

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:
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
  2. APTF = ADVANCED PROPULSION TEST FACILITY
  3. DOE = DEPARTMENT OF ENERGY
  4. ELV = EXPENDABLE LAUNCH VEHICLE
  5. IEL = INSTRUMENT AND EQUIPMENT LABORATORIES
  6. ISRA = INTERIM SOURCE REMOVAL ACTION
  7. LOX = LIQUID OXYGEN
  8. NASA = NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
  9. RMMP = RESTORATION MITIGATION MONITORING PLAN
  10. SPA = STORABLE PROPELLANT AREA
  11. SWTS = STORM WATER TREATMENT SYSTEM

**LEGEND**

ACTIVE NPDES OUTFALL LOCATION	ISRA PERFORMANCE MONITORING LOCATION	CHECK STRUCTURE - MOSTLY NATURAL SANDSTONE, SOME RIP RAP	DRAINAGE	ISRA EXCAVATION BOUNDARY	EXISTING BUILDING/STRUCTURE
FORMER NPDES OUTFALL LOCATION	BMP MONITORING LOCATION	CHECK STRUCTURE - RIP RAP	ASPHALT SWALE	VEHICLE PARKING AREA	FORMER BUILDING FOOTPRINT
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	IEL STUDY AREA		25' ELEVATION CONTOUR	SURFACE WATER POND	

**HALEY ALDRICH**

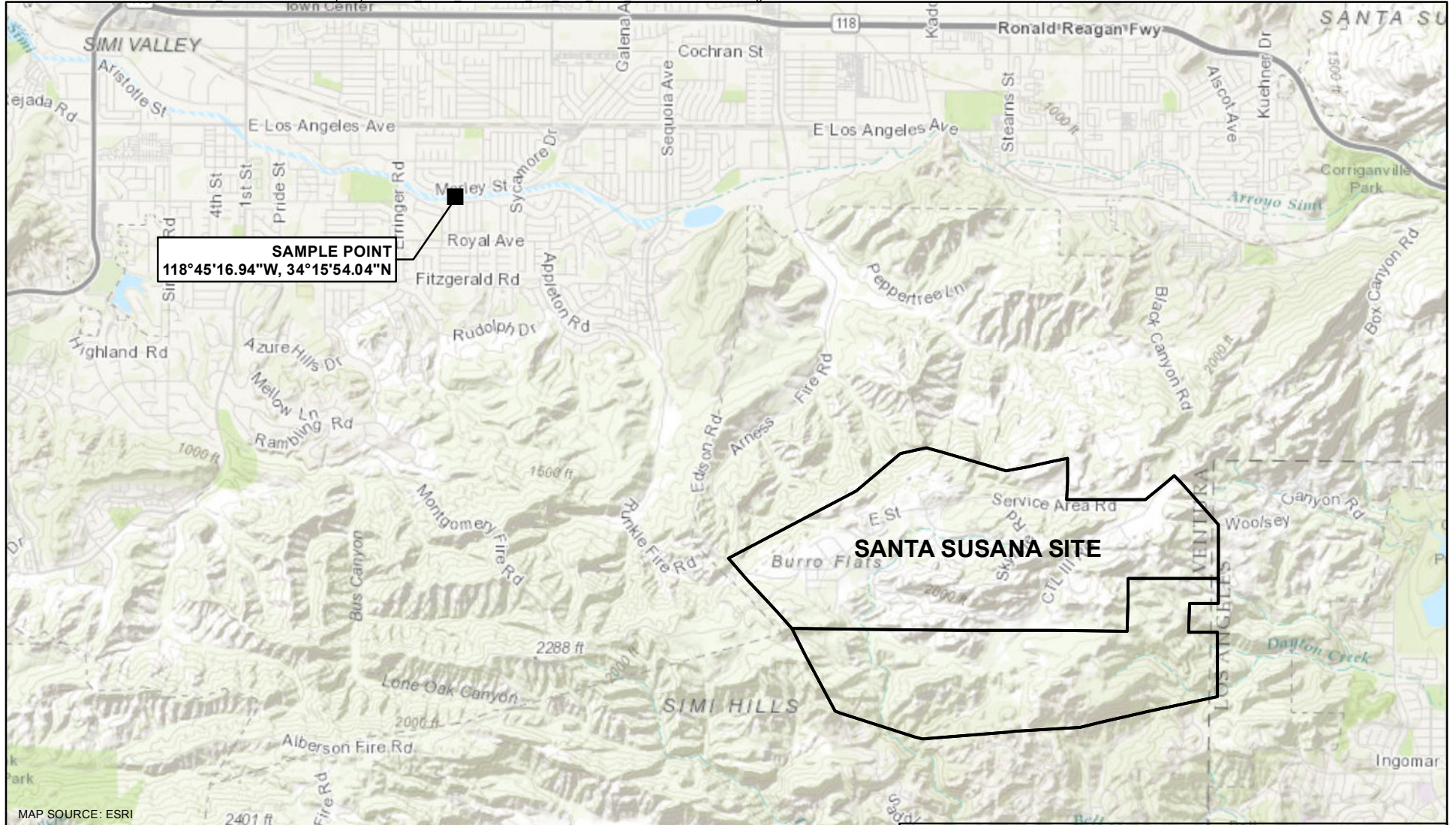
NPDES PERMIT COMPLIANCE THIRD QUARTER 2016  
DISCHARGE MONITORING REPORT  
THE BOEING COMPANY  
VENTURA COUNTY, CALIFORNIA

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

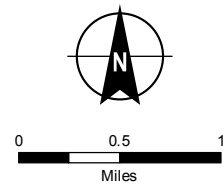
NOVEMBER 2016 FIGURE 1

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MAP SOURCE: ESRI



**HALEY  
ALDRICH**

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

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

NOVEMBER 2016

FIGURE 2

**APPENDIX A**

**Third Quarter 2016 Rainfall Data Summary**



**TABLE A  
DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY  
NPDES PERMIT CA0001309**

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

**HOUR OF THE DAY**

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Total		
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	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p
	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	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p
	29	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p
	30	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p
	31	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p	0.00p

Flags: p = Power failure, invalid hour. The onsite B1436 rain gauge confirmed that no rainfall was recorded.

