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<b>Subject</b>	<b>Northcove Sampling</b>	<b>Project Name</b>	Forsyth Watershed Services
<b>Attention</b>	Eric Johnson	<b>Project No.</b>	EEXI8601
<b>From</b>	Andrew Bearden, Bill Kreuzberger		
<b>Date</b>	January 16, 2019		
<b>Copies to</b>	<b>Garrin Coleman, John Cunard, Renee Hoge, Steve Dempsey, David Bell</b>		

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### Summary

Water quality sampling was conducted of a pumped discharge from an irrigation pond (Pond) at the former Lake Lanier Golf Club (Site) to determine the presence or absence of hazardous chemicals in that flow. Analytical results from samples of the discharge indicate that parameters run as part of the pesticide, herbicide, and semi-volatile organic compounds (SVOCs) groups were all below detectable limits. All dissolved metals were either below detectable limits or below acute or chronic toxicity levels to protect aquatic life identified in the state water quality rules.

### Background

At Forsyth County's request, Jacobs conducted water quality sampling as part of its Stormwater Management Program (SWMP). Sampling occurred at the outlet of the (Pond) on the Site, which is currently under development as part of the Northcove project. The Pond is fed by an unnamed tributary to the Little Ridge Creek portion of Lake Lanier (Lake) flowing from south to north through the Site. Approximately 130 acres of land drains to the Pond, with approximately 50% from the Site, and approximately 50% from existing residential landuse (Longview and Townhouses at Lanier off Buford Dam Road and the Habersham at Lanier Subdivision off Nuckolls Road), forest, transmission line, and a gas station (**Figure 1**).

Sampling occurred on January 9<sup>th</sup> at the southwest corner of the base of the dam controlling the Pond approximately 1,000 feet south of Buford Dam Road. Jacobs staff were accompanied by two Forsyth County Erosion Control Inspectors. At the time of arrival (~13:00), active construction was underway to replace the failing outlet pipe in the dam. To isolate water in the Pond from the construction area, flow into the Pond was being pumped out (**Figure 2**) and discharged through two 6-8" hoses running down the

west side of the dam into a mostly sequestered portion of the Lake (**Figures 3 & 4**). The intake hose for the pump was set near the west corner of the dam. One of the discharge hoses was submerged ~10-feet into the Lake, and the other was discharging just above the water's surface near the bank.

### **Weather Conditions**

It was 47°F at the time of sampling and clear. Based on the provisional precipitation data available via the USGS gage at Buford Dam ~2 miles southeast of the site ([https://waterdata.usgs.gov/ga/nwis/uv?cb\\_00045=on&format=gif\\_default&site\\_no=02334400](https://waterdata.usgs.gov/ga/nwis/uv?cb_00045=on&format=gif_default&site_no=02334400)), the last rainfall had occurred on January 4<sup>th</sup> (0.67"), though sprinkles were recorded the previous day (0.01"). It had rained 1.4" in the preceding 7 days and 7.5" in the previous 30 days. According to the gage, the Lake was approximately 1,074 feet on January 9<sup>th</sup>, which was ~3-feet above normal pool elevation.

### **Sampling Methods**

A YSI Professional Plus multi-parameter meter was used to measure typical insitu (on-site) water quality parameters to provide background information on the sample in conjunction with the water chemistry analysis. The probe was placed into the Lake adjacent to the discharge hoses from the pump-around and were left in place for ~15 minutes to equilibrate while the water chemistry samples were collected. A turbidity sample was collected from the Lake near the discharge hose and measured with a Hach 2100P turbidimeter. Turbidity was also measured ~25 feet downstream from the dam along the left bank under the aerial sewer crossing; on the south side of Buford Dam Road near the submerged culvert; and, on the north side of Buford Dam Road (**Figures 5 & 6**). No other on-site measurements were collected directly from the Pond or from any of the contributing drainages upstream.

Water chemistry samples were collected at the point where the discharged water from the Pond entered the Lake south of Buford Dam Road. Water chemistry parameters were collected for nutrients, total suspended solids (TSS), hardness, alkalinity, total organic carbon (TOC), biological oxygen demand (BOD), chemical oxygen demand (COD), fecal coliform, *E.coli*, dissolved metals, pesticides, herbicides, and semi-volatile organic compounds (SVOCs). Bottles were obtained from a local state accredited laboratory (Analytical Environmental (AES); Georgia Department of Natural Resources Certificate #800), which were prepared and packed in a cooler by the laboratory. "Clean hand" techniques were employed during sampling, and bottles were immediately returned to the cooler and covered with ice. Samples were then transported to the laboratory in Doraville and dropped off at 14:39. All parameters were processed for next day turnaround, except for BOD, which is a five-day test.

### **Results**

On-site water quality results are listed in **Table 1**. Water chemistry results are listed in **Table 2**, and the report from the laboratory is included in **Appendix A**. All parameters tested as part of the pesticide, herbicide, and semi-volatile organic compounds (SVOCs) groups were all below detectable limits. All

dissolved metals were either below detectable limits or below acute or chronic toxicity levels to protect aquatic life identified in the state water quality rules. TSS and turbidity levels were elevated at the sample point but dissipated prior to flowing into the Lake proper. Nutrients and COD were detected in the sample, but those results were below applicable standards and were within the normal range for historic data collected at other monitoring stations in the County. Measured nutrients are most likely due to the accumulation of materials at the bottom of the Pond in a reduced chemical form. BOD was below detectable limits, supporting this observation.

**Table 1. Insitu water quality measurements collected from the Northcove pond discharge on 1/9/19. Water quality standard listed in ( ) below the results<sup>1</sup>.**

Sample Location	H <sub>2</sub> O Temp. (°C)	Air Temp. (°C)	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	pH (Standard Units)	Turbidity (NTU) <sup>2</sup>	Salinity (PPT)	TDS (mg/L)
Pond Outlet	10.9 (<90°F)	8.3 (N/A)	52.2 (N/A)	8.59 (>4.0)	75.4 (N/A)	6.34 (6.0–8.5)	636	0.02 (N/A)	33.8 (500 mg/L)
Aerial Sewer line crossing							369		
Buford Dam Rd - South							356		
Buford Dam Rd - North							27.6		

°C = degree Celsius; ug/cm = micrograms per centime ter; mg/L = milligrams per liter; NTU = Nephelometric Turbidity Unit; PPT = parts per thousand; TDS = Total dissolved solids; N/A = not applicable standard

<sup>1</sup> Water Use Classifications and Water Quality Standards (391-3-6.03).

<sup>2</sup> In 391-3-6.03, there is no numeric standard for turbidity, but the standard is defined in 391-3-6.03(5)(d).

**Table 2. Water chemistry parameters collected from Northcove pond discharge on 1/9/19.**

Water Chemistry Parameter	Result	Applicable Water Quality Standard <sup>1</sup>
Total Phosphorus	0.211 mg/L	0.25 lbs/acre-foot of lake volume <sup>2</sup>
Ortho-phosphorus	0.00700 mg/L	N/A
Ammonia	0.342 mg/L	N/A
Total Kjeldahl Nitrogen (TKN)	3.00 mg/L	4.0 mg/L of Total N <sup>2</sup> (TKN-N + Nitrate-Nitrite-N)
Nitrate-Nitrite	0.275 mg/L	
Total Organic Carbon	7.31 mg/L	N/A

