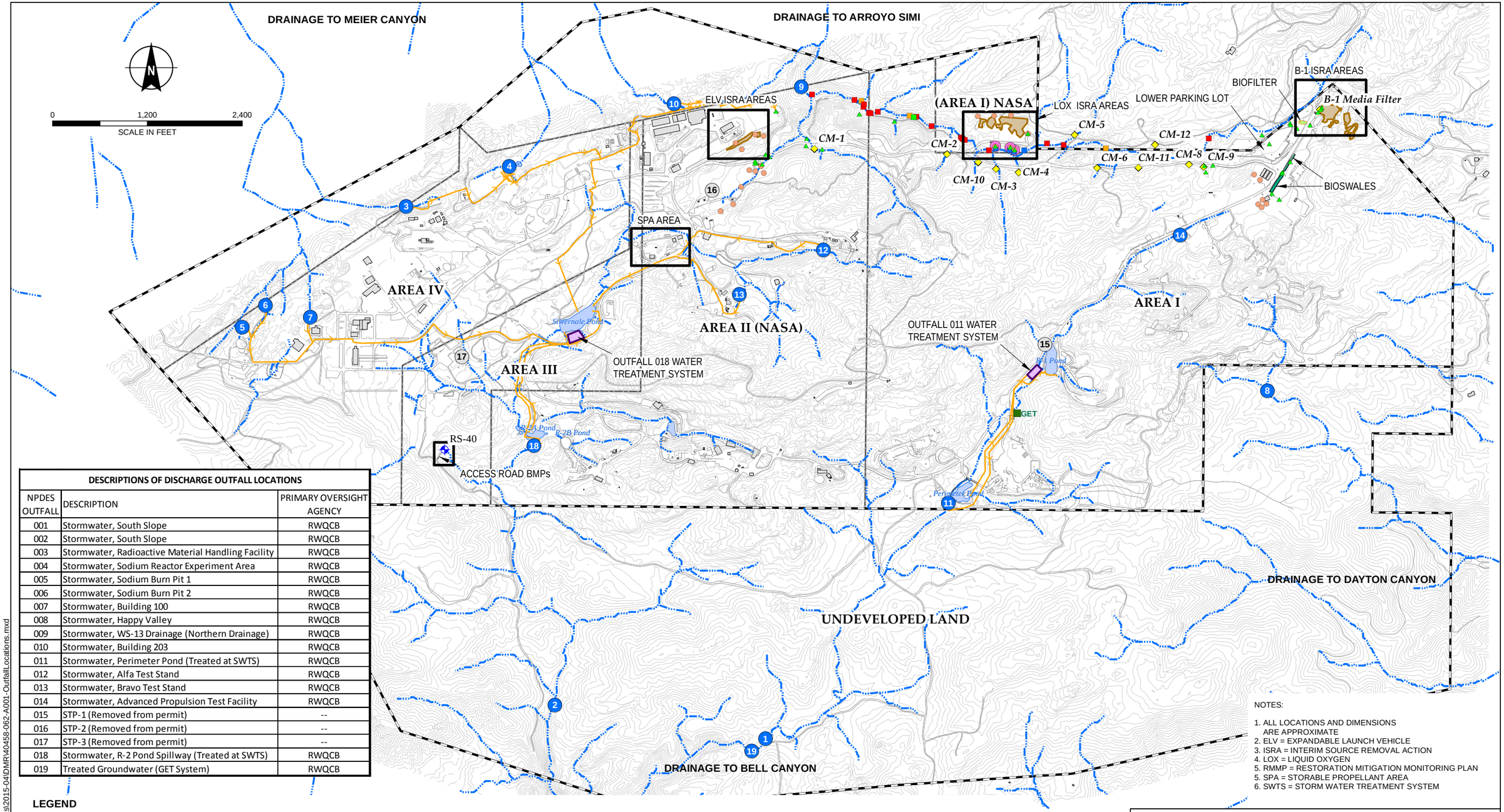


DESCRIPTIONS OF DISCHARGE OUTFALL LOCATIONS

NPDES OUTFALL	DESCRIPTION	PRIMARY OVERSIGHT AGENCY
001	Stormwater, South Slope	RWQCB
002	Stormwater, South Slope	RWQCB
003	Stormwater, Radioactive Material Handling Facility	RWQCB
004	Stormwater, Sodium Reactor Experiment Area	RWQCB
005	Stormwater, Sodium Burn Pit 1	RWQCB
006	Stormwater, Sodium Burn Pit 2	RWQCB
007	Stormwater, Building 100	RWQCB
008	Stormwater, Happy Valley	RWQCB
009	Stormwater, WS-13 Drainage (Northern Drainage)	RWQCB
010	Stormwater, Building 203	RWQCB
011	Stormwater, Perimeter Pond (Treated at SWTS)	RWQCB
012	Stormwater, Alfa Test Stand	RWQCB
013	Stormwater, Bravo Test Stand	RWQCB
014	Stormwater, Advanced Propulsion Test Facility	RWQCB
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)	RWQCB
019	Treated Groundwater (GET System)	RWQCB

NOTES:

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE
2. ELV = EXPANDABLE LAUNCH VEHICLE
3. ISRA = INTERIM SOURCE REMOVAL ACTION
4. LOX = LIQUID OXYGEN
5. RMMP = RESTORATION MITIGATION MONITORING PLAN
5. SPA = STORABLE PROPELLANT AREA
6. SWTS = STORM WATER TREATMENT SYSTEM

LEGEND

- NPDES OUTFALL LOCATION
- FORMER NPDES OUTFALL LOCATION
- SLOPE DRAIN DISCHARGE POINT TO NORTHERN DRANAGE
- CULVERT MODIFICATION
- ISRA PERFORMANCE MONITORING LOCATION
- BMP MONITORING LOCATION
- GROUNDWATER MONITORING WELL LOCATION
- GROUNDWATER EXTRACTION TREATMENT (GET) SYSTEM
- STORMWATER TREATMENT SYSTEM

RMMP LOCATION

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

- DRAINAGE
- DIRT ROAD
- PAVED ROAD
- STORMWATER CONVEYANCE PIPELINE WITH FLOW DIRECTION
- ELEVATION CONTOUR
- ACTUAL ISRA EXCAVATION BOUNDARY
- BIOFILTER
- BIOSWALE
- SURFACE WATER POND
- EXISTING BUILDING/STRUCTURE
- SSFL PROPERTY BOUNDARY
- ADMINISTRATIVE AREA BOUNDARY

HALEY ALDRICH

NPDES PERMIT COMPLIANCE FIRST QUARTER 2015
DISCHARGE MONITORING REPORT
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

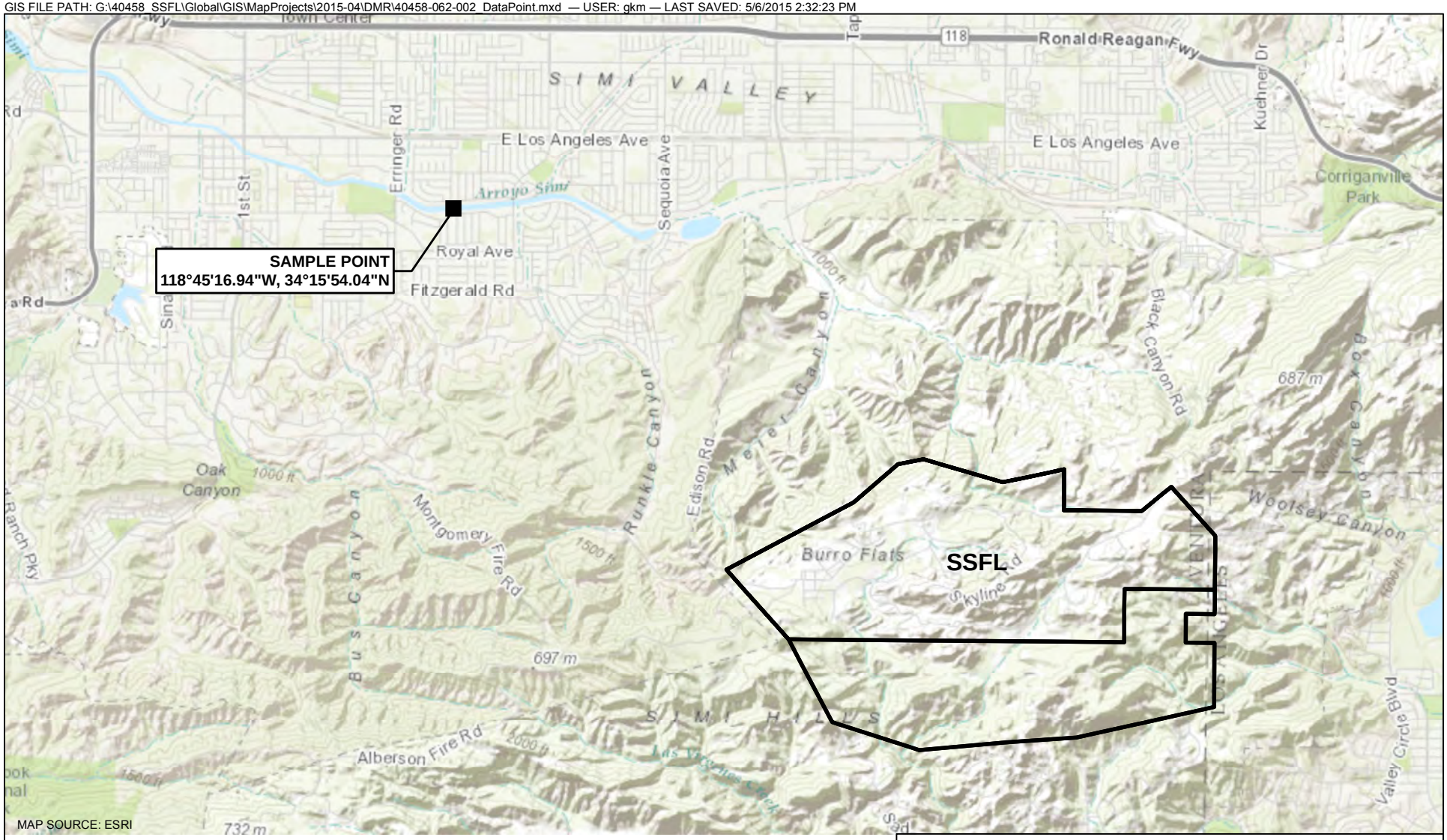
SITE MAP WITH STORMWATER COLLECTION, CONVEYANCE SYSTEM, AND SITE FEATURES

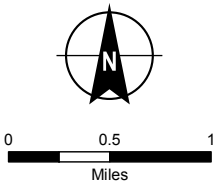
SCALE: AS SHOWN
MAY 2015

FIGURE 1

G:\40458_SSFL\Global\GIS\MapProjects\2015-04\DMR\40458-062-A001-OutfallLocations.mxd

GIS FILE PATH: G:\40458_SSFL\Global\GIS\MapProjects\2015-04\DMR\40458-062-002_DataPoint.mxd — USER: gkm — LAST SAVED: 5/6/2015 2:32:23 PM





HALEY ALDRICH

NPDES PERMIT COMPLIANCE FIRST QUARTER 2015
DISCHARGE MONITORING REPORT
THE BOEING COMPANY
VENTURA COUNTY, CALIFORNIA

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

MAY 2015

FIGURE 2

APPENDIX A

First Quarter 2015 Rainfall Data Summary

TABLE A
DAILY RAINFALL SUMMARY

THE BOEING COMPANY
NPDES PERMIT CA0001309

Station: AREA 1
Parameter: Rain
Month/Year: January 2015

HOUR OF THE DAY

DAY OF THE MONTH	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
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	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	0.03	0.02	0.01	0.00	0.01	0.02	0.10	0.08	0.07	0.10	0.13	0.07	0.03	0.67
11	0.08	0.11	0.16	0.23	0.11	0.08	0.05	0.04	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
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	INV	0.00	0.00	0.00	0.00	0.00	0.00	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	0.06	0.03	0.01	0.01	0.06	0.05	0.22
27	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
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	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	0.00

Flags: INV = Negative under range, invalid hour. Malfunction in the sensor produced an erroneous rainfall measurement of <0.

TABLE A
DAILY RAINFALL SUMMARY

THE BOEING COMPANY
NPDES PERMIT CA0001309

Station: AREA 1
Parameter: Rain
Month/Year: February 2015

HOUR OF THE DAY

DAY OF THE MONTH	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
1	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	INV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.05	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.09
8	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
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
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	INV	0.00p	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	0.01	0.04	0.00	0.00	0.03	0.03	0.02	0.01	0.01	0.01	0.16
23	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
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

Flags: p = Power failure, invalid hour
INV = Negative under range, invalid hour. Malfunction in the sensor produced an erroneous rainfall measurement of <0.

TABLE A
DAILY RAINFALL SUMMARY

THE BOEING COMPANY
NPDES PERMIT CA0001309

Station: AREA 1
Parameter: Rain
Month/Year: March 2015

HOUR OF THE DAY

DAY OF THE MONTH	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
1	0.00	0.04	0.04	0.03	0.00	0.00	0.08	0.12	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.07	0.02	0.01	0.04	0.14	0.10	0.01	0.73
2	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.03	0.00	0.00	0.00	0.11	0.00	0.08	0.06	0.22	0.00	0.01	0.00	0.00	0.00	0.00	0.64
3	0.06	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	0.07
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	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
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	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
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	0.04d	0.10d	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: d = Marked down, invalid hour

APPENDIX B

First Quarter 2015 Liquid Waste Shipment Summary Table

TABLE B
LIQUID WASTE SHIPMENTS

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

DATE SHIPPED	MANIFEST TRACKING NUMBER	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
1/14/2015	010392660JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	181	P	Clean Harbors Environmental Services Inc	Clean Harbors - Aragonite LLC 11600 North Aptus Road, Grantsville, UT 34029
		HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	2232	P		
1/14/2015	Z0154	NON HAZARDOUS LIQUID (WATER)	747	P		Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls, Grantsville, UT 34029
1/21/2015	013692017JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	50	G	Environmental Recovery Services, Inc.	Evoqua Water Technologies LLC 5375 South Boyle Avenue, Los Angeles, CA 90058
2/4/2015	Z0346	NON HAZARDOUS LIQUID (WATER)	148	P	Clean Harbors Environmental Services Inc	Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls, Grantsville, UT 34029
2/4/2015	010392663JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	26	P		Clean Harbors - Aragonite LLC 11600 North Aptus Road, Grantsville, UT 34029
2/4/2015	010392664JJK	NON RCRA HAZARDOUS WASTE LIQUIDS (OIL, WATER)	10	P		Clean Harbors - Deer Park, LLC 2027 Independence Parkway South, La Porte, TX 77571
2/4/2015	010392665JJK	NON RCRA HAZARDOUS WASTE LIQUIDS (OIL, WATER)	7	P		Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls, Grantsville, UT 34029
3/4/2015	Z0585	NON HAZARDOUS LIQUID (WATER)	267	P		
		NON HAZARDOUS LIQUID (WATER)	1886	P		
3/4/2015	010392668JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	2213	P		Clean Harbors - Aragonite LLC 11600 North Aptus Road, Grantsville, UT 34029
		HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	146	P		
3/4/2015	010392670JJK	HAZARDOUS WASTE LIQUID (ARSENIC, CHROMIUM)	458	P		Clean Harbors - Grassy Mountain LLC 3 Miles East 7 Miles North of Knolls, Grantsville, UT 34029
		NON RCRA HAZARDOUS WASTE LIQUIDS (OIL, WATER)	6	P		
3/4/2015	010392672JJK	HAZARDOUS WASTE LIQUID (ARSENIC, CHROMIUM)	12,025	P		
3/4/2015	02231541-1	NON HAZARDOUS LIQUID (PURGE WATER)	5300	G	Environmental Recovery Services, Inc.	Demenno Kerdoon 2000 N. Alameda Street, Compton, CA 90222
3/4/2015	013798807JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	500	G		Evoqua Water Technologies LLC 5375 South Boyle Avenue, Los Angeles, CA 90058
3/18/2015	010392674JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	2203	P	Clean Harbors Environmental Services Inc	Clean Harbors - Aragonite LLC 11600 North Aptus Road, Grantsville, UT 34029
3/24/2015	01408104JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	5000	G	Environmental Recovery Services, Inc.	Evoqua Water Technologies LLC 5375 South Boyle Avenue, Los Angeles, CA 90058
3/24/2015	014080105JJK	HAZARDOUS WASTE LIQUID (TRICHLOROETHYLENE)	5000	G		

TABLE B
LIQUID WASTE SHIPMENTS

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

DATE SHIPPED	MANIFEST TRACKING NUMBER	TYPE OF LIQUID	QTY.	UNITS	TRANSPORTER	DESTINATION
1/6/2015	36273	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G	Southwest Processors Inc. 4120 Bandini Blvd. Vernon, CA 90058	LACSD
1/6/2015	36274	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
1/6/2015	36275	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
1/13/2015	36306	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
1/13/2015	36307	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
1/20/2015	35527	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
1/20/2015	35528	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
1/20/2015	35529	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
1/27/2015	35558	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
1/27/2015	35559	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
1/27/2015	35560	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/3/2015	35587	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/3/2015	35588	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/3/2015	35589	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/10/2015	35614	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/10/2015	36315	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/10/2015	36316	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/17/2015	36345	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/17/2015	36346	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/17/2015	36347	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/24/2015	36382	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/24/2015	36383	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
2/24/2015	36384	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
3/3/2015	36409	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
3/3/2015	36410	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
3/3/2015	36411	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
3/10/2015	35639	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5500	G		
3/10/2015	35640	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5500	G		
3/17/2015	35676	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
3/17/2015	35677	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
3/25/2015	36417	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
3/25/2015	36419	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
3/31/2015	36443	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		
3/31/2015	36444	WASTE WATER FROM AREA I SEWAGE TREATMENT PLANT (STP #1)	5000	G		

APPENDIX C

First Quarter 2015 Discharge Monitoring Data Summary Tables

FIRST QUARTER 2015
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 37 of the NPDES permit.

2. Temperature and pH were determined with a field instrument and were noted as such. These results were not validated.

3. All of the following abbreviations and/or notes may not occur on every table.

4. J(DNQ) flagged results are included in the data charts; however, these results are considered to be estimated values and as such are not used to quantify the chemical concentration for compliance purposes. ND results are included in the data charts and are shown as zero. Refer to Appendix H for a list of reporting limits by constituent.

5. 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^{o}F for temperature.

-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.
$	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-1 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)

FIRST QUARTER 2015
REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

*3	initial and or continuing calibration recoveries were outside acceptable control limits
*5	blank spike/blank spike duplicate relative percent difference was outside the control limit
*10	value was estimated detect or estimated non detect (J,UJ) due to deficiencies in quantitation of the constituent including constituents reported by the laboratory as Estimated Maximum Possible Concentration (EMPC) values
*11	no calibration was performed for this compound; result is reported as a tentatively identified compound (TIC)
* II *III	Unusual problems found with the data that have been described in Section II, “sample management”, or Section III, “method analysis”. The number following the asterisk (*) will indicated the validation report section where a description of the problem can be found.
ANR	analysis not required; e.g., constituent or outfall was not required by the permit to be sampled and analyzed over the reporting period (annual, semi-annual, etc.)
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 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 then the laboratory reporting limit)
E	E in validation qualifier indicates that duplicates show poor agreement
ft/sec	feet per second
H	holding time was exceeded
I	ICP interference check solution results were unsatisfactory
J	estimated value, result lower than the detection limit
J, DX	estimated value, value < lowest standard (MQL), but > than MDL

FIRST QUARTER 2015
REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

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.
L2	the laboratory control sample %R was below the method control limits
L	laboratory control sample %R was outside control limits
lbs/day	Pounds per day
LOD	limit of detection
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
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
MPN/100 ml	most probable number per 100 milliliters
NA	not applicable; no permit limit established for the constituent and/or outfall or MDAs are not calculated as there is no statistical method for combining MDAs
ND	analyte value less than the LOD or MDL
NM	not measured or determined
NTU	nephelometric turbidity unit
pCi/L	picoCuries per liter
Q	matrix spike recovery outside of control limits
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
%RSD	percent relative standard deviation
% survival	percent survival
S	surrogate recovery was outside control limits
TCDD	2,3,7,8-tetrachlorodibenzo-p-dioxin
TEQ	toxic equivalent

FIRST QUARTER 2015
REPORTING SUMMARY NOTES
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

T	presumed contamination, as indicated by a detect in the trip blank
TU_c	toxicity units (chronic)
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. R4-2010-0090 page 23 Footnote 1. The effluent limitations for total suspended solids and settable solids are not applicable for discharges during wet weather. During wet weather flow, a discharge event is greater than 0.1 inches 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-3 footnote 2, receiving water samples for pH and hardness must be collected at the same time 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 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.
(5)	No more than 5.0% samples total coliform-positive (TC-positive) in a month. (For water systems that collect fewer than 40 routine samples per month, no more than one sample can be total coliform-positive per month.) Every sample that has total coliform must be analyzed for either fecal coliforms or E. coli if two consecutive TC-positive samples, and one is also positive for E.coli fecal coliforms, system has an acute MCL violation.

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				1/11/2015 (Grab & Composite)		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
Flow	MGD	17.89/-	1/Discharge	Meas	0.296195	*
CONVENTIONAL POLLUTANTS						
Oil & Grease	mg/L	15/-	1/Discharge	Grab	ND < 1.3	*
pH (Field)	pH units	6.5-8.5/-	1/Discharge	Grab	6.73	*
PRIORITY POLLUTANTS						
Antimony	ug/L	6.0/-	1/Discharge	Composite	ND < 5	*
Cadmium	ug/L	4.0/-	1/Discharge	Composite	ND < 0.25	*
Copper	ug/L	14/-	1/Discharge	Composite	4.5	*
Lead	ug/L	5.2/-	1/Discharge	Composite	2.3	*
Mercury	ug/L	0.13/-	1/Discharge	Composite	ND < 0.1	*
Nickel	ug/L	100/-	1/Year	Composite	ND < 5	U
Selenium	ug/L	-/-	1/Discharge	Composite	ND < 0.5	*
Thallium	ug/L	2.0/-	1/Discharge	Composite	ND < 0.5	*
Total Cyanide	ug/L	9.5/-	1/Discharge	Composite	ND < 2.5	*
Zinc	ug/L	-/-	1/Discharge	Composite	12	J (DNQ)
NON-CONVENTIONAL POLLUTANTS						
Acute Toxicity	% SURVIVAL	70-90/-	1/Year	Grab	100	*
Boron	mg/L	1.0/-	1/Year	Composite	0.039	J (DNQ)
Chloride	mg/L	150/-	1/Discharge	Composite	4.5	*
Chronic Toxicity	TUC	1/-	1st & 2nd rain event/Year	Composite	1.0	*
Fluoride	mg/L	1.6/-	1/Year	Composite	0.15	*
Nitrate + Nitrite as Nitrogen (N)	mg/L	10/-	1/Discharge	Composite	0.84	*
Perchlorate	ug/L	6.0/-	1/Semiannual	Composite	ND < 0.95	*
Sulfate	mg/L	250/-	1/Discharge	Composite	4.6	*
Temperature (Field)	deg. F	86/-	1/Discharge	Grab	52.63	*
Total Dissolved Solids	mg/L	850/-	1/Discharge	Composite	90	*
REMAINING PRIORITY POLLUTANTS						
1,1,1-Trichloroethane	ug/L	-/-	1/Year	Grab	ND < 0.25	*
1,1,2,2-Tetrachloroethane	ug/L	-/-	1/Year	Grab	ND < 0.25	*
1,1,2-Trichloroethane	ug/L	-/-	1/Year	Grab	ND < 0.25	*
1,1-Dichloroethane	ug/L	-/-	1/Year	Grab	ND < 0.25	*
1,1-Dichloroethene	ug/L	-/-	1/Year	Grab	ND < 0.25	*
1,2,4-Trichlorobenzene	ug/L	-/-	1/Year	Composite	ND < 0.481	*
1,2-Dichlorobenzene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
1,2-Dichloroethane	ug/L	-/-	1/Year	Grab	ND < 0.25	*
1,2-Dichloropropane	ug/L	-/-	1/Year	Grab	ND < 0.25	*
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	1/Year	Composite	ND < 0.481	*
1,3-Dichlorobenzene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
1,4-Dichlorobenzene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
2,4,6-Trichlorophenol	ug/L	-/-	1/Year	Composite	ND < 0.481	*
2,4-Dichlorophenol	ug/L	-/-	1/Year	Composite	ND < 0.962	*
2,4-Dimethylphenol	ug/L	-/-	1/Year	Composite	ND < 0.962	*
2,4-Dinitrophenol	ug/L	-/-	1/Year	Composite	ND < 1.92	*
2,4-Dinitrotoluene	ug/L	-/-	1/Year	Composite	ND < 1.92	*
2,6-Dinitrotoluene	ug/L	-/-	1/Year	Composite	ND < 1.92	*
2-Chloroethylvinylether	ug/L	-/-	1/Year	Grab	ND < 1	*
2-Chloronaphthalene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
2-Chlorophenol	ug/L	-/-	1/Year	Composite	ND < 0.481	*
2-Methyl-4,6-Dinitrophenol	ug/L	-/-	1/Year	Composite	ND < 1.92	*
2-Nitrophenol	ug/L	-/-	1/Year	Composite	ND < 0.962	*

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				1/11/2015 (Grab & Composite)		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
3,3'-Dichlorobenzidine	ug/L	-/-	1/Year	Composite	ND < 1.92	*
4,4'-DDD	ug/L	-/-	1/Year	Composite	ND < 0.0038	*
4,4'-DDE	ug/L	-/-	1/Year	Composite	ND < 0.0028	*
4,4'-DDT	ug/L	-/-	1/Year	Composite	ND < 0.0038	*
4-Bromophenylphenylether	ug/L	-/-	1/Year	Composite	ND < 0.481	*
4-Chloro-3-methylphenol	ug/L	-/-	1/Year	Composite	ND < 0.192	*
4-Chlorophenylphenylether	ug/L	-/-	1/Year	Composite	ND < 0.192	*
4-Nitrophenol	ug/L	-/-	1/Year	Composite	ND < 1.92	*
Acenaphthene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
Acenaphthylene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
Acrolein	ug/L	-/-	1/Year	Grab	ND < 2.5	*
Acrylonitrile	ug/L	-/-	1/Year	Grab	ND < 1	*
Aldrin	ug/L	-/-	1/Year	Composite	ND < 0.0014	*
alpha-BHC	ug/L	-/-	1/Year	Composite	ND < 0.0024	*
Anthracene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
Aroclor 1016	ug/L	-/-	1/Year	Composite	ND < 0.26	*
Aroclor 1221	ug/L	-/-	1/Year	Composite	ND < 0.26	*
Aroclor 1232	ug/L	-/-	1/Year	Composite	ND < 0.26	*
Aroclor 1242	ug/L	-/-	1/Year	Composite	ND < 0.26	*
Aroclor 1248	ug/L	-/-	1/Year	Composite	ND < 0.26	*
Aroclor 1254	ug/L	-/-	1/Year	Composite	ND < 0.26	*
Aroclor 1260	ug/L	-/-	1/Year	Composite	ND < 0.26	*
Arsenic	ug/L	-/-	1/Year	Composite	ND < 5	U
Asbestos	MFL	-/-	1/Year	Composite	ND < 2.0	U
Benzene	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Benzidine	ug/L	-/-	1/Year	Composite	ND < 4.81	*
Benzo(a)anthracene	ug/L	-/-	1/Year	Composite	ND < 1.92	*
Benzo(a)pyrene	ug/L	-/-	1/Year	Composite	ND < 0.481	*
Benzo(b)fluoranthene	ug/L	-/-	1/Year	Composite	ND < 0.962	*
Benzo(g,h,i)Perylene	ug/L	-/-	1/Year	Composite	ND < 1.92	*
Benzo(k)fluoranthene	ug/L	-/-	1/Year	Composite	ND < 0.24	*
Beryllium	ug/L	-/-	1/Year	Composite	ND < 1	U
beta-BHC	ug/L	-/-	1/Year	Composite	ND < 0.0038	*
Bis (2-Chloroethoxy) Methane	ug/L	-/-	1/Year	Composite	ND < 0.192	*
Bis (2-Chloroethyl) Ether	ug/L	-/-	1/Year	Composite	ND < 0.192	*
Bis (2-Chloroisopropyl) Ether	ug/L	-/-	1/Year	Composite	ND < 0.192	*
Bis (2-Ethylhexyl) Phthalate	ug/L	-/-	1/Year	Composite	ND < 1.92	*
Bromodichloromethane	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Bromoform	ug/L	-/-	1/Year	Grab	ND < 0.4	*
Bromomethane	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Butylbenzylphthalate	ug/L	-/-	1/Year	Composite	ND < 1.92	*
Carbon Tetrachloride	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Chlordane	ug/L	-/-	1/Year	Composite	ND < 0.076	*
Chlorobenzene	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Chloroethane	ug/L	-/-	1/Year	Grab	ND < 0.40	*
Chloroform	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Chloromethane	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Chromium	ug/L	-/-	1/Year	Composite	ND < 2.5	U
Chromium VI	ug/L	-/-	1/Year	Grab	0.28	J (DNQ)
Chrysene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
cis-1,2-Dichloroethene	ug/L	-/-	1/Year	Grab	ND < 0.25	*

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				1/11/2015 (Grab & Composite)		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
cis-1,3-Dichloropropene	ug/L	-/-	1/Year	Grab	ND < 0.25	*
delta-BHC	ug/L	-/-	1/Year	Composite	ND < 0.0033	*
Dibenzo(a,h)anthracene	ug/L	-/-	1/Year	Composite	ND < 0.24	*
Dibromochloromethane	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Dieldrin	ug/L	-/-	1/Year	Composite	ND < 0.0019	*
Diethylphthalate	ug/L	-/-	1/Year	Composite	ND < 0.481	*
Dimethylphthalate	ug/L	-/-	1/Year	Composite	ND < 0.24	*
Di-n-butylphthalate	ug/L	-/-	1/Year	Composite	ND < 0.962	*
Di-n-octylphthalate	ug/L	-/-	1/Year	Composite	ND < 1.92	*
Endosulfan I	ug/L	-/-	1/Year	Composite	ND < 0.0028	*
Endosulfan II	ug/L	-/-	1/Year	Composite	ND < 0.0019	*
Endosulfan Sulfate	ug/L	-/-	1/Year	Composite	ND < 0.0028	*
Endrin	ug/L	-/-	1/Year	Composite	ND < 0.0019	*
Endrin Aldehyde	ug/L	-/-	1/Year	Composite	ND < 0.0019	*
Ethylbenzene	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Fluoranthene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
Fluorene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
Heptachlor	ug/L	-/-	1/Year	Composite	ND < 0.0028	*
Heptachlor Epoxide	ug/L	-/-	1/Year	Composite	ND < 0.0024	*
Hexachlorobenzene	ug/L	-/-	1/Year	Composite	ND < 0.481	*
Hexachlorobutadiene	ug/L	-/-	1/Year	Composite	ND < 0.481	*
Hexachlorocyclopentadiene	ug/L	-/-	1/Year	Composite	ND < 1.92	*
Hexachloroethane	ug/L	-/-	1/Year	Composite	ND < 0.481	*
Indeno(1,2,3-cd)pyrene	ug/L	-/-	1/Year	Composite	ND < 0.962	*
Isophorone	ug/L	-/-	1/Year	Composite	ND < 0.481	*
Lindane (gamma-BHC)	ug/L	-/-	1/Year	Composite	ND < 0.0028	*
Methylene chloride	ug/L	-/-	1/Year	Grab	ND < 0.88	*
Naphthalene	ug/L	-/-	1/Year	Composite	ND < 0.481	*
Nitrobenzene	ug/L	-/-	1/Year	Composite	ND < 0.481	*
N-Nitrosodimethylamine	ug/L	-/-	1/Year	Composite	ND < 0.962	*
N-Nitroso-di-n-propylamine	ug/L	-/-	1/Year	Composite	ND < 0.962	*
N-Nitrosodiphenylamine	ug/L	-/-	1/Year	Composite	ND < 0.481	*
Pentachlorophenol	ug/L	-/-	1/Year	Composite	ND < 0.962	*
Phenanthrene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
Phenol	ug/L	-/-	1/Year	Composite	ND < 0.481	*
Pyrene	ug/L	-/-	1/Year	Composite	ND < 0.192	*
Silver	ug/L	-/-	1/Year	Composite	ND < 5	U
Tetrachloroethene	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Toluene	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Toxaphene	ug/L	-/-	1/Year	Composite	ND < 0.24	*
trans-1,2-Dichloroethene	ug/L	-/-	1/Year	Grab	ND < 0.25	*
trans-1,3-Dichloropropene	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Trichloroethene	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Vinyl chloride	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Xylenes (Total)	ug/L	-/-	1/Year	Grab	ND < 0.5	*
EFFLUENT MONITORING (NO LIMITATIONS) POLLUTANTS						
Aluminum	ug/L	-/-	1/Year	Composite	1,300	--
Chlorpyrifos	ug/L	-/-	1/Year	Composite	ND < 0.48	*
Diazinon	ug/L	-/-	1/Year	Composite	ND < 0.11	*
E. Coli	MPN/100mL	-/-	1/Year	Grab	360	--
Fecal Coliform	MPN/100mL	-/-	1/Year	Grab	930	--

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				1/11/2015 (Grab & Composite)		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
Hardness	mg/L	-/-	1/Year	Composite	30	--
Iron	mg/L	-/-	1/Year	Composite	1.3	--
Total Suspended Solids	mg/L	-/-	1/Year	Composite	13	--
Trichlorofluoromethane	ug/L	-/-	1/Year	Grab	ND < 0.25	*
Vanadium	ug/L	-/-	1/Year	Composite	ND < 5	U
ADDITIONAL POLLUTANTS						
Aluminum, dissolved	ug/L	-/-	Additional	Composite	110	--
Antimony, dissolved	ug/L	-/-	Additional	Composite	ND < 0.5	*
Arsenic, dissolved	ug/L	-/-	Additional	Composite	ND < 5	U
Beryllium, dissolved	ug/L	-/-	Additional	Composite	ND < 1	U
Boron, dissolved	mg/L	-/-	Additional	Composite	0.041	J (DNQ)
Cadmium, dissolved	ug/L	-/-	Additional	Composite	ND < 0.25	*
Chromium, dissolved	ug/L	-/-	Additional	Composite	ND < 2.5	U
Copper, dissolved	ug/L	-/-	Additional	Composite	3.7	*
Dissolved Oxygen (Field)	mg/L	-/-	Additional	Grab	86.7	*
Hardness, dissolved	mg/L	-/-	Additional	Composite	28	--
Iron, dissolved	mg/L	-/-	Additional	Composite	0.15	--
Lead, dissolved	ug/L	-/-	Additional	Composite	ND < 0.5	*
Mercury, dissolved	ug/L	-/-	Additional	Composite	ND < 0.1	*
Nickel, dissolved	ug/L	-/-	Additional	Composite	ND < 5	U
Selenium, dissolved	ug/L	-/-	Additional	Composite	ND < 0.5	*
Silver, dissolved	ug/L	-/-	Additional	Composite	ND < 5	U
Thallium, dissolved	ug/L	-/-	Additional	Composite	ND < 0.5	*
Vanadium, dissolved	ug/L	-/-	Additional	Composite	ND < 5	U
Zinc, Dissolved	ug/L	-/-	Additional	Composite	ND < 10	U

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				3/03/2015 (Grab & Composite)		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
Flow	MGD	17.89/-	1/Discharge	Meas	0.215419	*
CONVENTIONAL POLLUTANTS						
Oil & Grease	mg/L	15/-	1/Discharge	Grab	ND < 1.3	*
pH (Field)	pH units	6.5-8.5/-	1/Discharge	Grab	6.54	*
PRIORITY POLLUTANTS						
Antimony	ug/L	6.0/-	1/Discharge	Composite	0.71	U (B)
Cadmium	ug/L	4.0/-	1/Discharge	Composite	ND < 0.25	U
Copper	ug/L	14/-	1/Discharge	Composite	5.3	U (B)
Lead	ug/L	5.2/-	1/Discharge	Composite	5.8	--
Mercury	ug/L	0.13/-	1/Discharge	Composite	ND < 0.1	*
Nickel	ug/L	100/-	1/Year	ANR	ANR	ANR
Selenium	ug/L	-/-	1/Discharge	ANR	ANR	ANR
Thallium	ug/L	2.0/-	1/Discharge	Composite	ND < 0.5	U
Total Cyanide	ug/L	9.5/-	1/Discharge	Composite	ND < 2.5	*
Zinc	ug/L	-/-	1/Discharge	ANR	ANR	ANR
NON-CONVENTIONAL POLLUTANTS						
Acute Toxicity	% SURVIVAL	70-90/-	1/Year	ANR	ANR	ANR
Boron	mg/L	1.0/-	1/Year	ANR	ANR	ANR
Chloride	mg/L	150/-	1/Discharge	Composite	3	*
Chronic Toxicity	TUC	1/-	1st & 2nd rain event/Year	Composite	1.0	*
Fluoride	mg/L	1.6/-	1/Year	ANR	ANR	ANR
Nitrate + Nitrite as Nitrogen (N)	mg/L	10/-	1/Discharge	Composite	0.64	*
Perchlorate	ug/L	6.0/-	1/Semiannual	ANR	ANR	ANR
Sulfate	mg/L	250/-	1/Discharge	Composite	3.3	*
Temperature (Field)	deg. F	86/-	1/Discharge	Grab	45.05	*
Total Dissolved Solids	mg/L	850/-	1/Discharge	Composite	68	*
REMAINING PRIORITY POLLUTANTS						
1,1,1-Trichloroethane	ug/L	-/-	1/Year	ANR	ANR	ANR
1,1,2,2-Tetrachloroethane	ug/L	-/-	1/Year	ANR	ANR	ANR
1,1,2-Trichloroethane	ug/L	-/-	1/Year	ANR	ANR	ANR
1,1-Dichloroethane	ug/L	-/-	1/Year	ANR	ANR	ANR
1,1-Dichloroethene	ug/L	-/-	1/Year	ANR	ANR	ANR
1,2,4-Trichlorobenzene	ug/L	-/-	1/Year	ANR	ANR	ANR
1,2-Dichlorobenzene	ug/L	-/-	1/Year	ANR	ANR	ANR
1,2-Dichloroethane	ug/L	-/-	1/Year	ANR	ANR	ANR
1,2-Dichloropropane	ug/L	-/-	1/Year	ANR	ANR	ANR
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	1/Year	ANR	ANR	ANR
1,3-Dichlorobenzene	ug/L	-/-	1/Year	ANR	ANR	ANR
1,4-Dichlorobenzene	ug/L	-/-	1/Year	ANR	ANR	ANR
2,4,6-Trichlorophenol	ug/L	-/-	1/Year	ANR	ANR	ANR
2,4-Dichlorophenol	ug/L	-/-	1/Year	ANR	ANR	ANR
2,4-Dimethylphenol	ug/L	-/-	1/Year	ANR	ANR	ANR
2,4-Dinitrophenol	ug/L	-/-	1/Year	ANR	ANR	ANR
2,4-Dinitrotoluene	ug/L	-/-	1/Year	ANR	ANR	ANR
2,6-Dinitrotoluene	ug/L	-/-	1/Year	ANR	ANR	ANR
2-Chloroethylvinylether	ug/L	-/-	1/Year	ANR	ANR	ANR
2-Chloronaphthalene	ug/L	-/-	1/Year	ANR	ANR	ANR
2-Chlorophenol	ug/L	-/-	1/Year	ANR	ANR	ANR
2-Methyl-4,6-Dinitrophenol	ug/L	-/-	1/Year	ANR	ANR	ANR
2-Nitrophenol	ug/L	-/-	1/Year	ANR	ANR	ANR

