Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

July 08, 2009

Mr. Van Burbach
Joyce Engineering-Greensboro
2211 West Meadowview Rd
Boone Bldg, Suite 101
Greensboro, NC 27407

RE: Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

Dear Mr. Burbach:
Enclosed are the analytical results for sample(s) received by the laboratory on June 19, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kevin Godwin

kevin.godwin@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

Charlotte Certification IDs

West Virginia Certification #: 357
Virginia Certification #: 00213
Tennessee Certification #: 04010
South Carolina Drinking Water Cert. #: 990060003
South Carolina Certification #: 990060001
Pennsylvania Certification #: 68-00784
Connecticut Certification #: PH-0104
North Carolina Field Services Certification #: 5342
North Carolina Drinking Water Certification #: 37706
New Jersey Certification #: NC012
Louisiana/LELAP Certification #: 04034
Kentucky UST Certification #: 84
Florida/NELAP Certification #: E87627
North Carolina Wastewater Certification #: 12

Asheville Certification IDs

West Virginia Certification #: 356
Virginia Certification #: 00072
Connecticut Certification #: PH-0106
Florida/NELAP Certification #: E87648
Tennessee Certification #: 2980
South Carolina Certification #: 99030001
South Carolina Bioassay Certification #: 99030002
Pennsylvania Certification #: 68-03578
North Carolina Wastewater Certification #: 40
North Carolina Drinking Water Certification #: 37712
North Carolina Bioassay Certification #: 9
New Jersey Certification #: NC011
Massachusetts Certification #: M-NC030
Louisiana/LELAP Certification #: 03095

Eden Certification IDs

North Carolina Wastewater Certification #: 633
Virginia Drinking Water Certification #: 00424
North Carolina Drinking Water Certification #: 37738

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SAMPLE SUMMARY

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

Lab ID	Sample ID	Matrix	Date Collected	Date Received
9246966001	**9209-WW PIPE 01**	Water	06/18/09 15:12	06/19/09 13:50
9246966002	**9209-FIELD BLANK**	Water	06/18/09 15:50	06/19/09 13:50
9246966003	**9209-TRIP BLANK**	Water	06/18/09 00:00	06/19/09 13:50

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SAMPLE ANALYTE COUNT

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

Lab ID	Sample ID	Method	Analysts	Analytes Reported
9246966001	**9209-WW PIPE 01**	ASTM D516-90	JMW	1
		EPA 353.2	JDA	1
		EPA 365.1	SAP, TEE	2
		EPA 6010	EWS	15
		EPA 8260	MCK	51
		EPA 9040	LEP	1
		SM 5210B	SAJ	1
		SM 5220D	LEP	1
9246966002	**9209-FIELD BLANK**	ASTM D516-90	JMW	1
		EPA 353.2	JDA	1
		EPA 365.1	SAP, TEE	2
		EPA 6010	EWS	15
		EPA 8260	MCK	51
		EPA 9040	LEP	1
		SM 5210B	SAJ	1
		SM 5220D	LEP	1
9246966003	**9209-TRIP BLANK**	EPA 8260	MCK	51