<b>Water Chemistry Parameter</b>	<b>Result</b>	<b>Applicable Water Quality Standard<sup>1</sup></b>
Total Suspended Solids (TSS)	231 mg/L	N/A
Chemical Oxygen Demand	40.6 mg/L	N/A
Biological Oxygen Demand (5-day)	BRL	N/A
Alkalinity	34.8 mg/L	N/A
Hardness	26.6 (mg/L)	N/A
Dissolved Arsenic	BRL	340 ug/L (acute) 150 ug/L (chronic) 10 ug/L (drinking water <sup>3</sup> )
Dissolved Cadmium	BRL	0.6 ug/L (acute) <sup>4</sup> 0.1 ug/L (chronic) <sup>4</sup>
Dissolved Copper	1.9 ug/L	3.9 ug/L (acute) <sup>4</sup> 2.9 ug/L (chronic) <sup>4</sup>
Dissolved Lead	BRL	14.9 ug/L (acute) <sup>4</sup> 0.6 ug/L (chronic) <sup>4</sup>
Dissolved Zinc	BRL	38 ug/L (acute) <sup>4</sup> 38 ug/L (chronic) <sup>4</sup>
Fecal Coliform	70 col./100 ml	1,000 (geometric mean) <sup>5</sup> 4,000 (single) <sup>5</sup>
E.coli	52 MPN/100 ml	126 (geometric mean) 410 (single)
Suite of Pesticides	All BRL	Varies based on parameter
Suite of Herbicides	All BRL	Varies based on parameter
Suite of Semi-Volatile Organic Compounds	All BRL	Varies based on parameter
BRL = Below Reporting Limits, not detected at the laboratories method detection limit (MDL); MPN = most probable number; col. = colonies per 100 milliliters mg/L = milligrams per liter; ug/L = micrograms per liter; lbs/acre/ft = pounds per acre per foot		

<sup>1</sup> Water Use Classifications and Water Quality Standards (391-3-6.03).

<sup>2</sup> Specific criteria for lakes and major lake tributaries.

<sup>3</sup> Drinking water supply is for Total Arsenic.

<sup>4</sup> Hardness adjusted criteria.

<sup>5</sup> November through April criteria.

Figure 1. Location map of the project area.

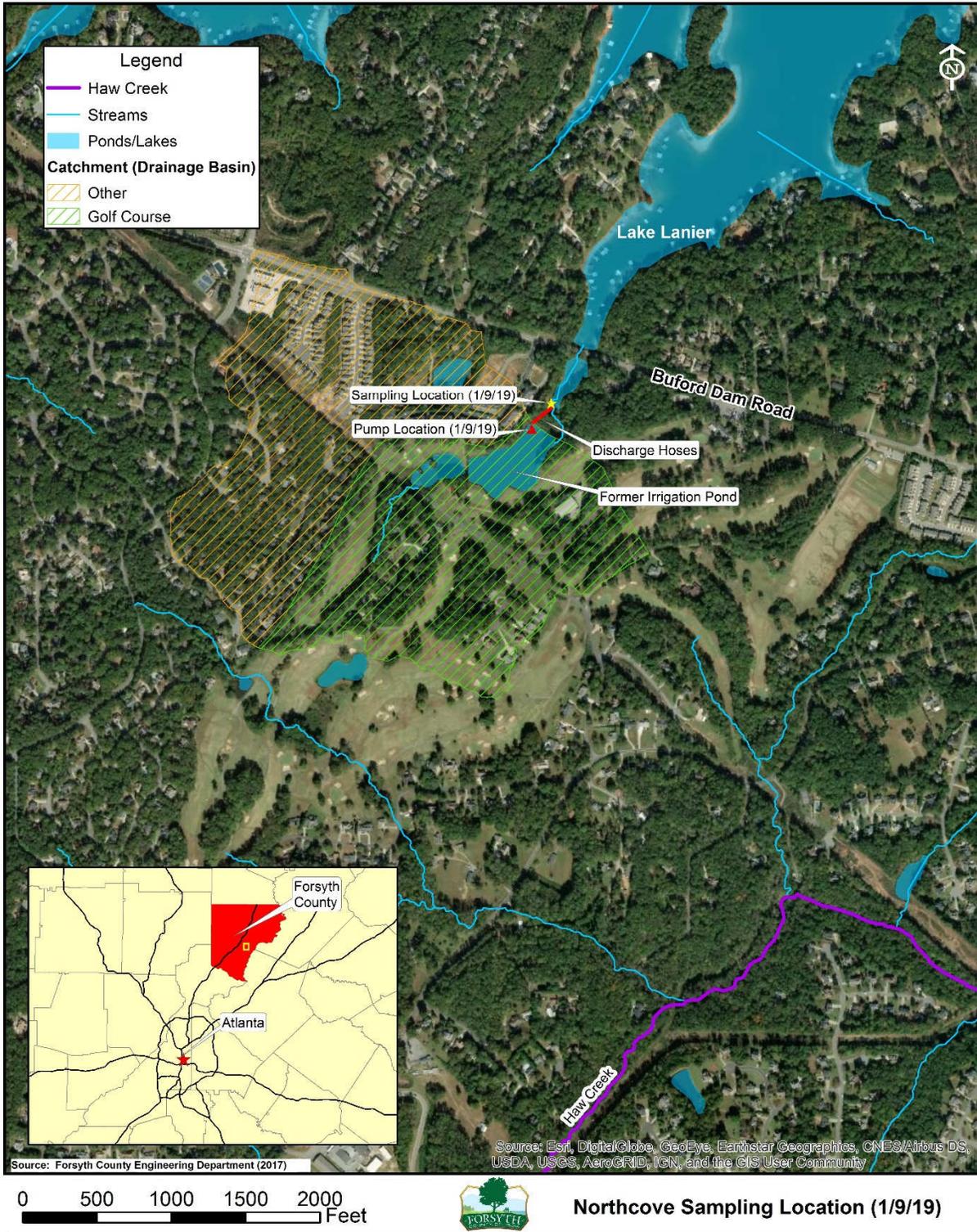


Figure 2. View northeast. Pump set along southwest portion of former irrigation pond dam (photo courtesy of Forsyth County).



Figure 3. View south. Discharge hoses running down the southwest corner of the dam.



Figure 4. View southwest. Discharge hoses entering Lake Lanier.



**Figure 5. View facing south. Mostly sequestered portion of Lake Lanier south of Buford Dam Road**



**Figure 6. View facing north. Main portion of Lake Lanier north of Buford Dam Road.**



**Appendix A**  
**Water Chemistry Laboratory Results**



**ANALYTICAL ENVIRONMENTAL SERVICES, INC.**

January 16, 2019

Andrew Bearden  
Jacobs Engineering Group

10 Tenth St.  
Atlanta GA 30309

RE: Forsyth Watershed Services

Dear Andrew Bearden:

Order No: 1901731

Analytical Environmental Services, Inc. received 1 samples on 1/9/2019 2:39:00 PM  
for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated  
Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the  
analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical  
Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective  
07/01/18-06/30/19.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective  
07/01/18-06/30/19 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Metals, PCM Asbestos,  
Gravimetric), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal)  
Direct Examination, effective until 11/01/19.

These results relate only to the items tested. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

*Paris Masoudi*

Paris Masoudi  
Project Manager



**Analytical Environmental Services, Inc**

**Date:** 16-Jan-19

<b>Client:</b> Jacobs Engineering Group	<b>Client Sample ID:</b> NCVE-1
<b>Project Name:</b> Forsyth Watershed Services	<b>Collection Date:</b> 1/9/2019 1:00:00 PM
<b>Lab ID:</b> 1901731-001	<b>Matrix:</b> Surface Water

