

Section 6

Sampling Data Results

August 16, 2001

Field Meter Calibration Sheet
Early Morning Sampling Team Data and Graph
Afternoon Sampling Team Results
Field Duplicate Check
Laboratory Custody Sheets
Laboratory Results
Individual Results of Laboratory Analysis
CBOD Calculations and BOD Lab Results
Ashuelot River Flow Results

August 23, 2001

Field Meter Calibration Sheet
Early Morning Sampling Team Data and Graph
Afternoon Sampling Team Results
Field Duplicate Check
Laboratory Custody Sheets
Laboratory Results
Individual Results of Laboratory Analysis
CBOD Calculations and BOD Lab Results
Ashuelot River Flow Results

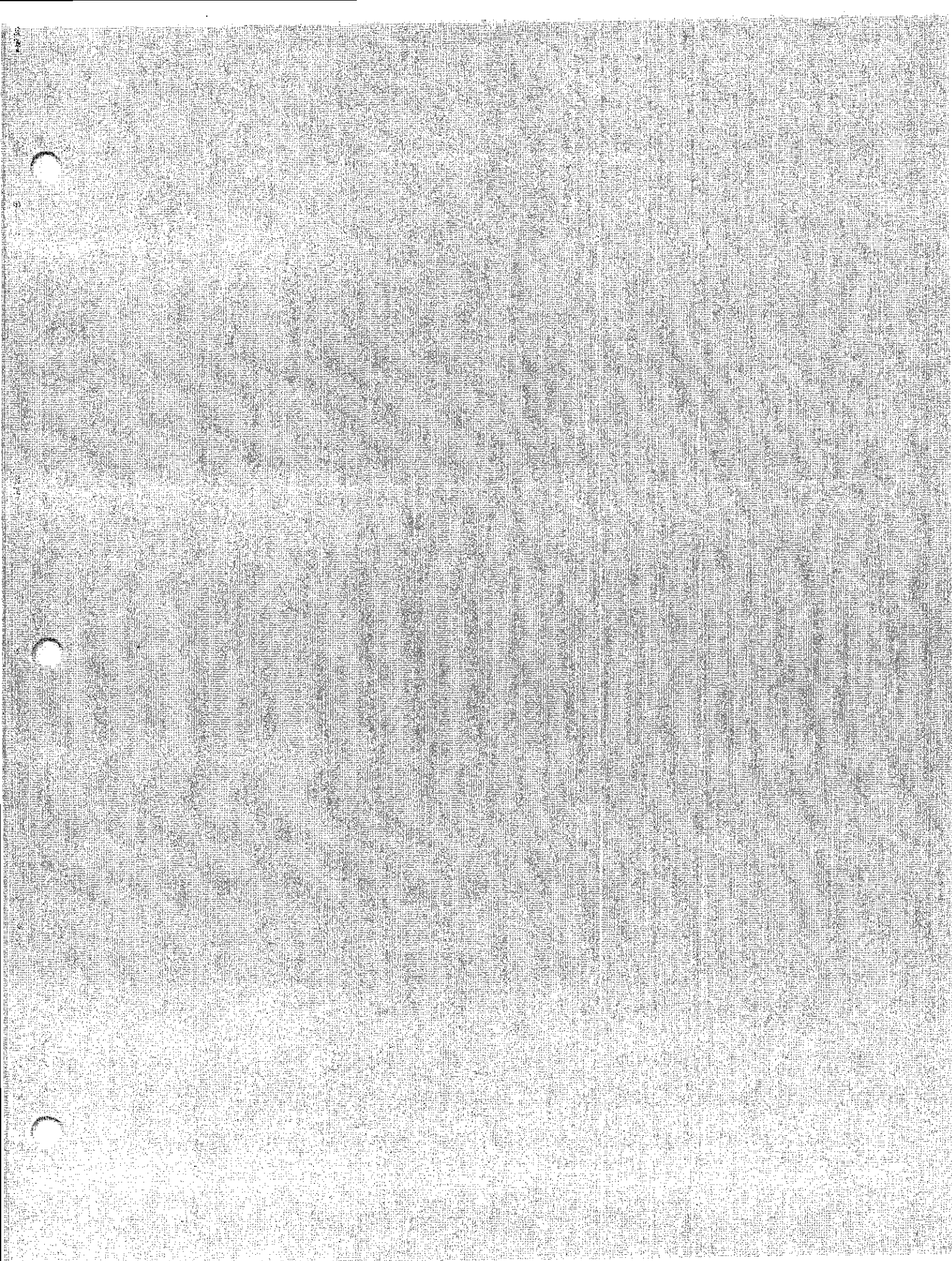
August 29, 2001

Field Meter Calibration Sheet
Early Morning Sampling Team Data and Graph
Afternoon Sampling Team Results
Field Duplicate Check
Laboratory Custody Sheets
Laboratory Results
Individual Results of Laboratory Analysis
CBOD Calculations and BOD Lab Results
Ashuelot River Flow Results

August 28, 2002

Meter Agreement Field Sheet
Early Morning Sampling Team Results
Afternoon Sampling Team Results
Field Duplicate and Replicate Results
Field Duplicate and Replicate Data Averages
Laboratory Custody Sheet
Laboratory Results
Individual Results of Laboratory Analysis
CBOD Calculations Worksheet
BOD Lab Results
Ashuelot River Flow Results

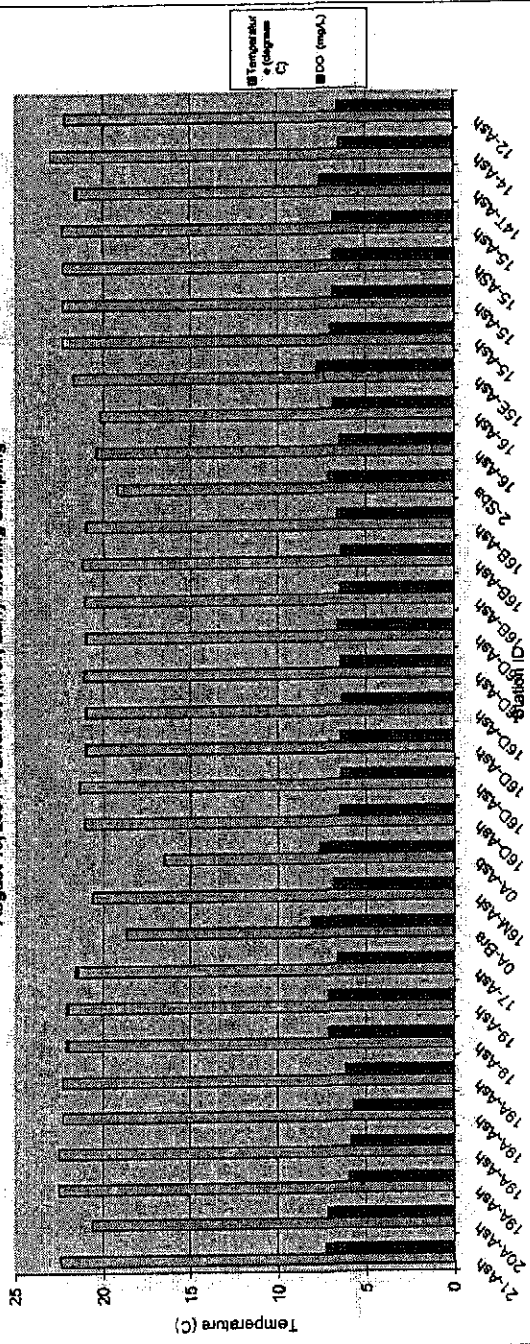
21-Ash, 17-Ash, OA-Bra, OA-Asb, 16D-Ash, 2-Sba, 14T-Ash, 12-Ash



ASHLEYOT RIVER #1601		Header Data COMPLETE	Sampling Team	ENST 1	ENST 2	ST 1	ST 2	ST 3	ST 4
			Team Members DO Temp Meter SN pH Meter SN Spec Cond. SN	PP & G Constock 01C0211AC	SD & GB 9460378 AB	PP & GB 01C0211AC 949921	MW & AB 9460378 AB 914456	KP & SL 91C0211AC 014091	G. Carbon & AD 01C0211AC 010732
DO/Temp Meter									
			Calibration Elevation (ft)	100	100	100	100	100	100
Calibration CHECK 1 (pre-sampling)			Time Temp (degrees C) % Sat reading (full Sat)	8:05 12.8 98.1	8:09 12.7 98.1				
Group Check (probes in same bucket)			Temp (degrees C) DO (mg/L)	12.7 6.78	12.7 6.61				
			Comments	After 3 sites, agreement check: DO SC 6.58mg/L	After 3 sites, agreement check: DO SC 6.58mg/L				
Calibration CHECK 2 (pre-sampling)			Time Temp (degrees C) % Sat reading (full Sat)	7:57 12.1 96.1	7:57 11.2 94.2				
Group Check (probes in same bucket)			Temp (degrees C) DO (mg/L)	11.9 6.57	11.9 6.87				
Recalibration and Group Check			Comments % Sat reading (full Sat) Temp (degrees C) mg/L	% Sat reading declined during recalibration					
Calibration CHECK 3 (pre-sampling)			Time Temp (degrees C) % Sat reading (full Sat)	9:33 11.7 100.2	9:33 11.6 100.5				
Group Check (probes in same bucket)			Temp (degrees C) DO (mg/L)	11.8 7.34	11.8 7.17				
			Comments						
Calibration CHECK 1 (pre-sampling)			Time Temp (degrees C) % Sat reading (full Sat)			9:45 101.5	9:45 101.2	9:45 92.8	9:45 92.3
Group Check (probes in same bucket)			Temp (degrees C) DO (mg/L)			22.9 6.65	22.8 6.78	22.9 6.2	22.9 6.13
			Comments						
Calibration CHECK 2 (pre-sampling)			Time Temp (degrees C) % Sat reading (full Sat)			11:40 28.7 91.7	11:40 27.2 91.8	11:40 25.8 96.1	11:40 27.9 96.7
Group Check (probes in same bucket)			Temp (degrees C) DO (mg/L)			22.7 7.64	22.8 7.34	22.8 8.05	22.8 7.97
Recalibration and Group Check			Comments % Sat reading (full Sat) Temp (degrees C) mg/L			95 22.8 8	95.1 22.7 8.78	101 22.7 7.98	98.2 22.7 7.97
Calibration CHECK 3 (pre-sampling)			Time Temp (degrees C) % Sat reading (full Sat)			14:39 29.2 98.2	14:39 32.2 98.2	14:39 30.7 98	14:39 31.9 97.9
Group Check (probes in same bucket)			Temp (degrees C) DO (mg/L)			25.3 8.11	25.3 7.16	25.7 7.38	25.8 7.2
			Comments						
pH Meter									
			Time Slope (%)			8:50 97.6	8:50 96.7	8:50 99.6	8:50 95.5
Calibration 1 (Pre-sampling)			pH reading using 4.0 buffer pH Group Check (all probes in one bucket) Comments			6.01 6.71	6.11 6.84	6.12 6.57	6.07 6.84
			Time Slope (%)			11:54 98.9	11:54 97.3	11:54 100.8	11:54 98.1
Calibration 2 (mid-sampling)			pH reading using 4.0 buffer pH Group Check (all probes in one bucket) Comments			6.07 6.07	6.03 6.03	6.07 6.07	6.04 6.04
			Time Slope (%)			14:59 94.59	14:59 94.71	14:59 94.92	14:59 94.3
Calibration 3 (Post-sampling)			pH reading using 4.0 buffer pH Group Check (all probes in one bucket) Comments			6.12 6.12	6.11 6.11	6.12 6.12	6.07 6.07
Conductivity									
Calibration 1 (Pre-sampling)			NO DATA COLLECTED			NA	NA	NA	NA

Station	Sample ID	Sample Type	Depth of Measurement	Depth of Sample	Temperature (C)	DO (mg/L)	Notes
11-Ash	11-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
12-Ash	12-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
13-Ash	13-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
14-Ash	14-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
15-Ash	15-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
16-Ash	16-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
17-Ash	17-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
18-Ash	18-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
19-Ash	19-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
20-Ash	20-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
21-Ash	21-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
22-Ash	22-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
23-Ash	23-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
24-Ash	24-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
25-Ash	25-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
26-Ash	26-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
27-Ash	27-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
28-Ash	28-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
29-Ash	29-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
30-Ash	30-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
31-Ash	31-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
32-Ash	32-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
33-Ash	33-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
34-Ash	34-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
35-Ash	35-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
36-Ash	36-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
37-Ash	37-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
38-Ash	38-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
39-Ash	39-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
40-Ash	40-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
41-Ash	41-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
42-Ash	42-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
43-Ash	43-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
44-Ash	44-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
45-Ash	45-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
46-Ash	46-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
47-Ash	47-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
48-Ash	48-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
49-Ash	49-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
50-Ash	50-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
51-Ash	51-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
52-Ash	52-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
53-Ash	53-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
54-Ash	54-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
55-Ash	55-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
56-Ash	56-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
57-Ash	57-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
58-Ash	58-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
59-Ash	59-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
60-Ash	60-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
61-Ash	61-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
62-Ash	62-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
63-Ash	63-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
64-Ash	64-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
65-Ash	65-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
66-Ash	66-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
67-Ash	67-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
68-Ash	68-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
69-Ash	69-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
70-Ash	70-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
71-Ash	71-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
72-Ash	72-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
73-Ash	73-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
74-Ash	74-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
75-Ash	75-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
76-Ash	76-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
77-Ash	77-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
78-Ash	78-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
79-Ash	79-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
80-Ash	80-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
81-Ash	81-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
82-Ash	82-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
83-Ash	83-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
84-Ash	84-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
85-Ash	85-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
86-Ash	86-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
87-Ash	87-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
88-Ash	88-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
89-Ash	89-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
90-Ash	90-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
91-Ash	91-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
92-Ash	92-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
93-Ash	93-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
94-Ash	94-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
95-Ash	95-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
96-Ash	96-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
97-Ash	97-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
98-Ash	98-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
99-Ash	99-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK
100-Ash	100-Ash-001	Surface Water	0.5m	0.5m	22.4	7.27	DO meter OK

August 16, 2001 - Ashuelot River, Early morning Sampling



8/16/01		Ashuelot TMDL		Field Duplicate Checks				
Station	Date	Sample Time	Field Measurement Time	Temp (degrees C)	DO (mg/L)	Conductivity (uS/cm)	pH	Rep (Y/N)
20A-Ash	8/16/01	12:50	12:55	22.4	7.77	88.1	6.36	N
20A-Ash DUP	8/16/01	13:00		22.5	8.00	87.8	6.50	Y
Difference between duplicate samples				0.1	0.23	0.1%	0.14	
Pass or Fail QAPP Performance Criteria				PASS	PASS	PASS	PASS	
19A-Ash	8/16/01	13:01	13:01	25.0	7.25	126.5	6.48	N
19A-Ash DUP	8/16/01	12:57	13:07	24.9	7.36	126.4	6.46	Y
Difference between duplicate samples				0.1	0.11	0.0%	0.02	
Pass or Fail QAPP Performance Criteria				PASS	PASS	PASS	PASS	
Ashuelot TMDL		Field Summary						
8/16/01	Temp (degrees C)	DO (mg/L)	DO (% sat)	Conductivity (uS/cm)	pH			
ave	27	27	0	21	21			
Min	20.4	3.7	0.0	67.0	6.2			
Max	25.4	8.8	0.0	803.0	7.3			
Range	5.0	5.2	0.0	736.0	1.1			
Average	23.07	7.21		217.70	6.63			
St. Dev.	1.19	0.98		200.86	0.26			
Median	23.0	7.4		157.3	6.6			
Missing Information								

NH DES LABORATORY SERVICES LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

Program / Client ID: π In-House, π OSA, π Pool, π Special, π Swim, π VLAP, π Other: TMDL EPA # / Project #: 05-0022512 (TMDL)

System Name: Ashuelot River Site / Town: See Below Contact: Gregg Comstock (x2983)

Comments: Collected By & Phone# See "Other / Notes" below

Sample Location / ID	Date/Time Sampled	# of Containers	Matrix	BOD5	BOD20	TSS	TKN	NH3	NO2+NO3	TP	Ortho P	TOC	Chloride	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
12-Ash Ashuelot River-Coombs Rd. Covered Bridge, Winchester	8/16/01 10:32	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	M. Wood, A. Bertlandi	050902-4 08/16/01 10:32
14-Ash Ashuelot River, Approx. 100 ft upstream of Covered Bridge, Swanzey	8/16/01 10:59	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	P. P. Szczek G. Bertlandi	050902-4 08/16/01 10:59
W. Swanzey WWTF Effluent 246 Concord St.	8/15/01 12:00 - 5:10	6	A b	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	K. Perkins T. Crutcher	050902-4 08/15/01 12:00
14T-Ash, Denman Thompson Highway Bridge, Swanzey	8/16/01 10:38	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	A. Dorton G. Cantor	050902-4 08/16/01 10:38

Relinquished By: Gregg Comstock Date and Time: 8/16/01 15:00 Received By: _____

Relinquished By: _____ Date and Time: _____ Received By: _____

Relinquished By: _____ Date and Time: _____ Received For Laboratory By: W. Hake

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) * Other: _____

Page 1 of 6 Date Reviewed By: _____ Date: _____

Section No.: 22.0
Revision No.: 1
Date: 1-17-01

NH DES LABORATORY SERVICES LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

Program / Client ID: , π In-House, π OSA, π Pool, π Special, π Swlm, π VLAP, π Other: TMDL EPA # / Project #: 05-0022512 (TMDL)

System Name: Ashuelot River Site / Town: See Below Contact: Gregg Comstock (x2983)

