicable for discharges during wet weather.
(d)	Based on Order No. R4-2015-0033, page 16, footnote 1, sampled during dry weather flow. The effluent limitations for total suspended solids and/or settleable solids are applicable for discharges during dry weather.
(e)	Based on Order No. R4-2015-0033, page 17, footnote 8, sampling event is a dry discharge and the NPDES Permit Limit for selenium is 5 ug/L and 4.91 lbs/day.
(f)	Based on Order No. R4-2015-0033, page 17, footnote 8, sampling event is a wet discharge and the NPDES Permit Limit for selenium is 8.2 ug/L and 8.06 lbs/day.
(g)	The sampling frequency of this constituent is increased from once per year to once per discharge until four consecutive sample results demonstrate compliance per the NPDES permit. The corresponding dissolved metal also increased in sampling frequency to once per discharge. During the First Quarter 2020, various metals reverted back to annual sampling but may have continued to be analyzed due to laboratory or field error.
(h)	Total Ammonia is reported in wet weight units milligrams per kilogram (mg/kg).
(i)	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).
(j)	Analyte does not have a receiving water limit for Bell Creek Receiving Water (RSW-001, OF002).
(k)	Reserved.
(l)	When field staff arrived onsite to collect the composite sample they discovered that the autosampler had malfunctioned and had not collected "sips." Field staff repaired the autosampler, reset it, determined it was functioning properly, then returned the next day to collect the composite sample.
(m)	The composite sample was collected as a grab sample from the sample box due to insufficient flow.
(n)	The grab sample was collected at the first opportunity given the short duration and low-flow at this Outfall.
(o)	Unsafe conditions all day prevented access to the Outfall.
(p)	Various annual constituents were analyzed by laboratory due to field and laboratory error.
(q)	Minimum level not met due to laboratory error.
(r)	Diazinon was re-sampled on 9/30/2020 due to laboratory sample preparation error in the 8/6/2020 sample.

ARROYO SIMI
DISCHARGE MONITORING DATA SUMMARY TABLE

THIRD QUARTER 2020
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

July 1 through September 30, 2020

					8/06/2020 08:45		9/30/2020 12:30	
ANALYTE	**UNITS**	**DAILY MAXIMUM PERMIT LIMIT**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**LABORATORY/ VALIDATION QUALIFIER**	**RESULT**	**LABORATORY/ VALIDATION QUALIFIER**
POLLUTANTS WITH LIMITS								
4,4'-DDD	µg/L	0.0014	1/Quarter	Grab	ND < 0.0040	U	ANR	ANR
4,4'-DDE	µg/L	0.001	1/Quarter	Grab	ND < 0.0030	U	ANR	ANR
4,4'-DDT	µg/L	0.001	1/Quarter	Grab	ND < 0.0040	U	ANR	ANR
Aroclor 1016	µg/L	0.0003	1/Quarter	Grab	ND < 0.074	U	ANR	ANR
Aroclor 1221	µg/L	0.0003	1/Quarter	Grab	ND < 0.074	U	ANR	ANR
Aroclor 1232	µg/L	0.0003	1/Quarter	Grab	ND < 0.074	U	ANR	ANR
Aroclor 1242	µg/L	0.0003	1/Quarter	Grab	ND < 0.074	U	ANR	ANR
Aroclor 1248	µg/L	0.0003	1/Quarter	Grab	ND < 0.074	U	ANR	ANR
Aroclor 1254	µg/L	0.0003	1/Quarter	Grab	ND < 0.074	U	ANR	ANR
Aroclor 1260	µg/L	0.0003	1/Quarter	Grab	ND < 0.074	U	ANR	ANR
Chlordane	µg/L	0.001	1/Quarter	Grab	ND < 0.081	U	ANR	ANR
Chlorpyrifos	µg/L	0.02	1/Quarter	Grab	ND < 0.0069	U	ANR	ANR
Diazinon	µg/L	0.16	1/Quarter	Grab	ND < 0.0052	R	ND < 0.0052 (r)	*
Dieldrin	µg/L	0.0002	1/Quarter	Grab	ND < 0.0020	U	ANR	ANR
E. coli	mpn/100mL	235	1/Year	ANR	ANR	ANR	ANR	ANR
pH (Field)	s.u.	6.5-8.5	1/Quarter	Grab	6.94	*	ANR	ANR
Toxaphene	µg/L	0.0003	1/Quarter	Grab	ND < 0.24	U	ANR	ANR
POLLUTANTS WITHOUT LIMITS								
Hardness (as CaCO3)	mg/L	-	1/Quarter	Grab	560	--	ANR	ANR
Priority Pollutants	NA	-	1/5 Years	ANR	ANR	ANR	ANR	ANR
Temperature (Field)	Deg F	-	1/Quarter	Grab	70.4	*	ANR	ANR
TCDD - Equivalents	µg/L	-	1/Year	ANR	ANR	ANR	ANR	ANR
Total Suspended Solids	mg/L	-	1/Year	ANR	ANR	ANR	ANR	ANR
Water Velocity	ft/sec	-	1/Quarter	Meas	0.0	*	ANR	ANR

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

APPENDIX D

Third Quarter 2020 Analytical Laboratory Reports, Chain of Custody Forms, and Validation Report

APPENDIX D

TABLE OF CONTENTS

Section No.

DATA VALIDATION REPORT

Boeing SSFL NPDES

SAMPLE DELIVERY GROUP: 440-269953-1

Prepared for

Haley & Aldrich, Inc.

600 South Meyer Avenue, Suite 100

Tucson, Arizona 85701

27 August 2020

TABLE OF CONTENTS

TABLES

I. INTRODUCTION

Task Order Title: Boeing SSFL NPDES

Contract: 40458-078 and 40458-083

MEC^X Project No.: 1272.003D.01 002

Sample Delivery Group: 440-269953-1

Project Manager: Katherine Miller

Matrix: Surface water

QC Level: IV and V

No. of Samples: 1

No. of Reanalyses/Dilutions: 0

Laboratory: TestAmerica-Irvine

TABLE 1 - SAMPLE IDENTIFICATION

Sample Name	Lab Sample Name	Matrix	Collection	Method
Arroyo_Simi_20200806_Grab	440-269953-1	WS	8/6/2020 8:45:00 AM	E525.2M, E608.3, SM2340

II. SAMPLE MANAGEMENT

According to the case narrative, Login Sample Receipt Checklists, and the chains-of-custody (COC) provided by the laboratories for sample delivery group (SDG) 440-269953-1:

- Eurofins Irvine and Eurofins Lancaster received the sample in this SDG on ice and within the temperature limits of <6 degrees Celsius (°C) and >0°C.
- The sample was submitted to Eurofins Lancaster for the PCB analysis of Method 608.3.
- According to the Login Sample Receipt Checklist for Eurofins Irvine, custody seals were absent on the coolers; however, no evidence of tampering was noted. Custody seals were present upon receipt at Eurofins Lancaster.
- The sample was subcontracted to Weck Laboratories for the analysis of chlorpyrifos and diazinon by EPA Method 525.2. The sample receipt information on the COC indicated the sample was received intact at Weck within the temperature limits of <6 degrees Celsius (°C) and >0°C.