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>Total Phosphorus E365.1</b>					<b>(E365.1)</b>				
Phosphorus, Total (As P)	0.211		0.021	0.050	mg/L	272707	1	01/10/2019 14:31	JM
<b>Total Organic Carbon (TOC) by SM5310B</b>									
Organic Carbon, Total	7.31		0.545	1.00	mg/L	R388571	1	01/10/2019 11:03	SK
<b>Total Coliform,E-coli SM9223B</b>									
E.coli	52		10	10	MPN/100mL	R388603	10	01/09/2019 15:51	TG
<b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>					<b>(SW3510C)</b>				
1,1'-Biphenyl	BRL		0.78	10	ug/L	272723	1	01/10/2019 15:47	YH
2,4,5-Trichlorophenol	BRL		0.99	25	ug/L	272723	1	01/10/2019 15:47	YH
2,4,6-Trichlorophenol	BRL		1.3	10	ug/L	272723	1	01/10/2019 15:47	YH
2,4-Dichlorophenol	BRL		1.0	10	ug/L	272723	1	01/10/2019 15:47	YH
2,4-Dimethylphenol	BRL		0.72	10	ug/L	272723	1	01/10/2019 15:47	YH
2,4-Dinitrophenol	BRL		5.5	25	ug/L	272723	1	01/10/2019 15:47	YH
2,4-Dinitrotoluene	BRL		1.1	10	ug/L	272723	1	01/10/2019 15:47	YH
2,6-Dinitrotoluene	BRL		1.3	10	ug/L	272723	1	01/10/2019 15:47	YH
2-Chloronaphthalene	BRL		1.8	10	ug/L	272723	1	01/10/2019 15:47	YH
2-Chlorophenol	BRL		1.2	10	ug/L	272723	1	01/10/2019 15:47	YH
2-Methylnaphthalene	BRL		1.2	10	ug/L	272723	1	01/10/2019 15:47	YH
2-Methylphenol	BRL		1.3	10	ug/L	272723	1	01/10/2019 15:47	YH
2-Nitroaniline	BRL		1.9	25	ug/L	272723	1	01/10/2019 15:47	YH
2-Nitrophenol	BRL		1.6	10	ug/L	272723	1	01/10/2019 15:47	YH
3,3'-Dichlorobenzidine	BRL		1.1	10	ug/L	272723	1	01/10/2019 15:47	YH
3-Nitroaniline	BRL		1.2	25	ug/L	272723	1	01/10/2019 15:47	YH
4,6-Dinitro-2-methylphenol	BRL		1.3	25	ug/L	272723	1	01/10/2019 15:47	YH
4-Bromophenyl phenyl ether	BRL		1.4	10	ug/L	272723	1	01/10/2019 15:47	YH
4-Chloro-3-methylphenol	BRL		0.81	10	ug/L	272723	1	01/10/2019 15:47	YH
4-Chloroaniline	BRL		2.1	10	ug/L	272723	1	01/10/2019 15:47	YH
4-Chlorophenyl phenyl ether	BRL		1.3	10	ug/L	272723	1	01/10/2019 15:47	YH
4-Methylphenol	BRL		2.3	10	ug/L	272723	1	01/10/2019 15:47	YH
4-Nitroaniline	BRL		1.3	25	ug/L	272723	1	01/10/2019 15:47	YH
4-Nitrophenol	BRL		0.77	25	ug/L	272723	1	01/10/2019 15:47	YH
Acenaphthene	BRL		1.1	10	ug/L	272723	1	01/10/2019 15:47	YH
Acenaphthylene	BRL		1.1	10	ug/L	272723	1	01/10/2019 15:47	YH
Acetophenone	BRL		2.1	10	ug/L	272723	1	01/10/2019 15:47	YH
Anthracene	BRL		0.82	10	ug/L	272723	1	01/10/2019 15:47	YH
Atrazine	BRL		0.78	10	ug/L	272723	1	01/10/2019 15:47	YH
Benz(a)anthracene	BRL		0.96	10	ug/L	272723	1	01/10/2019 15:47	YH

**Qualifiers:**

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- B Analyte detected in the associated method blank
- NC Not confirmed

- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative



**Analytical Environmental Services, Inc**

**Date:** 16-Jan-19

<b>Client:</b> Jacobs Engineering Group	<b>Client Sample ID:</b> NCVE-1
<b>Project Name:</b> Forsyth Watershed Services	<b>Collection Date:</b> 1/9/2019 1:00:00 PM
<b>Lab ID:</b> 1901731-001	<b>Matrix:</b> Surface Water

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>TCL-SEMIVOLATILE ORGANICS SW8270D (SW3510C)</b>									
Surr: Nitrobenzene-d5	58.8		0	41.9-121	%REC	272723	1	01/10/2019 15:47	YH
Surr: Phenol-d5	45.9		0	17.8-120	%REC	272723	1	01/10/2019 15:47	YH
<b>Residue, Suspended (TSS) by SM2540D</b>									
Residue, Suspended (TSS)	231		3.2	16.1	mg/L	272745	1	01/10/2019 12:17	JP
<b>Phosphorus, ortho E365.1</b>									
Phosphorus, Total Orthophosphate (As P)	0.00700	J	0.00321	0.0100	mg/L	R388570	1	01/09/2019 20:25	GO
<b>Nitrogen, total Kjeldahl (TKN) E351.2 (E351.2)</b>									
Nitrogen, total Kjeldahl (TKN)	3.00		0.01	0.10	mg/L	272710	1	01/10/2019 15:11	TL
<b>Nitrogen, Nitrate-Nitrite (as N) E353.2</b>									
Nitrogen, Nitrate-Nitrite (as N)	0.275		0.016	0.050	mg/L	R388556	1	01/10/2019 10:38	AA
<b>Nitrogen, Ammonia (as N) E350.1 (E350.1)</b>									
Nitrogen, Ammonia (As N)	0.342		0.008	0.020	mg/L	272717	1	01/10/2019 08:16	JM
<b>METALS, DISSOLVED E200.7 (E200.7)</b>									
Arsenic	BRL		0.0072	0.0500	mg/L	272534	1	01/10/2019 13:13	AJ
Cadmium	BRL		0.0019	0.0050	mg/L	272534	1	01/10/2019 13:13	AJ
Copper	0.0019	J	0.0015	0.0250	mg/L	272534	1	01/10/2019 13:13	AJ
Lead	BRL		0.0038	0.0100	mg/L	272534	1	01/10/2019 13:13	AJ
Zinc	BRL		0.0073	0.0500	mg/L	272534	1	01/10/2019 13:13	AJ
<b>HARDNESS SM2340 B (SM2340B)</b>									
Hardness, Calcium/Magnesium (As CaCO3)	26.6		0.0400	1.00	mg/L CaCO3	272729	1	01/10/2019 14:13	DG
<b>Fecal Coliform (MF) SM9222D</b>									
Fecal Coliform, (MF)	70		20	20	Colonies/100 ml	R388582	10	01/09/2019 15:33	TG
<b>CHLORINATED PESTICIDES, TCL SW8081B (SW3510C)</b>									
4,4'-DDD	BRL		0.014	0.10	ug/L	272724	1	01/10/2019 12:03	UH
4,4'-DDE	BRL		0.010	0.10	ug/L	272724	1	01/10/2019 12:03	UH
4,4'-DDT	BRL		0.0072	0.10	ug/L	272724	1	01/10/2019 12:03	UH
Aldrin	BRL		0.0044	0.050	ug/L	272724	1	01/10/2019 12:03	UH
alpha-BHC	BRL		0.010	0.050	ug/L	272724	1	01/10/2019 12:03	UH
alpha-Chlordane	BRL		0.020	0.050	ug/L	272724	1	01/10/2019 12:03	UH
beta-BHC	BRL		0.0038	0.050	ug/L	272724	1	01/10/2019 12:03	UH

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<b>Lab ID:</b> 1901731-001	<b>Matrix:</b> Surface Water