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				3/03/2015 (Grab & Composite)		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
3,3'-Dichlorobenzidine	ug/L	-/-	1/Year	ANR	ANR	ANR
4,4'-DDD	ug/L	-/-	1/Year	ANR	ANR	ANR
4,4'-DDE	ug/L	-/-	1/Year	ANR	ANR	ANR
4,4'-DDT	ug/L	-/-	1/Year	ANR	ANR	ANR
4-Bromophenylphenylether	ug/L	-/-	1/Year	ANR	ANR	ANR
4-Chloro-3-methylphenol	ug/L	-/-	1/Year	ANR	ANR	ANR
4-Chlorophenylphenylether	ug/L	-/-	1/Year	ANR	ANR	ANR
4-Nitrophenol	ug/L	-/-	1/Year	ANR	ANR	ANR
Acenaphthene	ug/L	-/-	1/Year	ANR	ANR	ANR
Acenaphthylene	ug/L	-/-	1/Year	ANR	ANR	ANR
Acrolein	ug/L	-/-	1/Year	ANR	ANR	ANR
Acrylonitrile	ug/L	-/-	1/Year	ANR	ANR	ANR
Aldrin	ug/L	-/-	1/Year	ANR	ANR	ANR
alpha-BHC	ug/L	-/-	1/Year	ANR	ANR	ANR
Anthracene	ug/L	-/-	1/Year	ANR	ANR	ANR
Aroclor 1016	ug/L	-/-	1/Year	ANR	ANR	ANR
Aroclor 1221	ug/L	-/-	1/Year	ANR	ANR	ANR
Aroclor 1232	ug/L	-/-	1/Year	ANR	ANR	ANR
Aroclor 1242	ug/L	-/-	1/Year	ANR	ANR	ANR
Aroclor 1248	ug/L	-/-	1/Year	ANR	ANR	ANR
Aroclor 1254	ug/L	-/-	1/Year	ANR	ANR	ANR
Aroclor 1260	ug/L	-/-	1/Year	ANR	ANR	ANR
Arsenic	ug/L	-/-	1/Year	ANR	ANR	ANR
Asbestos	MFL	-/-	1/Year	ANR	ANR	ANR
Benzene	ug/L	-/-	1/Year	ANR	ANR	ANR
Benzidine	ug/L	-/-	1/Year	ANR	ANR	ANR
Benzo(a)anthracene	ug/L	-/-	1/Year	ANR	ANR	ANR
Benzo(a)pyrene	ug/L	-/-	1/Year	ANR	ANR	ANR
Benzo(b)fluoranthene	ug/L	-/-	1/Year	ANR	ANR	ANR
Benzo(g,h,i)Perylene	ug/L	-/-	1/Year	ANR	ANR	ANR
Benzo(k)fluoranthene	ug/L	-/-	1/Year	ANR	ANR	ANR
Beryllium	ug/L	-/-	1/Year	ANR	ANR	ANR
beta-BHC	ug/L	-/-	1/Year	ANR	ANR	ANR
Bis (2-Chloroethoxy) Methane	ug/L	-/-	1/Year	ANR	ANR	ANR
Bis (2-Chloroethyl) Ether	ug/L	-/-	1/Year	ANR	ANR	ANR
Bis (2-Chloroisopropyl) Ether	ug/L	-/-	1/Year	ANR	ANR	ANR
Bis (2-Ethylhexyl) Phthalate	ug/L	-/-	1/Year	ANR	ANR	ANR
Bromodichloromethane	ug/L	-/-	1/Year	ANR	ANR	ANR
Bromoform	ug/L	-/-	1/Year	ANR	ANR	ANR
Bromomethane	ug/L	-/-	1/Year	ANR	ANR	ANR
Butylbenzylphthalate	ug/L	-/-	1/Year	ANR	ANR	ANR
Carbon Tetrachloride	ug/L	-/-	1/Year	ANR	ANR	ANR
Chlordane	ug/L	-/-	1/Year	ANR	ANR	ANR
Chlorobenzene	ug/L	-/-	1/Year	ANR	ANR	ANR
Chloroethane	ug/L	-/-	1/Year	ANR	ANR	ANR
Chloroform	ug/L	-/-	1/Year	ANR	ANR	ANR
Chloromethane	ug/L	-/-	1/Year	ANR	ANR	ANR
Chromium	ug/L	-/-	1/Year	ANR	ANR	ANR
Chromium VI	ug/L	-/-	1/Year	ANR	ANR	ANR
Chrysene	ug/L	-/-	1/Year	ANR	ANR	ANR
cis-1,2-Dichloroethene	ug/L	-/-	1/Year	ANR	ANR	ANR

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				3/03/2015 (Grab & Composite)		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
cis-1,3-Dichloropropene	ug/L	-/-	1/Year	ANR	ANR	ANR
delta-BHC	ug/L	-/-	1/Year	ANR	ANR	ANR
Dibenzo(a,h)anthracene	ug/L	-/-	1/Year	ANR	ANR	ANR
Dibromochloromethane	ug/L	-/-	1/Year	ANR	ANR	ANR
Dieldrin	ug/L	-/-	1/Year	ANR	ANR	ANR
Diethylphthalate	ug/L	-/-	1/Year	ANR	ANR	ANR
Dimethylphthalate	ug/L	-/-	1/Year	ANR	ANR	ANR
Di-n-butylphthalate	ug/L	-/-	1/Year	ANR	ANR	ANR
Di-n-octylphthalate	ug/L	-/-	1/Year	ANR	ANR	ANR
Endosulfan I	ug/L	-/-	1/Year	ANR	ANR	ANR
Endosulfan II	ug/L	-/-	1/Year	ANR	ANR	ANR
Endosulfan Sulfate	ug/L	-/-	1/Year	ANR	ANR	ANR
Endrin	ug/L	-/-	1/Year	ANR	ANR	ANR
Endrin Aldehyde	ug/L	-/-	1/Year	ANR	ANR	ANR
Ethylbenzene	ug/L	-/-	1/Year	ANR	ANR	ANR
Fluoranthene	ug/L	-/-	1/Year	ANR	ANR	ANR
Fluorene	ug/L	-/-	1/Year	ANR	ANR	ANR
Heptachlor	ug/L	-/-	1/Year	ANR	ANR	ANR
Heptachlor Epoxide	ug/L	-/-	1/Year	ANR	ANR	ANR
Hexachlorobenzene	ug/L	-/-	1/Year	ANR	ANR	ANR
Hexachlorobutadiene	ug/L	-/-	1/Year	ANR	ANR	ANR
Hexachlorocyclopentadiene	ug/L	-/-	1/Year	ANR	ANR	ANR
Hexachloroethane	ug/L	-/-	1/Year	ANR	ANR	ANR
Indeno(1,2,3-cd)pyrene	ug/L	-/-	1/Year	ANR	ANR	ANR
Isophorone	ug/L	-/-	1/Year	ANR	ANR	ANR
Lindane (gamma-BHC)	ug/L	-/-	1/Year	ANR	ANR	ANR
Methylene chloride	ug/L	-/-	1/Year	ANR	ANR	ANR
Naphthalene	ug/L	-/-	1/Year	ANR	ANR	ANR
Nitrobenzene	ug/L	-/-	1/Year	ANR	ANR	ANR
N-Nitrosodimethylamine	ug/L	-/-	1/Year	ANR	ANR	ANR
N-Nitroso-di-n-propylamine	ug/L	-/-	1/Year	ANR	ANR	ANR
N-Nitrosodiphenylamine	ug/L	-/-	1/Year	ANR	ANR	ANR
Pentachlorophenol	ug/L	-/-	1/Year	ANR	ANR	ANR
Phenanthrene	ug/L	-/-	1/Year	ANR	ANR	ANR
Phenol	ug/L	-/-	1/Year	ANR	ANR	ANR
Pyrene	ug/L	-/-	1/Year	ANR	ANR	ANR
Silver	ug/L	-/-	1/Year	ANR	ANR	ANR
Tetrachloroethene	ug/L	-/-	1/Year	ANR	ANR	ANR
Toluene	ug/L	-/-	1/Year	ANR	ANR	ANR
Toxaphene	ug/L	-/-	1/Year	ANR	ANR	ANR
trans-1,2-Dichloroethene	ug/L	-/-	1/Year	ANR	ANR	ANR
trans-1,3-Dichloropropene	ug/L	-/-	1/Year	ANR	ANR	ANR
Trichloroethene	ug/L	-/-	1/Year	ANR	ANR	ANR
Vinyl chloride	ug/L	-/-	1/Year	ANR	ANR	ANR
Xylenes (Total)	ug/L	-/-	1/Year	ANR	ANR	ANR
EFFLUENT MONITORING (NO LIMITATIONS) POLLUTANTS						
Aluminum	ug/L	-/-	1/Year	ANR	ANR	ANR
Chlorpyrifos	ug/L	-/-	1/Year	ANR	ANR	ANR
Diazinon	ug/L	-/-	1/Year	ANR	ANR	ANR
E. Coli	MPN/100mL	-/-	1/Year	ANR	ANR	ANR
Fecal Coliform	MPN/100mL	-/-	1/Year	ANR	ANR	ANR

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				3/03/2015 (Grab & Composite)		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
Hardness	mg/L	-/-	1/Year	ANR	ANR	ANR
Iron	mg/L	-/-	1/Year	ANR	ANR	ANR
Total Suspended Solids	mg/L	-/-	1/Year	Composite	33	--
Trichlorofluoromethane	ug/L	-/-	1/Year	ANR	ANR	ANR
Vanadium	ug/L	-/-	1/Year	ANR	ANR	ANR
ADDITIONAL POLLUTANTS						
Aluminum, dissolved	ug/L	-/-	Additional	ANR	ANR	ANR
Antimony, dissolved	ug/L	-/-	Additional	Composite	0.63	J (DNQ)
Arsenic, dissolved	ug/L	-/-	Additional	ANR	ANR	ANR
Beryllium, dissolved	ug/L	-/-	Additional	ANR	ANR	ANR
Boron, dissolved	mg/L	-/-	Additional	ANR	ANR	ANR
Cadmium, dissolved	ug/L	-/-	Additional	Composite	ND < 0.25	U
Chromium, dissolved	ug/L	-/-	Additional	ANR	ANR	ANR
Copper, dissolved	ug/L	-/-	Additional	Composite	3.1	--
Dissolved Oxygen (Field)	mg/L	-/-	Additional	ANR	ANR	ANR
Hardness, dissolved	mg/L	-/-	Additional	ANR	ANR	ANR
Iron, dissolved	mg/L	-/-	Additional	ANR	ANR	ANR
Lead, dissolved	ug/L	-/-	Additional	Composite	ND < 0.5	U
Mercury, dissolved	ug/L	-/-	Additional	Composite	ND < 0.1	*
Nickel, dissolved	ug/L	-/-	Additional	ANR	ANR	ANR
Selenium, dissolved	ug/L	-/-	Additional	ANR	ANR	ANR
Silver, dissolved	ug/L	-/-	Additional	ANR	ANR	ANR
Thallium, dissolved	ug/L	-/-	Additional	Composite	ND < 0.5	*
Vanadium, dissolved	ug/L	-/-	Additional	ANR	ANR	ANR
Zinc, Dissolved	ug/L	-/-	Additional	ANR	ANR	ANR

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

Sample Type Composite
Sample Date January 11, 2015

ANALYTE	SAMPLE FREQUENCY	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER		1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HpCDD	1/Discharge	6.00E-06	4.70E-05	2.20E-05	J (DNQ)		0.01	0.05	**ND**
1,2,3,4,6,7,8-HpCDF	1/Discharge	6.00E-06	4.70E-05	7.30E-06	U (B)		0.01	0.01	**ND**
1,2,3,4,7,8,9-HpCDF	1/Discharge	6.00E-06	4.70E-05	2.00E-06	J (DNQ)		0.01	0.4	**ND**
1,2,3,4,7,8-HxCDD	1/Discharge	6.00E-06	4.70E-05	1.70E-06	UJ (*III)		0.1	0.3	**ND**
1,2,3,4,7,8-HxCDF	1/Discharge	6.00E-06	4.70E-05	1.80E-06	UJ (*III)		0.1	0.08	**ND**
1,2,3,6,7,8-HxCDD	1/Discharge	6.00E-06	4.70E-05	2.20E-06	J (DNQ)		0.1	0.1	**ND**
1,2,3,6,7,8-HxCDF	1/Discharge	6.00E-06	4.70E-05	1.90E-06	J (DNQ)		0.1	0.2	**ND**
1,2,3,7,8,9-HxCDD	1/Discharge	6.00E-06	4.70E-05	2.30E-06	J (DNQ)		0.1	0.1	**ND**
1,2,3,7,8,9-HxCDF	1/Discharge	6.00E-06	4.70E-05	1.40E-06	J (DNQ)		0.1	0.6	**ND**
1,2,3,7,8-PeCDD	1/Discharge	6.00E-06	4.70E-05	1.60E-06	J (DNQ)		1	0.9	**ND**
1,2,3,7,8-PeCDF	1/Discharge	6.00E-06	4.70E-05	1.30E-06	J (DNQ)		0.05	0.2	**ND**
2,3,4,6,7,8-HxCDF	1/Discharge	6.00E-06	4.70E-05	ND	U		0.1	0.7	**ND**
2,3,4,7,8-PeCDF	1/Discharge	6.00E-06	4.70E-05	1.40E-06	J (DNQ)		0.5	1.6	**ND**
2,3,7,8-TCDD	1/Discharge	6.00E-06	9.50E-06	ND	U		1	1	**ND**
2,3,7,8-TCDF	1/Discharge	6.00E-06	9.50E-06	ND	U		0.1	0.8	**ND**
OCDD	1/Discharge	1.20E-05	9.50E-05	2.40E-04	U (B)		0.0001	0.01	**ND**
OCDF	1/Discharge	1.20E-05	9.50E-05	1.60E-05	U (B)		0.0001	0.02	**ND**
TCDD TEQ w/out DNQ Values									**ND**

TCDD TEQ (PRIORITY POLLUTANTS) PERMIT LIMIT = 2.80E-08

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

Sample Type Composite
Sample Date March 3, 2015

ANALYTE	SAMPLE FREQUENCY	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER		1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HpCDD	1/Discharge	6.00E-06	4.70E-05	4.60E-05	J (DNQ)		0.01	0.05	**ND**
1,2,3,4,6,7,8-HpCDF	1/Discharge	6.00E-06	4.70E-05	1.30E-05	J (DNQ)		0.01	0.01	**ND**
1,2,3,4,7,8,9-HpCDF	1/Discharge	6.00E-06	4.70E-05	ND	U		0.01	0.4	**ND**
1,2,3,4,7,8-HxCDD	1/Discharge	6.00E-06	4.70E-05	1.80E-06	J (DNQ)		0.1	0.3	**ND**
1,2,3,4,7,8-HxCDF	1/Discharge	6.00E-06	4.70E-05	2.40E-06	UJ (*III)		0.1	0.08	**ND**
1,2,3,6,7,8-HxCDD	1/Discharge	6.00E-06	4.70E-05	1.60E-06	UJ (*III)		0.1	0.1	**ND**
1,2,3,6,7,8-HxCDF	1/Discharge	6.00E-06	4.70E-05	ND	U		0.1	0.2	**ND**
1,2,3,7,8,9-HxCDD	1/Discharge	6.00E-06	4.70E-05	1.90E-06	J (DNQ)		0.1	0.1	**ND**
1,2,3,7,8,9-HxCDF	1/Discharge	6.00E-06	4.70E-05	ND	U		0.1	0.6	**ND**
1,2,3,7,8-PeCDD	1/Discharge	6.00E-06	4.70E-05	ND	U		1	0.9	**ND**
1,2,3,7,8-PeCDF	1/Discharge	6.00E-06	4.70E-05	ND	U		0.05	0.2	**ND**
2,3,4,6,7,8-HxCDF	1/Discharge	6.00E-06	4.70E-05	ND	U		0.1	0.7	**ND**
2,3,4,7,8-PeCDF	1/Discharge	6.00E-06	4.70E-05	ND	U		0.5	1.6	**ND**
2,3,7,8-TCDD	1/Discharge	6.00E-06	9.50E-06	ND	U		1	1	**ND**
2,3,7,8-TCDF	1/Discharge	6.00E-06	9.50E-06	ND	U		0.1	0.8	**ND**
OCDD	1/Discharge	1.20E-05	9.50E-05	5.50E-04	--		0.0001	0.01	**5.50E-10**
OCDF	1/Discharge	1.20E-05	9.50E-05	2.40E-05	U (B)		0.0001	0.02	**ND**
TCDD TEQ w/out DNQ Values									**5.50E-10**

TCDD TEQ (PRIORITY POLLUTANTS) PERMIT LIMIT = 2.80E-08

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				1/11/2015 (Composite)			3/03/2015 (Composite)		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**RESULT**	**MDA**	**VALIDATION QUALIFIER**	**RESULT**	**MDA**	**VALIDATION QUALIFIER**
NON-CONVENTIONAL POLLUTANTS									
Gross Alpha	pCi/L	15/-	1/Discharge	1.12 ± 1.25	2.04	UJ (C)	1.29 ± 1.34	2.15	UJ (C)
Gross Beta	pCi/L	50/-	1/Discharge	3.19 ± 0.862	0.977	--	3.19 ± 0.902	1.08	--
Strontium-90	pCi/L	8.0/-	1/Discharge	0.221 ± 0.382	0.646	U	0.0911 ± 0.380	0.664	U
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	1/Discharge	0.467 ± 0.239	NA	UJ (C)	0.463 ± 0.489	NA	UJ (C)
Tritium	pCi/L	20000/-	1/Discharge	113 ± 230	392	U	74.8 ± 189	328	U
ADDITIONAL POLLUTANTS									
Cesium 137	pCi/L	200/-	1/Discharge	-0.579 ± 6.9	12.5	U	1.38 ± 4.56	8.35	U
Uranium, Total	pCi/L	20/-	1/Discharge	0.218 ± 0.162	0.155	--	0.324 ± 0.437	0.562	U
ADDITIONAL POLLUTANTS WITHOUT LIMITS									
Potassium-40	pCi/L	-/-	1/Discharge	-5.03 ± 86.6	171	U	-29.5 ± 123	200	U

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				1/11/2015 (Grab & Composite)		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**Sample Frequency**	**Sample Type**	**Result**	**Concentration Result Validation Qualifier**
Flow	MGD	17.89/-	1/Discharge	Meas	0.296195	*
CONVENTIONAL POLLUTANTS						
Oil & Grease	LBS/DAY	2,227/-	1/Discharge	Grab	ND	*
PRIORITY POLLUTANTS						
Antimony	LBS/DAY	0.89/-	1/Discharge	Composite	ND	*
Cadmium	LBS/DAY	0.59/-	1/Discharge	Composite	ND	*
Copper	LBS/DAY	2.1/-	1/Discharge	Composite	0.01	*
Lead	LBS/DAY	0.77/-	1/Discharge	Composite	0.006	*
Mercury	LBS/DAY	0.02/-	1/Discharge	Composite	ND	*
Nickel	LBS/DAY	14.9/-	1/Year	Composite	ND	*
TCDD TEQ_NoDNQ	LBS/DAY	4.20E-09/-	1/Discharge	Composite	ND	--
Thallium	LBS/DAY	0.3/-	1/Discharge	Composite	ND	U
Total Cyanide	LBS/DAY	1.4/-	1/Discharge	Composite	ND	*
NON-CONVENTIONAL POLLUTANTS						
Boron	LBS/DAY	148/-	1/Year	Composite	0.10	J (DNQ)
Chloride	LBS/DAY	22,268/-	1/Discharge	Composite	11.12	*
Fluoride	LBS/DAY	238/-	1/Year	Composite	0.37	*
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	1,485/-	1/Discharge	Composite	2.08	*
Perchlorate	LBS/DAY	0.89/-	1/Semiannual	Composite	ND	*
Sulfate	LBS/DAY	37,113/-	1/Discharge	Composite	11.36	*
Total Dissolved Solids	LBS/DAY	126,184/-	1/Discharge	Composite	222.32	*

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

OUTFALL 009 (WS-13 DRAINAGE)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				3/03/2015 (Grab & Composite)		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**Sample Frequency**	**Sample Type**	**Result**	**Concentration Result Validation Qualifier**
Flow	MGD	17.89/-	1/Discharge	Meas	0.215419	*
CONVENTIONAL POLLUTANTS						
Oil & Grease	LBS/DAY	2,227/-	1/Discharge	Grab	ND	*
PRIORITY POLLUTANTS						
Antimony	LBS/DAY	0.89/-	1/Discharge	Composite	0.001	U (B)
Cadmium	LBS/DAY	0.59/-	1/Discharge	Composite	ND	U
Copper	LBS/DAY	2.1/-	1/Discharge	Composite	0.01	U (B)
Lead	LBS/DAY	0.77/-	1/Discharge	Composite	0.01	--
Mercury	LBS/DAY	0.02/-	1/Discharge	Composite	ND	*
Nickel	LBS/DAY	14.9/-	1/Year	ANR	ANR	ANR
TCDD TEQ_NoDNQ	LBS/DAY	4.20E-09/-	1/Discharge	Composite	9.88E-13	--
Thallium	LBS/DAY	0.3/-	1/Discharge	Composite	ND	U
Total Cyanide	LBS/DAY	1.4/-	1/Discharge	Composite	ND	*
NON-CONVENTIONAL POLLUTANTS						
Boron	LBS/DAY	148/-	1/Year	ANR	ANR	ANR
Chloride	LBS/DAY	22,268/-	1/Discharge	Composite	5.39	*
Fluoride	LBS/DAY	238/-	1/Year	ANR	ANR	ANR
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	1,485/-	1/Discharge	Composite	1.15	*
Perchlorate	LBS/DAY	0.89/-	1/Semiannual	ANR	ANR	ANR
Sulfate	LBS/DAY	37,113/-	1/Discharge	Composite	5.93	*
Total Dissolved Solids	LBS/DAY	126,184/-	1/Discharge	Composite	122.17	*

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

ARROYO SIMI (FRONTIER PARK RECEIVING WATER)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				1/11/2015		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
POLLUTANTS WITH LIMITS						
4,4'-DDD	ug/L	0.0014/-	1/Quarter	Grab	ND < 0.0038	*
4,4'-DDE	ug/L	0.001/-	1/Quarter	Grab	ND < 0.0029	*
4,4'-DDT	ug/L	0.001/-	1/Quarter	Grab	ND < 0.0038	*
Aroclor 1016	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.24	*
Aroclor 1221	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.24	*
Aroclor 1232	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.24	*
Aroclor 1242	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.24	*
Aroclor 1248	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.24	*
Aroclor 1254	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.24	*
Aroclor 1260	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.24	*
Chlordane	ug/L	0.001/-	1/Quarter	Grab	ND < 0.076	*
Chlorpyrifos	ug/L	0.02/-	1/Quarter	Grab	ND < 0.48	*
Diazinon	ug/L	0.16/-	1/Quarter	Grab	ND < 0.11	*
Dieldrin	ug/L	0.0002/-	1/Quarter	Grab	ND < 0.0019	*
E. Coli	MPN/100 ml	235/-	1/Year	Grab	>1,600	--
Fecal Coliform	MPN/100 ml	400/-	1/Year	Grab	>1,600	--
pH (Field)	pH Units	6.5-8.5/-	1/Quarter	Grab	6.87	*
Toxaphene	ug/L	0.0003/-	1/Quarter	Grab	ND < 0.24	*
POLLUTANTS WITHOUT LIMITS						
Hardness	mg/L	-/-	1/Quarter	Grab	170	--
Temperature (Field)	deg F	-/-	1/Quarter	Grab	59.25	*
Total Suspended Solids	mg/L	-/-	1/Year	Grab	250	--
Water Velocity	ft/sec	-/-	1/Quarter	Meas	0.4	*

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

ARROYO SIMI (FRONTIER PARK RECEIVING WATER)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				1/15/2015		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
POLLUTANTS WITH LIMITS						
4,4'-DDD	ug/L	0.0014/-	1/Quarter	ANR	ANR	ANR
4,4'-DDE	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
4,4'-DDT	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
Aroclor 1016	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1221	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1232	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1242	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1248	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1254	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1260	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Chlordane	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
Chlorpyrifos	ug/L	0.02/-	1/Quarter	ANR	ANR	ANR
Diazinon	ug/L	0.16/-	1/Quarter	ANR	ANR	ANR
Dieldrin	ug/L	0.0002/-	1/Quarter	ANR	ANR	ANR
E. Coli	MPN/100 ml	235/-	1/Year	Grab	350	--
Fecal Coliform	MPN/100 ml	400/-	1/Year	Grab	350	--
pH (Field)	pH Units	6.5-8.5/-	1/Quarter	Grab	7.09	*
Toxaphene	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
POLLUTANTS WITHOUT LIMITS						
Hardness	mg/L	-/-	1/Quarter	ANR	ANR	ANR
Temperature (Field)	deg F	-/-	1/Quarter	Grab	49.14	*
Total Suspended Solids	mg/L	-/-	1/Year	ANR	ANR	ANR
Water Velocity	ft/sec	-/-	1/Quarter	Meas	0.1	*

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

ARROYO SIMI (FRONTIER PARK RECEIVING WATER)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				1/19/2015		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
POLLUTANTS WITH LIMITS						
4,4'-DDD	ug/L	0.0014/-	1/Quarter	ANR	ANR	ANR
4,4'-DDE	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
4,4'-DDT	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
Aroclor 1016	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1221	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1232	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1242	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1248	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1254	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1260	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Chlordane	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
Chlorpyrifos	ug/L	0.02/-	1/Quarter	ANR	ANR	ANR
Diazinon	ug/L	0.16/-	1/Quarter	ANR	ANR	ANR
Dieldrin	ug/L	0.0002/-	1/Quarter	ANR	ANR	ANR
E. Coli	MPN/100 ml	235/-	1/Year	Grab	110	--
Fecal Coliform	MPN/100 ml	400/-	1/Year	Grab	920	--
pH (Field)	pH Units	6.5-8.5/-	1/Quarter	Grab	7.27	*
Toxaphene	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
POLLUTANTS WITHOUT LIMITS						
Hardness	mg/L	-/-	1/Quarter	ANR	ANR	ANR
Temperature (Field)	deg F	-/-	1/Quarter	Grab	52.86	*
Total Suspended Solids	mg/L	-/-	1/Year	ANR	ANR	ANR
Water Velocity	ft/sec	-/-	1/Quarter	Meas	0.0	*

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

ARROYO SIMI (FRONTIER PARK RECEIVING WATER)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				1/23/2015		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
POLLUTANTS WITH LIMITS						
4,4'-DDD	ug/L	0.0014/-	1/Quarter	ANR	ANR	ANR
4,4'-DDE	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
4,4'-DDT	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
Aroclor 1016	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1221	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1232	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1242	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1248	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1254	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1260	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Chlordane	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
Chlorpyrifos	ug/L	0.02/-	1/Quarter	ANR	ANR	ANR
Diazinon	ug/L	0.16/-	1/Quarter	ANR	ANR	ANR
Dieldrin	ug/L	0.0002/-	1/Quarter	ANR	ANR	ANR
E. Coli	MPN/100 ml	235/-	1/Year	Grab	1,600	--
Fecal Coliform	MPN/100 ml	400/-	1/Year	Grab	1,600	--
pH (Field)	pH Units	6.5-8.5/-	1/Quarter	Grab	6.98	*
Toxaphene	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
POLLUTANTS WITHOUT LIMITS						
Hardness	mg/L	-/-	1/Quarter	ANR	ANR	ANR
Temperature (Field)	deg F	-/-	1/Quarter	Grab	51.33	*
Total Suspended Solids	mg/L	-/-	1/Year	ANR	ANR	ANR
Water Velocity	ft/sec	-/-	1/Quarter	Meas	0.0	*

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

ARROYO SIMI (FRONTIER PARK RECEIVING WATER)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				1/27/2015		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
POLLUTANTS WITH LIMITS						
4,4'-DDD	ug/L	0.0014/-	1/Quarter	ANR	ANR	ANR
4,4'-DDE	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
4,4'-DDT	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
Aroclor 1016	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1221	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1232	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1242	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1248	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1254	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1260	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Chlordane	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
Chlorpyrifos	ug/L	0.02/-	1/Quarter	ANR	ANR	ANR
Diazinon	ug/L	0.16/-	1/Quarter	ANR	ANR	ANR
Dieldrin	ug/L	0.0002/-	1/Quarter	ANR	ANR	ANR
E. Coli	MPN/100 ml	235/-	1/Year	Grab	>1,600	--
Fecal Coliform	MPN/100 ml	400/-	1/Year	Grab	>1,600	--
pH (Field)	pH Units	6.5-8.5/-	1/Quarter	Grab	6.64	*
Toxaphene	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
POLLUTANTS WITHOUT LIMITS						
Hardness	mg/L	-/-	1/Quarter	ANR	ANR	ANR
Temperature (Field)	deg F	-/-	1/Quarter	Grab	57.85	*
Total Suspended Solids	mg/L	-/-	1/Year	ANR	ANR	ANR
Water Velocity	ft/sec	-/-	1/Quarter	Meas	0.0	*

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

ARROYO SIMI (FRONTIER PARK RECEIVING WATER)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				3/3/2015		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
POLLUTANTS WITH LIMITS						
4,4'-DDD	ug/L	0.0014/-	1/Quarter	ANR	ANR	ANR
4,4'-DDE	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
4,4'-DDT	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
Aroclor 1016	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1221	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1232	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1242	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1248	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1254	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Aroclor 1260	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
Chlordane	ug/L	0.001/-	1/Quarter	ANR	ANR	ANR
Chlorpyrifos	ug/L	0.02/-	1/Quarter	ANR	ANR	ANR
Diazinon	ug/L	0.16/-	1/Quarter	ANR	ANR	ANR
Dieldrin	ug/L	0.0002/-	1/Quarter	ANR	ANR	ANR
E. Coli	MPN/100 ml	235/-	1/Year	ANR	ANR	ANR
Fecal Coliform	MPN/100 ml	400/-	1/Year	ANR	ANR	ANR
pH (Field)	pH Units	6.5-8.5/-	1/Quarter	Grab	7.33	*
Toxaphene	ug/L	0.0003/-	1/Quarter	ANR	ANR	ANR
POLLUTANTS WITHOUT LIMITS						
Hardness	mg/L	-/-	1/Quarter	Grab	260	--
Temperature (Field)	deg F	-/-	1/Quarter	Grab	49.57	*
Total Suspended Solids	mg/L	-/-	1/Year	ANR	ANR	ANR
Water Velocity	ft/sec	-/-	1/Quarter	Meas	0.01	*

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

ARROYO SIMI (FRONTIER PARK RECEIVING WATER)

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

Sample Type: Grab
Sample Date January 11, 2015

ANALYTE	SAMPLE FREQUENCY	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER		1998 WHO TEF	BEF Great Lakes Water Quality Initiative	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HpCDD	1/Year	1.25E-05	4.80E-05	2.50E-05	J(DNQ)		0.01	0.05	**ND**
1,2,3,4,6,7,8-HpCDF	1/Year	6.50E-06	4.80E-05	1.10E-05	UJ(*III)		0.01	0.01	**ND**
1,2,3,4,7,8,9-HpCDF	1/Year	1.25E-05	4.80E-05	ND	U		0.01	0.4	**ND**
1,2,3,4,7,8-HxCDD	1/Year	1.25E-05	4.80E-05	ND	U		0.1	0.3	**ND**
1,2,3,4,7,8-HxCDF	1/Year	6.50E-06	4.80E-05	ND	U		0.1	0.08	**ND**
1,2,3,6,7,8-HxCDD	1/Year	1.25E-05	4.80E-05	1.40E-06	UJ(*III)		0.1	0.1	**ND**
1,2,3,6,7,8-HxCDF	1/Year	1.25E-05	4.80E-05	ND	U		0.1	0.2	**ND**
1,2,3,7,8,9-HxCDD	1/Year	1.25E-05	4.80E-05	1.80E-06	J(DNQ)		0.1	0.1	**ND**
1,2,3,7,8,9-HxCDF	1/Year	6.50E-06	4.80E-05	ND	U		0.1	0.6	**ND**
1,2,3,7,8-PeCDD	1/Year	6.50E-06	4.80E-05	ND	U		1	0.9	**ND**
1,2,3,7,8-PeCDF	1/Year	6.50E-06	4.80E-05	ND	U		0.05	0.2	**ND**
2,3,4,6,7,8-HxCDF	1/Year	6.50E-06	4.80E-05	ND	U		0.1	0.7	**ND**
2,3,4,7,8-PeCDF	1/Year	6.20E-06	4.80E-05	ND	U		0.5	1.6	**ND**
2,3,7,8-TCDD	1/Year	2.50E-06	9.50E-06	ND	U		1	1	**ND**
2,3,7,8-TCDF	1/Year	2.50E-06	9.50E-06	ND	U		0.1	0.8	**ND**
OCDD	1/Year	5.00E-05	9.50E-05	2.20E-04	--		0.0001	0.01	**2.20E-10**
OCDF	1/Year	2.50E-05	9.50E-05	2.70E-05	U (B)		0.0001	0.02	**ND**

TCDD TEQ w/out DNQ Values	**2.20E-10**

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

ARROYO SIMI (FRONTIER PARK RECEIVING WATER), SEDIMENT

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

				3/24/2015		
ANALYTE	**UNITS**	**Permit Limit Daily Max/Monthly Avg**	**SAMPLE FREQUENCY**	**SAMPLE TYPE**	**RESULT**	**VALIDATION QUALIFIER**
POLLUTANTS WITH LIMITS						
4,4'-DDD	ug/kg	14/-	1/Year	Grab	ND < 1.5	U
4,4'-DDE	ug/kg	170/-	1/Year	Grab	ND < 1.5	U
4,4'-DDT	ug/kg	25/-	1/Year	Grab	ND < 1.5	U
Aroclor 1016	ug/kg	25,700/-	1/Year	Grab	ND < 17	U
Aroclor 1221	ug/kg	25,700/-	1/Year	Grab	ND < 17	U
Aroclor 1232	ug/kg	25,700/-	1/Year	Grab	ND < 17	U
Aroclor 1242	ug/kg	25,700/-	1/Year	Grab	ND < 17	U
Aroclor 1248	ug/kg	25,700/-	1/Year	Grab	ND < 17	U
Aroclor 1254	ug/kg	25,700/-	1/Year	Grab	ND < 17	U
Aroclor 1260	ug/kg	25,700/-	1/Year	Grab	ND < 17	U
Chlordane	ug/kg	3.3/-	1/Year	Grab	ND < 9.7	U
Toxaphene	ug/kg	230/-	1/Year	Grab	ND < 49	U
POLLUTANTS WITHOUT LIMITS						
Percent Moisture	%	-/-	1/Year	Grab	22	*
Ammonia as Nitrogen (N)	mg/kg	-/-	1/Year	Grab	3.14	J (DNQ)
Bivalve Embryo toxicity	%	-/-	1/Year	Grab	100	*
Conductivity (Field)	umhos/cm	-/-	1/Year	Grab	2.44	*
Dieldrin	ug/kg	-/-	1/Year	Grab	ND < 1.5	U
Dissolved Oxygen (Field)	mg/L	-/-	1/Year	Grab	5.13	*
pH (Field)	pH Units	-/-	1/Year	Grab	7.21	*
Sediment toxicity	%	-/-	1/Year	Grab	100	*
Temperature (Field)	deg F	-/-	1/Year	Grab	60.15	*
Total Organic Carbon	mg/kg	-/-	1/Year	Grab	ND < 2,500	U
Water Velocity	ft/sec	-/-	1/Year	Meas	0.1	*
PARTICLE SIZE DISTRIBUTION						
Gravel	%	-/-	1/Year	Grab	54.13	--
Coarse Sand	%	-/-	1/Year	Grab	10.71	--
Medium Sand	%	-/-	1/Year	Grab	27.91	--
Fine Sand	%	-/-	1/Year	Grab	7.07	--
Silt/Clay	%	-/-	1/Year	Grab	0.17	--

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

APPENDIX D

First Quarter 2015 Summary of Permit Limit Exceedances

SUMMARY OF PERMIT LIMIT EXCEEDANCES

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

DAILY MAX PERMIT LIMIT EXCEEDANCES								
OUTFALL	**LOCATIONS**	**SAMPLE DATE**	**SAMPLE TYPE**	**ANALYTE**	**PERMIT LIMIT DAILY MAX**	**DAILY MAX RESULT**	**UNITS**	**VALIDATION QUALIFIER**
Outfall 009	WS-13 Drainage	3/3/2015	Comp	Lead	5.2/-	5.8	ug/L	--

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

SUMMARY OF PERMIT LIMIT EXCEEDANCES

FIRST QUARTER 2015 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309

January 1 through March 31, 2015

SINGLE SAMPLE MAXIMUM RECEIVING WATER LIMIT EXCEEDANCES

OUTFALL	LOCATIONS	SAMPLE DATE	SAMPLE TYPE	ANALYTE	PERMIT LIMIT DAILY MAX	DAILY MAX RESULT	UNITS	VALIDATION QUALIFIER
Arroyo Simi	Frontier Park Receiving Water	1/11/2015	Grab	E. Coli	235/-	>1,600	MPN/100 ml	--
Arroyo Simi	Frontier Park Receiving Water	1/11/2015	Grab	Fecal Coliform	400/-	>1,600	MPN/100 ml	--
Arroyo Simi	Frontier Park Receiving Water	1/15/2015	Grab	E. Coli	235/-	350	MPN/100 ml	--
Arroyo Simi	Frontier Park Receiving Water	1/19/2015	Grab	Fecal Coliform	400/-	920	MPN/100 ml	--
Arroyo Simi	Frontier Park Receiving Water	1/23/2015	Grab	E. Coli	235/-	1,600	MPN/100 ml	--
Arroyo Simi	Frontier Park Receiving Water	1/23/2015	Grab	Fecal Coliform	400/-	1,600	MPN/100 ml	--
Arroyo Simi	Frontier Park Receiving Water	1/27/2015	Grab	E. Coli	235/-	>1,600	MPN/100 ml	--
Arroyo Simi	Frontier Park Receiving Water	1/27/2015	Grab	Fecal Coliform	400/-	>1,600	MPN/100 ml	--

GEOMETRIC MEAN RECEIVING WATER LIMIT EXCEEDANCES

OUTFALL	LOCATIONS	SAMPLE DATE	SAMPLE TYPE	ANALYTE	PERMIT LIMIT DAILY MAX	DAILY MAX RESULT	UNITS	VALIDATION QUALIFIER
Arroyo Simi	Frontier Park Receiving Water	1/11, 1/15, 1/19, 1/23, 1/27	Grab	E. Coli	126	691	MPN/100 ml	--
Arroyo Simi	Frontier Park Receiving Water	1/11, 1/15, 1/19, 1/23, 1/27	Grab	Fecal Coliform	200	1,057	MPN/100 ml	--

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

APPENDIX E

First Quarter 2015 Analytical Laboratory Report, Chain of Custody, and Validation Report

APPENDIX E

TABLE OF CONTENTS

Section No.

DATA VALIDATION REPORT

Haley & Aldrich Boeing SSFL Stormwater

SAMPLE DELIVERY GROUP: 440-98716-1

Prepared by

MEC^X
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title:	Haley & Aldrich Boeing SSFL Stormwater
Contract Task Order:	1272.003H.01 001
Sample Delivery Group:	440-98716-1
Project Manager:	K. Miller
Matrix:	Water
QC Level:	IV
No. of Samples:	2
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica Irvine

Table 1. Sample Identification

Sample Name	*Lab Sample Name*	*Sub-Lab Sample Name*	*Matrix*	*Collection*	*Method*
Outfall009_20150111_Comp	440-98732-1	N/A	Water	1/11/2015 9:20:00 AM	1613B, 200.7, 900.0, 901.1, 903.0, 904.0, 905.0, 906.0, HASL-300 U Mod, SM2540D, TEM
Outfall009_20150111_Grab	440-98716-1	N/A	Water	1/11/2015 9:20:00 AM	218.6, SM9221E, SM9221F

II. Sample Management

No anomalies were observed regarding sample management. The samples in this SDG were received at TestAmerica-Irvine on ice. The samples were transported directly from the field via courier and were received at TestAmerica-Irvine and EMSL below the temperature limits of 4°C ±2°C; however, as the samples were not noted to be frozen or damaged, no qualifications were required. The sample for asbestos was received above the temperature limits at the laboratory (EMS) at 9°C; however, as the temperature excursion was not prolonged and the sample was subsequently treated with ultraviolet light and ozone, no qualifications were applied. According to the laboratory sample receipt log for this SDG, the sample containers were received intact and properly preserved, if applicable. The COC was appropriately signed and dated by field and laboratory personnel. Custody seals were not utilized as the sample containers were delivered to the laboratories by courier.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The associated value is an estimated quantity.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.

Qualification Code Reference Table Cont.

D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within 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	Unusual problems found with the data that have been 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.	Unusual problems found with the data that have been 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.

III. Method Analyses

A. EPA METHOD 1613B—Dioxin/Furans

Reviewed By: L. Calvin
Date Reviewed: February 26, 2015

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Dioxins and Furans (DVP-19, Rev. 0), USEPA Method 1613B*, and the *National Functional Guidelines Chlorinated Dioxin/Furan Data Review* (2011).

- Holding Times: Extraction and analytical holding times were met. The water sample was extracted and analyzed within one year of collection.

- Instrument Performance: Instrument performance criteria were met. Following are findings associated with instrument performance.

    - GC Column Performance: A Windows Defining Mix (WDM) containing the first and last eluting congeners of each descriptor and isomer specificity compounds was analyzed prior to the initial calibration sequence and at the beginning of each analytical sequence. The GC column performance in the calibrations was acceptable, with the height of the valley between the closely eluting isomers and 2,3,7,8-TCDD reported as less than 25%.

    - Mass Spectrometer Performance: The mass spectrometer performance was acceptable with the static resolving power greater than 10,000.

- Calibration: Calibration criteria were met.

    - Initial Calibration: Initial calibration criteria were met. The initial calibration was acceptable with %RSDs ≤20% for the 15 native compounds (calibration by isotope dilution) and ≤35% for the two native and all labeled compounds (calibration by internal standard). The relative retention times and ion abundance ratios were within the Method 1613B control limits for all standards.

    - Continuing Calibration: Calibration verification (VER) consisted of a mid-level standard (CS3) analyzed at the beginning of the analytical sequence. The VER was acceptable with the concentrations within the acceptance criteria listed in Table 6 of EPA Method 1613B. The ion abundance ratios and relative retention times were within the method control limits.

