

CRANCR03

LOCATION: Approximately 200 yards downstream of Blue Ridge Peat.

Latitude 41° 08' 51.30"

Longitude -75° 17' 01.50"

FIELD CHEMISTRY:

SITE ID	SAMPLE DATE	TEMP C	SpC mScm	DO mg/l	pH su	ORP mV	DO % sat.	COND mS/cm	TDS mg/l
CRANCR03	4/14/03	8.92	104	11.74	6.96	352	101.40	72	67
CRANCR03	5/7/03	13.92	186	6.58	7.10	274	63.80	147	121
CRANCR03	6/15/03	16.88	126	9.46	7.24	232	97.70	107	82
CRANCR03	7/20/03	18.91	222	9.18	7.26	278	98.80	196	144
CRANCR03	8/11/03	19.40	118	8.57	6.99	376	93.20	105	77
CRANCR03	9/16/03	17.28	138	10.06	7.21	343	104.70	117	90
CRANCR03	10/16/03	12.09	132	10.33	7.18	323	96.10	99	86
CRANCR03	11/29/03	6.91	88	11.37	7.20	298	93.40	58	57
CRANCR03	12/16/03	3.93	98	12.18	7.96	293	92.80	59	64
CRANCR03	1/30/04	0.65	158	13.17	8.15	333	91.80	85	103
CRANCR03	2/25/04	2.63	187	13.02	8.68	292	95.80	107	121
CRANCR03	3/18/04	4.27	147	13.01	7.78	291	100.00	89	96
wshed min.		0.01	29	5.42	5.47	46	57.70	1	19
wshed max.		26.25	548	14.37	8.99	561	113.10	388	356
wshed avg.		10.04	146	10.97	7.50	304	96.14	104	95

Temperatures that exceed Specific Water Quality Criteria in Chapter 93 of Title 25 of the PA Code are shown in red. SpC is specific conductance. DO is dissolved oxygen. ORP is oxidation reduction potential. COND is conductivity. TDS is total dissolved solids. Refer to Sampling and Analysis Plan under Phase I study results for quality assurance/quality control information.

LABORATORY DATA:

SITE ID	SAMPLE DATE	pH	NITRATE	NITRITE	TOTAL SUPSENDED	TOTAL PHOSPHORUS	FECAL COLIFORM
		su	mg/l	mg/l	SOLIDS mg/l	mg/l	CFU/100ml
CRANCR03	8/11/03	7.07	0.53	0.02	1.6	0.11	371
Wshed min		5.47	0.10	0.005	1.0	0.01	0
Wshed max		8.19	1.51	0.050	13.0	0.90	5700
Wshed avg		6.85	0.50	0.019	2.7	0.11	

If the number of sample results where the analytical parameter was not detected exceeded 20% of the sample pool, they were not included in the calculated watershed average. If the number of non-detect samples was less than 20% of the sample pool, ½ of the detection limit was used to represent those samples in the calculated watershed average. Refer to Sampling and Analysis Plan under Phase I of study results for quality assurance/quality control information.

*** CRANCR03 is equivalent to CRCRPA03 in the Monroe County Water Quality Study in 2003.**

HABITAT ANALYSIS**2003**

CRANCR03 203 Optimal Greater than 50% mix of boulder, cobble, or other stable habitat. Width of riparian zone > 18 meters.
More than 90% of the streambank surfaces covered by vegetation.

2004

CRANCR03 196 Optimal Greater than 50% mix of boulder, cobble, or other stable habitat.
More than 90% of the streambank surfaces covered by vegetation.
Width of riparian zone > 18 meters.

BENTHIC MACROINVERTEBRATES:

The following table compares trending results of the EPA/County scoring schemes for repeat sites (1995 through 2004).

