



Via FedEx

August 15, 2016

In reply refer to SHEA-115538

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

Subject: Second Quarter 2016 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 1 April through 30 June 2016 (Second Quarter 2016). This DMR was prepared as required by and in accordance with National Pollutant Discharge Elimination System (NPDES) Permit No. CA0001309 (Permit) and under regulatory oversight of the Los Angeles Regional Water Quality Control Board (Regional Board).

Hard copies of this DMR are available to the public at California State University at Northridge Library; Simi Valley Library; and the Platt Branch of the Los Angeles Library. An electronic version of this DMR is located at:

<http://www.boeing.com/principles/environment/santa-susana/monitoring-reports.page>

## SECOND QUARTER 2016 DMR CONTENTS

This DMR includes the following sections and appendices:

- **Discharge Summary:** This section describes the number of rain events, number of samples collected, sample dates, and sample locations during Second Quarter 2016. Table I summarizes the Second Quarter 2016 sampling record by outfall, location, and sample type collected per the requirements of the NPDES Permit.
- **Second Quarter 2016 Summary of Compliance:** This section summarizes the sample results that exceeded NPDES Permit limits in Second Quarter 2016.
- **Second Quarter 2016 Santa Susana Site Stormwater Pollution Prevention Plan (SWPPP)/BMP Activities:** This section presents the Santa Susana Site SWPPP activities and BMPs related to demolition, Interim Source Removal Actions (ISRA), the BMP Plan, Northern Drainage, and other activities implemented in Second Quarter 2016. Table II summarizes specific BMP activities by outfall location.
- **Data Validation and Quality Control:** This section discusses data validation results and any laboratory or field corrective actions.
- **Figure 1** shows the stormwater collection conveyance system and site features and **Figure 2** shows the Arroyo Simi – Frontier Park (RSW-002) sampling location.
- **Appendix A** summarizes measured Second Quarter 2016 precipitation at the Santa Susana Site.

- **Appendix B** tabulates waste shipment details.
- **Appendix C** presents chemical analytical results of Second Quarter 2016 stormwater and/or receiving water samples in tabular form by outfall location, constituents evaluated (analytes), sample dates, and data validation qualifiers.
- **Appendix D** contains copies of laboratory analytical reports, chain of custody forms, and data validation reports.
- **Appendix E** presents the Bioassessment Sampling Report.
- **Appendix F** presents the SWPPP Annual Evaluation Report.

## DISCHARGE SUMMARY

The Santa Susana Site experienced two qualifying rain events that produced greater than 0.1 inch of rainfall within a 24-hour period and were preceded by at least 72 hours of dry weather during Second Quarter 2016 (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.

One quarterly offsite receiving water sample was collected at the Arroyo Simi–Frontier Park location in Simi Valley (RSW 002; see Figure 2).

Table I summarizes the Second Quarter 2016 sampling record by outfall, location and sample type collected, per NPDES Permit requirements.

**TABLE I: Sampling Record during Second Quarter 2016**

Date	Outfall/Location	Sample Frequency	Sample Type
05/17/2016	Arroyo Simi Frontier Park (RSW-002)	Quarterly	Grab

The sample was submitted to and analyzed by TestAmerica Laboratories, Inc., a California-certified analytical laboratory in Irvine, per the NPDES Permit requirements.

## SECOND QUARTER 2016 SUMMARY OF COMPLIANCE

No surface water discharges occurred from the Santa Susana Site during Second Quarter 2016. As such, there are no onsite compliance issues to report for this period. Additionally, in the quarterly sample collected at Arroyo Simi sample location RSW-002 in Simi Valley, no constituents exceeded receiving water limits. All Second Quarter 2016 samples were therefore in full compliance with the NPDES Permit.

## SECOND QUARTER 2016 SANTA SUSANA SITE SWPPP/BMP ACTIVITIES

Boeing implemented significant SWPPP- and BMP-related activities to assist in improving stormwater quality and compliance at the Santa Susana Site. Table II summarizes the activities that were completed during Second Quarter 2016 by outfall number. In addition to SWPPP-related activities, specific BMP projects included: demolition-related BMPs; Outfall 008/009 ISRA BMPs; BMP Plan-related BMPs; and Northern Drainage BMPs.

**TABLE II: Boeing’s Second Quarter 2016 BMP Activities**

OUTFALL (Location)	BMP ACTIVITIES DURING SECOND QUARTER 2016
<p>001 (South Slope)</p>	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected outfall and flume for sediment/debris. Checked sample box and flow meter control box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Reset flow meter and replaced tape on a monthly basis.</p>
<p>002 (South Slope)</p>	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected outfall and flume for sediment/debris. Checked sample box and flow meter control box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Reset flow meter and replaced tape on a monthly basis. Installed two rolling dips filled with ½” gravel across the outfall 002 access road to prevent ponding on the road.</p>
<p>003 (Radioactive Material Handling Facility)</p>	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected outfall and flume for sediment/debris. Checked sample box and flow meter control box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Reset flow meter and replaced tape on a monthly basis. Conducted maintenance inspections of structural BMPs, including the flow-through structure and stormwater conveyance and retention systems.</p>
<p>004 (Sodium Reactor Experiment Area)</p>	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall and flume for sediment/debris. Checked sample box and flow meter control box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Reset flow meter and replaced tape on a monthly basis. Conducted maintenance inspections of the structural BMPs, including the flow-through structure and stormwater conveyance system.</p>
<p>005 (Sodium Burn Pit 1)</p>	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall for sediment/debris. Checked sample box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Conducted maintenance inspections of the stormwater conveyance and retention systems.</p>

OUTFALL (Location)	BMP ACTIVITIES DURING SECOND QUARTER 2016
<p>006 (Sodium Burn Pit 2)</p>	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected outfall and flume for sediment/debris. Checked sample box and flow meter control box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Reset flow meter and replaced tape on a monthly basis. Conducted maintenance inspections of the structural BMPs, including the flow-through structure and stormwater conveyance system.</p>
<p>007 (Building 100)</p>	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall for sediment/debris. Checked sample box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Conducted maintenance inspections of the stormwater conveyance and retention systems. Removed large oak tree that had fallen near the pump inlet.</p>
<p>008 (Happy Valley)</p>	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall and flume for sediment/debris. Checked sample box and flow meter control box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Reset flow meter and replaced tape on a monthly basis.</p>
<p>009 (WS-13 Drainage)</p>	<p>Outfall BMPs: Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected outfall and flume for sediment/debris. Checked sample box and flow meter control box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Reset flow meter and replaced tape on a monthly basis.</p> <p>Restoration, Monitoring and Mitigation Plan (RMMP) BMPs: Performed a quarterly biological monitoring inspection on May 3.</p> <p>Lower Lot BMP (Biofilter): Inspected sedimentation basin, biofilter, and cistern areas.</p> <p>Former Building 1436 (B1436) Detention Bioswales: Performed maintenance inspection of bioswale surface area, including hydroseeded area and fiber rolls.</p> <p>B-1 Area: Performed maintenance inspection of BMPs along slope and within drainage.</p> <p>Culvert Modifications: Performed maintenance inspection of BMPs. Cleaned culvert inlets and rip rap check dams of debris prior to and after rain events. Replaced fiber rolls above CM-4.</p>

OUTFALL (Location)	BMP ACTIVITIES DURING SECOND QUARTER 2016
<p>010 (Building 203)</p>	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected the outfall and flume for sediment/debris. Checked sample box and flow meter control box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Reset flow meter and replaced tape on a monthly basis. Conducted maintenance inspections of structural BMPs, including the flow-through structure and stormwater conveyance and retention systems.</p>
<p>011 (Perimeter Pond)</p>	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected outfall and weir for sediment/debris. Checked sample box and flow meter control box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Reset flow meter and replaced tape on a monthly basis. Conducted maintenance inspections of structural BMPs, including the flow-through structure and stormwater conveyance system.</p>
<p>018 (R-2 Pond Spillway)</p>	<p>Conducted erosion and sediment control inspections and performed maintenance around the perimeter of the outfall, the drainage/watershed, and areas of disturbance or sparse vegetation. Inspected outfall and flume for sediment/debris. Checked sample box and flow meter control box for the presence of debris and/or animals. Cleaned sample box and the outfall area and performed weed abatement as needed. Reset flow meter and replaced tape on a monthly basis. Conducted maintenance inspections of the structural BMPs, including the flow-through structure and conveyance system.</p>
<p>019 (Area I Groundwater Extraction and Treatment [GET] System)</p>	<p>The GET system has not been in operation since April 2013 and no pumping or discharge has occurred. Therefore, no NPDES sampling was performed in Second Quarter 2016 at the Area I GET System. Conducted maintenance inspections of the structural BMPs.</p>
<p>RSW-002 (Arroyo Simi – Frontier Park)</p>	<p>Collected the quarterly rain event receiving water at the Arroyo Simi – Frontier Park location. Conducted receiving water inspections.</p>

**OTHER BMP ACTIVITIES**

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

**NASA-RELATED ACTIVITIES**

Demolition activities covered by NASA’s Construction SWPPP (dated 16 March 2016) are inspected in accordance with the Construction General Permit (CGP). During the Second Quarter 2016, NASA performed planned demolition activities in the Coca, Skyline, and Bravo Areas. NASA placed wattles as linear sediment controls where needed and hydroseeded areas within Coca and Skyline where construction activities had been completed.

NASA initiated concrete waste removal activities in the spillway portion of the Delta Test Stand Area in the First Quarter 2016 and those activities are ongoing. Soil disturbance activities included removal of F-listed hazardous waste (soil, concrete) and non-hazardous waste (concrete, metal). BMPs including sandbags, wattles, and riprap have been placed in the lower Delta area.

Additionally, during the Second Quarter 2016, NASA inspected temporary BMPs (sand bags and wattles) at Liquid Oxygen Plant (LOX) ISRA areas and discharge points to Northern Drainage, inspected ELV BMP storage tanks during the rainy season, and placed sandbags and riprap around SPA impoundments to increase erosion and sediment control.

### **DOE-RELATED ACTIVITIES**

It should be noted that in First Quarter 2016, drill rig pads were established at 10 monitoring well sites and installed with perimeter fiber rolls.

### **OUTFALL 008/009 ISRA AND BMP PLAN-RELATED ACTIVITIES**

ISRA soil removal within the Outfall 008 watershed was completed in 2009, and ISRA soil removal conducted within the Outfall 009 watershed was completed in Fourth Quarter 2013. Following ISRA remedial activities, performance monitoring up- and downstream of completed ISRA areas was performed. ISRA performance monitoring is considered complete based on data collected through the 2014/2015 rainy season, signifying the completion of the ISRA program (MWH *et al.*, 2015).

The Expert Panel prepared BMP plans and submittals on behalf of NASA and Boeing to meet Outfall 008/009 permit limits/benchmarks established in the NPDES Permit (Order No. R4-2004-0090)<sup>1</sup>. The 2010 BMP Plan outlined a strategy for subarea sampling, statistical analysis of lab results, and ranking of locations for treatment control prioritization. Annual reports have been submitted including summary and evaluation of the previous year's monitoring results, and development of new general BMP recommendations. Annual BMP Plan addenda have also been submitted to provide conceptual design details and proposed implementation schedules for the following year. The following list identifies the BMP Plans and addenda that have been submitted to the Regional Board, with each document currently located on Boeing's Santa Susana Site web page under Outfall 008/009 ISRA- and BMP-related activities<sup>2</sup>:

- 2010 BMP Plan Outfalls 008 and 009 BMP Watersheds (MWH *et al.*, 2010);
- 2011 BMP Plan Addendum (Geosyntec and the Expert Panel, 2011);
- 2012 BMP Plan Addendum (Geosyntec and the Expert Panel, 2012);
- 2013 BMP Plan Addendum (Geosyntec and the Expert Panel, 2013); and
- 2014 BMP Plan Addendum (Geosyntec and the Expert Panel, 2014).