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ANALYTICAL RESULTS

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

Sample: 9209-WW PIPE 01 **Lab ID: 9246966001** Collected: 06/18/09 15:12 Received: 06/19/09 13:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	**31.4**	ug/L	30.0	13.0	5	06/25/09 15:25	07/01/09 14:39	7440-36-0	
Arsenic	**110**	ug/L	50.0	13.5	5	06/25/09 15:25	07/01/09 14:39	7440-38-2	
Barium	**204J**	ug/L	500	1.0	5	06/25/09 15:25	07/01/09 14:39	7440-39-3	
Beryllium	ND	ug/L	5.0	0.50	5	06/25/09 15:25	07/01/09 14:39	7440-41-7	
Cadmium	ND	ug/L	5.0	2.5	5	06/25/09 15:25	07/01/09 14:39	7440-43-9	
Chromium	**172**	ug/L	50.0	2.0	5	06/25/09 15:25	07/01/09 14:39	7440-47-3	
Cobalt	**101**	ug/L	50.0	3.0	5	06/25/09 15:25	07/01/09 14:39	7440-48-4	Z2
Copper	**22.2J**	ug/L	50.0	1.5	5	06/25/09 15:25	07/01/09 14:39	7440-50-8	
Lead	ND	ug/L	50.0	20.0	5	06/25/09 15:25	07/01/09 14:39	7439-92-1	
Nickel	**154J**	ug/L	250	8.5	5	06/25/09 15:25	07/01/09 14:39	7440-02-0	
Selenium	ND	ug/L	50.0	19.0	5	06/25/09 15:25	07/01/09 14:39	7782-49-2	
Silver	**2.0J**	ug/L	50.0	0.50	5	06/25/09 15:25	07/01/09 14:39	7440-22-4	Z2
Thallium	ND	ug/L	27.5	15.0	5	06/25/09 15:25	07/01/09 14:39	7440-28-0	
Vanadium	**83.0J**	ug/L	125	1.0	5	06/25/09 15:25	07/01/09 14:39	7440-62-2	
Zinc	**785**	ug/L	50.0	2.0	5	06/25/09 15:25	07/01/09 14:39	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	**17000**	ug/L	5000	108	50		06/25/09 01:46	67-64-1	F1,pH
Acrylonitrile	ND	ug/L	10000	94.0	50		06/25/09 01:46	107-13-1	
Benzene	ND	ug/L	50.0	12.5	50		06/25/09 01:46	71-43-2	
Bromochloromethane	ND	ug/L	150	8.5	50		06/25/09 01:46	74-97-5	
Bromodichloromethane	ND	ug/L	50.0	9.0	50		06/25/09 01:46	75-27-4	
Bromoform	ND	ug/L	150	13.0	50		06/25/09 01:46	75-25-2	
Bromomethane	ND	ug/L	500	14.5	50		06/25/09 01:46	74-83-9	
2-Butanone (MEK)	**16600**	ug/L	5000	48.0	50		06/25/09 01:46	78-93-3	
Carbon disulfide	ND	ug/L	5000	57.5	50		06/25/09 01:46	75-15-0	
Carbon tetrachloride	ND	ug/L	50.0	12.5	50		06/25/09 01:46	56-23-5	
Chlorobenzene	ND	ug/L	150	11.5	50		06/25/09 01:46	108-90-7	
Chloroethane	ND	ug/L	500	27.0	50		06/25/09 01:46	75-00-3	
Chloroform	ND	ug/L	250	7.0	50		06/25/09 01:46	67-66-3	
Chloromethane	ND	ug/L	50.0	5.5	50		06/25/09 01:46	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	650	126	50		06/25/09 01:46	96-12-8	
Dibromochloromethane	ND	ug/L	150	10.5	50		06/25/09 01:46	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	50.0	13.5	50		06/25/09 01:46	106-93-4	
Dibromomethane	ND	ug/L	500	10.5	50		06/25/09 01:46	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	250	15.0	50		06/25/09 01:46	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	50.0	16.5	50		06/25/09 01:46	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	5000	50.0	50		06/25/09 01:46	110-57-6	
1,1-Dichloroethane	ND	ug/L	250	16.0	50		06/25/09 01:46	75-34-3	
1,2-Dichloroethane	ND	ug/L	50.0	6.0	50		06/25/09 01:46	107-06-2	
1,1-Dichloroethene	ND	ug/L	250	28.0	50		06/25/09 01:46	75-35-4	
cis-1,2-Dichloroethene	**16.0J**	ug/L	250	9.5	50		06/25/09 01:46	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	250	24.5	50		06/25/09 01:46	156-60-5	
1,2-Dichloropropane	ND	ug/L	50.0	13.5	50		06/25/09 01:46	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	50.0	6.5	50		06/25/09 01:46	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	50.0	13.0	50		06/25/09 01:46	10061-02-6	

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ANALYTICAL RESULTS

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

Sample: 9209-WW PIPE 01 **Lab ID: 9246966001** Collected: 06/18/09 15:12 Received: 06/19/09 13:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Ethylbenzene	**29.1J**	ug/L	50.0	15.0	50		06/25/09 01:46	100-41-4	
Iodomethane	ND	ug/L	500	16.0	50		06/25/09 01:46	74-88-4	
Methylene Chloride	ND	ug/L	100	48.5	50		06/25/09 01:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	**252J**	ug/L	5000	16.5	50		06/25/09 01:46	108-10-1	
Styrene	ND	ug/L	50.0	13.0	50		06/25/09 01:46	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	250	16.5	50		06/25/09 01:46	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	150	20.0	50		06/25/09 01:46	79-34-5	
Tetrachloroethene	ND	ug/L	50.0	23.0	50		06/25/09 01:46	127-18-4	
Toluene	**131**	ug/L	50.0	13.0	50		06/25/09 01:46	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	50.0	24.0	50		06/25/09 01:46	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	50.0	14.5	50		06/25/09 01:46	79-00-5	
Trichloroethene	ND	ug/L	50.0	23.5	50		06/25/09 01:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	50.0	10.0	50		06/25/09 01:46	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	50.0	20.5	50		06/25/09 01:46	96-18-4	
Vinyl acetate	ND	ug/L	2500	17.5	50		06/25/09 01:46	108-05-4	
Vinyl chloride	ND	ug/L	50.0	31.0	50		06/25/09 01:46	75-01-4	
m&p-Xylene	**55.9J**	ug/L	100	33.0	50		06/25/09 01:46	1330-20-7	
o-Xylene	**20.8J**	ug/L	50.0	11.5	50		06/25/09 01:46	95-47-6	
4-Bromofluorobenzene (S)	102	%	87-109		50		06/25/09 01:46	460-00-4	
Dibromofluoromethane (S)	98	%	85-115		50		06/25/09 01:46	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	79-120		50		06/25/09 01:46	17060-07-0	
Toluene-d8 (S)	98	%	70-120		50		06/25/09 01:46	2037-26-5	
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**32.5**	mg/L	2.0	2.0	1	06/20/09 13:10	06/25/09 09:04		
9040 pH	Analytical Method: EPA 9040								
pH	**7.4**	Std. Units	0.10	0.10	1		06/24/09 11:37		H1,H6
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.10	0.10	1		06/20/09 12:05		
365.1 Phosphorus, Total	Analytical Method: EPA 365.1								
Phosphorus	**1.3**	mg/L	0.10	0.10	1		06/30/09 20:57	7723-14-0	
365.1 Orthophosphate as P	Analytical Method: EPA 365.1								
Orthophosphate as P	**2.2**	mg/L	0.050	0.050	1		06/19/09 20:56		
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**7740**	mg/L	200	200	2		06/25/09 09:50		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90								
Sulfate	ND	mg/L	5.0	5.0	1		07/02/09 09:57	14808-79-8	