Comments: Collected By & Phone# See "Other / Notes" below

Sample Location / ID	Date/Time Sampled	# of Containers	Matrix	BOD5	BOD20	TSS	TKN	NH3	NO2+NO3	As	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
15-Ash Ashuelot River, Thompson Covered Bridge, Homestead Woolen Impoundment, Swanzey.	8/16/01 10:25	6	Aq		Y	Y	Y	Y	Y	Y	K. Perkins T. Crofteau	14372-8 08/16 10:25
15E-Ash Ashuelot River, Dirt Road off of Sawyer's Crossing Road, Swanzey.	8/16/01 11:15	6	Aq		Y	Y	Y	Y	Y	Y	P. Piszczek G. Barlandi	14372-8 08/16 11:15
16-Ash Ashuelot River, Cresson Bridge (covered bridge off of Sawyer's Crossing Road), Swanzey	8/16/01 10:53	6	Aq		Y	Y	Y	Y	Y	Y	M. Wood A. Barlandi	14372-8 08/16 10:53
2-Sba South Branch Ashuelot River, Rte 32 bridge, Swanzey.	8/16/01 11:05	6	Aq		Y	Y	Y	Y	Y	Y	A. Doucenc G. Carlberg	14372-8 08/16 11:05
16B-Ash Ashuelot River, Approximately 50 feet upstream of confluence with S. Branch Ashuelot River, Swanzey.	8/16/01 12:38	6	Aq		Y	Y	Y	Y	Y	Y	K. Perkins T. Crofteau	14372-8 08/16 12:38

Relinquished By: Gregg Comstock Date and Time: 8/16/01 1:50 PM Received By: _____

Relinquished By: _____ Date and Time: _____ Received By: _____

Relinquished By: _____ Date and Time: _____ Received For Laboratory By: W. Locke

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page 2 of 6 Date Reviewed By: _____ Date: _____

Section No.: 22.0
Revision No.: 1
Date: 1-17-01

NH DES LABORATORY SERVICES LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

Program / Client ID: , π In-House, π OSA, π Pool, π Special, π Swim, π VLAP, π Other: TMDL EPA # / Project #: 05-0022512 (TMDL)

System Name: Ashuelot River Site / Town: See Below Contact: Gregg Comstock (x2983)

Comments:

Collected By & Phone# See "Other / Notes" below

Sample Location / ID	Date/Time Sampled	# Containers	Matrix	BOD5	BOD20	TSS	TKN	NH3	NO2+NO3	P	Ortho P	TOC	Chlor a	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
Keene WWTF Effluent 24 hr Composite	8/15/01 12:00	6	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	K. Perkins T. Crofton	A08992-10 08/15 12:00
Bucket#1 Field Bucket Blank	8/16/01 15:00	6	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	G. Comstock	A08992-11 08/16 15:00
Bottle#1 Field Bottle Blank	8/16/01 14:45	6	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	G. Comstock	A08992-12 08/16 14:45
16D-Ash Ashuelot River, Approximately 50 feet upstream of Keene WWTF outfall pipe, Swanzy	8/16/01 13:04	6	A	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	K. Perkins T. Crofton	A08992-13 08/16 13:04

Relinquished By: Gregg Comstock Date and Time: 8/16/01 15:00 Received By:

Relinquished By: Date and Time: Received By:

Relinquished By: Date and Time: Received For Laboratory By: W. Locke

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other:

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Section No.: 22.0
Revision No.: 1
Date: 1-17-01

NH DES LABORATORY SERVICES LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

Program / Client ID: , π In-House, π OSA, π Pool, π Special, π Swim, π VLAP, π Other: TMDL EPA # / Project #: 05-0022512 (TMDL)

System Name: Ashuelot River Site / Town: See Below Contact: Gregg Comstock (X2983)

Comments:

Collected By & Phone# See "Other / Notes" below

Sample Location / ID	Date/Time Sampled	# of Containers	Matrix	BOD5	BOD 20	TSS	TKN	NH3	NO2+NO3	P	Ortho P	TOC	Chlor B	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
0A-Ash Ash Swamp Brook, Railroad bed/bike path bridge approximately 200 feet upstream from confluence with Ashuelot River, Swanzy	8/16/01 12:48	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	P. Pizzozzi G. Benlandi	020902-14 08/16 12:48
16M-Ash Ashuelot River, Approximately 50 feet upstream of Ash Swamp Brook confluence, Swanzy	8/16/01 12:31	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	P. Pizzozzi G. Benlandi	020902-15 08/16 12:31
0A-Bra The Branch River, Approximately 100 feet upstream of confluence with Ashuelot River, Keene	8/16/01 12:15	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	M. Wood A. Benlandi	020902-16 08/16 12:15
17-Ash Ashuelot River, Foot bridge off of Martel Ave., Keene	8/16/01 12:15	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	A. Danton G. Carlson	020902-17 08/16 12:15

Page 1 of 1 Relinquished By Gregg Comstock Date and Time 8/16/01 1800 Received By _____

Relinquished By _____ Date and Time _____ Received By _____

Relinquished By _____ Date and Time _____ Received For Laboratory By W. Locke

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page 4 of 6 Date Reviewed By _____ Date _____

Section No.: 22.0
Revision No.: 1
Date: 1-17-01

NH DES LABORATORY SERVICES LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

Program / Client ID: , π In-House, π OSA, π Pool, π Special, π Swim, π VLAP, π Other: TMDL EPA # / Project #: 05-0022512 (TMDL)

System Name: Ashuelot River Site / Town: See Below Contact: Gregg Comstock (x2983)

Comments:

Collected By & Phone# See "Other / Notes" below

Sample Location / ID	Date/Time Sampled	# Containers	Matrix	BOB	BOB	TKN	NH3	NO2+NO3	TP	Other P	TOC	Chlor	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
19-Ash Ashuelot River West Street Bridge Keene	8/16/01 12:39	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	M. Wood A. Boardman	428902-18
19A-Ash - DUP1 Ashuelot River Foot bridge across West Street dam Impoundment, Keene	8/16/01 13:01	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	M. Wood A. Boardman	428902-19
19A-Ash - DUP2 Ashuelot River Foot bridge across West Street dam Impoundment, Keene	8/16/01 13:07	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	M. Wood A. Boardman	

Relinquished By Gregg Comstock Date and Time 8/16/01 12:00 Received By

Relinquished By Date and Time Received By

Relinquished By Date and Time Received For Laboratory By W. Seale

Matrix: A = Air S = Soil AQ = Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other:

Page 5 of 6 Date Reviewed By Date Section No.: 22.0
Revision No.: 1
Date: 1-17-01

NH DES LABORATORY SERVICES LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

Program / Client ID: , π In-House, π OSA, π Pool, π Special, π VLAP, π Other: TMDL EPA # / Project #: 05-0022512 (TMDL)

System Name: Ashuelot River Site / Town: See Below Contact: Gregg Comstock (x2983)

Comments: Collected By & Phone# See "Other / Notes" below

Sample Location / ID	Date/Time Sampled	# of Containers	Matrix	BOD5	BOD20	TSS	TKN	NH3	NO2+NO3	pH	Ortho P	TOC	Chlor a	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
20A-Ash - DUP1 Ashuelot River Stone Arch Bridge 200 feet upstream of Rte 12A.	8/16/01 12:50	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	A. Donlon G. Carlson	
20A-Ash - DUP2 Ashuelot River Stone Arch Bridge 200 feet upstream of Rte 12A.	8/16/01 13:00	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	A. Donlon G. Carlson	
21-Ash Ashuelot River East Surry Road bridge, Surry	8/16/01 13:35	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	A. Donlon G. Carlson	

Page 1 of 1 Relinquished By Gregg Comstock Date and Time 8/16/01 1:00 Received By _____

Relinquished By _____ Date and Time _____ Received By W. Locke
Relinquished By _____ Date and Time _____ Received For Laboratory By _____

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page 6 of 6 Date Reviewed By _____ Date _____

Section No.: 22.0
Revision No.: 1
Date: 1-17-01



State of New Hampshire
Department of Environmental Services
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Results of Laboratory Analysis

Sample #: A28902-1
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 10:32
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :

Locator : 12-ASH COOMBS RD COV BRDGE
Descript : TMDL RIVER STUDIES
Site : WINCHESTER
Collectby: M WOOD/A BOURLAND
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	4.2	mg/L		
Chlorophyll "A"	5.76	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.68	mg/L	.05	353.2
NITROGEN, TKN	.6	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.112	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	2	mg/L	1	160.2
T. PHOSPHORUS	.123	mg/L	.005	365.3
Total Organic Carbon	4.3	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGIN=2C

Report Comments: Lab dupe BOD-20 = 3.6

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-2
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 10:59
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :

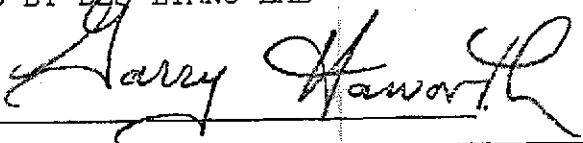
Locator : 14-ASH APP 100FT UP COV BRDG
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: P PISZCZEK/G BERLANDI
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3.5	mg/L		
Chlorophyll "A"	7.83	mg/M3	.01	
NITROGEN, AMMONIA-N	.2	mg/L	.1	350.1
NITROGEN, NO3+NO2	.64	mg/L	.05	353.2
NITROGEN, TKN	.6	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	.12	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	2	mg/L	1	160.2
T. PHOSPHORUS	.158	mg/L	.005	365.3
Total Organic Carbon	4.5	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-3
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 12:00
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :

Locator : WWTF EFF 24 HR COMPOSITE
Descript : TMDL RIVER STUDIES
Site : W SWANZEY
Collectby: K PERKINS/T CROTEAU
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	> 144	mg/L		
BOD-5	35.4	mg/L		405.1
Chlorophyll "A"	250.82	mg/M3	.01	
NITROGEN, AMMONIA-N	24.3	mg/L	1	350.1
NITROGEN, NO3+NO2	.06	mg/L	.05	353.2
NITROGEN, TKN	35.9	mg/L	1	351.2
PHOSPHORUS, D. ORTHO	4.153	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	34	mg/L	1	160.2
T. PHOSPHORUS	4.65	mg/L	.005	365.3
Total Organic Carbon	36.5	mg/L	.5	SM5310B

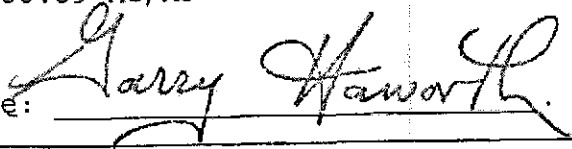
Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: TOC result estimated

Report Comments: BOD-5 read on 7th day

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Report Comments: REPLICATE RESULT 286.89 MG/M3

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

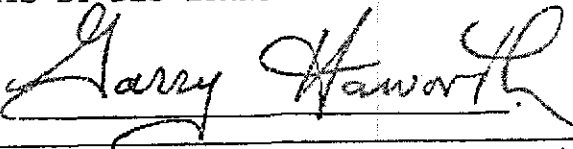
Sample #: A28902-4
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 10:38
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :
Locator : 14T-ASH DENMAN THOMPSON HWY BRDG
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: A DONLON/G CARLSON
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	2.9	mg/L		
Chlorophyll "A"	4.31	mg/M3	.01	
NITROGEN, AMMONIA-N	.2	mg/L	.1	350.1
NITROGEN, NO3+NO2	.97	mg/L	.05	353.2
NITROGEN, TKN	.4	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.181	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	2	mg/L	1	160.2
T. PHOSPHORUS	.193	mg/L	.005	365.3
Total Organic Carbon	4.9	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

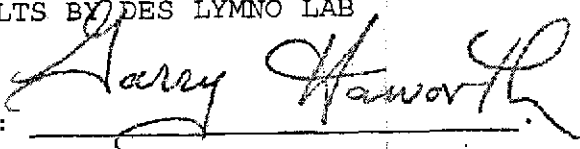
Sample #: A28902-5
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 10:25
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :
Locator : 15-ASH THOMP COV BRDG HOMESTD WOO
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: K PERKINS/ T CROTEAU
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3	mg/L		
Chlorophyll "A"	7.09	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.97	mg/L	.05	353.2
NITROGEN, TKN	.2	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	.179	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	4	mg/L	1	160.2
T. PHOSPHORUS	.197	mg/L	.005	365.3
Total Organic Carbon	4.3	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-6
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 11:15
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :
Locator : 15E-ASH DIRT RD OFF SAWY CROSSRD
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: P PISZCZEK/G BERLANDI
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	2.9	mg/L		
Chlorophyll "A"	4.72	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	1.12	mg/L	.05	353.2
NITROGEN, TKN	.4	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.187	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	5.5	mg/L	1	160.2
T. PHOSPHORUS	.203	mg/L	.005	365.3
Total Organic Carbon	4.7	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature:

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

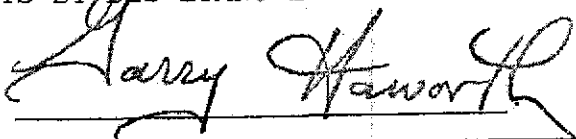
Sample #: A28902-7	Locator : 16-ASH CRESS BRDG SAWY CROSS
Category: IN HOUSE	Descript : TMDL RIVER STUDIES
Matrix : Aqueous	Site : SWANZEY
Collection Date: 08/16/2001 10:53	Collectby: M WOOD/A BOURLAND
Log in Date : 08/17/2001 07:40	Account #: 05-04-04
Completion Date: 09/12/2001	Project #: 05-0022512
Misc ID :	

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3.2	mg/L		
Chlorophyll "A"	3.44	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.77	mg/L	.05	353.2
NITROGEN, TKN	.5	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.145	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	6.5	mg/L	1	160.2
T. PHOSPHORUS	.16	mg/L	.005	365.3
Total Organic Carbon	4.4	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Department of Environmental Services
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Results of Laboratory Analysis

Sample #: A28902-8
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 11:05
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :
Locator : 2-SBA S BRCH A RIV RT32 BRDG
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: A DONLON/G CARLSON
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	2.8	mg/L		
Chlorophyll "A"	3.23	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.16	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.047	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	6	mg/L	1	160.2
T. PHOSPHORUS	.023	mg/L	.005	365.3
Total Organic Carbon	4.1	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature:

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-9
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 12:38
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :

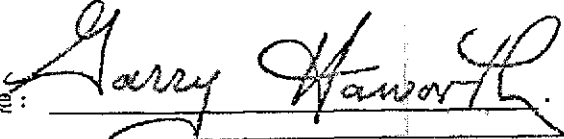
Locator : 16B-ASH APP 50FT UP CONFLU S BR A
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: K PERKINS/T CROTEAU
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	4	mg/L		
Chlorophyll "A"	2.3	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	3.27	mg/L	.05	353.2
NITROGEN, TKN	.7	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.638	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	8.5	mg/L	1	160.2
T. PHOSPHORUS	.644	mg/L	.005	365.3
Total Organic Carbon	6.4	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
<L = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-10	Locator : WWTF 24 HR COMPOSITE EFF
Category: IN HOUSE	Descript : TMDL RIVER STUDIES
Matrix : Aqueous	Site : KEENE
Collection Date: 08/16/2001 12:00	Collectby: K PERKINS/T CROTEAU
Log in Date : 08/17/2001 07:40	Account #: 05-04-04
Completion Date: 09/12/2001	Project #: 05-0022512
Misc ID :	

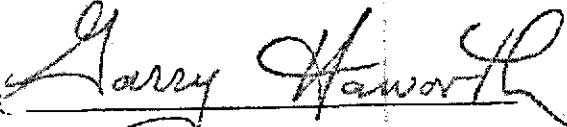
PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	7.8	mg/L		405.1
BOD-5	2	mg/L		
Chlorophyll "A"	1.38	mg/M3	.01	
NITROGEN, AMMONIA-N	.3	mg/L	.1	350.1
NITROGEN, NO3+NO2	15.15	mg/L	.25	353.2
NITROGEN, TKN	1.9	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	3.053	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	4	mg/L	1	160.2
T. PHOSPHORUS	3.44	mg/L	.005	365.3
Total Organic Carbon	12	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Port Comments: BOD-5 read on 7th day

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-11
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 15:00
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :

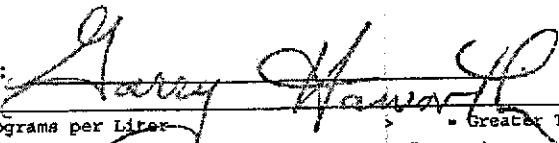
Locator : BUCKETB#1 FIELD BUCKET BLANK
Descript : TMDL RIVER STUDIES
Site :
Collectby: G COMSTOCK
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	.66	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	<0.05	mg/L	.05	353.2
NITROGEN, TKN	.1	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	1.25	mg/L	1	160.2
T. PHOSPHORUS	.005	mg/L	.005	365.3
Total Organic Carbon	.5	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-12
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 14:45
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :
Locator : BOTTLEB#1 FIELD BOTTLE BLANK
Descript : TMDL RIVER STUDIES
Site :
Collectby: G COMSTOCK
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	.83	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	<0.05	mg/L	.05	353.2
NITROGEN, TKN	<.1	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	1.75	mg/L	1	160.2
T. PHOSPHORUS	.035	mg/L	.005	365.3
Total Organic Carbon	.4	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DE'S LYMNO LAB

Harry Haworth

Authorized Signature:

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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(603) 271-3445/3446

Results of Laboratory Analysis

Sample #: A28902-13
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 13:04
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :

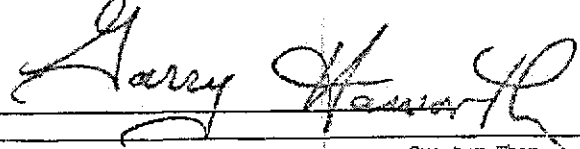
Locator : 16D-ASH APP 50FT UP KEENE WWTF OU
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: K PERKINS/T CROTEAU
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3.1	mg/L		
Chlorophyll "A"	1.97	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.15	mg/L	.05	353.2
NITROGEN, TKN	.4	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	.031	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	6	mg/L	1	160.2
T. PHOSPHORUS	.018	mg/L	.005	365.3
Total Organic Carbon	3.8	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter

<.1 = Less Than

pCi/L = pico Curies per Liter

RDL = Reporting Detection Limit

ug/L = micrograms per Liter

BDL = Below Detection Limit

mg/kg = milligrams per Kilogram

> = Greater Than

ug/kg = micrograms per Kilogram

P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-14
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 12:48
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :

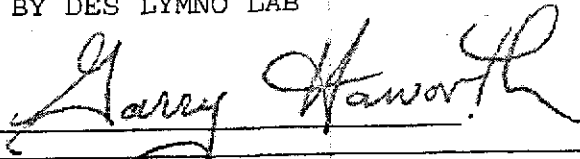
Locator : OA-ASB SWMP BK RAILBD/BIKE PATH B
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: P PISZCZEK/G BERLANDI
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3.1	mg/L		
Chlorophyll "A"	5.03	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.42	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.053	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	10.5	mg/L	1	160.2
T. PHOSPHORUS	.024	mg/L	.005	365.3
Total Organic Carbon	4.9	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

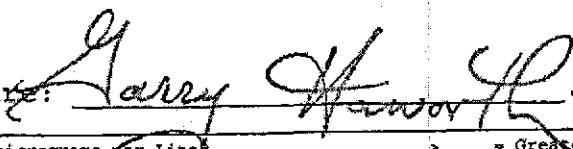
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Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 12:31
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :
Locator : 16M-ASH APP 50FT UP ASH SWAMP BK
Descriptor : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: P PISZCZEK/G BERLANDI
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	1.75	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.12	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.028	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	5.5	mg/L	1	160.2
T. PHOSPHORUS	.016	mg/L	.005	365.3
Total Organic Carbon	3.7	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

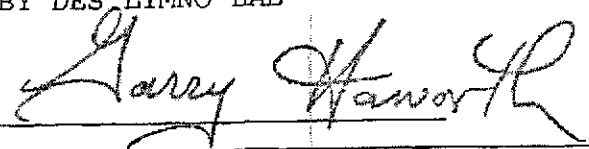
Sample #: A28902-16
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 12:15
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :
Locator : OA-BRA APP 100FT UP CON RIV
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: M WOOD/A BOURLAND
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	2.6	mg/L		
Chlorophyll "A"	1.95	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.24	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.039	mg/L	.005	365.3
RESIDUE, T. SUSPENDED	5.5	mg/L	1	160.2
T. PHOSPHORUS	.015	mg/L	.005	365.3
Total Organic Carbon	3.4	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-17
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 12:15
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :

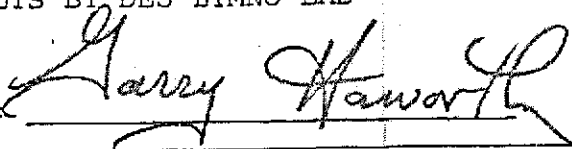
Locator : 17-ASH FT BRDG OFF OF MARTEL AVE
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: A DONLON/G CARLSON
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	2.8	mg/L		
Chlorophyll "A"	1.97	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.09	mg/L	.05	353.2
NITROGEN, TKN	.2	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.022	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	8	mg/L	1	160.2
T. PHOSPHORUS	.019	mg/L	.005	365.3
Total Organic Carbon	3.8	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter

< = Less Than

pCi/L = pico Curies per Liter

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ug/L = micrograms per Liter

BDL = Below Detection Limit

mg/kg = milligrams per Kilogram

> = Greater Than

ug/kg = micrograms per Kilogram

P-A = Present/Absent



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Results of Laboratory Analysis

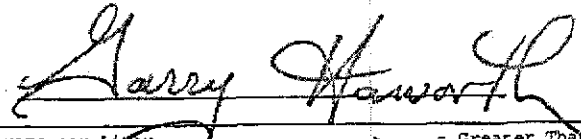
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Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 12:39
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :
Locator : 19-ASH WEST ST BRDG
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: M WOOD/A BOURLAND
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	1.24	mg/M3	.01	
NITROGEN, AMMONIA-N	< .1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.07	mg/L	.05	353.2
NITROGEN, TKN	.2	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	.018	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	8	mg/L	1	160.2
T. PHOSPHORUS	.012	mg/L	.005	365.3
Total Organic Carbon	3.6	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

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ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-19
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 13:01
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :

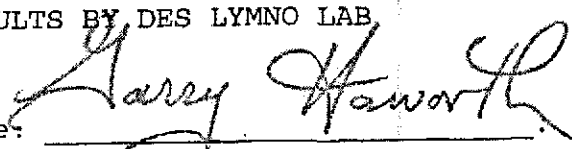
Locator : 19A-ASH DUPl FT BRDG ACR W ST DAM
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: M WOOD/A BOURLAND
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	1.59	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.07	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.016	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	7.5	mg/L	1	160.2
T. PHOSPHORUS	.02	mg/L	.005	365.3
Total Organic Carbon	3.5	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-20
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 13:07
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :
Locator : 19A-ASH DUP2 FT BRDG ACR W ST DAM
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: M WOOD/A BOURLAND
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	2.8	mg/L		
Chlorophyll "A"	1.75	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.07	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.016	mg/L	.005	365.3
RESIDUE, T. SUSPENDED	3	mg/L	1	160.2
T. PHOSPHORUS	.013	mg/L	.005	365.3
Total Organic Carbon	3.5	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Harry Haworth

Authorized Signature: _____

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

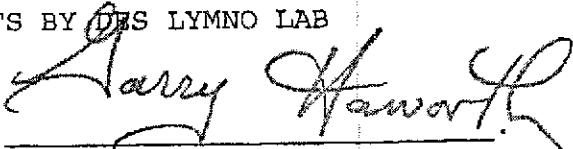
Sample #: A28902-21 Locator : 20A-ASH DUP1 STONE ARCH BRDG 200
Category: IN HOUSE Descript : TMDL RIVER STUDIES
Matrix : Aqueous Site : RTE 12A
Collection Date: 08/16/2001 12:50 Collectby: A DONLON/G CARLSON
Log in Date : 08/17/2001 07:40 Account #: 05-04-04
Completion Date: 09/12/2001 Project #: 05-0022512
Misc ID :

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	1.4	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.09	mg/L	.05	353.2
NITROGEN, TKN	.2	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.019	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	4	mg/L	1	160.2
T. PHOSPHORUS	.012	mg/L	.005	365.3
Total Organic Carbon	3.5	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A28902-22
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 13:00
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :

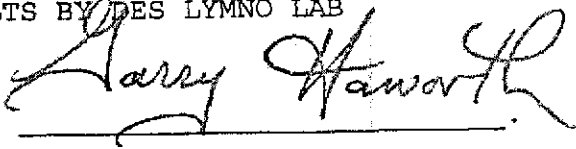
Locator : 20A-DUP2 STONE ARC BRDG 200FT UP
Descript : TMDL RIVER STUDIES
Site : RTE 12A
Collectby: A DONLON/G CARLSON
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	1.4	mg/M3	.01	
NITROGEN, AMMONIA-N	< .1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.09	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.019	mg/L	.005	365.3
RESIDUE, T. SUSPENDED	3	mg/L	1	160.2
T. PHOSPHORUS	.012	mg/L	.005	365.3
Total Organic Carbon	3.3	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

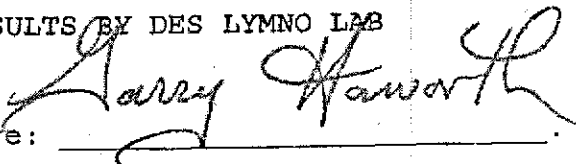
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Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/16/2001 13:35
Log in Date : 08/17/2001 07:40
Completion Date: 09/12/2001
Misc ID :
Locator : 21-ASH E SURRY RD BRDG
Descript : TMDL RIVER STUDIES
Site : SURRY
Collectby: A DONLON/G CARLSON
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	1.07	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	<0.05	mg/L	.05	353.2
NITROGEN, TKN	.2	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.011	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	1	mg/L	1	160.2
T. PHOSPHORUS	.011	mg/L	.005	365.3
Total Organic Carbon	4	mg/L	.5	SM5310B

Client's Comments: TEMP@LOGGIN=2C

Analyst Comments: CHLOROPHYLL A RESULTS BY DES LYMNO LAB

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent

2001 Ashuelot River BOD Lab Results and CBOD calcs														Project # 05-0022512			
Collection Date 8-16-01																	
Test, mg/L		RDL <2.4		RDL 0.1	RDL 0.1	RDL 0.005	RDL 0.005	RDL 0.005	RDL 0.5	RDL 0.005							
Sample #	BOD20	TKN	NH ₃	NO ₃ +NO ₂	TP	TOC	ortho-P	20d NO ₃	20d NO ₃ +NO ₂	mLs used in 20d BOD	20d NO ₃ +NO ₂ Dilution	N Uptake	NBOD	CBOD			
A28902-1	4.2	0.56	0.079	0.68	0.123	4.3	0.112		0.76	250	0.912	0.232	1.06	3.14			
-2	3.5	0.58	0.22	0.64	0.158	4.5	0.12		0.79	250	0.948	0.308	1.41	2.09			
-3	148	35.9***	24.3**	0.06	4.60^	36.5c	4.15		2.88	25	34.56	34.5	157.67	-9.67			
-4	2.9	0.41	0.20	0.968	0.193	4.9	0.181		0.96	250	1.152	0.184	0.84	2.06			
-5	3	0.17	0.014	0.967	0.197	4.3	0.179	0.82	0.959	250	1.1508	0.1838	0.84	2.16			
-6	2.9	0.36	0.013	1.12	0.203	4.7	0.187	0.981	1.131	250	1.3572	0.2372	1.08	1.82			
-7	3.2	0.45	0.06	0.77	0.160	4.4	0.145		0.87	250	1.044	0.274	1.25	1.95			
-8	2.8	0.32	0.01	0.16	0.023	4.1	0.047		0.3	250	0.36	0.2	0.91	1.89			
-9	4	0.68	0.15	3.27	0.644^	6.4	0.638		2.91	250	3.492	0.222	1.01	2.99			
-10	7.8	1.94	0.27	15.2	3.44^	12	3.05		10.37	200	15.555	0.355	1.62	6.18			
-11	1.1	0.05	0.04	0.02	0.005	0.5	0.001		0.04	250	0.048	0.028	0.13	0.97			
-12	0.8	0.00	0.00	0.01	0.035	0.4	0.001		0.01	250	0.012	0.002	0.01	0.79			
-13	3.1	0.37	0.03	0.147	0.018	3.8	0.031		0.28	250	0.336	0.189	0.86	2.24			
-14	3.1	0.35	0.06	0.42	0.024	4.9	0.053	0.541	0.541	250	0.6492	0.2292	1.05	2.05			
-15	2.3	0.31	0.11	0.12	0.016	3.7	0.028	0.137	0.26	250	0.312	0.192	0.88	1.42			
-16	2.6	0.27	0.12	0.24	0.015	3.4	0.039		0.41	250	0.492	0.252	1.15	1.45			
-17	2.8	0.20	0.01	0.09	0.014	3.8	0.022		0.22	250	0.264	0.174	0.80	2.00			
-18	2.3	0.18	0.03	0.07	0.012	3.6	0.018		0.11	250	0.132	0.062	0.28	2.02			
-19	2.3	0.28	0.02	0.07	0.020	3.5	0.016		0.09	250	0.108	0.038	0.17	2.13			
-20	2.8	0.25	0.01	0.073	0.013	3.5	0.016		0.08	250	0.096	0.023	0.11	2.69			
-21	2	0.18	0.00	0.091	0.012	3.5	0.019		0.11	250	0.132	0.041	0.19	1.81			
-22	1.8	0.31^	0.01	0.09	0.012	3.3	0.019	0.066	0.094	250	0.1128	0.0228	0.10	1.70			
-23	2.2	0.2^	0.02	0.02	0.011	4.0	0.011	0.049	0.049	250	0.0588	0.0388	0.18	2.02			
An entry of zero means the result was either zero or a negative number																	
***RDL=1 **RDL=1.0 ^TP RDL=0.2 **RDL=0.05																	
Workgroups																	
LTBOD2001																	
TP081701																	
NH082201 and NH081701																	
TOC081701																	
FIA081701																	
SOL082101																	
TKN090501 and TKN091101^																	
OP081701																	

Project:	Ashuelot River TMDL					Date:	8/16/01		
Waterbody Name:	Ashuelot Rivr					Time Begin	14:05		
Station ID:	17-Ash					Time End:	14:20		
Station Description:									
Staff Names:	KE, MJ								
River Width (ft)	45								
Distance Readings									
Tape	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
5	0	0							
6	1	0.2	0.04			0.04	0.425	0.02	0.02
7	2	0.45							
8	3	0.75	0.06			0.06	1.475	0.09	0.11
9	4	1							
10	5	1.2	0.09			0.09	2.375	0.21	0.32
11	6	1.35							
12	7	1.4	0.14			0.14	2.825	0.40	0.71
13	8	1.5							
14	9	1.65	0.1			0.1	3.25	0.33	1.04
15	10	1.7							
16	11	1.85	0.16			0.16	3.45	0.55	1.59
17	12	1.9							
18	13	1.9	0.27			0.27	3.7	1.00	2.59
19	14	1.7							
20	15	1.9	0.32			0.32	3.7	1.18	3.77
21	16	1.9							
22	17	1.9	0.23			0.23	3.8	0.87	4.65
23	18	1.9							
24	19	1.9	0.23			0.23	3.8	0.87	5.52
25	20	1.9							
26	21	1.95	0.25			0.25	3.85	0.96	6.49
27	22	1.9							
28	23	1.85	0.16			0.16	3.725	0.60	7.08
29	24	1.85							
30	25	1.9	0.18			0.18	3.775	0.68	7.76
31	26	1.9							
32	27	1.9	0.19			0.19	3.8	0.72	8.48
33	28	1.9							
34	29	1.75	0.17			0.17	3.475	0.59	9.07
35	30	1.55							
36	31	1.5	0.15			0.15	3.025	0.45	9.53
37	32	1.5							
38	33	1.45	0.13			0.13	2.875	0.37	9.90
39	34	1.35							
40	35	1.25	0.22			0.22	2.5	0.55	10.45
41	36	1.15							
42	37	1.15	0.17			0.17	2.25	0.38	10.83
43	38	1.05							
44	39	0.95	0.16			0.16	1.775	0.28	11.12
45	40	0.6							
46	41	0.6	0.06			0.06	1.225	0.07	11.19
47	42	0.65							
48	43	0.6	0			0	1.125	0.00	11.19
49	44	0.4							
50	45	0	0			0	0.2	0.00	11.19

Project:	Ashuelot River TMDL					Date:	8/16/01		
Waterbody Name:	The Branch					Time Begin	14:55		
Station ID:	OA-Bra					Time End:	15:33		
Station Description:	~ 1000 ft upstream of conft with Ashuelot River								
Staff Names:	JGA, RO								
River Width (ft)	20.8								
Distance Readings									
Tape	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
0	0	0							
0	0	0	0			0	0.0275	0.00	0.00
0.5	0.5	0.11							
1	1	0.13	0.35			0.35	0.1275	0.04	0.04
1.5	1.5	0.14							
2	2	0.23	0.49			0.49	0.205	0.10	0.15
2.5	2.5	0.22							
3	3	0.21	0.74			0.74	0.225	0.17	0.31
3.5	3.5	0.26							
4	4	0.27	0.73			0.73	0.2525	0.18	0.50
4.5	4.5	0.21							
5	5	0.28	0.76			0.76	0.2675	0.20	0.70
5.5	5.5	0.3							
6	6	0.3	0.66			0.66	0.3	0.20	0.90
6.5	6.5	0.3							
7	7	0.32	0.85			0.85	0.3175	0.27	1.17
7.5	7.5	0.33							
8	8	0.36	0.85			0.85	0.3525	0.30	1.47
8.5	8.5	0.36							
9	9	0.35	0.85			0.85	0.345	0.29	1.76
9.5	9.5	0.32							
10	10	0.34	0.96			0.96	0.335	0.32	2.08
10.5	10.5	0.34							
11	11	0.33	0.92			0.92	0.325	0.30	2.38
11.5	11.5	0.3							
12	12	0.31	0.87			0.87	0.31	0.27	2.65
12.5	12.5	0.32							
13	13	0.3	0.85			0.85	0.3025	0.26	2.91
13.5	13.5	0.29							
14	14	0.3	0.92			0.92	0.3	0.28	3.18
14.5	14.5	0.31							
15	15	0.33	0.74			0.74	0.32	0.24	3.42
15.5	15.5	0.31							
16	16	0.3	0.52			0.52	0.2925	0.15	3.57
16.5	16.5	0.26							
17	17	0.27	0.42			0.42	0.27	0.11	3.69
17.5	17.5	0.28							
18	18	0.23	0.44			0.44	0.235	0.10	3.79
18.5	18.5	0.2							
19	19	0.21	0.32			0.32	0.205	0.07	3.85
19.5	19.5	0.2							
20	20	0.2	0.21			0.21	0.18	0.04	3.89
20.8	20.8	0							

Project:	Ashuelot River TMDL					Date:	8/16/01		
Waterbody Name:	Ash Swamp Brook					Time Begin	14:05		
Station ID:	16D-Ash					Time End:	14:19		
Station Description:	0A-Asb								
Staff Names:	JGA, RO								
River Width (ft)	8.3								
Distance Readings									
Tape	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
0	0	0							
0.5	0.5	0.13	0.66			0.66	0.12	0.08	0.08
1	1	0.22							
1.5	1.5	0.29	0.92			0.92	0.285	0.26	0.34
2	2	0.34							
2.5	2.5	0.34	0.77			0.77	0.3325	0.26	0.60
3	3	0.31							
3.5	3.5	0.3	0.98			0.98	0.3025	0.30	0.89
4	4	0.3							
4.5	4.5	0.28	1.09			1.09	0.2825	0.31	1.20
5	5	0.27							
5.5	5.5	0.29	0.85			0.85	0.2775	0.24	1.44
6	6	0.26							
6.5	6.5	0.25	0.91			0.91	0.2575	0.23	1.67
7	7	0.27							
7.5	7.5	0.27	0.82			0.82	0.2675	0.22	1.89
8	8	0.26							
8.5	8.5	0.17	0.16			0.16	0.133	0.02	1.91
8.8	8.8	0							