Site #	Site Name	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995
PARACR03	Paradise Creek	33	31								31
BUTZRU01	Butz Run	29	23								
CRANCR01	Cranberry Creek (Paradise)	29									
PARACR04	Paradise Creek	33	31								
DEHOCR04	Devils Hole Creek	31	31								
CRANCR03	Cranberry Creek (Paradise)	21	23								
SWIFCR06	Swiftwater Creek	21	23								
SWIFCR02	Swiftwater Creek	25	27								
FOHIRU01	Forest Hills Run	29	25								
PARACR01	Paradise Creek	29	29								
FOHIRU04	Forest Hills Run	25	19	25	29	25	27	27	23	31	
FOHIRU09	Forest Hills Run	15	17								
SWIFCR07	Swiftwater Creek	29	25	29	33						
SWIFCR05	Swiftwater Creek	33	23	25	29	27	25	29	21	25	19
SWIFCR03	Swiftwater Creek	29	29	25	29	29	17	27	19	27	23

The range 35 - 29 is considered optimal. The range 28 - 14 is the slightly to moderately impaired category, and any site with a total score of less than 14 is considered severely impaired.

MACROINVERTEBRATE IDENTIFICATIONS

2003 MONROE COUNTY WATER QUALITY STUDY

SITE ID: CRANCR03

Insecta		Philopotamidae	19	Simuliidae	32
Ephemeroptera		Polycentropodidae		Tabanidae	1
Baetidae		Psychomyiidae		Dixidae	
Baetiscidae		Beraeidae		Collembola	
Caenidae		Brachycentridae	3	Poduridae	
Ephemerellidae		Lepidostomatidae		Nemertea	
Ephemeridae		Helicopsychidae		Nematoda	
Heptageniidae	2	Leptoceridae		Nematomorpha	
Leptophlebiidae		Limnephilidae		Annelida	
Metretopodidae		Molannidae		Hirudinea	
Neoephemeridae		Odontoceridae		Oligochaeta	
Oligoneuriidae		Phryganeidae		Lumbriculida	
Polymitarcyidae		Sericostomatidae		Lumbriculidae	
Potamanthidae		Uenoidae		Tubificida	
Siphonuridae		Glossosomatidae		Platyhelminthes	
Tricorythidae		Hydroptilidae	13	Turbellaria	
Odonata		Rhyacophilidae	4	Planariidae	
Aeshnidae	1	Lepidoptera		Mollusca	
Cordulegastridae		Pyralidae		Bivalva	
Corduliidae		Coleoptera		Unionidae	
Gomphidae	1	Dytiscidae		Sphaeriidae	1
Libellulidae		Gyrinidae		Cyrenidae	
Macromiidae		Halplidae		Corbiculidae	
Calopterygidae		Noteridae		Gastropoda	
Coenagrionidae		Elmidae	22	Ancylidae	
Lestidae		Hydraenidae		Physidae	
Plecoptera		Hydrophilidae		Planorbidae	
Capniidae		Limnichidae		Bulimidae	
Chloroperlidae		Psephenidae	1	Limnaeidae	
Leuctridae	3	Ptilodactylidae		Crustacea	
Nemouridae		Megaloptera		Amphipoda	
Peltoperlidae	4	Corydalidae	4	Gammaridae	
Perlidae		Sialidae		Talitridae	
Perlodidae	7	Neuroptera		Isopoda	
Pteronarcyidae		Sisyridae		Asellidae	
Taeniopterygidae		Diptera		Decapoda	
Hemiptera		Ephydriidae		Cambaridae	1
Belostomatidae		Athericidae		Arachnidia	
Corixidae		Tipulidae	1	Acari	
Gerridae		Empididae		Hydrachnidia	
Mesoveliidae		Blephariceridae			

Notonectidae		Ceratopogonidae		
Saldidae		Chaoboridae		
Veliidae		Chironomidae	38	
Trichoptera		Culicidae		
Hydropsychidae	54	Muscidae		