TABLE 2 - DATA QUALIFIER REFERENCE

Qualifier	Organics	Inorganics
U	The analyte was analyzed for but was not detected above the reported sample quantitation limit. For dioxins or PCB congeners, the associated value is the quantitation limit or the estimated detection limit.	The analyte was analyzed for but was not detected above the reported sample quantitation limit. For perchlorate, the associated value is the sample detection limit or the quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.	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.	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may inaccurate or imprecise.	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may inaccurate or imprecise.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analyte has been "tentatively identified" or “presumptively” as present and the associated numerical value is the estimated concentration in the sample.	Not applicable.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting quality control criteria. The analyte may or may not be present in the sample.	The data are unusable. The sample results are rejected due to serious deficiencies in meeting quality control criteria. The analyte may or may not be present in the sample.

TABLE 3 - REASON CODE REFERENCE

Reason Code	Organic	Inorganic
H	Holding time was exceeded.	Holding time was exceeded.
S	Surrogate recovery was outside control limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration percent relative standard deviation (%RSD) or percent deviation (%D) were noncompliant, or coefficient of determination (r^2) was <0.990.	Correlation coefficient (r) was <0.995.
R	Calibration relative response factor (RRF) was <0.05.	Percent recovery (%R) for calibration was outside control limits.
B	The analyte was detected in an associated blank as well as in the sample.	The analyte was detected in an associated blank as well as in the sample.
L	Laboratory control sample (LCS) or /LCS duplicate (LCSD) %R was outside the control limits.	LCS or LCSD %R was outside the control limits.
L1	LCS/LCSD relative percent difference (RPD) was outside the control limit.	LCS/LCSD RPD was outside the control limit.
Q	Matrix spike/matrix spike duplicate (MS/MSD) %R was outside control limits.	MS or MSD %R was outside the control limit.
Q1	MS/MSD RPD was outside the control limit.	MS/MSD RPD was outside the control limit.
E	Result was reported as an estimated maximum possible concentration (EMPC).	Laboratory duplicate RPD was outside the control limit.
I	Internal standard recovery was outside control limits.	Inductively coupled plasma (ICP) interference check standard (ICSA/ICSAB) result was outside control limits.
I1	Not applicable.	ICP mass spectrometer (ICPMS) internal standard recovery was outside control limits.
A	Not applicable.	Serial dilution %D was outside control limits.
M	Tuning (BFB or DFTPP) was not compliant.	ICPMS tune was not compliant.
T	The analyte was detected in an associated trip blank as well as in the sample.	Not applicable.

Reason Code	Organic	Inorganic
+	False positive – reported compound was not present.	False positive – reported compound was not present.
-	False negative – compound was present but not reported.	False negative – compound was present but not reported.
F	The analyte was detected in an associated field blank (FB) or equipment blank (EB) as well as in the sample.	The analyte was detected in an associated field blank (FB) or equipment blank (EB) as well as in the sample.
F1	Field duplicate RPD was outside the control limit.	Field duplicate RPD was outside the control limit.
$	The reviewer corrected the reported result and/or other information.	The reviewer corrected the reported result and/or other information.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis was not used because another more technically sound analysis was available.	The analysis was not used because another more technically sound analysis was available.
P	Instrument performance not compliant.	Post digestion spike recovery was outside of control limits.
DNQ	The reported result is above the method detection limit but is less than the reporting limit.	The reported result is above the method detection limit but is less than the reporting limit.
*II, *III	Other problems identified in the data are described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Other problems identified in the data are described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

IV. EPA METHOD 608.3 –PESTICIDES AND PCBS

L. Calvin of MEC[X] reviewed the SDG on September 10, 2020

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC[X] Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 1), EPA Method 608.3* and the *National Functional Guidelines for Superfund Organic Methods Data Review* (2017).

IV.1. HOLDING TIMES

Extraction and analytical holding times were met. The sample was extracted within seven (7) days of collection and analyzed within 40 days of extraction.

IV.2. CALIBRATION

The initial calibration %RSDs were ≤15%. The initial calibration verification (ICV) recoveries were within the control limit of ±20%, and continuing calibration verification (CCV) %Ds met method criteria.

IV.3. QUALITY CONTROL SAMPLES

IV.3.1. *METHOD BLANKS*

Target compounds were not detected in the method blanks above the MDL.

IV.3.2. *LABORATORY CONTROL SAMPLES*

LCS/LCSD recoveries and RPDs were within the respective laboratory control limits for pesticides and PCBs. Toxaphene and chlordane were not spiked into the pesticide LCS/LCSD samples.

IV.3.3. *SURROGATE RECOVERY*

Pesticide surrogate tetrachloro-m-xylene (TCMX) was recovered within the laboratory control limits of 10-104% in the site sample and PCB surrogate decachlorobiphenyl (DCB) was recovered within the laboratory control limits of 10-127%.

IV.3.4. *MATRIX SPIKE/MATRIX SPIKE DUPLICATE*

MS/MSD analyses were not performed on the sample in this SDG. MEC[X] evaluated method accuracy and precision based on the LCS/LCSD results.

IV.4. FIELD QC SAMPLES

MEC[X] evaluated field QC samples, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC[X] used the remaining detects to evaluate the associated site samples. Findings associated with field QC samples are summarized below.

IV.4.1. *FIELD BLANKS AND EQUIPMENT BLANKS*

Field blank or equipment blank samples were not identified for this SDG.

IV.4.2. *FIELD DUPLICATES*

Field duplicate samples were not identified in this SDG.

IV.5. Compound Identification

Compound identification was verified. Review of the sample chromatograms and retention times indicated no issues with target compound identification. The laboratory analyzed for seven Aroclors and six pesticide target compounds by EPA Method 608.3.

