Table A-2
Monitoring Well 39
(Continued)

Parameters	Units	Sampling Date 9/7/82	11/3/82	12/6/82	12/14/82	3/16/83
Groundwater Elevation	ft msl	-	1.8	-	-	2.75
Temperature(2)	°C	12	14	16	14	12
pH(2)	pH units	6.2	7.1	6.6	7.1	-
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	407	452	439	452	320
Total Organic Carbon	mg/l	5.6	1.3	1.6	1.3	34.8
Alkalinity	mg/l $CaCO_3$	99	115	290	115	89
Ammonia	mg/l NH_3-N	0.28	0.28	1.7	0.28	0.71
Chloride	mg/l	33.5	40	47	40	44
Chemical Oxygen Demand	mg/l	42	<5	260	<5	<5
Total Phenolics	mg/l	0.004	<0.005	0.002	<0.05	0.018
Cyanide	mg/l	-	-	-	-	<0.005
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	-	<0.005
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	-	<0.01
Lead	mg/l	-	-	-	-	<0.03
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	-	<0.03
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	-	<0.01
Volatile Organics:						
Acrolein	µg/l	-	<100	-	-	<100
Acrylonitrile	µg/l	-	<100	-	-	<100
Benzene	µg/l	-	<10	-	-	<10
Carbon Tetrachloride	µg/l	-	<10	-	-	<10
Chlorobenzene	µg/l	-	<10	-	-	<10
1,2-Dichloroethane	µg/l	-	<10	-	-	<10
1,1,1-Trichloroethane	µg/l	11	29	24	29	23
1,1-Dichloroethane	µg/l	-	12	-	12	10
1,1,2-Trichloroethane	µg/l	21	<10	-	-	<10
1,1,2,2-Tetrachloroethane	µg/l	-	<10	-	-	<10
Chloroethane	µg/l	-	<10	-	-	<10
2-Chloroethylvinyl Ether	µg/l	-	<10	-	-	<10
Chloroform	µg/l	-	<10	-	-	<10
1,1-Dichloroethene	µg/l	-	<10	-	-	<10
Trans-1,2-Dichloroethene	µg/l	-	12	-	12	12
1,2-Dichloropropane	µg/l	-	<10	-	-	<10
Cis-1,3-Dichloropropene	µg/l	-	<10	-	-	<10
Ethylbenzene	µg/l	-	<10	-	-	<10
Methylene Chloride	µg/l	-	13	-	13	<10
Chloromethane	µg/l	-	<10	-	-	<10
Bromomethane	µg/l	-	<10	-	-	<10
Bromoform	µg/l	-	<10	-	-	<10
Bromodichloromethane	µg/l	-	<10	-	-	<10
Dibromochloromethane	µg/l	-	<10	-	-	<10
Tetrachloroethene	µg/l	-	<10	-	-	<10
Toluene	µg/l	-	<10	-	-	<10
Trichloroethene	µg/l	-	59	54	59	57
Vinyl Chloride	µg/l	-	<10	-	-	<10

See footnotes at end of table.

Table A-2
Monitoring Well 39
(Continued)

Parameters	Units	Sampling Date 6/15/83	9/21/83	12/8/83	3/21/84	6/20/84
Groundwater Elevation	ft msl	3.37	1.59	2.9	3.3	3
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	6	7.5	6.3	6.1	6.1
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	413	393	370	336	330
Total Organic Carbon	mg/l	7.9	29.1	18.4	37.3	26
Alkalinity	mg/l $CaCO_3$	90	90	80	85	86
Ammonia	mg/l NH_3-N	0.27	1.1	0.68	0.5	0.16
Chloride	mg/l	38	33	61	33	30
Chemical Oxygen Demand	mg/l	8	11	<5	<5	<5
Total Phenolics	mg/l	<0.01	<0.01	0.014	<0.01	<0.02
Cyanide	mg/l	-	-	-	<0.005	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	<0.005	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	0	-
Lead	mg/l	-	-	-	<0.03	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	<0.03	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	<0.01	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	µg/l	16	16	23	15	18
1,1-Dichloroethane	µg/l	5	5	5	7	5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<10	<10	<10
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	10	9	9	12	9
1,2-Dichloropropane	µg/l	<10	<10	<10	<10	<10
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<10	<10	<10
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	51	45	54	39	40
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

See footnotes at end of table.

Table A-2
Monitoring Well 39
(Continued)

Parameters	Units	Sampling Date 9/27/84	12/12/84	3/27/85	9/11/85	12/17/85
Groundwater Elevation	ft msl	-	1.8	2.3	2.58	3.16
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	6.1	6.3	6.3	6.3	5.6
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	352	357	214	276	346
Total Organic Carbon	mg/l	20.3	35.3	23.1	3	3.8
Alkalinity	mg/l $CaCO_3$	93	86	79	86	86
Ammonia	mg/l NH_3-N	0.12	0.8	0.2	0.5	0.4
Chloride	mg/l	35	35	37	36	46
Chemical Oxygen Demand	mg/l	6	7	6	<5	<5
Total Phenolics	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	mg/l	-	-	<0.005	-	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	<0.005	-	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	<0.01	-	-
Lead	mg/l	-	-	<0.03	-	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	<0.03	-	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	<0.01	-	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<5	<5	<5
1,1,1-Trichloroethane	µg/l	30	15	13	7	7
1,1-Dichloroethane	µg/l	6	5	6	<5	5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	10	12	12	6	11
1,2-Dichloropropane	µg/l	<10	<10	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	37	39	39	30	36
Vinyl Chloride	µg/l	<10	<10	<5	<10	<10

See footnotes at end of table.

Table A-2
Monitoring Well 39
(Continued)

Parameters	Units	Sampling Date 3/26/86	6/24/86	3/24/87	6/23/87	9/24/87
Groundwater Elevation	ft msl	3.22	2.64	3.4	2.55	3.15
Temperature(2)	°C	12	16	11	-	-
pH(2)	pH units	6.65	6.45	6.6	6	6.05
Specific Conductance @ 25°C(2)	µmhos/cm	550	600	600	550	525
Total Dissolved Solids @ 180°C	mg/l	310	337	347	358	268
Total Organic Carbon	mg/l	3.5	2.9	4.1	4	3
Alkalinity	mg/l $CaCO_3$	80	92	92	108	88
Ammonia	mg/l NH_3-N	0.8	0.3	0.2	0.2	0.3
Chloride	mg/l	37	40	28	50	42
Chemical Oxygen Demand	mg/l	23	35	31	180	22
Total Phenolics	mg/l	0.07	<0.01	<0.01	0.02	0.02
Cyanide	mg/l	<0.01	-	0.01	-	-
Nitrate	mg/l NO_3-N	0.2	-	<0.1	-	-
Sulfate	mg/l	86	-	110	-	-
Metals:						
Cadmium	mg/l	<0.01	-	<0.001	-	-
Calcium	mg/l	51	-	57	-	-
Copper	mg/l	<0.01	-	0.02	-	-
Lead	mg/l	<0.01	-	<0.001	-	-
Magnesium	mg/l	19	-	21	-	-
Nickel	mg/l	<0.1	-	<0.1	-	-
Potassium	mg/l	4.1	-	5.2	-	-
Sodium	mg/l	23	-	25	-	-
Zinc	mg/l	0.03	-	0.07	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	7	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	6	210
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<5	<10	<10
Bromomethane	µg/l	<10	<10	<5	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	31	280	28	18	30
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-2
Monitoring Well 39
(Continued)