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
<b>CHLORINATED PESTICIDES, TCL SW8081B (SW3510C)</b>									
delta-BHC	BRL		0.0091	0.050	ug/L	272724	1	01/10/2019 12:03	UH
Dieldrin	BRL		0.0053	0.10	ug/L	272724	1	01/10/2019 12:03	UH
Endosulfan I	BRL		0.0072	0.050	ug/L	272724	1	01/10/2019 12:03	UH
Endosulfan II	BRL		0.0082	0.10	ug/L	272724	1	01/10/2019 12:03	UH
Endosulfan sulfate	BRL		0.012	0.10	ug/L	272724	1	01/10/2019 12:03	UH
Endrin	BRL		0.017	0.10	ug/L	272724	1	01/10/2019 12:03	UH
Endrin aldehyde	BRL		0.011	0.10	ug/L	272724	1	01/10/2019 12:03	UH
Endrin ketone	BRL		0.018	0.10	ug/L	272724	1	01/10/2019 12:03	UH
gamma-BHC	BRL		0.0053	0.050	ug/L	272724	1	01/10/2019 12:03	UH
gamma-Chlordane	BRL		0.013	0.050	ug/L	272724	1	01/10/2019 12:03	UH
Heptachlor	BRL		0.0053	0.050	ug/L	272724	1	01/10/2019 12:03	UH
Heptachlor epoxide	BRL		0.015	0.050	ug/L	272724	1	01/10/2019 12:03	UH
Methoxychlor	BRL		0.030	0.50	ug/L	272724	1	01/10/2019 12:03	UH
Toxaphene	BRL		0.062	5.0	ug/L	272724	1	01/10/2019 12:03	UH
Surr: Decachlorobiphenyl	49.3		0	20.6-134	%REC	272724	1	01/10/2019 12:03	UH
Surr: Tetrachloro-m-xylene	82.9		0	37-128	%REC	272724	1	01/10/2019 12:03	UH
<b>CHLORINATED HERBICIDES SW8151A (SW3510C)</b>									
2,4,5-T	BRL		0.33	2.0	ug/L	272722	1	01/10/2019 15:01	HB
2,4,5-TP (Silvex)	BRL		0.30	2.0	ug/L	272722	1	01/10/2019 15:01	HB
2,4-D	BRL		0.51	2.0	ug/L	272722	1	01/10/2019 15:01	HB
2,4-DB	BRL		0.70	10	ug/L	272722	1	01/10/2019 15:01	HB
Dalapon	BRL		0.47	10	ug/L	272722	1	01/10/2019 15:01	HB
Dicamba	BRL		0.43	2.0	ug/L	272722	1	01/10/2019 15:01	HB
Dichlorprop	BRL		0.56	2.0	ug/L	272722	1	01/10/2019 15:01	HB
Dinoseb	BRL		0.58	5.0	ug/L	272722	1	01/10/2019 15:01	HB
MCPA	BRL		51	500	ug/L	272722	1	01/10/2019 15:01	HB
MCPP	BRL		46	500	ug/L	272722	1	01/10/2019 15:01	HB
Surr: DCAA	69		0	45.3-120	%REC	272722	1	01/10/2019 15:01	HB
<b>Chemical Oxygen Demand (COD) E410.4</b>									
Chemical Oxygen Demand	40.6		4.59	10.0	mg/L	R388600	1	01/10/2019 15:00	CG
<b>Biochemical Oxygen Demand by SM5210B</b>									
Biochemical Oxygen Demand	BRL		5.0	5.0	mg/L	272757	1	01/10/2019 10:00	MT
<b>Alkalinity by SM2320B</b>									
Alkalinity, Total (As CaCO3)	34.8		1.68	3.00	mg/L	R388606	1	01/10/2019 13:03	AT

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**SAMPLE/COOLER RECEIPT CHECKLIST**

Clear

Save as

1. Client Name: Jacobs Engineering Group

AES Work Order Number: 1901731

2. Carrier: FedEx  UPS  USPS  Client  Courier  Other \_\_\_\_\_

	Yes	No	N/A	Details	Comments
3. Shipping container/cooler received in good condition?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	damaged <input type="checkbox"/> leaking <input type="checkbox"/> other <input type="checkbox"/>	
4. Custody seals present on shipping container?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
5. Custody seals intact on shipping container?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
6. Temperature blanks present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
7. Cooler temperature(s) within limits of 0-6°C? [See item 13 and 14 for temperature recordings.]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cooling initiated for recently collected samples / ice present <input type="checkbox"/>	
8. Chain of Custody (COC) present?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
9. Chain of Custody signed, dated, and timed when relinquished and received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
10. Sampler name and/or signature on COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
11. Were all samples received within holding time?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
12. TAT marked on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	If no TAT indicated, proceeded with standard TAT per Terms & Conditions. <input type="checkbox"/>	

13. Cooler 1 Temperature 1.3 °C    Cooler 2 Temperature \_\_\_\_\_ °C    Cooler 3 Temperature \_\_\_\_\_ °C    Cooler 4 Temperature \_\_\_\_\_ °C  
 14. Cooler 5 Temperature \_\_\_\_\_ °C    Cooler 6 Temperature \_\_\_\_\_ °C    Cooler 7 Temperature \_\_\_\_\_ °C    Cooler 8 Temperature \_\_\_\_\_ °C

15. Comments: \_\_\_\_\_

I certify that I have completed sections 1-15 (dated initials). AP 1/9/19

	Yes	No	N/A	Details	Comments
16. Were sample containers intact upon receipt?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
17. Custody seals present on sample containers?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>		
18. Custody seals intact on sample containers?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
19. Do sample container labels match the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	incomplete info <input type="checkbox"/> illegible <input type="checkbox"/> no label <input type="checkbox"/> other <input type="checkbox"/>	
20. Are analyses requested indicated on the COC?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
21. Were all of the samples listed on the COC received?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	samples received but not listed on COC <input type="checkbox"/> samples listed on COC not received <input type="checkbox"/>	
22. Was the sample collection date/time noted?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
23. Did we receive sufficient sample volume for indicated analyses?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
24. Were samples received in appropriate containers?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
25. Were VOA samples received without headspace (< 1/4" bubble)?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		
26. Were trip blanks submitted?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	listed on COC <input type="checkbox"/> not listed on COC <input type="checkbox"/>	

27. Comments: \_\_\_\_\_

I certify that I have completed sections 16-27 (dated initials). MH 1/9/19

This section only applies to samples where pH can be checked at Sample Receipt.

	Yes	No	N/A	Details	Comments
28. Have containers needing chemical preservation been checked? *	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
29. Containers meet preservation guidelines?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>		
30. Was pH adjusted at Sample Receipt?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>		

\* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH.

I certify that I have completed sections 28-30 (dated initials). MH 1/9/19

Locked

Client: Jacobs Engineering Group  
 Project Name: Forsyth Watershed Services  
 Lab Order: 1901731

## Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1901731-001A	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Chlorinated Herbicides by 615/SM6640B		1/10/2019 10:00:00AM	01/10/2019
1901731-001A	NCVE-1	1/9/2019 1:00:00PM	Surface Water	TCL-CHLORINATED PESTICIDES		1/10/2019 9:00:00AM	01/10/2019
1901731-001A	NCVE-1	1/9/2019 1:00:00PM	Surface Water	CHLORINATED HERBICIDES		1/10/2019 10:00:00AM	01/10/2019
1901731-001A	NCVE-1	1/9/2019 1:00:00PM	Surface Water	TCL-SEMIVOLATILE ORGANICS		1/10/2019 11:30:00AM	01/10/2019
1901731-001B	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Biochemical Oxygen Demand by SM5210		1/10/2019 10:00:00AM	01/10/2019
1901731-001C	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Hardness		1/10/2019 9:47:00AM	01/10/2019
1901731-001D	NCVE-1	1/9/2019 1:00:00PM	Surface Water	METALS, DISSOLVED		1/10/2019 11:56:00AM	01/10/2019
1901731-001E	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Total Organic Carbon by SM5310B			01/10/2019
1901731-001F	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Phosphorus , Total		1/10/2019 9:40:00AM	01/10/2019
1901731-001F	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Chemical Oxygen Demand (COD)			01/10/2019
1901731-001G	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Nitrogen, Ammonia (as N)		1/10/2019 8:01:47AM	01/10/2019
1901731-001G	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Nitrogen, total Kjeldahl (TKN)		1/10/2019 9:00:00AM	01/10/2019
1901731-001G	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Nitrogen, Nitrate-Nitrite (as N)			01/10/2019
1901731-001H	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Phosphorus, ortho			01/09/2019
1901731-001H	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Alkalinity by SM2320B			01/10/2019
1901731-001H	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Residue, Suspended (TSS) by SM2540D		1/10/2019 9:15:50AM	01/10/2019
1901731-001I	NCVE-1	1/9/2019 1:00:00PM	Surface Water	FECAL COLIFORM-MF			01/09/2019
1901731-001I	NCVE-1	1/9/2019 1:00:00PM	Surface Water	Total Coliform,E-coli			01/09/2019