- Blanks: The method blank had detects below the reporting limit for 1,2,3,4,6,7,8-HpCDD at 0.00000314 µg/L, 1,2,3,4,6,7,8-HpCDF at 0.00000154 µg/L, OCDD at 0.0000330 µg/L, and OCDF at 0.00000481 µg/L. The sample concentration of 1,2,3,4,6,7,8-HpCDD exceeded five times the method blank concentration and required no qualification. The sample results for 1,2,3,4,6,7,8-HpCDF, OCDF, and OCDD were qualified as

nondetected, "U," at the level of contamination. The method blank also reported detects for totals HpCDD, HpCDF, and TCDD. The peak comprising total TCDD in the method blank was present as the only peak in the sample at a comparable concentration; therefore, total TCDD was qualified as nondetected, "U," at the level of contamination. The results for total HpCDD and HpCDF were qualified as estimated, "J," as only a portion of the total was found to be method blank contamination. The method blank had no other detects above the estimated detection limit (EDL).

- Blank Spikes and Laboratory Control Samples: Recoveries were within the acceptance criteria listed in Table 6 of Method 1613B.

- Field QC Samples: 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. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: This SDG had no identified field duplicate samples.

- Internal Standards Performance: The labeled standard recoveries were within the acceptance criteria listed in Table 7 of Method 1613B.

- Compound Identification: Compound identification was verified. The laboratory analyzed for polychlorinated dioxins/furans by EPA Method 1613B. A confirmation analysis was performed for the 2,3,7,8-TCDF detect in the initial analysis. As 2,3,7,8-TCDF was not confirmed in the sample, the initial result was rejected, "R," in favor of the confirmation result.

- Compound Quantification and Reported Detection Limits: Compound quantitation was verified by recalculating any sample detects and a representative number of blank spike concentrations. The laboratory calculated and reported compound-specific detection limits. Any detects below the laboratory lower calibration level were qualified as estimated, "J." Any detects between the EDL and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Nondetects are valid to the EDL.

  Isomers 1,2,3,4,7,8-HxCDD and 1,2,3,4,7,8-HpCDF were each reported as an estimated maximum possible concentration (EMPC) in the sample. The results were qualified as estimated nondetects, "UJ," at the level of the EMPC. The result for total TCDD flagged by the laboratory as an EMPC was previously qualified as nondetected for method blank contamination (see Blanks section), and was not further qualified as an EMPC. Totals PeCDF, HpCDF, HxCDD and HxCDF also contained one or more EMPC peaks. The results for the totals were qualified as estimated, "J."

B. EPA METHOD 200.7—Metals

Reviewed By: P. Meeks
Date Reviewed: March 9, 2015

The sample listed in Table 1 for this analysis was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for Metals (DVP-5, Rev. 1), EPA Method 200.7, Standard Methods for the Examination of Water and Wastewater Method* (2012) *2340B*, and the *National Functional Guidelines for Inorganic Data Review* (2014).

- Holding Times: The analytical holding time, six months, was met.

- Calibration: The initial and continuing calibration recoveries were within 90-110% and the CRI recoveries were within the control limits of 70-130%.

- Blanks: There were no detects in the method blanks or CCBs.

- Interference Check Samples: Recoveries were within 80-120%. There were detects in the interferent check standard (ICSA); however, as the interferents were detected in the site sample at concentration much less than the ICSA, matrix interference was not suspected.

- Blank Spikes and Laboratory Control Samples: Recoveries were within the method control limits of 85-115%.

- Laboratory Duplicates: No laboratory duplicate analyses were performed.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG for the dissolved analytes. The recoveries were within method control limits of 70-130% and the RPDs were within the control limit of ≤20%.

- Serial Dilution: No serial dilution analyses were performed.

- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary forms were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

- Field QC Samples: 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. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

- Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

- Field Duplicates: There were no field duplicate samples identified for this SDG.

C. VARIOUS EPA METHODS — Radionuclides

Reviewed By: P. Meeks
Date Reviewed: February 25, 2015

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *EPA Methods 900.0, 901.1, 903.1, 904.0, 905.0, and 906.0, HASL 300,* and the *National Functional Guidelines for Inorganic Data Review* (2014).

- Holding Times: The tritium sample was analyzed within 180 days of collection. Aliquots for the remaining analytes were preserved within the five-day holding time.

- Calibration: The laboratory calibration information included the standard certificates and applicable preparation/dilutions logs for NIST-traceability.

  The gross alpha and radium-226 detector efficiencies were less than 20%; therefore, gross alpha and radium-226 in the sample, both nondetects, were qualified as estimated, , "UJ." The remaining detector efficiencies were greater than 20%.

  All initial and annual calibration verifications were acceptable with recoveries within 90-110%. All tracer/carrier recoveries were within 40-110%. The gamma spectroscopy analytes were determined at the maximum photopeak energy.

- Blanks: There were no analytes detected in the method blanks or the blank prepared by TestAmerica-Irvine.

- Blank Spikes and Laboratory Control Samples: The recoveries were within laboratory-established control limits.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on the sample in this SDG for tritium, total uranium, cesium-137, potassium-40, gross alpha and gross beta. The relative error ratios (RERs) were within the laboratory control limit of ≤1.

- Matrix Spike/Matrix Spike Duplicate: Matrix spike analyses were performed on the sample in this SDG for gross alpha and gross beta. The recoveries were within the laboratory control limits. For the remaining methods, the evaluation of accuracy was evaluated based on LCS results.

- Sample Result Verification: An EPA Level IV review was performed for the sample in this data package. The sample results and MDCs reported on the sample result form were

verified against the raw data and no calculation or transcription errors were noted. Any detects between the MDC and the reporting limit (RL) were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDC.

- Field QC Samples: 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. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

D. VARIOUS EPA METHODS—General Minerals

Reviewed By: P. Meeks
Date Reviewed: February 23, 2015

The sample listed in Table 1 for these analyses was validated based on the guidelines outlined in the *MEC^X Data Validation Procedure for General Minerals (DVP-6, Rev. 0), Standard Methods for the Examination of Water and Wastewater* (2006) *Methods 2540D, 9221E, and 9221F*, EPA 600R 94 134 (100.2), 218.6, and the *National Functional Guidelines for Inorganic Data Review* (2014).

- Holding Times: The e. coli and fecal coliform analytical holding times are listed as immediate. As the sample was prepared the day it was collected, no qualifications were required. The hexavalent chromium analysis was performed within 24 hours of collection. The TSS sample was analyzed within seven days of collection. Per the method, asbestos samples should be filtered within 48-hours of collection. Although the sample was filtered 18 days after collection, it was treated with ozone and ultraviolet light prior to filtration, as per Appendix 1 of the method. No qualifications were applied.

- Calibration: The hexavalent chromium coefficient of determination was >0.995 and the ICV and CCV recoveries were within 90-110%. The hexavalent chromium MRL recovery was within the laboratory control limits of 50-150%. The biological method controls were acceptable.

- Blanks: Hexavalent chromium was not detected in the method blank or CCBs. The method blank is not applicable to the other methods.

- Blank Spikes and Laboratory Control Samples: The hexavalent chromium recovery was within 90-110% and the TSS recovery was within the laboratory control limits of 85-115%. The presumptive for the biological tests showed positive results for the bacteria and were deemed acceptable. The LCS is not applicable to the other methods.

- Laboratory Duplicates: Laboratory duplicate analyses were performed for the biological methods. As per the methods, the reported results were the geometric means of the parent and duplicate analyses. No laboratory duplicate analysis was performed on the sample in this SDG for hexavalent chromium, asbestos, or TSS.

- Matrix Spike/Matrix Spike Duplicate: MS/MSD analyses were performed on the sample in this SDG for hexavalent chromium. The recoveries and RPD were within the control limits of 90-110% and ≤10%, respectively. MS/MSD samples are not applicable to the biological or asbestos methods.

- Sample Result Verification: Calculations were verified and the sample results reported on the sample result summary were verified against the raw data. No transcription errors or calculation errors were noted. When the sample results were qualified and the reviewer was able to clearly determine bias, detected results were qualified as either "J+" or "J-"; otherwise, bias was not indicated in the qualification. Any detects between the method detection limit and the reporting limit were qualified as estimated, "J," and coded with "DNQ," in order to comply with the NPDES permit. Reported nondetects are valid to the MDL.

- Field QC Samples: 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. Any remaining detects were used to evaluate the associated site samples. Following are findings associated with field QC samples:

    - Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

    - Field Duplicates: There were no field duplicate samples identified for this SDG.

Validated Sample Result Forms: 440987161

Analysis Method E1613B

Sample Name Outfall009_20150111_Comp **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98732-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	N	39001-02-0	0.000016	0.000095	0.0000012	ug/L	J,DXMB	U	B
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	N	3268-87-9	0.00024	0.000095	0.0000060	ug/L	MB	U	B
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	N	67562-39-4	0.0000073	0.000047	0.00000066	ug/L	J,DXMB	U	B
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	N	35822-46-9	0.000022	0.000047	0.0000025	ug/L	J,DXMB	J	DNQ
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	N	55673-89-7	0.0000020	0.000047	0.00000094	ug/L	J,DX	J	DNQ
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	N	70648-26-9	0.0000018	0.000047	0.00000049	ug/L	J,DXq	UJ	*III
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	N	39227-28-6	0.0000017	0.000047	0.00000047	ug/L	J,DXq	UJ	*III
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	N	57117-44-9	0.0000019	0.000047	0.00000043	ug/L	J,DX	J	DNQ
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	N	57653-85-7	0.0000022	0.000047	0.00000043	ug/L	J,DX	J	DNQ
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	N	72918-21-9	0.0000014	0.000047	0.00000046	ug/L	J,DX	J	DNQ
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	N	19408-74-3	0.0000023	0.000047	0.00000038	ug/L	J,DX	J	DNQ
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	N	57117-41-6	0.0000013	0.000047	0.00000035	ug/L	J,DX	J	DNQ
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	N	40321-76-4	0.0000016	0.000047	0.00000064	ug/L	J,DX	J	DNQ
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	N	60851-34-5		0.000047	0.00000038	ug/L	U	U	
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	N	57117-31-4	0.0000014	0.000047	0.00000035	ug/L	J,DX	J	DNQ
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	N	51207-31-9	0.00000068	0.0000095	0.0000011	ug/L	J,DX	R	D
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	N	51207-31-9		0.0000095	0.0000011	ug/L	U	U	
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	N	1746-01-6		0.0000095	0.00000034	ug/L	U	U	
Total Heptachlorodibenzofuran (HpCDF)	N	38998-75-3	0.000016	0.000047	0.00000080	ug/L	J,DXqMB	J	B, DNQ, *III

Analysis Method E1613B

Total Heptachlorodibenzo-p-dioxin (HpCDD)	N	37871-00-4	0.000054	0.000047	0.0000025	ug/L	MB	J	B
Total Hexachlorodibenzofuran (HxCDF)	N	55684-94-1	0.0000088	0.000047	0.00000044	ug/L	J,DXq	J	DNQ, *III
Total Hexachlorodibenzo-p-dioxin (HxCDD)	N	34465-46-8	0.0000093	0.000047	0.00000042	ug/L	J,DXq	J	DNQ, *III
Total Pentachlorodibenzofuran (PeCDF)	N	30402-15-4	0.0000033	0.000047	0.00000035	ug/L	J,DXq	J	DNQ, *III
Total Pentachlorodibenzo-p-dioxin (PeCDD)	N	36088-22-9	0.0000016	0.000047	0.00000064	ug/L	J,DX	J	DNQ
Total Tetrachlorodibenzofuran (TCDF)	N	55722-27-5	0.00000068	0.0000095	0.00000023	ug/L	J,DX	J	DNQ
Total Tetrachlorodibenzo-p-dioxin (TCDD)	N	41903-57-5	0.0000016	0.0000095	0.00000034	ug/L	J,DXqMB	U	B

Analysis Method E200.7

Sample Name Outfall009_20150111_Comp **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98732-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	D	7429-90-5	0.11	0.050	0.025	mg/L	QP		
Aluminum	T	7429-90-5	1.3	0.050	0.025	mg/L			
Arsenic	T	7440-38-2		0.010	0.0050	mg/L	U	U	
Arsenic	D	7440-38-2		0.010	0.0050	mg/L	UQP	U	
Beryllium	T	7440-41-7		0.0020	0.0010	mg/L	U	U	
Beryllium	D	7440-41-7		0.0020	0.0010	mg/L	UQP	U	
Boron	D	7440-42-8	0.041	0.050	0.010	mg/L	J,DXQP	J	DNQ
Boron	T	7440-42-8	0.039	0.050	0.010	mg/L	J,DX	J	DNQ
Chromium	D	7440-47-3		0.0050	0.0025	mg/L	UQP	U	
Chromium	T	7440-47-3		0.0050	0.0025	mg/L	U	U	
Hardness as CaCO3	D	HARDNESSCACO3	28	0.33	0.17	mg/L	QP		
Hardness as CaCO3	T	HARDNESSCACO3	30	0.33	0.17	mg/L			
Iron	D	7439-89-6	0.15	0.040	0.010	mg/L	QP		
Iron	T	7439-89-6	1.3	0.040	0.010	mg/L			
Nickel	D	7440-02-0		0.010	0.0050	mg/L	UQP	U	
Nickel	T	7440-02-0		0.010	0.0050	mg/L	U	U	
Silver	T	7440-22-4		0.010	0.0050	mg/L	U	U	
Silver	D	7440-22-4		0.010	0.0050	mg/L	UQP	U	

Analysis Method E200.7

Vanadium	T	7440-62-2		10	5.0	ug/L	U	U	
Vanadium	D	7440-62-2		10	5.0	ug/L	UQP	U	
Zinc	T	7440-66-6	0.012	0.020	0.010	mg/L	J,DX	J	DNQ
Zinc	D	7440-66-6		0.020	0.010	mg/L	UQP	U	

Analysis Method E218.6

Sample Name Outfall009_20150111_Grab **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98716-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Chromium VI (Hexavalent)	N	18540-29-9	0.28	1.0	0.25	ug/L	J,DX	J	DNQ

Analysis Method SM2540D

Sample Name Outfall009_20150111_Comp **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98732-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids (TSS)	N	TSS	13	1.0	0.50	mg/L			

Analysis Method SM9221E

Sample Name Outfall009_20150111_Grab **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98716-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Fecal Coliform Bacteria	N	COLIFORMFECAL	930	1.8	1.8	mpn/100			

Analysis Method SM9221F

Sample Name Outfall009_20150111_Grab **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98716-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Escherichia coli	N	ECOLI	360	1.8	1.8	mpn/100			

Analysis Method TEM

Sample Name Outfall009_20150111_Comp **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98732-1

Analyte	Fraction	CAS No	Result Value	RL	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Asbestos	N	1332-21-4		2	2	MFL	U	U	

Validated Sample Result Forms: 440987161

Analysis Method E900

Sample Name Outfall009_20150111_Comp **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98732-1

Analyte	CAS No	Result Value	Total Uncert.	RL	MDC	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Gross Alpha Analytes	GROSSALPHA	1.12	1.25	3.00	2.04	pCi/L	U	UJ	C
Gross Beta Analytes	GROSSBETA	3.19	0.862	4.00	0.977	pCi/L			

Analysis Method E901.1

Sample Name Outfall009_20150111_Comp **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98732-1

Analyte	CAS No	Result Value	Total Uncert.	RL	MDC	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Cesium-137	10045-97-3	-0.579	6.90	20.0	12.5	pCi/L	U	U	
Potassium-40	13966-00-2	-5.03	86.6	171	171	pCi/L	U	U	

Analysis Method E903.0

Sample Name Outfall009_20150111_Comp **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98732-1

Analyte	CAS No	Result Value	Total Uncert.	RL	MDC	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-226	13982-63-3	0.0441	0.0523	1.00	0.0858	pCi/L	U	UJ	C

Analysis Method E904.0

Sample Name Outfall009_20150111_Comp **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98732-1

Analyte	CAS No	Result Value	Total Uncert.	RL	MDC	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Radium-228	15262-20-1	0.423	0.233	1.00	0.340	pCi/L			

Analysis Method E905.0

Sample Name Outfall009_20150111_Comp **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98732-1

Analyte	CAS No	Result Value	Total Uncert.	RL	MDC	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Strontium-90	10098-97-2	0.221	0.382	3.00	0.646	pCi/L	U	U	

Analysis Method E906.0

Sample Name Outfall009_20150111_Comp **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98732-1

Analyte	CAS No	Result Value	Total Uncert.	RL	MDC	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Tritium	10028-17-8	113	230	500	392	pCi/L	U	U	

Analysis Method HASL-300 U Mod

Sample Name Outfall009_20150111_Comp **Matrix Type:** WQ **Result Type:** TRG

Sample Date: 1/11/2015 9:20:00 AM **Validation Level:** 8

Lab Sample Name: 440-98732-1

Analyte	CAS No	Result Value	Total Uncert.	RL	MDC	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Uranium	URANIUM	0.218	0.162	1.00	0.155	pCi/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: 440-98716-1
Client Project/Site: Annual and Routine outfalls 009 Grab
Revision: 1

For:
Haley & Aldrich, Inc.
5333 Mission Center Road
Suite 300
San Diego, California 92108

Attn: Nancy Gardiner

Debby Wilson

Authorized for release by:
3/11/2015 3:33:12 PM

Debby Wilson, Manager of Project Management
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Table of Contents

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-98716-1	Outfall009_20150111_Grab	Water	01/11/15 09:20	01/11/15 13:08
440-98716-2	TB_20150111	Water	01/11/15 09:20	01/11/15 13:08
440-98732-1	Outfall009_20150111_Comp	Water	01/11/15 10:41	01/12/15 14:15
440-98732-2	Trip Blank_20150112_1201	Water	01/12/15 00:01	01/12/15 14:15

Job ID: 440-98716-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-98716-1

Comments
Revised report to include chronic toxicity pdf report.

Receipt
The samples were received on 1/11/2015 1:46 PM and 1/12/2015 2:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 0.6º C, 0.8º C, 1.2º C and 1.5º C.

GC/MS VOA
Method(s) 624: The preservative used in the sample containers provided is not compatible with the Method 624 analytes requested. The following sample(s) was received preserved with hydrochloric acid: (440-98603-1 MS), (440-98603-1 MSD). The requested target analyte list contains 2-chloroethylvinyl ether and/or acrolein, which are acid-labile compounds that degrade in an acidic medium.

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

GC/MS Semi VOA
Method(s) 625: The laboratory control sample duplicate (LCSD) for batch 229466 recovered outside control limits for dimethyl phthalate. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 229466. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

Method(s) 625: The continuing calibration verification (CCV) associated with batch 230336 recovered above the upper control limit for indeno(1,2,3-cd)pyrene; benzo(g,h,i)perylene; and dibenz(a,h)anthracene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCVIS 440-230336/2), Outfall009_20150111_Comp (440-98732-1).

Method(s) 525.2: The laboratory control sample duplicate (LCSD) associated with batch 230069 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed due to a 24 hour holding time; therefore, the data has been reported based on the batch laboratory control sample (LCS) and matrix spike/matrix spike duplicate (MS/MSD) being within acceptance limits and may be used to evaluate matrix performance. Recovery for Diazinon may be biased low.

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

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

GC Semi VOA
Method(s) 608: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 229709. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch. (LCS 440-229709/4-A)

Method(s) 608: Surrogate recovery for the following sample(s) was outside the upper control limit: (MB 440-229709/1-A), Outfall009_20150111_Comp (440-98732-1). This sample did not contain any target analytes; 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.

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

RAD
Method(s) PrecSep-7: strontium-90: The following sample in batch #168612 was reduced to 500mL aliquot due to its deep yellow color:

Job ID: 440-98716-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

(440-98732-1), Outfall009_20150111_Comp (440-98732-1).

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.

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

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

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

Organic Prep
Method(s) 1664A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with batch 229916. The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

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

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

Subcontract Work
Methods Acute FH minnow, EPA/821-R02-012, Chronic Cerio, EPA/821-R02-013: These methods were subcontracted to Aquatic Testing Laboratories. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Method Asbestos: This method was subcontracted to EMS Laboratories Pasadena, CA. The subcontract laboratory certification is different from that of the facility issuing the final report.

Method Human Bacteriodales: This method was subcontracted to EMSL Analytical, Inc.. The subcontract laboratory certification is different from that of the facility issuing the final report.

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

Client Sample ID: Outfall009_20150111_Grab
Date Collected: 01/11/15 09:20
Date Received: 01/11/15 13:08

Lab Sample ID: 440-98716-1
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		2.0	1.0	ug/L			01/13/15 03:48	1
Acrolein	ND		5.0	2.5	ug/L			01/13/15 03:48	1
Acrylonitrile	ND		2.0	1.0	ug/L			01/13/15 03:48	1
Benzene	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Bromodichloromethane	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Bromoform	ND		1.0	0.40	ug/L			01/13/15 15:13	1
Bromomethane	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Chlorobenzene	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Chloroethane	ND		1.0	0.40	ug/L			01/13/15 15:13	1
Chloroform	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Chloromethane	ND		0.50	0.25	ug/L			01/13/15 15:13	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			01/13/15 15:13	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Dibromochloromethane	ND		0.50	0.25	ug/L			01/13/15 15:13	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			01/13/15 15:13	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			01/13/15 15:13	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			01/13/15 15:13	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Ethylbenzene	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Methylene Chloride	ND		2.0	0.88	ug/L			01/13/15 15:13	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Tetrachloroethene	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Toluene	ND		0.50	0.25	ug/L			01/13/15 15:13	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			01/13/15 15:13	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			01/13/15 15:13	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			01/13/15 15:13	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Trichloroethene	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Vinyl chloride	ND		0.50	0.25	ug/L			01/13/15 15:13	1
Xylenes, Total	ND		1.0	0.50	ug/L			01/13/15 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*01/13/15 15:13*	*1*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*01/13/15 15:13*	*1*
Toluene-d8 (Surr)	*98*		*80 - 128*		*01/13/15 15:13*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*01/13/15 03:48*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*01/13/15 03:48*	*1*

Method: 218.6 - Chromium, Hexavalent (Ion Chromatography)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	**0.28**	**J,DX**	1.0	0.25	ug/L			01/11/15 17:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		4.7	1.3	mg/L		01/15/15 08:07	01/15/15 11:04	1

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

Client Sample ID: Outfall009_20150111_Grab

Lab Sample ID: 440-98716-1

Date Collected: 01/11/15 09:20
Matrix: Water
Date Received: 01/11/15 13:08

Method: SM 9221E - Coliforms, Fecal (Multiple-Tube Fermentation)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Fecal	930		1.8	1.8	MPN/100mL			01/11/15 14:21	1

Method: SM 9221F - E.Coli (Multiple-Tube Fermentation; EC-MUG)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Escherichia coli	360		1.8	1.8	MPN/100mL			01/11/15 14:21	1

Client Sample ID: TB_20150111

Lab Sample ID: 440-98716-2

Date Collected: 01/11/15 09:20
Matrix: Water
Date Received: 01/11/15 13:08

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		2.0	1.0	ug/L			01/13/15 04:18	1
Acrolein	ND		5.0	2.5	ug/L			01/13/15 04:18	1
Acrylonitrile	ND		2.0	1.0	ug/L			01/13/15 04:18	1
Benzene	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Bromodichloromethane	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Bromoform	ND		1.0	0.40	ug/L			01/13/15 10:15	1
Bromomethane	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Chlorobenzene	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Chloroethane	ND		1.0	0.40	ug/L			01/13/15 10:15	1
Chloroform	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Chloromethane	ND		0.50	0.25	ug/L			01/13/15 10:15	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			01/13/15 10:15	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Dibromochloromethane	ND		0.50	0.25	ug/L			01/13/15 10:15	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			01/13/15 10:15	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			01/13/15 10:15	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			01/13/15 10:15	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Ethylbenzene	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Methylene Chloride	ND		2.0	0.88	ug/L			01/13/15 10:15	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Tetrachloroethene	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Toluene	ND		0.50	0.25	ug/L			01/13/15 10:15	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			01/13/15 10:15	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			01/13/15 10:15	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			01/13/15 10:15	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Trichloroethene	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Vinyl chloride	ND		0.50	0.25	ug/L			01/13/15 10:15	1
Xylenes, Total	ND		1.0	0.50	ug/L			01/13/15 10:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*01/13/15 10:15*	*1*
Dibromofluoromethane (Surr)	*93*		*76 - 132*		*01/13/15 10:15*	*1*
Toluene-d8 (Surr)	*102*		*80 - 128*		*01/13/15 10:15*	*1*
Toluene-d8 (Surr)	*111*		*80 - 128*		*01/13/15 04:18*	*1*

Client Sample ID: TB_20150111
Date Collected: 01/11/15 09:20
Date Received: 01/11/15 13:08

Lab Sample ID: 440-98716-2
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*01/13/15 04:18*	*1*

Client Sample ID: Outfall009_20150111_Comp
Date Collected: 01/11/15 10:41
Date Received: 01/12/15 14:15

Lab Sample ID: 440-98732-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND		0.95	0.48	ug/L		01/12/15 15:11	01/16/15 07:27	1
Diazinon	ND	LR BA	0.24	0.11	ug/L		01/12/15 15:11	01/16/15 07:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,3-Dimethyl-2-nitrobenzene	*99*		*70 - 130*	*01/12/15 15:11*	*01/16/15 07:27*	*1*
Perylene-d12	*91*		*70 - 130*	*01/12/15 15:11*	*01/16/15 07:27*	*1*
Triphenylphosphate	*117*		*70 - 130*	*01/12/15 15:11*	*01/16/15 07:27*	*1*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
1,2-Dichlorobenzene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
1,3-Dichlorobenzene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
1,4-Dichlorobenzene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
2,4,6-Trichlorophenol	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
2,4-Dichlorophenol	ND		1.92	0.962	ug/L		01/13/15 09:41	01/16/15 20:39	1
2,4-Dimethylphenol	ND		1.92	0.962	ug/L		01/13/15 09:41	01/16/15 20:39	1
2,4-Dinitrophenol	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
2,4-Dinitrotoluene	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
2,6-Dinitrotoluene	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
2-Chloronaphthalene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
2-Chlorophenol	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
2-Nitrophenol	ND		1.92	0.962	ug/L		01/13/15 09:41	01/16/15 20:39	1
3,3'-Dichlorobenzidine	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
4,6-Dinitro-2-methylphenol	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
4-Bromophenyl phenyl ether	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
4-Chloro-3-methylphenol	ND		1.92	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
4-Chloroaniline	ND		1.92	0.962	ug/L		01/13/15 09:41	01/16/15 20:39	1
4-Chlorophenyl phenyl ether	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
4-Nitrophenol	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
Acenaphthene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
Acenaphthylene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
Anthracene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
Benzidine	ND		9.62	4.81	ug/L		01/13/15 09:41	01/16/15 20:39	1
Benzo[a]anthracene	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
Benzo[a]pyrene	ND		1.92	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
Benzo[b]fluoranthene	ND		1.92	0.962	ug/L		01/13/15 09:41	01/16/15 20:39	1
Benzo[g,h,i]perylene	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
Benzo[k]fluoranthene	ND		0.481	0.240	ug/L		01/13/15 09:41	01/16/15 20:39	1
bis (2-chloroisopropyl) ether	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1

Client Sample ID: Outfall009_20150111_Comp
Date Collected: 01/11/15 10:41
Date Received: 01/12/15 14:15

Lab Sample ID: 440-98732-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
Bis(2-chloroethyl)ether	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
Bis(2-ethylhexyl) phthalate	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
Butyl benzyl phthalate	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
Chrysene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
Dibenz(a,h)anthracene	ND		0.481	0.240	ug/L		01/13/15 09:41	01/16/15 20:39	1
Diethyl phthalate	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
Dimethyl phthalate	ND	LQ	0.481	0.240	ug/L		01/13/15 09:41	01/16/15 20:39	1
Di-n-butyl phthalate	ND		1.92	0.962	ug/L		01/13/15 09:41	01/16/15 20:39	1
Di-n-octyl phthalate	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
Fluoranthene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
Fluorene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
Hexachlorobenzene	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
Hexachlorobutadiene	ND		1.92	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
Hexachlorocyclopentadiene	ND		4.81	1.92	ug/L		01/13/15 09:41	01/16/15 20:39	1
Hexachloroethane	ND		2.88	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
Indeno[1,2,3-cd]pyrene	ND		1.92	0.962	ug/L		01/13/15 09:41	01/16/15 20:39	1
Isophorone	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
Naphthalene	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
Nitrobenzene	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
N-Nitrosodimethylamine	ND		1.92	0.962	ug/L		01/13/15 09:41	01/16/15 20:39	1
N-Nitrosodi-n-propylamine	ND		1.92	0.962	ug/L		01/13/15 09:41	01/16/15 20:39	1
N-Nitrosodiphenylamine	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
Pentachlorophenol	ND		1.92	0.962	ug/L		01/13/15 09:41	01/16/15 20:39	1
Phenanthrene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1
Phenol	ND		0.962	0.481	ug/L		01/13/15 09:41	01/16/15 20:39	1
Pyrene	ND		0.481	0.192	ug/L		01/13/15 09:41	01/16/15 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*50 - 120*	*01/13/15 09:41*	*01/16/15 20:39*	*1*
2-Fluorophenol	*64*		*30 - 120*	*01/13/15 09:41*	*01/16/15 20:39*	*1*
2,4,6-Tribromophenol	*72*		*40 - 120*	*01/13/15 09:41*	*01/16/15 20:39*	*1*
Nitrobenzene-d5	*63*		*45 - 120*	*01/13/15 09:41*	*01/16/15 20:39*	*1*
Terphenyl-d14	*78*		*37 - 144*	*01/13/15 09:41*	*01/16/15 20:39*	*1*
Phenol-d6	*69*		*35 - 120*	*01/13/15 09:41*	*01/16/15 20:39*	*1*

Method: 608 PCB LL - Polychlorinated Biphenyls (PCBs) Low level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.51	0.26	ug/L		01/14/15 14:34	01/14/15 22:53	1
Aroclor 1221	ND		0.51	0.26	ug/L		01/14/15 14:34	01/14/15 22:53	1
Aroclor 1232	ND		0.51	0.26	ug/L		01/14/15 14:34	01/14/15 22:53	1
Aroclor 1242	ND		0.51	0.26	ug/L		01/14/15 14:34	01/14/15 22:53	1
Aroclor 1248	ND		0.51	0.26	ug/L		01/14/15 14:34	01/14/15 22:53	1
Aroclor 1254	ND		0.51	0.26	ug/L		01/14/15 14:34	01/14/15 22:53	1
Aroclor 1260	ND		0.51	0.26	ug/L		01/14/15 14:34	01/14/15 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*149*	*LH*	*29 - 115*	*01/14/15 14:34*	*01/14/15 22:53*	*1*

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Lab Sample ID: 440-98732-1
Matrix: Water

Method: 608 Pesticides - Organochlorine Pesticides Low level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.0047	0.0014	ug/L		01/14/15 09:59	01/15/15 18:50	1
alpha-BHC	ND		0.0047	0.0024	ug/L		01/14/15 09:59	01/15/15 18:50	1
beta-BHC	ND		0.0095	0.0038	ug/L		01/14/15 09:59	01/15/15 18:50	1
Chlordane (technical)	ND		0.095	0.076	ug/L		01/14/15 09:59	01/15/15 18:50	1
delta-BHC	ND		0.0047	0.0033	ug/L		01/14/15 09:59	01/15/15 18:50	1
Dieldrin	ND		0.0047	0.0019	ug/L		01/14/15 09:59	01/15/15 18:50	1
Endosulfan I	ND		0.0047	0.0028	ug/L		01/14/15 09:59	01/15/15 18:50	1
Endosulfan II	ND		0.0047	0.0019	ug/L		01/14/15 09:59	01/15/15 18:50	1
Endosulfan sulfate	ND		0.0095	0.0028	ug/L		01/14/15 09:59	01/15/15 18:50	1
Endrin	ND		0.0047	0.0019	ug/L		01/14/15 09:59	01/15/15 18:50	1
Endrin aldehyde	ND		0.0095	0.0019	ug/L		01/14/15 09:59	01/15/15 18:50	1
gamma-BHC (Lindane)	ND		0.0095	0.0028	ug/L		01/14/15 09:59	01/15/15 18:50	1
Heptachlor	ND		0.0095	0.0028	ug/L		01/14/15 09:59	01/15/15 18:50	1
Heptachlor epoxide	ND		0.0047	0.0024	ug/L		01/14/15 09:59	01/15/15 18:50	1
Toxaphene	ND		0.47	0.24	ug/L		01/14/15 09:59	01/15/15 18:50	1
4,4'-DDD	ND		0.0047	0.0038	ug/L		01/14/15 09:59	01/15/15 18:50	1
4,4'-DDE	ND		0.0047	0.0028	ug/L		01/14/15 09:59	01/15/15 18:50	1
4,4'-DDT	ND		0.0095	0.0038	ug/L		01/14/15 09:59	01/15/15 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*31*		*10 - 139*	*01/14/15 09:59*	*01/15/15 18:50*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.5**		0.50	0.25	mg/L			01/12/15 16:21	1
Sulfate	**4.6**		0.50	0.25	mg/L			01/12/15 16:21	1

Method: 314.0 - Perchlorate (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	0.95	ug/L			01/14/15 11:28	1

Method: NO3NO2 Calc - Nitrogen, Nitrate-Nitrite

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	**0.84**		0.15	0.070	mg/L			01/22/15 11:52	1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.0000095	0.00000034	ug/L		01/16/15 08:39	01/29/15 22:56	1
1,2,3,7,8-PeCDD	**0.0000016**	**J,DX**	0.000047	0.00000064	ug/L		01/16/15 08:39	01/29/15 22:56	1
1,2,3,7,8-PeCDF	**0.0000013**	**J,DX**	0.000047	0.00000035	ug/L		01/16/15 08:39	01/29/15 22:56	1
2,3,4,7,8-PeCDF	**0.0000014**	**J,DX**	0.000047	0.00000035	ug/L		01/16/15 08:39	01/29/15 22:56	1
1,2,3,4,7,8-HxCDD	**0.0000017**	**J,DX q**	0.000047	0.00000047	ug/L		01/16/15 08:39	01/29/15 22:56	1
1,2,3,6,7,8-HxCDD	**0.0000022**	**J,DX**	0.000047	0.00000043	ug/L		01/16/15 08:39	01/29/15 22:56	1
1,2,3,7,8,9-HxCDD	**0.0000023**	**J,DX**	0.000047	0.00000038	ug/L		01/16/15 08:39	01/29/15 22:56	1
1,2,3,4,7,8-HxCDF	**0.0000018**	**J,DX q**	0.000047	0.00000049	ug/L		01/16/15 08:39	01/29/15 22:56	1

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Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,6,7,8-HxCDF	0.0000019	J,DX	0.000047	0.00000043	ug/L		01/16/15 08:39	01/29/15 22:56	1
1,2,3,7,8,9-HxCDF	0.0000014	J,DX	0.000047	0.00000046	ug/L		01/16/15 08:39	01/29/15 22:56	1
2,3,4,6,7,8-HxCDF	ND		0.000047	0.00000038	ug/L		01/16/15 08:39	01/29/15 22:56	1
1,2,3,4,6,7,8-HpCDD	0.000022	J,DX MB	0.000047	0.0000025	ug/L		01/16/15 08:39	01/29/15 22:56	1
1,2,3,4,6,7,8-HpCDF	0.0000073	J,DX MB	0.000047	0.00000066	ug/L		01/16/15 08:39	01/29/15 22:56	1
1,2,3,4,7,8,9-HpCDF	0.0000020	J,DX	0.000047	0.00000094	ug/L		01/16/15 08:39	01/29/15 22:56	1
OCDD	0.00024	MB	0.000095	0.0000060	ug/L		01/16/15 08:39	01/29/15 22:56	1
OCDF	0.000016	J,DX MB	0.000095	0.0000012	ug/L		01/16/15 08:39	01/29/15 22:56	1
Total TCDD	0.0000016	J,DX q MB	0.0000095	0.00000034	ug/L		01/16/15 08:39	01/29/15 22:56	1
Total TCDF	0.00000068	J,DX	0.0000095	0.00000023	ug/L		01/16/15 08:39	01/29/15 22:56	1
Total PeCDD	0.0000016	J,DX	0.000047	0.00000064	ug/L		01/16/15 08:39	01/29/15 22:56	1
Total PeCDF	0.0000033	J,DX q	0.000047	0.00000035	ug/L		01/16/15 08:39	01/29/15 22:56	1
Total HxCDD	0.0000093	J,DX q	0.000047	0.00000042	ug/L		01/16/15 08:39	01/29/15 22:56	1
Total HxCDF	0.0000088	J,DX q	0.000047	0.00000044	ug/L		01/16/15 08:39	01/29/15 22:56	1
Total HpCDD	0.000054	MB	0.000047	0.0000025	ug/L		01/16/15 08:39	01/29/15 22:56	1
Total HpCDF	0.000016	J,DX q MB	0.000047	0.00000080	ug/L		01/16/15 08:39	01/29/15 22:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*81*		*25 - 164*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-2,3,7,8-TCDF	*80*		*24 - 169*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-1,2,3,7,8-PeCDD	*80*		*25 - 181*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-1,2,3,7,8-PeCDF	*74*		*24 - 185*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-2,3,4,7,8-PeCDF	*81*		*21 - 178*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-1,2,3,4,7,8-HxCDD	*76*		*32 - 141*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-1,2,3,6,7,8-HxCDD	*97*		*28 - 130*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-1,2,3,4,7,8-HxCDF	*78*		*26 - 152*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-1,2,3,6,7,8-HxCDF	*90*		*26 - 123*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-1,2,3,7,8,9-HxCDF	*76*		*29 - 147*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-2,3,4,6,7,8-HxCDF	*85*		*28 - 136*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-1,2,3,4,6,7,8-HpCDD	*80*		*23 - 140*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*78*		*28 - 143*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*75*		*26 - 138*	*01/16/15 08:39*	*01/29/15 22:56*	*1*
13C-OCDD	*69*		*17 - 157*	*01/16/15 08:39*	*01/29/15 22:56*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*98*		*35 - 197*	*01/16/15 08:39*	*01/29/15 22:56*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	ND		0.0000095	0.0000011	ug/L		01/16/15 08:39	02/06/15 12:20	1

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Matrix: Water

Date Received: 01/12/15 14:15

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	78		24 - 169	01/16/15 08:39	02/06/15 12:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	92		35 - 197	01/16/15 08:39	02/06/15 12:20	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.039**	**J,DX**	0.050	0.010	mg/L		01/15/15 11:38	01/16/15 14:16	1
Iron	**1.3**		0.040	0.010	mg/L		01/15/15 11:38	01/16/15 14:16	1
Vanadium	ND		10	5.0	ug/L		01/15/15 11:38	01/16/15 14:16	1
Hardness, as CaCO3	**30**		0.33	0.17	mg/L		01/15/15 11:38	01/16/15 14:16	1
Aluminum	**1.3**		0.050	0.025	mg/L		01/15/15 11:38	01/16/15 14:16	1
Beryllium	ND		0.0020	0.0010	mg/L		01/15/15 11:38	01/16/15 14:16	1
Nickel	ND		0.010	0.0050	mg/L		01/15/15 11:38	01/16/15 14:16	1
Silver	ND		0.010	0.0050	mg/L		01/15/15 11:38	01/16/15 14:16	1
Arsenic	ND		0.010	0.0050	mg/L		01/15/15 11:38	01/16/15 14:16	1
Chromium	ND		0.0050	0.0025	mg/L		01/15/15 11:38	01/16/15 14:16	1
Zinc	**0.012**	**J,DX**	0.020	0.010	mg/L		01/15/15 11:38	01/16/15 14:16	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	**0.041**	**J,DX QP**	0.050	0.010	mg/L		01/15/15 16:48	01/16/15 14:23	1
Iron	**0.15**	**QP**	0.040	0.010	mg/L		01/15/15 16:48	01/16/15 14:23	1
Vanadium	ND	QP	10	5.0	ug/L		01/15/15 16:48	01/16/15 14:23	1
Hardness, as CaCO3	**28**	**QP**	0.33	0.17	mg/L		01/15/15 16:48	01/16/15 14:23	1
Aluminum	**0.11**	**QP**	0.050	0.025	mg/L		01/15/15 16:48	01/16/15 14:23	1
Beryllium	ND	QP	0.0020	0.0010	mg/L		01/15/15 16:48	01/16/15 14:23	1
Nickel	ND	QP	0.010	0.0050	mg/L		01/15/15 16:48	01/16/15 14:23	1
Silver	ND	QP	0.010	0.0050	mg/L		01/15/15 16:48	01/16/15 14:23	1
Arsenic	ND	QP	0.010	0.0050	mg/L		01/15/15 16:48	01/16/15 14:23	1
Chromium	ND	QP	0.0050	0.0025	mg/L		01/15/15 16:48	01/16/15 14:23	1
Zinc	ND	QP	0.020	0.010	mg/L		01/15/15 16:48	01/16/15 14:23	1

Method: 200.8 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.25	ug/L		01/15/15 10:47	01/16/15 12:20	1
Copper	**4.5**	**MB**	2.0	0.50	ug/L		01/15/15 10:47	01/16/15 12:20	1
Lead	**2.3**		1.0	0.50	ug/L		01/15/15 10:47	01/16/15 12:20	1
Antimony	ND		2.0	0.50	ug/L		01/15/15 10:47	01/16/15 12:20	1
Thallium	ND		1.0	0.50	ug/L		01/15/15 10:47	01/16/15 12:20	1
Selenium	ND		2.0	0.50	ug/L		01/15/15 10:47	01/16/15 12:20	1