IV.6. Compound Quantification and Reported Detection Limits

Compound quantification was verified. The reporting limits were supported by the low point of the initial calibrations and the laboratory MDLs. Pesticides and PCB Aroclors were not detected in the sample. Reported nondetects are valid to the reporting limit. The sample did not require dilution.

The laboratory's extraction bench sheet for pesticides and PCBs indicated the sample extract was cloudy with a light emulsion.

V. EPA METHOD 525.2 — Chlorpyrifos and Diazinon

L. Calvin of MEC^X reviewed the SDG on September 16, 2020

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Semivolatile Organics* (DVP-3, Rev. 1), *EPA Method 525.2* and the *National Functional Guidelines for Superfund Organic Methods Data Review* (2017).

V.1. Holding Times

The extraction holding time of 24-hours from collection for diazinon was not met. The water sample was extracted approximately five (5) days past the 24-hour holding time. As the holding time was exceeded by more than a factor of three, the nondetect result for diazinon was rejected (R). The sample was analyzed within 30 days of extraction.

V.2. GC/MS Tuning and Calibration

As the analysis was acquired in SIM mode, tuning was not applicable.

Calibration criteria were met. The initial calibration average RRFs were ≥0.05 and %RSDs ≤30% or r^2 ≥0.990. The continuing calibration RRFs were ≥0.05 and recoveries were within the method control limits of 70-130%.

V.3. Quality Control Samples

V.3.1. *Method Blanks*

Target compounds were not detected in the method blank.

V.3.2. *Laboratory Control Samples*

LCS/LCSD recoveries were above the laboratory control limits of 37-169% for chlorpyrifos (170%, 208%) and above the control limits of 43-152% for diazinon in the LCSD (153%). As neither compound was detected in the associated sample, no qualification was necessary. RPDs were within the control limit of ≤30%.

V.3.3. *SURROGATE RECOVERY*

Surrogate recoveries were within the laboratory control limits of 76-128% for 1,3-dimethyl-2-nitrobenzene and 40-163% for triphenyl phosphate.

V.3.4. *MATRIX SPIKE/MATRIX SPIKE DUPLICATE*

MS/MSD analyses were not performed on the sample in this SDG. Method accuracy was evaluated based upon the associated LCS results.

V.4. FIELD QC SAMPLES

MEC^X evaluated field QC samples, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC^X used the remaining detects to evaluate the associated site samples. Findings associated with field QC samples are summarized below:

V.4.1. *FIELD BLANKS AND EQUIPMENT BLANKS*

Field blank or equipment blank samples were not identified for this SDG.

V.4.2. *FIELD DUPLICATES*

Field duplicate samples were not identified in this SDG.

V.5. INTERNAL STANDARDS PERFORMANCE

Sample internal standard recoveries were within ±30% of the most recent CCV internal standard areas.

V.6. COMPOUND IDENTIFICATION

Compound identification was verified at Level IV. The laboratory analyzed for chlorpyrifos and diazinon by Method 525.2. The requested target compounds were not detected above the MDL in the sample.

V.7. COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

Compound quantification was verified at Level IV. The reporting limits were supported by the low point of the initial calibration and the laboratory MDLs. Reported nondetects are valid to the reporting limit. The sample did not require dilution.

V.8. SYSTEM PERFORMANCE

Evaluation indicated no issues with system performance.

VI. METHODS EPA 200.7 AND SM2340B—HARDNESS

M. Hilchey of MEC^X reviewed the SDG on August 27, 2020.

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 2), EPA Method 200.7, Standard Methods for the Examination of Water and Wastewater 2340B* and the *National Functional Guidelines for Inorganic Method Data Review* (2017).

VI.1. HOLDING TIMES

The analytical holding time, six months for metals, was met.

VI.2. CALIBRATION

Calibration criteria were not evaluated for Stage V validation. CRQL recoveries were within the laboratory control limits of 50-150%. Initial calibration verification recoveries were within QAPP control limits of 95-105% for ICP-AES. Continuing calibration verification recoveries were within QAPP control limits of 90-110%.

VI.3. QUALITY CONTROL SAMPLES

VI.3.1. *METHOD BLANKS*

There were no target analyte detections in the method blank or calibration blanks.

VI.3.2. *INTERFERENCE CHECK SAMPLES:*

ICSAB recoveries were within the control limits of 80-120% or ±2× the reporting limit, whichever is greater. As the target analytes were also ICS spike analytes, interference was not evaluated.

VI.3.3. *LABORATORY CONTROL SAMPLES*

Laboratory control sample recoveries were within the QAPP control limits of 85-115%.

VI.3.4. *LABORATORY DUPLICATES:*

Laboratory duplicate analyses were not performed on the sample in this SDG.

VI.3.5. *MATRIX SPIKE/MATRIX SPIKE DUPLICATE*

MS/MSD analyses were not performed on the sample in this SDG.

VI.3.6. *SERIAL DILUTION*

Serial dilution analyses were not performed.

VI.4. COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS

Analyte quantification is not evaluated for Stage V validation. Nondetects are valid to the MDL.

VI.5. FIELD QC SAMPLES

MEC^X evaluated field QC samples, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC^X used the remaining detects to evaluate the associated site samples. Findings associated with field QC samples are summarized below:

VI.5.1. *FIELD BLANKS AND EQUIPMENT BLANKS*

Field blank or equipment blank samples were not identified for this SDG.

VI.5.2. *FIELD DUPLICATES*

There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms: 4402699531

Analysis Method E525.2M

Sample Name Arroyo_Simi_20200806_Grab **Matrix Type:** WS **Result Type:** TRG

Sample Date: 8/6/2020 8:45:00 AM **Validation Level:** 9

Lab Sample Name: 440-269953-1

Analyte	Fraction:	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Chlorpyrifos	N	2921-88-2	ND	10	6.9	ng/L	U	U	--
Diazinon	N	333-41-5	ND	10	5.2	ng/L	U	R	H