**TABLE A  
DAILY RAINFALL SUMMARY**

**THE BOEING COMPANY  
NPDES PERMIT CA0001309**

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

**HOOR OF THE DAY**

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

Flags: p = Power failure, invalid hour. The onsite B1436 rain gauge confirmed that no rainfall was recorded.

**APPENDIX B**

**Third Quarter 2016 Waste Shipment Summary Tables**

**TABLE B  
LIQUID WASTE SHIPMENTS**

**THIRD 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
7/1/2016	009767805FLE	HAZARDOUS WASTE, LIQUID (CHROMIUM, TETRACHLOROETHYLENE)	866	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
		HAZARDOUS WASTE, LIQUID (CHROMIUM, TETRACHLOROETHYLENE)	308	P				
		HAZARDOUS WASTE, LIQUID (TRICHLOROETHYLENE)	5	P				
		NON-RCRA HAZARDOUS WASTE, LIQUIDS (IRON REAGENT, WATER)	55	P				
	009767806FLE	WASTE CORROSIVE LIQUID, ACIDIC, INORGANIC (SULFURIC ACID, HYDROCHLORIC ACID)	10	P		n/a	Clean Harbors Wilmington LLC 1737 East Denni Street Wilmington, CA 90744	
		NON-RCRA HAZARDOUS WASTE, LIQUIDS (FORMALDAHYDE, POTASSIUM HYDROGEN PHTHALATE)	5	P				
AA1562	NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	211	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	Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls Grantsville, UT 34029		
	NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	4,848	P					
7/13/2016	014500308JJK	HAZARDOUS WASTE, LIQUID (TRICHLOROETHYLENE)	800	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
7/20/2016	014500309JJK	HAZARDOUS WASTE, LIQUID (TRICHLOROETHYLENE)	825	G				
7/22/2016	009919552FLE	HAZARDOUS WASTE, LIQUID (TRICHLOROETHYLENE)	990	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 - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029
	AA1727	NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	5,328	P				
		NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	30	P				
8/5/2016	AA1845	NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	218	P	n/a			
		NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	1,772	P				
		NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	1,675	P				



**TABLE B  
LIQUID WASTE SHIPMENTS**

**THIRD 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
8/5/2016	009919698FLE	WASTE POTASSIUM PERMANGANATE	1,801	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029
		WASTE CORROSIVE LIQUID, BASIC, INORGANIC (LIME AND CONCRETE)	173	P				
		HAZARDOUS WASTE, LIQUID (CHROMIUM, TETRACHLOROETHYLENE)	742	P				
	009919702FLE	WASTE PENTACHLOROPHENOL	30	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
8/29/2016	009918929FLE	WASTE CORROSIVE LIQUID, BASIC, INORGANIC (LIME AND CONCRETE)	99	P		n/a	n/a	Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029
		HAZARDOUS WASTE, LIQUID (CHROMIUM, TETRACHLOROETHYLENE)	507	P				
		HAZARDOUS WASTE, LIQUID (TRICHLOROETHYLENE)	1,285	P				
	009918930FLE	NON-RCRA HAZARDOUS WASTE, LIQUIDS (SODIUM HYDROXIDE, WATER)	165	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	
	AA2068	NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	5,186	P		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 (WATER)	3,920	P				
9/20/2016	AA2270	NON HAZARDOUS, NON D.O.T. REGULATED (WATER)	403	P	n/a	n/a	Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029	
	009919146FLE	HAZARDOUS WASTE, LIQUID (CHROMIUM, TETRACHLOROETHYLENE)	1,447	P				

**TABLE B  
LIQUID WASTE SHIPMENTS**

**THIRD 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
7/12/2016	14673	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G	Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058	n/a	n/a	Southwest Processors, Inc. 4120 Bandini Boulevard Vernon, CA 90058
	14672	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G				
7/26/2016	14742	FLUSH WATER W/ TRACE SEWAGE	5,000	G				
	14743	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G				
8/9/2016	14823	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G				
	14824	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G				
8/23/2016	14894	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G				
	14895	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G				
9/6/2016	14960	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G				
	14961	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G				
9/13/2016	15007	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G				
9/21/2016	14973	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G				
	14974	FLUSH WATER W/ TRACE SEWAGE (HOLDING TANK)	5,000	G				

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

**TABLE B  
SOLID WASTE SHIPMENTS**

**THIRD 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
7/1/2016	009767805FLE	ENVIRONMENTALLY HAZARDOUS WASTE, SOLID (TRICHLOROETHYLENE, PERCHLOROETHYLENE)	5	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)	115	P				Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knotts Grantsville, UT 34029
	009767806FLE	NON-RCRA HAZARDOUS WASTE, SOLID (DEBRIS, OIL)	45	P		n/a	Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029	
	AA1562	NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEBRIS WITH SODIUM CHLORIDE)	48	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	Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knotts Grantsville, UT 34029
NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEBRIS WITH SODIUM CHLORIDE)		250	P	Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029				
7/22/2016	009919552FLE	ENVIRONMENTALLY HAZARDOUS WASTE, SOLID (TRICHLOROETHYLENE, PERCHLOROETHYLENE)	86	P		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
	AA1727	NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEBRIS WITH SODIUM CHLORIDE)	207	P				Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029
7/25/2016	009919550FLE	HAZARDOUS WASTE, SOLID (TRICHLOROETHYLENE)	5,176	P		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
8/2/2016	AA1826	NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (SOIL)	28,060	P				n/a
8/3/2016	AA1840	NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (SOIL)	16,850	P		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
8/5/2016	AA1845	NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEMOLITION DEBRIS)	212	P				Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061
		NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (CONCRETE)	219	P		Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029		
8/5/2016	009919698FLE	WASTE MAGNESIUM ALLOYS, POWDER	20	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029
		ENVIRONMENTALLY HAZARDOUS WASTE, SOLID (TRICHLOROETHYLENE, PERCHLOROETHYLENE)	54	P				
		NON-RCRA HAZARDOUS WASTE, SOLID (PLASTIC, DEBRIS)	7	P				
		NON-RCRA HAZARDOUS WASTE, SOLID (POTASSIUM PERMANGANATE RESIDUE)	69	P				
	009919702FLE	NON-RCRA HAZARDOUS WASTE, SOLIDS (TONER CARTRIDGES)	19	P		Safety-Kleen Systems, Inc. 2600 N Central Expressway, Ste. 400 Richardson, TX 75080	n/a	Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029
		NON-RCRA HAZARDOUS WASTE, SOLID (DEBRIS, OIL)	35	P				