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND	QP	1.0	0.25	ug/L		01/15/15 16:49	01/16/15 14:23	1
Copper	**3.7**	**QP**	2.0	0.50	ug/L		01/15/15 16:49	01/16/15 14:23	1
Lead	ND	QP	1.0	0.50	ug/L		01/15/15 16:49	01/16/15 14:23	1
Antimony	ND	QP	2.0	0.50	ug/L		01/15/15 16:49	01/16/15 14:23	1
Thallium	ND	QP	1.0	0.50	ug/L		01/15/15 16:49	01/16/15 14:23	1
Selenium	ND	QP	2.0	0.50	ug/L		01/15/15 16:49	01/16/15 14:23	1

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Lab Sample ID: 440-98732-1
Matrix: Water

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		01/13/15 10:08	01/13/15 14:39	1

Method: 245.1 - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND	QP	0.20	0.10	ug/L		01/16/15 10:01	01/16/15 15:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**90**		10	5.0	mg/L			01/13/15 13:50	1
Total Suspended Solids	**13**		1.0	0.50	mg/L			01/14/15 16:03	1
Cyanide, Total	ND		5.0	2.5	ug/L		01/13/15 14:52	01/13/15 16:22	1
Fluoride	**0.15**		0.10	0.050	mg/L			01/13/15 10:18	1

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	1.12	U	1.25	1.25	2.04	pCi/L	01/15/15 09:57	01/19/15 17:06	1
Gross Beta	**3.19**		0.801	0.862	0.977	pCi/L	01/15/15 09:57	01/19/15 17:06	1

Method: 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Cesium-137	-0.579	U	6.90	6.90	12.5	pCi/L	01/15/15 15:19	01/15/15 20:28	1
Potassium-40	-5.03	U	86.6	86.6	171	pCi/L	01/15/15 15:19	01/15/15 20:28	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0441	U	0.0522	0.0523	0.0858	pCi/L	01/14/15 15:12	02/05/15 11:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.3*		*40 - 110*	*01/14/15 15:12*	*02/05/15 11:53*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.423**		0.229	0.233	0.340	pCi/L	01/14/15 15:06	01/27/15 10:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.3*		*40 - 110*	*01/14/15 15:06*	*01/27/15 10:42*	*1*
Y Carrier	*88.6*		*40 - 110*	*01/14/15 15:06*	*01/27/15 10:42*	*1*

Method: 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.221	U	0.381	0.382	0.646	pCi/L	01/27/15 14:42	02/04/15 15:35	1

Client Sample ID: Outfall009_20150111_Comp

Lab Sample ID: 440-98732-1

Date Collected: 01/11/15 10:41
Matrix: Water
Date Received: 01/12/15 14:15

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Sr Carrier	80.6		40 - 110	01/27/15 14:42	02/04/15 15:35	1
Y Carrier	87.9		40 - 110	01/27/15 14:42	02/04/15 15:35	1

Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	113	U	230	230	392	pCi/L	01/15/15 14:50	01/16/15 10:09	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Total Uranium	**0.218**		0.162	0.162	0.155	pCi/L	01/15/15 10:44	01/19/15 19:20	1

Method: Asbestos - EPA 100.2 Asbestos in Drinking Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ASBESTOS	< 2				MFL		01/29/15 00:00	02/06/15 00:00	1

Client Sample ID: Trip Blank_20150112_1201

Lab Sample ID: 440-98732-2

Date Collected: 01/12/15 00:01
Matrix: Water
Date Received: 01/12/15 14:15

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	0.384	U	0.963	0.964	1.70	pCi/L	01/15/15 09:57	01/19/15 17:06	1
Gross Beta	0.129	U	0.567	0.568	0.983	pCi/L	01/15/15 09:57	01/19/15 17:06	1

Method: 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Cesium-137	0.000	U	1.43	1.43	14.0	pCi/L	01/15/15 15:19	01/15/15 20:29	1
Potassium-40	-58.2	U	238	239	220	pCi/L	01/15/15 15:19	01/15/15 20:29	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0103	U	0.0488	0.0488	0.0894	pCi/L	01/14/15 15:12	02/05/15 15:40	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110	01/14/15 15:12	02/05/15 15:40	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0761	U	0.176	0.177	0.305	pCi/L	01/14/15 15:06	01/27/15 10:42	1

Client Sample ID: Trip Blank_20150112_1201
Date Collected: 01/12/15 00:01
Date Received: 01/12/15 14:15

Lab Sample ID: 440-98732-2
Matrix: Water

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*01/14/15 15:06*	*01/27/15 10:42*	*1*
Y Carrier	*88.2*		*40 - 110*	*01/14/15 15:06*	*01/27/15 10:42*	*1*

Method: 905 - Strontium-90 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.142	U	0.206	0.206	0.345	pCi/L	01/27/15 14:42	02/04/15 15:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*84.8*		*40 - 110*	*01/27/15 14:42*	*02/04/15 15:35*	*1*
Y Carrier	*90.5*		*40 - 110*	*01/27/15 14:42*	*02/04/15 15:35*	*1*

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Total Uranium	0.132	U	0.1269	0.1271	0.158	pCi/L	01/15/15 10:44	01/19/15 19:20	1

Method Summary

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL IRV
525.2	Semivolatile Organic Compounds (GC/MS)	EPA	TAL IRV
625	Semivolatile Organic Compounds (GC/MS)	EPA	TAL IRV
608 PCB LL	Polychlorinated Biphenyls (PCBs) Low level	40CFR136A	TAL IRV
608 Pesticides	Organochlorine Pesticides Low level	40CFR136A	TAL IRV
218.6	Chromium, Hexavalent (Ion Chromatography)	EPA	TAL IRV
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
314.0	Perchlorate (IC)	EPA	TAL IRV
NO3NO2 Calc	Nitrogen, Nitrate-Nitrite	EPA	TAL IRV
1613B	Dioxins and Furans (HRGC/HRMS)	40CFR136A	TAL SAC
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
200.8	Metals (ICP/MS)	EPA	TAL IRV
245.1	Mercury (CVAA)	EPA	TAL IRV
1664A	HEM and SGT-HEM	1664A	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL IRV
SM 4500 CN E	Cyanide, Total (Low Level)	SM	TAL IRV
SM 4500 F C	Fluoride	SM	TAL IRV
900.0	Gross Alpha and Gross Beta Radioactivity	EPA	TAL SL
901.1	Cesium 137 & Other Gamma Emitters (GS)	EPA	TAL SL
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
905	Strontium-90 (GFPC)	EPA	TAL SL
906.0	Tritium, Total (LSC)	EPA	TAL SL
A-01-R	Isotopic Uranium (Alpha Spectrometry)	DOE	TAL SL
SM 9221E	Coliforms, Fecal (Multiple-Tube Fermentation)	SM	TAL IRV
SM 9221F	E.Coli (Multiple-Tube Fermentation; EC-MUG)	SM	TAL IRV
Asbestos	EPA 100.2 Asbestos in Drinking Water		EMS Labs
Acute FH minnow, EPA/821-R02-012	Bioassay	NONE	SC0127
Chronic Cerio, EPA/821-R02-013	Bioassay	NONE	SC0127
Human Bacteriodales	General Sub Contract Method	NONE	EMSL

Protocol References:

1664A = EPA-821-98-002

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

DOE = U.S. Department of Energy

EPA = US Environmental Protection Agency

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

NONE = NONE

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

Laboratory References:

EMS Labs = EMS Laboratories Pasadena, CA, 117 West Bellevue Drive, Ste 3, Pasadena, CA 91105-2503

EMSL = EMSL Analytical, Inc., 200 Rt 130 North, Cinnaminson, NJ 08077

SC0127 = Aquatic Testing Laboratories, 4350 Transport #107, Ventura, CA 93003

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

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Client Sample ID: Outfall009_20150111_Grab

Lab Sample ID: 440-98716-1

Date Collected: 01/11/15 09:20

Matrix: Water

Date Received: 01/11/15 13:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	10 mL	10 mL	229422	01/13/15 15:13	HR	TAL IRV
Total/NA	Analysis	624		1	10 mL	10 mL	229372	01/13/15 03:48	MP	TAL IRV
Total/NA	Analysis	218.6		1	10 mL		229181	01/11/15 17:50	MN	TAL IRV
Total/NA	Prep	1664A			1055 mL	1000 mL	229916	01/15/15 08:07	AMR	TAL IRV
Total/NA	Analysis	1664A		1	1055 mL	1000 mL	229984	01/15/15 11:04	AMR	TAL IRV
Total/NA	Analysis	SM 9221E		1	100 mL	100 mL	229773		ST	TAL IRV
							(Start)	01/11/15 14:21		
							(End)	01/14/15 11:25		
Total/NA	Analysis	SM 9221F		1	100 mL	100 mL	229774		ST	TAL IRV
							(Start)	01/11/15 14:21		
							(End)	01/14/15 11:25		

Client Sample ID: TB_20150111

Lab Sample ID: 440-98716-2

Date Collected: 01/11/15 09:20

Matrix: Water

Date Received: 01/11/15 13:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	10 mL	10 mL	229422	01/13/15 10:15	HR	TAL IRV
Total/NA	Analysis	624		1	10 mL	10 mL	229372	01/13/15 04:18	MP	TAL IRV

Client Sample ID: Outfall009_20150111_Comp

Lab Sample ID: 440-98732-1

Date Collected: 01/11/15 10:41

Matrix: Water

Date Received: 01/12/15 14:15

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			1050 mL	1 mL	229243	01/12/15 15:11	CN	TAL IRV
Total/NA	Analysis	525.2		1	1050 mL	1 mL	230069	01/16/15 07:27	CN	TAL IRV
Total/NA	Prep	625			1040 mL	2 mL	229466	01/13/15 09:41	AK	TAL IRV
Total/NA	Analysis	625		1	1040 mL	2 mL	230336	01/16/15 20:39	DF	TAL IRV
Total/NA	Prep	608			980 mL	2 mL	229709	01/14/15 14:34	AP	TAL IRV
Total/NA	Analysis	608 PCB LL		1	980 mL	2 mL	229866	01/14/15 22:53	CN	TAL IRV
Total/NA	Prep	608			1055 mL	2 mL	229709	01/14/15 09:59	AP	TAL IRV
Total/NA	Analysis	608 Pesticides		1	1055 mL	2 mL	230026	01/15/15 18:50	KS	TAL IRV
Total/NA	Analysis	300.0		1	5 mL		229270	01/12/15 16:21	SP	TAL IRV
Total/NA	Analysis	314.0		1	1 mL		229659	01/14/15 11:28	CH	TAL IRV
Total/NA	Analysis	NO3NO2 Calc		1			231367	01/22/15 11:52	TN	TAL IRV
Total/NA	Prep	1613B			1053.3 mL	20 uL	63107	01/16/15 08:39	DXD	TAL SAC
Total/NA	Analysis	1613B		1	1053.3 mL	20 uL	64309	01/29/15 22:56	SMA	TAL SAC
Total/NA	Prep	1613B	RA		1053.3 mL	20 uL	63107	01/16/15 08:39	DXD	TAL SAC
Total/NA	Analysis	1613B	RA	1	1053.3 mL	20 uL	65043	02/06/15 12:20	KSS	TAL SAC
Dissolved	Filtration	FILTRATION			250 mL	250 mL	229796	01/14/15 15:06	APS	TAL IRV
Dissolved	Prep	200.2			25 mL	25 mL	230092	01/15/15 16:48	APS	TAL IRV
Dissolved	Analysis	200.7 Rev 4.4		1	25 mL	25 mL	230507	01/16/15 14:23	EN	TAL IRV

Lab Chronicle

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

Client Sample ID: Outfall009_20150111_Comp

Lab Sample ID: 440-98732-1

Date Collected: 01/11/15 10:41
Matrix: Water
Date Received: 01/12/15 14:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	200.2			50 mL	50 mL	230006	01/15/15 11:38	APS	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1	50 mL	50 mL	230506	01/16/15 14:16	EN	TAL IRV
Dissolved	Filtration	FILTRATION			250 mL	250 mL	229796	01/14/15 15:06	APS	TAL IRV
Dissolved	Prep	200.2			25 mL	25 mL	230094	01/15/15 16:49	APS	TAL IRV
Dissolved	Analysis	200.8		1	25 mL	25 mL	230316	01/16/15 14:23	YS	TAL IRV
Total Recoverable	Prep	200.2			50 mL	50 mL	229969	01/15/15 10:47	APS	TAL IRV
Total Recoverable	Analysis	200.8		1	50 mL	50 mL	230298	01/16/15 12:20	NH	TAL IRV
Dissolved	Filtration	FILTRATION			250 mL	250 mL	229796	01/14/15 15:06	APS	TAL IRV
Dissolved	Prep	245.1			20 mL	20 mL	230233	01/16/15 10:01	JS1	TAL IRV
Dissolved	Analysis	245.1		1	20 mL	20 mL	230354	01/16/15 15:20	DB	TAL IRV
Total/NA	Prep	245.1			20 mL	20 mL	229473	01/13/15 10:08	JS1	TAL IRV
Total/NA	Analysis	245.1		1	20 mL	20 mL	229607	01/13/15 14:39	DB	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	229539	01/13/15 13:50	NTN	TAL IRV
Total/NA	Analysis	SM 2540D		1	1000 mL	1000 mL	229814	01/14/15 16:03	NTN	TAL IRV
Total/NA	Prep	Distill/CN			50 mL	50 mL	229547	01/13/15 14:52	BS	TAL IRV
Total/NA	Analysis	SM 4500 CN E		1	50 mL	50 mL	229569	01/13/15 16:22	BS	TAL IRV
Total/NA	Analysis	SM 4500 F C		1		25 mL	229490	01/13/15 10:18	MN	TAL IRV
Total/NA	Prep	Evaporation			200 mL	1.0 g	168547	01/15/15 09:57	MJS	TAL SL
Total/NA	Analysis	900.0		1	200 mL		169212	01/19/15 17:06	MLK	TAL SL
Total/NA	Prep	Fill_Geo-0			1000 mL	1.0 mL	168607	01/15/15 15:19	M1W	TAL SL
Total/NA	Analysis	901.1		1	1000 mL		168897	01/15/15 20:28	RTM	TAL SL
Total/NA	Prep	PrecSep-21			987.37 mL	1.0 g	168331	01/14/15 15:12	CMC	TAL SL
Total/NA	Analysis	903.0		1	987.37 mL		172354	02/05/15 11:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			987.37 mL	1.0 g	168342	01/14/15 15:06	CMC	TAL SL
Total/NA	Analysis	904.0		1	987.37 mL		170551	01/27/15 10:42	MLK	TAL SL
Total/NA	Prep	PrecSep-7			501.69 mL	1.0 g	170611	01/27/15 14:42	CMC	TAL SL
Total/NA	Analysis	905		1	501.69 mL		172179	02/04/15 15:35	MLK	TAL SL
Total/NA	Prep	LSC_Dist_Susp			100.0 mL	1.0 g	168593	01/15/15 14:50	JDL	TAL SL
Total/NA	Analysis	906.0		1	100.0 mL		169107	01/16/15 10:09	MLK	TAL SL
Total/NA	Prep	ExtChrom			500.90 mL	1.0 mL	168570	01/15/15 10:44	NMN	TAL SL
Total/NA	Analysis	A-01-R		1	500.90 mL		169278	01/19/15 19:20	MLK	TAL SL
Total/NA	Prep	NA		1			164311_P	01/29/15 00:00		EMS Labs
Total/NA	Analysis	Asbestos		1			164311	02/06/15 00:00	LK	EMS Labs

Client Sample ID: Trip Blank_20150112_1201

Lab Sample ID: 440-98732-2

Date Collected: 01/12/15 00:01
Matrix: Water
Date Received: 01/12/15 14:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Evaporation			200 mL	1.0 g	168547	01/15/15 09:57	MJS	TAL SL
Total/NA	Analysis	900.0		1	200 mL		169212	01/19/15 17:06	MLK	TAL SL
Total/NA	Prep	Fill_Geo-0			1000 mL	1.0 mL	168607	01/15/15 15:19	M1W	TAL SL
Total/NA	Analysis	901.1		1	1000 mL		169077	01/15/15 20:29	RTM	TAL SL

Client Sample ID: Trip Blank_20150112_1201
Date Collected: 01/12/15 00:01
Date Received: 01/12/15 14:15

Lab Sample ID: 440-98732-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			979.76 mL	1.0 g	168331	01/14/15 15:12	CMC	TAL SL
Total/NA	Analysis	903.0		1	979.76 mL		172354	02/05/15 15:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			979.76 mL	1.0 g	168342	01/14/15 15:06	CMC	TAL SL
Total/NA	Analysis	904.0		1	979.76 mL		170551	01/27/15 10:42	MLK	TAL SL
Total/NA	Prep	PrecSep-7			984.78 mL	1.0 g	170611	01/27/15 14:42	CMC	TAL SL
Total/NA	Analysis	905		1	984.78 mL		172179	02/04/15 15:35	MLK	TAL SL
Total/NA	Prep	ExtChrom			500.50 mL	1.0 mL	168570	01/15/15 10:44	NMN	TAL SL
Total/NA	Analysis	A-01-R		1	500.50 mL		169280	01/19/15 19:20	MLK	TAL SL

Laboratory References:

EMS Labs = EMS Laboratories Pasadena, CA, 117 West Bellevue Drive, Ste 3, Pasadena, CA 91105-2503

EMSL = EMSL Analytical, Inc., 200 Rt 130 North, Cinnaminson, NJ 08077

SC0127 = Aquatic Testing Laboratories, 4350 Transport #107, Ventura, CA 93003

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

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-229372/3
Matrix: Water
Analysis Batch: 229372

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		2.0	1.0	ug/L			01/12/15 19:27	1
Acrolein	ND		5.0	2.5	ug/L			01/12/15 19:27	1
Acrylonitrile	ND		2.0	1.0	ug/L			01/12/15 19:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*111*		*80 - 128*		*01/12/15 19:27*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*01/12/15 19:27*	*1*

Lab Sample ID: LCS 440-229372/4
Matrix: Water
Analysis Batch: 229372

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether			25.0	25.8		ug/L		103	37 - 150		
Acrolein			25.0	27.0		ug/L		108	10 - 145		
Acrylonitrile			250	277		ug/L		111	48 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*107*		*80 - 128*
Dibromofluoromethane (Surr)	*106*		*76 - 132*

Lab Sample ID: 440-98603-A-1 MS
Matrix: Water
Analysis Batch: 229372

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
2-Chloroethyl vinyl ether	ND		25.0	ND	LN	ug/L		0	10 - 140		
Acrolein	ND		25.0	23.6		ug/L		94	10 - 147		
Acrylonitrile	ND		250	276		ug/L		110	38 - 144		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 128*
Dibromofluoromethane (Surr)	*103*		*76 - 132*

Lab Sample ID: 440-98603-A-1 MSD
Matrix: Water
Analysis Batch: 229372

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether	ND		25.0	ND	LN	ug/L		0	10 - 140	NC	25
Acrolein	ND		25.0	26.9		ug/L		108	10 - 147	13	40
Acrylonitrile	ND		250	300		ug/L		120	38 - 144	8	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*108*		*80 - 128*
Dibromofluoromethane (Surr)	*106*		*76 - 132*

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-229422/4
Matrix: Water
Analysis Batch: 229422

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Bromodichloromethane	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Bromoform	ND		1.0	0.40	ug/L			01/13/15 08:32	1
Bromomethane	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Chlorobenzene	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Chloroethane	ND		1.0	0.40	ug/L			01/13/15 08:32	1
Chloroform	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Chloromethane	ND		0.50	0.25	ug/L			01/13/15 08:32	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			01/13/15 08:32	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Dibromochloromethane	ND		0.50	0.25	ug/L			01/13/15 08:32	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			01/13/15 08:32	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			01/13/15 08:32	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			01/13/15 08:32	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Ethylbenzene	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Methylene Chloride	ND		2.0	0.88	ug/L			01/13/15 08:32	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Tetrachloroethene	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Toluene	ND		0.50	0.25	ug/L			01/13/15 08:32	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			01/13/15 08:32	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			01/13/15 08:32	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			01/13/15 08:32	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Trichloroethene	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Vinyl chloride	ND		0.50	0.25	ug/L			01/13/15 08:32	1
Xylenes, Total	ND		1.0	0.50	ug/L			01/13/15 08:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*01/13/15 08:32*	*1*
Dibromofluoromethane (Surr)	*92*		*76 - 132*		*01/13/15 08:32*	*1*
Toluene-d8 (Surr)	*101*		*80 - 128*		*01/13/15 08:32*	*1*

Lab Sample ID: LCS 440-229422/5
Matrix: Water
Analysis Batch: 229422

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	23.6		ug/L		94	68 - 130
Bromodichloromethane	25.0	23.9		ug/L		96	70 - 132
Bromoform	25.0	24.1		ug/L		96	60 - 148
Bromomethane	25.0	22.5		ug/L		90	64 - 139
Carbon tetrachloride	25.0	25.9		ug/L		104	60 - 150
Chlorobenzene	25.0	22.8		ug/L		91	70 - 130
Chloroethane	25.0	23.6		ug/L		95	64 - 135
Chloroform	25.0	24.0		ug/L		96	70 - 130

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-229422/5
Matrix: Water
Analysis Batch: 229422

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	25.0	22.9		ug/L		91	47 - 140
cis-1,2-Dichloroethene	25.0	24.5		ug/L		98	70 - 133
cis-1,3-Dichloropropene	25.0	25.1		ug/L		100	70 - 133
Dibromochloromethane	25.0	24.4		ug/L		98	69 - 145
1,1-Dichloroethane	25.0	25.4		ug/L		102	64 - 130
1,2-Dichloroethane	25.0	24.1		ug/L		97	57 - 138
1,1-Dichloroethene	25.0	26.6		ug/L		106	70 - 130
1,2-Dichloropropane	25.0	24.0		ug/L		96	67 - 130
Ethylbenzene	25.0	23.5		ug/L		94	70 - 130
Methylene Chloride	25.0	25.3		ug/L		101	52 - 130
1,1,2,2-Tetrachloroethane	25.0	22.8		ug/L		91	63 - 130
Tetrachloroethene	25.0	24.8		ug/L		99	70 - 130
Toluene	25.0	23.5		ug/L		94	70 - 130
trans-1,2-Dichloroethene	25.0	25.8		ug/L		103	70 - 130
trans-1,3-Dichloropropene	25.0	28.2		ug/L		113	70 - 132
1,1,1-Trichloroethane	25.0	25.0		ug/L		100	70 - 130
1,1,2-Trichloroethane	25.0	23.7		ug/L		95	70 - 130
Trichloroethene	25.0	24.2		ug/L		97	70 - 130
Trichlorofluoromethane	25.0	25.5		ug/L		102	60 - 150
Vinyl chloride	25.0	22.9		ug/L		92	59 - 133
Xylenes, Total	50.0	48.6		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*93*		*76 - 132*
Toluene-d8 (Surr)	*98*		*80 - 128*

Lab Sample ID: 440-98728-P-1 MS
Matrix: Water
Analysis Batch: 229422

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		25.0	24.3		ug/L		97	66 - 130
Bromodichloromethane	ND		25.0	24.7		ug/L		99	70 - 138
Bromoform	ND		25.0	23.4		ug/L		94	59 - 150
Bromomethane	ND		25.0	23.1		ug/L		92	62 - 131
Carbon tetrachloride	ND		25.0	26.1		ug/L		104	60 - 150
Chlorobenzene	ND		25.0	22.4		ug/L		90	70 - 130
Chloroethane	ND		25.0	24.0		ug/L		96	68 - 130
Chloroform	ND		25.0	25.0		ug/L		100	70 - 130
Chloromethane	ND		25.0	22.9		ug/L		92	39 - 144
cis-1,2-Dichloroethene	ND		25.0	25.0		ug/L		100	70 - 130
cis-1,3-Dichloropropene	ND		25.0	24.8		ug/L		99	70 - 133
Dibromochloromethane	ND		25.0	24.2		ug/L		97	70 - 148
1,1-Dichloroethane	ND		25.0	26.4		ug/L		105	65 - 130
1,2-Dichloroethane	ND		25.0	24.7		ug/L		99	56 - 146
1,1-Dichloroethene	ND		25.0	26.6		ug/L		106	70 - 130
1,2-Dichloropropane	ND		25.0	25.0		ug/L		100	69 - 130

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-98728-P-1 MS
Matrix: Water
Analysis Batch: 229422

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	ND		25.0	22.8		ug/L		91	70 - 130
Methylene Chloride	ND		25.0	26.0		ug/L		104	52 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	22.7		ug/L		91	63 - 130
Tetrachloroethene	ND		25.0	23.5		ug/L		94	70 - 137
Toluene	ND		25.0	22.8		ug/L		91	70 - 130
trans-1,2-Dichloroethene	ND		25.0	26.3		ug/L		105	70 - 130
trans-1,3-Dichloropropene	ND		25.0	27.7		ug/L		111	70 - 138
1,1,1-Trichloroethane	ND		25.0	25.5		ug/L		102	70 - 130
1,1,2-Trichloroethane	ND		25.0	23.2		ug/L		93	70 - 130
Trichloroethene	ND		25.0	25.6		ug/L		102	70 - 130
Trichlorofluoromethane	ND		25.0	25.2		ug/L		101	60 - 150
Vinyl chloride	ND		25.0	22.7		ug/L		91	50 - 137
Xylenes, Total	ND		50.0	47.3		ug/L		95	70 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*
Toluene-d8 (Surr)	*96*		*80 - 128*

Lab Sample ID: 440-98728-P-1 MSD
Matrix: Water
Analysis Batch: 229422

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	ND		25.0	24.6		ug/L		98	66 - 130	1	20
Bromodichloromethane	ND		25.0	24.8		ug/L		99	70 - 138	1	20
Bromoform	ND		25.0	24.9		ug/L		100	59 - 150	6	25
Bromomethane	ND		25.0	23.5		ug/L		94	62 - 131	2	25
Carbon tetrachloride	ND		25.0	26.2		ug/L		105	60 - 150	1	25
Chlorobenzene	ND		25.0	23.7		ug/L		95	70 - 130	6	20
Chloroethane	ND		25.0	23.7		ug/L		95	68 - 130	1	25
Chloroform	ND		25.0	24.5		ug/L		98	70 - 130	2	20
Chloromethane	ND		25.0	23.4		ug/L		93	39 - 144	2	25
cis-1,2-Dichloroethene	ND		25.0	25.3		ug/L		101	70 - 130	1	20
cis-1,3-Dichloropropene	ND		25.0	26.1		ug/L		104	70 - 133	5	20
Dibromochloromethane	ND		25.0	25.4		ug/L		102	70 - 148	5	25
1,1-Dichloroethane	ND		25.0	26.4		ug/L		106	65 - 130	0	20
1,2-Dichloroethane	ND		25.0	24.6		ug/L		99	56 - 146	0	20
1,1-Dichloroethene	ND		25.0	27.1		ug/L		108	70 - 130	2	20
1,2-Dichloropropane	ND		25.0	25.0		ug/L		100	69 - 130	0	20
Ethylbenzene	ND		25.0	23.9		ug/L		96	70 - 130	5	20
Methylene Chloride	ND		25.0	25.7		ug/L		103	52 - 130	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	22.7		ug/L		91	63 - 130	0	30
Tetrachloroethene	ND		25.0	24.5		ug/L		98	70 - 137	4	20
Toluene	ND		25.0	24.2		ug/L		97	70 - 130	6	20
trans-1,2-Dichloroethene	ND		25.0	26.1		ug/L		104	70 - 130	1	20
trans-1,3-Dichloropropene	ND		25.0	29.2		ug/L		117	70 - 138	5	25
1,1,1-Trichloroethane	ND		25.0	25.9		ug/L		103	70 - 130	1	20

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-98728-P-1 MSD
Matrix: Water
Analysis Batch: 229422

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,2-Trichloroethane	ND		25.0	24.3		ug/L		97	70 - 130	5	25
Trichloroethene	ND		25.0	25.4		ug/L		102	70 - 130	1	20
Trichlorofluoromethane	ND		25.0	25.3		ug/L		101	60 - 150	1	25
Vinyl chloride	ND		25.0	22.9		ug/L		92	50 - 137	1	30
Xylenes, Total	ND		50.0	50.1		ug/L		100	70 - 133	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*94*		*76 - 132*
Toluene-d8 (Surr)	*99*		*80 - 128*

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

Lab Sample ID: MB 440-229243/1-A
Matrix: Water
Analysis Batch: 230069

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 229243

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorpyrifos	ND		1.0	0.50	ug/L		01/12/15 09:14	01/16/15 01:57	1
Diazinon	ND		0.25	0.12	ug/L		01/12/15 09:14	01/16/15 01:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,3-Dimethyl-2-nitrobenzene	*104*		*70 - 130*	*01/12/15 09:14*	*01/16/15 01:57*	*1*
Perylene-d12	*97*		*70 - 130*	*01/12/15 09:14*	*01/16/15 01:57*	*1*
Triphenylphosphate	*105*		*70 - 130*	*01/12/15 09:14*	*01/16/15 01:57*	*1*

Lab Sample ID: LCS 440-229243/2-A
Matrix: Water
Analysis Batch: 230069

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 229243

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chlorpyrifos			5.00	5.42		ug/L		108	70 - 130		
Diazinon			5.00	4.47		ug/L		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,3-Dimethyl-2-nitrobenzene	*92*		*70 - 130*
Perylene-d12	*103*		*70 - 130*
Triphenylphosphate	*106*		*70 - 130*

Lab Sample ID: LCSD 440-229243/3-A
Matrix: Water
Analysis Batch: 230069

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 229243

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorpyrifos			5.00	5.46		ug/L		109	70 - 130	1	30
Diazinon			5.00	3.28	LR BA	ug/L		66	70 - 130	31	30

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

Lab Sample ID: LCSD 440-229243/3-A
Matrix: Water
Analysis Batch: 230069

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 229243

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	*95*		*70 - 130*
Perylene-d12	*101*		*70 - 130*
Triphenylphosphate	*110*		*70 - 130*

Lab Sample ID: 550-37860-A-1-A MS
Matrix: Water
Analysis Batch: 230069

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 229243

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chlorpyrifos	ND		4.90	5.46		ug/L		111	70 - 130		
Diazinon	ND	LR BA	4.90	4.65		ug/L		95	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	*101*		*70 - 130*
Perylene-d12	*102*		*70 - 130*
Triphenylphosphate	*104*		*70 - 130*

Lab Sample ID: 550-37860-A-1-B MSD
Matrix: Water
Analysis Batch: 230069

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 229243

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chlorpyrifos	ND		4.81	5.37		ug/L		112	70 - 130	2	30
Diazinon	ND	LR BA	4.81	3.65		ug/L		76	70 - 130	24	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,3-Dimethyl-2-nitrobenzene	*96*		*70 - 130*
Perylene-d12	*104*		*70 - 130*
Triphenylphosphate	*105*		*70 - 130*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-229466/1-A
Matrix: Water
Analysis Batch: 230336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 229466

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
1,2-Dichlorobenzene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
1,2-Diphenylhydrazine(as Azobenzene)	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
1,3-Dichlorobenzene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
1,4-Dichlorobenzene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
2,4,6-Trichlorophenol	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
2,4-Dichlorophenol	ND		2.00	1.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
2,4-Dimethylphenol	ND		2.00	1.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
2,4-Dinitrophenol	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-229466/1-A
Matrix: Water
Analysis Batch: 230336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 229466

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
2,6-Dinitrotoluene	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
2-Chloronaphthalene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
2-Chlorophenol	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
2-Nitrophenol	ND		2.00	1.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
3,3'-Dichlorobenzidine	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
4,6-Dinitro-2-methylphenol	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
4-Bromophenyl phenyl ether	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
4-Chloro-3-methylphenol	ND		2.00	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
4-Chloroaniline	ND		2.00	1.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
4-Chlorophenyl phenyl ether	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
4-Nitrophenol	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Acenaphthene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
Acenaphthylene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
Anthracene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
Benzidine	ND		10.0	5.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Benzo[a]anthracene	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Benzo[a]pyrene	ND		2.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
Benzo[b]fluoranthene	ND		2.00	1.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Benzo[g,h,i]perylene	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Benzo[k]fluoranthene	ND		0.500	0.250	ug/L		01/13/15 09:41	01/16/15 17:58	1
bis (2-chloroisopropyl) ether	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
Bis(2-chloroethoxy)methane	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
Bis(2-chloroethyl)ether	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
Bis(2-ethylhexyl) phthalate	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Butyl benzyl phthalate	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Chrysene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
Dibenz(a,h)anthracene	ND		0.500	0.250	ug/L		01/13/15 09:41	01/16/15 17:58	1
Diethyl phthalate	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
Dimethyl phthalate	ND		0.500	0.250	ug/L		01/13/15 09:41	01/16/15 17:58	1
Di-n-butyl phthalate	ND		2.00	1.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Di-n-octyl phthalate	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Fluoranthene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
Fluorene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
Hexachlorobenzene	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
Hexachlorobutadiene	ND		2.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
Hexachlorocyclopentadiene	ND		5.00	2.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Hexachloroethane	ND		3.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
Indeno[1,2,3-cd]pyrene	ND		2.00	1.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Isophorone	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
Naphthalene	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
Nitrobenzene	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
N-Nitrosodimethylamine	ND		2.00	1.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
N-Nitrosodi-n-propylamine	ND		2.00	1.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
N-Nitrosodiphenylamine	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1
Pentachlorophenol	ND		2.00	1.00	ug/L		01/13/15 09:41	01/16/15 17:58	1
Phenanthrene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1
Phenol	ND		1.00	0.500	ug/L		01/13/15 09:41	01/16/15 17:58	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-229466/1-A
Matrix: Water
Analysis Batch: 230336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 229466

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		0.500	0.200	ug/L		01/13/15 09:41	01/16/15 17:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*50 - 120*	*01/13/15 09:41*	*01/16/15 17:58*	*1*
2-Fluorophenol	*71*		*30 - 120*	*01/13/15 09:41*	*01/16/15 17:58*	*1*
2,4,6-Tribromophenol	*73*		*40 - 120*	*01/13/15 09:41*	*01/16/15 17:58*	*1*
Nitrobenzene-d5	*71*		*45 - 120*	*01/13/15 09:41*	*01/16/15 17:58*	*1*
Terphenyl-d14	*83*		*37 - 144*	*01/13/15 09:41*	*01/16/15 17:58*	*1*
Phenol-d6	*75*		*35 - 120*	*01/13/15 09:41*	*01/16/15 17:58*	*1*

Lab Sample ID: LCS 440-229466/2-A
Matrix: Water
Analysis Batch: 230336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 229466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	10.0	6.522		ug/L		65	32 - 140
1,2-Dichlorobenzene	10.0	6.624		ug/L		66	25 - 141
1,2-Diphenylhydrazine(as Azobenzene)	10.0	7.927		ug/L		79	47 - 116
1,3-Dichlorobenzene	10.0	6.496		ug/L		65	10 - 150
1,4-Dichlorobenzene	10.0	6.106		ug/L		61	10 - 108
2,4,6-Trichlorophenol	10.0	8.043		ug/L		80	10 - 150
2,4-Dichlorophenol	10.0	7.718		ug/L		77	12 - 150
2,4-Dimethylphenol	10.0	7.226		ug/L		72	21 - 150
2,4-Dinitrophenol	10.0	8.777		ug/L		88	10 - 150
2,4-Dinitrotoluene	10.0	8.712		ug/L		87	10 - 103
2,6-Dinitrotoluene	10.0	8.361		ug/L		84	29 - 111
2-Chloronaphthalene	10.0	7.478		ug/L		75	53 - 126
2-Chlorophenol	10.0	6.973		ug/L		70	10 - 150
2-Nitrophenol	10.0	6.566		ug/L		66	10 - 150
3,3'-Dichlorobenzidine	10.0	5.430		ug/L		54	10 - 77
4,6-Dinitro-2-methylphenol	10.0	8.223		ug/L		82	10 - 150
4-Bromophenyl phenyl ether	10.0	7.440		ug/L		74	31 - 124
4-Chloro-3-methylphenol	10.0	7.653		ug/L		77	10 - 150
4-Chloroaniline	10.0	7.007		ug/L		70	31 - 117
4-Chlorophenyl phenyl ether	10.0	7.884		ug/L		79	37 - 150
4-Nitrophenol	10.0	7.909		ug/L		79	10 - 150
Acenaphthene	10.0	7.312		ug/L		73	64 - 132
Acenaphthylene	10.0	7.738		ug/L		77	48 - 144
Anthracene	10.0	8.185		ug/L		82	45 - 128
Benzidine	10.0	ND		ug/L		17	5 - 66
Benzo[a]anthracene	10.0	8.501		ug/L		85	37 - 127
Benzo[a]pyrene	10.0	7.552		ug/L		76	10 - 150
Benzo[b]fluoranthene	10.0	7.849		ug/L		78	10 - 150
Benzo[g,h,i]perylene	10.0	9.573		ug/L		96	10 - 150
Benzo[k]fluoranthene	10.0	7.604		ug/L		76	10 - 142
bis (2-chloroisopropyl) ether	10.0	7.198		ug/L		72	47 - 103
Bis(2-chloroethoxy)methane	10.0	6.972		ug/L		70	10 - 150

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-229466/2-A
Matrix: Water
Analysis Batch: 230336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 229466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethyl)ether	10.0	6.867		ug/L		69	10 - 133
Bis(2-ethylhexyl) phthalate	10.0	8.642		ug/L		86	10 - 150
Butyl benzyl phthalate	10.0	8.715		ug/L		87	10 - 135
Chrysene	10.0	8.403		ug/L		84	18 - 148
Dibenz(a,h)anthracene	10.0	8.971		ug/L		90	10 - 150
Diethyl phthalate	10.0	8.696		ug/L		87	10 - 126
Dimethyl phthalate	10.0	8.449		ug/L		84	10 - 85
Di-n-butyl phthalate	10.0	9.522		ug/L		95	10 - 144
Di-n-octyl phthalate	10.0	9.161		ug/L		92	10 - 150
Fluoranthene	10.0	9.402		ug/L		94	44 - 140
Fluorene	10.0	8.102		ug/L		81	47 - 133
Hexachlorobenzene	10.0	7.212		ug/L		72	10 - 150
Hexachlorobutadiene	10.0	6.304		ug/L		63	10 - 111
Hexachlorocyclopentadiene	10.0	4.160	J,DX	ug/L		42	10 - 67
Hexachloroethane	10.0	6.122		ug/L		61	18 - 111
Indeno[1,2,3-cd]pyrene	10.0	9.652		ug/L		97	10 - 115
Isophorone	10.0	8.575		ug/L		86	18 - 150
Naphthalene	10.0	6.957		ug/L		70	41 - 142
Nitrobenzene	10.0	6.737		ug/L		67	22 - 135
N-Nitrosodimethylamine	10.0	5.838		ug/L		58	26 - 117
N-Nitrosodi-n-propylamine	10.0	7.911		ug/L		79	10 - 115
N-Nitrosodiphenylamine	10.0	7.997		ug/L		80	54 - 110
Pentachlorophenol	10.0	8.304		ug/L		83	10 - 150
Phenanthrene	10.0	8.246		ug/L		82	49 - 124
Phenol	10.0	6.724		ug/L		67	10 - 117
Pyrene	10.0	9.001		ug/L		90	45 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*50 - 120*
2-Fluorophenol	*62*		*30 - 120*
2,4,6-Tribromophenol	*75*		*40 - 120*
Nitrobenzene-d5	*68*		*45 - 120*
Terphenyl-d14	*80*		*37 - 144*
Phenol-d6	*68*		*35 - 120*

Lab Sample ID: LCSD 440-229466/3-A
Matrix: Water
Analysis Batch: 230336

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 229466

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	10.0	6.887		ug/L		69	32 - 140	5	35
1,2-Dichlorobenzene	10.0	7.081		ug/L		71	25 - 141	7	35
1,2-Diphenylhydrazine(as Azobenzene)	10.0	8.670		ug/L		87	47 - 116	9	35
1,3-Dichlorobenzene	10.0	6.921		ug/L		69	10 - 150	6	35
1,4-Dichlorobenzene	10.0	6.659		ug/L		67	10 - 108	9	35
2,4,6-Trichlorophenol	10.0	8.456		ug/L		85	10 - 150	5	35
2,4-Dichlorophenol	10.0	8.086		ug/L		81	12 - 150	5	35

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-229466/3-A
Matrix: Water
Analysis Batch: 230336