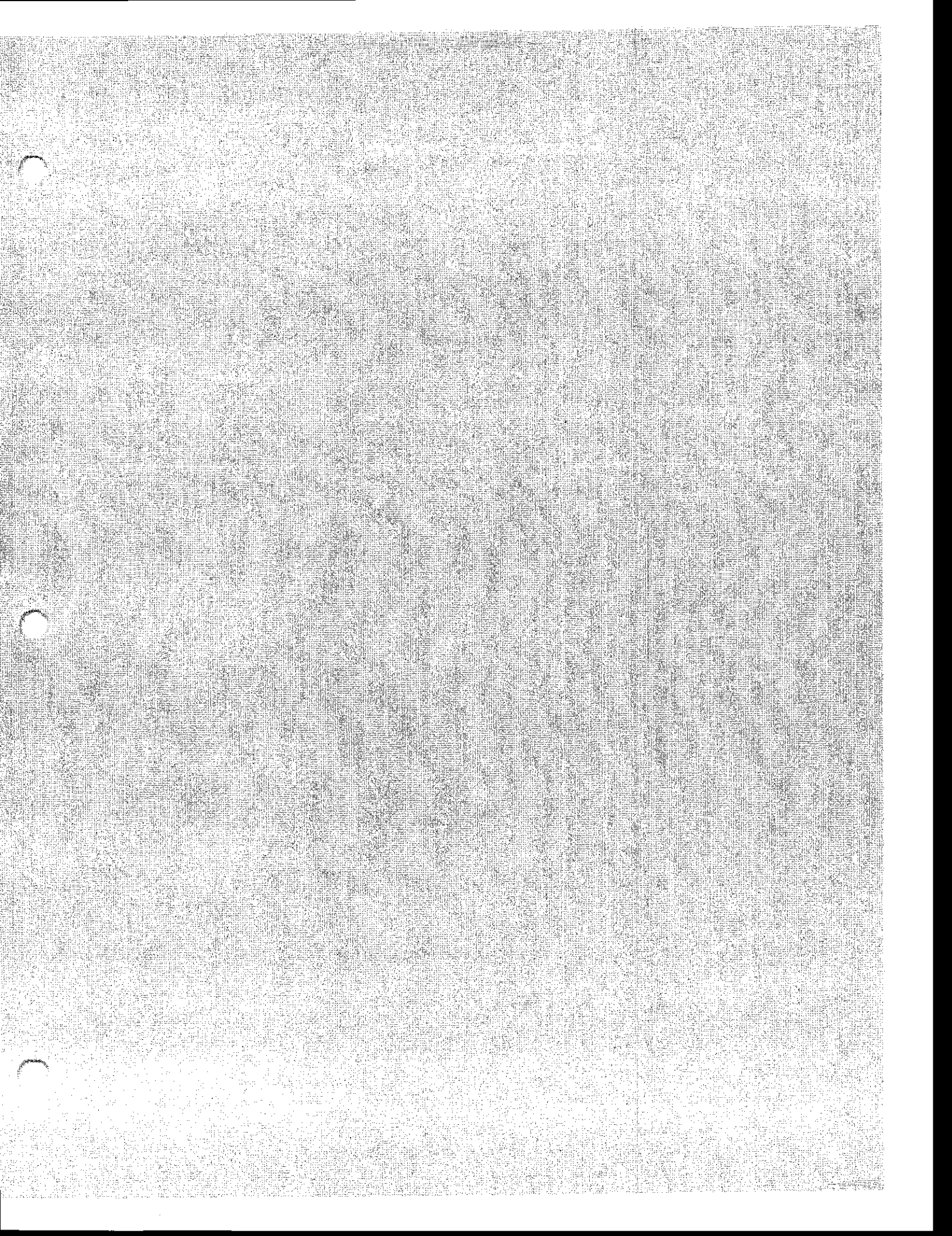
Project:		Ashuelot River TMOL				Date:		8/16/01	
Waterbody Name:		Ashuelot Rivr				Time Begin:		12:58	
Station ID:		16D-Ash				Time End:		13:44	
Station Description:									
Staff Names:		JGA, RO							
River Width (ft)		50.5							
Distance Readings									
Type	Bank	Depth	Velocity at 80% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
1.5	0	0							
2.5	1	0.23	0.47			0.47	0.38	0.18	0.18
3.5	2	0.3							
4.5	3	0.3	0.43			0.43	0.59	0.25	0.43
5.5	4	0.28							
6.5	5	0.39	0.47			0.47	0.7	0.33	0.76
7.5	6	0.34							
8.5	7	0.34	0.48			0.48	0.71	0.34	1.10
9.5	8	0.4							
10.5	9	0.35	0.51			0.51	0.74	0.38	1.48
11.5	10	0.38							
12.5	11	0.32	0.6			0.6	0.72	0.43	1.91
13.5	12	0.42							
14.5	13	0.5	0.5			0.5	0.95	0.48	2.39
15.5	14	0.48							
16.5	15	0.64	0.62			0.62	1.08	0.67	3.06
17.5	16	0.6							
18.5	17	0.6	0.65			0.65	1.22	0.79	3.85
19.5	18	0.64							
20.5	19	0.71	0.58			0.58	1.4	0.78	4.63
21.5	20	0.74							
22.5	21	0.76	0.58			0.58	1.705	0.99	5.62
23.5	22	1.15							
24.5	23	1.27	0.58			0.58	2.605	1.45	7.07
25.5	24	1.32							
26.5	25	1.22	0.64			0.64	2.51	1.61	8.68
27.5	26	1.20							
28.5	27	1.12	0.67			0.67	2.315	1.32	10.00
29.5	28	1.13							
30.5	29	1.13	0.33			0.33	2.295	0.76	10.76
31.5	30	1.2							
32.5	31	1.4	0.32			0.32	2.685	0.85	11.61
33.5	32	1.33							
34.5	33	1.42	0.27			0.27	2.745	0.74	12.35
35.5	34	1.32							
36.5	35	1.3	0.38			0.38	2.63	1.00	13.35
37.5	36	1.34							
38.5	37	1.08	0.37			0.37	2.425	0.80	14.25
39.5	38	1.35							
40.5	39	1.33	0.47			0.47	2.615	1.18	15.43
41.5	40	1.02							
42.5	41	0.88	0.52			0.52	1.705	0.89	16.32
43.5	42	0.83							
44.5	43	0.58	0.36			0.36	1.13	0.41	16.72
45.5	44	0.51							
46.5	45	0.42	0.2			0.2	0.845	0.17	16.89
47.5	46	0.34							
48.5	47	0.35	0.18			0.18	0.84	0.15	17.04
49.5	48	0.64							
50.5	49	0.41	0.12			0.12	0.945	0.11	17.16
51.5	50	0.43							
52	50.5	0.31	0			0	-7.6425	0.00	17.16

Project:	Ashuelot River TMDL					Date:	8/16/01		
Waterbody Name:	South Branch Ashuelot River					Time Begin	12:55		
Station ID:	2-Sba					Time End:	13:10		
Station Description:									
Staff Names:	KE, MJ								
River Width (ft)	37.75								
Distance Readings									
Tape	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
4	0	0							
4.75	0.75	0.2	0.01			0.01	0.28125	0.00	0.00
5.5	1.5	0.35							
6.25	2.25	0.4	0.09			0.09	0.675	0.06	0.06
7	3	0.65							
7.75	3.75	0.85	0.17			0.17	1.25625	0.21	0.28
8.5	4.5	1							
9.25	5.25	1.3	0.27			0.27	1.875	0.51	0.78
10	6	1.4							
10.75	6.75	1.45	0.24			0.24	2.2125	0.53	1.31
11.5	7.5	1.6							
12.25	8.25	1.7	0.22			0.22	2.5875	0.57	1.88
13	9	1.9							
13.75	9.75	2.1		0.23	0.21	0.22	3.075	0.68	2.56
14.5	10.5	2.1							
15.25	11.25	2.1		0.3	0.25	0.275	3.1125	0.86	3.42
16	12	2							
16.75	12.75	1.95	0.25			0.25	2.925	0.73	4.15
17.5	13.5	1.9							
18.25	14.25	1.85	0.35			0.35	2.775	0.97	5.12
19	15	1.8							
19.75	15.75	1.8	0.27			0.27	2.6625	0.72	5.84
20.5	16.5	1.7							
21.25	17.25	1.75	0.4			0.4	2.60625	1.04	6.88
22	18	1.75							
22.75	18.75	1.75	0.39			0.39	2.60625	1.02	7.90
23.5	19.5	1.7							
24.25	20.25	1.7	0.37			0.37	2.55	0.94	8.84
25	21	1.7							
25.75	21.75	1.65	0.46			0.46	2.49375	1.15	9.99
26.5	22.5	1.65							
27.25	23.25	1.65	0.47			0.47	2.45625	1.15	11.14
28	24	1.6							
28.75	24.75	1.6	0.54			0.54	2.38125	1.29	12.43
29.5	25.5	1.55							
30.25	26.25	1.55	0.52			0.52	2.34375	1.22	13.65
31	27	1.6							
31.75	27.75	1.65	0.46			0.46	2.45625	1.13	14.78
32.5	28.5	1.65							
33.25	29.25	1.6	0.56			0.56	2.4375	1.37	16.14
34	30	1.65							
34.75	30.75	1.7	0.38			0.38	2.5125	0.95	17.10
35.5	31.5	1.65							
36.25	32.25	0.75	0.32			0.32	1.4625	0.47	17.56
37	33	0.75							
37.75	33.75	0	0			0	0.28125	0.00	17.56

Project:		Ashuelot River TMDL				Date:		8/16/01	
Waterbody Name:	Ashuelot Rivr					Time Begin	11:07		
Station ID:	14T-Ash					Time End:	11:58		
Station Description:	1000 ft u.s. of bridge, measurement rated fair to poor due to turbulence								
Staff Names:	JGA, RO								
River Width (ft)	31.75								
Distance Readings									
Tape	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
4.5	0	0							
6	1.5	0.28	0.43			0.43	0.485	0.20	0.20
6.75	2.25	0.4							
7.5	3	0.41	1.12			1.12	0.6075	0.68	0.88
8.25	3.75	0.4							
9	4.5	0.5	1.02			1.02	0.78375	0.80	1.68
9.75	5.25	0.69							
10.5	6	0.87	1.06			1.06	1.24125	1.32	3.00
11.25	6.75	0.88							
12	7.5	0.81	1.51			1.51	1.24875	1.89	4.88
12.75	8.25	0.83							
13.5	9	0.8	2.25			2.25	1.2075	2.72	7.60
14.25	9.75	0.79							
15	10.5	0.62	2.31			2.31	1.09125	2.52	10.12
15.75	11.25	0.88							
16.5	12	1.01	1.85			1.85	1.455	2.69	12.81
17.25	12.75	0.98							
18	13.5	0.95	2.34			2.34	1.455	3.40	16.22
18.75	14.25	1							
19.5	15	1.03	1.96			1.96	1.48875	2.92	19.13
20.25	15.75	0.91							
21	16.5	0.9	1.86			1.86	1.39125	2.59	21.72
21.75	17.25	1							
22.5	18	1.05	1.28			1.28	1.54125	1.97	23.69
23.25	18.75	1.01							
24	19.5	1.06	0.98			0.98	1.54875	1.52	25.21
24.75	20.25	1							
25.5	21	1.02	1.74			1.74	1.5525	2.70	27.91
26.25	21.75	1.1							
27	22.5	1.1	2.15			2.15	1.6875	3.63	31.54
27.75	23.25	1.2							
28.5	24	1.2	2.05			2.05	1.78125	3.65	35.19
29.25	24.75	1.15							
30	25.5	1.06	1.84			1.84	1.62375	2.99	38.18
30.75	26.25	1.06							
31.5	27	0.99	1.22			1.22	1.4775	1.80	39.98
32.25	27.75	0.9							
33	28.5	0.89	1.28			1.28	1.21125	1.55	41.53
33.75	29.25	0.55							
34.5	30	0.43	1.11			1.11	0.67875	0.75	42.29
35.25	30.75	0.4							
36.25	31.75	0.29	0			0	-4.25875	0.00	42.29

Project:		Ashuelot River TMDL				Date:		8/16/01	
Waterbody Name:		Ashuelot River				Time Begin		11:25	
Station ID:		12-Ash				Time End:		12:10	
Station Description:		2 ft downstream of Rte 10 crossing							
Staff Names:		KE, MJ							
River Width (ft)		75							
Distance Readings									
Tape	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
3	0	0							
4.5	1.5	1.5	0.08			0.08	3.525	0.28	0.28
6	3	1.7							
7.5	4.5	2.5		0.21	0.12	0.165	7.05	1.16	1.45
9	6	2.7							
10.5	7.5	2.8		0.14	0.23	0.185	8.325	1.54	2.99
12	9	2.8							
13.5	10.5	2.3		0.34	0.33	0.335	7.6875	2.58	5.58
15	12	2.85							
16.5	13.5	2.7		0.31	0.37	0.34	8.2875	2.82	8.38
18	15	2.8							
19.5	16.5	2.9		0.27	0.41	0.34	8.475	2.88	11.26
21	18	2.7							
22.5	19.5	2.95		0.35	0.36	0.355	8.475	3.01	14.27
24	21	2.7							
25.5	22.5	2.4		0.4	0.35	0.375	7.425	2.78	17.05
27	24	2.4							
28.5	25.5	2.35		0.4	0.39	0.395	7.1625	2.83	19.88
30	27	2.45							
31.5	28.5	2.6		0.5	0.52	0.51	7.7625	3.96	23.84
33	30	2.7							
34.5	31.5	2.7		0.51	0.44	0.475	7.9125	3.76	27.60
36	33	2.45							
37.5	34.5	2.7		0.51	0.5	0.505	7.9875	4.03	31.63
39	36	2.8							
40.5	37.5	2.8		0.61	0.46	0.535	8.4	4.49	36.13
42	39	2.8							
43.5	40.5	2.8		0.61	0.48	0.545	8.4375	4.60	40.73
45	42	2.85							
46.5	43.5	2.85		0.54	0.52	0.53	8.5875	4.55	45.28
48	45	2.9							
49.5	46.5	2.9		0.6	0.42	0.51	8.5875	4.38	49.68
51	48	2.75							
52.5	49.5	2.85		0.48	0.44	0.46	8.4375	3.88	53.54
54	51	2.8							
55.5	52.5	2.7		0.57	0.47	0.52	8.1	4.21	57.75
57	54	2.6							
58.5	55.5	2.6		0.55	0.47	0.51	7.6125	3.88	61.63
60	57	2.55							
61.5	58.5	2.55		0.4	0.34	0.37	7.5375	2.79	64.42
63	60	2.4							
64.5	61.5	2.45		0.49	0.42	0.455	7.3125	3.33	67.75
66	63	2.45							
67.5	64.5	2.4		0.49	0.41	0.45	7.0875	3.19	70.94
69	66	2.2							
70.5	67.5	2.2		0.48	0.39	0.435	6.4875	2.82	73.76
72	69	2.05							
73.5	70.5	1.15	0.44			0.44	4.05	1.78	75.54
75	72	1.05							
76.5	73.5	0.85	0.31			0.31	2.0625	0.64	76.18
78	75	0							

Project:	Ashuelot River TMDL					Date:	8/16/01		
Waterbody Name:	Ashuelot River					Time Begin:	15:00		
Station ID:	20A-Ash					Time End:			
Station Description:									
Staff Names:	KE, MJ								
River Width (ft)	49								
Distance Readings									
Type	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
#	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
3	0	0							
4	1	0.3	0			0	0.525	0.00	0.00
5	2	0.45							
6	3	0.6	0.06			0.06	1.175	0.07	0.07
7	4	0.7							
8	5	0.7	0.04			0.04	1.45	0.08	0.13
9	6	0.8							
10	7	0.95	0.07			0.07	1.75	0.12	0.25
11	8	0.8							
12	9	0.85	0.08			0.08	1.825	0.15	0.40
13	10	1.15							
14	11	1.25	0.1			0.1	2.4	0.24	0.64
15	12	1.15							
16	13	1.2	0.15			0.15	2.325	0.35	0.99
17	14	1.1							
18	15	1.1	0.17			0.17	2.25	0.38	1.37
19	16	1.2							
20	17	1.2	0.16			0.16	2.45	0.39	1.76
21	18	1.3							
22	19	1.3	0.19			0.19	2.65	0.50	2.28
23	20	1.4							
24	21	1.55	0.19			0.19	3.1	0.59	2.85
25	22	1.7							
26	23	1.7	0.15			0.15	3.35	0.50	3.36
27	24	1.6							
28	25	1.6	0.19			0.19	3.25	0.62	3.97
29	26	1.7							
30	27	1.7	0.21			0.21	3.525	0.74	4.71
31	28	1.95							
32	29	1.95	0.19			0.19	3.9	0.74	5.45
33	30	1.95							
34	31	1.9	0.17			0.17	3.8	0.65	6.10
35	32	1.85							
36	33	1.85	0.14			0.14	3.675	0.51	6.61
37	34	1.8							
38	35	1.8	0.13			0.13	3.6	0.47	7.08
39	36	1.8							
40	37	1.95	0.11			0.11	3.8	0.43	7.51
41	38	2.1							
42	39	2.2		0.11	0.12	0.115	4.3	0.49	8.01
43	40	2.1							
44	41	1.9	0.16			0.16	3.925	0.63	8.63
45	42	1.95							
46	43	1.8	0.11			0.11	3.875	0.40	9.04
47	44	1.8							
48	45	1.5	0.11			0.11	3.15	0.35	9.38
49	46	1.5							
50	47	1.3	0.11			0.11	2.55	0.28	9.67
51	48	1	0.14			0.14	1.65	0.23	0.23
52	49	0	0			0	0.5	0.00	9.67