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272534**

Sample ID: <b>MB-272534</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388601</b>							
SampleType: <b>MBLK</b>	TestCode: <b>METALS, DISSOLVED E200.7</b>	BatchID: <b>272534</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690314</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	BRL	0.0500									
Cadmium	BRL	0.0050									
Copper	BRL	0.0250									
Lead	BRL	0.0100									
Zinc	BRL	0.0500									

Sample ID: <b>LCS-272534</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388601</b>							
SampleType: <b>LCS</b>	TestCode: <b>METALS, DISSOLVED E200.7</b>	BatchID: <b>272534</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690315</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	0.9949	0.0500	1.000		99.5	85	115				
Cadmium	0.9768	0.0050	1.000		97.7	85	115				
Copper	0.9354	0.0250	1.000		93.5	85	115				
Lead	0.9634	0.0100	1.000		96.3	85	115				
Zinc	0.9760	0.0500	1.000		97.6	85	115				

Sample ID: <b>1901363-002EMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388601</b>							
SampleType: <b>MS</b>	TestCode: <b>METALS, DISSOLVED E200.7</b>	BatchID: <b>272534</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690317</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	1.001	0.0500	1.000		100	70	130				
Cadmium	0.9683	0.0050	1.000		96.8	70	130				
Copper	0.9531	0.0250	1.000	0.003800	94.9	70	130				
Lead	0.9546	0.0100	1.000	0.005020	95.0	70	130				
Zinc	1.040	0.0500	1.000	0.09933	94.0	70	130				

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: Jacobs Engineering Group  
 Project Name: Forsyth Watershed Services  
 Workorder: 1901731

**ANALYTICAL QC SUMMARY REPORT**

BatchID: 272534

Sample ID: <b>1901363-002EMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388601</b>							
SampleType: <b>MSD</b>	TestCode: <b>METALS, DISSOLVED E200.7</b>	BatchID: <b>272534</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690318</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Arsenic	1.009	0.0500	1.000		101	70	130	1.001	0.784	20	
Cadmium	0.9713	0.0050	1.000		97.1	70	130	0.9683	0.309	20	
Copper	0.9630	0.0250	1.000	0.003800	95.9	70	130	0.9531	1.03	20	
Lead	0.9573	0.0100	1.000	0.005020	95.2	70	130	0.9546	0.285	20	
Zinc	1.041	0.0500	1.000	0.09933	94.2	70	130	1.040	0.136	20	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272707**

Sample ID: <b>MB-272707</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388567</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Phosphorus E365.1</b>	BatchID: <b>272707</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690063</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phosphorus, Total (As P)

BRL 0.050

Sample ID: <b>LCS-272707</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388567</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Phosphorus E365.1</b>	BatchID: <b>272707</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690065</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phosphorus, Total (As P)

2.050 0.050 2.000 102 90 110

Sample ID: <b>1901652-001BMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388567</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Phosphorus E365.1</b>	BatchID: <b>272707</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690089</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phosphorus, Total (As P)

2.030 0.050 2.000 0.02140 100 90 110

Sample ID: <b>1901759-002DMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388567</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Phosphorus E365.1</b>	BatchID: <b>272707</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690070</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phosphorus, Total (As P)

2.010 0.050 2.000 100 90 110

Sample ID: <b>1901759-002DMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388567</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Phosphorus E365.1</b>	BatchID: <b>272707</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690071</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phosphorus, Total (As P)

2.000 0.050 2.000 100 90 110 2.010 0.499 20

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272710**

Sample ID: <b>MB-272710</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388580</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Nitrogen, total Kjeldahl (TKN) E351.2</b>	BatchID: <b>272710</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690283</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, total Kjeldahl (TKN) 0.02090 0.10 J

Sample ID: <b>LCS-272710</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388580</b>							
SampleType: <b>LCS</b>	TestCode: <b>Nitrogen, total Kjeldahl (TKN) E351.2</b>	BatchID: <b>272710</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690284</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, total Kjeldahl (TKN) 4.590 0.10 5.000 0.02090 91.4 90 110

Sample ID: <b>1901601-002DMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388580</b>							
SampleType: <b>MS</b>	TestCode: <b>Nitrogen, total Kjeldahl (TKN) E351.2</b>	BatchID: <b>272710</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690298</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, total Kjeldahl (TKN) 5.560 0.40 5.000 0.6220 98.8 90 110

Sample ID: <b>1901601-002DMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388580</b>							
SampleType: <b>MSD</b>	TestCode: <b>Nitrogen, total Kjeldahl (TKN) E351.2</b>	BatchID: <b>272710</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690299</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, total Kjeldahl (TKN) 6.160 0.40 5.000 0.6220 111 90 110 5.560 10.2 30 S

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
BRL	Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272717**

Sample ID: <b>MB-272717</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388523</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Nitrogen, Ammonia (as N) E350.1</b>	BatchID: <b>272717</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8688925</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Ammonia (As N) BRL 0.020

Sample ID: <b>LCS-272717</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388523</b>							
SampleType: <b>LCS</b>	TestCode: <b>Nitrogen, Ammonia (as N) E350.1</b>	BatchID: <b>272717</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8688926</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Ammonia (As N) 0.5060 0.020 0.5000 101 90 110

Sample ID: <b>1901166-001AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388523</b>							
SampleType: <b>MS</b>	TestCode: <b>Nitrogen, Ammonia (as N) E350.1</b>	BatchID: <b>272717</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8688928</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Ammonia (As N) 0.4920 0.020 0.5000 0.02140 94.1 90 110

Sample ID: <b>1901166-001AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388523</b>							
SampleType: <b>MSD</b>	TestCode: <b>Nitrogen, Ammonia (as N) E350.1</b>	BatchID: <b>272717</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8688929</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Ammonia (As N) 0.4980 0.020 0.5000 0.02140 95.3 90 110 0.4920 1.21 30

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272722**

Sample ID: <b>MB-272722</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388599</b>							
SampleType: <b>MBLK</b>	TestCode: <b>CHLORINATED HERBICIDES SW8151A</b>	BatchID: <b>272722</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690199</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-T	BRL	2.0									
2,4,5-TP (Silvex)	BRL	2.0									
2,4-D	BRL	2.0									
2,4-DB	BRL	10									
Dalapon	BRL	10									
Dicamba	BRL	2.0									
Dichlorprop	BRL	2.0									
Dinoseb	BRL	5.0									
MCPA	BRL	500									
MCPP	BRL	500									
Surr: DCAA	3.603	0	5.000		72.1	45.3	120				

Sample ID: <b>LCS-272722</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388599</b>							
SampleType: <b>LCS</b>	TestCode: <b>CHLORINATED HERBICIDES SW8151A</b>	BatchID: <b>272722</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690200</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-T	3.669	2.0	5.000		73.4	51.1	109				
2,4,5-TP (Silvex)	3.521	2.0	5.000		70.4	50.8	103				
2,4-D	3.838	2.0	5.000		76.8	52	111				
Dicamba	3.536	2.0	5.000		70.7	55.2	97				
Dichlorprop	3.543	2.0	5.000		70.9	54.3	102				
Surr: DCAA	3.888	0	5.000		77.8	45.3	120				

Sample ID: <b>1901731-001AMS</b>	Client ID: <b>NCVE-1</b>	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388599</b>							
SampleType: <b>MS</b>	TestCode: <b>CHLORINATED HERBICIDES SW8151A</b>	BatchID: <b>272722</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690437</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-T	4.104	2.0	5.000		82.1	45.4	122				
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**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272722**