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 229466

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dimethylphenol	10.0	7.565		ug/L		76	21 - 150	5	35
2,4-Dinitrophenol	10.0	9.224		ug/L		92	10 - 150	5	35
2,4-Dinitrotoluene	10.0	9.470		ug/L		95	10 - 103	8	35
2,6-Dinitrotoluene	10.0	9.296		ug/L		93	29 - 111	11	35
2-Chloronaphthalene	10.0	8.141		ug/L		81	53 - 126	8	35
2-Chlorophenol	10.0	7.573		ug/L		76	10 - 150	8	35
2-Nitrophenol	10.0	6.836		ug/L		68	10 - 150	4	35
3,3'-Dichlorobenzidine	10.0	5.350		ug/L		53	10 - 77	1	35
4,6-Dinitro-2-methylphenol	10.0	8.954		ug/L		90	10 - 150	9	35
4-Bromophenyl phenyl ether	10.0	7.934		ug/L		79	31 - 124	6	35
4-Chloro-3-methylphenol	10.0	7.780		ug/L		78	10 - 150	2	35
4-Chloroaniline	10.0	7.645		ug/L		76	31 - 117	9	35
4-Chlorophenyl phenyl ether	10.0	8.951		ug/L		90	37 - 150	13	35
4-Nitrophenol	10.0	8.095		ug/L		81	10 - 150	2	35
Acenaphthene	10.0	7.965		ug/L		80	64 - 132	9	35
Acenaphthylene	10.0	8.368		ug/L		84	48 - 144	8	35
Anthracene	10.0	8.639		ug/L		86	45 - 128	5	35
Benzidine	10.0	ND		ug/L		16	5 - 66	5	35
Benzo[a]anthracene	10.0	8.668		ug/L		87	37 - 127	2	35
Benzo[a]pyrene	10.0	7.758		ug/L		78	10 - 150	3	35
Benzo[b]fluoranthene	10.0	8.040		ug/L		80	10 - 150	2	35
Benzo[g,h,i]perylene	10.0	11.53		ug/L		115	10 - 150	19	35
Benzo[k]fluoranthene	10.0	7.591		ug/L		76	10 - 142	0	35
bis (2-chloroisopropyl) ether	10.0	7.735		ug/L		77	47 - 103	7	35
Bis(2-chloroethoxy)methane	10.0	7.355		ug/L		74	10 - 150	5	35
Bis(2-chloroethyl)ether	10.0	7.277		ug/L		73	10 - 133	6	35
Bis(2-ethylhexyl) phthalate	10.0	8.877		ug/L		89	10 - 150	3	35
Butyl benzyl phthalate	10.0	8.983		ug/L		90	10 - 135	3	35
Chrysene	10.0	8.935		ug/L		89	18 - 148	6	35
Dibenz(a,h)anthracene	10.0	10.47		ug/L		105	10 - 150	15	35
Diethyl phthalate	10.0	9.362		ug/L		94	10 - 126	7	35
Dimethyl phthalate	10.0	9.224	LQ	ug/L		92	10 - 85	9	35
Di-n-butyl phthalate	10.0	9.782		ug/L		98	10 - 144	3	35
Di-n-octyl phthalate	10.0	9.113		ug/L		91	10 - 150	1	35
Fluoranthene	10.0	9.531		ug/L		95	44 - 140	1	35
Fluorene	10.0	8.948		ug/L		89	47 - 133	10	35
Hexachlorobenzene	10.0	7.922		ug/L		79	10 - 150	9	35
Hexachlorobutadiene	10.0	6.621		ug/L		66	10 - 111	5	35
Hexachlorocyclopentadiene	10.0	4.246	J,DX	ug/L		42	10 - 67	2	35
Hexachloroethane	10.0	6.585		ug/L		66	18 - 111	7	35
Indeno[1,2,3-cd]pyrene	10.0	11.42		ug/L		114	10 - 115	17	35
Isophorone	10.0	8.854		ug/L		89	18 - 150	3	35
Naphthalene	10.0	7.360		ug/L		74	41 - 142	6	35
Nitrobenzene	10.0	7.037		ug/L		70	22 - 135	4	35
N-Nitrosodimethylamine	10.0	6.405		ug/L		64	26 - 117	9	35
N-Nitrosodi-n-propylamine	10.0	8.406		ug/L		84	10 - 115	6	35
N-Nitrosodiphenylamine	10.0	8.537		ug/L		85	54 - 110	7	35
Pentachlorophenol	10.0	8.285		ug/L		83	10 - 150	0	35

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 440-229466/3-A
Matrix: Water
Analysis Batch: 230336

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 229466

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenanthrene			10.0	8.740		ug/L		87	49 - 124	6	35
Phenol			10.0	7.091		ug/L		71	10 - 117	5	35
Pyrene			10.0	9.608		ug/L		96	45 - 120	7	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*50 - 120*
2-Fluorophenol	*67*		*30 - 120*
2,4,6-Tribromophenol	*80*		*40 - 120*
Nitrobenzene-d5	*71*		*45 - 120*
Terphenyl-d14	*87*		*37 - 144*
Phenol-d6	*71*		*35 - 120*

Method: 608 PCB LL - Polychlorinated Biphenyls (PCBs) Low level

Lab Sample ID: MB 440-229709/1-A
Matrix: Water
Analysis Batch: 229866

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 229709

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		0.50	0.25	ug/L		01/14/15 09:59	01/15/15 15:24	1
Aroclor 1221	ND		0.50	0.25	ug/L		01/14/15 09:59	01/15/15 15:24	1
Aroclor 1232	ND		0.50	0.25	ug/L		01/14/15 09:59	01/15/15 15:24	1
Aroclor 1242	ND		0.50	0.25	ug/L		01/14/15 09:59	01/15/15 15:24	1
Aroclor 1248	ND		0.50	0.25	ug/L		01/14/15 09:59	01/15/15 15:24	1
Aroclor 1254	ND		0.50	0.25	ug/L		01/14/15 09:59	01/15/15 15:24	1
Aroclor 1260	ND		0.50	0.25	ug/L		01/14/15 09:59	01/15/15 15:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*120*	*LH*	*29 - 115*	*01/14/15 09:59*	*01/15/15 15:24*	*1*

Lab Sample ID: LCS 440-229709/4-A
Matrix: Water
Analysis Batch: 229866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 229709

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016			4.00	1.57		ug/L		39	39 - 145
Aroclor 1260			4.00	2.89		ug/L		72	37 - 137

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*81*		*29 - 115*

Lab Sample ID: LCSD 440-229709/5-A
Matrix: Water
Analysis Batch: 229866

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 229709

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016			4.00	1.58		ug/L		39	39 - 145	1	30

Method: 608 PCB LL - Polychlorinated Biphenyls (PCBs) Low level (Continued)

Lab Sample ID: LCSD 440-229709/5-A
Matrix: Water
Analysis Batch: 229866

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 229709

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1260			4.00	3.14		ug/L		78	37 - 137	6	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*82*		*29 - 115*

Method: 608 Pesticides - Organochlorine Pesticides Low level

Lab Sample ID: MB 440-229709/1-A
Matrix: Water
Analysis Batch: 230026

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 229709

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.0050	0.0015	ug/L		01/14/15 09:59	01/15/15 16:09	1
alpha-BHC	ND		0.0050	0.0025	ug/L		01/14/15 09:59	01/15/15 16:09	1
beta-BHC	ND		0.010	0.0040	ug/L		01/14/15 09:59	01/15/15 16:09	1
Chlordane (technical)	ND		0.10	0.080	ug/L		01/14/15 09:59	01/15/15 16:09	1
delta-BHC	ND		0.0050	0.0035	ug/L		01/14/15 09:59	01/15/15 16:09	1
Dieldrin	ND		0.0050	0.0020	ug/L		01/14/15 09:59	01/15/15 16:09	1
Endosulfan I	ND		0.0050	0.0030	ug/L		01/14/15 09:59	01/15/15 16:09	1
Endosulfan II	ND		0.0050	0.0020	ug/L		01/14/15 09:59	01/15/15 16:09	1
Endosulfan sulfate	ND		0.010	0.0030	ug/L		01/14/15 09:59	01/15/15 16:09	1
Endrin	ND		0.0050	0.0020	ug/L		01/14/15 09:59	01/15/15 16:09	1
Endrin aldehyde	ND		0.010	0.0020	ug/L		01/14/15 09:59	01/15/15 16:09	1
gamma-BHC (Lindane)	ND		0.010	0.0030	ug/L		01/14/15 09:59	01/15/15 16:09	1
Heptachlor	ND		0.010	0.0030	ug/L		01/14/15 09:59	01/15/15 16:09	1
Heptachlor epoxide	ND		0.0050	0.0025	ug/L		01/14/15 09:59	01/15/15 16:09	1
Toxaphene	ND		0.50	0.25	ug/L		01/14/15 09:59	01/15/15 16:09	1
4,4'-DDD	ND		0.0050	0.0040	ug/L		01/14/15 09:59	01/15/15 16:09	1
4,4'-DDE	ND		0.0050	0.0030	ug/L		01/14/15 09:59	01/15/15 16:09	1
4,4'-DDT	ND		0.010	0.0040	ug/L		01/14/15 09:59	01/15/15 16:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*20*		*10 - 139*	*01/14/15 09:59*	*01/15/15 16:09*	*1*

Lab Sample ID: LCS 440-229709/2-A
Matrix: Water
Analysis Batch: 230026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 229709

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aldrin			0.250	0.111		ug/L		45	18 - 122		
alpha-BHC			0.250	0.118		ug/L		47	32 - 128		
beta-BHC			0.250	0.163		ug/L		65	29 - 123		
delta-BHC			0.250	0.182		ug/L		73	33 - 135		
Dieldrin			0.250	0.190		ug/L		76	32 - 139		
Endosulfan I			0.250	0.178		ug/L		71	32 - 132		
Endosulfan II			0.250	0.174		ug/L		70	35 - 130		
Endosulfan sulfate			0.250	0.209		ug/L		83	34 - 141		

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

Lab Sample ID: LCS 440-229709/2-A
Matrix: Water
Analysis Batch: 230026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 229709

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin	0.250	0.191		ug/L		77	33 - 135
Endrin aldehyde	0.250	0.186		ug/L		75	27 - 144
gamma-BHC (Lindane)	0.250	0.142		ug/L		57	32 - 129
Heptachlor	0.250	0.133		ug/L		53	30 - 133
Heptachlor epoxide	0.250	0.309	PI	ug/L		124	25 - 142
4,4'-DDD	0.250	0.194		ug/L		78	37 - 142
4,4'-DDE	0.250	0.187		ug/L		75	33 - 139
4,4'-DDT	0.250	0.207		ug/L		83	36 - 145

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*26*		*10 - 139*

Lab Sample ID: LCSD 440-229709/3-A
Matrix: Water
Analysis Batch: 230026

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 229709

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	0.250	0.0984		ug/L		39	18 - 122	12	35
alpha-BHC	0.250	0.0949		ug/L		38	32 - 128	22	35
beta-BHC	0.250	0.126		ug/L		51	29 - 123	25	35
delta-BHC	0.250	0.138		ug/L		55	33 - 135	28	35
Dieldrin	0.250	0.166		ug/L		66	32 - 139	13	35
Endosulfan I	0.250	0.149		ug/L		60	32 - 132	25	34
Endosulfan II	0.250	0.170		ug/L		68	35 - 130	3	35
Endosulfan sulfate	0.250	0.213		ug/L		85	34 - 141	2	35
Endrin	0.250	0.169		ug/L		67	33 - 135	13	35
Endrin aldehyde	0.250	0.198		ug/L		79	27 - 144	6	35
gamma-BHC (Lindane)	0.250	0.106		ug/L		42	32 - 129	29	35
Heptachlor	0.250	0.115		ug/L		46	30 - 133	14	35
Heptachlor epoxide	0.250	0.255	PI	ug/L		102	25 - 142	19	35
4,4'-DDD	0.250	0.190		ug/L		76	37 - 142	2	35
4,4'-DDE	0.250	0.158		ug/L		63	33 - 139	17	35
4,4'-DDT	0.250	0.186		ug/L		74	36 - 145	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*29*		*10 - 139*

Method: 218.6 - Chromium, Hexavalent (Ion Chromatography)

Lab Sample ID: MB 440-229181/3
Matrix: Water
Analysis Batch: 229181

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		1.0	0.25	ug/L			01/11/15 16:33	1

Method: 218.6 - Chromium, Hexavalent (Ion Chromatography) (Continued)

Lab Sample ID: LCS 440-229181/6
Matrix: Water
Analysis Batch: 229181

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	50.0	51.3		ug/L		103	90 - 110

Lab Sample ID: MRL 440-229181/4
Matrix: Water
Analysis Batch: 229181

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	1.00	1.19		ug/L		119	50 - 150

Lab Sample ID: 440-98716-1 MS
Matrix: Water
Analysis Batch: 229181

Client Sample ID: Outfall009_20150111_Grab
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium, hexavalent	0.28	J,DX	50.0	50.9		ug/L		101	90 - 110

Lab Sample ID: 440-98716-1 MSD
Matrix: Water
Analysis Batch: 229181

Client Sample ID: Outfall009_20150111_Grab
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chromium, hexavalent	0.28	J,DX	50.0	51.3		ug/L		102	90 - 110	1	10

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-229270/13
Matrix: Water
Analysis Batch: 229270

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			01/12/15 13:57	1
Sulfate	ND		0.50	0.25	mg/L			01/12/15 13:57	1

Lab Sample ID: LCS 440-229270/12
Matrix: Water
Analysis Batch: 229270

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.53		mg/L		91	90 - 110
Sulfate	5.00	4.81		mg/L		96	90 - 110

Lab Sample ID: 440-98732-1 MS
Matrix: Water
Analysis Batch: 229270

Client Sample ID: Outfall009_20150111_Comp
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.5		5.00	9.20		mg/L		95	80 - 120
Sulfate	4.6		5.00	9.30		mg/L		94	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-98732-1 MSD
Matrix: Water
Analysis Batch: 229270

Client Sample ID: Outfall009_20150111_Comp
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.5		5.00	9.22		mg/L		95	80 - 120	0	20
Sulfate	4.6		5.00	9.36		mg/L		95	80 - 120	1	20

Method: 314.0 - Perchlorate (IC)

Lab Sample ID: MB 440-229659/3
Matrix: Water
Analysis Batch: 229659

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perchlorate	ND		4.0	0.95	ug/L			01/14/15 07:49	1

Lab Sample ID: LCS 440-229659/2
Matrix: Water
Analysis Batch: 229659

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	25.0	24.1		ug/L		97	85 - 115

Lab Sample ID: MRL 440-229659/5
Matrix: Water
Analysis Batch: 229659

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	4.00	3.40	J,DX	ug/L		85	75 - 125

Lab Sample ID: 440-98608-A-3 MS
Matrix: Water
Analysis Batch: 229659

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perchlorate	0.99	J,DX	25.0	26.9		ug/L		104	80 - 120

Lab Sample ID: 440-98608-A-3 MSD
Matrix: Water
Analysis Batch: 229659

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perchlorate	0.99	J,DX	25.0	26.5		ug/L		102	80 - 120	1	20

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-63107/1-A
Matrix: Water
Analysis Batch: 64309

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63107

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		0.000010	0.0000003	ug/L		01/16/15 08:39	01/29/15 21:32	1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-63107/1-A
Matrix: Water
Analysis Batch: 64309

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63107

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	ND		0.000010	0.00000030	ug/L		01/16/15 08:39	01/29/15 21:32	1
1,2,3,7,8-PeCDD	ND		0.000050	0.00000051	ug/L		01/16/15 08:39	01/29/15 21:32	1
1,2,3,7,8-PeCDF	ND		0.000050	0.00000038	ug/L		01/16/15 08:39	01/29/15 21:32	1
2,3,4,7,8-PeCDF	ND		0.000050	0.00000039	ug/L		01/16/15 08:39	01/29/15 21:32	1
1,2,3,4,7,8-HxCDD	ND		0.000050	0.00000042	ug/L		01/16/15 08:39	01/29/15 21:32	1
1,2,3,6,7,8-HxCDD	ND		0.000050	0.00000039	ug/L		01/16/15 08:39	01/29/15 21:32	1
1,2,3,7,8,9-HxCDD	ND		0.000050	0.00000034	ug/L		01/16/15 08:39	01/29/15 21:32	1
1,2,3,4,7,8-HxCDF	ND		0.000050	0.00000041	ug/L		01/16/15 08:39	01/29/15 21:32	1
1,2,3,6,7,8-HxCDF	ND		0.000050	0.00000036	ug/L		01/16/15 08:39	01/29/15 21:32	1
1,2,3,7,8,9-HxCDF	ND		0.000050	0.00000042	ug/L		01/16/15 08:39	01/29/15 21:32	1
2,3,4,6,7,8-HxCDF	ND		0.000050	0.00000034	ug/L		01/16/15 08:39	01/29/15 21:32	1
1,2,3,4,6,7,8-HpCDD	0.00000314	J,DX	0.000050	0.00000064	ug/L		01/16/15 08:39	01/29/15 21:32	1
1,2,3,4,6,7,8-HpCDF	0.00000154	J,DX q	0.000050	0.00000042	ug/L		01/16/15 08:39	01/29/15 21:32	1
1,2,3,4,7,8,9-HpCDF	ND		0.000050	0.00000067	ug/L		01/16/15 08:39	01/29/15 21:32	1
OCDD	0.0000330	J,DX q	0.00010	0.0000020	ug/L		01/16/15 08:39	01/29/15 21:32	1
OCDF	0.00000481	J,DX q	0.00010	0.00000091	ug/L		01/16/15 08:39	01/29/15 21:32	1
Total TCDD	0.000000988	J,DX	0.000010	0.00000035	ug/L		01/16/15 08:39	01/29/15 21:32	1
Total TCDF	ND		0.000010	0.00000030	ug/L		01/16/15 08:39	01/29/15 21:32	1
Total PeCDD	ND		0.000050	0.00000051	ug/L		01/16/15 08:39	01/29/15 21:32	1
Total PeCDF	ND		0.000050	0.00000039	ug/L		01/16/15 08:39	01/29/15 21:32	1
Total HxCDD	ND		0.000050	0.00000042	ug/L		01/16/15 08:39	01/29/15 21:32	1
Total HxCDF	ND		0.000050	0.00000042	ug/L		01/16/15 08:39	01/29/15 21:32	1
Total HpCDD	0.00000599	J,DX q	0.000050	0.00000064	ug/L		01/16/15 08:39	01/29/15 21:32	1
Total HpCDF	0.00000331	J,DX q	0.000050	0.00000055	ug/L		01/16/15 08:39	01/29/15 21:32	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDD	*77*		*25 - 164*	*01/16/15 08:39*	*01/29/15 21:32*	*1*
13C-2,3,7,8-TCDF	*76*		*24 - 169*	*01/16/15 08:39*	*01/29/15 21:32*	*1*
13C-1,2,3,7,8-PeCDD	*74*		*25 - 181*	*01/16/15 08:39*	*01/29/15 21:32*	*1*
13C-1,2,3,7,8-PeCDF	*70*		*24 - 185*	*01/16/15 08:39*	*01/29/15 21:32*	*1*
13C-2,3,4,7,8-PeCDF	*75*		*21 - 178*	*01/16/15 08:39*	*01/29/15 21:32*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-63107/1-A
Matrix: Water
Analysis Batch: 64309

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 63107

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	67		32 - 141	01/16/15 08:39	01/29/15 21:32	1
13C-1,2,3,6,7,8-HxCDD	83		28 - 130	01/16/15 08:39	01/29/15 21:32	1
13C-1,2,3,4,7,8-HxCDF	67		26 - 152	01/16/15 08:39	01/29/15 21:32	1
13C-1,2,3,6,7,8-HxCDF	78		26 - 123	01/16/15 08:39	01/29/15 21:32	1
13C-1,2,3,7,8,9-HxCDF	63		29 - 147	01/16/15 08:39	01/29/15 21:32	1
13C-2,3,4,6,7,8-HxCDF	73		28 - 136	01/16/15 08:39	01/29/15 21:32	1
13C-1,2,3,4,6,7,8-HpCDD	65		23 - 140	01/16/15 08:39	01/29/15 21:32	1
13C-1,2,3,4,6,7,8-HpCDF	65		28 - 143	01/16/15 08:39	01/29/15 21:32	1
13C-1,2,3,4,7,8,9-HpCDF	61		26 - 138	01/16/15 08:39	01/29/15 21:32	1
13C-OCDD	54		17 - 157	01/16/15 08:39	01/29/15 21:32	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	104		35 - 197	01/16/15 08:39	01/29/15 21:32	1

Lab Sample ID: LCS 320-63107/2-A
Matrix: Water
Analysis Batch: 64309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 63107

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,3,7,8-TCDD	0.000200	0.000203		ug/L		102	67 - 158
2,3,7,8-TCDF	0.000200	0.000207		ug/L		104	75 - 158
1,2,3,7,8-PeCDD	0.00100	0.00105		ug/L		105	70 - 142
1,2,3,7,8-PeCDF	0.00100	0.00103		ug/L		103	80 - 134
2,3,4,7,8-PeCDF	0.00100	0.00103		ug/L		103	68 - 160
1,2,3,4,7,8-HxCDD	0.00100	0.000996		ug/L		100	70 - 164
1,2,3,6,7,8-HxCDD	0.00100	0.00106		ug/L		106	76 - 134
1,2,3,7,8,9-HxCDD	0.00100	0.000990		ug/L		99	64 - 162
1,2,3,4,7,8-HxCDF	0.00100	0.00104		ug/L		104	72 - 134
1,2,3,6,7,8-HxCDF	0.00100	0.00102		ug/L		102	84 - 130
1,2,3,7,8,9-HxCDF	0.00100	0.00102		ug/L		102	78 - 130
2,3,4,6,7,8-HxCDF	0.00100	0.00101		ug/L		101	70 - 156
1,2,3,4,6,7,8-HpCDD	0.00100	0.00102		ug/L		102	70 - 140
1,2,3,4,6,7,8-HpCDF	0.00100	0.00101		ug/L		101	82 - 122
1,2,3,4,7,8,9-HpCDF	0.00100	0.000998		ug/L		100	78 - 138
OCDD	0.00200	0.00198		ug/L		99	78 - 144
OCDF	0.00200	0.00211		ug/L		105	63 - 170

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,7,8-TCDD	78		20 - 175
13C-2,3,7,8-TCDF	72		22 - 152
13C-1,2,3,7,8-PeCDD	74		21 - 227
13C-1,2,3,7,8-PeCDF	69		21 - 192
13C-2,3,4,7,8-PeCDF	74		13 - 328
13C-1,2,3,4,7,8-HxCDD	68		21 - 193
13C-1,2,3,6,7,8-HxCDD	85		25 - 163
13C-1,2,3,4,7,8-HxCDF	68		19 - 202
13C-1,2,3,6,7,8-HxCDF	78		21 - 159
13C-1,2,3,7,8,9-HxCDF	65		17 - 205

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-63107/2-A
Matrix: Water
Analysis Batch: 64309

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 63107

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-2,3,4,6,7,8-HxCDF	75		22 - 176
13C-1,2,3,4,6,7,8-HpCDD	69		26 - 166
13C-1,2,3,4,6,7,8-HpCDF	67		21 - 158
13C-1,2,3,4,7,8,9-HpCDF	65		20 - 186
13C-OCDD	59		13 - 199

Surrogate	LCS %Recovery	LCS Qualifier	Limits
37Cl4-2,3,7,8-TCDD	103		35 - 197

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-230006/1-A
Matrix: Water
Analysis Batch: 230506

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 230006

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.010	mg/L		01/15/15 11:38	01/16/15 13:16	1
Iron	ND		0.040	0.010	mg/L		01/15/15 11:38	01/16/15 13:16	1
Vanadium	ND		10	5.0	ug/L		01/15/15 11:38	01/16/15 13:16	1
Hardness, as CaCO3	ND		0.33	0.17	mg/L		01/15/15 11:38	01/16/15 13:16	1
Aluminum	ND		0.050	0.025	mg/L		01/15/15 11:38	01/16/15 13:16	1
Beryllium	ND		0.0020	0.0010	mg/L		01/15/15 11:38	01/16/15 13:16	1
Nickel	ND		0.010	0.0050	mg/L		01/15/15 11:38	01/16/15 13:16	1
Silver	ND		0.010	0.0050	mg/L		01/15/15 11:38	01/16/15 13:16	1
Arsenic	ND		0.010	0.0050	mg/L		01/15/15 11:38	01/16/15 13:16	1
Chromium	ND		0.0050	0.0025	mg/L		01/15/15 11:38	01/16/15 13:16	1
Zinc	ND		0.020	0.010	mg/L		01/15/15 11:38	01/16/15 13:16	1

Lab Sample ID: LCS 440-230006/3-A
Matrix: Water
Analysis Batch: 230506

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 230006

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.500	0.471		mg/L		94	85 - 115
Iron	0.500	0.485		mg/L		97	85 - 115
Vanadium	500	484		ug/L		97	85 - 115
Aluminum	0.500	0.480		mg/L		96	85 - 115
Beryllium	0.500	0.481		mg/L		96	85 - 115
Nickel	0.500	0.502		mg/L		100	85 - 115
Silver	0.250	0.242		mg/L		97	85 - 115
Arsenic	0.500	0.492		mg/L		98	85 - 115
Chromium	0.500	0.462		mg/L		92	85 - 115
Zinc	0.500	0.484		mg/L		97	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 500-90734-C-1-B MS
Matrix: Water
Analysis Batch: 230506

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 230006

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.22		0.500	0.716		mg/L		98	70 - 130
Iron	0.10		0.500	0.590		mg/L		98	70 - 130
Vanadium	ND		500	489		ug/L		98	70 - 130
Aluminum	6.7		0.500	7.25	BB	mg/L		102	70 - 130
Beryllium	ND		0.500	0.484		mg/L		97	70 - 130
Nickel	0.012		0.500	0.496		mg/L		97	70 - 130
Silver	ND		0.250	0.253		mg/L		101	70 - 130
Arsenic	ND		0.500	0.517		mg/L		103	70 - 130
Chromium	0.0044	J,DX	0.500	0.459		mg/L		91	70 - 130
Zinc	0.016	J,DX	0.500	0.504		mg/L		98	70 - 130

Lab Sample ID: 500-90734-C-1-C MSD
Matrix: Water
Analysis Batch: 230506

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 230006

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.22		0.500	0.712		mg/L		97	70 - 130	1	20
Iron	0.10		0.500	0.609		mg/L		101	70 - 130	3	20
Vanadium	ND		500	489		ug/L		98	70 - 130	0	20
Aluminum	6.7		0.500	7.23	BB	mg/L		100	70 - 130	0	20
Beryllium	ND		0.500	0.487		mg/L		97	70 - 130	1	20
Nickel	0.012		0.500	0.503		mg/L		98	70 - 130	1	20
Silver	ND		0.250	0.252		mg/L		101	70 - 130	0	20
Arsenic	ND		0.500	0.538		mg/L		108	70 - 130	4	20
Chromium	0.0044	J,DX	0.500	0.462		mg/L		91	70 - 130	1	20
Zinc	0.016	J,DX	0.500	0.511		mg/L		99	70 - 130	2	20

Lab Sample ID: MB 440-229796/1-B
Matrix: Water
Analysis Batch: 230507

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 230092

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		0.050	0.010	mg/L		01/15/15 16:48	01/16/15 14:18	1
Iron	ND		0.040	0.010	mg/L		01/15/15 16:48	01/16/15 14:18	1
Vanadium	ND		10	5.0	ug/L		01/15/15 16:48	01/16/15 14:18	1
Hardness, as CaCO3	ND		0.33	0.17	mg/L		01/15/15 16:48	01/16/15 14:18	1
Aluminum	ND		0.050	0.025	mg/L		01/15/15 16:48	01/16/15 14:18	1
Beryllium	ND		0.0020	0.0010	mg/L		01/15/15 16:48	01/16/15 14:18	1
Nickel	ND		0.010	0.0050	mg/L		01/15/15 16:48	01/16/15 14:18	1
Silver	ND		0.010	0.0050	mg/L		01/15/15 16:48	01/16/15 14:18	1
Arsenic	ND		0.010	0.0050	mg/L		01/15/15 16:48	01/16/15 14:18	1
Chromium	ND		0.0050	0.0025	mg/L		01/15/15 16:48	01/16/15 14:18	1
Zinc	ND		0.020	0.010	mg/L		01/15/15 16:48	01/16/15 14:18	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-229796/3-B
Matrix: Water
Analysis Batch: 230507

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 230092

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.500	0.501		mg/L		100	85 - 115
Iron	0.500	0.506		mg/L		101	85 - 115
Vanadium	500	513		ug/L		103	85 - 115
Aluminum	0.500	0.557		mg/L		111	85 - 115
Beryllium	0.500	0.506		mg/L		101	85 - 115
Nickel	0.500	0.526		mg/L		105	85 - 115
Silver	0.250	0.242		mg/L		97	85 - 115
Arsenic	0.500	0.540		mg/L		108	85 - 115
Chromium	0.500	0.475		mg/L		95	85 - 115
Zinc	0.500	0.509		mg/L		102	85 - 115

Lab Sample ID: 440-98732-1 MS
Matrix: Water
Analysis Batch: 230507

Client Sample ID: Outfall009_20150111_Comp
Prep Type: Dissolved
Prep Batch: 230092

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.041	J,DX QP	0.500	0.546		mg/L		101	70 - 130
Iron	0.15	QP	0.500	0.686		mg/L		107	70 - 130
Vanadium	ND	QP	500	520		ug/L		104	70 - 130
Aluminum	0.11	QP	0.500	0.737		mg/L		126	70 - 130
Beryllium	ND	QP	0.500	0.520		mg/L		104	70 - 130
Nickel	ND	QP	0.500	0.529		mg/L		106	70 - 130
Silver	ND	QP	0.250	0.256		mg/L		103	70 - 130
Arsenic	ND	QP	0.500	0.546		mg/L		109	70 - 130
Chromium	ND	QP	0.500	0.479		mg/L		96	70 - 130
Zinc	ND	QP	0.500	0.519		mg/L		104	70 - 130

Lab Sample ID: 440-98732-1 MSD
Matrix: Water
Analysis Batch: 230507

Client Sample ID: Outfall009_20150111_Comp
Prep Type: Dissolved
Prep Batch: 230092

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.041	J,DX QP	0.500	0.559		mg/L		103	70 - 130	2	20
Iron	0.15	QP	0.500	0.701		mg/L		110	70 - 130	2	20
Vanadium	ND	QP	500	531		ug/L		106	70 - 130	2	20
Aluminum	0.11	QP	0.500	0.770	LM	mg/L		132	70 - 130	4	20
Beryllium	ND	QP	0.500	0.523		mg/L		105	70 - 130	1	20
Nickel	ND	QP	0.500	0.540		mg/L		108	70 - 130	2	20
Silver	ND	QP	0.250	0.263		mg/L		105	70 - 130	3	20
Arsenic	ND	QP	0.500	0.558		mg/L		112	70 - 130	2	20
Chromium	ND	QP	0.500	0.494		mg/L		99	70 - 130	3	20
Zinc	ND	QP	0.500	0.535		mg/L		107	70 - 130	3	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 440-229969/1-A
Matrix: Water
Analysis Batch: 230298

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 229969

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.25	ug/L		01/15/15 10:47	01/16/15 11:32	1
Copper	0.996	J,DX	2.0	0.50	ug/L		01/15/15 10:47	01/16/15 11:32	1
Lead	ND		1.0	0.50	ug/L		01/15/15 10:47	01/16/15 11:32	1
Antimony	ND		2.0	0.50	ug/L		01/15/15 10:47	01/16/15 11:32	1
Thallium	ND		1.0	0.50	ug/L		01/15/15 10:47	01/16/15 11:32	1
Selenium	ND		2.0	0.50	ug/L		01/15/15 10:47	01/16/15 11:32	1

Lab Sample ID: LCS 440-229969/3-A
Matrix: Water
Analysis Batch: 230298

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 229969

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	77.8		ug/L		97	85 - 115
Copper	80.0	79.6		ug/L		99	85 - 115
Lead	80.0	78.8		ug/L		98	85 - 115
Antimony	80.0	82.2		ug/L		103	85 - 115
Thallium	80.0	76.8		ug/L		96	85 - 115
Selenium	80.0	79.2		ug/L		99	85 - 115

Lab Sample ID: LCSD 440-229969/4-A
Matrix: Water
Analysis Batch: 230298

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 229969

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	80.0	78.3		ug/L		98	85 - 115	1	20
Copper	80.0	80.2		ug/L		100	85 - 115	1	20
Lead	80.0	78.1		ug/L		98	85 - 115	1	20
Antimony	80.0	81.9		ug/L		102	85 - 115	0	20
Thallium	80.0	76.3		ug/L		95	85 - 115	1	20
Selenium	80.0	77.8		ug/L		97	85 - 115	2	20

Lab Sample ID: 440-98718-C-1-C MS
Matrix: Water
Analysis Batch: 230298

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 229969

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		80.0	78.1		ug/L		98	70 - 130
Copper	2.0	MB	80.0	80.3		ug/L		98	70 - 130
Lead	0.51	J,DX	80.0	79.1		ug/L		98	70 - 130
Antimony	ND		80.0	82.0		ug/L		103	70 - 130
Thallium	ND		80.0	78.7		ug/L		98	70 - 130
Selenium	0.52	J,DX	80.0	77.8		ug/L		97	70 - 130

Lab Sample ID: 440-98718-C-1-D MSD
Matrix: Water
Analysis Batch: 230298

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 229969

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		80.0	78.1		ug/L		98	70 - 130	0	20

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-98718-C-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 230298 — **Prep Batch: 229969**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	2.0	MB	80.0	78.9		ug/L		96	70 - 130	2	20
Lead	0.51	J,DX	80.0	78.9		ug/L		98	70 - 130	0	20
Antimony	ND		80.0	82.5		ug/L		103	70 - 130	1	20
Thallium	ND		80.0	77.9		ug/L		97	70 - 130	1	20
Selenium	0.52	J,DX	80.0	77.0		ug/L		96	70 - 130	1	20

Lab Sample ID: MB 440-229796/1-C — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 230316 — **Prep Batch: 230094**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0	0.25	ug/L		01/15/15 16:49	01/16/15 13:58	1
Copper	ND		2.0	0.50	ug/L		01/15/15 16:49	01/16/15 13:58	1
Lead	ND		1.0	0.50	ug/L		01/15/15 16:49	01/16/15 13:58	1
Antimony	ND		2.0	0.50	ug/L		01/15/15 16:49	01/16/15 13:58	1
Thallium	ND		1.0	0.50	ug/L		01/15/15 16:49	01/16/15 13:58	1
Selenium	ND		2.0	0.50	ug/L		01/15/15 16:49	01/16/15 13:58	1

Lab Sample ID: LCS 440-229796/3-C — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 230316 — **Prep Batch: 230094**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	80.0	79.9		ug/L		100	85 - 115
Copper	80.0	80.0		ug/L		100	85 - 115
Lead	80.0	81.3		ug/L		102	85 - 115
Antimony	80.0	85.6		ug/L		107	85 - 115
Thallium	80.0	79.8		ug/L		100	85 - 115
Selenium	80.0	80.5		ug/L		101	85 - 115

Lab Sample ID: 440-95687-B-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 230316 — **Prep Batch: 230094**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.48	J,DX QP	80.0	78.4		ug/L		97	70 - 130
Copper	34	QP	80.0	113		ug/L		98	70 - 130
Lead	ND	QP	80.0	80.8		ug/L		101	70 - 130
Antimony	1.0	J,DX QP	80.0	84.2		ug/L		104	70 - 130
Thallium	ND	QP	80.0	78.6		ug/L		98	70 - 130
Selenium	ND	QP	80.0	78.4		ug/L		98	70 - 130

Lab Sample ID: 440-95687-B-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 230316 — **Prep Batch: 230094**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.48	J,DX QP	80.0	79.5		ug/L		99	70 - 130	1	20
Copper	34	QP	80.0	114		ug/L		99	70 - 130	1	20

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-95687-B-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 230316 — **Prep Batch: 230094**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND	QP	80.0	80.6		ug/L		101	70 - 130	0	20
Antimony	1.0	J,DX QP	80.0	86.2		ug/L		107	70 - 130	2	20
Thallium	ND	QP	80.0	78.6		ug/L		98	70 - 130	0	20
Selenium	ND	QP	80.0	78.5		ug/L		98	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 440-229473/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 229607 — **Prep Batch: 229473**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		01/13/15 10:08	01/13/15 14:17	1

Lab Sample ID: LCS 440-229473/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 229607 — **Prep Batch: 229473**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	8.42		ug/L		105	85 - 115

Lab Sample ID: 440-98541-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 229607 — **Prep Batch: 229473**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		8.00	8.42		ug/L		105	70 - 130

Lab Sample ID: 440-98541-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 229607 — **Prep Batch: 229473**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		8.00	8.53		ug/L		107	70 - 130	1	20

Lab Sample ID: MB 440-229796/1-D — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 230354 — **Prep Batch: 230233**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.10	ug/L		01/16/15 10:01	01/16/15 15:16	1

Lab Sample ID: LCS 440-229796/3-D — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 230354 — **Prep Batch: 230233**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	8.00	8.18		ug/L		102	85 - 115

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: 440-98732-1 MS
Matrix: Water
Analysis Batch: 230354

Client Sample ID: Outfall009_20150111_Comp
Prep Type: Dissolved
Prep Batch: 230233

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND	QP	8.00	8.19		ug/L		102	70 - 130

Lab Sample ID: 440-98732-1 MSD
Matrix: Water
Analysis Batch: 230354

Client Sample ID: Outfall009_20150111_Comp
Prep Type: Dissolved
Prep Batch: 230233

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND	QP	8.00	8.22		ug/L		103	70 - 130	0	20

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 440-229916/1-A
Matrix: Water
Analysis Batch: 229984

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 229916

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM	ND		5.0	1.4	mg/L		01/15/15 08:07	01/15/15 11:04	1

Lab Sample ID: LCS 440-229916/2-A
Matrix: Water
Analysis Batch: 229984

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 229916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM	20.0	18.8		mg/L		94	78 - 114

Lab Sample ID: LCSD 440-229916/3-A
Matrix: Water
Analysis Batch: 229984

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 229916

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
HEM	20.0	18.5		mg/L		93	78 - 114	2	11

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

Lab Sample ID: MB 440-229539/1
Matrix: Water
Analysis Batch: 229539

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	5.0	mg/L			01/13/15 13:50	1

Lab Sample ID: LCS 440-229539/2
Matrix: Water
Analysis Batch: 229539

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	1000		mg/L		100	90 - 110

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

Lab Sample ID: 440-98615-D-1 DU
Matrix: Water
Analysis Batch: 229539

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1400			1350		mg/L				1	5

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

Lab Sample ID: MB 440-229814/2
Matrix: Water
Analysis Batch: 229814

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		1.0	0.50	mg/L			01/14/15 16:03	1

Lab Sample ID: LCS 440-229814/1
Matrix: Water
Analysis Batch: 229814

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Suspended Solids			1000	996		mg/L		100	85 - 115		

Lab Sample ID: 440-98984-B-1 DU
Matrix: Water
Analysis Batch: 229814

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	13			13.0		mg/L				4	10

Method: SM 4500 CN E - Cyanide, Total (Low Level)

Lab Sample ID: MB 440-229547/1-A
Matrix: Water
Analysis Batch: 229569

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 229547

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		5.0	2.5	ug/L		01/13/15 14:52	01/13/15 16:21	1

Lab Sample ID: LCS 440-229547/2-A
Matrix: Water
Analysis Batch: 229569

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 229547

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			100	96.4		ug/L		96	90 - 110		

Lab Sample ID: LCSD 440-229547/3-A
Matrix: Water
Analysis Batch: 229569

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 229547

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total			100	97.4		ug/L		97	90 - 110	1	10

Method: SM 4500 CN E - Cyanide, Total (Low Level) (Continued)

Lab Sample ID: 440-98518-B-2-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 229569 — **Prep Batch: 229547**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	2.5	J,DX	100	93.3		ug/L		91	70 - 115

Lab Sample ID: 440-98518-B-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 229569 — **Prep Batch: 229547**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	2.5	J,DX	100	99.3		ug/L		97	70 - 115	6	15

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 440-229490/10 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 229490

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.10	0.050	mg/L			01/13/15 10:11	1

Lab Sample ID: LCS 440-229490/9 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 229490

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	1.00	0.972		mg/L		97	90 - 110

Lab Sample ID: 440-98732-1 MS — **Client Sample ID: Outfall009_20150111_Comp**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 229490

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.15		1.00	1.15		mg/L		100	80 - 120

Lab Sample ID: 440-98732-1 MSD — **Client Sample ID: Outfall009_20150111_Comp**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 229490

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.15		1.00	1.15		mg/L		100	80 - 120	0	20

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity

Lab Sample ID: MB 160-168547/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 169212 — **Prep Batch: 168547**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.09679	U	0.647	0.647	1.30	pCi/L	01/15/15 09:57	01/19/15 17:04	1
Gross Beta	-0.07161	U	0.476	0.476	0.870	pCi/L	01/15/15 09:57	01/19/15 17:04	1

Method: 900.0 - Gross Alpha and Gross Beta Radioactivity (Continued)

Lab Sample ID: LCS 160-168547/2-A
Matrix: Water
Analysis Batch: 169212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 168547

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	MDC	Unit	%Rec	%Rec. Limits
Gross Alpha	50.1	58.29		8.16	1.73	pCi/L	116	73 - 133

Lab Sample ID: LCSB 160-168547/3-A
Matrix: Water
Analysis Batch: 169212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 168547

Analyte	Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	MDC	Unit	%Rec	%Rec. Limits
Gross Beta	95.8	100.0		10.5	0.988	pCi/L	104	75 - 125

Lab Sample ID: 160-10128-A-1-B MS
Matrix: Water
Analysis Batch: 169212

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 168547

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	MDC	Unit	%Rec	%Rec. Limits
Gross Alpha	4.17	U G	108	89.37		17.0	9.89	pCi/L	83	35 - 150

Lab Sample ID: 160-10128-A-1-C MSBT
Matrix: Water
Analysis Batch: 169212

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 168547

Analyte	Sample Result	Sample Qual	Spike Added	MSBT Result	MSBT Qual	Total Uncert. (2σ+/-)	MDC	Unit	%Rec	%Rec. Limits
Gross Beta	160		206	381.3	G	40.4	4.01	pCi/L	107	89 - 143