**TABLE B  
SOLID WASTE SHIPMENTS**

**THIRD 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
8/29/2016	009918929FLE	HAZARDOUS WASTE, SOLID (TRICHLOROETHYLENE SOIL)	96	P	Clean Harbors Environmental Services, Inc. 42 Longwater Drive Norwell, MA 02061	n/a	n/a	Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029
	AA2068	NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEMOLITION DEBRIS)	119	P		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 Knotts Grantsville, UT 34029
9/20/2016	AA2270	NON HAZARDOUS, NON D.O.T. REGULATED MATERIAL (DEMOLITION DEBRIS)	97	P		n/a	n/a	Clean Harbors - Aragonite LLC 11600 North Aptus Road Grantsville, UT 34029
9/20/2016	009919146FLE	HAZARDOUS WASTE, SOLID (ACETONE, TETRALOROETHYLENE)	41	P				

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

**APPENDIX C**

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



ARROYO SIMI (FRONTIER PARK RECEIVING WATER)

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

July 1 through September 30, 2016

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	SAMPLE FREQUENCY	08/17/2016		
				SAMPLE TYPE	RESULT	VALIDATION QUALIFIER
<b>POLLUTANTS WITH LIMITS</b>						
4,4'-DDD	ug/L	0.0014/-	1/Quarter	Grab	ND < 0.0039	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 < 0.0039	UJ (Q)
Aroclor 1016	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	UJ (S,Q)
Aroclor 1221	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	UJ (S,Q)
Aroclor 1232	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	UJ (S,Q)
Aroclor 1242	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	UJ (S,Q)
Aroclor 1248	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	UJ (S,Q)
Aroclor 1254	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	UJ (S,Q)
Aroclor 1260	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	UJ (S,Q)
Chlordane	ug/L	0.001/-	1/Quarter	Grab	ND < 0.079	U
Chlorpyrifos	ug/L	0.02/-	1/Quarter	Grab	ND < 0.49	U
Diazinon	ug/L	0.16/-	1/Quarter	Grab	ND < 0.12	UJ (H)
Dieldrin	ug/L	0.0002/-	1/Quarter	Grab	ND < 0.0020	UJ (Q)
E. Coli	MPN/100 ml	235/-	1/Year	Grab	ANR	ANR
pH (Field)	s.u.	6.5-8.5/-	1/Quarter	Grab	7.72	*
Toxaphene	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.25	U
<b>POLLUTANTS WITHOUT LIMITS</b>						
Hardness	mg/L	-/-	1/Quarter	Grab	670	--
Temperature (Field)	deg F	-/-	1/Quarter	Grab	66.90	*
Total Suspended Solids	mg/L	-/-	1/Year	Grab	ANR	ANR
Water Velocity	ft/sec	-/-	1/Quarter	Meas	0.0	*

**APPENDIX D**

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

## **APPENDIX D**

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- 2 Arroyo Simi – 440-155882-1, August 17, 2016, TestAmerica Analytical Laboratory

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**DATA VALIDATION REPORT**

**Boeing SSFL NPDES**

**SAMPLE DELIVERY GROUP: 440-155882-1**

**Prepared for**

Haley & Aldrich, Inc.

600 South Meyer Avenue, Suite 100

Tucson, Arizona 85701

**September 30, 2016**

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

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





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- 1 – Sample Identification
- 2 – Data Qualifier Reference
- 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:** 440-155882-1

**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
Arroyo_Simi_20160817_Grab	440-155882-1	N/A	Water	8/17/2016 8:40:00 AM	E525.2, E608, SM2340



## II. SAMPLE MANAGEMENT

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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) 440-155882-1:

- 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 September 12, 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 control limits. Chlordane and toxaphene were not spiked in the pesticide LCS.

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

Pesticide surrogate tetrachloro-m-xylene (TCMX) was recovered within the laboratory control limits of 10-150%. PCB surrogate decachlorobiphenyl (DCB) was recovered below the control limits of 29-115% in sample ArroyoSimi\_20160817\_Grab at 22%. Aroclor sample results, all nondetects, were qualified as estimated (UJ).

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

Matrix spike (MS)/MS duplicate (MSD) analyses were performed on sample ArroyoSimi\_20160817\_Grab for pesticides and PCBs. Chlordane and toxaphene were not spiked in the pesticide MS/MSD. Dieldrin was recovered below the control limits of 50-120% at 48% in the MS and at 49.9% in the MSD (although rounded to 50% by the lab). Based upon professional judgement, dieldrin was qualified. Recoveries for 4,4'-DDT in the MS and MSD were below the control limits of 50-125% at 47% and 48%, respectively. The parent sample results for dieldrin and 4,4'-DDT were qualified as estimated (UJ). Aroclor 1016 and Aroclor 1260 were recovered below the control limits of 45-120% and 55-125% respectively in the MS (35% and 40%) and the MSD (42% and 43%). All Aroclors were qualified as estimated (UJ). Remaining recoveries and all 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 September 12, 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

The extraction holding time was not met. According to the case narrative for this SDG, the water sample was received with insufficient time remaining of the 24-hour extraction holding time for diazinon. The sample was extracted approximately five hours past the holding time. The nondetected result for diazinon was qualified as estimated (UJ).

