

APPENDIX B-5

Water Quality Data for Monitoring Wells 1, 3, and 4
R. S. Carlin, Inc., Tipples No. 1 and No. 3,
I.W. No. 1483203, DEP Files, Moshannon District Office

MODULE 0.1A
 BACKGROUND/MONITORING REPORT

Latitude: 41c01'35"
 Longitude: 77o56'51"
 Flow Measurement:
 Treatment System:

Company: R.S. Carlin, Inc.
 Job Name: Tipples No. 1 & No. 3
 Permit No.: 1483203
 Township: Snow Shoe
 County: Centre
 Monitoring Point: 1
 Description: monitoring well, downgradient in pond embankment
 Surface Elevation: 1651

Sampled	Flow gpm or SWE	Field pH	Lab pH	Temp. °C	Alkal. mg/l	Acid. mg/l	Iron mg/l	Mang. mg/l	Alum. mg/l	Sulfate mg/l	Susp. Solids mg/l	Total Dissolved Solids mg/l	Name of Sampler	Comments
09/29/88	1629	4.20	3.75	12	1	323	12.36	6.97	1513	Kevin Bloom				
12/29/88		4.30	4.41	8	1	63	.02	5.20	583	Frank Raymond				metals filtered 1.5 um
03/16/89	1629.3	4.60	4.44	9	3	93	2.43	2.40	412	Schanzenbache				
06/13/89	1689.1	4.10	4.39	10	1	49	.33	1.26	119	Schanzenbache				metals filtered 1.5 um
08/23/89	1639.7	4.20	4.17	12	1	100	.94	5.78	732	Schanzenbache				metals filtered 1.5 um
12/29/89	1652.1	4.60	4.46	9	2	60	5.35	5.94	569	Schanzenbache				
03/21/90	1635.0	4.10	4.24	9	1	76	.32	4.32	603	Schanzenbache				filtered with 1.5 um
06/20/90	1621.4	4.60	4.06	10	1	15	1.64	.76	182	Schanzenbache				filtered with 1.5 um
09/27/90	1635.3	4.40	4.21	13	1	49	.41	3.91	545	Schanzenbache				
11/13/90	1631.8	6.70	3.59	13	1	31	12.70	1.71	292	Schanzenbache				
01/21/91	1630.4	4.10	4.29	9	1	25	.72	1.30	289	Schanzenbache				filtered with 1.5 um
04/10/91	1622.6	4.60	4.38	9	1	32	.35	.86	237	Schanzenbache				filtered with 1.5 um
07/22/91	1618.9	4.30	4.02	11	1	51	.43	3.42	387	Schanzenbache				filtered with 1.5 um
10/16/91	1618.1	5.40	4.61	9	1	44	.18	3.83	431	Schanzenbache				filtered with 1.5 um
01/15/92	1621.2	4.70	4.43	9	1	50	.20	3.50	387	Schanzenbache				filtered with 1.5 um
04/02/92	1631.3	5.00	4.57	8	1	24	.51	1.01	128	Schanzenbache				filtered with 1.5 um

MODULE 8.1A
 BACKGROUND/MONITORING REPORT

File
WPA

Company: R.S. Carlin, Inc.
 Job Name: Tipples No.1 & No.3
 Permit No.: 1483203
 Ownership: Snow Shoe
 County: Centre

Monitoring Point: 1
 Description: monitoring well, downgradient in pond embankment
 Surface Elevation: 1651

Latitude: 41001'35"
 Longitude: 77054'51"
 Flow Measurement:
 Treatment System:

Date Sampled	Lab #	Flow gpm or SWE	Field pH	Lab pH	Specific Conduct umhos /cm	Field Temp. °C	Alkal. mg/l	Acid. mg/l	Iron mg/l	Mang. mg/l	Alum. mg/l	Sulfate mg/l	Susp. Solids mg/l	Dissolved Solids mg/l	Total Solids mg/l	Name of Sampler*	Comments
7/13/92	92D70345	1624.9	6.60	4.42	775	10	1	33	0.13	2.08		321				Durvin Wick	filtered with 1.5 um
8/12/92	92101048	1626.9	6.70	4.31	700	13	1	42	0.15	2.60		324				Durvin Wick	filtered with 1.5 um
1/11/93	93010645	1629.1	6.50	4.40	450	10	1	20	0.15	0.96		141				Durvin Wick	filtered with 1.5 um
4/14/93	93040845	1638.6	5.10	3.77	775	9	1	73	1.47	3.11		379				Durvin Wick	filtered with 1.5 um
7/22/93	93070872	1614.2	4.30	4.13	1100	11	1	33	0.16	3.80		416				Durvin Wick	filtered with 1.5 um
8/13/93	93100779	1621.0	5.00	4.44	900	10	1	47	0.15	3.71		380				Durvin Wick	filtered with 1.5 um
2/02/94	94020139	1625.0	4.80	4.41	760	7	1	45	0.68	1.05		335				Durvin Wick	filtered with 1.5 um

MODULE 6.1A
 BACKGROUND/MONITORING REPORT

Latitude: 41001'36"
 Longitude: 77055'20"
 Flow Measurement:
 Treatment System:

Monitoring Point: 3
 Description: monitoring well, upgradient
 Surface Elevation: 1756

Company: F.S. Carlin, Inc.
 Job Name: Tipple's No. 1 & No. 3
 Permit No.: 1483203
 Township: Snow Shoe
 County: Centre

Date Sampled	Flow or SWE gpm	Field pH	Lab pH	Temp. °C	Alkal. mg/l	Acid. mg/l	Iron mg/l	Mang. mg/l	Alum. mg/l	Sulfate mg/l	Solids mg/l	Total Dissolved Solids mg/l	Settleable Solids mg/l	Name of Sampler*	Comments
06/29/88	1734	5.80	5.98	14	38	60	5.06	6.08		1205				Kevin Bloom	
12/29/88		6.45	5.52	9	12	37	.89	.30		2				Frank Raymond	metals filtered 1.5 um
03/16/89	1722.9	5.90	6.06	10	19	9	7.76	.39		7				Schanzenbache	filtered with 1.5 um
06/13/89	1746.3	5.90	6.07	9	23	20	13.00	.46		12				Schanzenbache	metals filtered 1.5 um
08/23/89	1744.4	6.20	6.12	11	23	14	10.00	1.44		5				Schanzenbache	metals filtered 1.5 um
10/29/89	1744.95	7.00	6.04	8	29	17	13.40	.36		5				Schanzenbache	
03/21/90	1745.4	5.30	6.16	8	18	7	12.50	.39		5				Schanzenbache	filtered with 1.5 um
06/20/90	1748.3	5.40	6.36	11	22	7	4.00	.36		9				Schanzenbache	filtered with 1.5 um
09/27/90	1746.7	6.40	6.79	10	29	10	12.00	.38		6				Schanzenbache	
11/13/90	1748.3	7.20	5.94	11	25	7	2.29	.47		1				Schanzenbache	filtered with 1.5 um
01/21/91	1747.6	5.40	6.70	8	18	8	8.64	.37		15				Schanzenbache	filtered with 1.5 um
04/10/91	1746.8	5.20	6.51	9	16	7	12.40	.38		6				Schanzenbache	filtered with 1.5 um
07/20/91	1743.5	5.90	6.26	10	16	18	4.20	.39		9				Schanzenbache	filtered with 1.5 um
10/16/91	1741.1	6.50	6.03	9	9	14	10.50	.41		10				Schanzenbache	filtered with 1.5 um
03/15/92	1741.1	6.10	6.05	9	9	7	11.40	.41		7				Schanzenbache	filtered with 1.5 um
05/28/92	1747.7	6.60	6.17	8	19	20	13.20	.47		8				Schanzenbache	filtered with 1.5 um

* Unless otherwise stated, the sampler is an employee of Hess & Fisher Engineers, Inc.