Sample ID: <b>1901731-001AMS</b>	Client ID: <b>NCVE-1</b>	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388599</b>							
SampleType: <b>MS</b>	TestCode: <b>CHLORINATED HERBICIDES SW8151A</b>	BatchID: <b>272722</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690437</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-TP (Silvex)	3.895	2.0	5.000		77.9	50.1	119				
2,4-D	4.122	2.0	5.000		82.4	46.9	133				
Dicamba	3.889	2.0	5.000		77.8	58.5	120				
Dichlorprop	3.895	2.0	5.000		77.9	44.6	127				
Surr: DCAA	4.056	0	5.000		81.1	45.3	120				

Sample ID: <b>1901731-001AMSD</b>	Client ID: <b>NCVE-1</b>	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388599</b>							
SampleType: <b>MSD</b>	TestCode: <b>CHLORINATED HERBICIDES SW8151A</b>	BatchID: <b>272722</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690438</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4,5-T	3.576	2.0	5.000		71.5	45.4	122	4.104	13.7	23.5	
2,4,5-TP (Silvex)	3.381	2.0	5.000		67.6	50.1	119	3.895	14.1	21.6	
2,4-D	3.661	2.0	5.000		73.2	46.9	133	4.122	11.8	25.7	
Dicamba	3.429	2.0	5.000		68.6	58.5	120	3.889	12.6	20	
Dichlorprop	3.483	2.0	5.000		69.7	44.6	127	3.895	11.2	27.2	
Surr: DCAA	3.570	0	5.000		71.4	45.3	120	4.056	0	0	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272723**

Sample ID: <b>MB-272723</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388586</b>							
SampleType: <b>MBLK</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>	BatchID: <b>272723</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690222</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1'-Biphenyl	BRL	10									
2,4,5-Trichlorophenol	BRL	25									
2,4,6-Trichlorophenol	BRL	10									
2,4-Dichlorophenol	BRL	10									
2,4-Dimethylphenol	BRL	10									
2,4-Dinitrophenol	BRL	25									
2,4-Dinitrotoluene	BRL	10									
2,6-Dinitrotoluene	BRL	10									
2-Chloronaphthalene	BRL	10									
2-Chlorophenol	BRL	10									
2-Methylnaphthalene	BRL	10									
2-Methylphenol	BRL	10									
2-Nitroaniline	BRL	25									
2-Nitrophenol	BRL	10									
3,3'-Dichlorobenzidine	BRL	10									
3-Nitroaniline	BRL	25									
4,6-Dinitro-2-methylphenol	BRL	25									
4-Bromophenyl phenyl ether	BRL	10									
4-Chloro-3-methylphenol	BRL	10									
4-Chloroaniline	BRL	10									
4-Chlorophenyl phenyl ether	BRL	10									
4-Methylphenol	BRL	10									
4-Nitroaniline	BRL	25									
4-Nitrophenol	BRL	25									
Acenaphthene	BRL	10									
Acenaphthylene	BRL	10									
Acetophenone	BRL	10									

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272723**

Sample ID: <b>MB-272723</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388586</b>							
SampleType: <b>MBLK</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>	BatchID: <b>272723</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690222</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Anthracene	BRL	10									
Atrazine	BRL	10									
Benz(a)anthracene	BRL	10									
Benzaldehyde	BRL	10									
Benzo(a)pyrene	BRL	10									
Benzo(b)fluoranthene	BRL	10									
Benzo(g,h,i)perylene	BRL	10									
Benzo(k)fluoranthene	BRL	10									
Bis(2-chloroethoxy)methane	BRL	10									
Bis(2-chloroethyl)ether	BRL	10									
Bis(2-chloroisopropyl)ether	BRL	10									
Bis(2-ethylhexyl)phthalate	BRL	10									
Butyl benzyl phthalate	BRL	10									
Caprolactam	BRL	10									
Carbazole	BRL	10									
Chrysene	BRL	10									
Di-n-butyl phthalate	BRL	10									
Di-n-octyl phthalate	BRL	10									
Dibenz(a,h)anthracene	BRL	10									
Dibenzofuran	BRL	10									
Diethyl phthalate	BRL	10									
Dimethyl phthalate	BRL	10									
Fluoranthene	BRL	10									
Fluorene	BRL	10									
Hexachlorobenzene	BRL	10									
Hexachlorobutadiene	BRL	10									
Hexachlorocyclopentadiene	BRL	10									

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272723**

Sample ID: <b>MB-272723</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388586</b>							
SampleType: <b>MBLK</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>	BatchID: <b>272723</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690222</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Hexachloroethane	BRL	10									
Indeno(1,2,3-cd)pyrene	BRL	10									
Isophorone	BRL	10									
N-Nitrosodi-n-propylamine	BRL	10									
N-Nitrosodiphenylamine	BRL	10									
Naphthalene	BRL	10									
Nitrobenzene	BRL	10									
Pentachlorophenol	BRL	25									
Phenanthrene	BRL	10									
Phenol	BRL	10									
Pyrene	BRL	10									
Surr: 2,4,6-Tribromophenol	69.85	0	100.0		69.8	47	127				
Surr: 2-Fluorobiphenyl	40.04	0	50.00		80.1	47.4	119				
Surr: 2-Fluorophenol	38.35	0	100.0		38.4	26.2	120				
Surr: 4-Terphenyl-d14	28.23	0	50.00		56.5	45	133				
Surr: Nitrobenzene-d5	34.92	0	50.00		69.8	41.9	121				
Surr: Phenol-d5	24.14	0	100.0		24.1	17.8	120				

Sample ID: <b>LCS-272723</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388586</b>							
SampleType: <b>LCS</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>	BatchID: <b>272723</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690223</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	83.73	10	100.0		83.7	60.1	123				
2-Chlorophenol	99.62	10	100.0		99.6	50.6	120				
4-Chloro-3-methylphenol	92.84	10	100.0		92.8	59.5	122				
4-Nitrophenol	25.13	25	100.0		25.1	20	120				
Acenaphthene	86.98	10	100.0		87.0	60.5	119				
N-Nitrosodi-n-propylamine	97.02	10	100.0		97.0	62.3	127				

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272723**

Sample ID: <b>LCS-272723</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388586</b>							
SampleType: <b>LCS</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>	BatchID: <b>272723</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690223</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Pentachlorophenol	54.95	25	100.0		55.0	50.9	120				
Phenol	41.99	10	100.0		42.0	20.1	120				
Pyrene	103.0	10	100.0		103	68.8	139				
Surr: 2,4,6-Tribromophenol	85.06	0	100.0		85.1	47	127				
Surr: 2-Fluorobiphenyl	45.83	0	50.00		91.7	47.4	119				
Surr: 2-Fluorophenol	63.03	0	100.0		63.0	26.2	120				
Surr: 4-Terphenyl-d14	46.01	0	50.00		92.0	45	133				
Surr: Nitrobenzene-d5	42.52	0	50.00		85.0	41.9	121				
Surr: Phenol-d5	48.64	0	100.0		48.6	17.8	120				

Sample ID: <b>1901731-001AMS</b>	Client ID: <b>NCVE-1</b>	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388586</b>							
SampleType: <b>MS</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>	BatchID: <b>272723</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8693280</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	50.96	10	100.0		51.0	50.3	123				
2-Chlorophenol	50.42	10	100.0		50.4	50.8	120				S
4-Chloro-3-methylphenol	51.77	10	100.0		51.8	47.1	124				
4-Nitrophenol	20.70	25	100.0		20.7	21.8	120				JS
Acenaphthene	55.16	10	100.0		55.2	44.7	119				
N-Nitrosodi-n-propylamine	58.22	10	100.0		58.2	52.1	120				
Pentachlorophenol	23.95	25	100.0		24.0	40	120				JS
Phenol	32.96	10	100.0		33.0	31.5	120				
Pyrene	66.74	10	100.0		66.7	51	129				
Surr: 2,4,6-Tribromophenol	41.62	0	100.0		41.6	47	127				S
Surr: 2-Fluorobiphenyl	28.46	0	50.00		56.9	47.4	119				
Surr: 2-Fluorophenol	36.37	0	100.0		36.4	26.2	120				
Surr: 4-Terphenyl-d14	32.76	0	50.00		65.5	45	133				
Surr: Nitrobenzene-d5	25.60	0	50.00		51.2	41.9	121				