#### 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  $\%RSD \leq 30\%$  or  $r^2 \geq 0.990$ . The ICV and CCV RRFs were  $\geq 0.05$  and recoveries were within the method control limits of 70-130%.

#### V.3. QUALITY CONTROL SAMPLES

##### V.3.1. METHOD BLANKS

Target compounds were not detected in the method blanks.



### 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

Surrogate triphenylphosphate was recovered marginally above the control limits at 131%. As the sample had no detects, qualification was not necessary. Remaining recoveries were within the laboratory 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\_20160817\_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 September 12, 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 and calibration summary, 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 of sufficient quantity to cause qualification of site sample results.

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

Recoveries were within the laboratory control limits of 85-115%.

##### **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 results.

#### **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 4401558821

## Analysis Method E525.2

Sample Name Arroyo\_Simi\_20160817\_Grab Matrix Type: WG Result Type: TRG

Sample Date: 8/17/2016 8:40:00 AM Validation Level: 8

Lab Sample Name: 440-155882-1

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	UBU	U	
Diazinon	N	333-41-5		0.25	0.12	ug/L	UBU	UJ	H

## Analysis Method E608

Sample Name Arroyo\_Simi\_20160817\_Grab Matrix Type: WG Result Type: TRG

Sample Date: 8/17/2016 8:40:00 AM Validation Level: 8

Lab Sample Name: 440-155882-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
4,4'-DDD	N	72-54-8		0.0049	0.0039	ug/L	U	U	
4,4'-DDE	N	72-55-9		0.0049	0.0030	ug/L	U	U	
4,4'-DDT	N	50-29-3		0.0099	0.0039	ug/L	U	UJ	Q
Aroclor-1016 (PCB-1016)	N	12674-11-2		0.49	0.25	ug/L	U	UJ	S, Q
Aroclor-1221 (PCB-1221)	N	11104-28-2		0.49	0.25	ug/L	U	UJ	S, Q
Aroclor-1232 (PCB-1232)	N	11141-16-5		0.49	0.25	ug/L	U	UJ	S, Q
Aroclor-1242 (PCB-1242)	N	53469-21-9		0.49	0.25	ug/L	U	UJ	S, Q
Aroclor-1248 (PCB-1248)	N	12672-29-6		0.49	0.25	ug/L	U	UJ	S, Q
Aroclor-1254 (PCB-1254)	N	11097-69-1		0.49	0.25	ug/L	U	UJ	S, Q
Aroclor-1260 (PCB-1260)	N	11096-82-5		0.49	0.25	ug/L	U	UJ	S, Q
Chlordane	N	57-74-9		0.099	0.079	ug/L	U	U	
Dieldrin	N	60-57-1		0.0049	0.0020	ug/L	U	UJ	Q
Toxaphene	N	8001-35-2		0.49	0.25	ug/L	U	U	

## Analysis Method SM2340

Sample Name Arroyo\_Simi\_20160817\_Grab Matrix Type: WG Result Type: TRG

Sample Date: 8/17/2016 8:40:00 AM Validation Level: 8

Lab Sample Name: 440-155882-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Hardness as CaCO3	N	HARDNESS CACO3	670	0.33	0.17	mg/L			

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Irvine

17461 Derian Ave

Suite 100

Irvine, CA 92614-5817

Tel: (949)261-1022

TestAmerica Job ID: 440-155882-1

Client Project/Site: Boeing NPDES SSFL outfalls

Revision: 2

For:

Haley & Aldrich, Inc.

5333 Mission Center Road

Suite 300

San Diego, California 92108

Attn: Nancy Gardiner



Authorized for release by:

9/13/2016 3:43:11 PM

Urvashi Patel, Manager of Project Management

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### LINKS

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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.



---

Urvashi Patel  
Manager of Project Management  
9/13/2016 3:43:11 PM



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# Sample Summary

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

TestAmerica Job ID: 440-155882-1

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-155882-1	Arroyo_Simi_20160817_Grab	Water	08/17/16 08:40	08/17/16 17:25

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# Case Narrative

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

TestAmerica Job ID: 440-155882-1

**Job ID: 440-155882-1**

**Laboratory: TestAmerica Irvine**

## Narrative

### Job Narrative 440-155882-1

#### Comments

Client was notified of missed hold time for 525 method.  
Revision created to remove Ca and Mg as only total Hardness was needed, per client request.  
Revision created to remove extra pesticide analytes per client request.

#### Receipt

The samples were received on 8/17/2016 5:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.6° C and 2.4° C.

#### GC/MS Semi VOA

Method(s) 525.2: Surrogate recovery for the following samples was outside the upper control limit: Arroyo\_Simi\_20160817\_Grab (440-155882-1). This sample did not contain any target analytes; therefore, re-extraction or re-analysis was not performed.

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

#### GC Semi VOA

Method(s) 608: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 440-351473 and analytical batch 440-351618 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. Arroyo\_Simi\_20160817\_Grab (440-155882-1), Arroyo\_Simi\_20160817\_Grab (440-155882-1[MS]) and Arroyo\_Simi\_20160817\_Grab (440-155882-1[MSD])

Method(s) 608: Surrogate recovery for the following sample was outside control limits: Arroyo\_Simi\_20160817\_Grab (440-155882-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

#### Metals

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

#### Organic Prep

Method(s) 525.2: The following sample was received with less than 1 day remaining on the holding time on a test with a holding time of 24 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: Arroyo\_Simi\_20160817\_Grab (440-155882-1), Arroyo\_Simi\_20160817\_Grab (440-155882-1[MS]) and Arroyo\_Simi\_20160817\_Grab (440-155882-1[MSD]).