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ANALYTICAL RESULTS

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

Sample: 9209-FIELD BLANK **Lab ID: 9246966002** Collected: 06/18/09 15:50 Received: 06/19/09 13:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 ICP Groundwater	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Antimony	ND	ug/L	6.0	2.6	1	06/25/09 15:25	06/30/09 23:09	7440-36-0	
Arsenic	ND	ug/L	10.0	2.7	1	06/25/09 15:25	06/30/09 23:09	7440-38-2	
Barium	**14.3J**	ug/L	100	0.20	1	06/25/09 15:25	06/30/09 23:09	7440-39-3	
Beryllium	ND	ug/L	1.0	0.10	1	06/25/09 15:25	06/30/09 23:09	7440-41-7	
Cadmium	ND	ug/L	1.0	0.50	1	06/25/09 15:25	06/30/09 23:09	7440-43-9	
Chromium	**0.41J**	ug/L	10.0	0.40	1	06/25/09 15:25	06/30/09 23:09	7440-47-3	
Cobalt	**14.6**	ug/L	10.0	0.60	1	06/25/09 15:25	06/30/09 23:09	7440-48-4	Z2
Copper	ND	ug/L	10.0	0.30	1	06/25/09 15:25	06/30/09 23:09	7440-50-8	
Lead	ND	ug/L	10.0	4.0	1	06/25/09 15:25	06/30/09 23:09	7439-92-1	
Nickel	**1.8J**	ug/L	50.0	1.7	1	06/25/09 15:25	06/30/09 23:09	7440-02-0	
Selenium	ND	ug/L	10.0	3.8	1	06/25/09 15:25	06/30/09 23:09	7782-49-2	
Silver	**0.26J**	ug/L	10.0	0.10	1	06/25/09 15:25	06/30/09 23:09	7440-22-4	Z2
Thallium	ND	ug/L	5.5	3.0	1	06/25/09 15:25	06/30/09 23:09	7440-28-0	
Vanadium	**0.61J**	ug/L	25.0	0.20	1	06/25/09 15:25	06/30/09 23:09	7440-62-2	
Zinc	ND	ug/L	10.0	0.40	1	06/25/09 15:25	06/30/09 23:09	7440-66-6	
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		06/24/09 17:53	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		06/24/09 17:53	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		06/24/09 17:53	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		06/24/09 17:53	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		06/24/09 17:53	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		06/24/09 17:53	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		06/24/09 17:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		06/24/09 17:53	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		06/24/09 17:53	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		06/24/09 17:53	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		06/24/09 17:53	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		06/24/09 17:53	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		06/24/09 17:53	67-66-3	
Chloromethane	**0.11J**	ug/L	1.0	0.11	1		06/24/09 17:53	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		06/24/09 17:53	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		06/24/09 17:53	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		06/24/09 17:53	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		06/24/09 17:53	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		06/24/09 17:53	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		06/24/09 17:53	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		06/24/09 17:53	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		06/24/09 17:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		06/24/09 17:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		06/24/09 17:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		06/24/09 17:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		06/24/09 17:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		06/24/09 17:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		06/24/09 17:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		06/24/09 17:53	10061-02-6	

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ANALYTICAL RESULTS

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

Sample: 9209-FIELD BLANK **Lab ID: 9246966002** Collected: 06/18/09 15:50 Received: 06/19/09 13:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Ethylbenzene	ND	ug/L	1.0	0.30	1		06/24/09 17:53	100-41-4	
Iodomethane	ND	ug/L	10.0	0.32	1		06/24/09 17:53	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		06/24/09 17:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		06/24/09 17:53	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		06/24/09 17:53	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		06/24/09 17:53	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		06/24/09 17:53	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		06/24/09 17:53	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		06/24/09 17:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		06/24/09 17:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		06/24/09 17:53	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		06/24/09 17:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		06/24/09 17:53	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		06/24/09 17:53	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		06/24/09 17:53	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		06/24/09 17:53	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		06/24/09 17:53	1330-20-7	
o-Xylene	ND	ug/L	1.0	0.23	1		06/24/09 17:53	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		06/24/09 17:53	460-00-4	
Dibromofluoromethane (S)	97	%	85-115		1		06/24/09 17:53	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		1		06/24/09 17:53	17060-07-0	
Toluene-d8 (S)	96	%	70-120		1		06/24/09 17:53	2037-26-5	
5210B BOD, 5 day	Analytical Method: SM 5210B								
BOD, 5 day	**10.3**	mg/L	2.0	2.0	1	06/20/09 13:10	06/25/09 09:04		
9040 pH	Analytical Method: EPA 9040								
pH	**7.3**	Std. Units	0.10	0.10	1		06/24/09 11:37		H1,H6
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	mg/L	0.10	0.10	1		06/20/09 12:07		
365.1 Phosphorus, Total	Analytical Method: EPA 365.1								
Phosphorus	ND	mg/L	0.10	0.10	1		06/30/09 20:58	7723-14-0	
365.1 Orthophosphate as P	Analytical Method: EPA 365.1								
Orthophosphate as P	ND	mg/L	0.050	0.050	1		06/19/09 20:56		M0
5220D COD	Analytical Method: SM 5220D								
Chemical Oxygen Demand	**7240**	mg/L	200	200	2		06/25/09 09:50		
ASTM D516-90 Sulfate Water	Analytical Method: ASTM D516-90								
Sulfate	**8.5**	mg/L	5.0	5.0	1		07/02/09 09:57	14808-79-8	