Analysis Method E608.3

Sample Name Arroyo_Simi_20200806_Grab **Matrix Type:** WS **Result Type:** TRG

Sample Date: 8/6/2020 8:45:00 AM **Validation Level:** 9

Lab Sample Name: 440-269953-1

Analyte	Fraction:	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
4,4'-DDD	N	72-54-8	ND	0.0051	0.0040	ug/L	U	U	--
4,4'-DDE	N	72-55-9	ND	0.0051	0.0030	ug/L	U	U	--
4,4'-DDT	N	50-29-3	ND	0.010	0.0040	ug/L	U	U	--
Aroclor-1016 (PCB-1016)	N	12674-11-2	ND	0.50	0.074	ug/L	U	U	--
Aroclor-1221 (PCB-1221)	N	11104-28-2	ND	0.50	0.074	ug/L	U	U	--
Aroclor-1232 (PCB-1232)	N	11141-16-5	ND	0.50	0.074	ug/L	U	U	--
Aroclor-1242 (PCB-1242)	N	53469-21-9	ND	0.50	0.074	ug/L	U	U	--
Aroclor-1248 (PCB-1248)	N	12672-29-6	ND	0.50	0.074	ug/L	U	U	--
Aroclor-1254 (PCB-1254)	N	11097-69-1	ND	0.50	0.074	ug/L	U	U	--
Aroclor-1260 (PCB-1260)	N	11096-82-5	ND	0.50	0.074	ug/L	U	U	--
Chlordane	N	57-74-9	ND	0.10	0.081	ug/L	U	U	--
Dieldrin	N	60-57-1	ND	0.0051	0.0020	ug/L	U	U	--
Toxaphene	N	8001-35-2	ND	0.51	0.24	ug/L	U	U	--

Analysis Method SM2340

Sample Name Arroyo_Simi_20200806_Grab **Matrix Type:** WS **Result Type:** TRG

Sample Date: 8/6/2020 8:45:00 AM **Validation Level:** 9

Lab Sample Name: 440-269953-1

Analyte	Fraction:	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness as CaCO3	N	HARDNESSCACO3	560	0.33	0.17	mg/L			--

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Calscience Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-269953-1
Client Project/Site: Quarterly Arroyo Simi-Frontier Park Dry Weather
Revision: 1

For:
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Attn: Katherine Miller

Authorized for release by:
10/14/2020 12:02:27 PM

Christian Bondoc, Project Manager I
(949)260-3218
Christian.Bondoc@Eurofinset.com

Table of Contents

Sample Summary

Client: Haley & Aldrich, Inc.
Job ID: 440-269953-1
Project/Site: Quarterly Arroyo Simi-Frontier Park Dry Weather

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-269953-1	Arroyo_Simi_20200806_Grab	Water	08/06/20 08:45	08/06/20 14:21	

Case Narrative

Client: Haley & Aldrich, Inc. Job ID: 440-269953-1
Project/Site: Quarterly Arroyo Simi-Frontier Park Dry Weather

Job ID: 440-269953-1

Laboratory: Eurofins Calscience Irvine

Narrative

Job Narrative
440-269953-1

Comments
Revised to remove Ca and Mg results from report.

Receipt
The samples were received on 8/6/2020 2:21 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.0º C.

GC Semi VOA
Method 608.3: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 440-619956 and analytical batch 440-620019. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch: (LCS 440-619956/2-A)

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

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

Subcontract non-Sister
See attached subcontract report.

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

Subcontract Work
Method Weck-525.2-Diazinon and Chlorpyrifos: This method was subcontracted to Weck Laboratories, Inc.. The subcontract laboratory certification is different from that of the facility issuing the final report.

Client Sample ID: Arroyo_Simi_20200806_Grab
Lab Sample ID: 440-269953-1

Date Collected: 08/06/20 08:45
Matrix: Water
Date Received: 08/06/20 14:21

Method: 608.3 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.10	0.081	ug/L		08/10/20 06:13	08/10/20 14:30	1
Dieldrin	ND		0.0051	0.0020	ug/L		08/10/20 06:13	08/10/20 14:30	1
Toxaphene	ND		0.51	0.24	ug/L		08/10/20 06:13	08/10/20 14:30	1
4,4'-DDD	ND		0.0051	0.0040	ug/L		08/10/20 06:13	08/10/20 14:30	1
4,4'-DDE	ND		0.0051	0.0030	ug/L		08/10/20 06:13	08/10/20 14:30	1
4,4'-DDT	ND		0.010	0.0040	ug/L		08/10/20 06:13	08/10/20 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*62*		*10 - 104*	*08/10/20 06:13*	*08/10/20 14:30*	*1*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 16:41	1
PCB-1221	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 16:41	1
PCB-1232	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 16:41	1
PCB-1242	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 16:41	1
PCB-1248	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 16:41	1
PCB-1254	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 16:41	1
PCB-1260	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*60*		*10 - 127*	*08/13/20 18:40*	*08/14/20 16:41*	*1*
DCB Decachlorobiphenyl (Surr)	*62*		*10 - 127*	*08/13/20 18:40*	*08/14/20 16:41*	*1*
Tetrachloro-m-xylene (Surr)	*56*		*18 - 115*	*08/13/20 18:40*	*08/14/20 16:41*	*1*
Tetrachloro-m-xylene (Surr)	*63*		*18 - 115*	*08/13/20 18:40*	*08/14/20 16:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness, as CaCO3	**560**		0.33	0.17	mg/L			08/12/20 19:15	1

Method Summary

Client: Haley & Aldrich, Inc.
Job ID: 440-269953-1
Project/Site: Quarterly Arroyo Simi-Frontier Park Dry Weather

Method	Method Description	Protocol	Laboratory
608.3	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	ELLE
608.3	Organochlorine Pesticides in Water	40CFR136A	TAL IRV
SM 2340B	Total Hardness (as CaCO3) by calculation	SM	TAL IRV
Subcontract	Weck-525.2-Diazinon and Chlorpyrifos	None	Weck Lab
608	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	TAL IRV
608.3	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	ELLE

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300
TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022
Weck Lab = Weck Laboratories, Inc., 14859 E. Clark Avenue, City of Industry, CA 91745

Lab Chronicle

Client: Haley & Aldrich, Inc.
Job ID: 440-269953-1
Project/Site: Quarterly Arroyo Simi-Frontier Park Dry Weather

Client Sample ID: Arroyo_Simi_20200806_Grab
Lab Sample ID: 440-269953-1

Date Collected: 08/06/20 08:45
Matrix: Water
Date Received: 08/06/20 14:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	608.3			250 mL	5 mL	32940	08/13/20 18:40	QQ3P	ELLE
Total/NA	Analysis	608.3		1			33601	08/14/20 16:41	JC94	ELLE
Total/NA	Prep	608			990 mL	2 mL	619956	08/10/20 06:13	L1H	TAL IRV
Total/NA	Analysis	608.3		1			620019	08/10/20 14:30	D1D	TAL IRV
Total Recoverable	Analysis	SM 2340B		1			619754	08/12/20 19:15	P1R	TAL IRV