Completed Expert Panel-recommended BMPs are discussed in the ISRA Performance Monitoring and BMP Monitoring Report for Outfalls 008 and 009 Watersheds submitted to the Regional Board for each rainy season (MWH, 2010; MWH *et al.*, 2011; MWH *et al.*, 2012; MWH *et al.*, 2013; MWH *et al.*, 2014, and MWH *et al.*, 2015). The final annual rainy season report under the 2010 BMP Plan was submitted in August 2015 (MWH *et*

<sup>1</sup> Available at: <http://www.boeing.com/principles/environment/santa-susana/permits.page>

<sup>2</sup> Available at: <http://www.boeing.com/principles/environment/santa-susana/interim-source-removal.page>

*al.*, 2015). Future BMP-related activities will be performed and reported as specified in the Site-Wide Stormwater Work Plan and 2014/15 Annual Report (Geosyntec and the Expert Panel, 2015).

The BMP activities discussed below were performed, commenced, or completed during Second Quarter 2016 in coordination with the Expert Panel.

#### Former Building 1436 Detention Bioswales

Two detention bioswales were constructed at former B1436 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 runoff from the adjacent parking lot and from approximately 13.9 acres of drainage area east and upgradient, prior to releasing this stormwater to the former Instrument and Equipment Laboratories (IEL) storm drain where flow is diverted to the lower lot biofilter for treatment. Second Quarter 2016 activities included inspections of the bioswales and hydroseeded areas and as-needed BMP maintenance activities/upgrades. Also performed removal of invasive mustard plant and seed pods.

#### Lower Lot Biofilter

The lower lot biofilter is a stormwater treatment BMP designed and built to capture, convey, and treat stormwater runoff from the lower parking lot and former IEL watershed. A treatment BMP at the lower parking lot was first proposed in the 2010 BMP Plan (MWH *et al.*, 2010). The lower lot biofilter consists of a 30,000-gallon cistern, a stormwater conveyance line, a sedimentation basin, and a media biofilter. Construction activities were completed on March 15, 2013; a Regional Board and public tour of the completed biofilter was conducted on March 20, 2013.

Second Quarter 2016 activities included inspections to verify that the sedimentation basin and biofilter were free of sediment and debris, checks of the cistern area and pump, and inspections of surrounding BMPs. A total of approximately 115,900 gallons of stormwater were pumped from the cistern to the sedimentation basin during Second Quarter 2016 rain events.

#### NASA Expendable Launch Vehicle (ELV) Area BMPs

BMPs and drainage improvements were installed between June and October 2013 at NASA ELV to improve the quality of stormwater from the ELV area before it is conveyed to Outfall 009. 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.

Second Quarter 2016 activities included inspections of the BMPs.

#### NASA and Boeing BMP Monitoring and Maintenance Activities

In addition to activities performed in coordination with the Expert Panel described above, the BMP Plan-related activities performed for Outfalls 008/009 during Second Quarter 2016 included the following:

- Collected BMP performance monitoring samples at the following locations. These samples will be reported by the Expert Panel in the 2015/16 Annual Report:
  - Detention Bioswales at former B1436;
  - CM-9 (culvert inlet along Area II Road);

- Lower Lot BMP (Cistern, Sediment Basin Outlet Box, and Biofilter); and
- B-1 Media Filter.
- Inspected BMPs at BMP monitoring locations and surrounding areas; and
- Replaced fiber rolls on slope above CM-4.

## **SITE-WIDE WORKPLAN AND ANNUAL REPORT**

The Expert Panel submitted a Site-Wide Stormwater Work Plan and 2014/15 Annual Report (2015 Work Plan) in September 2015 (Geosyntec and the Expert Panel, 2015) on behalf of Boeing to meet the requirements of the NPDES Permit (Order No. R4-2015-0033)<sup>3</sup>. This Work Plan is applicable to all outfalls. The 2015 Work Plan is designed to assess the effectiveness of BMPs/treatment control implementation measures based on surface water samples collected at outfalls and supplemented by monitoring data. The 2015 Work Plan also includes recommended special studies, intended to help identify sources of lead and dioxins within the Outfall 009 watershed. The special studies involve vacuum sampling of pavement solids, pan sampling of atmospheric deposition solids, soil sampling around treated wood poles, and sediment and stormwater sampling at multiple locations along the Northern Drainage. Sampling for the various studies was conducted between March and May, 2016. As outlined in the 2015 Work Plan, the 2015/2016 Annual Report will be submitted to the RWQCB in October 2016.

## **NORTHERN DRAINAGE BMPS**

Boeing has actively worked to restore the Northern Drainage following cleanup activities performed under the oversight of the DTSC and in accordance with the requirements of Regional Board Cleanup and Abatement Order No. R4-2007-0054 (RWQCB, 2007). The restoration and mitigation activities proposed in the Northern Drainage Restoration, Mitigation, and Monitoring Plan (RMMP)<sup>4</sup> were implemented beginning in 2012. In accordance with the RMMP, regular maintenance, monitoring, and reporting have been implemented in the Northern Drainage since 2012 for the stream's plant biology and geomorphology. Biological activities include botanical and California Rapid Assessment Method surveys, plant watering only during periods of excessive heat, and weeding of non-native species. Geomorphic activities include stabilization measure inspections, physical surveying, facies mapping, photographic surveying, annual stream walks, as-needed maintenance, and annual geomorphic monitoring reports.

Biological activities performed in Second Quarter 2016 included a quarterly monitoring inspection on May 3, weekly watering in June, and one weeding event in June.

No geomorphic activities were performed in Second Quarter 2016 because: (1) no significant geomorphic events such as observed or measured runoff, fire, or construction within the Northern Drainage watershed have occurred since the stabilization measure inspection, stream walk, and photographic survey on 29 March 2016; and (2) no significant geomorphic adjustments were observed on 29 March 2016, in the monitoring reaches defined by the physical survey through qualitative monitoring efforts.

<sup>3</sup> Available at: <http://www.boeing.com/principles/environment/santa-susana/permits.page>

<sup>4</sup> Available at: <http://www.boeing.com/principles/environment/santa-susana/technical-reports.page>



## **REASONABLE POTENTIAL ANALYSIS**

No surface water discharges occurred from the Santa Susana Site during Second Quarter 2016 therefore no data was generated and no reasonable potential analysis was performed.

## **DATA VALIDATION AND QUALITY CONTROL**

In accordance with current federal and state Environmental Protection Agency guidelines and procedures, or as specified in the NPDES Monitoring and Reporting Program, chemical and radiological analyses of water samples were completed at a State of California-certified laboratory. Data validation was performed on the analytical results and quality control elements were found to be within acceptable limits for the analytical methods reported, except as noted on the analytical summary tables. Measures were implemented by the analytical laboratory to monitor and/or evaluate low level detections, analyze for interferences, and ensure that cross-contamination did not occur. Laboratory analytical reports, including validation reports and notes, are included in Appendix D.

Attachment H of the NPDES Permit presents the State Board's minimum levels (MLs) for use in reporting and determining compliance with NPDES Permit limits. The analytical laboratory achieved these MLs in the Second Quarter 2016 when technically possible. In cases where the NPDES Permit limit is less than the reporting limit (RL) and ML, the RL was used to determine compliance.

## **BIOASSESSMENT MONITORING**

A bioassessment review was conducted at the Santa Susana Site on 18 May 2016 to evaluate water quality conditions in the tributary to Arroyo Simi downstream of Outfall 006 and the tributary to the Los Angeles River downstream of Outfall 001 in accordance with NPDES Permit requirements. The methods, procedures, and results of the bioassessment are reported in the Bioassessment Monitoring Report included in Appendix E. Note that there was insufficient water flow to conduct the bioassessment monitoring in 2016.

## **CONCLUSIONS**

Boeing continues 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 sustainable erosion control/restoration measures and continuing our collaboration with the Expert Panel.

## **FACILITY CONTACT**

If there are any questions regarding this report or its enclosures, you may contact Mr. Paul Costa of Boeing at (818) 466-8778.

**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." [40 C.F.R. § 122.22(d)]

Executed on the 15th of August 2016 at The Boeing Company, Santa Susana Site.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Dassler".

David W. Dassler P.E.  
Southwest Remediation Manager  
The Boeing Company

**Enclosures:**

## References

Figure 1 - Site Map with Stormwater Collection and Conveyance System and Site Features

Figure 2 - Arroyo Simi – Frontier Park (RSW-002) Sampling Location

Appendix A - Second Quarter 2016 Rainfall Data Summary

Appendix B - Second Quarter 2016 Waste Shipment Summary Tables

Appendix C - Second Quarter 2016 Discharge Monitoring Data Summary Tables

Appendix D – Second Quarter 2016 Analytical Laboratory Report, Chain of Custody, and Validation Report

Appendix E – Bioassessment Sampling Report

Appendix F – SWPPP Annual Evaluation Report

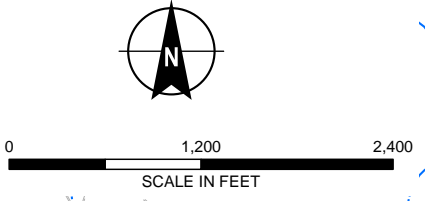
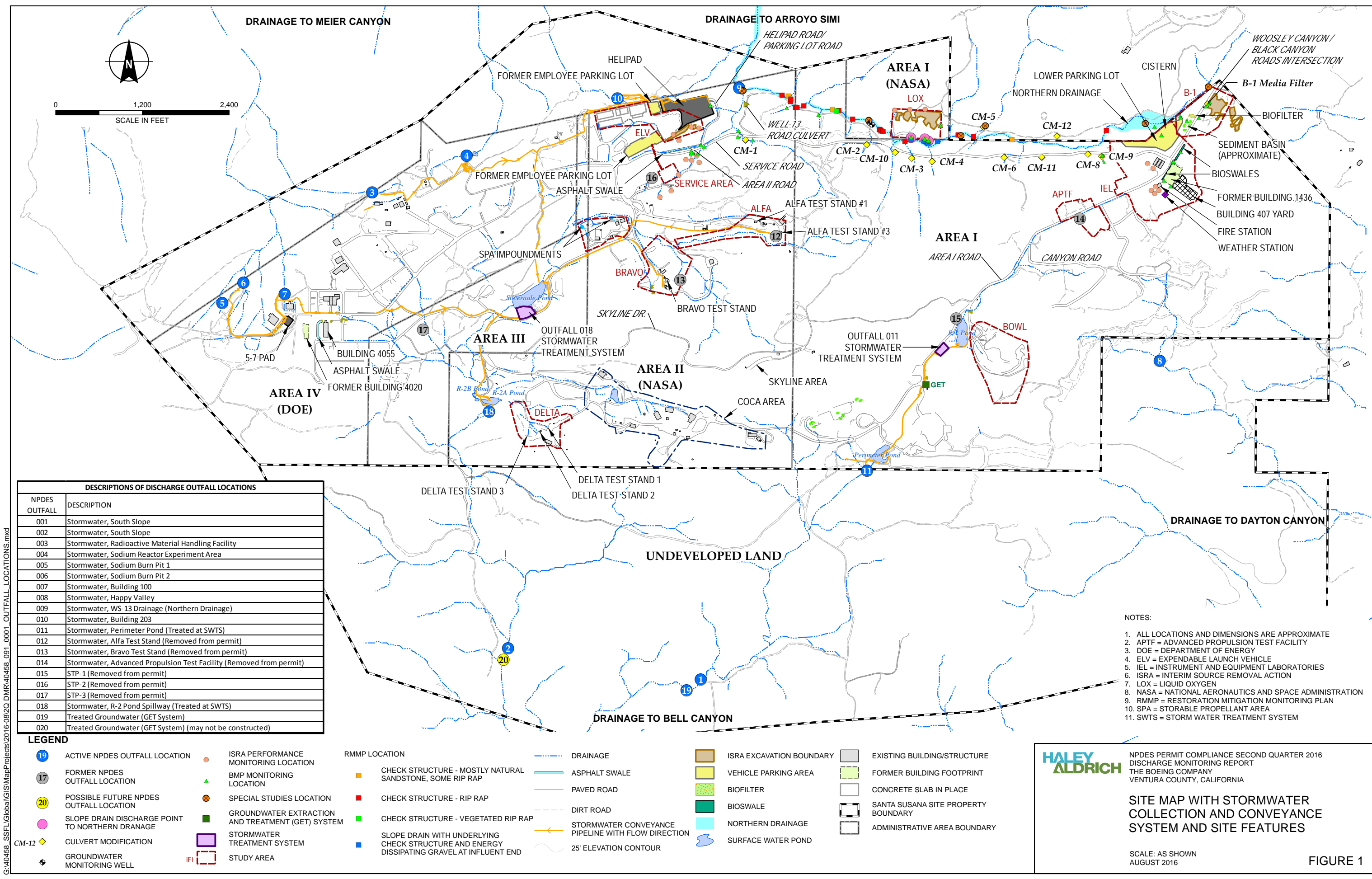
cc: Ms. Cassandra Owens, RWQCB  
Mr. Mark Malinowski, DTSC  
California State University – Northridge, Library  
Simi Valley Library  
Los Angeles Library, Platt Branch