Parameters	Units	Sampling Date 11/19/87	3/24/88	6/29/88	9/12/88	11/14/88
Groundwater Elevation	ft msl	2.10	2.61	2.06	2.56	2.51
Temperature(2)	°C	-	17	15	-	-
pH(2)	pH units	6.25	6.35	5.80	6.55	6.15
Specific Conductance @ 25°C(2)	µmhos/cm	500	600	450	510	550
Total Dissolved Solids @ 180°C	mg/l	440	340	377	323	307
Total Organic Carbon	mg/l	4	3	5	2	3
Alkalinity	mg/l $CaCO_3$	104	142	100	98	104
Ammonia	mg/l NH_3-N	0.4	0.5	0.4	0.3	0.8
Chloride	mg/l	19	50	50	49	60
Chemical Oxygen Demand	mg/l	<5	<5	<5	8	14
Total Phenolics	mg/l	0.03	<0.01	0.01	<0.01	<0.01
Cyanide	mg/l	-	<0.01	-	-	-
Nitrate	mg/l NO_3-N	-	2.8	-	-	-
Sulfate	mg/l	-	100	-	-	-
Metals:						
Cadmium	mg/l	-	<0.001	-	-	-
Calcium	mg/l	-	62	-	-	-
Copper	mg/l	-	0.01	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	21	-	-	-
Nickel	mg/l	-	<0.1	-	-	-
Potassium	mg/l	-	6.6	-	-	-
Sodium	mg/l	-	25	-	-	-
Zinc	mg/l	-	0.07	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	7	6	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<10	<10	<10
Bromomethane	µg/l	<10	<5	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	34	5	24	19	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-2
Monitoring Well 39
(Continued)

Parameters	Units	Sampling Date 2/20/89(3)	5/22/89	8/21/89	11/13/89	2/12/90
Groundwater Elevation	ft msl	Damaged	4.59	2.94	5.53	3.17
Temperature(2)	°C		13	18	14	11
pH(2)	pH units		6.50	6.60	6.45	6.45
Specific Conductance @ 25°C(2)	µmhos/cm		700	550	500	500
Total Dissolved Solids @ 180°C	mg/l		320	245	281	337
Total Organic Carbon	mg/l		4	11	24	4
Alkalinity	mg/l $CaCO_3$		104	100	80	87
Ammonia	mg/l NH_3-N		<0.1	0.1	<0.1	<0.1
Chloride	mg/l		42	47	43	33
Chemical Oxygen Demand	mg/l		13	35	12	17
Total Phenolics	mg/l		0.08	0.02	0.02	<0.01
Cyanide	mg/l		-	-	-	-
Nitrate	mg/l NO_3-N		-	-	-	-
Sulfate	mg/l		-	-	-	-
Metals:						
Cadmium	mg/l		-	-	-	-
Calcium	mg/l		-	-	-	-
Copper	mg/l		-	-	-	-
Lead	mg/l		-	-	-	-
Magnesium	mg/l		-	-	-	-
Nickel	mg/l		-	-	-	-
Potassium	mg/l		-	-	-	-
Sodium	mg/l		-	-	-	-
Zinc	mg/l		-	-	-	-
Volatile Organics:						
Acrolein	µg/l		<250	<250	<250	<250
Acrylonitrile	µg/l		<250	<250	<250	<250
Benzene	µg/l		<5	<5	<5	<5
Carbon Tetrachloride	µg/l		<5	<5	<5	<5
Chlorobenzene	µg/l		<5	<5	<5	<5
1,2-Dichloroethane	µg/l		<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l		<5	<5	<5	<5
1,1-Dichloroethane	µg/l		<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l		<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l		<5	<5	<5	<5
Chloroethane	µg/l		<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l		<5	<5	<5	<5
Chloroform	µg/l		<5	<5	<5	<5
1,1-Dichloroethene	µg/l		<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l		<5	<5	<5	<5
1,2-Dichloropropane	µg/l		19	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l		<5	<5	<5	<5
Ethylbenzene	µg/l		<5	<5	<5	<5
Methylene Chloride	µg/l		<5	<5	<5	<5
Chloromethane	µg/l		<5	<5	<5	<10
Bromomethane	µg/l		<5	<5	<5	<10
Bromoform	µg/l		<5	<5	<5	<5
Bromodichloromethane	µg/l		<5	<5	<5	<5
Dibromochloromethane	µg/l		<5	<5	<5	<5
Tetrachloroethene	µg/l		<5	<5	<5	<5
Toluene	µg/l		<5	<5	<5	<5
Trichloroethene	µg/l		31	24	<5	11
Vinyl Chloride	µg/l		<5	<5	<5	<5

See footnotes at end of table.

Table A-2
Monitoring Well 39
(Continued)

Parameters	Units	Sampling Date 5/21/90	8/14/90	11/13/90	1/28/91	4/22/91
Groundwater Elevation	ft msl	3.05	2.71	2.33	2.81	2.94
Temperature(2)	°C	10	16	14	15	12
pH(2)	pH units	6.80	6.40	6.35	5.35	6.65
Specific Conductance @ 25°C(2)	µmhos/cm	500	500	450	500	500
Total Dissolved Solids @ 180°C	mg/l	373	262	311	354	321
Total Organic Carbon	mg/l	4	4	5	9	7
Alkalinity	mg/l $CaCO_3$	86	95	88	81	82
Ammonia	mg/l NH_3-N	<0.1	0.2	<0.1	<0.1	<0.1
Chloride	mg/l	33	39	39	41	43
Chemical Oxygen Demand	mg/l	20	48	17	59	68
Total Phenolics	mg/l	0.01	<0.01	<0.01	<0.01	<0.01
Cyanide	mg/l	-	<0.01	-	-	-
Nitrate	mg/l NO_3-N	-	4.0	-	-	-
Sulfate	mg/l	-	100	-	-	-
Metals:						
Cadmium	mg/l	-	<0.001	-	-	-
Calcium	mg/l	-	52	-	-	-
Copper	mg/l	-	<0.01	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	19	-	-	-
Nickel	mg/l	-	<0.1	-	-	-
Potassium	mg/l	-	6.4	-	-	-
Sodium	mg/l	-	20	-	-	-
Zinc	mg/l	-	0.01	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	16	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<5	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<10	<10	<10
Bromomethane	µg/l	<10	<5	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	11	13	12	15	13
Vinyl Chloride	µg/l	<5	<10	<10	<10	<10

See footnotes at end of table.

Table A-2
Monitoring Well 39
(Continued)

Parameters	Units	Sampling Date 8/5/91	10/28/91	1/20/92	4/20/92	7/21/92
Groundwater Elevation	ft msl	2.20	1.48	1.63	2.09	2.12
Temperature(2)	°C	17.5	15.5	11.5	13.0	17.4
pH(2)	pH units	6.39	6.30	6.88	6.16	6.11
Specific Conductance @ 25°C(2)	µmhos/cm	600	1000	500	500	500
Total Dissolved Solids @ 180°C	mg/l	293	427	355	284	286
Total Organic Carbon	mg/l	5	7	8	2	6
Alkalinity	mg/l $CaCO_3$	93	107	92	92	82
Ammonia	mg/l NH_3-N	0.1	0.2	<0.1	0.2	<0.10
Chloride	mg/l	37	40	45	49	36
Chemical Oxygen Demand	mg/l	39	56	66	28	24
Total Phenolics	mg/l	<0.01	<0.01	0.03	<0.1	0.015
Cyanide	mg/l	<0.01	-	-	-	<0.010
Nitrate	mg/l NO_3-N	4.2	-	-	-	3.9
Sulfate	mg/l	81	-	-	-	84
Metals:						
Cadmium	mg/l	0.002	-	-	-	<0.001
Calcium	mg/l	50	-	-	-	49
Copper	mg/l	0.02	-	-	-	<0.010
Lead	mg/l	<0.001	-	-	-	<0.001
Magnesium	mg/l	17	-	-	-	18
Nickel	mg/l	<0.1	-	-	-	<0.040
Potassium	mg/l	9.0	-	-	-	6.8
Sodium	mg/l	23	-	-	-	22
Zinc	mg/l	0.02	-	-	-	<0.010
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	10	12	13	10	11
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

(1) Dash denotes not analyzed.
(2) Field analysis.
(3) Replacement well sampled beginning August 1989.