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

# Client Sample Results

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

TestAmerica Job ID: 440-155882-1

**Client Sample ID: Arroyo\_Simi\_20160817\_Grab**

**Lab Sample ID: 440-155882-1**

**Date Collected: 08/17/16 08:40**

**Matrix: Water**

**Date Received: 08/17/16 17:25**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND	BU	0.99	0.49	ug/L		08/18/16 13:29	08/19/16 20:43	1
Diazinon	ND	BU	0.25	0.12	ug/L		08/26/16 08:19	08/30/16 11:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,3-Dimethyl-2-nitrobenzene	92		70 - 130				08/18/16 13:29	08/19/16 20:43	1
1,3-Dimethyl-2-nitrobenzene	96		70 - 130				08/26/16 08:19	08/30/16 11:27	1
Perylene-d12	90		70 - 130				08/18/16 13:29	08/19/16 20:43	1
Perylene-d12	99		70 - 130				08/26/16 08:19	08/30/16 11:27	1
Triphenylphosphate	131	LH	70 - 130				08/18/16 13:29	08/19/16 20:43	1
Triphenylphosphate	124		70 - 130				08/26/16 08:19	08/30/16 11:27	1

## Method: 608 Pesticides - Organochlorine Pesticides Low level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.099	0.079	ug/L		08/24/16 07:19	08/24/16 16:24	1
Dieldrin	ND		0.0049	0.0020	ug/L		08/24/16 07:19	08/24/16 16:24	1
Toxaphene	ND		0.49	0.25	ug/L		08/24/16 07:19	08/24/16 16:24	1
4,4'-DDD	ND		0.0049	0.0039	ug/L		08/24/16 07:19	08/24/16 16:24	1
4,4'-DDE	ND		0.0049	0.0030	ug/L		08/24/16 07:19	08/24/16 16:24	1
4,4'-DDT	ND		0.0099	0.0039	ug/L		08/24/16 07:19	08/24/16 16:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	54		10 - 150				08/24/16 07:19	08/24/16 16:24	1
DCB Decachlorobiphenyl (Surr)	73		18 - 134				08/24/16 07:19	08/24/16 16:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.49	0.25	ug/L		08/24/16 07:19	08/24/16 18:17	1
Aroclor 1221	ND		0.49	0.25	ug/L		08/24/16 07:19	08/24/16 18:17	1
Aroclor 1232	ND		0.49	0.25	ug/L		08/24/16 07:19	08/24/16 18:17	1
Aroclor 1242	ND		0.49	0.25	ug/L		08/24/16 07:19	08/24/16 18:17	1
Aroclor 1248	ND		0.49	0.25	ug/L		08/24/16 07:19	08/24/16 18:17	1
Aroclor 1254	ND		0.49	0.25	ug/L		08/24/16 07:19	08/24/16 18:17	1
Aroclor 1260	ND		0.49	0.25	ug/L		08/24/16 07:19	08/24/16 18:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	22	LG	29 - 115				08/24/16 07:19	08/24/16 18:17	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	670		0.33	0.17	mg/L			08/30/16 01:04	1



# Method Summary

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

TestAmerica Job ID: 440-155882-1

Method	Method Description	Protocol	Laboratory
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	TAL IRV
608	Polychlorinated Biphenyls (PCBs) (GC)	40CFR136A	TAL IRV
608 Pesticides	Organochlorine Pesticides Low level	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: 440-155882-1

**Client Sample ID: Arroyo\_Simi\_20160817\_Grab**

**Lab Sample ID: 440-155882-1**

**Date Collected: 08/17/16 08:40**

**Matrix: Water**

**Date Received: 08/17/16 17:25**

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	350090	08/18/16 13:29	IVA	TAL IRV
Total/NA	Analysis	525.2		1			350518	08/19/16 20:43	MF	TAL IRV
Total/NA	Prep	525.2			1020 mL	1 mL	351938	08/26/16 08:19	AP	TAL IRV
Total/NA	Analysis	525.2		1			352486	08/30/16 11:27	MF	TAL IRV
Total/NA	Prep	608			1015 mL	2 mL	351473	08/24/16 07:19	FTD	TAL IRV
Total/NA	Analysis	608		1			351618	08/24/16 18:17	JM	TAL IRV
Total/NA	Prep	608			1015 mL	2 mL	351473	08/24/16 07:19	FTD	TAL IRV
Total/NA	Analysis	608 Pesticides		1			351449	08/24/16 16:24	CN	TAL IRV
Total Recoverable	Analysis	SM 2340B		1			351436	08/30/16 01:04	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: 440-155882-1

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

**Lab Sample ID: MB 440-350090/1-A**  
**Matrix: Water**  
**Analysis Batch: 350518**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 350090**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND		1.0	0.50	ug/L		08/18/16 07:55	08/19/16 17:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,3-Dimethyl-2-nitrobenzene	99		70 - 130	08/18/16 07:55	08/19/16 17:29	1
Perylene-d12	87		70 - 130	08/18/16 07:55	08/19/16 17:29	1
Triphenylphosphate	96		70 - 130	08/18/16 07:55	08/19/16 17:29	1

**Lab Sample ID: LCS 440-350090/2-A**  
**Matrix: Water**  
**Analysis Batch: 350518**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 350090**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Chlorpyrifos	2.00	1.92		ug/L		96	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	97		70 - 130
Perylene-d12	86		70 - 130
Triphenylphosphate	107		70 - 130

**Lab Sample ID: LCSD 440-350090/3-A**  
**Matrix: Water**  
**Analysis Batch: 350518**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 350090**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chlorpyrifos	2.00	1.83		ug/L		92	70 - 130	5	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	97		70 - 130
Perylene-d12	87		70 - 130
Triphenylphosphate	103		70 - 130