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL IRV = Eurofins Calscience Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Weck Lab = Weck Laboratories, Inc., 14859 E. Clark Avenue, City of Industry, CA 91745

Method: 608.3 - Organochlorine Pesticides in Water

Lab Sample ID: MB 440-619956/1-A
Matrix: Water
Analysis Batch: 620019

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 619956

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.10	0.080	ug/L		08/10/20 06:13	08/10/20 13:23	1
Dieldrin	ND		0.0050	0.0020	ug/L		08/10/20 06:13	08/10/20 13:23	1
Toxaphene	ND		0.50	0.24	ug/L		08/10/20 06:13	08/10/20 13:23	1
4,4'-DDD	ND		0.0050	0.0040	ug/L		08/10/20 06:13	08/10/20 13:23	1
4,4'-DDE	ND		0.0050	0.0030	ug/L		08/10/20 06:13	08/10/20 13:23	1
4,4'-DDT	ND		0.010	0.0040	ug/L		08/10/20 06:13	08/10/20 13:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*56*		*10 - 104*	*08/10/20 06:13*	*08/10/20 13:23*	*1*

Lab Sample ID: LCS 440-619956/2-A
Matrix: Water
Analysis Batch: 620019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 619956

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dieldrin			0.400	0.350		ug/L		87	36 - 146		
4,4'-DDD			0.400	0.354		ug/L		88	31 - 141		
4,4'-DDE			0.400	0.355		ug/L		89	30 - 145		
4,4'-DDT			0.400	0.352		ug/L		88	25 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*72*		*10 - 104*

Lab Sample ID: LCSD 440-619956/3-A
Matrix: Water
Analysis Batch: 620019

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 619956

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dieldrin			0.400	0.344		ug/L		86	36 - 146	2	49
4,4'-DDD			0.400	0.349		ug/L		87	31 - 141	1	39
4,4'-DDE			0.400	0.350		ug/L		87	30 - 145	2	35
4,4'-DDT			0.400	0.343		ug/L		86	25 - 160	2	42

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*71*		*10 - 104*

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 410-32940/1-A
Matrix: Water
Analysis Batch: 33601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 15:48	1
PCB-1221	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 15:48	1
PCB-1232	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 15:48	1
PCB-1242	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 15:48	1
PCB-1248	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 15:48	1

Method: 608.3 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

Lab Sample ID: MB 410-32940/1-A
Matrix: Water
Analysis Batch: 33601

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32940

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1254	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 15:48	1
PCB-1260	ND		0.50	0.074	ug/L		08/13/20 18:40	08/14/20 15:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*77*		*10 - 127*	*08/13/20 18:40*	*08/14/20 15:48*	*1*
DCB Decachlorobiphenyl (Surr)	*85*		*10 - 127*	*08/13/20 18:40*	*08/14/20 15:48*	*1*
Tetrachloro-m-xylene (Surr)	*61*		*18 - 115*	*08/13/20 18:40*	*08/14/20 15:48*	*1*
Tetrachloro-m-xylene (Surr)	*67*		*18 - 115*	*08/13/20 18:40*	*08/14/20 15:48*	*1*

Lab Sample ID: LCS 410-32940/2-A
Matrix: Water
Analysis Batch: 33601

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32940

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			5.01	4.25		ug/L		85	50 - 140		
PCB-1260			5.01	4.74		ug/L		95	10 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*65*		*10 - 127*
DCB Decachlorobiphenyl (Surr)	*70*		*10 - 127*
Tetrachloro-m-xylene (Surr)	*48*		*18 - 115*
Tetrachloro-m-xylene (Surr)	*52*		*18 - 115*

Lab Sample ID: LCSD 410-32940/3-A
Matrix: Water
Analysis Batch: 33601

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32940

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			5.01	4.22		ug/L		84	50 - 140	1	36
PCB-1260			5.01	4.66		ug/L		93	10 - 140	2	38

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*72*		*10 - 127*
DCB Decachlorobiphenyl (Surr)	*81*		*10 - 127*
Tetrachloro-m-xylene (Surr)	*45*		*18 - 115*
Tetrachloro-m-xylene (Surr)	*51*		*18 - 115*

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Quarterly Arroyo Simi-Frontier Park Dry Weather

Job ID: 440-269953-1

GC Semi VOA

Prep Batch: 32940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-269953-1	Arroyo_Simi_20200806_Grab	Total/NA	Water	608.3	
MB 410-32940/1-A	Method Blank	Total/NA	Water	608.3	
LCS 410-32940/2-A	Lab Control Sample	Total/NA	Water	608.3	
LCSD 410-32940/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	

Analysis Batch: 33601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-269953-1	Arroyo_Simi_20200806_Grab	Total/NA	Water	608.3	32940
MB 410-32940/1-A	Method Blank	Total/NA	Water	608.3	32940
LCS 410-32940/2-A	Lab Control Sample	Total/NA	Water	608.3	32940
LCSD 410-32940/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	32940

Prep Batch: 619956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-269953-1	Arroyo_Simi_20200806_Grab	Total/NA	Water	608	
MB 440-619956/1-A	Method Blank	Total/NA	Water	608	
LCS 440-619956/2-A	Lab Control Sample	Total/NA	Water	608	
LCSD 440-619956/3-A	Lab Control Sample Dup	Total/NA	Water	608	

Analysis Batch: 620019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-269953-1	Arroyo_Simi_20200806_Grab	Total/NA	Water	608.3	619956
MB 440-619956/1-A	Method Blank	Total/NA	Water	608.3	619956
LCS 440-619956/2-A	Lab Control Sample	Total/NA	Water	608.3	619956
LCSD 440-619956/3-A	Lab Control Sample Dup	Total/NA	Water	608.3	619956

Metals

Analysis Batch: 619754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-269953-1	Arroyo_Simi_20200806_Grab	Total Recoverable	Water	SM 2340B	

Definitions/Glossary

Client: Haley & Aldrich, Inc.
Job ID: 440-269953-1
Project/Site: Quarterly Arroyo Simi-Frontier Park Dry Weather

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

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc. Job ID: 440-269953-1
Project/Site: Quarterly Arroyo Simi-Frontier Park Dry Weather