Abuelo River
8/23/01

HEADER DATA
COMPLETE

Sampling team	EMST 1	EMST 2	ST 1	ST 2	ST 3	ST 4
Team Members DO/Temp Meter SN pH Meter SN Spec Cond. SN	Gregg Costello / Paul Pischke 01C0218 AB 10732 01C0655 AD	Shane Ducharme / George Berland 01C0218 AB 14063 00D0152 AA	George Berland / Paul Pischke 01C0218 AB 10732 01C0655 AD	Ashley Bourland / Det Saele 01C0218 AB 14063 00D0152 AA	Stephanie Larson / Tom Christie 01C0218 AB 12979 00D0152 AB	George Christen / Matt Jones 01C0218 AB 14166 01C0218 AB

DO/TEMP METER

PASS	Calibration Elevation (ft)	500	500		
Calibration Check 1	OK	Time	6:08	6:08	
	OK	Temp (c)	15.0	15.0	
	OK	% Sat reading (full Sat)	97.7	96.0	
	OK	Temp (degrees C)	20.5	20.8	
	OK	Group check (all probes in same bucket) DO (mg/L)	6.92	6.93	
		Comments			
Calibration Check 2	OK	Time	7:02	7:07	
	OK	Temp (c)	16.5	17.0	
	OK	% Sat reading (full Sat)	94.5	93.0	
	OK	Temp (degrees C)	20.0	20.0	
	OK	Group check (all probes in same bucket) DO (mg/L)	6.41	6.21	
		Comments			
Calibration Check 3	OK	Time	9:05	9:16	
	OK	Temp (c)	23.2	19.6	
	OK	% Sat reading (full Sat)	96.5	88.4	
	OK	Temp (degrees C)	20.8	20.0	
	OK	Group check (all probes in same bucket) DO (mg/L)	6.23	5.83	
		Comments	Recalibrate DO meter due to power off	Do direct test noted may be result of recalibration of EMST #1 DO meter	
Calibration Check 1	OK	Calibration Elevation (ft)		500	500
	OK	Time		9:16	9:16
	OK	Temp (c)		23.2	21.3
	OK	% Sat reading (full Sat)		98.1	98.1
	OK	Temp (degrees C)		21.1	21.1
	OK	Group check (all probes in same bucket) DO (mg/L)		6.54	6.43
		Comments			
Calibration Check 2	OK	Time		11:02	11:02
	OK	Temp (c)		26.0	25.4
	OK	% Sat reading (full Sat)		95.3	96.7
	OK	Temp (degrees C)		21.4	21.3
	OK	Group check (all probes in same bucket) DO (mg/L)		6.86	6.76
		Comments			
Calibration Check 3	OK	Time		14:47	14:47
	MISSING	Temp (c)		--	--
	MISSING	% Sat reading (full Sat)		90.6	96.6
	OK	Temp (degrees C)		27.0	27.0
	MISSING	Group check (all probes in same bucket) DO (mg/L)		7.14	7.29
		Comments			DEAD

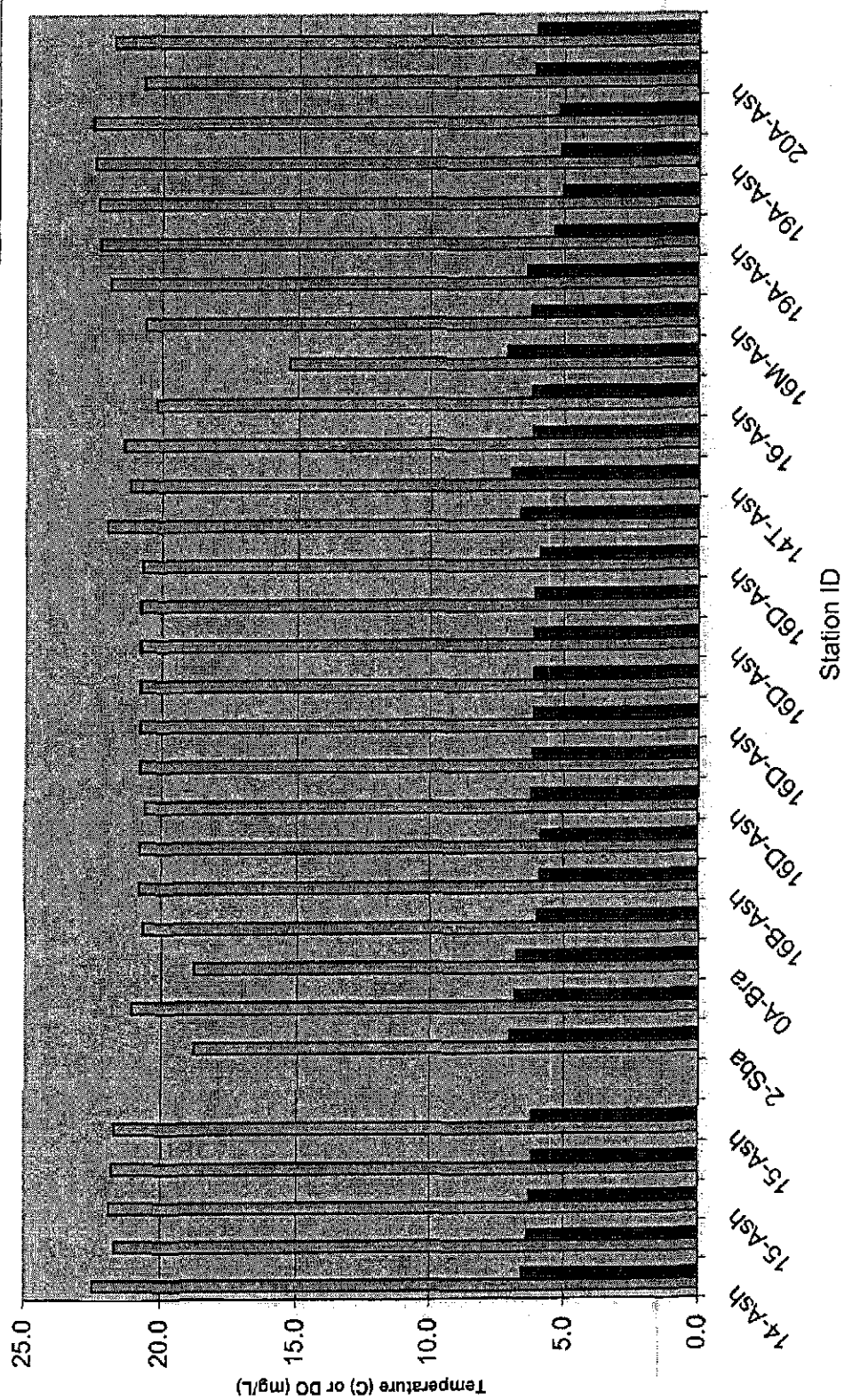
pH METER

Calibration Check 1 (Pre-sampling)	OK	Time		9:05	9:05	9:05	9:05
	OK	Temp (c)		98.7	99.3	97.8	96.8
	OK	pH reading using 4.0 buffer		6.01	6.04	6.00	6.04
	OK	Group Check (all probes in same bucket)		6.06	6.02	7.31	6.11
		Comments					Bucket check after last two sample sizes Time: 11:05
Calibration Check 2 (Mid-sampling)	OK	Time		11:07	11:07	11:07	11:07
	OK	Temp (c)		98.7	98.6	97.1	97.7
	OK	pH reading using 4.0 buffer		6.07	6.04	5.97	6.01
	MISSING	Group Check (all probes in same bucket)					
		Comments					
Calibration Check 3 (Post-sampling)	OK	Time		14:53	14:53	14:53	14:53
	MISSING	Temp (c)					
	OK	pH reading using 4.0 buffer		6.15	6.06	6.07	6.11
	OK	Group Check (all probes in same bucket)		6.87	6.91	6.77	6.70
		Comments					

CONDUCTIVITY

Calibration Check 1 (Pre-sampling)	MISSING	Time					
	MISSING	Temp (c)					
		Group Check (all probes in same bucket)					
		Comments					

Temperature (degrees C)



8/23/01		Ashuelot River		Field Duplicate Checks					
Station	Date	Sample Time	Field Measurement Time	Temp (degrees C)	DO (mg/L)	Conductivity (uS/cm)	pH	Rep (Y/N)	pH 6.0 standard
19A-Ash	8/23/01	13:05	--	24.3	7.84	125.7	6.74	N	
19A-Ash	8/23/01	13:20	--	24.2	7.74	125.9	6.67	Y	--
Difference between duplicate samples				0.1	0.1	0.0%	0.07		
Pass or Fail QAPP Performance Criteria				PASS	PASS	PASS	PASS		
20A-Ash	8/23/01	12:10	12:13	21.6	7.60	87.3	6.63	N	
20A-Ash	8/23/01	12:25	12:28	21.6	7.46	84.9	6.49	Y	6.04
Difference between duplicate samples				0.0	0.14	0.7%	0.14		
Pass or Fail QAPP Performance Criteria				PASS	PASS	PASS	PASS		
Ashuelot TMDL									
Field Summary									
23-Aug-01	Temp (degrees C)	DO (mg/L)	DO (% sat)	Conductivity (uS/cm)	pH				
n=	29	28	0	22	22				
Min	19.8	3.61	0.00	68.8	5.95				
Max	24.6	8.87	0.00	788.0	7.54				
Range	4.8	5.26	0.0	719.2	1.59				
Average	22.35	7.06	#DIV/0!	261.6	6.80				
St. Dev.	1.36	0.98	#DIV/0!	215.8	0.38				
Median	22.4	7.05	#NUM!	213.7	6.72				

NH DES LABORATORY SERVICES LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

Program / Client ID: π In-House, π OSA, π Pool, π Special, π Swim, π VLAP, π Other: TMDL EPA # / Project #: 05-0022512 (TMDL)

System Name: Ashuelot River Site / Town: See Below Contact: Gregg Comstock (x2983)

Comments:

Collected By & Phone# See "Other / Notes" below

Sample Location / ID	Date/Time Sampled	# of Containers	Matrix	BOD5	BOD 20	TSS	TKN	NH3	NO2+NO3	TP	Ortho P	TOC	Chlor a	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
12-Ash Ashuelot River-Coombs Rd. Covered Bridge, Winchester	8/23/01 10:08	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	A. Bourland D. Soule	025724-1 007224-10:00
14-Ash Ashuelot River, Approx. 100 ft upstream of Covered Bridge, Swanzey <i>1st composite sample</i>	8/23/01 10:07	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	P. Piscoczek G. Berlandi	
W. Swanzey WWTF Effluent	8/23/01 11:30	6	A b	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	T. Grotteau S. Larson	007224-3
14T-Ash, Denman Thompson Highway Bridge, Swanzey	8/23/01 10:01	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	M. Jones G. Carlson	

Relinquished By: Gregg Comstock Date and Time: 8/23/01 17:36 Received By: _____

Relinquished By: _____ Date and Time: _____ Received By: _____

Relinquished By: _____ Date and Time: _____ Received For Laboratory By: ASB

Matrix: A = Air S = Soil AQ = Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page 1 of 6 Date Reviewed By: _____ Date: _____

Section No.: 22.0
Revision No.: 1
Date: 1-17-01

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

System Name: Ashuelot River
Site / Town: See Below
Contact: Gregg Comstock (x2983)

Comments: _____

Collected By & Phone# _____ See "Other / Notes" below

Sample Location / ID	Date/Time Sampled	# of Containers	Matrix	BOD5	BOD 20	TSS	TKN	NH3	NO2+NO3	TP	Ortho P	TOC	Chlor a	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
15-Ash Ashuelot River, Thompson Covered Bridge, Homestead Woolen Impoundment, Swanzey.	8/23/01 9:58	6	Aq		Y	Y	Y	Y	Y	Y	Y	Y	Y	S. Larson T. Croteau	A29324-5
15E-Ash Ashuelot River, Dirt Road off of Sawyer's Crossing Road, Swanzey.	8/23/01 10:36	6	Aq		Y	Y	Y	Y	Y	Y	Y	Y	Y	P. Pizczek G. Berlandi	A29324-6
16-Ash Ashuelot River, Cresson Bridge (covered bridge off of Sawyer's Crossing Road), Swanzey	8/23/01 10:44	6	Aq		Y	Y	Y	Y	Y	Y	Y	Y	Y	A. Bourland D. Soule	A29324-7
2-Sba South Branch Ashuelot River, Rte 32 bridge, Swanzey.	8/23/01 10:35	6	Aq		Y	Y	Y	Y	Y	Y	Y	Y	Y	M. Jones G. Carlsson	A29324-8
16B-Ash Ashuelot River, Approximately 50 feet upstream of confluence with S. Branch Ashuelot River, Swanzey.	8/23/01 11:54	6	Aq		Y	Y	Y	Y	Y	Y	Y	Y	Y	G. Comstock S. Carlsson T. Croteau	A29324-9

Relinquished By <i>Consistent</i>	Date and Time <i>5/23/01 19:36</i>	Received By
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Relinquished By _____ Date and Time _____ Received By _____

Relinquished By _____
Date and Time _____
Received For Laboratory By ABV

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page 2 of 6 Date _____
Data Reviewed By _____

Section No.: 22.0
Revision No.: 1
Date: 1-17-01

NH DES LABORATORY SERVICES LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

Program / Client ID: , π In-House, π OSA, π Pool, π Special, π Swim, π VLAP, π Other: TMDL EPA # / Project #: 05-0022512 (TMDL)

System Name: Ashuelot River Site / Town: See Below Contact: Gregg Comstock (x2983)

Comments: Collected By & Phone# See "Other / Notes" below

Sample Location / ID	Date/Time Sampled	# of Containers	Matrix	BOD5	BOD20	TSS	TKN	NH3	NO2+NO3	PH	DO	TOC	Chlorine	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
1st comp. sample - Keene WWTF Effluent	8/23/01 11:00	6	A b	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	S. Larson T. Croteau	A29724-10 08/23 11:00
BucketB#1 Field Bucket Blank	8/23/01 12:50	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	G. Comstock	A29724-11 08/23 12:50
BottleB#1 Field Bottle Blank	8/23/01 12:55	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	G. Comstock	A29724-12 08/23 12:55
16D-Ash Ashuelot River, Approximately 50 feet upstream of Keene WWTF outfall pipe, Swanzey	8/23/01 12:19	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	G. Comstock T. Croteau	

Relinquished By: G. Comstock Date and Time: 8/23/01 12:36

Relinquished By: _____ Date and Time: _____

Relinquished By: _____ Date and Time: _____ Received For Laboratory By: G. Comstock

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page 3 of 6 Data Reviewed By: _____ Date: _____

Section No.: 22.0
Revision No.: 1
Date: 1-17-01

NH DES LABORATORY SERVICES LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

Program / Client ID: π In-House, π OSA, π Pool, π Special, π Swim, π VLAP, π Other: TMDL EPA # / Project #: 05-0022512 (TMDL)

System Name: Ashuelot River Site / Town: See Below Contact: Gregg Comstock (x2983)

Comments:

Collected By & Phone# See "Other / Notes" below

Sample Location / ID	Date/Time Sampled	# of Containers	Matrix	BOD5	BOD20	TSS	TKN	NH3	NO2+NO3	TP	Ortho P	TOC	Chlor a	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
0A-Ash Ash Swamp Brook, Railroad bed/bike path bridge approximately 200 feet upstream from confluence with Ashuelot River, Swansey	8/23/01 12:03	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	P. Piszcsek G. Berlandi	
16M-Ash Ashuelot River, Approximately 50 feet upstream of Ash Swamp Brook confluence, Swansey	8/23/01 11:49	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	P. Piszcsek G. Berlandi	022724-15 08/23 11:49
0A-Bra The Branch River, Approximately 100 feet upstream of confluence with Ashuelot River, Keene	8/23/01 11:45	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	A. Barland D. Soule	022724-15 08/23 11:45
17-Ash Ashuelot River, Foot bridge off of Martel Ave., Keene	8/23/01 11:37	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	M. Jones G. Carlson	022724-17 08/23 11:37

Page 1 of 1 Relinquished By Gregg Comstock Date and Time 8/23/01 17:36 Received By _____

Relinquished By _____ Date and Time _____ Received By _____

Relinquished By _____ Date and Time _____ Received For Laboratory By JP

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page 4 of 6 Date Reviewed By _____ Date _____

Section No.: 22.
Revision No.: 1
Date: 1-17-01

NH DES LABORATORY SERVICES LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

Program / Client ID: , π In-House, π OSA, π Pool, π Special, π Swim, π VLAP, π Other: TMDL EPA # / Project #: 05-0022512 (TMDL)

System Name: Ashuelot River Site / Town: See Below Contact: Gregg Comstock (x2983)

Comments: Collected By & Phone# See "Other / Notes" below

Sample Location / ID	Date/Time Sampled	# of Containers	Matrix	BOD5	BOD20	TSS	TKN	NH3	NO2+NO3	pH	Ortho P	TOC	Chlor a	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
19-Ash Ashuelot River West Street Bridge Keene	8/23/01 12:16	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	A. Boorland D. Soule	A29324-18
19A-Ash - DUP1 Ashuelot River Foot bridge across West Street dam impoundment, Keene	8/23/01 13:05	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	A. Boorland D. Soule	A29324-19
19A-Ash - DUP2 Ashuelot River Foot bridge across West Street dam impoundment, Keene	8/23/01 13:20	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	A. Boorland D. Soule	

Relinquished By G. Comstock Date and Time 8/23/01 17:36 Received By _____

Relinquished By _____ Date and Time _____ Received By _____

Relinquished By _____ Date and Time _____ Received For Laboratory By AG

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page 5 of 6 Date Reviewed By _____ Date _____

Section No.: 22.0
Revision No.: 1
Date: 1-17-01

NH DES LABORATORY SERVICES LOGIN AND CUSTODY SHEET

(Laboratory Policy: Samples not meeting method requirements will be analyzed at the discretion of the NH DES Laboratory.)