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ANALYTICAL RESULTS

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

Sample: 9209-TRIP BLANK **Lab ID: 9246966003** Collected: 06/18/09 00:00 Received: 06/19/09 13:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
Acetone	ND	ug/L	100	2.2	1		06/24/09 18:16	67-64-1	
Acrylonitrile	ND	ug/L	200	1.9	1		06/24/09 18:16	107-13-1	
Benzene	ND	ug/L	1.0	0.25	1		06/24/09 18:16	71-43-2	
Bromochloromethane	ND	ug/L	3.0	0.17	1		06/24/09 18:16	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	0.18	1		06/24/09 18:16	75-27-4	
Bromoform	ND	ug/L	3.0	0.26	1		06/24/09 18:16	75-25-2	
Bromomethane	ND	ug/L	10.0	0.29	1		06/24/09 18:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	100	0.96	1		06/24/09 18:16	78-93-3	
Carbon disulfide	ND	ug/L	100	1.2	1		06/24/09 18:16	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	0.25	1		06/24/09 18:16	56-23-5	
Chlorobenzene	ND	ug/L	3.0	0.23	1		06/24/09 18:16	108-90-7	
Chloroethane	ND	ug/L	10.0	0.54	1		06/24/09 18:16	75-00-3	
Chloroform	ND	ug/L	5.0	0.14	1		06/24/09 18:16	67-66-3	
Chloromethane	ND	ug/L	1.0	0.11	1		06/24/09 18:16	74-87-3	
1,2-Dibromo-3-chloropropane	ND	ug/L	13.0	2.5	1		06/24/09 18:16	96-12-8	
Dibromochloromethane	ND	ug/L	3.0	0.21	1		06/24/09 18:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	0.27	1		06/24/09 18:16	106-93-4	
Dibromomethane	ND	ug/L	10.0	0.21	1		06/24/09 18:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	5.0	0.30	1		06/24/09 18:16	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	0.33	1		06/24/09 18:16	106-46-7	
trans-1,4-Dichloro-2-butene	ND	ug/L	100	1.0	1		06/24/09 18:16	110-57-6	
1,1-Dichloroethane	ND	ug/L	5.0	0.32	1		06/24/09 18:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	0.12	1		06/24/09 18:16	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	0.56	1		06/24/09 18:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	0.19	1		06/24/09 18:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	0.49	1		06/24/09 18:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	1.0	0.27	1		06/24/09 18:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	1.0	0.13	1		06/24/09 18:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	0.26	1		06/24/09 18:16	10061-02-6	
Ethylbenzene	ND	ug/L	1.0	0.30	1		06/24/09 18:16	100-41-4	
Iodomethane	ND	ug/L	10.0	0.32	1		06/24/09 18:16	74-88-4	
Methylene Chloride	ND	ug/L	2.0	0.97	1		06/24/09 18:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	100	0.33	1		06/24/09 18:16	108-10-1	
Styrene	ND	ug/L	1.0	0.26	1		06/24/09 18:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	0.33	1		06/24/09 18:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	3.0	0.40	1		06/24/09 18:16	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	0.46	1		06/24/09 18:16	127-18-4	
Toluene	ND	ug/L	1.0	0.26	1		06/24/09 18:16	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	1.0	0.48	1		06/24/09 18:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	0.29	1		06/24/09 18:16	79-00-5	
Trichloroethene	ND	ug/L	1.0	0.47	1		06/24/09 18:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	0.20	1		06/24/09 18:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	0.41	1		06/24/09 18:16	96-18-4	
Vinyl acetate	ND	ug/L	50.0	0.35	1		06/24/09 18:16	108-05-4	
Vinyl chloride	ND	ug/L	1.0	0.62	1		06/24/09 18:16	75-01-4	
m&p-Xylene	ND	ug/L	2.0	0.66	1		06/24/09 18:16	1330-20-7	

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ANALYTICAL RESULTS

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

Sample: 9209-TRIP BLANK **Lab ID: 9246966003** Collected: 06/18/09 00:00 Received: 06/19/09 13:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Low Level	Analytical Method: EPA 8260								
o-Xylene	ND	ug/L	1.0	0.23	1		06/24/09 18:16	95-47-6	
4-Bromofluorobenzene (S)	101	%	87-109		1		06/24/09 18:16	460-00-4	
Dibromofluoromethane (S)	96	%	85-115		1		06/24/09 18:16	1868-53-7	
1,2-Dichloroethane-d4 (S)	100	%	79-120		1		06/24/09 18:16	17060-07-0	
Toluene-d8 (S)	97	%	70-120		1		06/24/09 18:16	2037-26-5	

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QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

QC Batch: WETA/5321
Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2
Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 9246966001, 9246966002

METHOD BLANK: 297777
Matrix: Water
Associated Lab Samples: 9246966001, 9246966002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	06/20/09 11:42	

LABORATORY CONTROL SAMPLE: 297778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	5	5.2	104	90-110	

MATRIX SPIKE SAMPLE: 297779

Parameter	Units	9246997001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	14.8	5	19.2	87	90-110	M0

MATRIX SPIKE SAMPLE: 297781

Parameter	Units	9246915002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	0.79	5	5.7	98	90-110	

SAMPLE DUPLICATE: 297780

Parameter	Units	9246915003 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	2.6	2.6	2	20	

SAMPLE DUPLICATE: 297782

Parameter	Units	9246973002 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate	mg/L	6.6	6.5	.8	20	