**Lab Sample ID: 440-155882-1 MS**  
**Matrix: Water**  
**Analysis Batch: 350518**

**Client Sample ID: Arroyo\_Simi\_20160817\_Grab**  
**Prep Type: Total/NA**  
**Prep Batch: 350090**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chlorpyrifos	ND	BU	2.00	1.79	BU	ug/L		90	70 - 130
Diazinon	ND	BU LR	2.00	1.94	BU	ug/L		97	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	97		70 - 130
Perylene-d12	88		70 - 130
Triphenylphosphate	115		70 - 130

# QC Sample Results

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

TestAmerica Job ID: 440-155882-1

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

**Lab Sample ID: 440-155882-1 MSD**

**Matrix: Water**  
**Analysis Batch: 350518**

**Client Sample ID: Arroyo\_Simi\_20160817\_Grab**

**Prep Type: Total/NA**  
**Prep Batch: 350090**

Analyte	Sample		Spike Added	MSD		Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Chlorpyrifos	ND	BU	2.00	1.88	BU	ug/L		94	70 - 130	5	30
Diazinon	ND	BU LR	2.00	2.01	BU	ug/L		101	70 - 130	3	30
<b>Surrogate</b>											
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>								
1,3-Dimethyl-2-nitrobenzene	94		70 - 130								
Perylene-d12	89		70 - 130								
Triphenylphosphate	117		70 - 130								

**Lab Sample ID: MB 440-351938/1-A**

**Matrix: Water**  
**Analysis Batch: 352486**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**  
**Prep Batch: 351938**

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Chlorpyrifos	ND		1.0	0.50	ug/L		08/25/16 18:41	08/29/16 20:08	1
Diazinon	ND		0.25	0.12	ug/L		08/25/16 18:41	08/29/16 20:08	1
<b>Surrogate</b>									
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,3-Dimethyl-2-nitrobenzene	94		70 - 130				08/25/16 18:41	08/29/16 20:08	1
Perylene-d12	86		70 - 130				08/25/16 18:41	08/29/16 20:08	1
Triphenylphosphate	105		70 - 130				08/25/16 18:41	08/29/16 20:08	1

**Lab Sample ID: LCS 440-351938/6-A**

**Matrix: Water**  
**Analysis Batch: 352486**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**  
**Prep Batch: 351938**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Chlorpyrifos	2.00	1.94		ug/L		97	70 - 130
Diazinon	2.00	2.00		ug/L		100	70 - 130
<b>Surrogate</b>							
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
1,3-Dimethyl-2-nitrobenzene	98		70 - 130				
Perylene-d12	94		70 - 130				
Triphenylphosphate	119		70 - 130				

**Lab Sample ID: LCSD 440-351938/7-A**

**Matrix: Water**  
**Analysis Batch: 352486**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**  
**Prep Batch: 351938**

Analyte	Spike Added	LCSD		Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
Chlorpyrifos	2.00	1.91		ug/L		96	70 - 130	1	30
Diazinon	2.00	2.07		ug/L		103	70 - 130	4	30
<b>Surrogate</b>									
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
1,3-Dimethyl-2-nitrobenzene	95		70 - 130						
Perylene-d12	95		70 - 130						
Triphenylphosphate	116		70 - 130						

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# QC Sample Results

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

TestAmerica Job ID: 440-155882-1

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

**Lab Sample ID: MB 440-351473/1-A**  
**Matrix: Water**  
**Analysis Batch: 351618**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 351473**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.50	0.25	ug/L		08/24/16 07:19	08/24/16 17:17	1
Aroclor 1221	ND		0.50	0.25	ug/L		08/24/16 07:19	08/24/16 17:17	1
Aroclor 1232	ND		0.50	0.25	ug/L		08/24/16 07:19	08/24/16 17:17	1
Aroclor 1242	ND		0.50	0.25	ug/L		08/24/16 07:19	08/24/16 17:17	1
Aroclor 1248	ND		0.50	0.25	ug/L		08/24/16 07:19	08/24/16 17:17	1
Aroclor 1254	ND		0.50	0.25	ug/L		08/24/16 07:19	08/24/16 17:17	1
Aroclor 1260	ND		0.50	0.25	ug/L		08/24/16 07:19	08/24/16 17:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	32		29 - 115	08/24/16 07:19	08/24/16 17:17	1

**Lab Sample ID: LCS 440-351473/5-A**  
**Matrix: Water**  
**Analysis Batch: 351618**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 351473**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	4.00	2.98		ug/L		74	50 - 115
Aroclor 1260	4.00	3.08		ug/L		77	10 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	42		29 - 115

**Lab Sample ID: 440-155882-1 MS**  
**Matrix: Water**  
**Analysis Batch: 351618**

**Client Sample ID: Arroyo\_Simi\_20160817\_Grab**  
**Prep Type: Total/NA**  
**Prep Batch: 351473**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		4.00	1.39	LN	ug/L		35	45 - 120
Aroclor 1260	ND		4.00	1.60	LN	ug/L		40	55 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	32		29 - 115

**Lab Sample ID: 440-155882-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 351618**

**Client Sample ID: Arroyo\_Simi\_20160817\_Grab**  
**Prep Type: Total/NA**  
**Prep Batch: 351473**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		4.02	1.67	LN	ug/L		42	45 - 120	19	30
Aroclor 1260	ND		4.02	1.73	LN	ug/L		43	55 - 125	8	25