Program / Client ID: , π In-House, π OSA, π Pool, π Special, π Swim, π VLAP, π Other: TMDL EPA # / Project #: 05-0022512 (TMDL)

System Name: Ashuelot River Site / Town: See Below Contact: Gregg Comstock (x2983)

Comments:

Collected By & Phone# See "Other / Notes" below

Sample Location /ID	Date/Time Sampled	# of Containers	Matrix	BOD5	BOD	TSS	TKN	NH3	NO2+NO3	TP	Ortho P	TOC	Chlor a	Other / Notes (Put Names of samplers here)	Lab ID # (For Lab Use Only)
20A-Ash - DUP1 Ashuelot River Stone Arch Bridge 200 feet upstream of Rte 12A.	8/23/01 12:10	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	M. Jones G. Carlson	05-0022512
20A-Ash - DUP2 Ashuelot River Stone Arch Bridge 200 feet upstream of Rte 12A.	8/23/01 12:25	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	M. Jones G. Carlson	05-0022512
21-Ash Ashuelot River East Surry Road bridge, Surry	8/23/01 12:45	6	A b		Y	Y	Y	Y	Y	Y	Y	Y	Y	M. Jones G. Carlson	05-0022512

Page 1 of 1 Relinquished By J. Comstock Date and Time 8/23/01 17:36 Received By _____

Relinquished By _____ Date and Time _____ Received By _____

Relinquished By _____ Date and Time _____ Received For Laboratory By GA

Matrix: A= Air S= Soil AQ= Aqueous (Ground Water, Surface Water, Drinking Water, Waste Water) π Other: _____

Page 6 of 6 Date Reviewed By _____ Date _____

Section No.: 22.1
Revision No.: 1
Date: 1-17-01



State of New Hampshire
Department of Environmental Services
6 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
(603) 271-3445/3446

Emergency Contact

Results of Laboratory Analysis

Sample #: A29324-23
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 12:45
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :

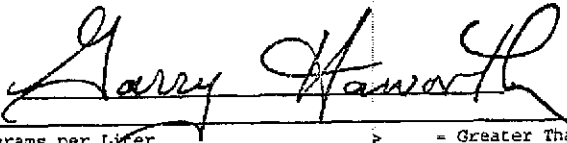
Locator : 21-ASH E SURRY RD BRDG
Descript : TMDL RIVER STUDIES
Site : SURRY
Collectby: M JONES/G CARLSON
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	.88	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	<0.05	mg/L	.05	353.2
NITROGEN, TKN	.2	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	<.005	mg/L	.005	365.3
RESIDUE, T. SUSPENDED	2.5	mg/L	1	160.2
T. PHOSPHORUS	.013	mg/L	.005	365.3
Total Organic Carbon	3.2	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~Redacted~~

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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(603) 271-3445/3446

Results of Laboratory Analysis

Sample #: A29324-22
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 12:25
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :
Locator : 20A-ASH-DUP2 STONE ARC BRDG 200FT
Descript : TMDL RIVER STUDIES
Site :
Collectby: M JONES/G CARLSON
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	1.23	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.08	mg/L	.05	353.2
NITROGEN, TKN	.2	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	1	mg/L	1	160.2
T. PHOSPHORUS	.01	mg/L	.005	365.3
Total Organic Carbon	3.3	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~BDL 1.0 mg/L~~ 4.0 mg/L

Authorized Signature:

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A29324-21
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 12:10
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :

Locator : 20A-ASH-DUP1 STONE ARC BRDG 200FT
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: M JONES/G CARLSON
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	1.23	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.08	mg/L	.05	353.2
NITROGEN, TKN	.1	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	1	mg/L	1	160.2
T. PHOSPHORUS	.009	mg/L	.005	365.3
Total Organic Carbon	3	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~Redacted text~~

Authorized Signature:

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

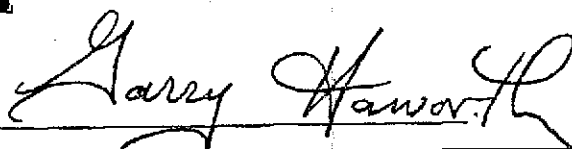
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Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 13:20
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :
Locator : 19A-ASH-DUP2 FT BRDG ACR W ST DAM
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: A BOURLAND/D SOULE
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	1.78	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	<0.05	mg/L	.05	353.2
NITROGEN, TKN	.1	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	<.005	mg/L	.005	365.3
RESIDUE, T. SUSPENDED	1	mg/L	1	160.2
T. PHOSPHORUS	.009	mg/L	.005	365.3
Total Organic Carbon	3.3	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~RECEIVED LAB REPORT~~

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

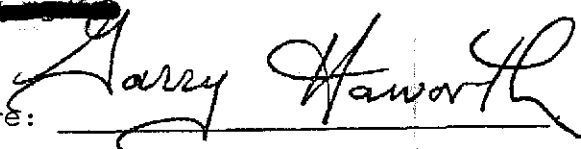
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Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 13:05
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :
Locator : 19A-ASH-DUP1 FT BRDGE ACR W ST DA
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: A BOURLAND/D SOULE
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	2.16	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	<0.05	mg/L	.05	353.2
NITROGEN, TKN	.2	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	1	mg/L	1	160.2
T. PHOSPHORUS	.009	mg/L	.005	365.3
Total Organic Carbon	3.1	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~See Lab Report for details~~

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A29324-18
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 12:16
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :
Locator : 19-ASH WEST ST BRDG
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: A BOURLAND/D SOULE
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	1.59	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.05	mg/L	.05	353.2
NITROGEN, TKN	.1	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	3.5	mg/L	1	160.2
T. PHOSPHORUS	.009	mg/L	.005	365.3
Total Organic Carbon	3	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: BOD Lab Sample 4 C mg/L

Authorized Signature:

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

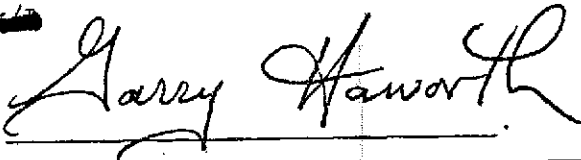
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Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 11:37
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :
Locator : 17-ASH FT BRDG OFF MARTEL AVE
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: M JONES/G CARLSON
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	2.6	mg/L		
Chlorophyll "A"	1.8	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.07	mg/L	.05	353.2
NITROGEN, TKN	.1	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	6.5	mg/L	1	160.2
T. PHOSPHORUS	.012	mg/L	.005	365.3
Total Organic Carbon	3.2	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~Lab done - 4.0 mg/L~~

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

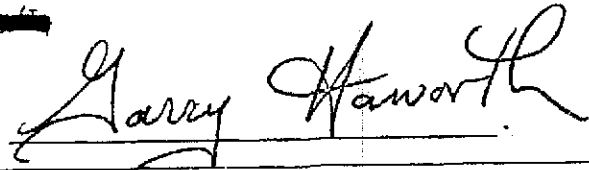
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Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 11:45
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :
Locator : 0A-BRA BRANCH RIV APP 100FT UP CO
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: A BOURLAND/D SOULE
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3.5	mg/L		
Chlorophyll "A"	2.32	mg/M3	.01	
NITROGEN, AMMONIA-N	.2	mg/L	.1	350.1
NITROGEN, NO3+NO2	.22	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	4.5	mg/L	1	160.2
T. PHOSPHORUS	.012	mg/L	.005	365.3
Total Organic Carbon	2.9	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: BOD-20 duplicate

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

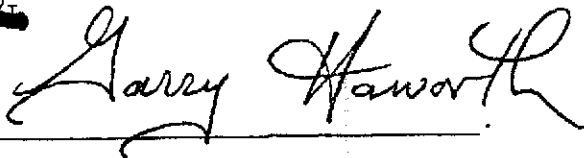
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Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 11:49
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :
Locator : 16M-ASH APP 50FT UP SWAMP BK CONF
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: P PISZCZEK/G BERLANDI
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	2.9	mg/L		
Chlorophyll "A"	1.94	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.12	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	7	mg/L	1	160.2
T. PHOSPHORUS	.012	mg/L	.005	365.3
Total Organic Carbon	3.4	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~LOD 1.0 mg/L~~

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A29324-14

Category: IN HOUSE

Matrix : Aqueous

Collection Date: 08/23/2001 12:03

Log in Date : 08/24/2001 06:38

Completion Date: 10/12/2001

Misc ID :

Locator : 0A-ASB SWAMP BK RAILRD BED/BIKE A

Descript : TMDL RIVER STUDIES

Site : SWANZEY

Collectby: P PISZCZEK/G BERLANDI

Account #: 05-04-04

Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3.5	mg/L		
Chlorophyll "A"	4.15	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.5	mg/L	.05	353.2
NITROGEN, TKN	.2	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	11	mg/L	1	160.2
T. PHOSPHORUS	.018	mg/L	.005	365.3
Total Organic Carbon	4.2	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~not lab type~~

Authorized Signature:

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A29324-13
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 12:19
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :

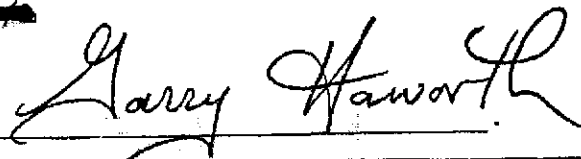
Locator : 16D-ASH APP 50FT UP OF KEENE WWTF
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: G COMSTOCK/T CROTEAU
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	2.5	mg/L		
Chlorophyll "A"	2.16	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.14	mg/L	.05	353.2
NITROGEN, TKN	.2	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	<.005	mg/L	.005	365.3
RESIDUE, T. SUSPENDED	8.5	mg/L	1	160.2
T. PHOSPHORUS	.014	mg/L	.005	365.3
Total Organic Carbon	3.5	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~REDACTED~~

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A29324-12
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 12:55
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :
Locator : BOTTLEB#1 FIELD BOTTLE BLANK
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: G COMSTOCK
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	.36	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	<0.05	mg/L	.05	353.2
NITROGEN, TKN	<.1	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	2	mg/L	1	160.2
T. PHOSPHORUS	<.005	mg/L	.005	365.3
Total Organic Carbon	.6	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~DOE lab date 10/12/01~~

Authorized Signature:

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

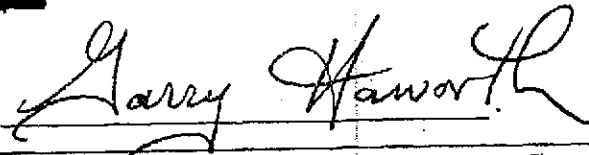
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Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :
Locator : BUCKETB#1 FIELD BUCKET BLANK
Descript : TMDL RIVER STUDIES
Site :
Collectby: G COMSTOCK
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	< 2.4	mg/L		
Chlorophyll "A"	0	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	<0.05	mg/L	.05	353.2
NITROGEN, TKN	<.1	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	1	mg/L	1	160.2
T. PHOSPHORUS	<.005	mg/L	.005	365.3
Total Organic Carbon	.3	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~BOD Lab 3/1/01 0.0 mg/L~~

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

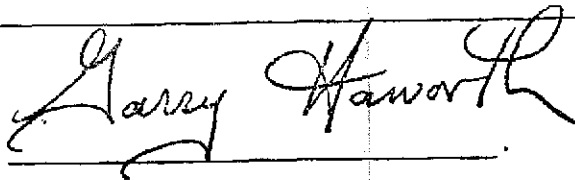
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Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/22/2001 11:00
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :

Locator : 1ST COMP KEENE EFFLUENT
Descript : TMDL RIVER STUDIES
Site : KEENE
Collectby: S LARSON/T CROTEAU
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	11.1	mg/L		
BOD-5	5.8	mg/L		405.1
Chlorophyll "A"	1.66	mg/M3	.01	
NITROGEN, AMMONIA-N	.3	mg/L	.1	350.1
NITROGEN, NO3+NO2	18.2	mg/L	.25	353.2
NITROGEN, TKN	2.9	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	3.68	mg/L	.05	365.3
RESIDUE.T. SUSPENDED	10.5	mg/L	1	160.2
T. PHOSPHORUS	3.4	mg/L	.005	365.3
Total Organic Carbon	11.6	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A29324-9
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 11:55
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :

Locator : 16B-ASH APP 50FT UP OF CONF S BRA
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: G COMSTOCK/T CROTEAU
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3.2	mg/L		
Chlorophyll "A"	2.89	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.64	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	.102	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	4.5	mg/L	1	160.2
T. PHOSPHORUS	.125	mg/L	.005	365.3
Total Organic Carbon	4.4	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~FOR DATA REPORTING ONLY~~

Authorized Signature:

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A29324-8
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 10:35
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :

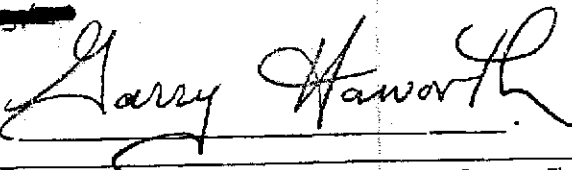
Locator : 2-SBA SOUTH BRANCH ASH RIV RT32 B
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: M JONES/G CARLSON
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	2.8	mg/L		
Chlorophyll "A"	2.13	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.16	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	<.005	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	2	mg/L	1	160.2
T. PHOSPHORUS	.017	mg/L	.005	365.3
Total Organic Carbon	3.3	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~LOD 1.0 mg/L~~

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

* = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A29324-7
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 10:44
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :
Locator : 16-ASH CRESS BRDG COV BRDG OFF SA
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: A BOURLAND/D SOULE
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	4.7	mg/L		
Chlorophyll "A"	1.8	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	1.47	mg/L	.05	353.2
NITROGEN, TKN	.4	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.241	mg/L	.005	365.3
RESIDUE, T. SUSPENDED	5	mg/L	1	160.2
T. PHOSPHORUS	.271	mg/L	.005	365.3
Total Organic Carbon	3.7	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~BDL - 1.0 mg/L~~

Harry Haworth

Authorized Signature: _____

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A29324-6
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 10:36
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :

Locator : 15E-ASH DIRT RD OFF SAWYER CROSS
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: P PISZCZEK/G BERLANDI
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3.7	mg/L		
Chlorophyll "A"	10.3	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	1.58	mg/L	.05	353.2
NITROGEN, TKN	.5	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.231	mg/L	.005	365.3
RESIDUE, T. SUSPENDED	3.5	mg/L	1	160.2
T. PHOSPHORUS	.265	mg/L	.005	365.3
Total Organic Carbon	4.4	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: BOD Lab Sample 4.0 mg/L

Authorized Signature

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A29324-5
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 09:58
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :

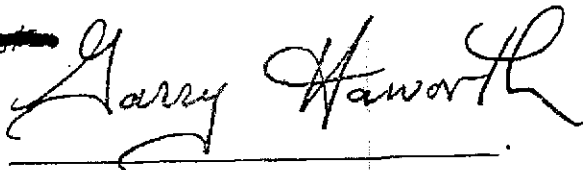
Locator : 15-ASH THOMP COVBRDG HOMEST WOOLI
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: S LARSON/T CROTEAU
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3.6	mg/L		
Chlorophyll "A"	11.4	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	1.21	mg/L	.05	353.2
NITROGEN, TKN	.4	mg/L	.1	351.2
ORTHOPHOSPHORUS, DISSOLVED	.169	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	6	mg/L	1	160.2
T. PHOSPHORUS	.197	mg/L	.005	365.3
Total Organic Carbon	4.1	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~Below Reporting Detection Limit~~

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

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ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

Sample #: A29324-4
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 10:01
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :

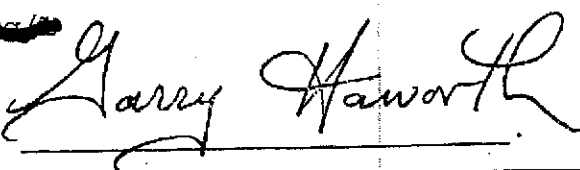
Locator : 14T-ASH DENMAN THOMP HWY BRDGE
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: M JONES/G CARLSON
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3	mg/L		
Chlorophyll "A"	5.83	mg/M3	.01	
NITROGEN, AMMONIA-N	<.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	1.18	mg/L	.05	353.2
NITROGEN, TKN	.3	mg/L	.1	351.2
PHOSPHORUS, D.ORTHO	.161	mg/L	.005	365.3
RESIDUE, T. SUSPENDED	3.5	mg/L	1	160.2
T. PHOSPHORUS	.192	mg/L	.005	365.3
Total Organic Carbon	3.8	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: ~~BOD labeled as 1.0 mg/L~~

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

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ug/kg = micrograms per Kilogram
P-A = Present/Absent



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Results of Laboratory Analysis

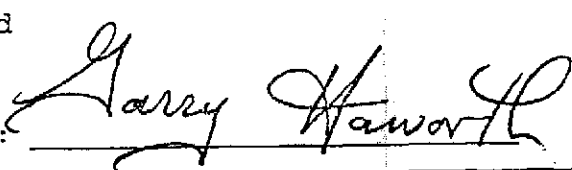
Sample #: A29324-3	Locator : 1STCOMP SWANZEY EFFLUENT
Category: IN HOUSE	Descript : TMDL RIVER STUDIES
Matrix : Aqueous	Site : W SWANZEY
Collection Date: 08/22/2001 11:30	Collectby: T CROTEAU/S LARSON
Log in Date : 08/24/2001 06:38	Account #: 05-04-04
Completion Date: 10/12/2001	Project #: 05-0022512
Misc ID :	