Hess & Fishe
 35 N. Second
 Clearfield, Pa. 16830
 (814) 765-7541

MODULE 8.1A
 BACKGROUND/MONITORING REPORT

Latitude: 41001'36"
 Longitude: 77055'20"
 Flow Measurement:
 Treatment System:

Company: R.S. Carlin, Inc.
 Job Name: Tipples No.1 & No.3
 Permit No.: 1483203
 Ownership: Snow Shoe
 County: Centre

Monitoring Point: 3
 Description: monitoring well, upgradient
 Surface Elevation: 1756

Date Sampled	Lab #	Flow or SWE gpm	Field pH	Lab pH	Specific Conduct umhos/cm	Field Temp. °C	Alkal. mg/l	Acid. mg/l	Iron mg/l	Mang. mg/l	Alum. mg/l	Sulfate mg/l	Susp. Solids mg/l	Dissolved Solids mg/l	Total Solids mg/l	Name of Sampler	Comments
07/13/92	92070346	1743.3	6.10	6.15	65	10	12	7	2.19	0.39	4	4				Durvin Wick	filtered with 1.5 um
10/12/92	92101049	1744.0	6.60	6.53	70	14	17	5	1.06	0.17	12	12				Durvin Wick	filtered with 1.5 um
01/11/93	93010646	1746.3	6.30	5.63	95	11	10	12	0.21	0.38	11	11				Durvin Wick	filtered with 1.5 um
04/14/93	93040846	1749.8	5.90	5.73	80	9	5	6	0.95	0.49	14	14				Durvin Wick	filtered with 1.5 um
07/22/93	93070873	1738.8	5.90	6.15	105	11	10	11	0.26	0.59	6	6				Durvin Wick	filtered with 1.5 um
10/13/93	93100780	1740.5	6.90	6.20	100	10	11	20	4.66	0.31	7	7				Durvin Wick	filtered with 1.5 um
02/02/94	94020140	1742.0	6.00	6.14	80	7	26	27	10.30	0.33	10	10				Durvin Wick	filtered with 1.5 um

MODULE 0.1A
 BACKGROUND/MONITORING REPORT

Latitude: 41001'41"
 Longitude: 77054'53"
 Flow Measurement:
 Treatment System:

Company: F.S. Carlin, Inc.
 Job Name: Tipples No.1 & No.3
 Permit No.: 148203
 Township: Snow Shoe
 County: Centre

Monitoring Point: 4
 Description: monitoring well, north of PA 144
 Surface Elevation: 1717

Date Sampled	Flow gpm or SNE	Field pH	Lab pH	Temp. °C	Alkal. mg/l	Acid. mg/l	Iron mg/l	Mang. mg/l	Alum. mg/l	Sulfate mg/l	Susp. Solids mg/l	Total		Name of Sampler	Comments
												Dissolved Solids mg/l	Settleable Solids mg/l		
09/29/88	1652.5	6.20	6.49	11	47	9	14.70	3.76		3				Kevin Bloom	
12/25/88	5.90	6.08	6.08	10	22	32	.02	.15		2				Frank Raymond	metals filtered 1.5 um
03/16/89	1653.3	5.50	6.27	10	18	5	.15	.47		6				Schanzenbache	filtered with 1.5 um
05/13/89	1653.5	4.90	5.44	9	18	25	.11	.24		1				Schanzenbache	metals filtered 1.5 um
05/23/89	1657.75	5.50	6.16	12	18	8	.20	.35		4				Schanzenbache	metals filtered 1.5 um
12/29/89	1697.8	6.20	6.12	9	18	11	.04	.20		2				Schanzenbache	filtered with 1.5 um
03/21/90	1657.6	5.40	6.44	10	30	6	.27	.29		28				Schanzenbache	filtered with 1.5 um
05/20/90	1644.1	5.30	6.30	11	16	6	.03	.14		2				Schanzenbache	filtered with 1.5 um
09/27/90	1658.4	6.00	6.77	11	16	3	.19	.30		4				Schanzenbache	
11/13/90	1658.6	6.60	6.15	10	9	3	.30	.26		1				Schanzenbache	filtered with 1.5 um
01/21/91	1662.2	4.80	6.73	10	15	5	.07	.23		13				Schanzenbache	filtered with 1.5 um
04/10/91	1654.9	5.70	6.89	11	13	5	.09	.12		5				Schanzenbache	filtered with 1.5 um
07/21/91	1656.7	5.30	6.63	11	15	5	.23	.16		12				Schanzenbache	filtered with 1.5 um
10/16/91	1657.7	6.20	6.29	10	17	7	.11	.31		11				Schanzenbache	filtered with 1.5 um
01/15/92	1655.1	5.80	6.36	10	13	5	.35	.27		5				Schanzenbache	filtered with 1.5 um
06/92	1660.4	5.20	6.26	10	11	5	.28	.23		4				Schanzenbache	filtered with 1.5 um