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	36		29 - 115

# QC Sample Results

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

TestAmerica Job ID: 440-155882-1

## Method: 608 Pesticides - Organochlorine Pesticides Low level

**Lab Sample ID: MB 440-351473/1-A**

**Matrix: Water**

**Analysis Batch: 351449**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 351473**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlordane (technical)	ND		0.10	0.080	ug/L		08/24/16 07:19	08/24/16 14:42	1
Dieldrin	ND		0.0050	0.0020	ug/L		08/24/16 07:19	08/24/16 14:42	1
Toxaphene	ND		0.50	0.25	ug/L		08/24/16 07:19	08/24/16 14:42	1
4,4'-DDD	ND		0.0050	0.0040	ug/L		08/24/16 07:19	08/24/16 14:42	1
4,4'-DDE	ND		0.0050	0.0030	ug/L		08/24/16 07:19	08/24/16 14:42	1
4,4'-DDT	ND		0.010	0.0040	ug/L		08/24/16 07:19	08/24/16 14:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	41		10 - 150	08/24/16 07:19	08/24/16 14:42	1
DCB Decachlorobiphenyl (Surr)	28		18 - 134	08/24/16 07:19	08/24/16 14:42	1

**Lab Sample ID: LCS 440-351473/2-A**

**Matrix: Water**

**Analysis Batch: 351449**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 351473**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aldrin	0.200	0.0820		ug/L		41	19 - 115
alpha-BHC	0.200	0.130		ug/L		65	42 - 115
beta-BHC	0.200	0.140		ug/L		70	48 - 115
delta-BHC	0.200	0.111		ug/L		56	48 - 115
Dieldrin	0.200	0.139		ug/L		70	51 - 117
Endosulfan I	0.200	0.137		ug/L		69	47 - 117
Endosulfan II	0.200	0.139		ug/L		69	32 - 128
Endosulfan sulfate	0.200	0.142		ug/L		71	50 - 117
Endrin	0.200	0.136		ug/L		68	51 - 120
Endrin aldehyde	0.200	0.138		ug/L		69	49 - 115
Endrin ketone	0.200	0.151		ug/L		76	51 - 121
gamma-BHC (Lindane)	0.200	0.131		ug/L		65	43 - 115
Heptachlor	0.200	0.103		ug/L		51	44 - 115
Heptachlor epoxide	0.200	0.123		ug/L		62	35 - 131
Methoxychlor	0.200	0.142		ug/L		71	44 - 142
4,4'-DDD	0.200	0.158		ug/L		79	53 - 126
4,4'-DDE	0.200	0.132		ug/L		66	48 - 115
4,4'-DDT	0.200	0.137		ug/L		69	10 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	62		10 - 150
DCB Decachlorobiphenyl (Surr)	47		18 - 134

**Lab Sample ID: 440-155882-1 MS**

**Matrix: Water**

**Analysis Batch: 351449**

**Client Sample ID: Arroyo\_Simi\_20160817\_Grab**

**Prep Type: Total/NA**

**Prep Batch: 351473**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Aldrin	ND		0.196	0.0828		ug/L		42	35 - 120
alpha-BHC	ND		0.196	0.0842		ug/L		43	40 - 120
beta-BHC	ND		0.196	0.118		ug/L		60	50 - 120

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# QC Sample Results

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

TestAmerica Job ID: 440-155882-1

## Method: 608 Pesticides - Organochlorine Pesticides Low level (Continued)

Lab Sample ID: 440-155882-1 MS

Matrix: Water

Analysis Batch: 351449

Client Sample ID: Arroyo\_Simi\_20160817\_Grab

Prep Type: Total/NA

Prep Batch: 351473

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier		Result	Qualifier					
delta-BHC	ND		0.196	0.0784	LN	ug/L		40		50 - 120
Dieldrin	ND		0.196	0.0947	LN	ug/L		48		50 - 120
Endosulfan I	ND		0.196	0.0963	LN	ug/L		49		50 - 120
Endosulfan II	ND		0.196	0.0969	LN	ug/L		49		50 - 125
Endosulfan sulfate	ND		0.196	0.101	LN	ug/L		51		55 - 125
Endrin	ND		0.196	0.0934	LN	ug/L		48		50 - 120
Endrin aldehyde	ND		0.196	0.0906		ug/L		46		45 - 125
Endrin ketone	ND		0.196	0.106		ug/L		54		50 - 125
gamma-BHC (Lindane)	ND		0.196	0.0870		ug/L		44		40 - 120
Heptachlor	ND		0.196	0.0686	LN	ug/L		35		40 - 120
Heptachlor epoxide	ND		0.196	0.0832	LN	ug/L		42		50 - 120
Methoxychlor	ND		0.196	0.103	LN	ug/L		52		55 - 125
4,4'-DDD	ND		0.196	0.100		ug/L		51		50 - 125
4,4'-DDE	ND		0.196	0.0921		ug/L		47		45 - 125
4,4'-DDT	ND		0.196	0.0929	LN	ug/L		47		50 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	33		10 - 150
DCB Decachlorobiphenyl (Surr)	46		18 - 134