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QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

QC Batch: WETA/5376
QC Batch Method: ASTM D516-90
Analysis Method: ASTM D516-90
Analysis Description: ASTM D516-90 Sulfate Water
Associated Lab Samples: 9246966001, 9246966002

METHOD BLANK: 301664
Matrix: Water
Associated Lab Samples: 9246966001, 9246966002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	5.0	07/02/09 08:43	

LABORATORY CONTROL SAMPLE: 301665

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.9	99	90-110	

MATRIX SPIKE SAMPLE: 301666

Parameter	Units	9246892003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	259	20	264	23	75-125	M0

MATRIX SPIKE SAMPLE: 301667

Parameter	Units	9246892004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	252	20	260	39	75-125	M0

SAMPLE DUPLICATE: 301668

Parameter	Units	9246892005 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	250	252	.6	20	

SAMPLE DUPLICATE: 301669

Parameter	Units	9246892006 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfate	mg/L	248	246	.7	20	

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QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

QC Batch: WETA/5320
Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1
Analysis Description: 365.1 Orthophosphate as P
Associated Lab Samples: 9246966001, 9246966002

METHOD BLANK: 297768
Matrix: Water
Associated Lab Samples: 9246966001, 9246966002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.050	06/19/09 20:56	

LABORATORY CONTROL SAMPLE: 297769

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	.5	0.52	104	90-110	

MATRIX SPIKE SAMPLE: 297771

Parameter	Units	9246966002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	ND	.5	0.75	141	90-110	M0

SAMPLE DUPLICATE: 297770

Parameter	Units	9246966001 Result	Dup Result	RPD	Max RPD	Qualifiers
Orthophosphate as P	mg/L	2.2	2.2	.2	20	

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QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

QC Batch: WET/8749
QC Batch Method: SM 5210B
Analysis Method: SM 5210B
Analysis Description: 5210B BOD, 5 day
Associated Lab Samples: 9246966001, 9246966002

METHOD BLANK: 297797
Matrix: Water
Associated Lab Samples: 9246966001, 9246966002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	06/25/09 09:04	

LABORATORY CONTROL SAMPLE: 297798

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	178	90	84-115	

SAMPLE DUPLICATE: 297799

Parameter	Units	9246966001 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	mg/L	32.5	33.1	2	20	

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QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

QC Batch: WET/8771
Analysis Method: EPA 9040
QC Batch Method: EPA 9040
Analysis Description: 9040 pH
Associated Lab Samples: 9246966001, 9246966002

SAMPLE DUPLICATE: 298626

Parameter	Units	9246863002 Result	Dup Result	RPD	Max RPD	Qualifiers
pH	Std. Units	7.4	7.4	0	20	H6

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QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

QC Batch: MSV/7453 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 9246966001, 9246966002, 9246966003

METHOD BLANK: 299215 Matrix: Water
Associated Lab Samples: 9246966001, 9246966002, 9246966003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	06/24/09 17:29	
1,1,1-Trichloroethane	ug/L	ND	1.0	06/24/09 17:29	
1,1,2,2-Tetrachloroethane	ug/L	ND	3.0	06/24/09 17:29	
1,1,2-Trichloroethane	ug/L	ND	1.0	06/24/09 17:29	
1,1-Dichloroethane	ug/L	ND	5.0	06/24/09 17:29	
1,1-Dichloroethene	ug/L	ND	5.0	06/24/09 17:29	
1,2,3-Trichloropropane	ug/L	ND	1.0	06/24/09 17:29	
1,2-Dibromo-3-chloropropane	ug/L	ND	13.0	06/24/09 17:29	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	06/24/09 17:29	
1,2-Dichlorobenzene	ug/L	ND	5.0	06/24/09 17:29	
1,2-Dichloroethane	ug/L	ND	1.0	06/24/09 17:29	
1,2-Dichloropropane	ug/L	ND	1.0	06/24/09 17:29	
1,4-Dichlorobenzene	ug/L	ND	1.0	06/24/09 17:29	
2-Butanone (MEK)	ug/L	ND	100	06/24/09 17:29	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	06/24/09 17:29	
Acetone	ug/L	ND	100	06/24/09 17:29	
Acrylonitrile	ug/L	ND	200	06/24/09 17:29	
Benzene	ug/L	ND	1.0	06/24/09 17:29	
Bromochloromethane	ug/L	ND	3.0	06/24/09 17:29	
Bromodichloromethane	ug/L	ND	1.0	06/24/09 17:29	
Bromoform	ug/L	ND	3.0	06/24/09 17:29	
Bromomethane	ug/L	ND	10.0	06/24/09 17:29	
Carbon disulfide	ug/L	ND	100	06/24/09 17:29	
Carbon tetrachloride	ug/L	ND	1.0	06/24/09 17:29	
Chlorobenzene	ug/L	ND	3.0	06/24/09 17:29	
Chloroethane	ug/L	ND	10.0	06/24/09 17:29	
Chloroform	ug/L	ND	5.0	06/24/09 17:29	
Chloromethane	ug/L	ND	1.0	06/24/09 17:29	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/24/09 17:29	
cis-1,3-Dichloropropene	ug/L	ND	1.0	06/24/09 17:29	
Dibromochloromethane	ug/L	ND	3.0	06/24/09 17:29	
Dibromomethane	ug/L	ND	10.0	06/24/09 17:29	
Ethylbenzene	ug/L	ND	1.0	06/24/09 17:29	
Iodomethane	ug/L	ND	10.0	06/24/09 17:29	
m&p-Xylene	ug/L	ND	2.0	06/24/09 17:29	
Methylene Chloride	ug/L	9.1	2.0	06/24/09 17:29	C9
o-Xylene	ug/L	ND	1.0	06/24/09 17:29	
Styrene	ug/L	ND	1.0	06/24/09 17:29	
Tetrachloroethene	ug/L	ND	1.0	06/24/09 17:29	
Toluene	ug/L	ND	1.0	06/24/09 17:29	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/24/09 17:29	
trans-1,3-Dichloropropene	ug/L	ND	1.0	06/24/09 17:29	
trans-1,4-Dichloro-2-butene	ug/L	ND	100	06/24/09 17:29	