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	175	mg/L		
BOD-5	27	mg/L		405.1
Chlorophyll "A"	114	mg/M3	.01	
NITROGEN, AMMONIA-N	29.1	mg/L	5	350.1
NITROGEN, NO3+NO2	<0.05	mg/L	.05	353.2
NITROGEN, TKN	36.5	mg/L	1	351.2
PHOSPHORUS, D.ORTHO	4.64	mg/L	.05	365.3
RESIDUE.T. SUSPENDED	35	mg/L	1	160.2
T. PHOSPHORUS	4.65	mg/L	.005	365.3
Total Organic Carbon	30	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: TOC result estimated

Authorized Signature: 

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

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ug/kg = micrograms per Kilogram
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Results of Laboratory Analysis

Sample #: A29324-2
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 10:07
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :

Locator : 14-ASH APP 100FT UP OF COVE
Descript : TMDL RIVER STUDIES
Site : SWANZEY
Collectby: P PISCZEK/G BERLANDI
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	4.9	mg/L		
Chlorophyll "A"	16.3	mg/M3	.01	
NITROGEN, AMMONIA-N	.2	mg/L	.1	350.1
NITROGEN, NO3+NO2	1.07	mg/L	.05	353.2
NITROGEN, TKN	.5	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.117	mg/L	.005	365.3
RESIDUE, T. SUSPENDED	5.5	mg/L	1	160.2
T. PHOSPHORUS	.18	mg/L	.005	365.3
Total Organic Carbon	4.7	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Report Comments: BOD lab dupe = 4.0 mg/L

Authorized Signature:

mg/L = milligrams per Liter
< = Less Than
pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

> = Greater Than
ug/kg = micrograms per Kilogram
P-A = Present/Absent



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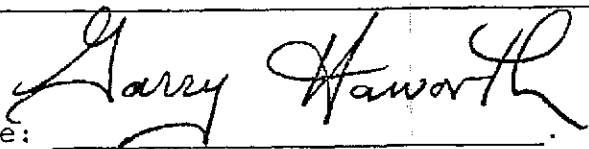
Results of Laboratory Analysis

Sample #: A29324-1
Category: IN HOUSE
Matrix : Aqueous
Collection Date: 08/23/2001 10:08
Log in Date : 08/24/2001 06:38
Completion Date: 10/12/2001
Misc ID :
Locator : 12-ASH COOMBS RD COVBRDG
Descript : TMDL RIVER STUDIES
Site : WINCHESTER
Collectby: A BOURLAND/D SOULE
Account #: 05-04-04
Project #: 05-0022512

PAUL PISZCZEK

Analyte	Results	Units	RDL	EPA Method
BOD-20	3.1	mg/L		
Chlorophyll "A"	3.82	mg/M3	.01	
NITROGEN, AMMONIA-N	.1	mg/L	.1	350.1
NITROGEN, NO3+NO2	.99	mg/L	.05	353.2
NITROGEN, TKN	.6	mg/L	.1	351.2
PHOSPHORUS, D. ORTHO	.085	mg/L	.005	365.3
RESIDUE.T. SUSPENDED	5	mg/L	1	160.2
T. PHOSPHORUS	.123	mg/L	.005	365.3
Total Organic Carbon	3.8	mg/L	.5	SM5310B

Client's Comments: TEMP@REC=4C

Authorized Signature: 

mg/L = milligrams per Liter
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pCi/L = pico Curies per Liter
RDL = Reporting Detection Limit

ug/L = micrograms per Liter
BDL = Below Detection Limit
mg/kg = milligrams per Kilogram

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ug/kg = micrograms per Kilogram
P-A = Present/Absent

2001 Ashuelot River BOD Lab Results and CBOD calcs														Project # 05-0022512			
Collection Date 8-23-01																	
Test, mg/L		RDL 0.1		RDL 0.005		RDL 0.005		RDL 0.5		RDL 0.005		20d NO3+NO2		20d NO3+NO2		20d NO3+NO2	
Sample #	BOD20	TKN	NH3	NO3+NO2	TP	TOC	ortho-P	20d NO3	20d NO3+NO2	mLs used in 20d BOD	Dilution Correction	N Uptake	NBOD	CBOD			
A29324-1	3.1	14.09	0.12	0.99	0.123	3.8	0.085		0.97	250	1.164	0.174	0.80	2.30			
-2	4.9	10.48	0.17	1.07	0.180	4.7	0.117		1.135	250	1.362	0.292	1.33	3.57			
-3	175	3.65	**29.1	0.03	4.65^	***30	*4.64		3.42	25	41.04	41.01	187.42	-12.42			
-4	3	8.24	0.01	1.18	0.192	3.8	0.161		1.05	250	1.26	0.08	0.37	2.63			
-5	3.6	9.50	0	1.21	0.197	4.1	0.169		1.06	250	1.272	0.062	0.28	3.32			
-6	3.7	13.12	0.11	1.58	0.263^^	4.4	0.231		1.4	250	1.68	0.1	0.46	3.24			
-7	4.7	8.38	0.06	1.47	0.271^^	3.7	0.241		1.37	250	1.644	0.174	0.80	3.90			
-8	2.8	6.28	0	0.16	0.017	3.3	0		0.29	250	0.348	0.188	0.86	1.94			
-9	3.2	6.43	0.07	0.64	0.125	4.4	0.102		0.67	250	0.804	0.164	0.75	2.45			
-10	11.1	22.48	0.35	18.2	3.40*\$	11.6	*3.68		3.43	50	20.58	2.38	10.88	0.22			
-11	1.1	0.90	0	0.02	0.001	0.3	0.002		0.013	250	0.0156	-0.0044	-0.02	1.12			
-12	0.8	0.28	0	0.008	0.002	0.6	0		0.016	250	0.0192	0.0112	0.05	0.75			
-13	2.5	5.45	0.07	0.0135	0.014	3.5	0.002		0.26	250	0.312	0.2985	1.36	1.14			
-14	3.5	5.45	0.11	0.5	0.018	4.2	0.003		0.62	250	0.744	0.244	1.12	2.38			
-15	2.9	6.28	0.08	0.12	0.012	3.4	0.002		0.3	250	0.36	0.24	1.10	1.80			
-16	3.5	6.57	0.2	0.22	0.012	2.9	0		0.44	250	0.528	0.308	1.41	2.09			
-17	2.6	*0.13	0	0.07	0.012	3.2	0		0.18	250	0.216	0.146	0.67	1.93			
-18	1.9	*0.13	0.05	0.05	0.009	3	0		0.09	250	0.108	0.058	0.27	1.63			
-19	2.2	*0.20	0	0.03	0.009	3.1	0.001		0.031	250	0.0372	0.0072	0.03	2.17			
-20	1.7	*0.07	0	0.033	0.009	3.3	0		0.037	250	0.0444	0.0114	0.05	1.65			
-21	2.3	*0.13	0	0.079	0.009	3	0		0.1	250	0.12	0.041	0.19	2.11			
-22	2.2	*0.18	0	0.08	0.010	3.3	0.002		0.09	250	0.108	0.028	0.13	2.07			
-23	2.3	*0.15	0.03	0.01	0.013	3.2	0		0.1	250	0.12	0.11	0.50	1.80			
An entry of zero means the result was either zero or a negative number																	
^TKN RDL for this sample=1																	
***estimated, off scale																	
^TP RDL=0.2																	
^^RDL=0.05																	
^SRDL=0.1																	
Workgroups																	
TP082901																	
TSS082801																	
TKN091101 and TKNLTBOD2001																	
FIA082401																	

Project:		Ashuelot River TMDL				Date:		8/23/01	
Waterbody Name:		Ashuelot Rivr				Time Begin		13:50	
Station ID:		20A-Ash				Time End:		14:20	
Station Description:		Old Stone Arch Bridge - Beaver dam downstream- very low velocities							
Staff Names:		KE, SS							
River Width (ft)		56							
Distance Readings									
Tape	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
6	0	0.00							
7	1	0.40	-0.03			-0.03	0.825	-0.02	-0.02
8	2	0.85							
9	3	0.95	0.01			0.01	1.875	0.02	-0.01
10	4	1.00							
11	5	1.03	0.01			0.01	2.05	0.02	0.01
12	6	1.10							
13	7	1.05	0.01			0.01	2.95	0.02	0.04
14	8	1.50							
15	9	1.65	0.00			0	3.325	0.00	0.04
16	10	1.85							
17	11	1.85	0.02			0.02	3.675	0.07	0.11
18	12	1.80							
19	13	1.60	0.05			0.05	3.275	0.16	0.28
20	14	1.55							
21	15	1.55	0.06			0.06	3.1	0.19	0.48
22	16	1.55							
23	17	1.55	0.05			0.05	3.125	0.16	0.62
24	18	1.60							
25	19	1.70	0.08			0.08	3.375	0.27	0.89
26	20	1.75							
27	21	1.90	0.07			0.07	3.775	0.26	1.15
28	22	2.00							
29	23	2.05		0.08	0.02	0.05	4.125	0.21	1.38
30	24	2.15							
31	25	2.30		0.07	0	0.035	4.525	0.16	1.52
32	26	2.30							
33	27	2.30		0.06	0.02	0.04	4.6	0.18	1.70
34	28	2.30							
35	29	2.30		0.06	0.03	0.045	4.625	0.21	1.91
36	30	2.35							
37	31	2.35		0.05	0.02	0.035	4.65	0.16	2.07
38	32	2.25							
39	33	2.20		0.05	0.02	0.035	4.425	0.15	2.23
40	34	2.20							
41	35	2.10		0.05	0.01	0.03	4.25	0.13	2.35
42	36	2.10							
43	37	2.20		0.06	0.04	0.05	4.425	0.22	2.57
44	38	2.35							
45	39	2.45		0.06	0.01	0.035	4.675	0.17	2.75
46	40	2.50							
47	41	2.80		0.06	0.02	0.05	5.125	0.26	3.00
48	42	2.55							
49	43	2.50		0.07	0.01	0.04	5.025	0.20	3.20
50	44	2.50							
51	45	2.45		0.08	0.04	0.06	4.75	0.29	3.49
52	46	2.10							
53	47	2.15		0.06	0.01	0.035	4.3	0.15	3.64
54	48	2.20							
55	49	2.10		0.05	0.01	0.03	4.175	0.13	3.78
56	50	1.85							
57	51	0.40	0.02			0.02	1.675	0.03	3.80
58	52	0.60							
59	53	1.10	0.01			0.01	1.8	0.02	3.82
60	54	0.80							
61	55	0.60	0.00			0	1	0.00	3.82
62	56	0.00							

Project:		Ashuelot River TMDL				Date:		8/23/01	
Waterbody Name:		Ashuelot River				Time Begin		14:50	
Station ID:		21-Ash				Time End:		15:04	
Station Description:		Old Stone Arch Bridge							
Staff Names:		KE, SS							
River Width (ft)		36							
Distance Readings									
Tape	Bank	Depth	Velocity at 80% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
5	0	0.00							
5.75	0.75	0.10	0.05			0.05	0.13125	0.01	0.01
6.5	1.5	0.15							
7.25	2.25	0.25	0.01			0.01	0.375	0.00	0.01
8	3	0.35							
8.75	3.75	0.35	0.01			0.01	0.5625	0.01	0.02
9.5	4.5	0.45							
10.25	5.25	0.55	0.02			0.02	0.80625	0.02	0.03
11	6	0.60							
11.75	6.75	0.70	0.09			0.09	1.0125	0.09	0.12
12.5	7.5	0.70							
13.25	8.25	0.80	0.09			0.09	1.18125	0.11	0.23
14	9	0.85							
14.75	9.75	1.00	0.10			0.1	1.4625	0.15	0.38
15.5	10.5	1.05							
16.25	11.25	1.10	0.08			0.08	1.63125	0.13	0.51
17	12	1.10							
17.75	12.75	1.20	0.12			0.12	1.7625	0.21	0.72
18.5	13.5	1.20							
19.25	14.25	1.30	0.18			0.18	1.93125	0.35	1.07
20	15	1.35							
20.75	15.75	1.40	0.16			0.16	2.11875	0.34	1.40
21.5	16.5	1.50							
22.25	17.25	1.60	0.17			0.17	2.3625	0.40	1.81
23	18	1.60							
23.75	18.75	1.70	0.20			0.2	2.55	0.51	2.32
24.5	19.5	1.80							
25.25	20.25	1.80	0.23			0.23	2.7	0.62	2.94
26	21	1.80							
26.75	21.75	1.80	0.20			0.2	2.8625	0.53	3.47
27.5	22.5	1.70							
28.25	23.25	1.65	0.13			0.13	2.45625	0.32	3.79
29	24	1.55							
29.75	24.75	1.50	0.17			0.17	2.2875	0.39	4.18
30.5	25.5	1.55							
31.25	26.25	1.50	0.10			0.1	2.26875	0.23	4.40
32	27	1.50							
32.75	27.75	1.40	0.13			0.13	2.1	0.27	4.68
33.5	28.5	1.30							
34.25	29.25	1.25	0.12			0.12	1.875	0.23	4.90
35	30	1.20							
35.75	30.75	1.15	0.11			0.11	1.6875	0.19	5.09
36.5	31.5	1.00							
37.25	32.25	0.85	0.10			0.1	1.33125	0.13	5.22
38	33	0.85							
38.75	33.75	0.55	0.04			0.04	0.8625	0.03	5.26
39.5	34.5	0.35							
40.25	35.25	0.20	0.00			0	0.28125	0.00	5.26
41	36	0.00							
DUPLICATES									
Tape (ft)	Bank (ft)	Depth	Velocity .6	Velocity .2	Velocity .8	RPD Depth	RPD Velocity .6	RPD Velocity .2	RPD Velocity .8
19.25	14.25	1.30	0.12			0.0%	40.0%		Dup
19.25	14.25	1.30	0.18						
34.25	29.25	1.30	0.14			3.2%	15.4%		Dup
34.25	29.25	1.25	0.12						

Project:		Ashuelot River TMDL				Date:		8/23/01	
Waterbody Name:		Ashuelot River				Time Begin:		12:39	
Station ID:		17-Ash				Time End:		12:58	
Station Description:									
Staff Names:		KE, SS							
River Width (ft)		44							
Distance Readings									
Type	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	squares feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
5	0	0.00							
6	1	0.40	0.00			0	0.75	0.00	0.00
7	2	0.70							
8	3	0.90	0.01			0.01	1.6	0.02	0.02
9	4	1.10							
10	5	1.20	0.08			0.08	2.4	0.19	0.21
11	6	1.30							
12	7	1.40	0.11			0.11	2.8	0.31	0.52
13	8	1.50							
14	9	1.60	0.13			0.13	3.15	0.41	0.93
15	10	1.60							
16	11	1.80	0.15			0.15	3.5	0.53	1.45
17	12	1.80							
18	13	1.65	0.20			0.2	3.475	0.70	2.15
19	14	1.85							
20	15	1.80	0.21			0.21	3.625	0.76	2.91
21	16	1.80							
22	17	1.80	0.13			0.13	3.625	0.47	3.38
23	18	1.85							
24	19	1.85	0.15			0.15	3.7	0.56	3.94
25	20	1.85							
26	21	1.80	0.12			0.12	3.625	0.44	4.37
27	22	1.80							
28	23	1.60	0.12			0.12	3.6	0.43	4.80
29	24	1.80							
30	25	1.80	0.03			0.03	3.575	0.11	4.91
31	26	1.75							
32	27	1.70	0.06			0.06	3.4	0.20	5.11
33	28	1.65							
34	29	1.50	0.08			0.08	3.025	0.24	5.35
35	30	1.40							
36	31	1.45	0.08			0.08	2.85	0.23	5.58
37	32	1.40							
38	33	1.25	0.08			0.08	2.525	0.20	5.79
39	34	1.15							
40	35	1.10	0.06			0.06	2.2	0.13	5.92
41	36	1.05							
42	37	0.95	0.05			0.05	1.875	0.09	6.01
43	38	0.80							
44	39	0.50	0.03			0.03	1.15	0.03	6.05
45	40	0.50							
46	41	0.60	0.02			0.02	1.2	0.02	6.07
47	42	0.70							
48	43	0.35	-0.01			-0.01	0.7	-0.01	6.06
49	44	0.00							
DUPLICATES									
Tape (ft)	Bank (ft)	Depth	Velocity .6	Velocity .2	Velocity .8	RPD Depth	RPD Velocity .6	RPD Velocity .2	RPD Velocity .8
24	19	1.85	0.14			0.0%	-6.9%	-	-
24	19	1.65	0.15						
44	39	0.50	0.02			0.0%	-40.0%	-	-
44	39	0.50	0.03						