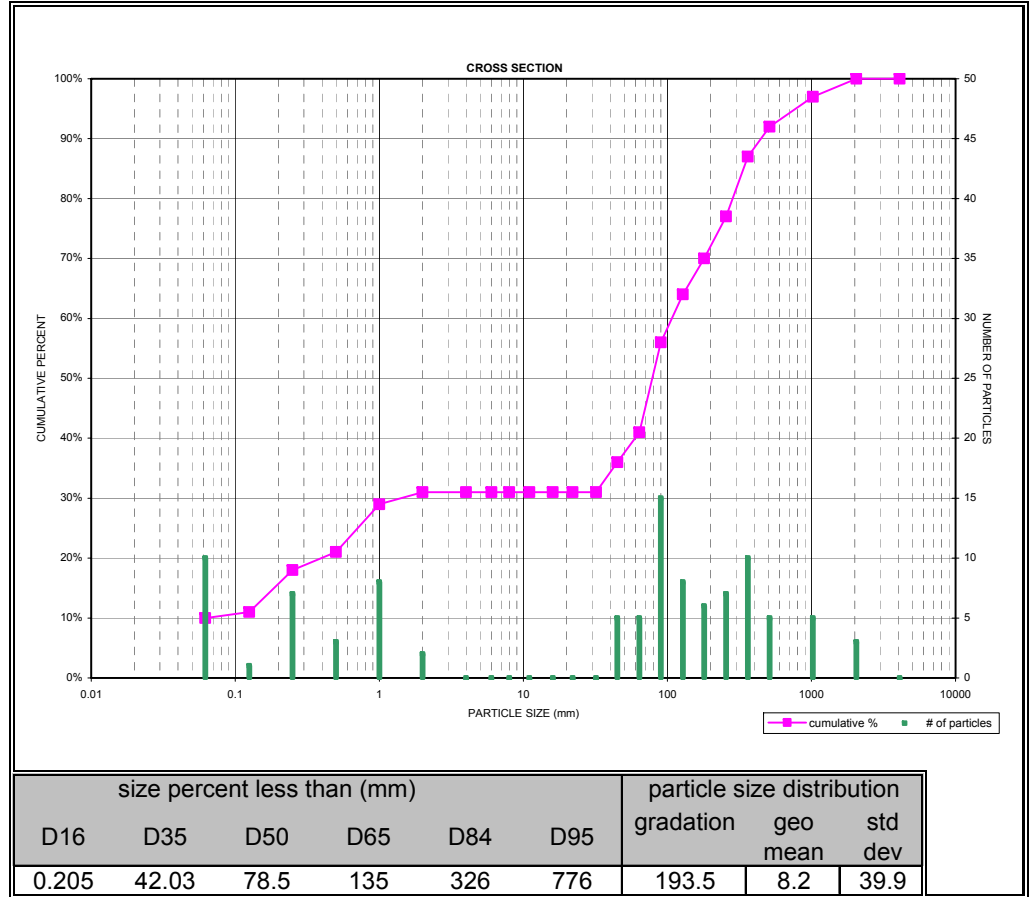
2004 (CRANCR03)