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QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

METHOD BLANK: 299215 Matrix: Water

Associated Lab Samples: 9246966001, 9246966002, 9246966003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Trichloroethene	ug/L	ND	1.0	06/24/09 17:29	
Trichlorofluoromethane	ug/L	ND	1.0	06/24/09 17:29	
Vinyl acetate	ug/L	ND	50.0	06/24/09 17:29	
Vinyl chloride	ug/L	ND	1.0	06/24/09 17:29	
1,2-Dichloroethane-d4 (S)	%	100	79-120	06/24/09 17:29	
4-Bromofluorobenzene (S)	%	100	87-109	06/24/09 17:29	
Dibromofluoromethane (S)	%	96	85-115	06/24/09 17:29	
Toluene-d8 (S)	%	97	70-120	06/24/09 17:29	

LABORATORY CONTROL SAMPLE: 299216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	53.9	108	83-125	
1,1,1-Trichloroethane	ug/L	50	55.2	110	80-129	
1,1,2,2-Tetrachloroethane	ug/L	50	47.8	96	73-127	
1,1,2-Trichloroethane	ug/L	50	50.6	101	77-123	
1,1-Dichloroethane	ug/L	50	51.8	104	76-129	
1,1-Dichloroethene	ug/L	50	55.5	111	78-146	
1,2,3-Trichloropropane	ug/L	50	49.5	99	72-125	
1,2-Dibromo-3-chloropropane	ug/L	50	43.3	87	65-128	
1,2-Dibromoethane (EDB)	ug/L	50	52.1	104	81-125	
1,2-Dichlorobenzene	ug/L	50	50.2	100	82-126	
1,2-Dichloroethane	ug/L	50	50.0	100	72-126	
1,2-Dichloropropane	ug/L	50	49.0	98	80-127	
1,4-Dichlorobenzene	ug/L	50	53.0	106	79-125	
2-Butanone (MEK)	ug/L	100	90.1J	90	50-134	
4-Methyl-2-pentanone (MIBK)	ug/L	100	91.8J	92	70-131	
Acetone	ug/L	100	86.9J	87	50-146	
Acrylonitrile	ug/L	250	246	98	66-124	
Benzene	ug/L	50	49.8	100	78-128	
Bromochloromethane	ug/L	50	48.1	96	73-124	
Bromodichloromethane	ug/L	50	51.2	102	81-125	
Bromoform	ug/L	50	45.6	91	71-125	
Bromomethane	ug/L	50	66.6	133	50-150	
Carbon disulfide	ug/L	50	49.5J	99	54-150	
Carbon tetrachloride	ug/L	50	56.3	113	81-137	
Chlorobenzene	ug/L	50	48.1	96	82-126	
Chloroethane	ug/L	50	53.7	107	69-140	
Chloroform	ug/L	50	51.6	103	77-129	
Chloromethane	ug/L	50	49.8	100	54-139	
cis-1,2-Dichloroethene	ug/L	50	48.2	96	76-133	
cis-1,3-Dichloropropene	ug/L	50	50.7	101	76-127	
Dibromochloromethane	ug/L	50	51.7	103	77-125	
Dibromomethane	ug/L	50	51.6	103	77-125	
Ethylbenzene	ug/L	50	51.7	103	80-127	

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(704)875-9092

QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

LABORATORY CONTROL SAMPLE: 299216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iodomethane	ug/L	100	113	113	65-172	
m&p-Xylene	ug/L	100	106	106	82-127	
Methylene Chloride	ug/L	50	40.5	81	67-133	
o-Xylene	ug/L	50	51.3	103	83-124	
Styrene	ug/L	50	53.8	108	80-130	
Tetrachloroethene	ug/L	50	56.8	114	78-128	
Toluene	ug/L	50	49.8	100	76-126	
trans-1,2-Dichloroethene	ug/L	50	49.6	99	78-134	
trans-1,3-Dichloropropene	ug/L	50	52.3	105	75-125	
trans-1,4-Dichloro-2-butene	ug/L	50	44.1J	88	51-140	
Trichloroethene	ug/L	50	52.3	105	79-127	
Trichlorofluoromethane	ug/L	50	53.7	107	76-148	
Vinyl acetate	ug/L	100	97.6	98	50-150	
Vinyl chloride	ug/L	50	51.0	102	67-143	
1,2-Dichloroethane-d4 (S)	%			97	79-120	
4-Bromofluorobenzene (S)	%			103	87-109	
Dibromofluoromethane (S)	%			97	85-115	
Toluene-d8 (S)	%			98	70-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 299217 299218