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272723**

Sample ID: <b>1901731-001AMS</b>	Client ID: <b>NCVE-1</b>	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388586</b>							
SampleType: <b>MS</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>	BatchID: <b>272723</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8693280</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Surr: Phenol-d5	37.81	0	100.0		37.8	17.8	120				
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Sample ID: <b>1901731-001AMSD</b>	Client ID: <b>NCVE-1</b>	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388586</b>							
SampleType: <b>MSD</b>	TestCode: <b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>	BatchID: <b>272723</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8693281</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

2,4-Dinitrotoluene	70.98	10	100.0		71.0	50.3	123	50.96	32.8	21.7	R
2-Chlorophenol	66.37	10	100.0		66.4	50.8	120	50.42	27.3	24.8	R
4-Chloro-3-methylphenol	72.08	10	100.0		72.1	47.1	124	51.77	32.8	20.7	R
4-Nitrophenol	22.06	25	100.0		22.1	21.8	120	20.70	0	38.3	J
Acenaphthene	73.09	10	100.0		73.1	44.7	119	55.16	28.0	20.5	R
N-Nitrosodi-n-propylamine	78.40	10	100.0		78.4	52.1	120	58.22	29.5	29.2	R
Pentachlorophenol	32.90	25	100.0		32.9	40	120	23.95	31.5	30.7	SR
Phenol	43.38	10	100.0		43.4	31.5	120	32.96	27.3	28.5	
Pyrene	85.37	10	100.0		85.4	51	129	66.74	24.5	24.8	
Surr: 2,4,6-Tribromophenol	51.93	0	100.0		51.9	47	127	41.62	0	0	
Surr: 2-Fluorobiphenyl	36.01	0	50.00		72.0	47.4	119	28.46	0	0	
Surr: 2-Fluorophenol	43.28	0	100.0		43.3	26.2	120	36.37	0	0	
Surr: 4-Terphenyl-d14	38.08	0	50.00		76.2	45	133	32.76	0	0	
Surr: Nitrobenzene-d5	32.06	0	50.00		64.1	41.9	121	25.60	0	0	
Surr: Phenol-d5	46.84	0	100.0		46.8	17.8	120	37.81	0	0	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272724**

Sample ID: <b>MB-2722724</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388546</b>							
SampleType: <b>MBLK</b>	TestCode: <b>CHLORINATED PESTICIDES, TCL SW8081B</b>	BatchID: <b>272724</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8689284</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

4,4'-DDD	BRL	0.10									
4,4'-DDE	BRL	0.10									
4,4'-DDT	BRL	0.10									
Aldrin	BRL	0.050									
alpha-BHC	BRL	0.050									
alpha-Chlordane	BRL	0.050									
beta-BHC	BRL	0.050									
delta-BHC	BRL	0.050									
Dieldrin	BRL	0.10									
Endosulfan I	BRL	0.050									
Endosulfan II	BRL	0.10									
Endosulfan sulfate	BRL	0.10									
Endrin	BRL	0.10									
Endrin aldehyde	BRL	0.10									
Endrin ketone	BRL	0.10									
gamma-BHC	BRL	0.050									
gamma-Chlordane	BRL	0.050									
Heptachlor	BRL	0.050									
Heptachlor epoxide	BRL	0.050									
Methoxychlor	BRL	0.50									
Toxaphene	BRL	5.0									
Surr: Decachlorobiphenyl	0.2903	0	0.5000		58.1	20.6	134				
Surr: Tetrachloro-m-xylene	0.4259	0	0.5000		85.2	37	128				

Sample ID: <b>LCS-272724</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388546</b>							
SampleType: <b>LCS</b>	TestCode: <b>CHLORINATED PESTICIDES, TCL SW8081B</b>	BatchID: <b>272724</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8689280</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272724**

Sample ID: <b>LCS-272724</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388546</b>							
SampleType: <b>LCS</b>	TestCode: <b>CHLORINATED PESTICIDES, TCL SW8081B</b>	BatchID: <b>272724</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8689280</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

4,4'-DDT	0.9281	0.10	1.000		92.8	61	127				
Aldrin	0.7815	0.050	1.000		78.2	60.6	118				
Dieldrin	0.8861	0.10	1.000		88.6	66.8	130				
Endrin	1.009	0.10	1.000		101	72.2	135				
gamma-BHC	0.9314	0.050	1.000		93.1	70.2	129				
Heptachlor	0.8509	0.050	1.000		85.1	65.1	131				
Surr: Decachlorobiphenyl	0.2357	0	0.5000		47.1	20.6	134				
Surr: Tetrachloro-m-xylene	0.3968	0	0.5000		79.4	37	128				

Sample ID: <b>1901584-001BMS</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388546</b>							
SampleType: <b>MS</b>	TestCode: <b>CHLORINATED PESTICIDES, TCL SW8081B</b>	BatchID: <b>272724</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8689282</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

4,4'-DDT	0.4923	0.10	1.000		49.2	42.4	138				
Aldrin	0.4249	0.050	1.000		42.5	46.4	119				S
Dieldrin	0.5094	0.10	1.000		50.9	44.9	138				
Endrin	0.6532	0.10	1.000		65.3	58	140				
gamma-BHC	0.9441	0.050	1.000		94.4	56.5	137				
Heptachlor	0.8304	0.050	1.000		83.0	43.6	134				
Surr: Decachlorobiphenyl	0.2460	0	0.5000		49.2	20.6	134				
Surr: Tetrachloro-m-xylene	0.3654	0	0.5000		73.1	37	128				

Sample ID: <b>1901584-001BMSD</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388546</b>							
SampleType: <b>MSD</b>	TestCode: <b>CHLORINATED PESTICIDES, TCL SW8081B</b>	BatchID: <b>272724</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8689283</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

4,4'-DDT	0.4527	0.10	1.000		45.3	42.4	138	0.4923	8.37	20	
Aldrin	0.4055	0.050	1.000		40.6	46.4	119	0.4249	4.66	20	S

**Qualifiers:**

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272724**

Sample ID: <b>1901584-001BMSD</b>	Client ID:	Units: <b>ug/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388546</b>							
SampleType: <b>MSD</b>	TestCode: <b>CHLORINATED PESTICIDES, TCL SW8081B</b>	BatchID: <b>272724</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8689283</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Dieldrin	0.4594	0.10	1.000		45.9	44.9	138	0.5094	10.3	20	
Endrin	0.6354	0.10	1.000		63.5	58	140	0.6532	2.76	20	
gamma-BHC	1.015	0.050	1.000		101	56.5	137	0.9441	7.19	20	
Heptachlor	0.8445	0.050	1.000		84.4	43.6	134	0.8304	1.69	21.3	
Surr: Decachlorobiphenyl	0.2200	0	0.5000		44.0	20.6	134	0.2460	0	0	
Surr: Tetrachloro-m-xylene	0.3642	0	0.5000		72.8	37	128	0.3654	0	0	

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272745**

Sample ID: <b>MB-272745</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388551</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Residue, Suspended (TSS) by SM2540D</b>	BatchID: <b>272745</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690002</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Suspended (TSS)

BRL 5.0

Sample ID: <b>1901706-004ADUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388551</b>							
SampleType: <b>DUP</b>	TestCode: <b>Residue, Suspended (TSS) by SM2540D</b>	BatchID: <b>272745</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690026</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Suspended (TSS)

1.000 5.0 1.000 0 5 J

Sample ID: <b>1901710-002ADUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388551</b>							
SampleType: <b>DUP</b>	TestCode: <b>Residue, Suspended (TSS) by SM2540D</b>	BatchID: <b>272745</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690006</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Residue, Suspended (TSS)