## REFERENCES

1. California Regional Water Quality Control Board, 2007. Cleanup and Abatement Order No. R4-2007-0054. November 6.
2. Geosyntec and the Expert Panel, 2011. 2011 BMP Plan Addendum, The Boeing Company, Santa Susana Field Laboratory, Canoga Park, California (Order No. R4-2010-0090; NPDES No. CA0001309, CI No. 6027). September 28.
3. Geosyntec and the Expert Panel, 2012. 2012 BMP Plan Addendum, The Boeing Company, Santa Susana Field Laboratory, Canoga Park, California (Order No. R4-2010-0090; NPDES No. CA0001309, CI No.6027). September 28.
4. Geosyntec and the Expert Panel, 2013. 2013 BMP Plan Addendum, The Boeing Company, Santa Susana Field Laboratory, Canoga Park, California (Order No. R4-2010-0090; NPDES No. CA0001309, CI No.6027). September 30.
5. Geosyntec and the Expert Panel, 2014. 2014 BMP Plan Addendum to the October 2010 Santa Susana Site Outfalls 008/009 Watersheds BMP Plan, Santa Susana Field Laboratory, Ventura County, California (Order No. R4-2010-0090; NPDES No. CA0001309, CI No.6027). September 30.
6. Geosyntec and the Expert Panel, 2015. Site-Wide Stormwater Work Plan and 2014/15 Annual Report, Santa Susana Field Laboratory, Ventura County, California (NPDES No. CA0001309, CI No.6027). October 07.
7. MWH, 2010. ISRA Performance Monitoring for Outfalls 008 and 009 Watersheds, 2009-2010 Rainy Season, Santa Susana Field Laboratory, Ventura County, California (NPDES No. CA0001309; CI No. 6027; SCP No. 1111; Site ID No. 2040109; and California Water Code §13304 Order). June 30.
8. MWH Americas, Inc., Santa Susana Field Laboratory Stormwater Expert Panel, Geosyntec Consultants, Haley & Aldrich, Inc., and CH2M Hill, 2010. Best Management Practices (BMP) Plan, Outfalls 008 and 009 Watersheds, The Boeing Company, Santa Susana Field Laboratory, Canoga Park, California (Order No. R4-2010-0090; NPDES No. CA0001309, CI No. 6027). October 14.
9. MWH Americas, Inc., Santa Susana Site Surface Water Expert Panel, Geosyntec Consultants, and Haley & Aldrich, Inc., 2011. ISRA Performance Monitoring and Potential BMP Subarea Monitoring for the Outfalls 008 and 009 Watersheds, 2010/2011 Rainy Season, The Boeing Company, Santa Susana Field Laboratory, Ventura County, California (Order No. R4-2010-0090; NPDES No. CA0001309, CI No. 6027; and California Water Code §13304 Order; No. CA0001309, CI No. 1111, Site ID No. 2040109). July 29.
10. MWH Americas, Inc., Santa Susana Site Surface Water Expert Panel, and Geosyntec Consultants, 2012. ISRA Performance Monitoring and Potential BMP Subarea Monitoring for the Outfalls 008 and 009 Watersheds, 2011/2012 Rainy Season, The Boeing Company, Santa Susana Field Laboratory, Ventura County, California (Order No. R4-2010-0090; NPDES No. CA0001309, CI No. 6027; and California Water Code §13304 Order; No. CA0001309, CI No. 1111, Site ID No. 2040109). August 31.

11. MWH Americas, Inc., Santa Susana Site Surface Water Expert Panel, and Geosyntec Consultants, 2013. ISRA Performance Monitoring and BMP Monitoring for the Outfalls 008 and 009 Watersheds, 2012/2013 Rainy Season, The Boeing Company, Santa Susana Field Laboratory, Ventura County, California (Order No. R4-2010-0090; NPDES No. CA0001309, CI No. 6027; and California Water Code §13304 Order; No. CA0001309, CI No. 1111, Site ID No. 2040109). August 30.
12. MWH Americas, Inc., Santa Susana Site Surface Water Expert Panel, and Geosyntec Consultants, 2014. ISRA Performance Monitoring and BMP Monitoring for the Outfalls 008 and 009 Watersheds, 2013/2014 Rainy Season, Santa Susana Field Laboratory, Ventura County, California (Order No. R4-2010-0090; NPDES No. CA0001309, CI No. 6027; and California Water Code Section 13304 Order; NPDES No. CA0001309, CI No. 1111, Site ID No. 2040109). August 29.
13. MWH Americas, Inc., Santa Susana Site Surface Water Expert Panel, and Geosyntec Consultants, 2015. ISRA Performance Monitoring and BMP Monitoring for the Outfalls 008 and 009 Watersheds, 2014/2015 Rainy Season, Santa Susana Field Laboratory, Ventura County, California (Order No. R4-2010-0090; NPDES No. CA0001309, CI No. 6027; and California Water Code Section 13304 Order; NPDES No. CA0001309, CI No. 1111, Site ID No. 2040109). August 28.
14. United States Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry (ATSDR), 2002. Toxicological Profile for Di(2-ethylhexyl)phthalate. September.



DESCRIPTIONS OF DISCHARGE OUTFALL LOCATIONS	
NPDES OUTFALL	DESCRIPTION
001	Stormwater, South Slope
002	Stormwater, South Slope
003	Stormwater, Radioactive Material Handling Facility
004	Stormwater, Sodium Reactor Experiment Area
005	Stormwater, Sodium Burn Pit 1
006	Stormwater, Sodium Burn Pit 2
007	Stormwater, Building 100
008	Stormwater, Happy Valley
009	Stormwater, WS-13 Drainage (Northern Drainage)
010	Stormwater, Building 203
011	Stormwater, Perimeter Pond (Treated at SWTS)
012	Stormwater, Alfa Test Stand (Removed from permit)
013	Stormwater, Bravo Test Stand (Removed from permit)
014	Stormwater, Advanced Propulsion Test Facility (Removed from permit)
015	STP-1 (Removed from permit)
016	STP-2 (Removed from permit)
017	STP-3 (Removed from permit)
018	Stormwater, R-2 Pond Spillway (Treated at SWTS)
019	Treated Groundwater (GET System)
020	Treated Groundwater (GET System) (may not be constructed)

- NOTES:
- ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
  - APTF = ADVANCED PROPULSION TEST FACILITY
  - DOE = DEPARTMENT OF ENERGY
  - ELV = EXPENDABLE LAUNCH VEHICLE
  - IEL = INSTRUMENT AND EQUIPMENT LABORATORIES
  - ISRA = INTERIM SOURCE REMOVAL ACTION
  - LOX = LIQUID OXYGEN
  - NASA = NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
  - RMMP = RESTORATION MITIGATION MONITORING PLAN
  - SPA = STORABLE PROPELLANT AREA
  - SWTS = STORM WATER TREATMENT SYSTEM

**LEGEND**

19	ACTIVE NPDES OUTFALL LOCATION	●	ISRA PERFORMANCE MONITORING LOCATION	■	CHECK STRUCTURE - MOSTLY NATURAL SANDSTONE, SOME RIP RAP	—	DRAINAGE	■	ISRA EXCAVATION BOUNDARY	■	EXISTING BUILDING/STRUCTURE
17	FORMER NPDES OUTFALL LOCATION	▲	BMP MONITORING LOCATION	■	CHECK STRUCTURE - RIP RAP	—	ASPHALT SWALE	■	VEHICLE PARKING AREA	■	FORMER BUILDING FOOTPRINT
20	POSSIBLE FUTURE NPDES OUTFALL LOCATION	●	SPECIAL STUDIES LOCATION	■	CHECK STRUCTURE - VEGETATED RIP RAP	—	PAVED ROAD	■	BIOFILTER	■	CONCRETE SLAB IN PLACE
●	SLOPE DRAIN DISCHARGE POINT TO NORTHERN DRAINAGE	■	GROUNDWATER EXTRACTION AND TREATMENT (GET) SYSTEM	■	SLOPE DRAIN WITH UNDERLYING CHECK STRUCTURE AND ENERGY DISSIPATING GRAVEL AT INFLUENT END	—	DIRT ROAD	■	BIOSWALE	■	SANTA SUSANA SITE PROPERTY BOUNDARY
◆	CULVERT MODIFICATION	■	STORMWATER TREATMENT SYSTEM	■		—	STORMWATER CONVEYANCE PIPELINE WITH FLOW DIRECTION	■	NORTHERN DRAINAGE	■	ADMINISTRATIVE AREA BOUNDARY
◆	GROUNDWATER MONITORING WELL	■	STUDY AREA			—	25' ELEVATION CONTOUR	■	SURFACE WATER POND		

**HALEY ALDRICH**

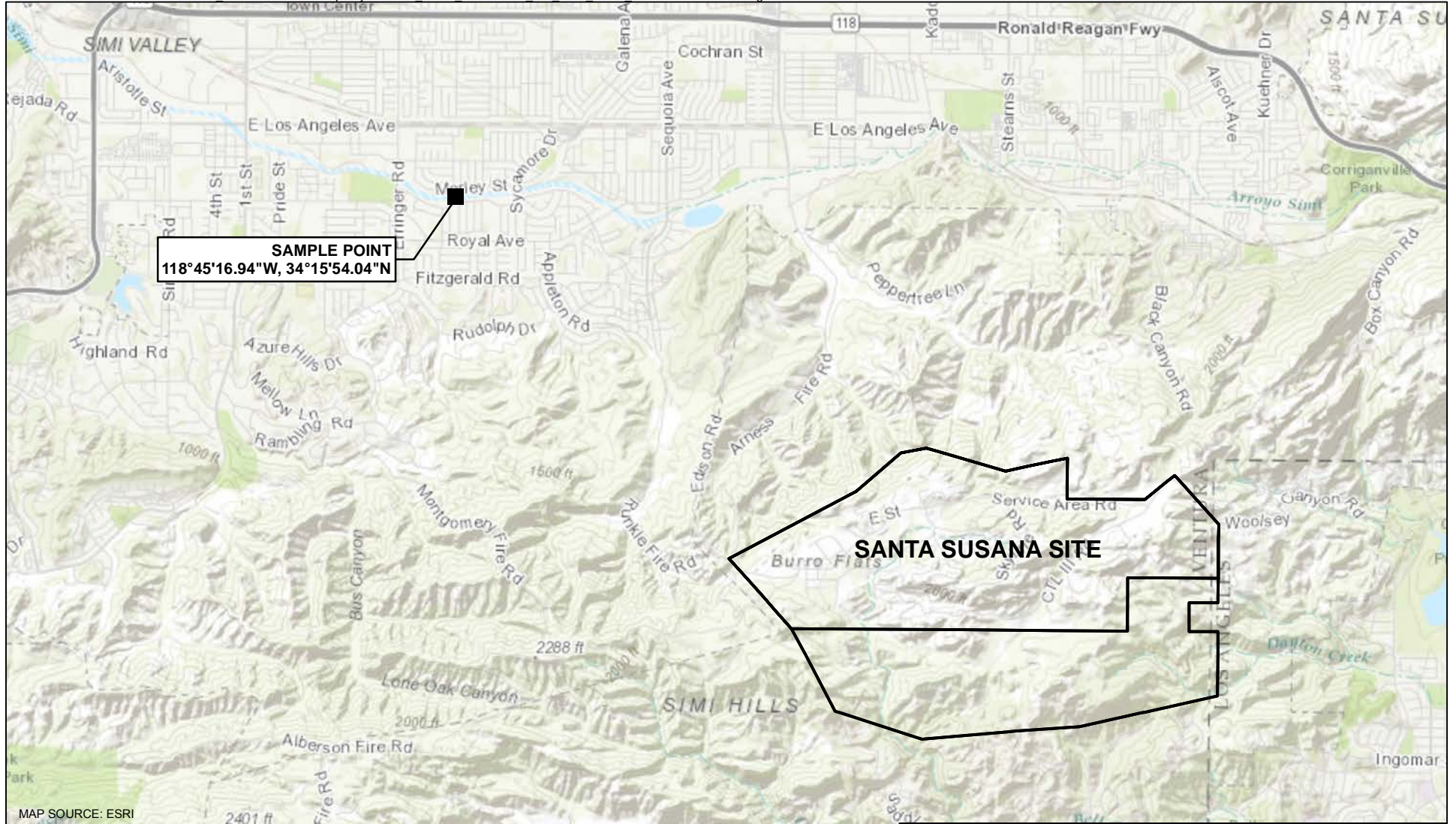
NPDES PERMIT COMPLIANCE SECOND QUARTER 2016 DISCHARGE MONITORING REPORT THE BOEING COMPANY VENTURA COUNTY, CALIFORNIA