Parameter	Units	9246946006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1-Dichloroethene	ug/L	ND	50	50	61.8	59.5	124	119	60-150	4	30	
Benzene	ug/L	ND	50	50	53.4	52.3	106	104	74-136	2	30	
Chlorobenzene	ug/L	ND	50	50	51.5	50.8	103	102	79-135	1	30	
Toluene	ug/L	ND	50	50	52.5	51.2	105	102	73-131	2	30	
Trichloroethene	ug/L	ND	50	50	56.0	53.9	112	108	73-131	4	30	
1,2-Dichloroethane-d4 (S)	%						101	102	79-120			
4-Bromofluorobenzene (S)	%						100	101	87-109			
Dibromofluoromethane (S)	%						96	96	85-115			
Toluene-d8 (S)	%						95	95	70-120			

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(704)875-9092

QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

QC Batch: WETA/5341 | Analysis Method: SM 5220D
QC Batch Method: SM 5220D | Analysis Description: 5220D COD
Associated Lab Samples: 9246966001, 9246966002

METHOD BLANK: 298926 | Matrix: Water
Associated Lab Samples: 9246966001, 9246966002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chemical Oxygen Demand	mg/L	ND	25.0	06/25/09 09:50	

LABORATORY CONTROL SAMPLE: 298927

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	750	693	92	90-110	

MATRIX SPIKE SAMPLE: 298928

Parameter	Units	9246908001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	3770	3000	6850	103	75-125	

MATRIX SPIKE SAMPLE: 298942

Parameter	Units	9247052003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chemical Oxygen Demand	mg/L	ND	750	748	98	75-125	

SAMPLE DUPLICATE: 298941

Parameter	Units	9247042001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	2680	4950	59	20	R1

SAMPLE DUPLICATE: 298943

Parameter	Units	9247052004 Result	Dup Result	RPD	Max RPD	Qualifiers
Chemical Oxygen Demand	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

QC Batch: MPRP/4645
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET NC Groundwater
Associated Lab Samples: 9246966001, 9246966002

METHOD BLANK: 299591
Matrix: Water
Associated Lab Samples: 9246966001, 9246966002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Antimony	ug/L	ND	6.0	06/30/09 22:52	
Arsenic	ug/L	ND	10.0	06/30/09 22:52	
Barium	ug/L	ND	100	06/30/09 22:52	
Beryllium	ug/L	ND	1.0	06/30/09 22:52	
Cadmium	ug/L	ND	1.0	06/30/09 22:52	
Chromium	ug/L	ND	10.0	06/30/09 22:52	
Cobalt	ug/L	2.6J	10.0	06/30/09 22:52	
Copper	ug/L	ND	10.0	06/30/09 22:52	
Lead	ug/L	ND	10.0	06/30/09 22:52	
Nickel	ug/L	ND	50.0	06/30/09 22:52	
Selenium	ug/L	ND	10.0	06/30/09 22:52	
Silver	ug/L	0.19J	10.0	06/30/09 22:52	
Thallium	ug/L	ND	5.5	06/30/09 22:52	
Vanadium	ug/L	ND	25.0	06/30/09 22:52	
Zinc	ug/L	ND	10.0	06/30/09 22:52	

LABORATORY CONTROL SAMPLE: 299592

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	500	514	103	80-120	
Arsenic	ug/L	500	509	102	80-120	
Barium	ug/L	500	525	105	80-120	
Beryllium	ug/L	500	511	102	80-120	
Cadmium	ug/L	500	503	101	80-120	
Chromium	ug/L	500	507	101	80-120	
Cobalt	ug/L	500	525	105	80-120	
Copper	ug/L	500	527	105	80-120	
Lead	ug/L	500	515	103	80-120	
Nickel	ug/L	500	516	103	80-120	
Selenium	ug/L	500	508	102	80-120	
Silver	ug/L	250	252	101	80-120	
Thallium	ug/L	500	491	98	80-120	
Vanadium	ug/L	500	520	104	80-120	
Zinc	ug/L	500	505	101	80-120	

MATRIX SPIKE SAMPLE: 299595

Parameter	Units	9246993001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	ND	500	529	106	75-125	
Arsenic	ug/L	18.3	500	573	111	75-125	

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QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

MATRIX SPIKE SAMPLE: 299595

Parameter	Units	9246993001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Barium	ug/L	119	500	603	97	75-125	
Beryllium	ug/L	ND	500	509	102	75-125	
Cadmium	ug/L	1.6	500	497	99	75-125	
Chromium	ug/L	ND	500	508	101	75-125	
Cobalt	ug/L	60.7	500	544	97	75-125	
Copper	ug/L	ND	500	545	108	75-125	
Lead	ug/L	ND	500	463	93	75-125	
Nickel	ug/L	ND	500	490	98	75-125	
Selenium	ug/L	ND	500	541	108	75-125	
Silver	ug/L	ND	250	267	107	75-125	
Thallium	ug/L	ND	500	426	85	75-125	
Vanadium	ug/L	17.5	500	534	103	75-125	
Zinc	ug/L	17.5	500	558	108	75-125	

SAMPLE DUPLICATE: 299596

Parameter	Units	9246993002 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	ug/L	ND	ND		25	
Arsenic	ug/L	19.8	19.8	0	25	
Barium	ug/L	34.8	34.0J	2	25	
Beryllium	ug/L	ND	ND		25	
Cadmium	ug/L	ND	ND		25	
Chromium	ug/L	9.0	8.8J	2	25	
Cobalt	ug/L	53.7	51.6	4	25	
Copper	ug/L	ND	1.4J		25	
Lead	ug/L	ND	ND		25	
Nickel	ug/L	ND	2.0J		25	
Selenium	ug/L	ND	ND		25	
Silver	ug/L	ND	0.34J		25	
Thallium	ug/L	ND	ND		25	
Vanadium	ug/L	11.3	11.4J	.9	25	
Zinc	ug/L	32.7	33.5	2	25	