Table A-3
Historical Groundwater Chemistry Data
Slag Area Monitoring Wells
Fairless Works
Monitoring Well 42

Parameters	Units	Sampling Date 7/25/80	1/29/81	12/21/81	1/25/82	6/20/82
Groundwater Elevation	ft msl	(1)	-	3.3	3.6	5.1
Temperature(2)	°C	-	-	12	12	13
pH(2)	pH units	6.5	6.6	6.6	6.7	6.6
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	652	648	812	468	689
Total Organic Carbon	mg/l	35	-	3.8	3.7	4.7
Alkalinity	mg/l $CaCO_3$	120	94	114	104	142
Ammonia	mg/l NH_3-N	2.5	17	501	3.25	18.5
Chloride	mg/l	40	228	<0.5	<0.5	243
Chemical Oxygen Demand	mg/l	210	-	29	154	47
Total Phenolics	mg/l	0	0.022	0.01	<0.05	0.01
Cyanide	mg/l	0.004	0.01	0.01	0.01	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	0	-	<0.01	<0.01	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	0.03	-	0.09	<0.1	-
Lead	mg/l	0	-	<0.05	<0.05	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	0.25	-	<0.1	<0.1	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	0.03	-	0.147	<0.02	-
Volatile Organics:						
Acrolein	µg/l	-	-	<100	<100	<100
Acrylonitrile	µg/l	-	-	<100	<100	<100
Benzene	µg/l	-	-	<10	<10	<10
Carbon Tetrachloride	µg/l	-	-	<10	<10	<10
Chlorobenzene	µg/l	-	-	<10	<10	<10
1,2-Dichloroethane	µg/l	-	-	<10	<10	<10
1,1,1-Trichloroethane	µg/l	-	-	<10	<10	<10
1,1-Dichloroethane	µg/l	-	-	<10	<10	<10
1,1,2-Trichloroethane	µg/l	-	-	<10	<10	<10
1,1,2,2-Tetrachloroethane	µg/l	-	-	<10	<10	<10
Chloroethane	µg/l	-	-	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	-	-	<10	<10	<10
Chloroform	µg/l	2.6	-	<10	<10	<10
1,1-Dichloroethene	µg/l	-	-	<10	<10	<10
Trans-1,2-Dichloroethene	µg/l	-	-	<10	<10	<10
1,2-Dichloropropane	µg/l	-	-	<10	<10	<10
Cis-1,3-Dichloropropene	µg/l	-	-	<10	<10	<10
Ethylbenzene	µg/l	-	-	<10	<10	<10
Methylene Chloride	µg/l	-	-	<10	<10	<10
Chloromethane	µg/l	-	-	<10	<10	<10
Bromomethane	µg/l	-	-	<10	<10	<10
Bromoform	µg/l	<1	-	<10	<10	<10
Bromodichloromethane	µg/l	<1	-	<10	<10	<10
Dibromochloromethane	µg/l	3.9	-	<10	<10	<10
Tetrachloroethene	µg/l	-	-	<10	<10	<10
Toluene	µg/l	-	-	<10	<10	<10
Trichloroethene	µg/l	-	-	13	14	19
Vinyl Chloride	µg/l	-	-	<10	<10	<10

See footnotes at end of table.

Table A-3
Monitoring Well 42
(Continued)

Parameters	Units	Sampling Date 9/7/82	11/3/82	12/6/82	12/14/82	3/16/83
Groundwater Elevation	ft msl	-	3.5	-	-	4.59
Temperature(2)	°C	13	14	17	14	12
pH(2)	pH units	6.6	6.8	6.6	6.8	6.5
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	689	988	932	988	620
Total Organic Carbon	mg/l	4.7	32	3.3	32	35.7
Alkalinity	mg/l $CaCO_3$	142	144	147	144	109
Ammonia	mg/l NH_3-N	18.5	20	103	20	16
Chloride	mg/l	243	257	247	257	255
Chemical Oxygen Demand	mg/l	47	25	109	25	20
Total Phenolics	mg/l	0.01	0.003	0.007	0.003	0.021
Cyanide	mg/l	-	-	-	-	0.005
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	-	<0.005
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	-	<0.01
Lead	mg/l	-	-	-	-	<0.03
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	-	<0.03
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	-	<0.01
Volatile Organics:						
Acrolein	µg/l	-	<100	-	-	<100
Acrylonitrile	µg/l	-	<100	-	-	<100
Benzene	µg/l	-	<10	-	-	<10
Carbon Tetrachloride	µg/l	-	<10	-	-	<10
Chlorobenzene	µg/l	-	<10	-	-	<10
1,2-Dichloroethane	µg/l	-	<10	-	-	<10
1,1,1-Trichloroethane	µg/l	-	<10	-	-	<10
1,1-Dichloroethane	µg/l	-	<10	-	-	<10
1,1,2-Trichloroethane	µg/l	-	<10	-	-	<10
1,1,2,2-Tetrachloroethane	µg/l	-	<10	-	-	<10
Chloroethane	µg/l	-	<10	-	-	<10
2-Chloroethylvinyl Ether	µg/l	-	<10	-	-	<10
Chloroform	µg/l	-	<10	-	-	<10
1,1-Dichloroethene	µg/l	-	<10	-	-	<10
Trans-1,2-Dichloroethene	µg/l	-	<10	-	-	<10
1,2-Dichloropropane	µg/l	-	<10	-	-	<10
Cis-1,3-Dichloropropene	µg/l	-	<10	-	-	<10
Ethylbenzene	µg/l	-	<10	-	-	<10
Methylene Chloride	µg/l	-	<10	-	-	<10
Chloromethane	µg/l	-	<10	-	-	<10
Bromomethane	µg/l	-	<10	-	-	<10
Bromoform	µg/l	-	<10	-	-	<10
Bromodichloromethane	µg/l	-	<10	-	-	<10
Dibromochloromethane	µg/l	-	<10	-	-	<10
Tetrachloroethene	µg/l	-	<10	-	-	<10
Toluene	µg/l	-	<10	-	-	<10
Trichloroethene	µg/l	19	<10	10	-	10
Vinyl Chloride	µg/l	-	<10	-	-	<10

See footnotes at end of table.

Table A-3
Monitoring Well 42
(Continued)

Parameters	Units	Sampling Date 6/15/83	9/21/83	12/8/83	3/21/84	6/20/84
Groundwater Elevation	ft msl	5.64	3.41	4.7	5.1	5.4
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	6.8	6.4	6.5	6.6	6.5
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	1100	1040	820	785	852
Total Organic Carbon	mg/l	12.2	32	28.3	43.3	30.9
Alkalinity	mg/l $CaCO_3$	140	130	110	120	130
Ammonia	mg/l NH_3-N	25	29	29	24	22
Chloride	mg/l	330	310	290	250	250
Chemical Oxygen Demand	mg/l	48	19	7	18	<5
Total Phenolics	mg/l	<0.02	<0.01	0.016	<0.01	<0.02
Cyanide	mg/l	-	-	-	0.009	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	<0.005	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	<0.01	-
Lead	mg/l	-	-	-	<0.03	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	<0.03	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	<0.01	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	13
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<10	<10	<10
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<10	<10	<10	<10	<10
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<10	<10	<10
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	8	5	7	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

See footnotes at end of table.