BRL 5.0 0 0 5

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: 272757**

Sample ID: <b>MB-272757</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388892</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Biochemical Oxygen Demand by SM5210B</b>	BatchID: <b>272757</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8697235</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Biochemical Oxygen Demand

BRL 2.0

Sample ID: <b>LCS-272757</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388892</b>							
SampleType: <b>LCS</b>	TestCode: <b>Biochemical Oxygen Demand by SM5210B</b>	BatchID: <b>272757</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8697236</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Biochemical Oxygen Demand

189.0 5.0 198.0 95.5 85 115

Sample ID: <b>LCSD-272757</b>	Client ID:	Units: <b>mg/L</b>	Prep Date: <b>01/10/2019</b>	Run No: <b>388892</b>							
SampleType: <b>LCSD</b>	TestCode: <b>Biochemical Oxygen Demand by SM5210B</b>	BatchID: <b>272757</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8697237</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Biochemical Oxygen Demand

186.0 5.0 198.0 93.9 85 115 189.0 1.60 20

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R388556**

Sample ID: <b>MB-R388556</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388556</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Nitrogen, Nitrate-Nitrite (as N) E353.2</b>	BatchID: <b>R388556</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8689444</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Nitrate-Nitrite (as N)

BRL 0.050

Sample ID: <b>LCS-R388556</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388556</b>							
SampleType: <b>LCS</b>	TestCode: <b>Nitrogen, Nitrate-Nitrite (as N) E353.2</b>	BatchID: <b>R388556</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8689445</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Nitrate-Nitrite (as N)

0.4970 0.050 0.5000 99.4 90 110

Sample ID: <b>1901618-001AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388556</b>							
SampleType: <b>MS</b>	TestCode: <b>Nitrogen, Nitrate-Nitrite (as N) E353.2</b>	BatchID: <b>R388556</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8689470</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Nitrate-Nitrite (as N)

0.9150 0.050 0.5000 0.4450 94.0 90 110

Sample ID: <b>1901618-001AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388556</b>							
SampleType: <b>MSD</b>	TestCode: <b>Nitrogen, Nitrate-Nitrite (as N) E353.2</b>	BatchID: <b>R388556</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8689471</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Nitrogen, Nitrate-Nitrite (as N)

0.9230 0.050 0.5000 0.4450 95.6 90 110 0.9150 0.871 20

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R388570**

Sample ID: <b>MB-R388570</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388570</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Phosphorus, ortho E365.1</b>	BatchID: <b>R388570</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8689702</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phosphorus, Total Orthophosphate (As BRL 0.0100

Sample ID: <b>LCS-R388570</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388570</b>							
SampleType: <b>LCS</b>	TestCode: <b>Phosphorus, ortho E365.1</b>	BatchID: <b>R388570</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8689701</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phosphorus, Total Orthophosphate (As 0.09200 0.0100 0.1000 92.0 90 110

Sample ID: <b>1901657-003AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388570</b>							
SampleType: <b>MS</b>	TestCode: <b>Phosphorus, ortho E365.1</b>	BatchID: <b>R388570</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8689708</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phosphorus, Total Orthophosphate (As 0.09400 0.0100 0.1000 0.005000 89.0 90 110 S

Sample ID: <b>1901657-005AMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388570</b>							
SampleType: <b>MS</b>	TestCode: <b>Phosphorus, ortho E365.1</b>	BatchID: <b>R388570</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8689703</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phosphorus, Total Orthophosphate (As 0.09300 0.0100 0.1000 0.007000 86.0 90 110 S

Sample ID: <b>1901657-003AMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388570</b>							
SampleType: <b>MSD</b>	TestCode: <b>Phosphorus, ortho E365.1</b>	BatchID: <b>R388570</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8689709</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Phosphorus, Total Orthophosphate (As 0.09900 0.0100 0.1000 0.005000 94.0 90 110 0.09400 5.18 20

**Qualifiers:** > Greater than Result value < Less than Result value B Analyte detected in the associated method blank  
 BRL Below reporting limit E Estimated (value above quantitation range) H Holding times for preparation or analysis exceeded  
 J Estimated value detected below Reporting Limit N Analyte not NELAC certified R RPD outside limits due to matrix  
 Rpt Lim Reporting Limit S Spike Recovery outside limits due to matrix

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R388571**

Sample ID: <b>MB-388571</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388571</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R388571</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8689776</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total

BRL 1.00

Sample ID: <b>LCS-388571</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388571</b>							
SampleType: <b>LCS</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R388571</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8689774</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total

26.74 1.00 25.00 107 90 110

Sample ID: <b>1901731-001EMS</b>	Client ID: <b>NCVE-1</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388571</b>							
SampleType: <b>MS</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R388571</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8689780</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total

136.8 5.00 125.0 7.306 104 80 120

Sample ID: <b>1901731-001EMSD</b>	Client ID: <b>NCVE-1</b>	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388571</b>							
SampleType: <b>MSD</b>	TestCode: <b>Total Organic Carbon (TOC) by SM5310B</b>	BatchID: <b>R388571</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8689781</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Organic Carbon, Total

137.3 5.00 125.0 7.306 104 80 120 136.8 0.328 20

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R388582**

Sample ID: <b>MB-R388582</b>	Client ID:	Units: <b>Colonies/100ml</b>	Prep Date:	Run No: <b>388582</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Fecal Coliform (MF) SM9222D</b>	BatchID: <b>R388582</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8689933</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Fecal Coliform, (MF) BRL 2

Sample ID: <b>MB-R388582-2</b>	Client ID:	Units: <b>Colonies/100ml</b>	Prep Date:	Run No: <b>388582</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Fecal Coliform (MF) SM9222D</b>	BatchID: <b>R388582</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8689940</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Fecal Coliform, (MF) BRL 2

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R388600**

Sample ID: <b>MB-R388600</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388600</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R388600</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690231</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand      BRL                      10.0

Sample ID: <b>LCS-R388600</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388600</b>							
SampleType: <b>LCS</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R388600</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690232</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand      522.0                      10.0                      500.0                      104                      90                      110

Sample ID: <b>1901355-001DMS</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388600</b>							
SampleType: <b>MS</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R388600</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690249</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand      344.9                      12.5                      375.0                      44.95                      80.0                      90                      110                      S

Sample ID: <b>1901355-001DMSD</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388600</b>							
SampleType: <b>MSD</b>	TestCode: <b>Chemical Oxygen Demand (COD) E410.4</b>	BatchID: <b>R388600</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690252</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chemical Oxygen Demand      353.0                      12.5                      375.0                      44.95                      82.2                      90                      110                      344.9                      2.32                      30                      S

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R388603**

Sample ID: <b>MB-R388603</b>	Client ID:	Units: <b>MPN/100mL</b>	Prep Date:	Run No: <b>388603</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Total Coliform,E-coli SM9223B</b>	BatchID: <b>R388603</b>	Analysis Date: <b>01/09/2019</b>	Seq No: <b>8690403</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

E.coli                                      BRL                                      1

<b>Qualifiers:</b>	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

**Client:** Jacobs Engineering Group  
**Project Name:** Forsyth Watershed Services  
**Workorder:** 1901731

**ANALYTICAL QC SUMMARY REPORT**

**BatchID: R388606**

Sample ID: <b>MB-R388606</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388606</b>							
SampleType: <b>MBLK</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R388606</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690455</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)

BRL 3.00

Sample ID: <b>LCS-R388606</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388606</b>							
SampleType: <b>LCS</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R388606</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690456</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)

125.1 3.00 125.0 100 85 115

Sample ID: <b>1901738-001CDUP</b>	Client ID:	Units: <b>mg/L</b>	Prep Date:	Run No: <b>388606</b>							
SampleType: <b>DUP</b>	TestCode: <b>Alkalinity by SM2320B</b>	BatchID: <b>R388606</b>	Analysis Date: <b>01/10/2019</b>	Seq No: <b>8690460</b>							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Alkalinity, Total (As CaCO3)

181.8 3.00 182.0 0.110 30

<b>Qualifiers:</b>	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	