Lab Sample ID: 160-10128-A-1-D DU
Matrix: Water
Analysis Batch: 169212

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 168547

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	MDC	Unit	RER	RER Limit
Gross Alpha	4.17	U G	6.269	U G	6.05	9.56	pCi/L	0.19	1
Gross Beta	160		172.6	G	19.6	4.20	pCi/L	0.33	1

Method: 901.1 - Cesium 137 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-168607/1-A
Matrix: Water
Analysis Batch: 169077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 168607

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Cesium-137	-1.412	U	6.92	6.92	12.4	pCi/L	01/15/15 15:19	01/15/15 17:02	1
Potassium-40	-74.30	U	301	301	214	pCi/L	01/15/15 15:19	01/15/15 17:02	1

Method: 901.1 - Cesium 137 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: LCS 160-168607/2-A
Matrix: Water
Analysis Batch: 169077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 168607

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	MDC	Unit	%Rec	%Rec. Limits
Americium-241	137000	137300		15900	483	pCi/L	100	90 - 111
Cesium-137	49300	49520		4930	181	pCi/L	100	90 - 111
Cobalt-60	52300	51140		5050	125	pCi/L	98	89 - 110

Lab Sample ID: 440-98732-2 DU
Matrix: Water
Analysis Batch: 168894

Client Sample ID: Trip Blank_20150112_1201
Prep Type: Total/NA
Prep Batch: 168607

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	MDC	Unit	RER	RER Limit
Cesium-137	0.000	U	-0.2906	U	5.62	10.5	pCi/L	0.04	1
Potassium-40	-58.2	U	-40.29	U	243	186	pCi/L	0.04	1

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-168331/1-A
Matrix: Water
Analysis Batch: 172282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 168331

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02709	U	0.0441	0.0442	0.0928	pCi/L	01/14/15 08:44	02/05/15 11:51	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*40 - 110*	*01/14/15 08:44*	*02/05/15 11:51*	*1*

Lab Sample ID: LCS 160-168331/2-A
Matrix: Water
Analysis Batch: 172282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 168331

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.2	11.27		1.10	0.0814	pCi/L	100	68 - 137

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.8*		*40 - 110*

Lab Sample ID: 440-98805-O-2-A DU
Matrix: Water
Analysis Batch: 172354

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 168331

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	MDC	Unit	RER	RER Limit
Radium-226	0.160		0.1082		0.0623	0.0871	pCi/L	0.40	1

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 440-98805-O-2-A DU
Matrix: Water
Analysis Batch: 172354

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 168331

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	96.5		40 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-168342/1-A
Matrix: Water
Analysis Batch: 170551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 168342

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.008007	U	0.218	0.218	0.387	pCi/L	01/14/15 09:01	01/27/15 10:41	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110	01/14/15 09:01	01/27/15 10:41	1
Y Carrier	87.1		40 - 110	01/14/15 09:01	01/27/15 10:41	1

Lab Sample ID: LCS 160-168342/2-A
Matrix: Water
Analysis Batch: 170551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 168342

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)		MDC	Unit	%Rec	%Rec. Limits		
Radium-228			3.55	2.994		0.458		0.300	pCi/L	84	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.8		40 - 110
Y Carrier	90.1		40 - 110

Lab Sample ID: 440-98805-O-2-B DU
Matrix: Water
Analysis Batch: 170551

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 168342

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)		MDC	Unit			RER	RER Limit
Radium-228	-0.0239	U		0.2418	U	0.199		0.315	pCi/L			0.66	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	96.5		40 - 110
Y Carrier	90.1		40 - 110

Method: 905 - Strontium-90 (GFPC)

Lab Sample ID: MB 160-170611/1-A
Matrix: Water
Analysis Batch: 172179

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170611

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium-90	0.09027	U	0.184	0.184	0.315	pCi/L	01/27/15 14:42	02/04/15 15:34	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*82.3*		*40 - 110*	*01/27/15 14:42*	*02/04/15 15:34*	*1*
Y Carrier	*88.6*		*40 - 110*	*01/27/15 14:42*	*02/04/15 15:34*	*1*

Lab Sample ID: LCS 160-170611/2-A
Matrix: Water
Analysis Batch: 172179

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170611

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)		MDC	Unit	%Rec	%Rec. Limits		
Strontium-90			8.93	8.555		0.906		0.298	pCi/L	96	90 - 134		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*82.7*		*40 - 110*
Y Carrier	*88.2*		*40 - 110*

Lab Sample ID: 440-98732-2 DU
Matrix: Water
Analysis Batch: 172179

Client Sample ID: Trip Blank_20150112_1201
Prep Type: Total/NA
Prep Batch: 170611

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)		MDC	Unit			RER	RER Limit
Strontium-90	0.142	U		0.04038	U	0.167		0.294	pCi/L			0.27	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Sr Carrier	*83.3*		*40 - 110*
Y Carrier	*89.7*		*40 - 110*

Method: 906.0 - Tritium, Total (LSC)

Lab Sample ID: MB 160-168593/1-A
Matrix: Water
Analysis Batch: 169107

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 168593

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	202.7	U	240	241	398	pCi/L	01/15/15 14:50	01/16/15 09:23	1

Method: 906.0 - Tritium, Total (LSC) (Continued)

Lab Sample ID: LCS 160-168593/2-A
Matrix: Water
Analysis Batch: 169107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 168593

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)		MDC	Unit	%Rec	%Rec. Limits		
Tritium			3430	3311		515		382	pCi/L	96	74 - 114		

Lab Sample ID: 280-64264-A-4-B MS
Matrix: Water
Analysis Batch: 169107

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 168593

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)		MDC	Unit	%Rec	%Rec. Limits		
Tritium	6500		3420	10010		1110		385	pCi/L	103	67 - 130		

Lab Sample ID: 440-98732-1 DU
Matrix: Water
Analysis Batch: 169107

Client Sample ID: Outfall009_20150111_Comp
Prep Type: Total/NA
Prep Batch: 168593

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)		MDC	Unit			RER	RER Limit
Tritium	113	U		225.2	U	239		389	pCi/L			0.24	1

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Lab Sample ID: MB 160-168570/1-A
Matrix: Water
Analysis Batch: 169276

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 168570

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Total Uranium	0.09849	U	0.116	0.116	0.157	pCi/L	01/15/15 10:44	01/19/15 19:20	1

Lab Sample ID: LCS 160-168570/2-A
Matrix: Water
Analysis Batch: 169277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 168570

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)		MDC	Unit	%Rec	%Rec. Limits		
Uranium-234			12.7	11.84		1.45		0.165	pCi/L	93	84 - 120		
Uranium-238			13.0	11.93		1.45		0.157	pCi/L	92	83 - 121		

Tracer	*LCS %Yield*	*LCS Qualifier*	*Limits*
Uranium-232	*86.4*		*30 - 110*

Lab Sample ID: 440-98732-1 DU
Matrix: Water
Analysis Batch: 169279

Client Sample ID: Outfall009_20150111_Comp
Prep Type: Total/NA
Prep Batch: 168570

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)		MDC	Unit			RER	RER Limit
Total Uranium	0.218			0.1323	U	0.133		0.158	pCi/L			0.29	1

GC/MS VOA

Analysis Batch: 229372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98603-A-1 MS	Matrix Spike	Total/NA	Water	624	
440-98603-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	624	
440-98716-1	Outfall009_20150111_Grab	Total/NA	Water	624	
440-98716-2	TB_20150111	Total/NA	Water	624	
LCS 440-229372/4	Lab Control Sample	Total/NA	Water	624	
MB 440-229372/3	Method Blank	Total/NA	Water	624	

Analysis Batch: 229422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98716-1	Outfall009_20150111_Grab	Total/NA	Water	624	
440-98716-2	TB_20150111	Total/NA	Water	624	
440-98728-P-1 MS	Matrix Spike	Total/NA	Water	624	
440-98728-P-1 MSD	Matrix Spike Duplicate	Total/NA	Water	624	
LCS 440-229422/5	Lab Control Sample	Total/NA	Water	624	
MB 440-229422/4	Method Blank	Total/NA	Water	624	

GC/MS Semi VOA

Prep Batch: 229243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	525.2	
550-37860-A-1-A MS	Matrix Spike	Total/NA	Water	525.2	
550-37860-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	
LCS 440-229243/2-A	Lab Control Sample	Total/NA	Water	525.2	
LCSD 440-229243/3-A	Lab Control Sample Dup	Total/NA	Water	525.2	
MB 440-229243/1-A	Method Blank	Total/NA	Water	525.2	

Prep Batch: 229466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	625	
LCS 440-229466/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 440-229466/3-A	Lab Control Sample Dup	Total/NA	Water	625	
MB 440-229466/1-A	Method Blank	Total/NA	Water	625	

Analysis Batch: 230069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	525.2	229243
550-37860-A-1-A MS	Matrix Spike	Total/NA	Water	525.2	229243
550-37860-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	525.2	229243
LCS 440-229243/2-A	Lab Control Sample	Total/NA	Water	525.2	229243
LCSD 440-229243/3-A	Lab Control Sample Dup	Total/NA	Water	525.2	229243
MB 440-229243/1-A	Method Blank	Total/NA	Water	525.2	229243

Analysis Batch: 230336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	625	229466
LCS 440-229466/2-A	Lab Control Sample	Total/NA	Water	625	229466
LCSD 440-229466/3-A	Lab Control Sample Dup	Total/NA	Water	625	229466
MB 440-229466/1-A	Method Blank	Total/NA	Water	625	229466

GC Semi VOA

Prep Batch: 229709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	608	
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	608	
LCS 440-229709/2-A	Lab Control Sample	Total/NA	Water	608	
LCS 440-229709/4-A	Lab Control Sample	Total/NA	Water	608	
LCSD 440-229709/3-A	Lab Control Sample Dup	Total/NA	Water	608	
LCSD 440-229709/5-A	Lab Control Sample Dup	Total/NA	Water	608	
MB 440-229709/1-A	Method Blank	Total/NA	Water	608	

Analysis Batch: 229866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	608 PCB LL	229709
LCS 440-229709/4-A	Lab Control Sample	Total/NA	Water	608 PCB LL	229709
LCSD 440-229709/5-A	Lab Control Sample Dup	Total/NA	Water	608 PCB LL	229709
MB 440-229709/1-A	Method Blank	Total/NA	Water	608 PCB LL	229709

Analysis Batch: 230026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	608 Pesticides	229709
LCS 440-229709/2-A	Lab Control Sample	Total/NA	Water	608 Pesticides	229709
LCSD 440-229709/3-A	Lab Control Sample Dup	Total/NA	Water	608 Pesticides	229709
MB 440-229709/1-A	Method Blank	Total/NA	Water	608 Pesticides	229709

HPLC/IC

Analysis Batch: 229181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98716-1	Outfall009_20150111_Grab	Total/NA	Water	218.6	
440-98716-1 MS	Outfall009_20150111_Grab	Total/NA	Water	218.6	
440-98716-1 MSD	Outfall009_20150111_Grab	Total/NA	Water	218.6	
LCS 440-229181/6	Lab Control Sample	Total/NA	Water	218.6	
MB 440-229181/3	Method Blank	Total/NA	Water	218.6	
MRL 440-229181/4	Lab Control Sample	Total/NA	Water	218.6	

Analysis Batch: 229270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	300.0	
440-98732-1 MS	Outfall009_20150111_Comp	Total/NA	Water	300.0	
440-98732-1 MSD	Outfall009_20150111_Comp	Total/NA	Water	300.0	
LCS 440-229270/12	Lab Control Sample	Total/NA	Water	300.0	
MB 440-229270/13	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 229659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98608-A-3 MS	Matrix Spike	Total/NA	Water	314.0	
440-98608-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	314.0	
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	314.0	
LCS 440-229659/2	Lab Control Sample	Total/NA	Water	314.0	
MB 440-229659/3	Method Blank	Total/NA	Water	314.0	
MRL 440-229659/5	Lab Control Sample	Total/NA	Water	314.0	

HPLC/IC (Continued)

Analysis Batch: 231367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	NO3NO2 Calc	

Specialty Organics

Prep Batch: 63107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	1613B	
440-98732-1 - RA	Outfall009_20150111_Comp	Total/NA	Water	1613B	
LCS 320-63107/2-A	Lab Control Sample	Total/NA	Water	1613B	
MB 320-63107/1-A	Method Blank	Total/NA	Water	1613B	

Analysis Batch: 64309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	1613B	63107
LCS 320-63107/2-A	Lab Control Sample	Total/NA	Water	1613B	63107
MB 320-63107/1-A	Method Blank	Total/NA	Water	1613B	63107

Analysis Batch: 65043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1 - RA	Outfall009_20150111_Comp	Total/NA	Water	1613B	63107

Metals

Prep Batch: 229473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98541-A-1-B MS	Matrix Spike	Total/NA	Water	245.1	
440-98541-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	245.1	
LCS 440-229473/2-A	Lab Control Sample	Total/NA	Water	245.1	
MB 440-229473/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 229607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98541-A-1-B MS	Matrix Spike	Total/NA	Water	245.1	229473
440-98541-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	245.1	229473
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	245.1	229473
LCS 440-229473/2-A	Lab Control Sample	Total/NA	Water	245.1	229473
MB 440-229473/1-A	Method Blank	Total/NA	Water	245.1	229473

Filtration Batch: 229796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-95687-B-1-C MS	Matrix Spike	Dissolved	Water	FILTRATION	
440-95687-B-1-D MSD	Matrix Spike Duplicate	Dissolved	Water	FILTRATION	
440-98732-1	Outfall009_20150111_Comp	Dissolved	Water	FILTRATION	
440-98732-1 MS	Outfall009_20150111_Comp	Dissolved	Water	FILTRATION	
440-98732-1 MSD	Outfall009_20150111_Comp	Dissolved	Water	FILTRATION	
LCS 440-229796/3-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 440-229796/3-C	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 440-229796/3-D	Lab Control Sample	Dissolved	Water	FILTRATION	
MB 440-229796/1-B	Method Blank	Dissolved	Water	FILTRATION	

Metals (Continued)

Filtration Batch: 229796 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-229796/1-C	Method Blank	Dissolved	Water	FILTRATION	
MB 440-229796/1-D	Method Blank	Dissolved	Water	FILTRATION	

Prep Batch: 229969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98718-C-1-C MS	Matrix Spike	Total Recoverable	Water	200.2	
440-98718-C-1-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	
440-98732-1	Outfall009_20150111_Comp	Total Recoverable	Water	200.2	
LCS 440-229969/3-A	Lab Control Sample	Total Recoverable	Water	200.2	
LCSD 440-229969/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.2	
MB 440-229969/1-A	Method Blank	Total Recoverable	Water	200.2	

Prep Batch: 230006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total Recoverable	Water	200.2	
500-90734-C-1-B MS	Matrix Spike	Total Recoverable	Water	200.2	
500-90734-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	
LCS 440-230006/3-A	Lab Control Sample	Total Recoverable	Water	200.2	
MB 440-230006/1-A	Method Blank	Total Recoverable	Water	200.2	

Prep Batch: 230092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Dissolved	Water	200.2	229796
440-98732-1 MS	Outfall009_20150111_Comp	Dissolved	Water	200.2	229796
440-98732-1 MSD	Outfall009_20150111_Comp	Dissolved	Water	200.2	229796
LCS 440-229796/3-B	Lab Control Sample	Dissolved	Water	200.2	229796
MB 440-229796/1-B	Method Blank	Dissolved	Water	200.2	229796

Prep Batch: 230094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-95687-B-1-C MS	Matrix Spike	Dissolved	Water	200.2	229796
440-95687-B-1-D MSD	Matrix Spike Duplicate	Dissolved	Water	200.2	229796
440-98732-1	Outfall009_20150111_Comp	Dissolved	Water	200.2	229796
LCS 440-229796/3-C	Lab Control Sample	Dissolved	Water	200.2	229796
MB 440-229796/1-C	Method Blank	Dissolved	Water	200.2	229796

Prep Batch: 230233

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Dissolved	Water	245.1	229796
440-98732-1 MS	Outfall009_20150111_Comp	Dissolved	Water	245.1	229796
440-98732-1 MSD	Outfall009_20150111_Comp	Dissolved	Water	245.1	229796
LCS 440-229796/3-D	Lab Control Sample	Dissolved	Water	245.1	229796
MB 440-229796/1-D	Method Blank	Dissolved	Water	245.1	229796

Analysis Batch: 230298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98718-C-1-C MS	Matrix Spike	Total Recoverable	Water	200.8	229969
440-98718-C-1-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.8	229969
440-98732-1	Outfall009_20150111_Comp	Total Recoverable	Water	200.8	229969
LCS 440-229969/3-A	Lab Control Sample	Total Recoverable	Water	200.8	229969
LCSD 440-229969/4-A	Lab Control Sample Dup	Total Recoverable	Water	200.8	229969

Metals (Continued)

Analysis Batch: 230298 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-229969/1-A	Method Blank	Total Recoverable	Water	200.8	229969

Analysis Batch: 230316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-95687-B-1-C MS	Matrix Spike	Dissolved	Water	200.8	230094
440-95687-B-1-D MSD	Matrix Spike Duplicate	Dissolved	Water	200.8	230094
440-98732-1	Outfall009_20150111_Comp	Dissolved	Water	200.8	230094
LCS 440-229796/3-C	Lab Control Sample	Dissolved	Water	200.8	230094
MB 440-229796/1-C	Method Blank	Dissolved	Water	200.8	230094

Analysis Batch: 230354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Dissolved	Water	245.1	230233
440-98732-1 MS	Outfall009_20150111_Comp	Dissolved	Water	245.1	230233
440-98732-1 MSD	Outfall009_20150111_Comp	Dissolved	Water	245.1	230233
LCS 440-229796/3-D	Lab Control Sample	Dissolved	Water	245.1	230233
MB 440-229796/1-D	Method Blank	Dissolved	Water	245.1	230233

Analysis Batch: 230506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total Recoverable	Water	200.7 Rev 4.4	230006
500-90734-C-1-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	230006
500-90734-C-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	230006
LCS 440-230006/3-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	230006
MB 440-230006/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	230006

Analysis Batch: 230507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Dissolved	Water	200.7 Rev 4.4	230092
440-98732-1 MS	Outfall009_20150111_Comp	Dissolved	Water	200.7 Rev 4.4	230092
440-98732-1 MSD	Outfall009_20150111_Comp	Dissolved	Water	200.7 Rev 4.4	230092
LCS 440-229796/3-B	Lab Control Sample	Dissolved	Water	200.7 Rev 4.4	230092
MB 440-229796/1-B	Method Blank	Dissolved	Water	200.7 Rev 4.4	230092

General Chemistry

Analysis Batch: 229490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	SM 4500 F C	
440-98732-1 MS	Outfall009_20150111_Comp	Total/NA	Water	SM 4500 F C	
440-98732-1 MSD	Outfall009_20150111_Comp	Total/NA	Water	SM 4500 F C	
LCS 440-229490/9	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 440-229490/10	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 229539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98615-D-1 DU	Duplicate	Total/NA	Water	SM 2540C	
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	SM 2540C	
LCS 440-229539/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 440-229539/1	Method Blank	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Prep Batch: 229547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98518-B-2-B MS	Matrix Spike	Total/NA	Water	Distill/CN	
440-98518-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	Distill/CN	
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	Distill/CN	
LCS 440-229547/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCSD 440-229547/3-A	Lab Control Sample Dup	Total/NA	Water	Distill/CN	
MB 440-229547/1-A	Method Blank	Total/NA	Water	Distill/CN	

Analysis Batch: 229569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98518-B-2-B MS	Matrix Spike	Total/NA	Water	SM 4500 CN E	229547
440-98518-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 CN E	229547
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	SM 4500 CN E	229547
LCS 440-229547/2-A	Lab Control Sample	Total/NA	Water	SM 4500 CN E	229547
LCSD 440-229547/3-A	Lab Control Sample Dup	Total/NA	Water	SM 4500 CN E	229547
MB 440-229547/1-A	Method Blank	Total/NA	Water	SM 4500 CN E	229547

Analysis Batch: 229814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	SM 2540D	
440-98984-B-1 DU	Duplicate	Total/NA	Water	SM 2540D	
LCS 440-229814/1	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 440-229814/2	Method Blank	Total/NA	Water	SM 2540D	

Prep Batch: 229916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98716-1	Outfall009_20150111_Grab	Total/NA	Water	1664A	
LCS 440-229916/2-A	Lab Control Sample	Total/NA	Water	1664A	
LCSD 440-229916/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	
MB 440-229916/1-A	Method Blank	Total/NA	Water	1664A	

Analysis Batch: 229984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98716-1	Outfall009_20150111_Grab	Total/NA	Water	1664A	229916
LCS 440-229916/2-A	Lab Control Sample	Total/NA	Water	1664A	229916
LCSD 440-229916/3-A	Lab Control Sample Dup	Total/NA	Water	1664A	229916
MB 440-229916/1-A	Method Blank	Total/NA	Water	1664A	229916

Rad

Prep Batch: 168331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	PrecSep-21	
440-98732-2	Trip Blank_20150112_1201	Total/NA	Water	PrecSep-21	
440-98805-O-2-A DU	Duplicate	Total/NA	Water	PrecSep-21	
LCS 160-168331/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-168331/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 168342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 168342 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-2	Trip Blank_20150112_1201	Total/NA	Water	PrecSep_0	
440-98805-O-2-B DU	Duplicate	Total/NA	Water	PrecSep_0	
LCS 160-168342/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-168342/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 168547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-10128-A-1-B MS	Matrix Spike	Total/NA	Water	Evaporation	
160-10128-A-1-C MSBT	Matrix Spike	Total/NA	Water	Evaporation	
160-10128-A-1-D DU	Duplicate	Total/NA	Water	Evaporation	
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	Evaporation	
440-98732-2	Trip Blank_20150112_1201	Total/NA	Water	Evaporation	
LCS 160-168547/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSB 160-168547/3-A	Lab Control Sample	Total/NA	Water	Evaporation	
MB 160-168547/1-A	Method Blank	Total/NA	Water	Evaporation	

Prep Batch: 168570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	ExtChrom	
440-98732-1 DU	Outfall009_20150111_Comp	Total/NA	Water	ExtChrom	
440-98732-2	Trip Blank_20150112_1201	Total/NA	Water	ExtChrom	
LCS 160-168570/2-A	Lab Control Sample	Total/NA	Water	ExtChrom	
MB 160-168570/1-A	Method Blank	Total/NA	Water	ExtChrom	

Prep Batch: 168593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-64264-A-4-B MS	Matrix Spike	Total/NA	Water	LSC_Dist_Susp	
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	LSC_Dist_Susp	
440-98732-1 DU	Outfall009_20150111_Comp	Total/NA	Water	LSC_Dist_Susp	
LCS 160-168593/2-A	Lab Control Sample	Total/NA	Water	LSC_Dist_Susp	
MB 160-168593/1-A	Method Blank	Total/NA	Water	LSC_Dist_Susp	

Prep Batch: 168607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	Fill_Geo-0	
440-98732-2	Trip Blank_20150112_1201	Total/NA	Water	Fill_Geo-0	
440-98732-2 DU	Trip Blank_20150112_1201	Total/NA	Water	Fill_Geo-0	
LCS 160-168607/2-A	Lab Control Sample	Total/NA	Water	Fill_Geo-0	
MB 160-168607/1-A	Method Blank	Total/NA	Water	Fill_Geo-0	

Prep Batch: 170611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	PrecSep-7	
440-98732-2	Trip Blank_20150112_1201	Total/NA	Water	PrecSep-7	
440-98732-2 DU	Trip Blank_20150112_1201	Total/NA	Water	PrecSep-7	
LCS 160-170611/2-A	Lab Control Sample	Total/NA	Water	PrecSep-7	
MB 160-170611/1-A	Method Blank	Total/NA	Water	PrecSep-7	

QC Association Summary

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

Biology

Analysis Batch: 229773

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98716-1	Outfall009_20150111_Grab	Total/NA	Water	SM 9221E	

Analysis Batch: 229774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98716-1	Outfall009_20150111_Grab	Total/NA	Water	SM 9221F	

Subcontract

Analysis Batch: 164311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	Asbestos	164311_P
BLANK	BLANK	Total/NA	WATER	Asbestos	164311_P

Prep Batch: 164311_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-98732-1	Outfall009_20150111_Comp	Total/NA	Water	NA	
BLANK	BLANK	Total/NA	WATER	NA	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
LN	MS and/or MSD below acceptance limits. See Blank Spike (LCS)

GC/MS Semi VOA

Qualifier	Qualifier Description
BA	Relative percent difference out of control
LR	LCS/LCSD recovery below method control limits
LQ	LCS/LCSD recovery above method control limits
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL

GC Semi VOA

Qualifier	Qualifier Description
LH	Surrogate Recoveries were higher than QC limits
PI	Primary and confirm results varied by > than 40% RPD

HPLC/IC

Qualifier	Qualifier Description
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL

Dioxin

Qualifier	Qualifier Description
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL
MB	Analyte present in the method blank
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.

Metals

Qualifier	Qualifier Description
MB	Analyte present in the method blank
QP	Holding time Immediate. Analyzed as close to receipt as possible
J,DX	Estimated value; value < lowest standard (MQL), but >than MDL
LM	MS and/or MSD above acceptance limits. See Blank Spike (LCS)
BB	Sample > 4X spike concentration

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

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	06-30-15
Arizona	State Program	9	AZ0671	10-13-15
California	LA Cty Sanitation Districts	9	10256	01-31-16 *
California	State Program	9	2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-15 *
Hawaii	State Program	9	N/A	01-29-16
Nevada	State Program	9	CA015312007A	07-31-15
New Mexico	State Program	6	N/A	01-29-15 *
Northern Mariana Islands	State Program	9	MP0002	01-29-15 *
Oregon	NELAP	10	4005	01-29-16
USDA	Federal		P330-09-00080	06-06-15
USEPA UCMR	Federal	1	CA01531	01-31-15

Laboratory: TestAmerica Sacramento

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

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-16
Alaska (UST)	State Program	10	UST-055	12-18-15
Arizona	State Program	9	AZ0708	08-11-15
Arkansas DEQ	State Program	6	88-0691	06-17-15
California	State Program	9	2897	01-31-16
Colorado	State Program	8	N/A	08-31-15
Connecticut	State Program	1	PH-0691	06-30-15
Florida	NELAP	4	E87570	06-30-15
Hawaii	State Program	9	N/A	01-29-16
Illinois	NELAP	5	200060	03-17-16
Kansas	NELAP	7	E-10375	10-31-15
Louisiana	NELAP	6	30612	06-30-15
Michigan	State Program	5	9947	01-31-16
Nevada	State Program	9	CA44	07-31-15
New Jersey	NELAP	2	CA005	06-30-15
New York	NELAP	2	11666	04-01-15
Oregon	NELAP	10	CA200005	01-29-16
Oregon	NELAP Secondary AB	10	E87570	06-30-15
Pennsylvania	NELAP	3	9947	03-31-15
Texas	NELAP	6	T104704399-08-TX	05-31-15
US Fish & Wildlife	Federal		LE148388-0	02-28-16
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-16
Utah	NELAP	8	QUAN1	02-28-15
Washington	State Program	10	C581	05-05-15
West Virginia (DW)	State Program	3	9930C	12-31-15
Wyoming	State Program	8	8TMS-Q	01-29-16

Laboratory: TestAmerica St. Louis

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	MO00054	06-30-15
California	NELAP	9	2886	03-31-15

* Certification renewal pending - certification considered valid.

Certification Summary

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Connecticut	State Program	1	PH-0241	03-31-15
Florida	NELAP	4	E87689	06-30-15
Illinois	NELAP	5	200023	11-30-15
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	03-31-15 *
Kentucky (DW)	State Program	4	90125	12-31-15
L-A-B	DoD ELAP		L2305	01-10-16
Louisiana	NELAP	6	LA150017	12-31-16
Maryland	State Program	3	310	09-30-15
Missouri	State Program	7	780	06-30-15
Nevada	State Program	9	MO000542013-1	07-31-15
New Jersey	NELAP	2	MO002	06-30-15
New Mexico	State Program	6		06-30-10 *
New York	NELAP	2	11616	03-31-15 *
North Dakota	State Program	8	R207	06-30-15
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-15
Pennsylvania	NELAP	3	68-00540	02-28-15 *
South Carolina	State Program	4	85002001	06-30-15
Texas	NELAP	6	T104704193-13-6	07-31-15
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542013-5	07-31-15
Virginia	NELAP	3	460230	06-14-15
Washington	State Program	10	C592	08-30-15
West Virginia DEP	State Program	3	381	08-31-15

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

R1/13/15 164309 164311

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby S	Carrier Tracking No(s):	COC No: 440-73490.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: EMS Laboratories				Job #: 440-98732-1
Address: 117 West Bellevue Drive, Ste 3,	Due Date Requested: 1/22/2015			
City: Pasadena	TAT Requested (days):			
State, Zip: CA, 91105-2503				
Phone:	PO #:			
Email:	WO #:			
Project Name: Boeing SSFL NPDES Annual and Routine 009	Project #: 44009879			
Site:	SSOW#:			

Analysis Requested

Field Filtered Sample (Yes or No) | SUB (Asbestos)/ Asbestos | Perform MS/MSD (Yes or No)

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code	Field Filtered Sample (Yes or No)	SUB (Asbestos)/ Asbestos	Perform MS/MSD (Yes or No)	Special Instructions/Note:
Ourfall009_2015_0111_Comp (440-98732-1)	1/11/15	10:41 Pacific		Water			X		100.2

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		~~1-13-15~~ 1-13-15 1150	TA-I		1-13-15 1150	TA-I
2		1-13-15 1336	TA-I	R. Galvez	1/13/15 @13:40	EMS
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 9°C

3/11/2015

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

6115 00041

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby S	Carrier Tracking No(s):	COC No: 440-73388.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: EMSL Analytical, Inc.				Job #: 440-98716-1
Address: 200 Rt 130 North,	Due Date Requested: 1/22/2015			
City: Cinnaminson	TAT Requested (days):			
State, Zip: NJ, 08077				
Phone: 800-220-3675(Tel)	PO #:			
Email:	WO #:			
Project Name: Boeing SSFL outfalls 009	Project #: 44009879			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Human Bacteriodales/ Human Bacteriodales	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Outfall009_2015_0111_Grab (440-98716-1)	1/11/15	09:20 Pacific		Water			X	1	

RECEIVED
CINNAMINSON, NJ
2015 JAN 13 A 10:28

Possible Hazard Identification
Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: VinBarnes	Date/Time: 1/12/15 17:00	Company: TAI	Received by: FedEx	Date/Time: 1/12/15 17:00	Company		
Relinquished by:	Date/Time	Company	Received by: Colen FX	Date/Time: 1/13/15 945	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.2C

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675/ 786-0262

http://www.emsl.com E-mail: MicrobiologyLab@emsl.com

Client:	TestAmerica - Irvine, CA	EMSL Order ID:	611500041
	17461 Derian Ave	Date Received:	1/13/2015
	Irvine, CA 92614	Date Analyzed:	1/15/2015
Attn.	Debby Wilson	Date Reported:	1/16/2015
Project:	Boeing SSFL Outfalls 009 - 440098979	Date Amended:	

Real-Time PCR Analysis for Human *Bacteroides*

(Based on a published method SAM: 348 - 357, 2010), EMSL Test Code: M199, Revision No. 3, 12/12/2014

Lab Sample Number	Client Sample ID	Description	Water Received (mL)	Water Sampled (mL)	CEs /100 mL
0041-1	440-98716-1	Outfall009-2015-0111-Grab	125	125	224

Note: The qPCR assay for human *Bacteroides* is based on HF183 marker which was evaluated by EPA scientists (SAM 33, 2010). The qPCR detects human specific *Bacteroides* predominantly.

*CEs: number of cells equivalent, estimated using average number of 16S rRNA gene per bacterial genome and measured by PCR for 16S rRNA gene in the sample.

Quanyi "Charlie" Li, Ph.D.
Director of DNA Analysis Laboratory
EMSL Analytical, Inc.

LABORATORY REPORT

Aquatic Testing Laboratories
"dedicated to providing quality aquatic toxicity testing"
4350 Transport Street, Unit 107
Ventura, CA 93003
(805) 650-0546 FAX (805) 650-0756
CA ELAP Cert. No.: 1775

Date: January 16, 2015

Client: Test America – Irvine
17461 Derian Ave., Suite 100
Irvine, CA 92614
Attn: Debby Wilson

Laboratory No.: A-15011201-001
Job No.: 440-98716-1
Sample ID.: 440-98716-1

Sample Control: The sample was received by ATL in a chilled state, within the recommended hold time and with the chain of custody record attached.

Date Sampled:	01/11/15
Date Received:	01/12/15
Temp. Received:	0.4°C
Chlorine (TRC):	0.0 mg/l
Date Tested:	01/12/15 to 01/16/15

Sample Analysis: The following analyses were performed on your sample:

Fathead Minnow 96hr Percent Survival Bioassay (EPA Method 2000.0).

Attached are the test data generated from the analysis of your sample. All testing was conducted under the direct supervision of Joseph A. LeMay. Daily test readings were taken by Joseph A. LeMay (initialed: JAL) and Jacob LeMay (initialed: J).

Result Summary:

Sample ID.	Results
440-98716-1	100% Survival (TUa = 0.0)

Quality Control: Reviewed and approved by:

Joseph A. LeMay
Laboratory Director

FATHEAD MINNOW PERCENT SURVIVAL TEST
EPA Method 2000.0

Aquatic Testing Laboratories

Lab No.: A-15011201-001
Client/ID: TestAmerica 440-98716-1

Start Date: 01/12/2015

TEST SUMMARY

Species: *Pimephales promelas*.
Age: 14 (1-14) days.
Regulations: NPDES.
Test solution volume: 250 ml.
Feeding: prior to renewal at 48 hrs.
Number of replicates: 4.
Control water: Moderately hard reconstituted water.
Photoperiod: 16/8 hrs light/dark.

Source: In-laboratory Culture.
Test type: Static-Renewal.
Test Protocol: EPA-821-R-02-012.
Endpoints: Percent Survival at 96 hrs.
Test chamber: 600 ml beakers.
Temperature: 20 +/- 1°C.
Number of fish per chamber: 10.
QA/QC No.: RT-150106.

TEST DATA

		°C	DO	pH	# Dead A	# Dead B	# Dead C	# Dead D	Analyst & Time of Readings
INITIAL	Control	20.3	8.1	8.1	0	0	0	0	JM 1-12-15 1100
	100%	20.3	9.1	8.2	0	0	0	0	
24 Hr	Control	20.1	7.7	7.9	0	0	0	0	JM 1-13-15 1100
	100%	20.0	8.1	7.9	0	0	0	0	
48 Hr	Control	22.2	7.3	7.7	0	0	0	0	JM 1-14-15 1100
	100%	20.3	7.5	7.8	0	0	0	0	
Renewal	Control	20.6	7.9	7.7	0	0	0	0	JM 1-14-15 1100
	100%	20.5	8.2	7.8	0	0	0	0	
72 Hr	Control	20.6	7.9	8.1	0	0	0	0	JM 1-15-15 1100
	100%	20.4	7.8	8.1	0	0	0	0	
96 Hr	Control	20.5	7.2	8.0	0	0	0	0	JM 1-16-15 1100
	100%	20.4	7.7	8.0	0	0	0	0	

Comments:
Sample as received: Chlorine: 0.0 mg/l; pH: 7.9; Conductivity: 140 umho; Temp: 0.4°C;
DO: 11.9 mg/l; Alkalinity: 30 mg/l; Hardness: 36 mg/l; NH_3-N: 0.3 mg/l.
Sample aerated moderately (approx. 500 ml/min) to raise or lower DO? (Yes) / No.
Control: Alkalinity: 56 mg/l; Hardness: 91 mg/l; Conductivity: 298 umho.
Test solution aerated (not to exceed 100 bubbles/min) to maintain DO >4.0 mg/l? Yes / (No.)
Sample used for renewal is the original sample kept at 0-6°C with minimal headspace.
Dissolved Oxygen (DO) readings in mg/l O_2.

RESULTS

Percent Survival In: Control: 100 % 100% Sample: 100 %

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby S	Carrier Tracking No(s):	COC No: 440-73375.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: Aquatic Testing Laboratories		Analysis Requested		Job #: 440-98716-1
Address: 4350 Transport #107,	Due Date Requested: 1/22/2015			Preservation Codes:
City: Ventura	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: CA, 93003	PO #:			Other:
Phone:	WO #:			
Email:	Project #: 44009879			
Project Name: Boeing SSFL outfalls 009	SSOW#:			
Site:				

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Acute FH minnow, EPA/821-R02-012)/ Acute FH minnow, EPA/821-R02-012	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Outfall009_2015_0111_Grab (440-98716-1)	1/11/15	09:20 Pacific		Water			X	1	

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

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Shatia NABI	1/12/15 0740	TAI	Shatia NABI	1/12/15 0740	DCS
2	Shatia NABI	1/12/15 10:00	DCS		1-12-15 1000	ATL
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.4

3/11/2015

Aquatic Testing Laboratories

REFERENCE TOXICANT DATA

FATHEAD MINNOW ACUTE
Reference Toxicant - SDS

Aquatic Testing Laboratories

QA/QC Batch No.: RT-150106

TEST SUMMARY

Species: *Pimephales promelas.*
Age: 12 days old.
Regulations: NPDES.
Test chamber volume: 250 ml.
Feeding: Prior to renewal at 48 hrs.
Temperature: 20 +/- 1°C.
Number of replicates: 2.
Dilution water: MHSF.

Source: In-lab culture.
Test type: Static-Renewal.
Test Protocol: EPA-821-R-02-012.
Endpoints: LC50 at 96 hrs.
Test chamber: 600 ml beakers.
Aeration: None.
Number of organisms per chamber: 10.
Photoperiod: 16/8 hrs light/dark.

TEST DATA

	INITIAL			24 Hr					48 Hr				
Date/Time:	1-6-15 1330			1-7-15 1330					1-8-15 1330				
Analyst:	2			2					2				
	°C	DO	pH	°C	DO	pH	# Dead A	# Dead B	°C	DO	pH	# Dead A	# Dead B
Control	20.7	8.7	8.2	20.7	7.9	8.2	0	0	20.7	7.1	8.0	0	0
1.0 mg/l	20.7	8.6	8.2	20.6	8.0	8.2	0	0	20.5	7.4	8.0	0	0
2.0 mg/l	20.6	8.6	8.2	20.6	7.7	8.1	0	0	20.5	7.5	8.1	0	0
4.0 mg/l	20.7	8.9	8.1	20.7	7.6	8.1	0	0	20.5	7.5	8.1	0	0
8.0 mg/l	20.8	8.9	8.2	20.7	7.8	8.1	10	10	-	-	-	-	-
16.0 mg/l	20.7	8.9	8.2	20.7	7.9	8.1	10	10	-	-	-	-	-

	RENEWAL			72 Hr					96 Hr				
Date/Time:	1-8-15 1330			1-9-15 1300					1-10-15 1300				
Analyst:	2			2					2				
	°C	DO	pH	°C	DO	pH	# Dead A	# Dead B	°C	DO	pH	# Dead A	# Dead B
Control	20.6	8.1	8.1	20.7	7.5	7.9	0	0	20.1	7.1	7.9	0	0
1.0 mg/l	20.6	8.0	8.1	20.5	6.9	7.9	0	0	20.2	7.6	7.8	0	0
2.0 mg/l	20.6	8.3	8.1	20.2	7.5	7.8	0	0	20.2	7.2	7.8	0	0
4.0 mg/l	20.6	8.4	8.1	20.2	7.4	7.8	0	0	20.1	7.3	7.8	0	0
8.0 mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-
16.0 mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-

Comments: Control: Alkalinity: 56 mg/l; Hardness: 92 mg/l; Conductivity: 326 umho.
SDS: Alkalinity: 56 mg/l; Hardness: 91 mg/l; Conductivity: 327 umho.