**SITE MAP WITH STORMWATER COLLECTION AND CONVEYANCE SYSTEM AND SITE FEATURES**

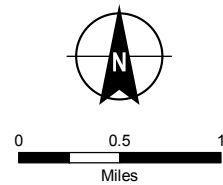
SCALE: AS SHOWN  
AUGUST 2016

**FIGURE 1**

G:\40458\_SSF\GIS\MapProjects\2016-08\20 DMR\40458\_091\_0001\_OUTFALL\_LOCATIONS.mxd



MAP SOURCE: ESRI



**HALEY  
ALDRICH**

NPDES PERMIT COMPLIANCE SECOND QUARTER 2016  
DISCHARGE MONITORING REPORT  
THE BOEING COMPANY  
VENTURA COUNTY, CALIFORNIA

ARROYO SIMI-FRONTIER PARK  
(RSW-002) SAMPLING LOCATION

AUGUST 2016

FIGURE 2

**APPENDIX A**

**Second Quarter 2016 Rainfall Data Summary**

**TABLE A  
DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY  
NPDES PERMIT CA0001309**

Station: AREA 1  
Parameter: Rain  
Month/Year: April 2016

**HOUR OF THE DAY**

	HOUR OF THE DAY																								Total		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
D A Y  O F  T H E  M O N T H	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	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	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	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	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	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	0.01	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.01	0.05	0.04	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.02	0.04	0.01	0.03	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30
	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	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	0.00
	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	0.00
	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	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	0.00
	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	0.00
	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	0.00
	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	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	0.00
	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	0.00
	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	0.00
	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	0.00
	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	0.00
	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	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	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	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	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	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	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	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	0.00

Flags: p = Power failure, invalid hour. The Sage Ranch rain gauge confirmed that no rainfall was recorded.  
Notes: The Sage Ranch rain gauge data is located at: <http://www.vcwatershed.net/hydrodata/php/getstation.php?siteid=272#top>



**TABLE A  
DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY  
NPDES PERMIT CA0001309**

Station: AREA 1  
Parameter: Rain  
Month/Year: May 2016

**HOUR OF THE DAY**

D A Y  O F  T H E  M O N T H	HOUR OF THE DAY																								Total
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
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	0.19	0.07	0.10	0.22	0.13	0.06	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
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
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
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
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
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
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
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
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
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
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
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
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
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

Flags: p = Power failure, invalid hour. The Sage Ranch rain gauge confirmed that no rainfall was recorded.  
Notes: The Sage Ranch rain gauge data is located at: <http://www.vcwatershed.net/hydrodata/php/getstation.php?siteid=272#top>

**TABLE A  
DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY  
NPDES PERMIT CA0001309**

Station: AREA 1  
Parameter: Rain  
Month/Year: June 2016

**HOUR OF THE DAY**

	HOUR OF THE DAY																								Total		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
D A Y  O F  T H E  M O N T H	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	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	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	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	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	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	0.00
	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	0.00
	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	0.00
	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	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	0.00
	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	0.00
	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	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	0.00
	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	0.00
	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	0.00
	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	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	0.00
	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	0.00
	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	0.00
	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	0.00
	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	0.00
	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	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	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	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	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	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	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	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	0.00

Flags: p = Power failure, invalid hour. The Sage Ranch rain gauge confirmed that no rainfall was recorded.  
Notes: The Sage Ranch rain gauge data is located at: <http://www.vcwatershed.net/hydrodata/php/getstation.php?siteid=272#top>

**APPENDIX B**

**Second Quarter 2016 Waste Shipment Summary Tables**

**TABLE B  
LIQUID WASTE SHIPMENTS**

**SECOND QUARTER 2016 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION
4/4/2016	01	NON-HAZARDOUS WASTE LIQUID (DECON WATER)	4,200	G	American Integrated Services, Inc. 1502 E Opp Street Wilmington, CA 90744	n/a	n/a	Crosby and Overton, Inc. 1610 W. 17th Street Long Beach, CA 90813
4/21/2016	001	NON-HAZARDOUS WASTE LIQUID (DECON WATER)	2,000	G				
4/22/2016	009512636FLE	NON-RCRA HAZARDOUS WASTE, LIQUIDS (OIL, WATER)	21	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	SLT Express Way Incorporated 17235 N 75th Avenue, Ste. D175 Glendale, AZ 85308-8588	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
	009512658FLE	NON-RCRA HAZARDOUS WASTE, LIQUIDS (WATER, NICKEL)	314	P				Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 34029
	AA0997	NON HAZARDOUS, NON D.O.T. REGULATED (DEBRIS WITH SODIUM CHLORIDE)	30	G				
		NON HAZARDOUS, NON D.O.T. REGULATED (DEBRIS WITH SODIUM CHLORIDE)	566	P				
		NON HAZARDOUS, NON D.O.T. REGULATED (DEBRIS WITH SODIUM CHLORIDE)	180	P				
NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	274	P						
5/10/2016	014500307 JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	235	G	USA Waste of California, Inc. dba ENVIROSERV 15902 S Main Street Gardena, CA 90248-2551	n/a	n/a	Evoqua Water Technologies LLC 5375 South Boyle Avenue Los Angeles, CA 90058
5/11/2016	---	NON-HAZARDOS WASTE LIQUID (DECON WATER)	300	G	American Integrated Services, Inc. 1502 E Opp Street Wilmington, CA 90744			Crosby and Overton, Inc. 1610 W. 17th Street Long Beach, CA 90813
5/13/2016	009512834FLE	HAZARDOUS WASTE, LIQUID (CHROMIUM, TETRACHLOROETHYLENE)	1679	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	SLT Express Way Incorporated 17235 N 75th Avenue, Ste. D175 Glendale, AZ 85308-8588	n/a	Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029
	009512836FLE	WASTE METHANOL SOLUTION	42	P				Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
		OXIDIZING LIQUID (SODIUM NITRATE, WATER)	7	P				
		CORROSIVE LIQUID, ACIDIC, ORGANIC (ASCORBIC ACID)	5	P				
HYPOCHLORITE SOLUTIONS	11	P						

**TABLE B  
LIQUID WASTE SHIPMENTS**

**SECOND QUARTER 2016 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION
5/13/2016	AA1165	NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	3,233	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 34029
		NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEBRIS WITH SODIUM CHLORIDE)	1,382	P				
		NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEBRIS WITH SODIUM CHLORIDE)	480	P				
	AA1168	NON D.O.T. REGULATED	28	P		Safety-Kleen Systems, Inc. 2600 N Central Expressway, Ste. 400 Richardson, TX 75080	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744	
		NON D.O.T. REGULATED (CALIBRATION FLUID)	7	P				
5/16/2016	0001	NON-HAZARDOS WASTE LIQUID (DECON WATER)	3,883	G	American Integrated Services, Inc. 1502 E Opp Street Wilmington, CA 90744	n/a		Crosby and Overton, Inc. 1610 W. 17th Street Long Beach, CA 90813
		HAZARDOUS WASTE, LIQUID (CHROMIUM, TETRACHLOROETHYLENE)	981	p				
6/13/2016	009767631FLE	HAZARDOUS WASTE, LIQUID (CHROMIUM, TETRACHLOROETHYLENE)	981	p	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061			n/a
	009767632FLE	NON-RCRA HAZARDOUS WASTE, LIQUIDS (OIL, WATER)	23	P				
		NON-RCRA HAZARDOUS WASTE, LIQUIDS (OIL, WATER)	25	P				
	AA1408	NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	121	G				
		NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	300	G				
		NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEBRIS WITH SODIUM CHLORIDE)	769	P				
		NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEBRIS WITH SODIUM CHLORIDE)	30	P				

**TABLE B  
LIQUID WASTE SHIPMENTS**

**SECOND QUARTER 2016 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION
4/5/2016	14169	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5000	G	Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058	n/a	n/a	Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058
	14170	FLUSH WATER W/ TRACE SEWAGE (CLARIFIER)	5000	G				
4/19/2016	14246	FLUSH WATER W/ TRACE SEWAGE (CLARIFIER)	5000	G				
	14247	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5000	G				
5/3/2016	14314	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5000	G				
	14315	FLUSH WATER W/ TRACE SEWAGE (CLARIFIER)	5000	G				
5/17/2016	14378	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5000	G				
	14379	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5000	G				
5/31/2016	14461	FLUSH WATER W/ TRACE SEWAGE (CLARIFIER)	5000	G				
	14462	FLUSH WATER W/ TRACE SEWAGE (CLARIFIER)	5000	G				
6/14/2016	14545	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5000	G				
	14546	FLUSH WATER W/ TRACE SEWAGE (CLARIFIER)	5000	G				
6/28/2016	14610	FLUSH WATER W/ TRACE SEWAGE (CLARIFIER)	5000	G				
	14611	FLUSH WATER W/ TRACE SEWAGE (CLARIFIER)	5000	G				

Notes:  
P = Pounds  
G = Gallons  
n/a = Not Applicable

**TABLE B  
SOLID WASTE SHIPMENTS**

**SECOND QUARTER 2016 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION		
4/22/2016	009512635FLE	NON-RCRA HAZARDOUS WASTE, SOLID (EMPTY CONTAINERS)	24	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	SLT Express Way Incorporated 17235 N 75th Avenue, Ste. D175 Glendale, AZ 85308-8588	n/a	Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029		
		NON-RCRA HAZARDOUS WASTE, SOLID (EMPTY CONTAINERS)	173	P				Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knotts Grantsville, UT 34029		
	009512636FLE	NON-RCRA HAZARDOUS WASTE, SOLID (SOIL)	83	P		Safety-Kleen Systems, Inc. 2600 N Central Expressway, Ste. 400 Richardson, TX 75080		Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744		
	009512658FLE	CORROSIVE SOLID, ACIDIC, INORGANIC (DEBRIS, HYDROCHLORIC ACID)	71	P		SLT Express Way Incorporated 17235 N 75th Avenue, Ste. D175 Glendale, AZ 85308-8588		Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061		
5/13/2016	009512834FLE	ENVIRONMENTALLY HAZARDOUS WASTE, SOLID (TRICHLOROETHYLENE, PERCHLOROETHYLENE)	61	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Safety-Kleen Systems, Inc. 2600 N Central Expressway, Ste. 400 Richardson, TX 75080	n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744		
	009512836FLE	NON-RCRA HAZARDOUS WASTE, SOLID, (DEBRIS, OIL)	107	P				Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knotts Grantsville, UT 34029	
	AA1165	NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEBRIS WITH SODIUM CHLORIDE)	1382	P		n/a		Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knotts Grantsville, UT 34029
	AA1165	NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEBRIS WITH SODIUM CHLORIDE)	480	P						
6/13/2016	AA1408	NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEBRIS WITH SODIUM CHLORIDE)	769	P	n/a	n/a	n/a			Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744
	AA1408	NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEBRIS WITH SODIUM CHLORIDE)	30	P						
	009767631FLE	HAZARDOUS WASTE, SOLID (CADMIUM, LEAD)	83	p				Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029		
	009767632FLE	NON-RCRA HAZARDOUS WASTE, SOLID (DEBRIS, OIL)	13	P				Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744		