MONROE COUNTY WATER QUALITY STUDY			SITE ID. CRCRPA03		
Insecta		Philopotamidae	6	Simuliidae	1
Ephemeroptera		Polycentropodidae		Tabanidae	
Baetidae		Psychomyiidae		Dixidae	
Baetiscidae		Beraeidae		Collembola	
Caenidae		Brachycentridae	1	Poduridae	
Ephemerellidae		Lepidostomatidae	2	Nemertea	
Ephemeridae		Helicopsychidae		Nematoda	
Heptageniidae	2	Leptoceridae		Nematomorpha	
Leptophlebiidae		Limnephilidae	4	Annelida	
Metretopodidae		Molannidae		Hirudinea	
Neoephemeridae		Odontoceridae	1	Oligochaeta	
Oligoneuriidae		Phryganeidae		Lumbriculida	
Polymitarcyidae		Sericostomatidae		Lumbriculidae	
Potamanthidae		Uenoidae		Tubificida	
Siphonuridae		Glossosomatidae		Platyhelminthes	
Tricorythidae		Hydroptilidae		Turbellaria	
Odonata		Rhyacophilidae		Planariidae	
Aeshnidae	2	Lepidoptera		Mollusca	
Cordulegastridae		Pyralidae		Bivalva	
Corduliidae		Coleoptera		Unionidae	
Gomphidae	2	Dytiscidae		Sphaeriidae	111
Libellulidae		Gyrinidae		Cyrenidae	
Macromiidae		Haliplidae		Corbiculidae	
Calopterygidae		Noteridae		Gastropoda	
Coenagrionidae		Elmidae	23	Ancylidae	
Lestidae		Hydraenidae		Physidae	
Plecoptera		Hydrophilidae		Planorbidae	
Capniidae		Limnichidae		Bulimidae	
Chloroperlidae		Psephenidae		Limnaeidae	
Leuctridae	2	Ptilodactylidae		Crustacea	
Nemouridae		Megaloptera		Amphipoda	
Peltoperlidae		Corydalidae	5	Gammaridae	
Perlidae	1	Sialidae		Talitridae	
Perlodidae		Neuroptera		Isopoda	
Pteronarcyidae		Sisyridae		Asellidae	
Taeniopterygidae		Diptera		Decapoda	
Hemiptera		Ephydriidae		Cambaridae	1
Belostomatidae		Athericidae		Arachnidia	
Corixidae		Tipulidae	2	Acari	
Gerridae		Empididae		Hydrachnidia	
Mesoveliidae		Blephariceridae			
Notonectidae		Ceratopogonidae			
Saldidae		Chaoboridae			
Veliidae		Chironomidae	78		
Trichoptera		Culicidae			
Hydropsychidae	18	Muscidae			

Pebble Count (Cross Section)

CRCRPA03

Material	Size Range (mm)		Particle Count	Cumulative Percent
silt/clay	0	0.062	10	10%
very fine sand	0.062	0.13	1	11%
fine sand	0.13	0.25	7	18%
medium sand	0.25	0.5	3	21%
coarse sand	0.5	1	8	29%
very coarse sand	1	2	2	31%
very fine gravel	2	4	0	31%
fine gravel	4	6	0	31%
fine gravel	6	8	0	31%
medium gravel	8	11	0	31%
medium gravel	11	16	0	31%
coarse gravel	16	22	0	31%
coarse gravel	22	32	0	31%
very coarse gravel	32	45	5	36%
very coarse gravel	45	64	5	41%
small cobble	64	90	15	56%
medium cobble	90	128	8	64%
large cobble	128	180	6	70%
very large cobble	180	256	7	77%
small boulder	256	362	10	87%
small boulder	362	512	5	92%
medium boulder	512	1024	5	97%
large - very large boulder	1024	2048	3	100%
bedrock	2048	4096	0	100%
Total Particle Count:			100	



Pebble Count (Cross Section)

CRCRPA03

Material	Size Range (mm)		Particle Count	Cumulative Percent
silt/clay	0	0.062	9	9%
very fine sand	0.062	0.13	5	14%
fine sand	0.13	0.25	6	20%
medium sand	0.25	0.5	4	24%
coarse sand	0.5	1	5	29%
very coarse sand	1	2	8	37%
very fine gravel	2	4	7	44%
fine gravel	4	6	1	45%
fine gravel	6	8	5	50%
medium gravel	8	11	0	50%
medium gravel	11	16	1	51%
coarse gravel	16	22	0	51%
coarse gravel	22	32	0	51%
very coarse gravel	32	45	0	51%
very coarse gravel	45	64	1	52%
small cobble	64	90	2	54%
medium cobble	90	128	7	61%
large cobble	128	180	4	65%
very large cobble	180	256	7	72%
small boulder	256	362	8	80%
small boulder	362	512	8	88%
medium boulder	512	1024	2	90%
large - very large boulder	1024	2048	10	100%
bedrock	2048	4096	0	100%
Total Particle Count:			100	