Laboratory: Eurofins Calscience Irvine

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

Authority	Program	Identification Number	Expiration Date
California	State	2706	06-30-21

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

Analysis Method	Prep Method	Matrix	Analyte
SM 2340B		Water	Hardness, as CaCO3

Laboratory: Eurofins Lancaster Laboratories Env, LLC

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	1.01	11-30-20
Alaska	State	PA00009	06-30-21
Alaska (UST)	State	17-027	01-31-21
Arizona	State	AZ0780	03-12-21
Arkansas DEQ	State	19-053-0	08-09-21
California	State	2792	09-20-20
Colorado	State	PA00009	06-30-21
Connecticut	State	PH-0746	12-26-20
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	10-31-20
Delaware (DW)	State	N/A	01-31-21
Florida	NELAP	E87997	07-01-21
Hawaii	State	N/A	01-31-21
Illinois	NELAP	004559	01-31-21
Iowa	State	361	03-02-22
Kansas	NELAP	E-10151	10-31-20
Kentucky (DW)	State	KY90088	12-31-20
Kentucky (UST)	State	1.01	11-30-20
Kentucky (WW)	State	KY90088	12-31-20
Louisiana	NELAP	02055	06-30-21
Maine	State	2019012	03-12-21
Maryland	State	100	09-30-20
Massachusetts	State	M-PA009	06-30-21
Michigan	State	9930	01-31-21
Missouri	State	450	01-31-22
Montana (DW)	State	0098	12-31-20
Nebraska	State	NE-OS-32-17	01-31-20 *
Nevada	State	PA000092019-3	07-31-21
New Hampshire	NELAP	273019	01-10-21
New Jersey	NELAP	PA011	09-30-20
New York	NELAP	10670	04-01-21
North Carolina (DW)	State	42705	07-31-21
North Carolina (WW/SW)	State	521	12-31-20
North Dakota	State	R-205	01-31-20 *
Oklahoma	NELAP	R-205	02-01-21
Oregon	NELAP	PA200001-018	09-11-20
PALA	Canada	1978	05-08-21
Pennsylvania	NELAP	36-00037	01-31-21
Rhode Island	State	LAO00338	12-30-20
South Carolina	State	89002002	01-31-21
Tennessee	State	02838	01-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Haley & Aldrich, Inc. Job ID: 440-269953-1
Project/Site: Quarterly Arroyo Simi-Frontier Park Dry Weather

Laboratory: Eurofins Lancaster Laboratories Env, LLC (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704194-20-38	08-31-20
Utah	NELAP	PA000092019-16	02-28-21
Vermont	State	VT - 36037	10-28-20
Virginia	NELAP	10561	06-14-21
Washington	State	C457	04-11-21
West Virginia (DW)	State	9906 C	12-31-20
West Virginia DEP	State	055	09-30-20
Wyoming	State	8TMS-L	01-07-21
Wyoming (UST)	A2LA	1.01	11-30-20

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Work Orders: 0H06127

Project: Quarterly Arroyo Simi- Frontier Park Dry Weather

Attn: TestAmerica, Irvine

Client: Eurofins Calscience - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614

Report Date: 8/25/2020
Received Date: 8/6/2020
Turnaround Time: Normal
Phones: (949) 261-1022
Fax: (949) 260-3297
P.O. #:
Billing Code:

Dear TestAmerica, Irvine,

Enclosed are the results of analyses for samples received 8/06/20 with the Chain-of-Custody document. The samples were received in good condition, at 5.9 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample Results

Sample: Arroyo_Simi_20200806_Grab
0H06127-01 (Water)

Sampled: 08/06/20 8:45 by Ren Westerline

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 525.2M			**Instr:** GCMS13				
Batch ID: W0H0629 **Preparation:** EPA 625M/SPE			**Prepared:** 08/12/20 09:04				**Analyst:** EFC
Chlorpyrifos	ND	6.9	10	ng/l	1	08/20/20	
Diazinon	ND	5.2	10	ng/l	1	08/20/20	
Surrogate(s)							
1,3-Dimethyl-2-nitrobenzene	*99%*		*76-128*	*Conc: 493*		*08/20/20*	
Triphenyl phosphate	*108%*		*40-163*	*Conc: 540*		*08/20/20*	

14859 Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

Quality Control Results

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Blank (W0H0629-BLK1)					**Prepared: 08/12/20**	**Analyzed: 08/20/20**					
Chlorpyrifos	ND	6.9	10	ng/l							
Diazinon	ND	5.2	10	ng/l							
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	*469*			*ng/l*	*500*		*94*	*76-128*			
Triphenyl phosphate	*740*			*ng/l*	*500*		*148*	*40-163*			
LCS (W0H0629-BS1)					**Prepared: 08/12/20**	**Analyzed: 08/20/20**					
Chlorpyrifos	59.0	6.9	10	ng/l	50.0		118	37-169			
Diazinon	34.8	5.2	10	ng/l	50.0		70	43-152			
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	*464*			*ng/l*	*500*		*93*	*76-128*			
Triphenyl phosphate	*793*			*ng/l*	*500*		*159*	*40-163*			
Matrix Spike (W0H0629-MS1)	**Source: 0G30015-01**				**Prepared: 08/12/20**	**Analyzed: 08/20/20**					
Chlorpyrifos	52.8	6.9	10	ng/l	50.0	*ND*	106	37-168			
Diazinon	40.7	5.2	10	ng/l	50.0	*ND*	81	36-153			
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	*394*			*ng/l*	*500*		*79*	*76-128*			
Triphenyl phosphate	*500*			*ng/l*	*500*		*100*	*40-163*			
Matrix Spike Dup (W0H0629-MSD1)	**Source: 0G30015-01**				**Prepared: 08/12/20**	**Analyzed: 08/20/20**					
Chlorpyrifos	51.9	6.9	10	ng/l	50.0	*ND*	104	37-168	2	30	
Diazinon	40.4	5.2	10	ng/l	50.0	*ND*	81	36-153	0.9	30	
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	*414*			*ng/l*	*500*		*83*	*76-128*			
Triphenyl phosphate	*592*			*ng/l*	*500*		*118*	*40-163*			

14859 Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

Notes and Definitions

Item	Definition
J	Estimated conc. detected <MRL and >MDL.
%REC	Percent Recovery
Dil	Dilution
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ)
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

Reviewed by:

Regina M. Giancola
Project Manager

DoD-ISO ANAB # • ELAP-CA #1132 • EPA-UCMR #CA00211 • HW-DOH # • ISO17025 ANAB #L2457.01 • LACSD #10143 • NELAP-OR #4047 • NJ-DEP #CA015 • SCAQMD #93LA1006

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

14859 Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

CHAIN OF CUSTODY FORM

NDUSMF72

Q Q Q

Client Name/Address:	Project:	ANALYSIS REQUIRED	Field Readings	Meter serial #
Haley & Aldrich 5333 Mission Center Rd Suite 300 San Diego, CA 92108	Boeing-SSFL NPDES Permit 2015 **Quarterly Arroyo Simi-Frontier Park** **Dry Weather**	Hardness as $CaCO_3$, Recoverable (SM2340B)	**Field Readings: (Include units)** Time of Readings: 0840	
Eurofins Calscience Irvine Contact: Christian Bondoc 17461 Derian Ave Suite #100 Irvine CA 92614 Tel: 949-260-3218		Chlorpyrifos, Diazinon (E525.2) Weck Labs in Hacienda Heights, CA	pH 6.94 pH unit Temp 70.4 °C/°F Velocity 0.0 ft/sec	
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)	Pesticides: Chlordane, 4,4-DDD, 4,4-DDE, 4,4-DDT, Dieldrin, Toxaphene + PCBs only (E608)	**Field readings QC** Checked by: Michelle Dallalah Date/Time: 8.6.2020/0840	
Sampler: Ren Westerline	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	Bottle #	MS/MSD	Hardness as $CaCO_3$, Recoverable (SM2340B)	Chlorpyrifos, Diazinon (E525.2) Weck Labs in Hacienda Heights, CA	Pesticides: Chlordane, 4,4-DDD, 4,4-DDE, 4,4-DDT, Dieldrin, Toxaphene + PCBs only (E608)	Comments
Arroyo Simi	Arroyo_Simi_20200806_Grab	8/6/2020 0845	WS	250 mL Poly	1	HNO_3	100	No	X			
			WS	1L Glass Amber	2	None	275	No		X		Extract within 24 Hours of sampling at Weck Labs
			WS	1L Glass Amber	2	None	285	No			X	
	Arroyo_Simi_20200806_Grab_Extra	8/6/2020 0845	WS	1L Glass Amber	2	None	275	No		H		Hold
			WS	1L Glass Amber	2	None	285	No			H	Hold

8/6/20

440-269953 Chain of Custody

Legend: Q=Quarterly

Relinquished By	Date/Time	Company	Received By	Date/Time
Michelle Dallalah	8/6/2020/1155	Haley & Aldrich	William Rivera	8/6/20 1155
William Rivera	8/6/20 1421	EC-IRV	EC IRV	8/6/20 1421
				10/10 ZR-89

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

2019-2020 Rainy Season
Version 2

Eurofins Calscience Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone: 949-261-1022 Fax: 949-260-3297

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Bondoc, Christian M	Carrier Tracking No(s):	COC No: 440-159811.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Christian.Bondoc@Eurofinset.com	State of Origin: California	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Env LLC		Accreditations Required (See note): State Program - California		Job #: 440-269953-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 8/17/2020			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: Quarterly Arroyo Simi-Frontier Park Dry Weather	Project #: 44024446			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

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)	608.3_PCB_PREC/608_Prep_LVI Standard PCB List	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Arroyo_Simi_20200806_Grab (440-269953-1)	8/6/20	08:45 Pacific		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Calscience places the ownership of method, analyte & accreditation compliance upon out 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 complicance 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
	8/11/20 1700	EC TRV			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: CM	Date/Time: 8/12/20 11:11	Company ELLE

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: N/A	Cooler Temperature(s) °C and Other Remarks: 3.0

MM

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-269953-1

Login Number: 269953
List Number: 1
Creator: Escalante, Maria I

List Source: Eurofins Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
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.	N/A	
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	

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-269953-1

Login Number: 269953
List Number: 2
Creator: Colon Martinez, Jessenia C

List Source: Eurofins Lancaster Laboratories Env
List Creation: 08/12/20 12:48 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is 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 (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	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	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-272590-1
Client Project/Site: Quaterly Arroyo Simi-Frontier Park

For:
Haley & Aldrich, Inc.
400 E Van Buren St.
Suite 545
Phoenix, Arizona 85004

Attn: Katherine Miller

Authorized for release by:
10/13/2020 1:10:06 PM

Christian Bondoc, Project Manager I
(949)260-3218
Christian.Bondoc@Eurofinset.com

Table of Contents

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Quaterly Arroyo Simi-Frontier Park

Job ID: 440-272590-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-272590-1	Arroyo_Simi_20200930_Grab	Water	09/30/20 12:30	09/30/20 13:54	

Case Narrative

Client: Haley & Aldrich, Inc.
Project/Site: Quaterly Arroyo Simi-Frontier Park

Job ID: 440-272590-1

Job ID: 440-272590-1

Laboratory: Eurofins Irvine

Narrative

Job Narrative
440-272590-1

Comments
No additional comments.

Receipt
The samples were received on 9/30/2020 1:54 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3º C.

Subcontract non-Sister
See attached subcontract report.

Subcontract Work
Method Weck-525.2-Diazinon: This method was subcontracted to Weck Laboratories, Inc.. The subcontract laboratory certification is different from that of the facility issuing the final report.

Definitions/Glossary

Client: Haley & Aldrich, Inc.
Job ID: 440-272590-1
Project/Site: Quaterly Arroyo Simi-Frontier Park

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

WECK LABORATORIES, INC.