Table A-3
Monitoring Well 42
(Continued)

Parameters	Units	Sampling Date 9/27/84	12/12/84	3/27/85	9/11/85	12/17/85
Groundwater Elevation	ft msl	-	3.1	3.6	3.98	4.94
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	6.7	6.5	6.6	6.5	6.1
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	848	804	828	1080	896
Total Organic Carbon	mg/l	21.6	34.2	24.4	7.2	10.2
Alkalinity	mg/l $CaCO_3$	140	120	98	49	150
Ammonia	mg/l NH_3-N	21	18	17	35	32
Chloride	mg/l	220	260	290	330	330
Chemical Oxygen Demand	mg/l	15	16	14	20	24
Total Phenolics	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	mg/l	-	-	<0.005	-	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	<0.005	-	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	<0.01	-	-
Lead	mg/l	-	-	<0.03	-	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	<0.03	-	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	<0.01	-	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<5	<5	<5
1,1,1-Trichloroethane	µg/l	46	8	9	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<10	<10	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<5	<10	<10

See footnotes at end of table.

Table A-3
Monitoring Well 42
(Continued)

Parameters	Units	Sampling Date 3/27/86	6/24/86	3/24/87	6/23/87	9/24/87
Groundwater Elevation	ft msl	4.62	4.44	4.9	4.57	5.93
Temperature(2)	°C	13	16	12	-	-
pH(2)	pH units	6.65	6.6	7.1	6.05	6.15
Specific Conductance @ 25°C(2)	µmhos/cm	1200	1100	1100	1000	950
Total Dissolved Solids @ 180°C	mg/l	640	690	633	801	530
Total Organic Carbon	mg/l	7.2	5.8	6.8	6	8
Alkalinity	mg/l $CaCO_3$	82	116	32	64	56
Ammonia	mg/l NH_3-N	26	28	27	20	34
Chloride	mg/l	220	200	240	180	210
Chemical Oxygen Demand	mg/l	46	25	70	200	30
Total Phenolics	mg/l	0.05	<0.01	<0.01	0.03	0.04
Cyanide	mg/l	<0.01	-	0.02	-	-
Nitrate	mg/l NO_3-N	<0.1	-	0.7	-	-
Sulfate	mg/l	72	-	58	-	-
Metals:						
Cadmium	mg/l	<0.01	-	<0.001	-	-
Calcium	mg/l	110	-	97	-	-
Copper	mg/l	0.01	-	0.02	-	-
Lead	mg/l	<0.01	-	<0.001	-	-
Magnesium	mg/l	21	-	18	-	-
Nickel	mg/l	<0.1	-	<0.1	-	-
Potassium	mg/l	28	-	24	-	-
Sodium	mg/l	45	-	42	-	-
Zinc	mg/l	0.04	-	<0.01	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<5	<10	<10
Bromomethane	µg/l	<10	<10	<5	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-3
Monitoring Well 42
(Continued)

Parameters	Units	Sampling Date 11/19/87	3/24/88	6/29/88	9/12/88	11/14/88
Groundwater Elevation	ft msl	3.97	4.68	3.89	4.22	4.06
Temperature(2)	°C	-	17	15	-	-
pH(2)	pH units	6.60	6.45	6.35	6.65	6.20
Specific Conductance @ 25°C(2)	µmhos/cm	925	800	800	950	1000
Total Dissolved Solids @ 180°C	mg/l	570	440	620	480	460
Total Organic Carbon	mg/l	5	5	9	5	12
Alkalinity	mg/l $CaCO_3$	140	107	123	56	16
Ammonia	mg/l NH_3-N	19	18	19	19	27
Chloride	mg/l	240	140	140	170	170
Chemical Oxygen Demand	mg/l	20	<5	<5	20	42
Total Phenolics	mg/l	<0.01	0.02	0.01	0.02	0.02
Cyanide	mg/l	-	<0.01	-	-	-
Nitrate	mg/l NO_3-N	-	3.9	-	-	-
Sulfate	mg/l	-	77	-	-	-
Metals:						
Cadmium	mg/l	-	<0.001	-	-	-
Calcium	mg/l	-	84	-	-	-
Copper	mg/l	-	0.02	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	14	-	-	-
Nickel	mg/l	-	<0.1	-	-	-
Potassium	mg/l	-	20	-	-	-
Sodium	mg/l	-	37	-	-	-
Zinc	mg/l	-	0.06	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<10	<10	<10
Bromomethane	µg/l	<10	<5	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-3
Monitoring Well 42
(Continued)

Parameters	Units	Sampling Date 2/20/89(3)	5/22/89	8/21/89	11/13/89	2/12/90
Groundwater Elevation	ft msl	Damaged	6.21	5.14	4.57	4.65
Temperature(2)	°C		13	17	14	12
pH(2)	pH units		6.55	6.60	6.75	6.60
Specific Conductance @ 25°C(2)	µmhos/cm		1000	600	800	700
Total Dissolved Solids @ 180°C	mg/l		481	417	356	373
Total Organic Carbon	mg/l		9	10	34	6
Alkalinity	mg/l $CaCO_3$		148	24	80	68
Ammonia	mg/l NH_3-N		20	32	20	15
Chloride	mg/l		110	110	84	82
Chemical Oxygen Demand	mg/l		75	52	34	32
Total Phenolics	mg/l		<0.01	0.02	<0.01	<0.01
Cyanide	mg/l		-	-	-	-
Nitrate	mg/l NO_3-N		-	-	-	-
Sulfate	mg/l		-	-	-	-
Metals:						
Cadmium	mg/l		-	-	-	-
Calcium	mg/l		-	-	-	-
Copper	mg/l		-	-	-	-
Lead	mg/l		-	-	-	-
Magnesium	mg/l		-	-	-	-
Nickel	mg/l		-	-	-	-
Potassium	mg/l		-	-	-	-
Sodium	mg/l		-	-	-	-
Zinc	mg/l		-	-	-	-
Volatile Organics:						
Acrolein	µg/l		<250	<250	<250	<250
Acrylonitrile	µg/l		<250	<250	<250	<250
Benzene	µg/l		<5	<5	<5	8
Carbon Tetrachloride	µg/l		<5	<5	<5	<5
Chlorobenzene	µg/l		<5	<5	<5	<5
1,2-Dichloroethane	µg/l		<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l		<5	<5	<5	<5
1,1-Dichloroethane	µg/l		<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l		<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l		<5	<5	<5	<5
Chloroethane	µg/l		<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l		<5	<5	<5	<5
Chloroform	µg/l		<5	<5	<5	<5
1,1-Dichloroethene	µg/l		<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l		<5	<5	<5	<5
1,2-Dichloropropane	µg/l		20	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l		<5	<5	<5	<5
Ethylbenzene	µg/l		<5	<5	<5	<5
Methylene Chloride	µg/l		<5	<5	<5	<5
Chloromethane	µg/l		<5	<5	<5	<10
Bromomethane	µg/l		<5	<5	<5	<10
Bromoform	µg/l		<5	<5	<5	<5
Bromodichloromethane	µg/l		<5	<5	<5	<5
Dibromochloromethane	µg/l		<5	<5	<5	<5
Tetrachloroethene	µg/l		<5	<5	<5	<5
Toluene	µg/l		<5	<5	<5	<5
Trichloroethene	µg/l		<5	<5	<5	<5
Vinyl Chloride	µg/l		<5	<5	<5	<5

See footnotes at end of table.