Project:		Ashuelot River TMDL				Date:		8/23/01		W	
Waterbody Name:		The Branch				Time Begin		13:48			
Station ID:		16D-Ash				Time End:		14:16			
Station Description:		~1000 ft. U.S. of confluence w/ Ashuelot									
Staff Names:		JGA, RO									
River Width (ft)		20.5									
Distance Readings											
Tape	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow		
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs		
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated		
1.5	0.0	0.13									
2.0	0.5	0.17	0.16			0.16	0.16	0.03	0.03		
2.5	1.0	0.18									
3.0	1.5	0.20	0.37			0.37	0.19	0.07	0.10		
3.5	2.0	0.18									
4.0	2.5	0.19	0.48			0.48	0.20	0.09	0.19		
4.5	3.0	0.23									
5.0	3.5	0.21	0.61			0.61	0.23	0.14	0.33		
5.5	4.0	0.25									
6.0	4.5	0.25	0.51			0.51	0.25	0.13	0.46		
6.5	5.0	0.26									
7.0	5.5	0.26	0.73			0.73	0.25	0.18	0.64		
7.5	6.0	0.23									
8.0	6.5	0.23	0.86			0.86	0.24	0.20	0.85		
8.5	7.0	0.26									
9.0	7.5	0.27	0.79			0.79	0.27	0.22	1.06		
9.5	8.0	0.29									
10.0	8.5	0.30	0.69			0.69	0.30	0.21	1.27		
10.5	9.0	0.32									
11.0	9.5	0.31	0.83			0.83	0.32	0.26	1.53		
11.5	10.0	0.32									
12.0	10.5	0.34	0.84			0.84	0.33	0.28	1.81		
12.5	11.0	0.33									
13.0	11.5	0.34	0.84			0.84	0.34	0.28	2.09		
13.5	12.0	0.34									
14.0	12.5	0.34	0.78			0.78	0.34	0.26	2.36		
14.5	13.0	0.32									
15.0	13.5	0.34	0.78			0.78	0.34	0.26	2.62		
15.5	14.0	0.35									
16.0	14.5	0.32	0.67			0.67	0.32	0.22	2.83		
16.5	15.0	0.30									
17.0	15.5	0.26	0.7			0.7	0.28	0.19	3.03		
17.5	16.0	0.29									
18.0	16.5	0.50	0.65			0.65	0.38	0.25	3.27		
18.5	17.0	0.22									
19.0	17.5	0.18	0.59			0.59	0.20	0.12	3.39		
19.5	18.0	0.21									
20.0	18.5	0.21	0.47			0.47	0.19	0.09	3.48		
20.5	19.0	0.14									
21.0	19.5	0.15	0.11			0.11	0.13	0.01	3.50		
21.5	20.0	0.09									
22.0	20.5	0.00	0			0	0.02	0.00	3.50		
DUPLICATES											
Duplicates		Depth	Velocity .6	Velocity .2	Velocity .8	RPD Depth	RPD Velocity	RPD Velocity	RPD Velocity		
11		--	0.83				0.0%	--	--		
11		9.5	0.31	0.83							
21		--	--	0.12			8.7%	--	--		
21		19.5	0.15	0.11							

Project:		Ashuelot River TMDL				Date:		8/23/01		W
Waterbody Name:		Ash Swamp Brook				Time Begin		13:05		
Station ID:		OA-Asb				Time End:		13:24		
Station Description:		30 ft. U.S. of confluence w/ Ashuelot R.								
Staff Names:		JGA, RO								
River Width (ft)		6								
Distance Readings										
Tape	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow	
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs	
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated	
1.7	0	0.00								
2.0	0.3	0.16	0.38			0.38	0.0735	0.03	0.03	
2.3	0.6	0.17								
2.6	0.9	0.20	0.68			0.68	0.1185	0.08	0.11	
2.9	1.2	0.22								
3.2	1.5	0.23	0.56			0.56	0.138	0.08	0.19	
3.5	1.8	0.24								
3.8	2.1	0.24	0.50			0.5	0.147	0.07	0.26	
4.1	2.4	0.26								
4.4	2.7	0.27	1.02			1.02	0.1635	0.17	0.43	
4.7	3	0.29								
5	3.3	0.29	1.24			1.24	0.174	0.22	0.64	
5.3	3.6	0.29								
5.6	3.9	0.29	1.00			1	0.1725	0.17	0.81	
5.9	4.2	0.28								
6.2	4.5	0.27	1.03			1.03	0.159	0.16	0.98	
6.5	4.8	0.24								
6.8	5.1	0.21	0.85			0.85	0.141	0.12	1.10	
7.1	5.4	0.28								
7.7	6	0.00	0.00			0	0.084	0.00	1.10	
DUPLICATES										
Tape (ft)	Bank (ft)	Depth	Velocity .6	Velocity .2	Velocity .8	RPD Depth	RPD Velocity .6	RPD Velocity .2	RPD Velocity .8	
6.8	5.1	--	0.82				3.6%	--	--	
		0.21	0.85							

Project:		Ashuelot River TMDL				Date:		8/23/01	
Waterbody Name:		Ashuelot Rivr				Time Begin:		11:48	
Station ID:		16D-Ash				Time End:		12:32	
Station Description:		1/2 mile U.S. of WWTP							
Staff Names:		JGA, RO							
River Width (ft):		60.7							
Distance Readings									
Type	Bank	Depth	Velocity at 80% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
52.7	0	0.13							
52	0.7	0.30	0.29			0.28	0.45	0.13	0.13
51	1.7	0.30							
50	2.7	0.30	0.34			0.34	0.60	0.20	0.33
49	3.7	0.28							
48	4.7	0.34	0.42			0.42	0.66	0.28	0.61
47	5.7	0.34							
46	6.7	0.38	0.39			0.39	0.74	0.29	0.90
45	7.7	0.38							
44	8.7	0.42	0.41			0.41	0.81	0.33	1.23
43	8.7	0.40							
42	10.7	0.42	0.39			0.39	0.82	0.32	1.55
41	11.7	0.40							
40	12.7	0.42	0.46			0.46	0.87	0.40	1.95
39	13.7	0.49							
38	14.7	0.53	0.40			0.4	1.08	0.43	2.38
37	15.7	0.60							
36	16.7	0.62	0.51			0.51	1.21	0.52	2.90
35	17.7	0.68							
34	18.7	0.62	0.56			0.56	1.27	0.71	3.70
33	19.7	0.72							
32	20.7	0.84	0.51			0.51	1.69	0.88	4.57
31	21.7	0.88							
30	22.7	1.37	0.42			0.42	2.47	1.04	5.60
29	23.7	1.22							
28	24.7	1.28	0.47			0.47	2.47	1.16	6.76
27	25.7	1.20							
26	26.7	1.20	0.45			0.45	2.35	1.06	7.82
25	27.7	1.10							
24	28.7	1.12	0.33			0.33	2.24	0.74	8.56
23	29.7	1.14							
22	30.7	1.28	0.25			0.25	2.62	0.63	9.19
21	31.7	1.32							
20	32.7	1.38	0.22			0.22	2.70	0.59	9.78
19	33.7	1.32							
18	34.7	1.31	0.25			0.25	2.63	0.66	10.44
17	35.7	1.32							
16	36.7	1.25	0.36			0.36	2.56	0.93	11.37
15	37.7	1.33							
14	38.7	1.44	0.31			0.31	2.78	0.86	12.23
13	39.7	1.35							
12	40.7	1.23	0.38			0.38	2.37	0.90	13.13
11	41.7	0.93							
10	42.7	0.54	0.35			0.35	1.26	0.44	13.57
9	43.7	0.51							
8	44.7	0.43	0.26			0.26	0.84	0.22	13.79
7	45.7	0.30							
6	46.7	0.32	0.21			0.21	0.76	0.16	13.95
5	47.7	0.67							
4	48.7	0.54	0.22			0.22	1.07	0.24	14.18
3	49.7	0.48							
2	50.7	0.51	0			0	-12.43	0.00	14.18
DUPLICATES									
Type ID	Bank (ft)	Depth	Velocity 1	Velocity 2	Velocity 3	RPD Depth	RPD Velocity 1	RPD Velocity 2	RPD Velocity 3
34		-	0.54			3.8%			
		0.82	0.56						
14		-	0.30			-3.3%			
		1.44	0.31						
4		-	0.23			4.4%			
		0.54	0.22						

Project:		Ashuelot River TMDL				Date:		8/23/01	
Waterbody Name:		South Branch Ashuelot River				Time Begin:		12:00	
Station ID:		2-Sbe				Time End:		12:17	
Station Description:									
Staff Names:		KE, SS							
River Width (ft)		34'							
Distance Readings									
Tape	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
4.00	0.00	0.00							
4.75	0.75	0.20	0.00			0.00	0.24	0.00	0.00
5.50	1.50	0.25							
6.25	2.25	0.45	0.17			0.17	0.62	0.11	0.11
7.00	3.00	0.50							
7.75	3.75	0.75	0.20			0.20	1.11	0.22	0.33
8.50	4.50	0.95							
9.25	5.25	1.20	0.17			0.17	1.73	0.29	0.62
10.00	6.00	1.25							
10.75	6.75	1.30	0.24			0.24	1.97	0.47	1.09
11.50	7.50	1.40							
12.25	8.25	1.55	0.19			0.19	2.34	0.45	1.54
13.00	9.00	1.75							
13.75	9.75	1.85	0.26			0.26	2.79	0.73	2.26
14.50	10.50	2.00							
15.25	11.25	2.00	0.27			0.27	2.98	0.80	3.07
16.00	12.00	1.95							
16.75	12.75	1.90	0.20			0.20	2.91	0.58	3.65
17.50	13.50	2.00							
18.25	14.25	1.80	0.23			0.23	2.78	0.64	4.29
19.00	15.00	1.80							
19.75	15.75	1.75	0.29			0.29	2.63	0.78	5.05
20.50	16.50	1.70							
21.25	17.25	1.65	0.29			0.29	2.51	0.73	5.78
22.00	18.00	1.70							
22.75	18.75	1.70	0.34			0.34	2.55	0.87	6.65
23.50	19.50	1.70							
24.25	20.25	1.65	0.45			0.45	2.48	1.11	7.76
25.00	21.00	1.60							
25.75	21.75	1.70	0.40			0.40	2.48	0.99	8.75
26.50	22.50	1.60							
27.25	23.25	1.60	0.43			0.43	2.40	1.03	9.78
28.00	24.00	1.80							
28.75	24.75	1.55	0.35			0.35	2.34	0.82	10.60
29.50	25.50	1.55							
30.25	26.25	1.50	0.39			0.39	2.27	0.88	11.49
31.00	27.00	1.50							
31.75	27.75	1.65	0.20			0.20	2.40	0.48	11.97
32.50	28.50	1.60							
33.25	29.25	1.55	0.12			0.12	2.38	0.29	12.25
34.00	30.00	1.65							
34.75	30.75	1.65	0.13			0.13	2.48	0.32	12.57
35.50	31.50	1.65							
36.25	32.25	1.50	0.00			0.00	1.93	0.00	12.57
37.00	33.00	0.50							
37.75	33.75	0.30	0.00			0.00	-4.76	0.00	12.57
DUPLICATES									
Tape (ft)	Bank (ft)	Depth	Velocity .8	Velocity .2	Velocity .8	RPD Depth	RPD Velocity .8	RPD Velocity .2	RPD Velocity .8
18.25	14.25	1.85	0.26			2.7%	12.2%		
18.25	14.25	1.80	0.23						
33.25	29.25	1.60	0.15			3.2%	22.2%		
33.25	29.25	1.55	0.12						

								W	
Project:		Ashuelot River TMDL				Date:		8/23/01	
Waterbody Name:		Ashuelot Rivr				Time Begin:		10:09	
Station ID:		14T-Ash				Time End:		11:12	
Station Description:		~ 1000' U.S. of bridge - Measurements rated fair to poor due to turbulence.							
Staff Names:		JGA, RO							
River Width (ft)		32.3							
Distance Readings									
Tape	Bank	Depth	Velocity at 60% depth from surface	Velocity at 20% depth from surface	Velocity at 60% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
39.20	0.00	0.20							
38.50	0.70	0.22	0.41			0.41	0.30825	0.13	0.13
37.75	1.45	0.21							
37.00	2.20	0.36	0.89			0.89	0.49875	0.44	0.57
36.25	2.95	0.40							
35.50	3.70	0.79	0.94			0.94	1.065	1.00	1.57
34.75	4.45	0.86							
34.00	5.20	0.82	1.42			1.42	1.3425	1.91	3.48
33.25	5.95	0.88							
32.50	6.70	1.01	1.72			1.72	1.4925	2.57	6.04
31.75	7.45	1.08							
31.00	8.20	0.94	2.02			2.02	0.5175	1.05	7.09
31.25	7.85	0.98							
29.50	9.70	0.91	1.74			1.74	2.32125	4.04	11.13
28.75	10.45	0.87							
28.00	11.20	0.83	1.21			1.21	1.27875	1.55	12.68
27.25	11.95	0.88							
26.50	12.70	0.89	1.05			1.05	1.3275	1.39	14.07
25.75	13.45	0.88							
25.00	14.20	0.95	1.29			1.29	1.30125	1.68	15.75
24.25	14.95	0.69							
23.50	15.70	0.73	1.88			1.88	1.1025	2.07	17.82
22.75	16.45	0.79							
22.00	17.20	0.83	2.09			2.09	1.125	2.35	20.17
21.25	17.95	0.55							
20.50	18.70	0.58	2.18			2.18	0.87375	1.90	22.08
19.75	19.45	0.62							
19.00	20.20	0.58	1.55			1.55	0.87375	1.35	23.43
18.25	20.95	0.55							
17.50	21.70	0.68	1.65			1.65	0.94125	1.55	24.99
16.75	22.45	0.60							
16.00	23.20	0.50	1.85			1.85	0.7575	1.40	26.39
15.25	23.95	0.42							
14.50	24.70	0.57	1.64			1.64	0.8175	1.34	27.73
13.75	25.45	0.62							
13.00	26.20	0.53	1.25			1.25	0.86625	1.08	28.81
12.25	26.95	0.63							
11.50	27.70	0.40	1.08			1.08	0.645	0.70	29.51
10.75	28.45	0.29							
10.00	29.20	0.19	0.54			0.54	0.33	0.18	29.68
9.25	29.95	0.21							
8.50	30.70	0.17	0.78			0.78	0.28125	0.22	29.90
7.75	31.45	0.20							
6.90	32.30	0.00	0			0	0.085	0.00	29.90
DUPLICATES									
Tape (ft)	Bank (ft)	Depth	Velocity .6	Velocity .2	Velocity .8	RPD Depth	RPD Velocity .6	RPD Velocity .2	RPD Velocity .8
25.75	13.45	-	1.31				15%		
25.75	13.45	0.95	1.29						
8.5	30.7	-	0.79				13%		
8.5	30.7	0.17	0.78						

Project:	Ashuelot River TMDL					Date:	8/23/01		
Waterbody Name:	Ashuelot Rivr					Time Begin:	10:42		
Station ID:	12-Ash					Time End:	11:20		
Station Description:	2 ft downstream of Rte 10 crossing								
Staff Names:	KE, SS								
River Width (ft)	77								
Distance Readings									
Tape	Bank	Depth	Velocity at 80% depth from surface	Velocity at 20% depth from surface	Velocity at 80% depth from surface	Average Velocity	Area	Incremental Flow	Cumulative Flow
ft	ft	ft	fps	fps	fps	fps	square feet	cfs	cfs
INPUT	Calculated	INPUT	INPUT	INPUT	INPUT	Calculated	Calculated	Calculated	Calculated
4.00	0.00	0.00							
6.50	1.50	1.40	0.02			0.02	3.19	0.06	0.06
7.00	3.00	1.45							
8.50	4.50	1.85	0.10			0.10	5.51	0.55	0.62
10.00	6.00	2.20							
11.50	7.50	2.60		0.12	0.13	0.13	7.39	0.92	1.54
13.00	9.00	2.45							
14.50	10.50	2.60		0.13	0.10	0.12	7.31	0.84	2.38
16.00	12.00	2.30							
17.50	13.50	2.90		1.10	0.05	0.58	8.06	4.64	7.02
19.00	15.00	2.85							
20.50	16.50	2.70		0.11	0.08	0.09	7.99	0.68	7.69
22.00	18.00	2.60							
23.50	19.50	2.80		0.12	0.09	0.11	8.29	0.87	8.56
25.00	21.00	2.65							
26.50	22.50	2.65		0.17	0.02	0.10	7.88	0.75	9.31
28.00	24.00	2.35							
29.50	25.50	2.45		0.19	0.10	0.15	7.28	1.05	10.37
31.00	27.00	2.45							
32.50	28.50	2.45		0.23	0.15	0.19	7.35	1.40	11.76
34.00	30.00	2.45							
35.50	31.50	2.70		0.17	0.04	0.11	7.64	0.82	12.58
37.00	33.00	2.80							
38.50	34.50	2.65		0.19	0.16	0.18	7.91	1.36	13.97
40.00	36.00	2.65							
41.50	37.50	2.75		0.22	0.18	0.20	8.14	1.63	15.60
43.00	39.00	2.70							
44.50	40.50	2.85		0.26	0.23	0.26	8.09	1.97	17.57
46.00	42.00	2.70							
47.50	43.50	2.75		0.23	0.18	0.21	8.06	1.65	19.22
49.00	45.00	2.55							
50.50	46.50	2.80		0.21	0.15	0.18	8.25	1.49	20.70
52.00	48.00	2.85							
53.50	49.50	2.80		0.22	0.16	0.19	8.44	1.80	22.31
55.00	51.00	2.80							
56.50	52.50	2.65		0.28	0.10	0.19	8.10	1.54	23.85
58.00	54.00	2.70							
59.50	55.50	2.35		0.21	0.18	0.20	7.39	1.44	25.29
61.00	57.00	2.45							
62.50	58.50	2.40		0.15	0.13	0.14	7.28	1.02	26.30
64.00	60.00	2.45							
65.50	61.50	2.40		0.14	0.12	0.13	7.20	0.94	27.24
67.00	63.00	2.35							
68.50	64.50	2.35		0.12	0.10	0.11	7.01	0.77	28.01
70.00	66.00	2.30							
71.50	67.50	2.10		0.13	0.07	0.10	6.41	0.64	28.65
73.00	69.00	2.05							
74.50	70.50	1.90	0.12			0.12	5.89	0.71	29.36
76.00	72.00	2.00							
77.50	73.50	1.20	0.12			0.12	4.18	0.50	29.86
79.00	75.00	1.15							
80.50	76.50	0.80	0.00			0.00	1.46	0.00	29.86
81.00	77.00	0.00							
DUPLICATES									
Tape (ft)	Bank (ft)	Depth	Velocity 1	Velocity 2	Velocity 3	RPD Depth	RPD Velocity 1	RPD Velocity 2	RPD Velocity 3
32.5	28.5	2.45		0.24	0.14	0.0%		4.3%	4.8%
32.5	28.5	2.45		0.23	0.15				
62.5	58.5	2.40		0.17	0.06	0.0%		12.5%	73.7%
62.5	58.5	2.40		0.15	0.13				