Notes:  
P = Pounds  
G = Gallons  
n/a = Not Applicable

**TABLE B  
FLAMMABLE SOLID WASTE SHIPMENTS**

**SECOND QUARTER 2016 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

DATE SHIPPED	MANIFEST OR JOB TRACKING NUMBER	TYPE OF WASTE	QTY.	UNITS	TRANSPORTER 1	TRANSPORTER 2	TRANSPORTER 3	DESTINATION
4/22/2016	009512635FLE	WASTE AEROSOLS, FLAMMABLE	12	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive	SLT Express Way Incorporated 17235 N 75th Avenue, Ste. D175	n/a	Clean Harbors - Aragonite LLC 11600 North Aptus Road

Notes:  
P = Pounds  
G = Gallons  
n/a = Not Applicable



**APPENDIX C**

**Second Quarter 2016 Discharge Monitoring Data Summary Tables**

**SECOND QUARTER 2016  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

**Notes:**

1. TCDD 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 DNQ, as specified on Page 26 of the NPDES permit.
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. All of the following abbreviations and/or notes may not occur on every table.

-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 counting 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 permit limit established for daily maximum or monthly average
<(value)	Analyte not detected at a concentration greater than or equal to the DL, MDL, or 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 permit.
*1	Improper preservation of sample
*2	The ICP/MS 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

**SECOND QUARTER 2016  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

*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 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 %RSD or %D were noncompliant
Comp	Composite sample type
C5	Calibration verification %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
F	The analyte was detected in an associated field blank (FB) or equipment blank (EB) as well as in the sample

**SECOND QUARTER 2016  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

F1	MS and/or MSD Recovery is outside acceptance limits
ft/sec	Feet per second
G	Gallons
gpd	Gallons per day
H	Holding time was exceeded
I	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 (MQL), but > than MDL
K	The sample dilution's set-up did not meet the oxygen depletion criteria of at least 2 mg/l. Therefore, the reported result is an estimated value only.
L	Laboratory control sample %R was outside control limits
L1	LCS/LCSD relative percent difference (RPD) was outside the control limit
L2	The laboratory control sample %R was below the method control limits
LBS/DAY	Pounds per day
LCS	Laboratory control standard
LCSD	Laboratory control standard duplicate
LQ	LCS/LCSD recovery above method control limits
M1	Matrix spike (MS) and/or MS duplicate were above the acceptance limits due to sample matrix interference
M2	The MS and/or MS duplicate 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
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 MS/MSD calculation does not provide useful spike recovery information.
mg/L	Milligrams per liter
mg/kg	Milligrams per kilogram
ml/L/hr	Milliliters per liter per hour

**SECOND QUARTER 2016  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

MPN/100 ml	Most probable number per 100 milliliters
MQL	Method quantitation limit
MS	Matrix spike
MSD	Matrix spike duplicate
NA	Not applicable; no permit limit established for the constituent and/or outfall
ND	Analyte not detected
NM	Not measured or determined or MDAs are not calculated as there is no statistical method for combining MDAs
NTU	Nephelometric turbidity unit
P	Pounds
pCi/L	PicoCuries per liter
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 recovery outside of control limits
Q1	MS/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	(reason code in parentheses) %R for calibration not within control limits
RL	Laboratory reporting limit
RL-1	Reporting limit raised due to sample matrix effects
RPD	Relative percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation
% survival	Percent survival
S	Surrogate recovery was outside control limits
s.u.	Standard Unit
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TEQ	Toxic equivalent
T	Presumed contamination, as indicated by a detect in the trip blank
TU <sub>c</sub>	Toxicity units (chronic)

**SECOND QUARTER 2016  
REPORTING SUMMARY NOTES  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

U	Result not detected
µg/L	Micrograms per liter
µg/kg	Micrograms per kilogram
UJ	Result not detected at the estimated reporting limit
umhos/cm	Micromhos per centimeter
WHO TEF	World Health Organization toxic equivalency factor
w/out	Without
^	Analysis not completed due to hold time exceedence 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 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 permit
(4.0)3.1/-	Represents (Dry Weather Limit) Wet Weather Limit / Monthly Average Limit.
(3)	Secondary Maximum Contaminant Level
(4)	The drinking water maximum contaminant level of 3.00E-05 ug/L is for the dioxin congener 2,3,7,8-TCDD. TCDD TEQ w/out DNQ Values is 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). There are 17 dioxin congeners.

**ARROYO SIMI (FRONTIER PARK RECEIVING WATER)**

**SECOND QUARTER 2016 REPORTING SUMMARY  
THE BOEING COMPANY  
SANTA SUSANA FIELD LABORATORY  
NPDES PERMIT CA0001309**

April 1 through June 30, 2016

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE FREQUENCY	5/17/2016		
				SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
<b>POLLUTANTS WITH LIMITS</b>						
4,4'-DDD	ug/L	0.0014/-	1/Quarter	Grab	ND < 0.0040	U
4,4'-DDE	ug/L	0.001/-	1/Quarter	Grab	ND < 0.0030	U
4,4'-DDT	ug/L	0.001/-	1/Quarter	Grab	ND < 0.0040	U
Aroclor 1016	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	U
Aroclor 1221	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	U
Aroclor 1232	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	U
Aroclor 1242	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	U
Aroclor 1248	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	U
Aroclor 1254	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	U
Aroclor 1260	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	U
Chlordane	ug/L	0.001/-	1/Quarter	Grab	ND < 0.080	U
Chlorpyrifos	ug/L	0.02/-	1/Quarter	Grab	ND < 0.49	U
Diazinon	ug/L	0.16/-	1/Quarter	Grab	ND < 0.12	U
Dieldrin	ug/L	0.0002/-	1/Quarter	Grab	ND < 0.0020	U
E. Coli	MPN/100 ml	235/-	1/Year	Grab	ANR	ANR
pH (Field)	s.u.	6.5-8.5/-	1/Quarter	Grab	6.56	*
Toxaphene	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	U
<b>POLLUTANTS WITHOUT LIMITS</b>						
Hardness	mg/L	-/-	1/Quarter	Grab	610	--
Temperature (Field)	deg F	-/-	1/Quarter	Grab	62.58	*
Total Suspended Solids	mg/L	-/-	1/Year	Grab	ANR	ANR
Water Velocity	ft/sec	-/-	1/Quarter	Meas	0.0	*

**APPENDIX D**

**Second Quarter 2016 Analytical Laboratory Report,  
Chain of Custody, and Validation Report**



APPENDIX D  
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**APPENDIX D**

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**DATA VALIDATION REPORT**

**Boeing SSFL NPDES**

**SAMPLE DELIVERY GROUP: 440-147630-1**

**Prepared for**

Haley & Aldrich, Inc.

600 South Meyer Avenue, Suite 100

Tucson, Arizona 85701

**June 1, 2016**

MEC<sup>x</sup>, Inc.  
8864 Interchange Drive  
Houston, Texas 77054

[www.mecx.net](http://www.mecx.net)





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- 3 - Reason Code Reference



## I. INTRODUCTION

---

**Task Order Title:** Boeing SSFL NPDES

**Contract:** 40458-078 and 40458-083

**MEC<sup>x</sup> Project No.:** 1272.003H.01

**Sample Delivery Group:** 440-147630-1

**Project Manager:** Katherine Miller

**Matrix:** Water

**QC Level:** IV

**No. of Samples:** 1

**No. of Reanalyses/Dilutions:** 0

**Laboratory:** TestAmerica

**TABLE 1 - SAMPLE IDENTIFICATION**

Sample Name	Lab Sample Name	Sub Lab Sample ID	Matrix	Collection	Method
ArroyoSimi_20160517_Grab	440-147630-1	N/A	Water	5/17/2016 7:00:00 AM	E525.2, E608, SM2340



## II. SAMPLE MANAGEMENT

---

According to the case narrative, sample condition upon receipt form and the chain-of-custody (COC) provided by the laboratory for sample delivery group (SDG) 440-147630-1:

- The laboratory received the sample in this sample delivery group (SDG) on ice and within the temperature limits of less than 6 degrees Celsius (°C) and greater than 0°C.
- The laboratory received the sample containers intact and properly preserved, as applicable.
- Field and laboratory personnel signed and dated the COC.
- According to the laboratory's sample receipt checklist, custody seals were intact.



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. METHOD ANALYSES – 608 PESTICIDES AND PCBs

---

Lynn Calvin of MEC<sup>x</sup> reviewed the SDG on June 15, 2016

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC<sup>x</sup> *Data Validation Procedure for Organochlorine Pesticides/PCBs by GC (DVP-4, Rev. 1)*, EPA Method 608, and the *National Functional Guidelines for Superfund Organic Methods Data Review (2014)*.

##### IV.1. HOLDING TIMES

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

##### IV.2. CALIBRATION

The initial calibrations had %RSDs of  $\leq 10\%$  or  $r^2$  of  $\geq 0.990$  on both analytical columns. ICVs and CCVs associated with the sample analyses had %Ds within the control limit of  $\leq 15\%$ . The breakdown totals for endrin and 4,4'-DDT were  $\leq 15\%$ .

##### IV.3. QUALITY CONTROL SAMPLES

###### IV.3.1. METHOD BLANKS

Target compounds were not detected in method blanks.

###### IV.3.2. LABORATORY CONTROL SAMPLES

Recoveries were within the laboratory-established control limits. Chlordane and toxaphene were not spiked in the pesticide LCS.

###### IV.3.3. SURROGATE RECOVERY

Pesticide surrogate tetrachloro-m-xylene (TCMX) and PCB surrogate decachlorobiphenyl (DCB) were recovered within the laboratory control limits of 10-150% and 29-115%, respectively.

###### IV.3.4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Matrix spike (MS)/MS duplicate (MSD) analyses were performed on sample ArroyoSimi\_20160517\_Grab for pesticides and PCBs. Chlordane and toxaphene were not spiked in the pesticide MS/MSD. The recoveries and RPDs were within the laboratory control limits.

##### IV.4. FIELD QC SAMPLES

MEC<sup>x</sup> 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<sup>x</sup> 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 problems with target compound identification. The laboratory analyzed for select pesticides and seven Aroclors by EPA Method 608.

#### 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. Reported nondetects are valid to the reporting limit.

### V. EPA METHODS 525.2— SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)

---

Lynn Calvin of MEC<sup>x</sup> reviewed the SDG on April 13, 2016

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the MEC<sup>x</sup> 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 (2014).

#### V.1. HOLDING TIMES

Extraction and analytical holding times were met. The water sample was extracted within 24 hours of collection and analyzed within 30 days of extraction.

#### V.2. GC/MS TUNING AND CALIBRATION

The DFTPP tunes met the method abundance criteria. The sample was analyzed within 12 hours of the DFTPP injection time.

Calibration criteria were met. The initial calibration average RRFs were  $\geq 0.05$  and %RSD  $\leq 30\%$ . The ICV and CCV RRFs were  $\geq 0.05$  and recoveries were within the method QC 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

The recoveries and RPDs were within the control limits of 70-130% and  $\leq 30\%$ , respectively.

##### V.3.3. SURROGATE RECOVERY

Recoveries were within laboratory-established control limits of 70-130%.