Concentration-response relationship acceptable? (see attached computer analysis):
(Yes (response curve normal)
No (dose interrupted indicated or non-normal)

Acute Fish Test-96 Hr Survival

Start Date:	1/6/2015 13:30	Test ID:	RT150106	Sample ID:	REF-Ref Toxicant
End Date:	1/10/2015 13:00	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	SDS-Sodium dodecyl sulfate
Sample Date:	1/6/2015	Protocol:	EPAAW02-EPA/821/R-02-01	Test Species:	PP-Pimephales promelas
Comments:					

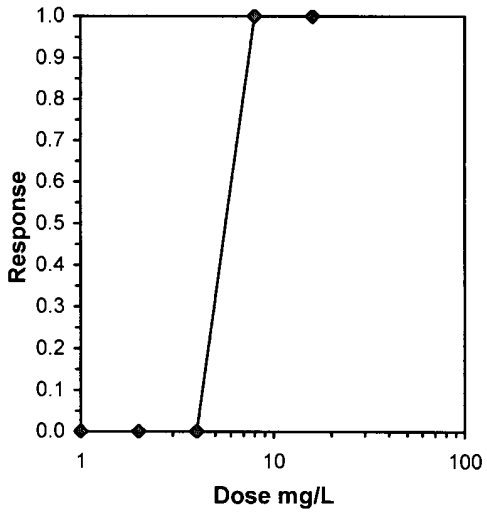
Conc-mg/L	1	2
D-Control	1.0000	1.0000
1	1.0000	1.0000
2	1.0000	1.0000
4	1.0000	1.0000
8	0.0000	0.0000
16	0.0000	0.0000

			Transform: Arcsin Square Root					Number	Total
Conc-mg/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Resp	Number
D-Control	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
1	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
2	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
4	1.0000	1.0000	1.4120	1.4120	1.4120	0.000	2	0	20
8	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20
16	0.0000	0.0000	0.1588	0.1588	0.1588	0.000	2	20	20

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Normality of the data set cannot be confirmed				
Equality of variance cannot be confirmed				

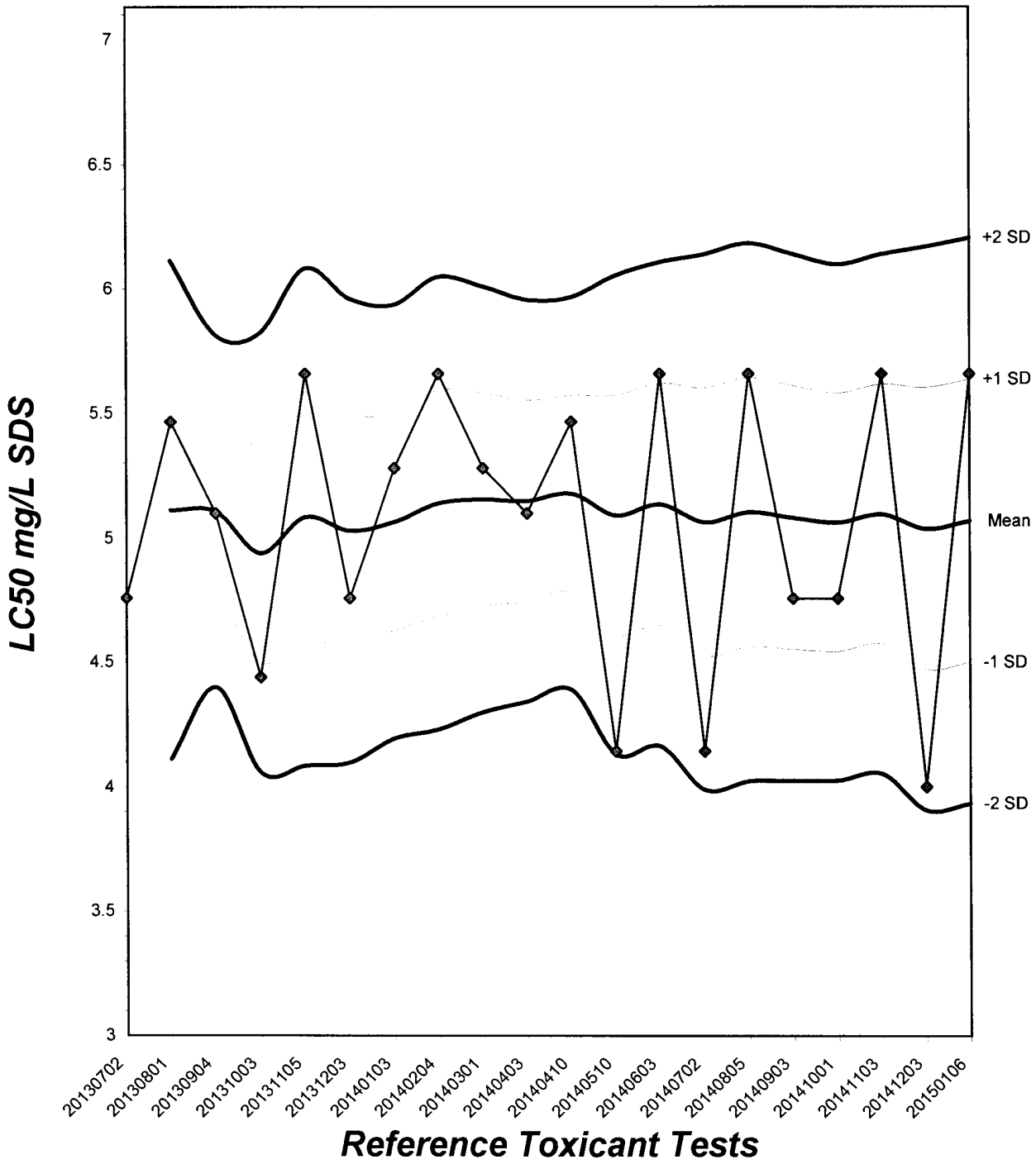
Graphical Method

Trim Level	EC50
0.0%	5.6569
	5.6569



Fathead Minnow Acute Laboratory Control Chart

CV% = 11.2



TEST ORGANISM LOG

FATHEAD MINNOW - LARVAL
(*Pimephales promelas*)

Aquatic Testing Laboratories

QA/QC BATCH NO.: RT-150106

SOURCE: In-Lab Culture

DATE HATCHED: 12-25-14

APPROXIMATE QUANTITY: 4 w

GENERAL APPEARANCE: good

MORTALITIES 48 HOURS PRIOR TO TO USE IN TESTING: 0

DATE USED IN LAB: 1 / 6 / 15

AVERAGE FISH WEIGHT: 0.006 gm

LOADING LIMITS: 0.65 gm/liter @ 20°C, 0.40 gm/liter @ 25°C

Approximately 1000 fish per 10 liters limit if held overnight for acclimation without filtration @ 20°C for fish with a mean weight of 0.006 gm.

Approximately 650 fish per 10 liters limit if held overnight for acclimation without filtration @ 25°C for fish with a mean weight of 0.006 gm.

200 ml test solution volume = 0.013 gm mean fish weight limit @ 20°C; 0.008 @ 25°C
250 ml test solution volume = 0.016 gm mean fish weight limit @ 20°C; 0.010 @ 25°C

ACCLIMATION WATER QUALITY:

Temp.: 20.7 °C pH: 8.2 Ammonia: 0 mg/l NH_3-N

DO: 8.7 mg/l Alkalinity: 50 mg/l Hardness: 92 mg/l

READINGS RECORDED BY: _____ DATE: 1-7-15

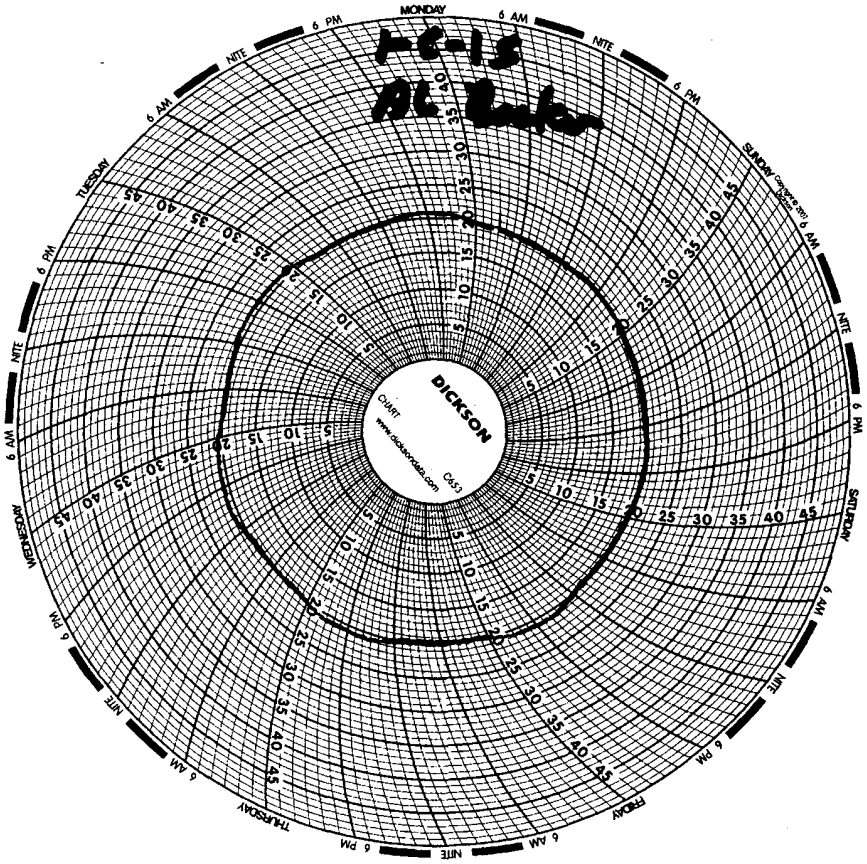
Aquatic Testing Laboratories

Test Temperature Chart

Test No: RT-150106

Date Tested: 01/06/15 to 01/10/15

Acceptable Range: 20 +/- 1°C



DATE: February 11, 2015

CUSTOMER: Test America - Irvine
17461 Derian Ave., Ste 100
Irvine, CA 92614-5817

ATTENTION: Debby Wilson

REPORT NO: 164311

REFERENCE: COC# 440-73490.1, PROJECT# 44009879, JOB# 440-98732-1

SUBJECT: ANALYSIS OF WATER SAMPLES FOR ASBESTOS BY TEM

ACCREDITATION: CDPH - ELAP 1119

The date and times of collection, UV-Ozone treatment and filtration are as follows:

SAMPLE NO: Outfall009_2015_0111_Comp (440-98732-1)

DATE COLLECTED: January 11, 2015 at 1041

RECEIVED: January 13, 2015 at 1340

UV-Ozone Treatment: January 29, 2015 0800 - 1100

FILTERED: January 29, 2015 at 1240

DATE ANALYZED: February 6, 2015

In the drinking water document, EPA 600 R 94 134, 100.2, samples are analyzed for fibers >10 um in length. The regulation calls for an MCL (maximum contaminant level) of 7 MFL (million of fibers per liter) and an analytical sensitivity of 0.2 MFL.

The sample was turbid. The analytical sensitivity of 0.2 MFL was not reached.

The results of the analysis and the detection limit(s) are summarized on the following page(s), accompanied by the chain of custody.

Respectfully submitted,
EMS Laboratories, Inc.

B.M. Kolk
Laboratory Director
BMK/am

Note: The results of the analysis are based upon the sample submitted to the laboratory. No representation is made regarding the sampling area other than that implied by the analytical results for the immediate vicinity of the samples analyzed as calculated from the data presented with those samples. All the analytical quality control data meet the requirement of the procedure unless otherwise indicated. Any deviation or exclusion from the test method is noted in this cover letter. Unless otherwise noted in this cover letter the samples were received properly packaged, clearly identified and intact.

ANALYSIS OF WATER FOR ASBESTOS BY TEM (EPA-600 R 94 134) EPA 100.2

LAB.NO. 164311
CLIENT: Test America, Irvine
DATE: 2/6/2015

Laboratory I.D.	Client I.D.	FILTER MEDIA DATA			No. of G.O.	Analyzed Area, mm^2	Sample Volume (mL)
		Type	Diameter mm	Effective Area mm^2			
164311-1	440-98732-1	PC	47	1017	10	0.103	5

* FOR FIBERS > 10µm ONLY

INDIVIDUAL ANALYTICAL RESULTS

Laboratory I.D.	Client I.D.	No of Asbestos Fibers	Detection Limit (MF/L)	Concentration MFL Fibers >10 µm
164311-1	440-98732-1	ND	2.0	< 2

The analysis was carried out to the approved TEM method. This laboratory is in compliance with the quality specified by the method.

Authorized Signature

NA Not Applicable
ND None Detected
PC Polycarbonate
GO Grid Openings
MFL Million Fibers per Liter

LABORATORY REPORT

Aquatic Testing Laboratories
"dedicated to providing quality aquatic toxicity testing"
4350 Transport Street, Unit 107
Ventura, CA 93003
(805) 650-0546 FAX (805) 650-0756
CA ELAP Cert. No.: 1775

Date: January 19, 2015

Client: TestAmerica, Irvine
17461 Derian Ave., Suite 100
Irvine, CA 92614
Attn: Debby Wilson

Laboratory No.: A-15011205-001
Job No.: 440-98732-1
Sample I.D.: Outfall009_2015_0111_Comp (440-98732-1)

Sample Control: The sample was received by ATL chilled, within the recommended hold time and with the chain of custody record attached. Testing conducted on only one sample per client instruction.

Date Sampled:	01/11/15
Date Received:	01/12/15
Temp. Received:	1.5°C
Chlorine (TRC):	0.0 mg/l
Date Tested:	01/12/15 to 01/19/15

Sample Analysis: The following analyses were performed on your sample:

Ceriodaphnia dubia Survival and Reproduction Test (EPA Method 1002).

Attached are the test data generated from the analysis of your sample. All testing was conducted under the direct supervision of Joseph A. LeMay. Daily test readings were taken by Joseph A. LeMay (initialed: JAL) and Jacob LeMay (initialed: J).

Result Summary:

Chronic:	**NOEC**	**TUc**
Ceriodaphnia Survival:	100%	1.0
Ceriodaphnia Reproduction:	100%	1.0

Quality Control: Reviewed and approved by:

Joseph A. LeMay
Laboratory Director

CERIODAPHNIA CHRONIC BIOASSAY
EPA METHOD 1002.0

Aquatic Testing Laboratories

Lab No.: A-15011205-001
Client/ID: TestAmerica – Outfall 009

Date Tested: 01/12/15 to 01/19/15

TEST SUMMARY

Test type: Daily static-renewal.
Species: *Ceriodaphnia dubia*.
Age: < 24 hrs; all released within 8 hrs.
Test vessel size: 30 ml.
Number of test organisms per vessel: 1.
Temperature: 25 +/- 1°C.
Dilution water: Mod. hard reconstituted (MHRW).
QA/QC Batch No.: RT-150106.

Endpoints: Survival and Reproduction.
Source: In-laboratory culture.
Food: .1 ml YTC, algae per day.
Test solution volume: 15 ml.
Number of replicates: 10.
Photoperiod: 16/8 hrs. light/dark cycle.
Test duration: 7 days.
Statistics: ToxCalc computer program.

RESULTS SUMMARY

Sample Concentration	Percent Survival	Mean Number of Young Per Female
Control	100%	26.9
100% Sample	100%	31.2
Sample not statistically significantly less than Control for either endpoint.		

CHRONIC TOXICITY

Survival NOEC	100%
Survival TUc	1.0
Reproduction NOEC	100%
Reproduction TUc	1.0

QA/QC TEST ACCEPTABILITY

Parameter	Result
Control survival ≥80%	Pass (100% survival)
≥15 young per surviving control female	Pass (26.9 young)
≥60% surviving controls had 3 broods	Pass (100% with 3 broods)
PMSD <47% for reproduction; if >47% and no toxicity at IWC, the test must be repeated	Pass (PMSD = 6.4%)
Statistically significantly different concentrations relative difference >13%	Pass (no concentration significantly different)
Concentration response relationship acceptable	Pass (no significant response at concentration tested)

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date:	1/12/2015 15:00	Test ID:	15011205c	Sample ID:	Outfall 009
End Date:	1/19/2015 14:45	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	SRW2-Industrial stormwater
Sample Date:	1/11/2015 10:41	Protocol:	EPAFW02-821-R-02-013	Test Species:	CD-Ceriodaphnia dubia
Comments:					

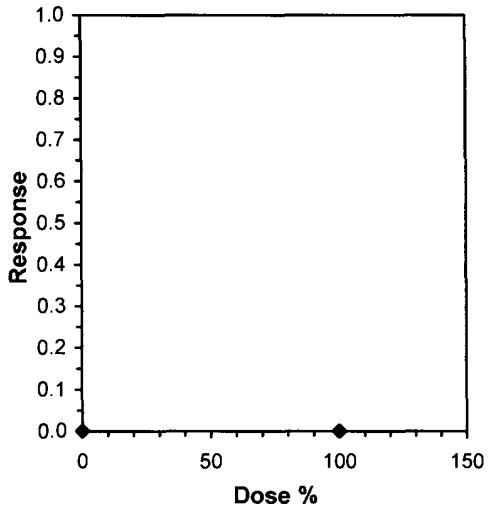
Conc-%	1	2	3	4	5	6	7	8	9	10
D-Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
100	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Conc-%	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Isotonic Mean	Isotonic N-Mean
D-Control	1.0000	1.0000	0	10	10	10			1.0000	1.0000
100	1.0000	1.0000	0	10	10	10	1.0000	0.0500	1.0000	1.0000

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	100	>100		1
Treatments vs D-Control				

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date:	1/12/2015 15:00	Test ID:	15011205c
End Date:	1/19/2015 14:45	Lab ID:	CAATL-Aquatic Testing Labs
Sample Date:	1/11/2015 10:41	Protocol:	EPAFW02-821-R-02-013
Comments:			

Sample ID:	Outfall 009		
Sample Type:	SRW2-Industrial stormwater		
Test Species:	CD-Ceriodaphnia dubia		

Conc-%	1	2	3	4	5	6	7	8	9	10
D-Control	26.000	27.000	29.000	27.000	25.000	27.000	31.000	24.000	25.000	28.000
100	31.000	28.000	35.000	31.000	31.000	31.000	35.000	31.000	31.000	28.000

			Transform: Untransformed					Rank	1-Tailed	Isotonic	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical	Mean	N-Mean
D-Control	26.900	1.0000	26.900	24.000	31.000	7.729	10			29.050	1.0000
100	31.200	1.1599	31.200	28.000	35.000	7.524	10	147.00	82.00	29.050	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05)	0.9045	0.905	0.49354	-0.1174
F-Test indicates equal variances (p = 0.72)	1.27506	6.54109		

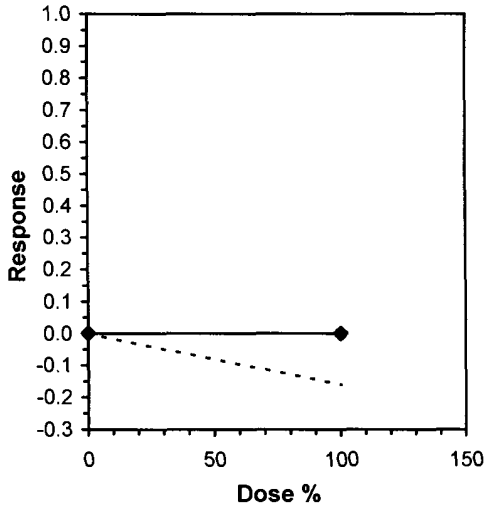
Hypothesis Test (1-tail, 0.05)

Wilcoxon Two-Sample Test indicates no significant differences

Treatments vs D-Control

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date:	1/12/2015 15:00	Test ID:	15011205c
End Date:	1/19/2015 14:45	Lab ID:	CAATL-Aquatic Testing Labs
Sample Date:	1/11/2015 10:41	Protocol:	EPAFW02-821-R-02-013
Comments:			

Sample ID:	Outfall 009		
Sample Type:	SRW2-Industrial stormwater		
Test Species:	CD-Ceriodaphnia dubia		

Conc-%	1	2	3	4	5	6	7	8	9	10
D-Control	26.000	27.000	29.000	27.000	25.000	27.000	31.000	24.000	25.000	28.000
100	31.000	28.000	35.000	31.000	31.000	31.000	35.000	31.000	31.000	28.000

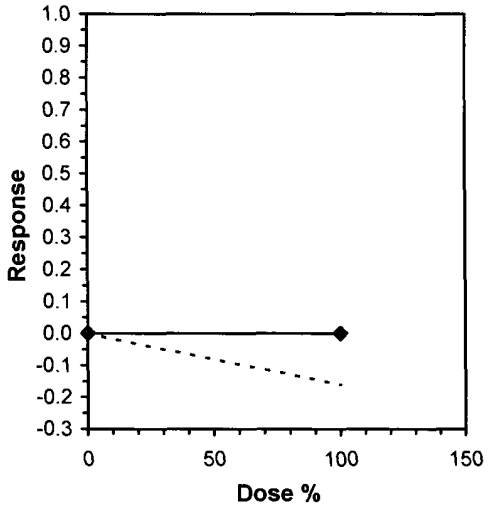
			Transform: Untransformed					1-Tailed			Isotonic	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD	Mean	N-Mean
D-Control	26.900	1.0000	26.900	24.000	31.000	7.729	10				29.050	1.0000
100	31.200	1.1599	31.200	28.000	35.000	7.524	10	-4.336	1.730	1.716	29.050	1.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05)	0.9045	0.905	0.49354	-0.1174
F-Test indicates equal variances (p = 0.72)	1.27506	6.54109		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test Treatments vs D-Control	100	>100		1	1.71552	0.06377	92.45	4.91667	4.0E-04	1, 18

Linear Interpolation (200 Resamples)

Point	%	SD	95% CL	Skew
IC05	>100			
IC10	>100			
IC15	>100			
IC20	>100			
IC25	>100			
IC40	>100			
IC50	>100			



CERIODAPHNIA DUBIA CHRONIC BIOASSAY
EPA METHOD 1002.0 Raw Data Sheet

Aquatic Testing Laboratories

Lab No.: A-15011205-001
Client ID: TestAmerica - Outfall 009
Start Date: 01/12/2015

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr	0 hr	24hr
Analyst Initials:															
Time of Readings:		1520	1430	1420	1430	1430	1500	1500	1500	1500	1500	1500	1500	1500	1445
Control	DO	8.2	8.0	8.1	8.0	8.2	8.1	8.2	8.1	8.3	8.2	8.3	8.2	8.3	8.0
	pH	8.1	8.1	8.0	8.1	8.0	8.1	8.3	8.3	8.2	8.1	8.0	8.1	8.2	8.2
	Temp	25.0	24.7	24.7	24.8	24.7	24.6	24.7	24.5	24.7	24.8	24.7	24.9	24.7	24.4
100%	DO	8.2	8.0	8.4	8.2	7.5	7.5	8.3	8.0	8.2	8.1	8.3	8.1	8.2	7.9
	pH	8.1	8.1	8.0	8.1	8.0	8.1	8.4	8.3	8.2	8.2	8.1	8.1	8.1	8.2
	Temp	25.0	24.7	24.8	24.7	24.7	24.7	24.7	24.8	24.7	24.7	24.8	24.9	24.9	24.5

Additional Parameters	Control	100% Sample
Conductivity (umohms)	331	122
Alkalinity (mg/l $CaCO_3$)	56	31
Hardness (mg/l $CaCO_3$)	91	36
Ammonia (mg/l NH_3-N)	<0.1	0.3

Source of Neonates

Replicate:	A	B	C	D	E	F	G	H	I	J
Brood ID:	1A	1B	2A	3C	1DE	1I	3G	4A	4D	4I

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
Control	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	3	0	0	0	0	0	0	0	0	3	10	
	4	3	7	5	3	4	3	3	4	5	5	42	10	
	5	7	0	8	6	7	9	9	0	7	8	61	10	
	6	0	0	0	0	0	0	0	8	0	0	8	10	
	7	16	17	16	18	14	15	19	12	13	15	155	10	
	Total	26	27	29	27	25	27	31	24	25	28	269	10	
100%	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	3	4	0	0	0	0	0	0	0	5	12	10	
	4	0	7	5	3	5	5	3	5	5	8	46	10	
	5	9	17	12	9	8	9	12	8	9	15	100	10	
	6	0	(16)	0	0	0	0	0	18	17	0	35	10	
	7	19	0	18	19	18	17	20	0	0	(19)	111	10	
	Total	31	28	35	31	31	31	35	31	31	28	312	10	

Circled fourth brood not used in statistical analysis.
7th day only used if <60% of the surviving control females have produced their third brood.

Aquatic Testing Laboratories

CHAIN OF CUSTODY

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby S	Carrier Tracking No(s):	COC No: 440-73515.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: Aquatic Testing Laboratories		Analysis Requested		Job #: 440-98732-1
Address: 4350 Transport #107,	Due Date Requested: 1/22/2015			Preservation Codes:
City: Ventura	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
State, Zip: CA, 93003				
Phone:	PO #:			
Email:	WO #:			Other:
Project Name: Boeing SSFL NPDES Annual and Routine 009	Project #: 44009879			
Site:	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Chronic Ceriodaphnia, EPA/821-R02-013)/ Chronic Cerio, EPA/821-R02-013	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Ourfall009_2015_0111_Comp (440-98732-1)	1/11/15	10:41 Pacific		Water			X		

Possible Hazard Identification
Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 1/13/15	Company TAI	Received by:	Date/Time: 1-14-15 13:16	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1c 5°

Client Name/Address:	Project:
Haley & Aldrich 9040 Friars Road Suite 220 San Diego, CA 92108-5860 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Annual and Routine Outfall 009** **COMPOSITE** Stormwater at SW-13
Project Manager: Nancy Gardiner Sampler: Dan Smith	Phone Number: 619.285.7132, 858.337.4061(cell) Field Manager: Jeff Bannon 818.350.7340, 818.414.5608(cell)

								ANALYSIS REQUIRED																	
								R	R	R	R	R	R	R		R	R/A	A		A	A	A		A	A	A	
Sample Description	Sample Matrix	Container Type	# of Cont.	Sample I.D.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, Tl	TCDD (and all congeners)	Cr, SO_4, NO_3+NO_2-N	TDS	TSS	Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, Tl	Gross Alpha(900.0), Gross Beta(900.0), Tritium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	Chronic Toxicity	Cyanide	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, B, V, Tl, Fe, Al, + PP, Hardness as $CaCO_3$	Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, B, V, Tl, Fe, Al, + PP, Hardness as $CaCO_3$	F, Perchlorate	Pesticides/PCBs + PP	SVOCs (625) + PP	Asbestos (100.2)	Chlorpyrifos, Diazinon	Comments
Outfall 009	W	1L Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	HNO_3	2A	X									X								If R and A metals overlap, analyze once
Outfall 009	W	1L Amber	2	Outfall 009_2015_0111_Comp	01/11/15 1041	None	3A, 3B		X																
Outfall 009	W	500 mL Poly	2	Outfall 009_2015_0111_Comp	01/11/15 1041	None	4A, 4B			X									X						
Outfall 009	W	500 mL Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	5				X														
Outfall 009	W	1L Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	6						X					X							Filter w/in 24hrs of receipt at lab, If R and A metals overlap, analyze once
Outfall 009	W	2.5 Gal Cube	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	7A							X											Unfiltered and unpreserved analysis
		500 mL Amber	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	7B																		
Outfall 009	W	1 Gal Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	8								X										Only test if first or second rain events of the year
Outfall 009	W	500 mL Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	NaOH	9									X									
Outfall 009	W	1L Amber	2	Outfall 009_2015_0111_Comp	01/11/15 1041	None	14A, 14B													X					
Outfall 009	W	1L Amber	2	Outfall 009_2015_0111_Comp	01/11/15 1041	None	16A, 16B														X				
Outfall 009	W	1L Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	19															X			
Outfall 009	W	1L Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	5					X													
Outfall 009	W	1L Amber	2	Outfall 009_2015_0111_Comp	01/11/15 1041	HCl	14A, 14B																X		

COC Page 2 of 2 list the Composite Samples for Outfall 009 for this storm event.

These must be added to the same work order for COC Page 1 of 2 for Outfall 009 for the same event.

Legend: R = Routine, A = Annual

Relinquished By	Date/Time:	Received By	Date/Time:
ANITRA RICE	1-12-15 1015	SHAHQNABI	1/12/15 1015
Relinquished By	Date/Time:	Received By	Date/Time:
SHAHQNABI	1-12-15 12:16	TESS DUNN DCS	1-12-15 12:16
Relinquished By	Date/Time:	Received By	Date/Time:
TESS DUNN	1-12-16 1:16 PM		1-12-16 1:16 PM

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

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

Data Requirements: (Check)
No Level IV: ____ All Level IV: ____ NPDES Level IV: ____

1-5 MTC SHAHQNABI DS

Aquatic Testing Laboratories

REFERENCE TOXICANT DATA

CERIODAPHNIA CHRONIC BIOASSAY
EPA METHOD 1002.0
REFERENCE TOXICANT - NaCl

Aquatic Testing Laboratories

QA/QC Batch No.: RT-150106

Date Tested: 01/06/15 to 01/13/15

TEST SUMMARY

Test type: Daily static-renewal.
Species: *Ceriodaphnia dubia*.
Age: <24 hrs; all released within 8 hrs.
Test vessel size: 30 ml.
Number of test organisms per vessel: 1.
Temperature: 25 +/- 1°C.
Dilution water: Mod. hard reconstituted (MHRW).
Reference Toxicant: Sodium chloride (NaCl).

Endpoints: Survival and Reproduction.
Source: In-laboratory culture.
Food: .1 ml YTC, algae per day.
Test solution volume: 20 ml.
Number of replicates: 10.
Photoperiod: 16/8 hrs. light/dark cycle.
Test duration: 7 days.
Statistics: ToxCalc computer program.

RESULTS SUMMARY

Sample Concentration	Percent Survival		Mean Number of Young Per Female	
Control	100%		25.5	
0.25 g/L	100%		27.1	
0.5 g/L	100%		24.9	
1.0 g/L	100%		11.0	*
2.0 g/L	80%		1.4	*
4.0 g/L	0%	*	0	**

* Statistically significantly less than control at P = 0.05 level
** Reproduction data from concentrations greater than survival NOEC are excluded from statistical analysis.

CHRONIC TOXICITY

Survival LC50	2.5 g/l
Reproduction IC25	0.69 g/l

QA/QC TEST ACCEPTABILITY

Parameter	Result
Control survival ≥80%	Pass (100% Survival)
≥15 young per surviving control female	Pass (25.5 young)
≥60% surviving controls had 3 broods	Pass (90% with 3 broods)
PMSD <47% for reproduction	Pass (PMSD = 16.1%)
Stat. sig. diff. conc. relative difference >13%	Pass (Stat. sig. diff. conc. Relative difference= 56.9%)
Concentration response relationship acceptable	Pass (Response curve normal)

Ceriodaphnia Survival and Reproduction Test-7 Day Survival

Start Date:	1/6/2015 13:30	Test ID:	RT150106c	Sample ID:	REF-Ref Toxicant
End Date:	1/13/2015 14:00	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	NACL-Sodium chloride
Sample Date:	1/6/2015	Protocol:	EPAFW02-821-R-02-013	Test Species:	CD-Ceriodaphnia dubia
Comments:					

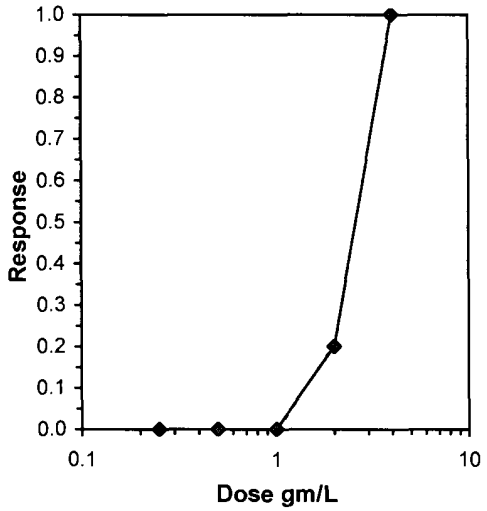
Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.25	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
0.5	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
1	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	1.0000	1.0000	1.0000	0.0000	0.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Conc-gm/L	Mean	N-Mean	Resp	Not Resp	Total	N	Fisher's Exact P	1-Tailed Critical	Number Resp	Total Number
D-Control	1.0000	1.0000	0	10	10	10			0	10
0.25	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
0.5	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
1	1.0000	1.0000	0	10	10	10	1.0000	0.0500	0	10
2	0.8000	0.8000	2	8	10	10	0.2368	0.0500	2	10
4	0.0000	0.0000	10	0	10	10			10	10

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Fisher's Exact Test	2	4	2.82843	
Treatments vs D-Control				

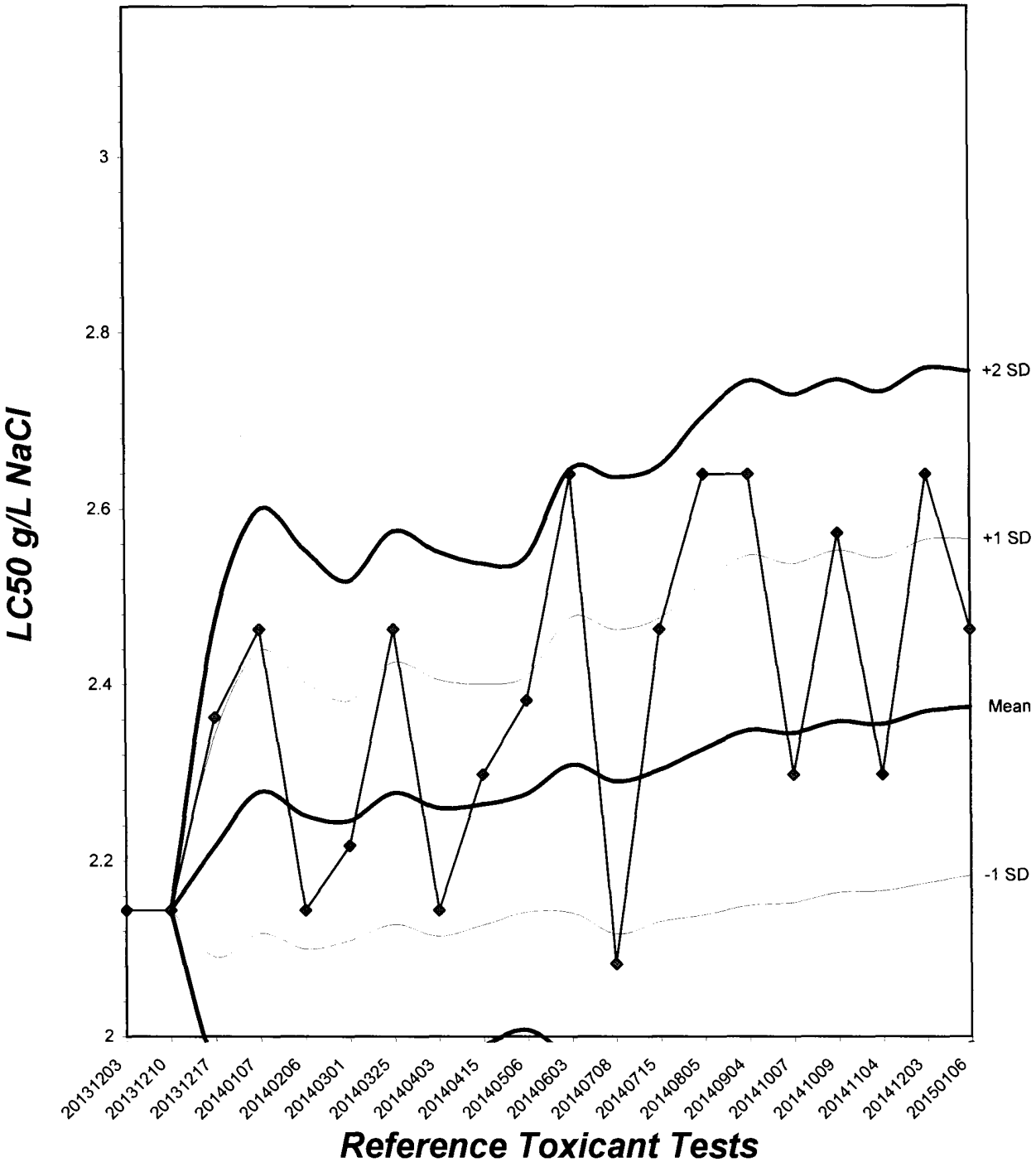
Trimmed Spearman-Karber

Trim Level	EC50	95% CL	
0.0%	2.4623	2.0663	2.9342
5.0%	2.5108	2.0545	3.0683
10.0%	2.5519	1.9976	3.2599
20.0%	2.5937	2.2616	2.9745
Auto-0.0%	2.4623	2.0663	2.9342



Ceriodaphnia Chronic Survival Laboratory Control Chart

CV% = 8.03



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date:	1/6/2015 13:30	Test ID:	RT150106c	Sample ID:	REF-Ref Toxicant
End Date:	1/13/2015 14:00	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	NACL-Sodium chloride
Sample Date:	1/6/2015	Protocol:	EPAFW02-821-R-02-013	Test Species:	CD-Ceriodaphnia dubia
Comments:					

Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	26.000	27.000	31.000	28.000	12.000	23.000	27.000	26.000	30.000	25.000
0.25	27.000	32.000	25.000	26.000	27.000	25.000	25.000	27.000	29.000	28.000
0.5	29.000	30.000	26.000	10.000	26.000	22.000	27.000	27.000	23.000	29.000
1	7.000	14.000	11.000	14.000	11.000	13.000	8.000	6.000	7.000	19.000
2	2.000	2.000	3.000	0.000	0.000	3.000	0.000	2.000	2.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

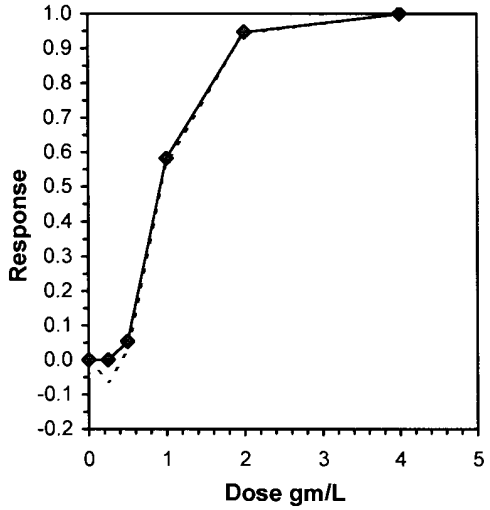
			Transform: Untransformed					Rank	1-Tailed	Isotonic	
Conc-gm/L	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical	Mean	N-Mean
D-Control	25.500	1.0000	25.500	12.000	31.000	20.689	10			26.300	1.0000
0.25	27.100	1.0627	27.100	25.000	32.000	8.056	10	110.00	76.00	26.300	1.0000
0.5	24.900	0.9765	24.900	10.000	30.000	23.375	10	102.00	76.00	24.900	0.9468
*1	11.000	0.4314	11.000	6.000	19.000	37.360	10	59.00	76.00	11.000	0.4183
*2	1.400	0.0549	1.400	0.000	3.000	90.351	10	55.00	76.00	1.400	0.0532
4	0.000	0.0000	0.000	0.000	0.000	0.000	10			0.000	0.0000

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05)	0.86881	0.947	-1.6742	5.46929
Bartlett's Test indicates unequal variances (p = 2.93E-04)	21.1703	13.2767		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Steel's Many-One Rank Test Treatments vs D-Control	0.5	1	0.70711	

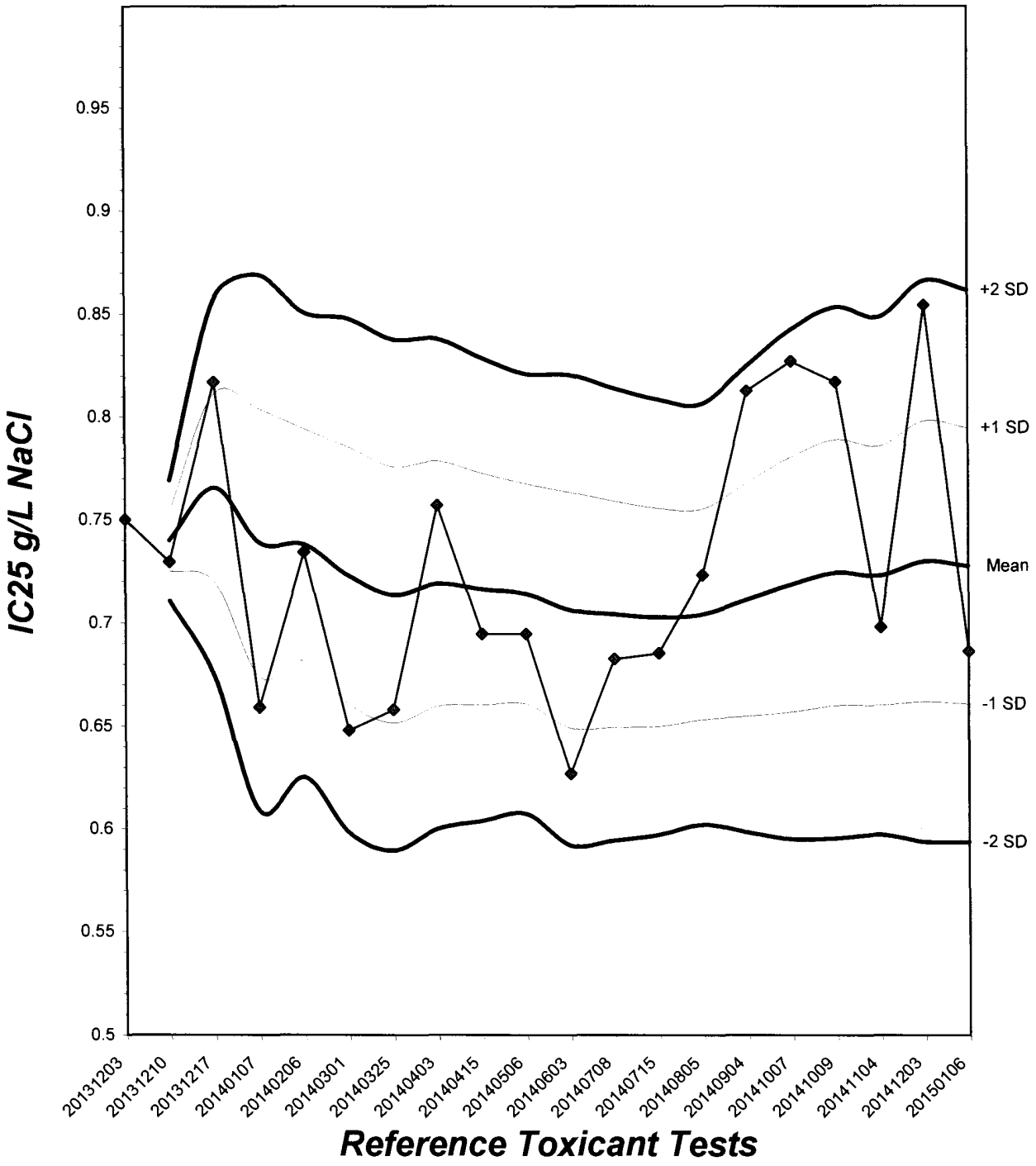
Linear Interpolation (200 Resamples)

Point	gm/L	SD	95% CL		Skew
IC05	0.4848	0.0959	0.2599	0.5494	-0.2525
IC10	0.5442	0.0731	0.3523	0.6006	-0.8797
IC15	0.5915	0.0625	0.4185	0.6512	-0.9677
IC20	0.6388	0.0567	0.4880	0.7016	-0.9068
IC25	0.6862	0.0527	0.5578	0.7520	-0.8476
IC40	0.8281	0.0449	0.7360	0.9085	-0.0065
IC50	0.9227	0.0497	0.8473	1.0348	1.0692



Ceriodaphnia Chronic Reproduction Laboratory Control Chart

CV% = 9.21



Ceriodaphnia Survival and Reproduction Test-Reproduction

Start Date:	1/6/2015 13:30	Test ID:	RT150106c	Sample ID:	REF-Ref Toxicant
End Date:	1/13/2015 14:00	Lab ID:	CAATL-Aquatic Testing Labs	Sample Type:	NACL-Sodium chloride
Sample Date:	1/6/2015	Protocol:	EPAFW02-821-R-02-013	Test Species:	CD-Ceriodaphnia dubia
Comments:					

Conc-gm/L	1	2	3	4	5	6	7	8	9	10
D-Control	26.000	27.000	31.000	28.000	12.000	23.000	27.000	26.000	30.000	25.000
0.25	27.000	32.000	25.000	26.000	27.000	25.000	25.000	27.000	29.000	28.000
0.5	29.000	30.000	26.000	10.000	26.000	22.000	27.000	27.000	23.000	29.000
1	7.000	14.000	11.000	14.000	11.000	13.000	8.000	6.000	7.000	19.000
2	2.000	2.000	3.000	0.000	0.000	3.000	0.000	2.000	2.000	0.000
4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

			Transform: Untransformed					1-Tailed		
Conc-gm/L	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
D-Control	25.500	1.0000	25.500	12.000	31.000	20.689	10			
0.25	27.100	1.0627	27.100	25.000	32.000	8.056	10	-0.868	2.223	4.099
0.5	24.900	0.9765	24.900	10.000	30.000	23.375	10	0.325	2.223	4.099
*1	11.000	0.4314	11.000	6.000	19.000	37.360	10	7.865	2.223	4.099
*2	1.400	0.0549	1.400	0.000	3.000	90.351	10	13.073	2.223	4.099
4	0.000	0.0000	0.000	0.000	0.000	0.000	10			

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.05)	0.86881	0.947	-1.6742	5.46929
Bartlett's Test indicates unequal variances (p = 2.93E-04)	21.1703	13.2767		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test Treatments vs D-Control	0.5	1	0.70711		4.09882	0.16074	1278.07	16.9933	2.4E-19	4, 45

CERIODAPHNIA DUBIA CHRONIC BIOASSAY
Reference Toxicant - NaCl
Reproduction and Survival Raw Data Sheet

Aquatic Testing Laboratories

QA/QC No.: RT-150106 Start Date:01/06/2015

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
Control	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	3	0	0	5	0	0	4	12	10	
	4	3	4	3	0	3	4	0	3	3	0	23	10	
	5	6	9	12	9	0	0	9	0	0	7	52	10	
	6	0	14	16	0	9	7	0	8	10	14	78	10	
	7	17	(15)	0	16	0	12	13	15	17	(16)	90	10	
	Total	26	27	31	28	12	23	27	26	30	25	255	10	
0.25 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	3	0	0	0	5	3	0	4	15	10	
	4	4	3	0	3	4	3	0	0	3	0	20	10	
	5	6	12	8	7	0	0	8	7	0	7	55	10	
	6	0	17	0	16	7	7	0	17	8	0	72	10	
	7	17	0	14	(15)	16	15	12	0	18	17	104	10	
	Total	27	32	25	26	27	25	25	27	29	28	271	10	
0.5 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	0	0	0	4	0	0	4	8	10	
	4	5	3	2	3	3	3	0	4	3	0	26	10	
	5	8	10	8	0	9	7	6	0	0	0	48	10	
	6	16	17	0	7	0	0	17	6	7	8	78	10	
	7	0	(5)	16	0	14	12	(14)	17	13	17	89	10	
	Total	29	30	26	10	26	27	27	27	23	29	249	10	

Circled fourth brood not used in statistical analysis.
7th day only used if <60% of the surviving control females have produced their third brood.