Table A-3
Monitoring Well 42
(Continued)

Parameters	Units	Sampling Date 5/21/90	8/14/90	11/13/90	1/28/91	4/22/91
Groundwater Elevation	ft msl	4.70	4.25	3.6	4.36	4.67
Temperature(2)	°C	10	17	15	13	13
pH(2)	pH units	6.80	6.60	6.55	6.65	6.65
Specific Conductance @ 25°C(2)	µmhos/cm	750	700	700	700	650
Total Dissolved Solids @ 180°C	mg/l	464	311	373	403	384
Total Organic Carbon	mg/l	7	8	6	8	6
Alkalinity	mg/l $CaCO_3$	107	135	40	89	99
Ammonia	mg/l NH_3-N	16	15	15	13	12
Chloride	mg/l	80	82	92	82	70
Chemical Oxygen Demand	mg/l	41	61	21	44	63
Total Phenolics	mg/l	0.01	<0.01	0.01	<0.01	<0.01
Cyanide	mg/l	-	<0.01	-	-	-
Nitrate	mg/l NO_3-N	-	6.3	-	-	-
Sulfate	mg/l	-	56	-	-	-
Metals:						
Cadmium	mg/l	-	<0.001	-	-	-
Calcium	mg/l	-	56	-	-	-
Copper	mg/l	-	0.01	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	11	-	-	-
Nickel	mg/l	-	<0.1	-	-	-
Potassium	mg/l	-	16	-	-	-
Sodium	mg/l	-	28	-	-	-
Zinc	mg/l	-	0.01	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	-	<250	<250	<250
Acrylonitrile	µg/l	<250	-	<250	<250	<250
Benzene	µg/l	<5	-	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	-	<5	<5	<5
Chlorobenzene	µg/l	<5	-	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	-	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	-	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	-	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	-	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	-	<5	<5	<5
Chloroethane	µg/l	<5	-	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	-	<10	<10	<10
Chloroform	µg/l	<5	-	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	-	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	-	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	-	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5	<5
Ethylbenzene	µg/l	<5	-	<5	<5	<5
Methylene Chloride	µg/l	<5	-	<5	<5	<5
Chloromethane	µg/l	<10	-	<10	<10	<10
Bromomethane	µg/l	<10	-	<10	<10	<10
Bromoform	µg/l	<5	-	<5	<5	<5
Bromodichloromethane	µg/l	<5	-	<5	<5	<5
Dibromochloromethane	µg/l	<5	-	<5	<5	<5
Tetrachloroethene	µg/l	<5	-	<5	<5	<5
Toluene	µg/l	<5	-	<5	<5	<5
Trichloroethene	µg/l	<5	-	<5	<5	<5
Vinyl Chloride	µg/l	<5	-	<10	<10	<10

See footnotes at end of table.

Table A-3
Monitoring Well 42
(Continued)

Parameters	Units	Sampling Date 8/5/91	10/28/91	1/21/92	4/20/92	7/21/92
Groundwater Elevation	ft msl	3.78	3.38	3.34	3.68	3.85
Temperature(2)	°C	18.1	16.4	10.9	12.8	17.5
pH(2)	pH units	6.62	6.50	6.96	6.25	6.39
Specific Conductance @ 25°C(2)	µmhos/cm	850	1100	700	600	600
Total Dissolved Solids @ 180°C	mg/l	359	351	423	368	315
Total Organic Carbon	mg/l	6	6	6	4	8
Alkalinity	mg/l $CaCO_3$	122	144	125	53	72
Ammonia	mg/l NH_3-N	14	13	9.2	10	12
Chloride	mg/l	82	81	79	80	77
Chemical Oxygen Demand	mg/l	24	44	49	35	51
Total Phenolics	mg/l	<0.01	<0.01	0.01	<0.1	0.007
Cyanide	mg/l	0.02	-	-	-	<0.01
Nitrate	mg/l NO_3-N	5.5	-	-	-	4.5
Sulfate	mg/l	36	-	-	-	64
Metals:						
Cadmium	mg/l	<0.001	-	-	-	<0.001
Calcium	mg/l	62	-	-	-	72
Copper	mg/l	0.03	-	-	-	<0.010
Lead	mg/l	<0.001	-	-	-	0.002
Magnesium	mg/l	11	-	-	-	14
Nickel	mg/l	<0.1	-	-	-	<0.040
Potassium	mg/l	19	-	-	-	20
Sodium	mg/l	32	-	-	-	38
Zinc	mg/l	<0.01	-	-	-	0.010
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

(1)Dash denotes not analyzed.
(2)Field analysis.
(3)Replacement well sampled beginning August 1989.

Table A-4
Historical Groundwater Chemistry Data
Slag Area Monitoring Wells
Fairless Works
Monitoring Well 43

Parameters	Units	Sampling Date				
		8/1/80	1/29/81	12/21/81	1/25/82	6/20/82
Groundwater Elevation	ft msl	-(1)	-	5	5.8	6.6
Temperature(2)	°C	-	-	13	13	12
pH(2)	pH units	7.3	7.1	7.1	7.2	6.9
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	358	458	444	356	342
Total Organic Carbon	mg/l	40	-	6.7	2.2	3.9
Alkalinity	mg/l $CaCO_3$	110	158	155	154	154
Ammonia	mg/l NH_3-N	0.51	2.6	7.37	0.07	1.77
Chloride	mg/l	36	59	<0.5	<0.5	37.9
Chemical Oxygen Demand	mg/l	150	-	32	<5	<10
Total Phenolics	mg/l	0.015	0.007	0.03	<0.05	<0.005
Cyanide	mg/l	0.005	0.008	<0.01	0.01	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	0	-	<0.01	<0.01	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	0	-	<0.1	0.1	-
Lead	mg/l	0	-	<0.05	<0.05	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	0	-	<0.1	<0.1	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	0	-	0.04	0.4	-
Volatile Organics:						
Acrolein	µg/l	-	-	<100	<100	<100
Acrylonitrile	µg/l	-	-	<100	<100	<100
Benzene	µg/l	-	-	<10	<10	<10
Carbon Tetrachloride	µg/l	-	-	<10	<10	<10
Chlorobenzene	µg/l	-	-	<10	<10	<10
1,2-Dichloroethane	µg/l	-	-	<10	<10	<10
1,1,1-Trichloroethane	µg/l	-	-	24	23	13
1,1-Dichloroethane	µg/l	-	-	10	10	<10
1,1,2-Trichloroethane	µg/l	-	-	<10	<10	<10
1,1,2,2-Tetrachloroethane	µg/l	-	-	<10	<10	<10
Chloroethane	µg/l	-	-	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	-	-	<10	<10	<10
Chloroform	µg/l	6.7	-	<10	<10	<10
1,1-Dichloroethene	µg/l	-	-	<10	<10	<10
Trans-1,2-Dichloroethene	µg/l	-	-	23	24	25
1,2-Dichloropropane	µg/l	-	-	<10	<10	<10
Cis-1,3-Dichloropropene	µg/l	-	-	<10	<10	<10
Ethylbenzene	µg/l	-	-	<10	<10	<10
Methylene Chloride	µg/l	-	-	26	<10	<10
Chloromethane	µg/l	-	-	<10	<10	<10
Bromomethane	µg/l	-	-	<10	<10	<10
Bromoform	µg/l	8.6	-	<10	<10	<10
Bromodichloromethane	µg/l	<1	-	<10	<10	<10
Dibromochloromethane	µg/l	8.6	-	<10	<10	<10
Tetrachloroethene	µg/l	-	-	<10	<10	<10
Toluene	µg/l	-	-	<10	<10	<10
Trichloroethene	µg/l	-	-	75	85	82
Vinyl Chloride	µg/l	-	-	<10	<10	<10

See footnotes at end of table.