##### V.3.4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Matrix spike (MS)/MS duplicate (MSD) analyses were performed on sample ArroyoSimi\_20160517\_Grab. The recoveries and RPDs were within the laboratory control limits of 70-130% and  $\leq 30\%$ , respectively.

#### V.4. FIELD QC SAMPLES

MEC<sup>x</sup> 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<sup>x</sup> 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**

The internal standard area counts were within the method control limits established by the continuing calibration standards of  $\pm 30\%$  for areas and  $\pm 10$  seconds for retention times.

#### **V.6. COMPOUND IDENTIFICATION**

Compound identification was verified. The laboratory analyzed for chlorpyrifos and diazinon by Method 525.2. Review of the sample chromatogram, retention times, and spectra indicated no problems with target compound identification.

#### **V.7. COMPOUND QUANTIFICATION AND REPORTED DETECTION LIMITS**

Compound quantification was verified. 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.

#### **V.8. SYSTEM PERFORMANCE**

Review of the raw data indicated no problems with system performance.

## **VI. METHOD SM2340 B— HARDNESS BY CALCULATION**

---

Marcia Hilchey of MEC<sup>x</sup> reviewed the SDG on June 13, 2016.

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC<sup>x</sup> Data Validation Procedure for General Minerals (DVP-6, Rev. 1)*, *Standard Methods for the Examination of Water and Wastewater method 2340B* and the *National Functional Guidelines for Inorganic Superfund Data Review (2014)*.

#### **VI.1. HOLDING TIMES**

The method analytical holding time for hardness by calculation, 6 months, was met.

#### **VI.2. CALIBRATION**

According to the laboratory case narrative, all ICP-AES instrument calibration criteria were met. Initial and continuing calibration verification recoveries met laboratory acceptance limits (90-110%), and the low level calibration check (CRQL) recoveries met laboratory acceptance limits (50-150%).



### **VI.3. QUALITY CONTROL SAMPLES**

#### **VI.3.1. METHOD BLANKS**

The method blank and calibration blanks had no detections for calcium or magnesium.

#### **VI.3.2. LABORATORY CONTROL SAMPLES**

Recoveries were within the laboratory control limits.

#### **VI.3.3. LABORATORY DUPLICATES**

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

#### **VI.3.4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

MS/MSD analyses were performed on the sample in this SDG, but were not assessed because the sample results for calcium and magnesium were > 4X the spike concentrations. No qualifications were applied to the sample result.

### **VI.4. SAMPLE RESULT VERIFICATION**

Calculations were verified and the sample results reported on the sample results summary were verified against the raw data. No transcription errors or calculation errors were noted. Reported nondetects are valid to the MDL.

### **VI.5. FIELD QC SAMPLES**

MEC<sup>X</sup> evaluated field QC samples were evaluated, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC<sup>X</sup> used the remaining detects to evaluate the associated site sample. 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**

Field duplicate samples were not identified in this SDG.

# Validated Sample Result Forms 4401476301

## Analysis Method E525.2

Sample Name ArroyoSimi\_20160517\_Grab Matrix Type: WS Result Type: TRG

Sample Date: 5/17/2016 7:00:00 AM Validation Level: 8

Lab Sample Name: 440-147630-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Chlorpyrifos	N	2921-88-2		0.99	0.49	ug/L	U	U	
Diazinon	N	333-41-5		0.25	0.12	ug/L	U	U	

## Analysis Method E608

Sample Name ArroyoSimi\_20160517\_Grab Matrix Type: WS Result Type: TRG

Sample Date: 5/17/2016 7:00:00 AM Validation Level: 8

Lab Sample Name: 440-147630-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
4,4'-DDD	N	72-54-8		0.0050	0.0040	ug/L	U	U	
4,4'-DDE	N	72-55-9		0.0050	0.0030	ug/L	U	U	
4,4'-DDT	N	50-29-3		0.010	0.0040	ug/L	U	U	
Aroclor-1016 (PCB-1016)	N	12674-11-2		0.50	0.25	ug/L	U	U	
Aroclor-1221 (PCB-1221)	N	11104-28-2		0.50	0.25	ug/L	U	U	
Aroclor-1232 (PCB-1232)	N	11141-16-5		0.50	0.25	ug/L	U	U	
Aroclor-1242 (PCB-1242)	N	53469-21-9		0.50	0.25	ug/L	U	U	
Aroclor-1248 (PCB-1248)	N	12672-29-6		0.50	0.25	ug/L	U	U	
Aroclor-1254 (PCB-1254)	N	11097-69-1		0.50	0.25	ug/L	U	U	
Aroclor-1260 (PCB-1260)	N	11096-82-5		0.50	0.25	ug/L	U	U	
Chlordane	N	57-74-9		0.10	0.080	ug/L	U	U	
Dieldrin	N	60-57-1		0.0050	0.0020	ug/L	U	U	
Toxaphene	N	8001-35-2		0.50	0.25	ug/L	U	U	

## Analysis Method SM2340

Sample Name ArroyoSimi\_20160517\_Grab Matrix Type: WS Result Type: TRG

Sample Date: 5/17/2016 7:00:00 AM Validation Level: 8

Lab Sample Name: 440-147630-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness as CaCO3	T	HARDNESS CACO3	610	0.33	0.17	mg/L			

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

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Tel: (949)261-1022

TestAmerica Job ID: 440-147630-1

Client Project/Site: Boeing NPDES SSFL outfalls

For:

Haley & Aldrich, Inc.

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Suite 300

San Diego, California 92108

Attn: Nancy Gardiner



Authorized for release by:

5/31/2016 6:31:36 PM

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

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

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I certify under penalty of perjury that the information contained in this report and all attachments was produced in accordance with the indicated methods and laboratory standard operating procedures, except as noted, and are complete and accurate to the best of my knowledge and belief. Subcontract laboratory reports that are attached have been evaluated for completeness and quality control acceptability.



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Urvashi Patel  
Manager of Project Management  
5/31/2016 6:31:36 PM





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# Sample Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

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Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-147630-1	ArroyoSimi_20160517_Grab	Water	05/17/16 07:00	05/17/16 17:45

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# Case Narrative

Client: Haley & Aldrich, Inc.  
Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

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**Job ID: 440-147630-1**

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**Laboratory: TestAmerica Irvine**

## Narrative

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**Job Narrative**  
**440-147630-1**

### Comments

No additional comments.

### Receipt

The samples were received on 5/17/2016 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.2° C and 3.3° C.

### GC/MS Semi VOA

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

### GC Semi VOA

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

### Metals

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

### Organic Prep

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

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# Client Sample Results

Client: Haley & Aldrich, Inc.  
 Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

**Client Sample ID: ArroyoSimi\_20160517\_Grab**

**Lab Sample ID: 440-147630-1**

**Date Collected: 05/17/16 07:00**

**Matrix: Water**

**Date Received: 05/17/16 17:45**

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND		0.99	0.49	ug/L		05/18/16 04:04	05/18/16 20:34	1
Diazinon	ND		0.25	0.12	ug/L		05/18/16 04:04	05/18/16 20:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,3-Dimethyl-2-nitrobenzene	99		70 - 130				05/18/16 04:04	05/18/16 20:34	1
Perylene-d12	90		70 - 130				05/18/16 04:04	05/18/16 20:34	1
Triphenylphosphate	128		70 - 130				05/18/16 04:04	05/18/16 20:34	1

## Method: 608 - Organochlorine Pesticides in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.10	0.080	ug/L		05/20/16 16:46	05/23/16 23:51	1
Dieldrin	ND		0.0050	0.0020	ug/L		05/20/16 16:46	05/23/16 23:51	1
Toxaphene	ND		0.50	0.25	ug/L		05/20/16 16:46	05/23/16 23:51	1
4,4'-DDD	ND		0.0050	0.0040	ug/L		05/20/16 16:46	05/23/16 23:51	1
4,4'-DDE	ND		0.0050	0.0030	ug/L		05/20/16 16:46	05/23/16 23:51	1
4,4'-DDT	ND		0.010	0.0040	ug/L		05/20/16 16:46	05/23/16 23:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	40		10 - 150				05/20/16 16:46	05/23/16 23:51	1

## Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.50	0.25	ug/L		05/20/16 16:46	05/21/16 14:45	1
Aroclor 1221	ND		0.50	0.25	ug/L		05/20/16 16:46	05/21/16 14:45	1
Aroclor 1232	ND		0.50	0.25	ug/L		05/20/16 16:46	05/21/16 14:45	1
Aroclor 1242	ND		0.50	0.25	ug/L		05/20/16 16:46	05/21/16 14:45	1
Aroclor 1248	ND		0.50	0.25	ug/L		05/20/16 16:46	05/21/16 14:45	1
Aroclor 1254	ND		0.50	0.25	ug/L		05/20/16 16:46	05/21/16 14:45	1
Aroclor 1260	ND		0.50	0.25	ug/L		05/20/16 16:46	05/21/16 14:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	51		29 - 115				05/20/16 16:46	05/21/16 14:45	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	610		0.33	0.17	mg/L			05/21/16 23:48	1

TestAmerica Irvine

# Method Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	TAL IRV
608	Organochlorine Pesticides in Water	40CFR136A	TAL IRV
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL IRV
SM 2340B	Total Hardness (as CaCO <sub>3</sub> ) by calculation	SM	TAL IRV

#### Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

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

#### Laboratory References:

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



# Lab Chronicle

Client: Haley & Aldrich, Inc.  
 Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

**Client Sample ID: ArroyoSimi\_20160517\_Grab**

**Lab Sample ID: 440-147630-1**

**Date Collected: 05/17/16 07:00**

**Matrix: Water**

**Date Received: 05/17/16 17:45**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	525.2			1015 mL	1 mL	331033	05/18/16 04:04	AP	TAL IRV
Total/NA	Analysis	525.2		1	1015 mL	1 mL	331093	05/18/16 20:34	MF	TAL IRV
Total/NA	Prep	608			1005 mL	2 mL	331856	05/20/16 16:46	VA	TAL IRV
Total/NA	Analysis	608		1	1005 mL	2 mL	332268	05/23/16 23:51	KS	TAL IRV
Total/NA	Prep	608			1005 mL	2 mL	331856	05/20/16 16:46	VA	TAL IRV
Total/NA	Analysis	608		1	1005 mL	2 mL	331918	05/21/16 14:45	JM	TAL IRV
Total Recoverable	Analysis	SM 2340B		1			331950	05/21/16 23:48	A1S	TAL IRV

**Laboratory References:**

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

# QC Sample Results

Client: Haley & Aldrich, Inc.  
 Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 440-331033/1-A**  
**Matrix: Water**  
**Analysis Batch: 331093**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 331033**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND		1.0	0.50	ug/L		05/18/16 04:04	05/18/16 10:53	1
Diazinon	ND		0.25	0.12	ug/L		05/18/16 04:04	05/18/16 10:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,3-Dimethyl-2-nitrobenzene	100		70 - 130	05/18/16 04:04	05/18/16 10:53	1
Perylene-d12	90		70 - 130	05/18/16 04:04	05/18/16 10:53	1
Triphenylphosphate	105		70 - 130	05/18/16 04:04	05/18/16 10:53	1

**Lab Sample ID: LCS 440-331033/2-A**  
**Matrix: Water**  
**Analysis Batch: 331093**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 331033**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chlorpyrifos	5.00	4.64		ug/L		93	70 - 130
Diazinon	5.00	4.77		ug/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	95		70 - 130
Perylene-d12	94		70 - 130
Triphenylphosphate	127		70 - 130

**Lab Sample ID: LCSD 440-331033/3-A**  
**Matrix: Water**  
**Analysis Batch: 331093**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 331033**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Chlorpyrifos	5.00	4.63		ug/L		93	70 - 130	0	30
Diazinon	5.00	4.04		ug/L		81	70 - 130	17	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	93		70 - 130
Perylene-d12	95		70 - 130
Triphenylphosphate	125		70 - 130