Lab Sample ID: 440-155882-1 MSD

Matrix: Water

Analysis Batch: 351449

Client Sample ID: Arroyo\_Simi\_20160817\_Grab

Prep Type: Total/NA

Prep Batch: 351473

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier		Result	Qualifier							
Aldrin	ND		0.195	0.0905		ug/L		46		35 - 120	9	30
alpha-BHC	ND		0.195	0.0896		ug/L		46		40 - 120	6	30
beta-BHC	ND		0.195	0.137		ug/L		70		50 - 120	15	30
delta-BHC	ND		0.195	0.0725	LN	ug/L		37		50 - 120	8	30
Dieldrin	ND		0.195	0.0973		ug/L		50		50 - 120	3	30
Endosulfan I	ND		0.195	0.0990		ug/L		51		50 - 120	3	30
Endosulfan II	ND		0.195	0.0976		ug/L		50		50 - 125	1	30
Endosulfan sulfate	ND		0.195	0.0983	LN	ug/L		50		55 - 125	2	30
Endrin	ND		0.195	0.0938	LN	ug/L		48		50 - 120	0	30
Endrin aldehyde	ND		0.195	0.0995		ug/L		51		45 - 125	9	30
Endrin ketone	ND		0.195	0.0930	LN	ug/L		48		50 - 125	13	30
gamma-BHC (Lindane)	ND		0.195	0.0886		ug/L		45		40 - 120	2	30
Heptachlor	ND		0.195	0.0722	LN	ug/L		37		40 - 120	5	30
Heptachlor epoxide	ND		0.195	0.0811	LN	ug/L		42		50 - 120	3	30
Methoxychlor	ND		0.195	0.0947	LN	ug/L		49		55 - 125	8	30
4,4'-DDD	ND		0.195	0.104		ug/L		54		50 - 125	4	30
4,4'-DDE	ND		0.195	0.0948		ug/L		49		45 - 125	3	30
4,4'-DDT	ND		0.195	0.0935	LN	ug/L		48		50 - 125	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	41		10 - 150
DCB Decachlorobiphenyl (Surr)	40		18 - 134

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# QC Association Summary

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

TestAmerica Job ID: 440-155882-1

## GC/MS Semi VOA

### Prep Batch: 350090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155882-1	Arroyo_Simi_20160817_Grab	Total/NA	Water	525.2	
MB 440-350090/1-A	Method Blank	Total/NA	Water	525.2	
LCS 440-350090/2-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 440-350090/3-A	Lab Control Sample Dup	Total/NA	Water	525.2	
440-155882-1 MS	Arroyo_Simi_20160817_Grab	Total/NA	Water	525.2	
440-155882-1 MSD	Arroyo_Simi_20160817_Grab	Total/NA	Water	525.2	

### Analysis Batch: 350518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155882-1	Arroyo_Simi_20160817_Grab	Total/NA	Water	525.2	350090
MB 440-350090/1-A	Method Blank	Total/NA	Water	525.2	350090
LCS 440-350090/2-A	Lab Control Sample	Total/NA	Water	525.2	350090
LCSD 440-350090/3-A	Lab Control Sample Dup	Total/NA	Water	525.2	350090
440-155882-1 MS	Arroyo_Simi_20160817_Grab	Total/NA	Water	525.2	350090
440-155882-1 MSD	Arroyo_Simi_20160817_Grab	Total/NA	Water	525.2	350090

### Prep Batch: 351938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155882-1	Arroyo_Simi_20160817_Grab	Total/NA	Water	525.2	
MB 440-351938/1-A	Method Blank	Total/NA	Water	525.2	
LCS 440-351938/6-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 440-351938/7-A	Lab Control Sample Dup	Total/NA	Water	525.2	

### Analysis Batch: 352486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155882-1	Arroyo_Simi_20160817_Grab	Total/NA	Water	525.2	351938
MB 440-351938/1-A	Method Blank	Total/NA	Water	525.2	351938
LCS 440-351938/6-A	Lab Control Sample	Total/NA	Water	525.2	351938
LCSD 440-351938/7-A	Lab Control Sample Dup	Total/NA	Water	525.2	351938

## GC Semi VOA

### Analysis Batch: 351449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155882-1	Arroyo_Simi_20160817_Grab	Total/NA	Water	608 Pesticides	351473
MB 440-351473/1-A	Method Blank	Total/NA	Water	608 Pesticides	351473
LCS 440-351473/2-A	Lab Control Sample	Total/NA	Water	608 Pesticides	351473
440-155882-1 MS	Arroyo_Simi_20160817_Grab	Total/NA	Water	608 Pesticides	351473
440-155882-1 MSD	Arroyo_Simi_20160817_Grab	Total/NA	Water	608 Pesticides	351473

### Prep Batch: 351473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155882-1	Arroyo_Simi_20160817_Grab	Total/NA	Water	608	
MB 440-351473/1-A	Method Blank	Total/NA	Water	608	
LCS 440-351473/2-A	Lab Control Sample	Total/NA	Water	608	
LCSD 440-351473/5-A	Lab Control Sample	Total/NA	Water	608	
440-155882-1 MS	Arroyo_Simi_20160817_Grab	Total/NA	Water	608	
440-155882-1 MS	Arroyo_Simi_20160817_Grab	Total/NA	Water	608	
440-155882-1 MSD	Arroyo_Simi_20160817_Grab	Total/NA	Water	608	
440-155882-1 MSD	Arroyo_Simi_20160817_Grab	Total/NA	Water	608	

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# QC Association Summary

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

TestAmerica Job ID: 440-155882-1

## GC Semi VOA (Continued)

### Analysis Batch: 351618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155882-1	Arroyo_Simi_20160817_Grab	Total/NA	Water	608	351473
MB 440-351473/1-A	Method Blank	Total/NA	Water	608	351473
LCS 440-351473/5-A	Lab Control Sample	Total/NA	Water	608	351473
440-155882-1 MS	Arroyo_Simi_20160817_Grab	Total/NA	Water	608	351473
440-155882-1 MSD	Arroyo_Simi_20160817_Grab	Total/NA	Water	608	351473

## Metals

### Analysis Batch: 351436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-155882-1	Arroyo_Simi_20160817_Grab	Total Recoverable	Water	SM 2340B	

# Definitions/Glossary

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

TestAmerica Job ID: 440-155882-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
BU	Sample was prepped beyond the specified holding time
LH	Surrogate Recoveries were higher than QC limits

### GC Semi VOA

Qualifier	Qualifier Description
LG	LG=Surrogate recovery below the acceptance limits
LN	MS and/or MSD below acceptance limits. See Blank Spike (LCS)

## 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: 440-155882-1

## 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	06-30-17
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	06-30-18
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	07-31-17 *
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	09-03-17

\* Certification renewal pending - certification considered valid.

TestAmerica Irvine



## Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-155882-1

**Login Number: 155882**

**List Number: 1**

**Creator: Soderblom, Tim**

**List Source: TestAmerica Irvine**

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	