Table A-4
Monitoring Well 43
(Continued)

Parameters	Units	Sampling Date 9/7/82	11/3/82	12/6/82	12/14/82	3/16/83
Groundwater Elevation	ft msl	-	5.2	-	-	6.12
Temperature(2)	°C	12	13	14	13	12
pH(2)	pH units	6.9	7.1	7	7.1	7
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	342	518	479	518	430
Total Organic Carbon	mg/l	3.9	1.9	1.7	1.9	39.1
Alkalinity	mg/l $CaCO_3$	154	179	182	179	157
Ammonia	mg/l NH_3-N	1.77	1.2	11	1.2	3.5
Chloride	mg/l	37.9	68	59	68	82
Chemical Oxygen Demand	mg/l	<5	140	48	140	11
Total Phenolics	mg/l	<0.05	<0.005	0.011	<0.05	<0.01
Cyanide	mg/l	-	-	-	-	<0.005
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	-	<0.005
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	-	<0.01
Lead	mg/l	-	-	-	-	<0.03
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	-	<0.03
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	-	1.35
Volatile Organics:						
Acrolein	µg/l	-	<100	-	-	<100
Acrylonitrile	µg/l	-	<100	-	-	<100
Benzene	µg/l	-	<10	-	-	<10
Carbon Tetrachloride	µg/l	-	<10	-	-	<10
Chlorobenzene	µg/l	-	<10	-	-	<10
1,2-Dichloroethane	µg/l	-	<10	-	-	<10
1,1,1-Trichloroethane	µg/l	13	18	15	18	11
1,1-Dichloroethane	µg/l	-	<10	-	-	<10
1,1,2-Trichloroethane	µg/l	-	<10	-	-	<10
1,1,2,2-Tetrachloroethane	µg/l	-	<10	-	-	<10
Chloroethane	µg/l	-	<10	-	-	<10
2-Chloroethylvinyl Ether	µg/l	-	<10	-	-	<10
Chloroform	µg/l	-	<10	-	-	<10
1,1-Dichloroethene	µg/l	-	<10	-	-	<10
Trans-1,2-Dichloroethene	µg/l	25	34	21	34	17
1,2-Dichloropropane	µg/l	-	<10	-	-	<10
Cis-1,3-Dichloropropene	µg/l	-	<10	-	-	<10
Ethylbenzene	µg/l	-	<10	-	-	<10
Methylene Chloride	µg/l	-	10	-	10	<10
Chloromethane	µg/l	-	<10	-	-	<10
Bromomethane	µg/l	-	<10	-	-	<10
Bromoform	µg/l	-	<10	-	-	<10
Bromodichloromethane	µg/l	-	<10	-	-	<10
Dibromochloromethane	µg/l	-	<10	-	-	<10
Tetrachloroethene	µg/l	-	<10	-	-	<10
Toluene	µg/l	-	10	-	10	<10
Trichloroethene	µg/l	82	62	71	62	61
Vinyl Chloride	µg/l	-	<10	-	-	<10

See footnotes at end of table.

Table A-4
Monitoring Well 43
(Continued)

Parameters	Units	Sampling Date 6/15/83	9/21/83	12/8/83	3/20/84	6/20/84
Groundwater Elevation	ft msl	7.25	5.13	6.4	6.9	7.2
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	6.8	6.6	7	6.9	6.8
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	369	408	476	407	375
Total Organic Carbon	mg/l	3.3	33.8	25.4	37.6	21.6
Alkalinity	mg/l $CaCO_3$	130	140	150	150	140
Ammonia	mg/l NH_3-N	1.7	4.3	2.7	2.4	1.7
Chloride	mg/l	42	58	94	77	55
Chemical Oxygen Demand	mg/l	17	7	<5	9	<5
Total Phenolics	mg/l	<0.02	<0.01	<0.01	<0.01	<0.02
Cyanide	mg/l	-	-	-	0.005	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	<0.005	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	<0.01	-
Lead	mg/l	-	-	-	<0.03	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	<0.03	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	<0.01	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	µg/l	12	10	11	8	29
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<10	<10	<10
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	10	12	9	9	7
1,2-Dichloropropane	µg/l	<10	<10	<10	<10	<10
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<10	<10	<10
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	49	50	47	30	32
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

See footnotes at end of table.

Table A-4
Monitoring Well 43
(Continued)

Parameters	Units	Sampling Date 9/27/84	12/12/84	3/27/85	9/11/85	12/17/85
Groundwater Elevation	ft msl	-	4.9	4.3	4.89	5.82
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	6.7	6.7	6.9	6.8	6.6
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	410	456	521	440	552
Total Organic Carbon	mg/l	20.3	36.7	24.7	29.2	6.3
Alkalinity	mg/l $CaCO_3$	150	150	140	160	160
Ammonia	mg/l NH_3-N	2.1	3.2	4.1	5.7	5.7
Chloride	mg/l	240	83	110	140	140
Chemical Oxygen Demand	mg/l	7	11	7	11	12
Total Phenolics	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	mg/l	-	-	0.005	-	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	<0.005	-	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	<0.01	-	-
Lead	mg/l	-	-	<0.03	-	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	<0.03	-	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	0.01	-	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<5	<5	<5
1,1,1-Trichloroethane	µg/l	42	12	10	<5	5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	7	<5	7	<5	<5
1,2-Dichloropropane	µg/l	<10	<10	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	28	30	28	15	22
Vinyl Chloride	µg/l	<10	<10	<5	<10	<10

See footnotes at end of table.

Table A-4
Monitoring Well 43
(Continued)

Parameters	Units	Sampling Date 3/27/86	6/24/86	3/24/87	6/23/87	9/24/87
Groundwater Elevation	ft msl	6.3	6	6.5	6.25	6.93
Temperature(2)	°C	14	14	13	-	-
pH(2)	pH units	7.2	6.95	7.5	6.3	6.35
Specific Conductance @ 25°C(2)	µmhos/cm	800	750	700	600	650
Total Dissolved Solids @ 180°C	mg/l	470	393	383	413	380
Total Organic Carbon	mg/l	5.2	3.2	4.2	4	3
Alkalinity	mg/l $CaCO_3$	124	148	112	120	108
Ammonia	mg/l NH_3-N	2.3	4.8	6.7	5.2	5.1
Chloride	mg/l	110	86	90	65	56
Chemical Oxygen Demand	mg/l	23	10	31	140	38
Total Phenolics	mg/l	0.08	<0.01	<0.01	0.03	<0.01
Cyanide	mg/l	<0.01	-	0.03	-	-
Nitrate	mg/l NO_3-N	<0.1	-	<0.1	-	-
Sulfate	mg/l	86	-	74	-	-
Metals:						
Cadmium	mg/l	<0.01	-	<0.001	-	-
Calcium	mg/l	83	-	66	-	-
Copper	mg/l	0.01	-	0.02	-	-
Lead	mg/l	<0.01	-	<0.001	-	-
Magnesium	mg/l	24	-	17	-	-
Nickel	mg/l	<0.1	-	<0.1	-	-
Potassium	mg/l	22	-	19	-	-
Sodium	mg/l	35	-	28	-	-
Zinc	mg/l	0.02	-	<0.01	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<5	<10	<10
Bromomethane	µg/l	<10	<10	<5	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	22	94	<5	10	16
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-4
Monitoring Well 43
(Continued)