**Lab Sample ID: 440-147630-1 MS**  
**Matrix: Water**  
**Analysis Batch: 331093**

**Client Sample ID: ArroyoSimi\_20160517\_Grab**  
**Prep Type: Total/NA**  
**Prep Batch: 331033**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chlorpyrifos	ND		4.90	4.40		ug/L		90	70 - 130
Diazinon	ND		4.90	4.30		ug/L		88	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	95		70 - 130
Perylene-d12	92		70 - 130
Triphenylphosphate	121		70 - 130

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# QC Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

## Method: 525.2 - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: 440-147630-1 MSD**

**Matrix: Water**

**Analysis Batch: 331093**

**Client Sample ID: ArroyoSimi\_20160517\_Grab**

**Prep Type: Total/NA**

**Prep Batch: 331033**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Chlorpyrifos	ND		5.05	4.65		ug/L		92	70 - 130	6	30
Diazinon	ND		5.05	4.60		ug/L		91	70 - 130	7	30
<b>MSD MSD</b>											
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
1,3-Dimethyl-2-nitrobenzene	98		70 - 130								
Perylene-d12	91		70 - 130								
Triphenylphosphate	119		70 - 130								

## Method: 608 - Organochlorine Pesticides in Water

**Lab Sample ID: MB 440-331856/1-A**

**Matrix: Water**

**Analysis Batch: 332268**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 331856**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlordane (technical)	ND		0.10	0.080	ug/L		05/20/16 16:40	05/23/16 20:37	1
Dieldrin	ND		0.0050	0.0020	ug/L		05/20/16 16:40	05/23/16 20:37	1
Toxaphene	ND		0.50	0.25	ug/L		05/20/16 16:40	05/23/16 20:37	1
4,4'-DDD	ND		0.0050	0.0040	ug/L		05/20/16 16:40	05/23/16 20:37	1
4,4'-DDE	ND		0.0050	0.0030	ug/L		05/20/16 16:40	05/23/16 20:37	1
4,4'-DDT	ND		0.010	0.0040	ug/L		05/20/16 16:40	05/23/16 20:37	1
<b>MB MB</b>									
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>	
Tetrachloro-m-xylene	51		10 - 150			05/20/16 16:40	05/23/16 20:37	1	

**Lab Sample ID: LCS 440-331856/2-B**

**Matrix: Water**

**Analysis Batch: 332268**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 331856**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Dieldrin	0.200	0.138		ug/L		69	51 - 117	
4,4'-DDD	0.200	0.163		ug/L		82	53 - 126	
4,4'-DDE	0.200	0.141		ug/L		70	48 - 115	
4,4'-DDT	0.200	0.150		ug/L		75	10 - 150	
<b>LCS LCS</b>								
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>					
Tetrachloro-m-xylene	60		10 - 150					

**Lab Sample ID: 440-147630-1 MS**

**Matrix: Water**

**Analysis Batch: 332268**

**Client Sample ID: ArroyoSimi\_20160517\_Grab**

**Prep Type: Total/NA**

**Prep Batch: 331856**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
Dieldrin	ND		0.194	0.141		ug/L		72	50 - 120	
4,4'-DDD	ND		0.194	0.167		ug/L		86	50 - 125	
4,4'-DDE	ND		0.194	0.135		ug/L		70	45 - 125	
4,4'-DDT	ND		0.194	0.124		ug/L		64	50 - 125	

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# QC Sample Results

Client: Haley & Aldrich, Inc.  
Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	59		10 - 150

Lab Sample ID: 440-147630-1 MSD

Matrix: Water  
Analysis Batch: 332268

Client Sample ID: ArroyoSimi\_20160517\_Grab

Prep Type: Total/NA  
Prep Batch: 331856

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dieldrin	ND		0.196	0.140		ug/L		71	50 - 120	0	30
4,4'-DDD	ND		0.196	0.163		ug/L		83	50 - 125	2	30
4,4'-DDE	ND		0.196	0.142		ug/L		72	45 - 125	4	30
4,4'-DDT	ND		0.196	0.126		ug/L		64	50 - 125	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	58		10 - 150

## Method: 608 - Polychlorinated Biphenyls (PCBs) (GC)

Lab Sample ID: MB 440-331856/1-A

Matrix: Water  
Analysis Batch: 331918

Client Sample ID: Method Blank

Prep Type: Total/NA  
Prep Batch: 331856

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.50	0.25	ug/L		05/20/16 16:40	05/21/16 10:45	1
Aroclor 1221	ND		0.50	0.25	ug/L		05/20/16 16:40	05/21/16 10:45	1
Aroclor 1232	ND		0.50	0.25	ug/L		05/20/16 16:40	05/21/16 10:45	1
Aroclor 1242	ND		0.50	0.25	ug/L		05/20/16 16:40	05/21/16 10:45	1
Aroclor 1248	ND		0.50	0.25	ug/L		05/20/16 16:40	05/21/16 10:45	1
Aroclor 1254	ND		0.50	0.25	ug/L		05/20/16 16:40	05/21/16 10:45	1
Aroclor 1260	ND		0.50	0.25	ug/L		05/20/16 16:40	05/21/16 10:45	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	54		29 - 115	05/20/16 16:40	05/21/16 10:45	1

Lab Sample ID: LCS 440-331856/9-A

Matrix: Water  
Analysis Batch: 332359

Client Sample ID: Lab Control Sample

Prep Type: Total/NA  
Prep Batch: 331856

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	5.00	3.56		ug/L		71	50 - 115
Aroclor 1260	5.00	3.73		ug/L		75	10 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	76		29 - 115

Lab Sample ID: 440-147630-1 MS

Matrix: Water  
Analysis Batch: 331918

Client Sample ID: ArroyoSimi\_20160517\_Grab

Prep Type: Total/NA  
Prep Batch: 331856

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		4.85	2.83		ug/L		58	45 - 120
Aroclor 1260	ND		4.85	2.89		ug/L		60	55 - 125

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# QC Sample Results

Client: Haley & Aldrich, Inc.  
 Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

## Method: 608 - Polychlorinated Biphenyls (PCBs) (GC) (Continued)

**Lab Sample ID: 440-147630-1 MS**  
**Matrix: Water**  
**Analysis Batch: 331918**

**Client Sample ID: ArroyoSimi\_20160517\_Grab**  
**Prep Type: Total/NA**  
**Prep Batch: 331856**

<i>Surrogate</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
<i>DCB Decachlorobiphenyl (Surr)</i>	63		29 - 115

**Lab Sample ID: 440-147630-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 331918**

**Client Sample ID: ArroyoSimi\_20160517\_Grab**  
**Prep Type: Total/NA**  
**Prep Batch: 331856**

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i> <i>Result</i>	<i>MSD</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>	<i>RPD</i>	<i>RPD</i> <i>Limit</i>
Aroclor 1016	ND		5.00	2.43		ug/L		49	45 - 120	15	30
Aroclor 1260	ND		5.00	2.81		ug/L		56	55 - 125	3	25

<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
<i>DCB Decachlorobiphenyl (Surr)</i>	57		29 - 115



# QC Association Summary

Client: Haley & Aldrich, Inc.  
 Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

## GC/MS Semi VOA

### Prep Batch: 331033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147630-1	ArroyoSimi_20160517_Grab	Total/NA	Water	525.2	
440-147630-1 MS	ArroyoSimi_20160517_Grab	Total/NA	Water	525.2	
440-147630-1 MSD	ArroyoSimi_20160517_Grab	Total/NA	Water	525.2	
LCS 440-331033/2-A	Lab Control Sample	Total/NA	Water	525.2	
LCS 440-331033/3-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MB 440-331033/1-A	Method Blank	Total/NA	Water	525.2	

### Analysis Batch: 331093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147630-1	ArroyoSimi_20160517_Grab	Total/NA	Water	525.2	331033
440-147630-1 MS	ArroyoSimi_20160517_Grab	Total/NA	Water	525.2	331033
440-147630-1 MSD	ArroyoSimi_20160517_Grab	Total/NA	Water	525.2	331033
LCS 440-331033/2-A	Lab Control Sample	Total/NA	Water	525.2	331033
LCS 440-331033/3-A	Lab Control Sample Dup	Total/NA	Water	525.2	331033
MB 440-331033/1-A	Method Blank	Total/NA	Water	525.2	331033

## GC Semi VOA

### Prep Batch: 331856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147630-1	ArroyoSimi_20160517_Grab	Total/NA	Water	608	
440-147630-1 MS	ArroyoSimi_20160517_Grab	Total/NA	Water	608	
440-147630-1 MS	ArroyoSimi_20160517_Grab	Total/NA	Water	608	
440-147630-1 MSD	ArroyoSimi_20160517_Grab	Total/NA	Water	608	
440-147630-1 MSD	ArroyoSimi_20160517_Grab	Total/NA	Water	608	
LCS 440-331856/2-B	Lab Control Sample	Total/NA	Water	608	
LCS 440-331856/9-A	Lab Control Sample	Total/NA	Water	608	
MB 440-331856/1-A	Method Blank	Total/NA	Water	608	

### Analysis Batch: 331918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147630-1	ArroyoSimi_20160517_Grab	Total/NA	Water	608	331856
440-147630-1 MS	ArroyoSimi_20160517_Grab	Total/NA	Water	608	331856
440-147630-1 MSD	ArroyoSimi_20160517_Grab	Total/NA	Water	608	331856
MB 440-331856/1-A	Method Blank	Total/NA	Water	608	331856

### Analysis Batch: 332268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147630-1	ArroyoSimi_20160517_Grab	Total/NA	Water	608	331856
440-147630-1 MS	ArroyoSimi_20160517_Grab	Total/NA	Water	608	331856
440-147630-1 MSD	ArroyoSimi_20160517_Grab	Total/NA	Water	608	331856
LCS 440-331856/2-B	Lab Control Sample	Total/NA	Water	608	331856
MB 440-331856/1-A	Method Blank	Total/NA	Water	608	331856

### Analysis Batch: 332359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-331856/9-A	Lab Control Sample	Total/NA	Water	608	331856

# QC Association Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

## Metals

### Analysis Batch: 331950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-147630-1	ArroyoSimi_20160517_Grab	Total Recoverable	Water	SM 2340B	

1

2

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# Definitions/Glossary

Client: Haley & Aldrich, Inc.  
Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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)

# Certification Summary

Client: Haley & Aldrich, Inc.  
Project/Site: Boeing NPDES SSFL outfalls

TestAmerica Job ID: 440-147630-1

## Laboratory: TestAmerica Irvine

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-16
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16
Nevada	State Program	9	CA015312016-2	07-31-16
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

\* Certification renewal pending - certification considered valid.