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QUALITY CONTROL DATA

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

QC Batch: WETA/5356
Analysis Method: EPA 365.1
QC Batch Method: EPA 365.1
Analysis Description: 365.1 Phosphorus, Total
Associated Lab Samples: 9246966001, 9246966002

METHOD BLANK: 300399
Matrix: Water
Associated Lab Samples: 9246966001, 9246966002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.10	06/30/09 13:43	

LABORATORY CONTROL SAMPLE: 300400

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	1	1.0	102	90-110	

MATRIX SPIKE SAMPLE: 300401

Parameter	Units	9247335001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	2.7	1	3.4	70	90-110	M0

MATRIX SPIKE SAMPLE: 300402

Parameter	Units	9247335002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	1.6	1	2.3	78	90-110	M0

SAMPLE DUPLICATE: 300403

Parameter	Units	9247264001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	ND	ND		20	

SAMPLE DUPLICATE: 300404

Parameter	Units	9246854001 Result	Dup Result	RPD	Max RPD	Qualifiers
Phosphorus	mg/L	2.5	2.5	.4	20	

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QUALIFIERS

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

ANALYTE QUALIFIERS

C9	Common Laboratory Contaminant.
F1	The sample was analyzed at a dilution due to foaming of the sample in the purge vessel.
H1	Analysis conducted outside the EPA method holding time.
H6	Analysis initiated more than 15 minutes after sample collection.
M0	Matrix spike recovery was outside laboratory control limits.
R1	RPD value was outside control limits.
Z2	Analyte present in the associated method blank above the detection limit.
pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: N.WAKE-NC DENR 661.00.32
Pace Project No.: 9246966

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
9246966001	**9209-WW PIPE 01**	EPA 365.1	WETA/5320		
9246966002	**9209-FIELD BLANK**	EPA 365.1	WETA/5320		
9246966001	**9209-WW PIPE 01**	EPA 353.2	WETA/5321		
9246966002	**9209-FIELD BLANK**	EPA 353.2	WETA/5321		
9246966001	**9209-WW PIPE 01**	SM 5210B	WET/8749	SM 5210B	WET/8751
9246966002	**9209-FIELD BLANK**	SM 5210B	WET/8749	SM 5210B	WET/8751
9246966001	**9209-WW PIPE 01**	EPA 9040	WET/8771		
9246966002	**9209-FIELD BLANK**	EPA 9040	WET/8771		
9246966001	**9209-WW PIPE 01**	SM 5220D	WETA/5341		
9246966002	**9209-FIELD BLANK**	SM 5220D	WETA/5341		
9246966001	**9209-WW PIPE 01**	EPA 8260	MSV/7453		
9246966002	**9209-FIELD BLANK**	EPA 8260	MSV/7453		
9246966003	**9209-TRIP BLANK**	EPA 8260	MSV/7453		
9246966001	**9209-WW PIPE 01**	EPA 3010	MPRP/4645	EPA 6010	ICP/4319
9246966002	**9209-FIELD BLANK**	EPA 3010	MPRP/4645	EPA 6010	ICP/4319
9246966001	**9209-WW PIPE 01**	EPA 365.1	WETA/5356		
9246966002	**9209-FIELD BLANK**	EPA 365.1	WETA/5356		
9246966001	**9209-WW PIPE 01**	ASTM D516-90	WETA/5376		
9246966002	**9209-FIELD BLANK**	ASTM D516-90	WETA/5376		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1302223

Section A Required Client Information:

Company: Joyce Engineering
Address: 2211 W. Meadowview Rd
Greensboro, NC 27407
Email To: vburbach@joyceengineering
Phone: 336-323-0092 Fax: 336-323-0093
Requested Due Date/TAT: 10

Section B Required Project Information:

Report To: Van Burbach
Copy To:
Purchase Order No.:
Project Name: N. Wake - NC DENR
Project Number: 6661.00.32

Section C Invoice Information:

Attention: Lecia Jones
Company Name: JEI
Address: 1604 Ownby Ln, Richmond, VA
Pace Quote Reference:
Pace Project Manager: Kevin Godwin
Pace Profile #: 2327-8

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NC

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: 8260	Metals	BOD	COD	ortho-phosphate	sulfate	Nitrate	pH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	9209-WW Pipe 01	OT	C	6/17/09	15:12	6/18/09	15:12		6	X		X	X					X	X	X	X	X	X	X	X		9246966001
2	9209-Field Blank	W	G			6/18/09	15:50		6	X		X	X					X	X	X	X	X	X	X	X		002
3	9209-Trip Blank	W	G			—	-		2				X					X									003
4																											
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Metals: Sb, As, Ba, Be,	[signature] / JEI	6/19/09	10:41	[signature] pace cH	6/19/09	10:41				
Ca, Cr, Co, Cu, Pb, Ni,	[signature] pace cH	6-19-09	13:50	J Moore / Pace	6/19	1350	26	4	N	4
Se, Ag, Tl, V, Zn										
pH: 7.67										

client previously requested project be split into 2 reports KG 6/19/09

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Robert L. Winfield

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 06/19/09

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.