Parameters	Units	Sampling Date 11/19/87	3/24/88	6/29/88	9/12/88	11/14/88
Groundwater Elevation	ft msl	5.87	5.63	4.89	5.08	4.70
Temperature(2)	°C	-	17	16	-	-
pH(2)	pH units	6.55	6.75	6.75	7.05	6.95
Specific Conductance @ 25°C(2)	µmhos/cm	700	650	550	650	750
Total Dissolved Solids @ 180°C	mg/l	457	347	383	370	363
Total Organic Carbon	mg/l	5	3	4	2	6
Alkalinity	mg/l $CaCO_3$	164	226	160	106	164
Ammonia	mg/l NH_3-N	6.4	6.7	6.6	7.1	9.0
Chloride	mg/l	15.0	67	62	77	89
Chemical Oxygen Demand	mg/l	40	<5	<5	16	27
Total Phenolics	mg/l	<0.01	0.02	0.04	0.02	<0.01
Cyanide	mg/l	-	<0.01	-	-	-
Nitrate	mg/l NO_3-N	-	0.7	-	-	-
Sulfate	mg/l	-	66	-	-	-
Metals:						
Cadmium	mg/l	-	0.001	-	-	-
Calcium	mg/l	-	68	-	-	-
Copper	mg/l	-	0.02	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	17	-	-	-
Nickel	mg/l	-	<0.1	-	-	-
Potassium	mg/l	-	18	-	-	-
Sodium	mg/l	-	28	-	-	-
Zinc	mg/l	-	0.10	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	14	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	5	<5
Chloromethane	µg/l	<10	<5	<10	<10	<10
Bromomethane	µg/l	<10	<5	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	20	<5	15	12	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-4
Monitoring Well 43
(Continued)

Parameters	Units	Sampling Date 2/20/89	5/22/89	8/21/89	11/13/89	2/12/90
Groundwater Elevation	ft msl	4.32	6.78	6.07	5.52	5.26
Temperature(2)	°C	11	14	15	13	12
pH(2)	pH units	7.05	7.00	6.75	6.85	6.85
Specific Conductance @ 25°C(2)	µmhos/cm	750	750	500	600	600
Total Dissolved Solids @ 180°C	mg/l	432	382	253	299	346
Total Organic Carbon	mg/l	6	5	7	27	4
Alkalinity	mg/l $CaCO_3$	120	148	160	136	135
Ammonia	mg/l NH_3-N	8.4	7.9	7.5	7.0	7.1
Chloride	mg/l	75	62	57	43	43
Chemical Oxygen Demand	mg/l	16	30	31	15	12
Total Phenolics	mg/l	<0.01	0.02	0.06	<0.01	0.02
Cyanide	mg/l	<0.01	-	-	-	-
Nitrate	mg/l NO_3-N	0.9	-	-	-	-
Sulfate	mg/l	78	-	-	-	-
Metals:						
Cadmium	mg/l	<0.001	-	-	-	-
Calcium	mg/l	63	-	-	-	-
Copper	mg/l	0.03	-	-	-	-
Lead	mg/l	<0.001	-	-	-	-
Magnesium	mg/l	16	-	-	-	-
Nickel	mg/l	<0.1	-	-	-	-
Potassium	mg/l	15	-	-	-	-
Sodium	mg/l	31	-	-	-	-
Zinc	mg/l	0.04	-	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	7	<5	14
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	18	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<10	<5	<5	<5	5
Chloromethane	µg/l	<10	<5	<5	<5	<10
Bromomethane	µg/l	<5	<5	<5	<5	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	10
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	9	18	16	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-4
Monitoring Well 43
(Continued)

Parameters	Units	Sampling Date 5/21/90	8/14/90	11/13/90	1/28/91	4/22/91
Groundwater Elevation	ft msl	5.35	4.97	4.46	5.19	4.95
Temperature(2)	°C	10	17	13	13	12
pH(2)	pH units	7.30	6.95	6.10	6.20	6.55
Specific Conductance @ 25°C(2)	µmhos/cm	600	500	550	600	600
Total Dissolved Solids @ 180°C	mg/l	289	230	356	308	299
Total Organic Carbon	mg/l	4	4	3	4	4
Alkalinity	mg/l $CaCO_3$	152	143	130	131	160
Ammonia	mg/l NH_3-N	7.1	7.3	8.2	9.0	7.9
Chloride	mg/l	40	43	48	50	45
Chemical Oxygen Demand	mg/l	31	45	21	14	34
Total Phenolics	mg/l	0.02	<0.01	<0.01	<0.01	<0.01
Cyanide	mg/l	-	<0.01	-	-	-
Nitrate	mg/l NO_3-N	-	0.7	-	-	-
Sulfate	mg/l	-	66	-	-	-
Metals:						
Cadmium	mg/l	-	<0.001	-	-	-
Calcium	mg/l	-	45	-	-	-
Copper	mg/l	-	0.01	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	13	-	-	-
Nickel	mg/l	-	<0.1	-	-	-
Potassium	mg/l	-	14	-	-	-
Sodium	mg/l	-	21	-	-	-
Zinc	mg/l	-	0.01	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<5	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<10	<10	<10
Bromomethane	µg/l	<10	<5	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	10	10	8	11	7
Vinyl Chloride	µg/l	<5	<10	<10	<10	<10

See footnotes at end of table.

Table A-4
Monitoring Well 43
(Continued)

Parameters	Units	Sampling Date 8/5/91	10/29/91	1/21/92	4/20/92	7/21/92
Groundwater Elevation	ft msl	4.53	4.20	4.17	4.35	4.67
Temperature(2)	°C	16.8	12.5	11.2	13.0	15.7
pH(2)	pH units	6.93	7.13	7.31	6.50	6.72
Specific Conductance @ 25°C(2)	µmhos/cm	750	900	675	600	600
Total Dissolved Solids @ 180°C	mg/l	304	307	389	313	320
Total Organic Carbon	mg/l	3	3	7	3	6
Alkalinity	mg/l $CaCO_3$	152	161	177	124	100
Ammonia	mg/l NH_3-N	8	8.7	9.1	9.2	9
Chloride	mg/l	42	44	51	59	47
Chemical Oxygen Demand	mg/l	7	12	27	27	11
Total Phenolics	mg/l	<0.01	<0.01	0.05	<0.1	0.006
Cyanide	mg/l	<0.01	-	-	-	<0.010
Nitrate	mg/l NO_3-N	0.8	-	-	-	1.2
Sulfate	mg/l	73	-	-	-	69
Metals:						
Cadmium	mg/l	0.001	-	-	-	0.001
Calcium	mg/l	50	-	-	-	57
Copper	mg/l	0.04	-	-	-	0.010
Lead	mg/l	<0.001	-	-	-	0.014
Magnesium	mg/l	14	-	-	-	16
Nickel	mg/l	<0.1	-	-	-	<0.040
Potassium	mg/l	19	-	-	-	19
Sodium	mg/l	29	-	-	-	31
Zinc	mg/l	<0.01	-	-	-	<0.010
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	8	8	9	8	7
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

(1) Dash denotes not analyzed.
(2) Field analysis.

Table A-5
Historical Groundwater Chemistry Data
Slag Area Monitoring Wells
Fairless Works
Monitoring Well 44