TestAmerica Irvine

**CHAIN OF CUSTODY FORM**

<p><b>Client Name/Address:</b> Haley &amp; Aldrich 9040 Friars Road Suite 220 San Diego, CA 92108-5860</p> <p><b>Test America Contact:</b> Unvashi Patel 17461 Derian Ave Suite #100 Irvine CA 92614 Tel 949-260-3269 Cell 949-333-9055</p>	<p><b>Project:</b> Boeing-SSFL NPDES Permit 2015 Quarterly Arroyo Simi-Frontier Park Dry Weather</p>	<p><b>Field Readings:</b> (Include units) Meter serial # <b>WK7 RS9L</b></p> <p><b>Time of Readings:</b> <b>0745</b></p> <p>pH <u>6.56</u> pH unit Temp <u>16.99</u> °C/F</p>																																																	
<p><b>Sampler:</b> Dan Smith / Ryan Bacon</p>	<p><b>Project Manager:</b> Nancy Gardiner 619.285.7132, 858.337.4061 (cell)</p> <p><b>Field Manager:</b> Mark Dominick 818.350.7312, 818.599.0702 (cell)</p>																																																		
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Sample I.D.</th> <th style="width:15%;">Sampling Date/Time</th> <th style="width:10%;">Sample Matrix</th> <th style="width:10%;">Container Type</th> <th style="width:5%;"># of Cont.</th> <th style="width:10%;">Preservative</th> <th style="width:5%;">Bottle #</th> <th style="width:10%;">MS/MSD</th> <th style="width:15%;">ANALYSIS REQUIRED</th> </tr> </thead> <tbody> <tr> <td>ArroyoSimi_20160517_Grab</td> <td>5/17/2016 / 0700</td> <td>WS</td> <td>250 mL Poly</td> <td>3</td> <td>HNO<sub>3</sub></td> <td>100</td> <td>Yes</td> <td>Hardness as CaCO<sub>3</sub>, Recoverable (SM2340B)</td> </tr> <tr> <td rowspan="3">ArroyoSimi_20160517_Extra</td> <td rowspan="3">5/17/2016 / 0700</td> <td>WS</td> <td>1L Glass Amber</td> <td>6</td> <td>HCl</td> <td>275</td> <td>Yes</td> <td>Chlorophytos, Diazinon (E525.2)</td> </tr> <tr> <td>WS</td> <td>1L Glass Amber</td> <td>6</td> <td>None</td> <td>285</td> <td>Yes</td> <td>Pesticides: Chlordane, 4'-DD, 4'-DDE, 4'-DDT, Dieldrin, Toxaphene + PCBs only (E608)</td> </tr> <tr> <td>WS</td> <td>1L Glass Amber</td> <td>2</td> <td>HCl</td> <td>275</td> <td>No</td> <td></td> </tr> <tr> <td>WS</td> <td>1L Glass Amber</td> <td>2</td> <td>None</td> <td>285</td> <td>No</td> <td></td> <td></td> </tr> </tbody> </table>	Sample I.D.	Sampling Date/Time	Sample Matrix	Container Type	# of Cont.	Preservative	Bottle #	MS/MSD	ANALYSIS REQUIRED	ArroyoSimi_20160517_Grab	5/17/2016 / 0700	WS	250 mL Poly	3	HNO <sub>3</sub>	100	Yes	Hardness as CaCO <sub>3</sub> , Recoverable (SM2340B)	ArroyoSimi_20160517_Extra	5/17/2016 / 0700	WS	1L Glass Amber	6	HCl	275	Yes	Chlorophytos, Diazinon (E525.2)	WS	1L Glass Amber	6	None	285	Yes	Pesticides: Chlordane, 4'-DD, 4'-DDE, 4'-DDT, Dieldrin, Toxaphene + PCBs only (E608)	WS	1L Glass Amber	2	HCl	275	No		WS	1L Glass Amber	2	None	285	No			<p><b>Field readings QC</b> Checked by: <b>DK</b> Date/Time: <b>5/17/16; 0745</b></p> <p><b>Comments</b></p>	
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<p><b>Relinquished By:</b> Danielle Kerper <i>Danielle Kerper</i> Date/Time: 5/17/16 0825 Company: Haley &amp; Aldrich</p> <p><b>Relinquished By:</b> Dan Smith <i>Dan Smith</i> Date/Time: 5/17/16 1410 Company: SHI</p> <p><b>Relinquished By:</b> Ryan Bacon <i>Ryan Bacon</i> Date/Time: 5/17/16 1745 Company: TFI</p>	<p><b>Received By:</b> Daniel Smith <i>Daniel Smith</i> Date/Time: 5/17/16 0825 Received By: RL Date/Time: 5/17/16 1410 Received By: Rachel Date/Time: 05/17/16 1745</p>																																																		
<p><b>Turn-around time: (Check)</b> 24 Hour: _____ 72 Hour: _____ 10 Day: _____ 48 Hour: _____ 5 Day: _____ Normal: <input checked="" type="checkbox"/></p> <p><b>Sample integrity: (Check)</b> Intact: _____ On Ice: <input checked="" type="checkbox"/></p> <p><b>Data Requirements: (Check)</b> No Level IV: _____ All Level IV: <input checked="" type="checkbox"/></p>		<p> 440-147630 Chain of Custody</p>																																																	

*DK77 3.6 / 3.3 2.5 / 2.2*



## Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-147630-1

**Login Number: 147630**

**List Source: TestAmerica Irvine**

**List Number: 1**

**Creator: Soderblom, Tim**

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





**APPENDIX E**

**Bioassessment Sampling Report**

Date: May 19<sup>th</sup>, 2016

To: Katherine Miller  
Haley & Aldrich  
600 South Meyer Avenue, Suite 100  
Tucson, AZ 85701-2554

From: Scott Johnson  
Laboratory Director  
Aquatic Bioassay and Consulting Laboratories  
29 N. Olive St.  
Ventura, CA 93001



**RE: BIOASSESSMENT SAMPLING FOR THE BOEING COMPANY AT THE SANTA SUSANA FIELD LABORATORY (2016)**

The Bioassessment Sampling and Analysis Plan for The Boeing Company at the Santa Susana Field Laboratory (SSFL) specifies that spring/summer bioassessment sampling occur from four to six weeks following the last major storm event of the 2016 rain season. This time period was established by, and is included in, the state-wide bioassessment protocols established by the State of California's Surface Water Ambient Monitoring Program (SWAMP 2007). Flowing water through a stream reach over this period of time is necessary for the aquatic benthic macroinvertebrate (BMI) community that might reside there to become established and ensures that valid BMI samples will be collected.

The 2015 to 2016 rain year was characterized by extreme drought conditions with a total of 11.97 inches of rain falling between July 2015 and May 2016. The last storm with significant rainfall occurred on May 6<sup>th</sup> (total = 0.77 inches) with trace rain falling on May 9<sup>th</sup> (Figure 1). On May 18<sup>th</sup>, 2016, almost two weeks after the last small rain event, the two NPDES permitted sites on the SSFL were visited by Aquatic Bioassay and Consulting Laboratory Biologists to determine if bioassessment samples could be collected. Neither SSFL-001 nor SSFL-006 had flow and both were completely dry across their entire reaches (see photos).

If you have any questions regarding this memo or future sampling plans please contact me directly.

Sincerely,

Scott Johnson  
Laboratory Director  
805 643 5621 x 11



### SSFL Rainfall (May 2015 thru May 18th, 2016)

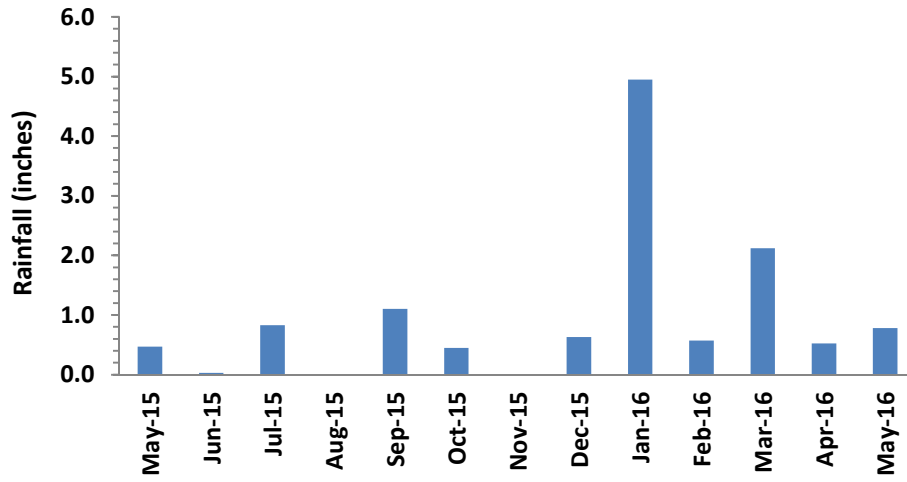


Figure 1. Rainfall (inches) measured May, 2015 thru May 18<sup>th</sup>, 2016 on SSFL.



Figure 2. Photos taken downstream and upstream of each permitted discharge point from the SSFL property (2016).



SSFL-001, downstream



SSFL-001, upstream



SSFL-006, downstream



SSFL-006, upstream



**APPENDIX F**

**Stormwater Pollution Prevention Plan  
Annual Evaluation Report**

## APPENDIX F

### STORMWATER POLLUTION PREVENTION PLAN ANNUAL EVALUATION REPORT REPORTING YEAR JULY 1, 2015 – JUNE 30, 2016

This Stormwater Pollution Prevention Plan (SWPPP) Annual Evaluation Report (Report) was prepared for The Boeing Company (Boeing) Santa Susana Field Laboratory (Site), located in Simi Hills, Ventura County, California in general accordance with Attachment G (Section IX.D.) of the Site's Waste Discharge Requirements (National Pollutant Discharge Elimination System [NPDES] Permit No. CA0001309, CI No. 6027). This Report evaluates compliance with the Site-Wide SWPPP during reporting year July 1, 2015 – June 30, 2016. The Annual Comprehensive Site Compliance Evaluation (Annual Evaluation) was conducted by Haley & Aldrich team Qualified SWPPP Developers (QSDs) (Danielle Kerper and Chris Pendroy) on May 17 and 18, 2016.

The Los Angeles Regional Water Quality Control Board (Regional Board) adopted the 2015 NPDES Permit No. R4-2015-0033 on February 12, 2015, effective April 1, 2015, to revise the existing 2010 NPDES Permit No. R4-2010-0090. A revised SWPPP was submitted to the Regional Board in accordance with the terms of the new 2015 Permit on June 30, 2015.

#### **Review of Visual Observations Records and Sampling and Analysis Results**

The QSDs reviewed all inspection forms that documented inspections/visual observations for reporting year July 1, 2015 – June 30, 2016; each inspection form was complete. A process exists for non-compliance items to be properly evaluated and adjusted to correct these items.

Sampling and analysis results are evaluated in each quarterly discharge monitoring report.

#### **Potential Pollutant Source Visual Inspection**

Visual inspections at the Site were conducted during reporting year July 1, 2015 – June 30, 2016 at buildings, equipment, and surrounding areas to evaluate if any pollutant sources exist. Areas where known potential pollutants exist have Best Management Practices (BMPs) implemented to minimize and/or eliminate the potential for pollutant releases. No other areas were observed to require additional BMPs.

#### **Best Management Practice Review**

As noted above, the Site was inspected throughout reporting year July 1, 2015 – June 30, 2016. As a result, BMPs were reviewed and evaluated to see if they were adequate, properly implemented and maintained, or whether additional BMPs were required. Items that required repair, upgrades, and/or maintenance were identified on the inspection forms. Subsequent inspections noted the date corrective actions were completed.

Boeing also completed SWPPP reviews, updates, and inspections in accordance with Site and project-specific SWPPPs and BMP Plans. These documents, which are maintained per regulatory requirements, will be updated in August 2016 to document Boeing's proactive efforts to mitigate and minimize the potential for sediments, constituents, or on-Site activities to impact surface water. Boeing's continued effort to improve and upgrade BMPs at the Site demonstrates their commitment to address previous exceedances and improve surface water discharge quality as indicated in the quarterly discharge monitoring reports.

## APPENDIX F

### STORMWATER POLLUTION PREVENTION PLAN ANNUAL EVALUATION REPORT REPORTING YEAR JULY 1, 2015 – JUNE 30, 2016

#### **SWPPP Revisions and Schedule**

As noted above, the 2015 Permit was adopted on February 12, 2015, and became effective on April 1, 2015. The Site-Wide SWPPP was updated in accordance with the terms of the 2015 Permit and submitted to the Regional Board on June 30, 2015. Version 2 of the SWPPP will be completed in August 2016 based on observations made during the Annual Evaluation. Revisions include:

- Updated signatory for the certification statement;
- Updated Pollution Prevention Team (section 1.4);
- Clarification of authorized non-stormwater discharges (sections 2.12 and 3.1.3);
- Updated Northern Drainage text (section 2.13.1);
- Updated website where copies of the DMR can be found (section 3.3);
- Clarification of the inspection schedule (section 4.2.8);
- Updated figures;
- Updated BMP Plan (Appendix B);
- Updated Significant Materials Inventory (Appendix C);
- Updated Amendment to the SPRP (Appendix E); and
- Updated inspection form (Appendix F).

#### **Non-Compliance Incidents and Corrective Actions Taken**

Non-compliance issues and corrective actions are listed in the discharge monitoring reports. Minor recommendations including vegetation removal and secondary containment were noted as a result of the Annual Evaluation conducted in May 2016. SWPPP Training for Key Personnel was completed in September 2015.