CERIODAPHNIA DUBIA CHRONIC BIOASSAY
Reference Toxicant - NaCl
Reproduction and Survival Raw Data Sheet

Aquatic Testing Laboratories

QA/QC No.: RT-150106

Start Date:01/06/2015

Sample	Day	Number of Young Produced										Total Live Young	No. Live Adults	Analyst Initials
		A	B	C	D	E	F	G	H	I	J			
1.0 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	0	0	0	3	0	0	3	6	10	
	4	3	0	0	3	0	0	0	0	0	0	6	10	
	5	4	6	5	4	5	5	0	0	0	0	29	10	
	6	0	0	0	0	0	0	5	6	7	4	22	10	
	7	0	8	6	7	6	8	0	0	0	12	47	10	
	Total	7	14	11	14	11	13	8	6	7	19	110	10	
2.0 g/l	1	0	0	0	0	0	0	0	0	0	0	0	10	
	2	0	0	0	0	0	0	0	0	0	0	0	10	
	3	0	0	0	X	0	0	0	0	0	0	0	9	
	4	0	0	0	X	0	0	0	0	0	0	0	9	
	5	0	2	3	X	0	0	0	2	0	0	7	9	
	6	2	0	0	X	0	3	0	0	0	0	5	9	
	7	0	0	0	X	X	0	0	0	2	0	2	8	
	Total	2	2	3	0	0	3	0	2	2	0	14	8	
4.0 g/l	1	X	X	X	X	X	X	X	X	X	X	0	0	
	2	–	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–	–
	4	–	–	–	–	–	–	–	–	–	–	–	–	–
	5	–	–	–	–	–	–	–	–	–	–	–	–	–
	6	–	–	–	–	–	–	–	–	–	–	–	–	–
	7	–	–	–	–	–	–	–	–	–	–	–	–	–
	Total	0	0	0	0	0	0	0	0	0	0	0	0	

Circled fourth brood not used in statistical analysis.
7th day only used if <60% of the surviving control females have produced their third brood.

CERIODAPHNIA DUBIA CHRONIC BIOASSAY
Reference Toxicant - NaCl
Water Chemistries Raw Data Sheet

Aquatic Testing Laboratories

QA/QC No.: RT-150106 Start Date:01/06/2015

		DAY 1		DAY 2		DAY 3		DAY 4		DAY 5		DAY 6		DAY 7	
		Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
Analyst Initials:		JZ	JZ	JZ	JZ	JZ	JZ	JZ	JZ	JZ	JZ	JZ	JZ	JZ	JZ
Time of Readings:		1330	1330	1330	1330	0330	1400	1400	1400	1400	1400	1400	1330	1330	1400
Control	DO	8.7	8.3	8.7	8.2	8.0	8.1	8.1	8.0	8.1	7.9	8.0	8.2	8.2	8.0
	pH	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.0	8.1	8.0	8.3	8.0	8.3
	Temp	24.8	24.7	24.7	24.7	24.5	24.5	24.7	20.1	24.9	24.7	24.7	24.3	24.7	24.7
0.25 g/l	DO	8.7	8.4	8.4	8.1	8.0	8.2	7.8	8.0	8.1	7.8	7.9	8.3	8.4	8.0
	pH	8.0	8.1	8.1	8.0	8.0	8.1	8.0	8.1	8.0	8.0	8.0	8.1	8.1	8.1
	Temp	24.7	24.7	24.6	24.8	24.7	24.5	24.5	25.0	24.7	24.7	24.7	24.3	24.8	24.7
0.5 g/l	DO	8.4	8.5	8.2	8.1	8.1	8.0	8.0	8.1	8.1	7.8	8.0	8.3	8.2	8.0
	pH	8.0	8.1	7.9	8.0	7.9	8.1	7.9	8.1	8.0	8.0	8.0	8.1	8.1	8.2
	Temp	24.8	24.6	24.6	24.6	24.7	24.5	24.5	25.0	24.9	24.8	24.7	24.4	24.9	24.7
1.0 g/l	DO	8.9	8.5	8.4	8.2	8.3	7.9	8.0	8.0	8.1	7.9	8.0	8.2	8.1	8.0
	pH	8.0	8.0	8.0	8.1	7.9	8.1	8.0	8.1	8.0	8.1	7.8	8.1	8.1	8.1
	Temp	24.8	24.6	24.6	24.6	24.7	24.7	24.6	25.0	25.0	24.7	24.7	24.3	25.0	24.8
2.0 g/l	DO	8.9	8.4	8.7	8.2	8.3	8.1	8.1	7.9	8.1	7.8	8.1	8.2	8.0	8.0
	pH	8.0	8.1	8.1	8.1	8.0	8.1	8.0	8.1	8.1	8.1	7.9	7.9	8.1	8.0
	Temp	24.8	24.6	24.7	24.8	24.7	24.8	24.6	24.9	24.7	24.7	24.7	24.3	24.9	24.7
4.0 g/l	DO	8.7	8.5	-	-	-	-	-	-	-	-	-	-	-	-
	pH	8.0	8.1	-	-	-	-	-	-	-	-	-	-	-	-
	Temp	24.8	24.6	-	-	-	-	-	-	-	-	-	-	-	-

Dissolved Oxygen (DO) readings are in mg/l O_2; Temperature (Temp) readings are in °C.

Additional Parameters	Control			High Concentration		
	Day 1	Day 3	Day 5	Day 1	Day 3	Day 5
Conductivity (µS)	338	324	331	6658	3241	3191
Alkalinity (mg/l $CaCO_3$)	56	57	56	2 ~~92~~ 57	56	57
Hardness (mg/l $CaCO_3$)	93	92	91	~~57~~ 92	91	91

Source of Neonates

Replicate:	A	B	C	D	E	F	G	H	I	J
Brood ID:	1A	3A	1B	2B	2C	1D	2D	3C	1I	3I

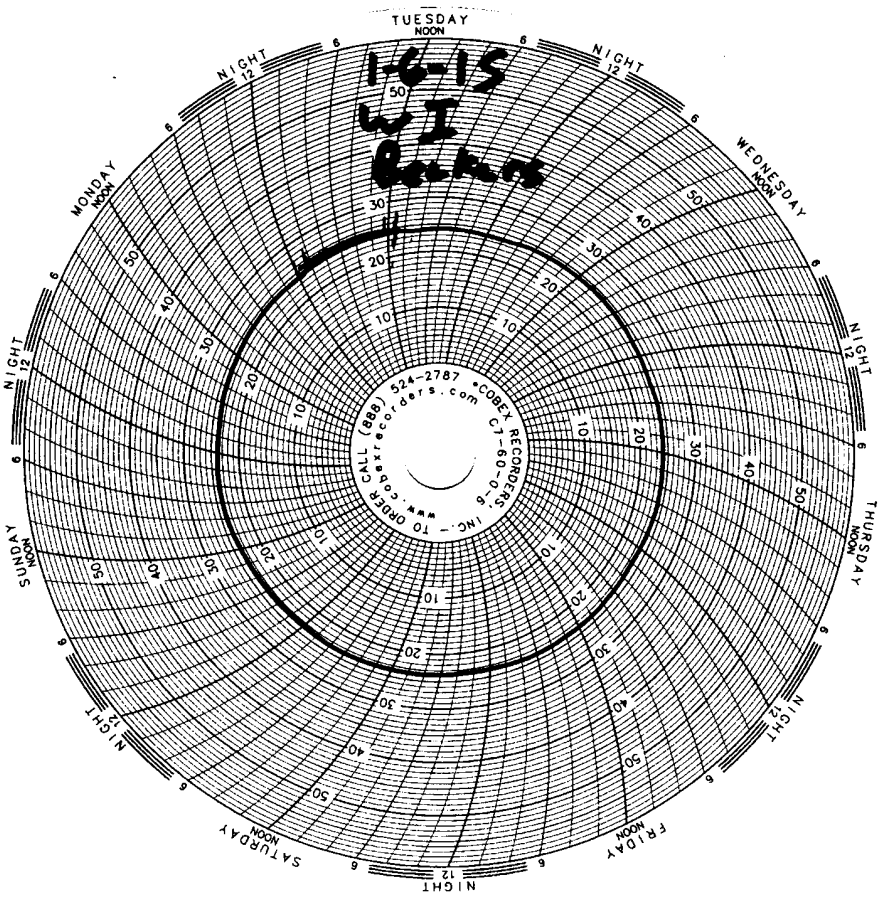
Aquatic Testing Laboratories

Test Temperature Chart

Test No: RT-150106

Date Tested: 01/06/15 to 01/13/15

Acceptable Range: 25 +/- 1°C



Project:
Boeing-SSFL NPDES
Annual and Routine Outfall 009
GRAB
Stormwater at SW-13

Phone Number:
619.285.7132, 858.337.4061(cell)
Field Manager: Jeff Bannon
818.350.7340, 818.414.5608(cell)

ANALYSIS REQUIRED

Sample I.D.	Sampling Date/Time	Preservative	Bottle #	Oil & Grease (1664-HEM)	VOCs 624, Xylenes + PP	VOCs 624 +A+A+2CVE	Cr (VI) (218.6)	Fecal coliform (SM9221)	E. coli (SM9221)	Acute Toxicity	MST-Bacteroidales, Human	Comments
...l 009_2015_0111_Grab	1-11-15/0920	HCl	1A, 1B	X								
...l 009_2015_0111_Grab		HCl	2A, 2B, 2C		X							
...l 009_2015_0111_Grab		None	3A, 3B, 3C			X						
TB-2015		HCl	4A, 4B, 4C		X							
TB-2015		None	5A, 5B, 5C			X						
...l 009_2015_0111_Grab		None	6				X					
...l 009_2015_0111_Grab		Na2S2O3	7					X				
...l 009_2015_0111_Grab		Na2S2O3	8						X			
...l 009_2015_0111_Grab		None	9							X		
...l 009_2015_0111_Grab		None	13								X	Deliver to lab ASAP

ZF 1/13/15

R A A A A A A A

SN# YLJOUVKT
Field readings:
(Log in and include in report Temp and pH. Include units)
Time of readings 0915
DO 86.7 mg/L
pH 6.73 pH unit
Temp 11.46 °C/F

440-98716 Chain of Custody

...mples are the Grab Portion of Outfall 009 for this storm event. Composite samples will follow and are to be added to this work order.

Legend: R = Routine, A = Annual

	Received By	Date/Time	Turn-around time. (Check)
...s / 1147	ShafiGNABI	1-11-15 / 11:47	24 Hour ___ 72 Hour ___ 10 Day ___; 48 Hour ___ 5 Day: ___ Normal ✓
1/11/15 / 1346			Sample Integrity: (Check) Intact: ___ On Ice: ___
	[illegible signature]	1-11-15 13:46	Data Requirements. (Check) No Level IV: ___ All Level IV: ___ NPDES Level IV: ___

...ple ID to TB-20150111 ZF 1/13/15
Outfall 009_20150111_Grab

1.4/0.4
2.0/1.2
IR 93

CHAIN OF CUSTODY FORM

R A A A A A A A

Client Name/Address:	Project:	ANALYSIS REQUIRED
Haley & Aldrich 9040 Friars Road Suite 220 San Diego, CA 92108-5860 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Annual and Routine Outfall 009** **GRAB** Stormwater at SW-13	
Project Manager: Nancy Gardiner Sampler: Dan Smith	Phone Number: 619.285.7132, 858.337.4061(cell) Field Manager: Jeff Bannon 818.350.7340, 818.414.5608(cell)	

SM# YLJOUVKT

Field readings:
(Log in and include in report Temp and pH. Include units)
Time of readings 0915
DO 8.7 mg/L
pH 6.73 pH unit
Temp 11.46 °C °F

Sample Description	Sample Matrix	Container Type	# of Cont.	Sample I.D.	Sampling Date/Time	Preservative	Bottle #	Oil & Grease (1664-HEM)	VOCs 624, Xylenes + PP	VOCs 624 +A+A+2CVE	Cr (VI) (218.6)	Fecal coliform (SM9221)	E. coli (SM9221)	Acute Toxicity	MST-Bactenodales, Human	Comments
Outfall 009	W	1L Amber	2	Outfall 009_2015_0111_Grab	1-11-15/0920	HCl	1A, 1B	X								
Outfall 009	W	VOAs	3	Outfall 009_2015_0111_Grab		HCl	2A, 2B, 2C		X							
Outfall 009	W	VOAs	3	Outfall 009_2015_0111_Grab		None	3A, 3B, 3C			X						
Trip Blanks	W	VOAs	3	TB-2015		HCl	4A, 4B, 4C		X							
Trip Blanks	W	VOAs	3	TB-2015		None	5A, 5B, 5C			X						
Outfall 009	W	500 mL Poly	1	Outfall 009_2015_0111_Grab		None	6				X					
Outfall 009	W	125 mL Poly	1	Outfall 009_2015_0111_Grab		Na2S2O3	7					X				
Outfall 009	W	125 mL Poly	1	Outfall 009_2015_0111_Grab		Na2S2O3	8						X			
Outfall 009	W	1 Gal Cube	1	Outfall 009_2015_0111_Grab		None	9							X		
Outfall 009	W	125mL Poly	1	Outfall 009_2015_0111_Grab		None	13								X	Deliver to lab ASAP

These Samples are the Grab Portion of Outfall 009 for this storm event. Composite samples will follow and are to be added to this work order.

Legend: R = Routine, A = Annual

Relinquished By	Date/Time:	Received By	Date/Time.
ANITRA RICE	1-11-15 / 1147	Shafiq NABI	1-11-15 / 11.47
Relinquished By	Date/Time:	Received By	Date/Time.
Shafiq NABI	1/11/15 / 1346		
Relinquished By	Date/Time.	Received By	Date/Time.
		Cristina Figueroa	1-11-15 13:40

Turn-around time. (Check)
24 Hour: ____ 72 Hour ____ 10 Day ____
48 Hour ____ 5 Day: ____ Normal. ✓

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

Data Requirements. (Check)
No Level IV. ____ All Level IV: ____ NPDES Level IV: ____

1.4/0.4
2.0/1.2
IR #3

CHAIN OF CUSTODY FORM

Client Name/Address:	Project:
Haley & Aldrich 9040 Friars Road Suite 220 San Diego, CA 92108-5860 Test America Contact: Debby Wilson	Boeing-SSFL NPDES **Annual and Routine Outfall 009** **COMPOSITE** Stormwater at SW-13
Project Manager: Nancy Gardiner Sampler: Dan Smith	Phone Number: 619.285.7132, 858.337.4061(cell) Field Manager: Jeff Bannon 818.350.7340, 818.414.5608(cell)

								ANALYSIS REQUIRED																	
								R	R	R	R	R	R	R	R	R/A	A	A	A	A	A	A	A	A	
Sample Description	Sample Matrix	Container Type	# of Cont.	Sample I.D.	Sampling Date/Time	Preservative	Bottle #	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, Tl	TCDD (and all congeners)	Cr, SO_4, NO_3+NO_2-N	TDS	TSS	Total Dissolved Metals: Sb, Cd, Cu, Pb, Hg, Tl	Gross Alpha(900.0), Gross Beta(900.0), Tribium (H-3) (906.0), Sr-90 (905.0), Total Combined Radium 226 (903.0 or 903.1) & Radium 228 (904.0), Uranium (908.0), K-40, CS-137 (901.0 or 901.1)	Chronic Toxicity	Cyanide	Total Recoverable Metals: Sb, Cd, Cu, Pb, Hg, B, V, Tl, Fe, Al, + PP, Hardness as $CaCO_3$	Total Dissolved Metals Sb, Cd, Cu, Pb, Hg, B, V, Tl, Fe, Al, + PP, Hardness as $CaCO_3$	F, Perchlorate	Pesticides/PCBs + PP	SVOCs (625) + PP	Asbestos (100.2)	Chlorpyrifos, Diazinon	Comments
Outfall 009	W	1L Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	HNO_3	2A	X									X								If R and A metals overlap, analyze once
Outfall 009	W	1L Amber	2	Outfall 009_2015_0111_Comp	01/11/15 1041	None	3A, 3B		X																
Outfall 009	W	500 mL Poly	2	Outfall 009_2015_0111_Comp	01/11/15 1041	None	4A, 4B			X									X						
Outfall 009	W	500 mL Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	5				X														
Outfall 009	W	1L Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	6						X					X							Filter w/in 24hrs of receipt at lab, if R and A metals overlap, analyze once
Outfall 009	W	2.5 Gal Cube	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	7A							X											Unfiltered and unpreserved analysis
		500 mL Amber	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	7B																		
Outfall 009	W	1 Gal Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	8								X										Only test if first or second rain events of the year
Outfall 009	W	500 mL Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	NaOH	9									X									
Outfall 009	W	1L Amber	2	Outfall 009_2015_0111_Comp	01/11/15 1041	None	14A, 14B												X						
Outfall 009	W	1L Amber	2	Outfall 009_2015_0111_Comp	01/11/15 1041	None	16A, 16B													X					
Outfall 009	W	1L Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	19																X		
Outfall 009	W	1L Poly	1	Outfall 009_2015_0111_Comp	01/11/15 1041	None	5					X													
Outfall 009	W	1L Amber	2	Outfall 009_2015_0111_Comp	01/11/15 1041	HCl	14A, 14B																	X	

COC Page 2 of 2 list the Composite Samples for Outfall 009 for this storm event.
These must be added to the same work order for COC Page 1 of 2 for Outfall 009 for the same event.
Legend: R = Routine, A = Annual

Relinquished By: ANITRA RICE Date/Time: 1-12-15 1015	Received By: Shafi QNABI Date/Time: 1/12/15 1015
Relinquished By: Shafi QNABI Date/Time: 1-12-15 14:15	Received By: Date/Time: 1/12/15 1415
Relinquished By: Date/Time:	Received By: Date/Time

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

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

Data Requirements. (Check)
No Level IV ____ All Level IV ____
NPDES Level IV: ____

YTC Shafi QNABI DF 2-3-15 1.6/0.8 #64

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-98716-1

Login Number: 98716

List Source: TestAmerica Irvine

List Number: 1

Creator: Wilson, Debby S

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

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-98716-1

Login Number: 98732

List Source: TestAmerica Irvine

List Number: 1

Creator: Blocker, Kristina M

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

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-98716-1

Login Number: 98732
List Number: 3
Creator: Edwards, Stephanie N

List Source: TestAmerica Sacramento
List Creation: 01/15/15 02:16 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	False	Both custody seals were broken
Sample custody seals, if present, are intact.	N/A	
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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-98716-1

Login Number: 98732
List Number: 2
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 01/14/15 02:50 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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	1.7
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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Tracer/Carrier Summary

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(40-110)
440-98732-1	Outfall009_20150111_Comp	87.3
440-98732-2	Trip Blank_20150112_1201	93.8
440-98805-O-2-A DU	Duplicate	96.5
LCS 160-168331/2-A	Lab Control Sample	96.8
MB 160-168331/1-A	Method Blank	89.1

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(40-110)	(40-110)
440-98732-1	Outfall009_20150111_Comp	87.3	88.6
440-98732-2	Trip Blank_20150112_1201	93.8	88.2
440-98805-O-2-B DU	Duplicate	96.5	90.1
LCS 160-168342/2-A	Lab Control Sample	96.8	90.1
MB 160-168342/1-A	Method Blank	89.1	87.1

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Method: 905 - Strontium-90 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Sr (C)	Y
Lab Sample ID	Client Sample ID	(40-110)	(40-110)
440-98732-1	Outfall009_20150111_Comp	80.6	87.9
440-98732-2	Trip Blank_20150112_1201	84.8	90.5
440-98732-2 DU	Trip Blank_20150112_1201	83.3	89.7
LCS 160-170611/2-A	Lab Control Sample	82.7	88.2
MB 160-170611/1-A	Method Blank	82.3	88.6

Tracer/Carrier Legend

Sr (C) = Sr Carrier

Y = Y Carrier

Method: A-01-R - Isotopic Uranium (Alpha Spectrometry)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		U-232
Lab Sample ID	Client Sample ID	(30-110)
440-98732-1 DU	Outfall009_20150111_Comp	78.5
LCS 160-168570/2-A	Lab Control Sample	86.4
MB 160-168570/1-A	Method Blank	79.9

Tracer/Carrier Summary

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

Tracer/Carrier Legend

U-232 = Uranium-232

Isotope Dilution Summary

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		TCDD	TCDF	PeCDD	PeCDF1	PeCDF2	HxCDD1	HxCDD2	HxCDF1
Lab Sample ID	Client Sample ID	(25-164)	(24-169)	(25-181)	(24-185)	(21-178)	(32-141)	(28-130)	(26-152)
440-98732-1	Outfall009_20150111_Comp	81	80	80	74	81	76	97	78
440-98732-1 - RA	Outfall009_20150111_Comp		78						
MB 320-63107/1-A	Method Blank	77	76	74	70	75	67	83	67

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		HxCDF2	HxCDF4	HxCDF3	HpCDD	HpCDF1	HpCDF2	OCDD	HxCDF1
Lab Sample ID	Client Sample ID	(26-123)	(29-147)	(28-136)	(23-140)	(28-143)	(26-138)	(17-157)	(26-152)
440-98732-1	Outfall009_20150111_Comp	90	76	85	80	78	75	69	78
440-98732-1 - RA	Outfall009_20150111_Comp								
MB 320-63107/1-A	Method Blank	78	63	73	65	65	61	54	67

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		HxCDF2	HxCDF2	HxCDF4	HxCDF4	HxCDF3	HxCDF3	HpCDD	HpCDD
Lab Sample ID	Client Sample ID	(21-159)	(26-123)	(17-205)	(29-147)	(22-176)	(28-136)	(23-140)	(26-166)
440-98732-1	Outfall009_20150111_Comp		90		76		85	80	
440-98732-1 - RA	Outfall009_20150111_Comp								
MB 320-63107/1-A	Method Blank		78		63		73	65	

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		HpCDF1	HpCDF1	HpCDF2	HpCDF2	OCDD	OCDD		
Lab Sample ID	Client Sample ID	(21-158)	(28-143)	(20-186)	(26-138)	(13-199)	(17-157)		
440-98732-1	Outfall009_20150111_Comp		78		75		69		
440-98732-1 - RA	Outfall009_20150111_Comp								
MB 320-63107/1-A	Method Blank		65		61		54		

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF1 = 13C-1,2,3,7,8-PeCDF
PeCDF2 = 13C-2,3,4,7,8-PeCDF
HxCDD1 = 13C-1,2,3,4,7,8-HxCDD
HxCDD2 = 13C-1,2,3,6,7,8-HxCDD
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF
HxCDF2 = 13C-1,2,3,6,7,8-HxCDF
HxCDF4 = 13C-1,2,3,7,8,9-HxCDF
HxCDF3 = 13C-2,3,4,6,7,8-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
OCDD = 13C-OCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		TCDD	TCDF	PeCDD	PeCDF1	PeCDF2	HxCDD1	HxCDD2	HxCDF1
Lab Sample ID	Client Sample ID	(20-175)	(22-152)	(21-227)	(21-192)	(13-328)	(21-193)	(25-163)	(19-202)
LCS 320-63107/2-A	Lab Control Sample	78	72	74	69	74	68	85	68

Isotope Dilution Summary

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)						
		HxCDF2	HxCDF4	HxCDF3	HpCDD	HpCDF1	HpCDF2	OCDD
Lab Sample ID	Client Sample ID	(21-159)	(17-205)	(22-176)	(26-166)	(21-158)	(20-186)	(13-199)
LCS 320-63107/2-A	Lab Control Sample	78	65	75	69	67	65	59

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF1 = 13C-1,2,3,7,8-PeCDF
PeCDF2 = 13C-2,3,4,7,8-PeCDF
HxCDD1 = 13C-1,2,3,4,7,8-HxCDD
HxCDD2 = 13C-1,2,3,6,7,8-HxCDD
HxCDF1 = 13C-1,2,3,4,7,8-HxCDF
HxCDF2 = 13C-1,2,3,6,7,8-HxCDF
HxCDF4 = 13C-1,2,3,7,8,9-HxCDF
HxCDF3 = 13C-2,3,4,6,7,8-HxCDF
HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF1 = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
OCDD = 13C-OCDD

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: 440-98716-2
Client Project/Site: Annual and Routine outfalls 009 Grab

For:
Haley & Aldrich, Inc.
5333 Mission Center Road
Suite 300
San Diego, California 92108

Attn: Nancy Gardiner

Debby Wilson

Authorized for release by:
3/22/2015 12:30:58 PM

Debby Wilson, Manager of Project Management
(949)261-1022
debby.wilson@testamericainc.com

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.

Debby Wilson
Manager of Project Management
3/22/2015 12:30:58 PM

Table of Contents

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Annual and Routine outfalls 009 Grab

TestAmerica Job ID: 440-98716-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-98716-1	Outfall009_20150111_Grab	Water	01/11/15 09:20	01/11/15 13:08

Job ID: 440-98716-2

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-98716-2

Comments
Per client request, a second bottle from the original sample set was analyzed for human bacteroides.

Receipt
The samples were received on 1/11/2015 1:46 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperatures of the 2 coolers at receipt time were 0.6º C and 1.2º C.

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

EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675/ 786-0262

http://www.emsl.com E-mail: MicrobiologyLab@emsl.com

Client:	**TestAmerica - Irvine, CA**	EMSL Order ID:	**611500445**
	17461 Derian Ave, Suite 100	Date Received:	**3/19/2015**
	Irvine, CA 92614	Date Analyzed:	**3/20/2015**
Attn.	**Debby Wilson**	Date Reported:	**3/20/2015**
Project:	**Project 44009879/Annual and Routine Outfalls 009 Grab**		

Real-Time PCR Analysis for Human *Bacteroides*

(Based on a published method SAM: 348 - 357, 2010), EMSL Test Code: M199, Revision No. 3, 12/12/2014

Lab Sample Number	Client Sample ID	Description	Water Received (mL)	Water Sampled (mL)	CEs /100 mL
0445-1	N/A	Outfall009_20150111_Grab (440-98716-1)	325	325	None Detected

Note: The qPCR assay for human *Bacteroides* is based on HF183 marker which was evaluated by EPA scientists (SAM, 33, 2010). The qPCR detects human specific *Bacteroides* predominantly.

CEs: Cells Equivalent, measured by PCR using genomic DNA standards.

EMSL maintains liability limited to the cost of analysis. Interpretation of the data contained in this report is the responsibility of the client. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. The above test report relates only to the items tested. EMSL bears no responsibility for sample collection activities or analytical method limitations

Quanyi "Charlie" Li, Ph.D.
Director of DNA Analysis Laboratory
EMSL Analytical, Inc.

Project:
Boeing-SSFL NPDES
Annual and Routine Outfall 009
GRAB
Stormwater at SW-13

Phone Number:
619.285.7132, 858.337.4061(cell)
Field Manager: Jeff Bannon
818.350.7340, 818.414.5608(cell)

				R	A	A	A	A	A	A	A	
				ANALYSIS REQUIRED								
Sample I.D.	Sampling Date/Time	Preservative	Bottle #	Oil & Grease (1664-HEM)	VOCs 624, Xylenes + PP	VOCs 624 +A+A+2CVE	Cr (VI) (218.6)	Fecal coliform (SM9221)	E. coli (SM9221)	Acute Toxicity	MST-Bacteriodales, Human	Comments
...l 009_2015_0111_Grab	1-11-15/0920	HCl	1A, 1B	X								SN# YLJOUVKT Field readings: (Log in and include in report Temp and pH. Include units) Time of readings 0915 DO 86.7 mg/L pH 6.73 pH unit Temp 11.46 °C/F
...l 009_2015_0111_Grab	↓	HCl	2A, 2B, 2C		X							
...l 009_2015_0111_Grab		None	3A, 3B, 3C			X						440-98716 Chain of Custody
~~TB-2015~~	ZF 1/13/15	HCl	4A, 4B, 4C		X							
~~TB-2015~~		None	5A, 5B, 5C			X						
...l 009_2015_0111_Grab		None	6				X					
...l 009_2015_0111_Grab		Na2S2O3	7					X				
...l 009_2015_0111_Grab		Na2S2O3	8						X			
...l 009_2015_0111_Grab		None	9							X		
...l 009_2015_0111_Grab		None	13								X	Deliver to lab ASAP

...mples are the Grab Portion of Outfall 009 for this storm event. Composite samples will follow and are to be added to this work order.

Legend: R = Routine, A = Annual

	Received By	Date/Time	
...s / 1147	Shafi GNABI	1-11-15 / 11:47	Turn-around time: (Check) 24 Hour ___ 72 Hour ___ 10 Day ___ 48 Hour ___ 5 Day: ___ Normal ✓
1/11/15 / 1346	Received By	Date/Time	Sample Integrity: (Check) Intact: ___ On Ice: ___
	Received By: [signature]	Date/Time: 1-11-15 13:46	Data Requirements: (Check) No Level IV: ___ All Level IV: ___ NPDES Level IV: ___

...ple ID to TB-20150111 ZF 1/13/15
Outfall 009_20150111_Grab

1.4/0.4
2.0/1.2
IR 93

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

611500445

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

3/22/2015

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby S	Carrier Tracking No(s):	COC No: 440-80359.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: EMSL Analytical, Inc.				Job #: 440-98716-2
Address: 200 Rt 130 North,	Due Date Requested: 3/25/2015			
City: Cinnaminson	TAT Requested (days):			
State, Zip: NJ, 08077				
Phone: 800-220-3675(Tel)	PO #:			
Email:	WO #:			
Project Name: Annual and Routine outfalls 009 Grab	Project #: 44009879			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (DNA-Human mtDNA)/ DNA-Human mtDNA	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Outfall009_20150111_Grab (440-98716-1)	1/11/15	09.20 Pacific		Water			X	1	use EMSL COC

CINNAMINSON, NJ
2015 MAR 19 A 10:20

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

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Jn Bank	3/18/15 17:00	TAI	FedEx	3/18/15 17:00	
2					3/19/2015 9:30	EMSL
3						

Custody Seals Intact. ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		4.7°C

OrderID: 611500445

Page 8 of 9
Page 1 Of 1

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-98716-2

Login Number: 98716

List Source: TestAmerica Irvine

List Number: 1

Creator: Wilson, Debby S

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

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: 440-98716-3
Client Project/Site: Human mtDNA

For:
Haley & Aldrich, Inc.
5333 Mission Center Road
Suite 300
San Diego, California 92108

Attn: Nancy Gardiner

Debby Wilson

Authorized for release by:
3/22/2015 12:47:44 PM

Debby Wilson, Manager of Project Management
(949)261-1022
debby.wilson@testamericainc.com

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.

Debby Wilson

Debby Wilson
Manager of Project Management
3/22/2015 12:47:44 PM

Table of Contents

Sample Summary

Client: Haley & Aldrich, Inc.
Project/Site: Human mtDNA

TestAmerica Job ID: 440-98716-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-98716-1	Outfall009_20150111_Grab	Water	01/11/15 09:20	01/11/15 13:08

Client: Haley & Aldrich, Inc.
Project/Site: Human mtDNA

TestAmerica Job ID: 440-98716-3

Job ID: 440-98716-3

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-98716-3

Comments
Sterile bottle analyzed for Human bacteriodes was retested for Human mtDNA per client request.

Receipt
The samples were received on 1/11/2015 1:46 PM; the samples arrived in good condition, properly preserved and, where required, on ice.
The temperatures of the 2 coolers at receipt time were 0.6º C and 1.2º C.

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

EMSL Analytical, Inc.
200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675/ 786-0262
http://www.emsl.com E-mail: MicrobiologyLab@emsl.com

Client:	TestAmerica - Irvine, CA 17461 Derian Ave Erivine, CA 92614	EMSL Order ID:	611500041
Attn.	Debby Wilson	Date Received:	1/13/2015
Project:	Boeing SSFL Outfalls 009 - 440098979	Date Analyzed:	3/17/2015
		Date Reported:	3/17/2015

Real-Time PCR Analysis for human mtDNA

Based on published method by USGS, 2008 (Environ. Sci. Technol. 2008: 42: 5229-5234)

Lab Sample Number	Client Sample ID	Location	Amount Received	Amount Sampled	Human mtDNA
0041-1	440-98716-1	Outfall 009-2015-0111-Grab	125 mL Water	125 mL Water	Present

EMSL maintains liability limited to cost of analysis. Interpretation of the data contained in this report is the responsibility of the client. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. The above test report relates only to the items tested. EMSL bears no responsibility for sample collection activities or analytical method limitations.

Note: Schill WB et. al. (2008): Real-Time PCR detection and Quantification of Nine Potential Sources of Fecal Contamination by Analysis of Mitochnodrial Cytochrome b Targets, Environ. Sci. Technol. 42: 5229-5234).

Quanyi 'Charlie" Li, Ph.D.
Director, DNA Analysis Laboratory

6115 00041

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Wilson, Debby S	Carrier Tracking No(s):	COC No: 440-73388.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: debby.wilson@testamericainc.com		Page: Page 1 of 1
Company: EMSL Analytical, Inc.				Job #: 440-98716-1
Address: 200 Rt 130 North,	Due Date Requested: 1/22/2015			
City: Cinnaminson	TAT Requested (days):			
State, Zip: NJ, 08077	PO #:			
Phone: 800-220-3675(Tel)	WO #:			
Email:	Project #: 44009879			
Project Name: Boeing SSFL outfalls 009	SSOW#:			
Site:				

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (Human Bacteriodales/ Human Bacteriodales	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
Outfall009_2015_0111_Grab (440-98716-1)	1/11/15	09:20 Pacific		Water			X	1	

RECEIVED
CINNAMINSON, NJ
2015 JAN 13 A 10:28

Possible Hazard Identification
Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
1	VinBarnes	1/12/15 17:00	TAI	FedEx	1/12/15 17:00	
2				Colen FX	1/13/15 945	
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.2C

Page 1 of 1

3/27/2015

OrderID: 611500041

Project:
Boeing-SSFL NPDES
Annual and Routine Outfall 009
GRAB
Stormwater at SW-13

Phone Number:
619.285.7132, 858.337.4061(cell)
Field Manager: Jeff Bannon
818.350.7340, 818.414.5608(cell)

ANALYSIS REQUIRED

Sample I.D.	Sampling Date/Time	Preservative	Bottle #	Oil & Grease (1664-HEM) (R)	VOCs 624, Xylenes + PP (A)	VOCs 624 +A+A+2CVE (A)	Cr (VI) (218 6) (A)	Fecal coliform (SM9221) (A)	E. coli (SM9221) (A)	Acute Toxicity (A)	MST-Bacteroidales, Human (A)	Comments
l 009_2015_0111_Grab	1-11-15/0920	HCl	1A, 1B	X								
l 009_2015_0111_Grab	↓	HCl	2A, 2B, 2C		X							
l 009_2015_0111_Grab	↓	None	3A, 3B, 3C			X						
TB-2015	↓	HCl	4A, 4B, 4C		X							
TB-2015	↓	None	5A, 5B, 5C			X						
l 009_2015_0111_Grab	↓	None	6				X					
l 009_2015_0111_Grab	↓	Na2S2O3	7					X				
l 009_2015_0111_Grab	↓	Na2S2O3	8						X			
l 009_2015_0111_Grab	↓	None	9							X		
l 009_2015_0111_Grab	↓	None	13								X	Deliver to lab ASAP

SN# YLJOUVKT
Field readings:
(Log in and include in report Temp and pH. Include units)
Time of readings 0915
DO 86.7 mg/L
pH 6.73 pH unit
Temp 11.46 °C/F

440-98716 Chain of Custody

ZF 1/13/15

...mples are the Grab Portion of Outfall 009 for this storm event. Composite samples will follow and are to be added to this work order.

Legend: R = Routine, A = Annual

	Received By	Date/Time:	Turn-around time. (Check)
...s / 1147	Shafi GNABI	1-11-15 / 11:47	24 Hour: ___ 72 Hour: ___ 10 Day: ___ 48 Hour: ___ 5 Day: ___ Normal: ✓
1/11/15 / 1346	Received By	Date/Time:	Sample Integrity: (Check) Intact: ___ On Ice: ___
	Received By	Date/Time:	Data Requirements. (Check)
	[illegible]	1-11-15 13:46	No Level IV: ___ All Level IV: ___ NPDES Level IV: ___

...ple ID to TB-20150111
Outfall 009_20150111_Grab
ZF 1/13/15

1.4/0.4
2.0/1.2
IR 93

Login Sample Receipt Checklist

Client: Haley & Aldrich, Inc.

Job Number: 440-98716-3

Login Number: 98716

List Source: TestAmerica Irvine

List Number: 1

Creator: Wilson, Debby S

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