MODULE 8.1A
 BACKGROUND/MONITORING REPORT

Company: R.S. Carlin, Inc.
 Job Name: Tipples No.1 & No.3
 Permit No.: 148320E
 Ownership: Snow Shoe
 County: Centre

Monitoring Point: 4
 Description: monitoring well, north of PA 144
 Surface Elevation: 1717

Latitude: 41001'41"
 Longitude: 77056'53"
 Flow Measurement:
 Treatment System:

Date Sampled	Lab #	Flow gpm or SWE	Specific Conduct		Field Temp. °C	Alkal. Acid. mg/l	Iron mg/l	Mang. mg/l	Alum. Sulfate mg/l	Susp. Solids mg/l	Dissolved Solids mg/l	Total Solids mg/l	Name of Sampler ^s	Comments
			Lab pH	Field pH										
7/13/92	92070347												Durvin Wick	unable to locate
1/04/92	92110214	1629.2	5.00	5.96	180	12	14	0.21	1.77	41			Durvin Wick	filtered with 1.5 um
1/11/93	93010647	1655.0	5.50	5.95	55	10	4	0.34	0.15	7			Durvin Wick	filtered with 1.5 um
4/14/93	93040847	1658.7	5.60	6.18	40	9	8	0.15	0.13	6			Durvin Wick	filtered with 1.5 um
7/22/93	93070874	1665.0	5.30	6.54	80	11	11	0.19	0.19	6			Durvin Wick	filtered with 1.5 um
01/13/93	93100781	1664	6.40	6.36	90	10	15	0.12	0.33	8			Durvin Wick	filtered with 1.5 um
2/02/94	94020141	1652.0	5.60	6.42	100	7	13	0.08	0.07	9			Durvin Wick	filtered with 1.5 um

MODULE 8.1A
 BACKGROUND/MONITORING REPORT

Latitude: 41°01'41"
 Longitude: 77°54'53"
 Flow Measurement:
 Treatment System:

Monitoring Point: 4
 Description: monitoring well, north of FA 144
 Surface Elevation: 1717

Company: R.S. Carlin, Inc.
 Job Name: Tipples No. 1 & No. 3
 Permit No.: 1483203
 Township: Snow Shoe
 County: Centre

Date Sampled	Lab #	Flow or SWE	Field pH	Lab pH	Specific Conduct	Temp. °C	Alkal. mg/l	Acid. mg/l	Iron mg/l	Mang. mg/l	Alum. mg/l	Sulfate mg/l	Susp. Solids mg/l	Dissolved Solids mg/l	Total Solids mg/l	Name of Sampler*	Comments
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07/13/92	92070347	1698.6	3.50	3.43	1500	15	1	399	30.10	13.30		504				Durvin Wick	no longer exists
09/09/92	92090286															Durvin Wick	filtered with 1.5 um newly drilled well across road

*sampled at feet
 took a sec
 across road from
 previous cell.*