Certificate of Analysis

FINAL REPORT

Work Orders: 0I30047

Project: [none]

Attn: TestAmerica, Irvine

Client: Eurofins Calscience - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614

Report Date: 10/13/2020
Received Date: 9/30/2020
Turnaround Time: 1 workday
Phones: (949) 261-1022
Fax: (949) 260-3297
P.O. #:
Billing Code:

Dear TestAmerica, Irvine,

Enclosed are the results of analyses for samples received 9/30/20 with the Chain-of-Custody document. The samples were received in good condition, at 2.3 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Sample Results

Sample: Arroyo_Simi_20200930_Grab
0I30047-01 (Water)

Sampled: 09/30/20 12:30 by Mark Dominick

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Method: EPA 525.2M			**Instr:** GCMS13				
Batch ID: W0J0014 **Preparation:** EPA 525.2/SPE			**Prepared:** 10/01/20 09:38				**Analyst:** EFC
Diazinon	ND	5.2	10	ng/l	1	10/12/20	
Surrogate(s)							
1,3-Dimethyl-2-nitrobenzene	*101%*		*76-128*	*Conc: 505*		*10/12/20*	
Triphenyl phosphate	*167%*		*40-163*	*Conc: 836*		*10/12/20*	*S-GC*

14859 Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

Quality Control Results

Semivolatile Organics - Low Level by Tandem GC/MS/MS

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Blank (W0J0014-BLK1)					**Prepared: 10/01/20**	**Analyzed: 10/12/20**					
Chlorpyrifos	ND	6.9	10	ng/l							
Diazinon	ND	5.2	10	ng/l							
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	*498*			*ng/l*	*500*		*100*	*76-128*			
Triphenyl phosphate	*744*			*ng/l*	*500*		*149*	*40-163*			
LCS (W0J0014-BS1)					**Prepared: 10/01/20**	**Analyzed: 10/12/20**					
Chlorpyrifos	44.1	6.9	10	ng/l	50.0		88	37-169			
Diazinon	52.0	5.2	10	ng/l	50.0		104	43-152			
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	*514*			*ng/l*	*500*		*103*	*76-128*			
Triphenyl phosphate	*803*			*ng/l*	*500*		*161*	*40-163*			
Matrix Spike (W0J0014-MS1)	**Source: 0I30047-01**				**Prepared: 10/01/20**	**Analyzed: 10/12/20**					
Chlorpyrifos	60.9	6.9	10	ng/l	50.0	*ND*	122	37-168			
Diazinon	76.8	5.2	10	ng/l	50.0	*ND*	154	36-153			MS-07
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	*512*			*ng/l*	*500*		*102*	*76-128*			
Triphenyl phosphate	*876*			*ng/l*	*500*		*175*	*40-163*			*S-GC*
Matrix Spike Dup (W0J0014-MSD1)	**Source: 0I30047-01**				**Prepared: 10/01/20**	**Analyzed: 10/12/20**					
Chlorpyrifos	64.4	6.9	10	ng/l	50.0	*ND*	129	37-168	6	30	
Diazinon	78.7	5.2	10	ng/l	50.0	*ND*	157	36-153	3	30	MS-07
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	*499*			*ng/l*	*500*		*100*	*76-128*			
Triphenyl phosphate	*973*			*ng/l*	*500*		*195*	*40-163*			*S-GC*

14859 Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

Notes and Definitions

Item	Definition
MS-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
S-GC	Surrogate recovery outside of control limits due to a possible matrix effect . The data was accepted based on valid recovery of the remaining surrogate.
%REC	Percent Recovery
Dil	Dilution
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ)
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

Reviewed by:

Regina M. Giancola
Project Manager

DoD-ISO ANAB # • ELAP-CA #1132 • EPA-UCMR #CA00211 • HW-DOH # • ISO17025 ANAB #L2457.01 • LACSD #10143 • NELAP-OR #4047 • NJ-DEP #CA015 • SCAQMD #93LA1006

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

14859 Clark Avenue,City of Industry CA, 91745 | Phone: (626) 336-2139 | Fax: (626) 336-2634
www.wecklabs.com

CHAIN OF CUSTODY FORM

OI30047

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

Eurofins Calscience Irvine Contact: Christian Bondoc
17461 Derian Ave Suite #100
Irvine CA 92614
Tel: 949-260-3218

Project:
Boeing-SSFL NPDES
Permit 2015
Quarterly Arroyo Simi-Frontier Park
Dry Weather

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: Mark Dominick

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	Bottle #	MS/MSD	Q Hardness as $CaCO_3$ Recoverable (SM2340B)	Q Chlorpyrifos, Diazinon (E525.2) Week Labs in Hacienda Heights, CA	Q Pesticides: Chlordane, 4,4-DDD, 4,4-DDE, 4,4-DDT, Dieldrin, Toxaphene + PCBs only (E608)					Comments
Arroyo Simi	Arroyo_Simi_20200930_Grab	9/30/2020/ 1230	WS	250 mL Poly	1	HNO_3	100	No								
			WS	1L Glass Amber	2	None	275	No		X						Extract within 24-Hours of sampling at Week Labs
			WS	1L Glass Amber	2	None	265	No								
	Arroyo_Simi_20200930_Grab_Extra	9/30/2020/ 1230	WS	1L Glass Amber	2	None	275	No		H						Hold
			WS	1L Glass Amber	2	None	265	No								Hold

Legend: Q=Quarterly

Relinquished By	Date/Time:	Company:	Received By	Date/Time:
[signature]	9-30-2020 1354	H&A	[signature]	9/30/20 1354
Relinquished By	Date/Time:	Company:	Received By	Date/Time:
Relinquished By	Date/Time:	Company:	Received By	Date/Time:

Field Readings | Meter serial # N/A
Field Readings: (Include units)
Time of Readings: N/A
pH N/A pH unit
Temp N/A °C/°F
Velocity N/A ft/sec
Field readings QC
Checked by: N/A
Date/Time: N/A

Turn-around time: (Check)
24 Hour: ____ 72 Hour: ____ 10 Day: ____
48 Hour: ____ 5 Day: X Normal: ____
Sample Integrity: (Check)
Intact: ____ On Ice: ✓
Store samples for 6 months. 23C T0230
Data Requirements: (Check)
No Level IV: ____ All Level IV: X

2019-2020 Rainy Season
Version 2

Sample Receiving Check List

Date received: 09/30/20 Time: 13:54 Kit ID#

Work Order #: OI30047 # of Samples: 2 Initals: JRG

	Answer	Status: Yes	No	N/A	Comments
Number of Bottles in COC:	4				Verify that the number of containers
Number of Bottles Received:	4				
ID COC and Bottles Matching		X			and ID match COC and Bottles
COC Present		X			
COC properly completed?		X			
Type of Ice (Blue/Wet)	Wet				
Sample Volume sufficient?		X			
Free Chlorine Tested?		X			
pH verification		X			
Preservation verification		X			
VOC Sample Headspace?				X	
Enough holding time for all tests?		X			

Discrepancies and Notifications

Description of problem:

Person Notified: Phone #: Date/time:

Instructions from client/resolution:

Description of problem:

Person Notified: Phone #: Date/time:

Instructions from client/resolution:

Sample receipt verification completed by (initials): JRG