Parameters	Units	Sampling Date 8/1/80	1/29/81	12/21/81	1/25/82	6/20/82
Groundwater Elevation	ft msl	-(1)	-	3.5	4.1	5.3
Temperature(2)	°C	-	-	13	12	12
pH(2)	pH units	7.5	6.9	6.7	6.8	6.6
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	540	1150	1460	422	882
Total Organic Carbon	mg/l	22	-	8.1	10.3	1.7
Alkalinity	mg/l $CaCO_3$	190	216	245	238	251
Ammonia	mg/l NH_3-N	3.8	50	501	0.81	33.2
Chloride	mg/l	248	490	<0.5	<0.5	305
Chemical Oxygen Demand	mg/l	160	-	69	75	35
Total Phenolics	mg/l	-	0.044	0.04	0.04	0.016
Cyanide	mg/l	0.011	0.011	0.02	0.01	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	<0.01	<0.01	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	<0.1	<0.1	-
Lead	mg/l	-	-	<0.05	<0.05	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	<0.1	0.1	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	0.024	0.05	-
Volatile Organics:						
Acrolein	µg/l	-	-	<100	<100	<100
Acrylonitrile	µg/l	-	-	<100	<100	<100
Benzene	µg/l	-	-	<10	<10	<10
Carbon Tetrachloride	µg/l	-	-	<10	<10	<10
Chlorobenzene	µg/l	-	-	<10	<10	<10
1,2-Dichloroethane	µg/l	-	-	<10	<10	<10
1,1,1-Trichloroethane	µg/l	-	-	<10	<10	<10
1,1-Dichloroethane	µg/l	-	-	<10	<10	<10
1,1,2-Trichloroethane	µg/l	-	-	<10	<10	<10
1,1,2,2-Tetrachloroethane	µg/l	-	-	<10	<10	<10
Chloroethane	µg/l	-	-	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	-	-	<10	<10	<10
Chloroform	µg/l	1.7	-	<10	<10	<10
1,1-Dichloroethene	µg/l	-	-	<10	<10	<10
Trans-1,2-Dichloroethene	µg/l	-	-	<10	<10	<10
1,2-Dichloropropane	µg/l	-	-	<10	<10	<10
Cis-1,3-Dichloropropene	µg/l	-	-	<10	<10	<10
Ethylbenzene	µg/l	-	-	<10	<10	<10
Methylene Chloride	µg/l	-	-	<10	<10	<10
Chloromethane	µg/l	-	-	<10	<10	<10
Bromomethane	µg/l	-	-	<10	<10	<10
Bromoform	µg/l	<1	-	<10	<10	<10
Bromodichloromethane	µg/l	2.5	-	<10	<10	<10
Dibromochloromethane	µg/l	<1	-	<10	<10	<10
Tetrachloroethene	µg/l	-	-	<10	<10	<10
Toluene	µg/l	-	-	<10	<10	<10
Trichloroethene	µg/l	-	-	<10	<10	<10
Vinyl Chloride	µg/l	-	-	<10	<10	<10

See footnotes at end of table.

Table A-5
Monitoring Well 44
(Continued)

Parameters	Units	Sampling Date 9/7/82	11/3/82	12/6/82	12/14/82	3/16/83
Groundwater Elevation	ft msl	-	4	-	-	4.8
Temperature(2)	°C	12	14	16	14	12
pH(2)	pH units	6.6	6.6	6.6	6.6	6.7
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	882	1275	1125	1275	830
Total Organic Carbon	mg/l	1.7	5.9	5.5	5.9	68.3
Alkalinity	mg/l $CaCO_3$	251	415	116	415	241
Ammonia	mg/l NH_3-N	33.2	28	220	28	40
Chloride	mg/l	305	292	299	292	300
Chemical Oxygen Demand	mg/l	35	40	460	40	20
Total Phenolics	mg/l	0.016	0.008	0.018	0.008	0.02
Cyanide	mg/l	-	-	-	-	0.005
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	-	<0.005
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	-	<0.01
Lead	mg/l	-	-	-	-	<0.03
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	-	<0.03
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	-	0.76
Volatile Organics:						
Acrolein	µg/l	-	<100	-	-	<100
Acrylonitrile	µg/l	-	<100	-	-	<100
Benzene	µg/l	-	<10	-	-	<10
Carbon Tetrachloride	µg/l	-	<10	-	-	<10
Chlorobenzene	µg/l	-	<10	-	-	<10
1,2-Dichloroethane	µg/l	-	<10	-	-	<10
1,1,1-Trichloroethane	µg/l	-	<10	-	-	<10
1,1-Dichloroethane	µg/l	-	<10	-	-	<10
1,1,2-Trichloroethane	µg/l	-	<10	-	-	<10
1,1,2,2-Tetrachloroethane	µg/l	-	<10	-	-	<10
Chloroethane	µg/l	-	<10	-	-	<10
2-Chloroethylvinyl Ether	µg/l	-	<10	-	-	<10
Chloroform	µg/l	-	<10	-	-	<10
1,1-Dichloroethene	µg/l	-	<10	-	-	<10
Trans-1,2-Dichloroethene	µg/l	-	<10	-	-	<10
1,2-Dichloropropane	µg/l	-	<10	-	-	<10
Cis-1,3-Dichloropropene	µg/l	-	<10	-	-	<10
Ethylbenzene	µg/l	-	<10	-	-	<10
Methylene Chloride	µg/l	-	17	-	17	<10
Chloromethane	µg/l	-	<10	-	-	<10
Bromomethane	µg/l	-	<10	-	-	<10
Bromoform	µg/l	-	<10	-	-	<10
Bromodichloromethane	µg/l	-	<10	-	-	<10
Dibromochloromethane	µg/l	-	<10	-	-	<10
Tetrachloroethene	µg/l	-	<10	-	-	<10
Toluene	µg/l	-	<10	-	-	<10
Trichloroethene	µg/l	-	<10	-	-	<10
Vinyl Chloride	µg/l	-	<10	-	-	<10

See footnotes at end of table.

Table A-5
Monitoring Well 44
(Continued)

Parameters	Units	Sampling Date 6/15/83	9/21/83	12/8/83	3/21/84	6/20/84
Groundwater Elevation	ft msl	5.63	3.78	5	5.3	5.5
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	6.6	6.6	6.8	6.7	6.7
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	638	1110	694	843	618
Total Organic Carbon	mg/l	3.4	55	46.5	66.1	36.4
Alkalinity	mg/l $CaCO_3$	190	210	210	210	190
Ammonia	mg/l NH_3-N	20	27	47	26	19
Chloride	mg/l	140	270	190	250	150
Chemical Oxygen Demand	mg/l	26	17	5	18	<5
Total Phenolics	mg/l	<0.02	<0.01	0.014	0.011	<0.02
Cyanide	mg/l	-	-	-	0.007	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	<0.005	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	<0.01	-
Lead	mg/l	-	-	-	<0.03	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	<0.03	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	<0.01	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	13
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<10	<10	<10
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<10	<10	<10	<10	<10
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<10	<10	<10
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

See footnotes at end of table.

Table A-5
Monitoring Well 44
(Continued)

Parameters	Units	Sampling Date 9/27/84	12/12/84	3/27/85	9/11/85	12/17/85
Groundwater Elevation	ft msl	-	3.6	4.4	4.86	5.62
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	6.7	6.7	6.7	6.8	6.3
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	805	791	902	778	722
Total Organic Carbon	mg/l	34.1	65.9	56.8	9.2	10.7
Alkalinity	mg/l $CaCO_3$	210	210	220	220	240
Ammonia	mg/l NH_3-N	21	24	28	46	32
Chloride	mg/l	180	190	250	210	190
Chemical Oxygen Demand	mg/l	16	17	15	21	7
Total Phenolics	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	mg/l	-	-	0.007	-	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	<0.005	-	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	<0.01	-	-
Lead	mg/l	-	-	<0.03	-	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	<0.03	-	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	<0.01	-	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<5	<5	<5
1,1,1-Trichloroethane	µg/l	27	7	5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<10	<10	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<5	<10	<10

See footnotes at end of table.

Table A-5
Monitoring Well 44
(Continued)

Parameters	Units	Sampling Date 3/27/86	6/24/86	3/24/87	6/23/87	9/24/87
Groundwater Elevation	ft msl	4.7	4.63	5.1	4.83	5.10
Temperature(2)	°C	12	17	13	-	-
pH(2)	pH units	7.2	6.95	7.2	6	6.00
Specific Conductance @ 25°C(2)	µmhos/cm	1300	1250	1100	1000	980
Total Dissolved Solids @ 180°C	mg/l	775	720	647	713	694
Total Organic Carbon	mg/l	7.6	5.5	5.3	5	5
Alkalinity	mg/l $CaCO_3$	188	220	100	160	84
Ammonia	mg/l NH_3-N	4.8	29	21	17	23
Chloride	mg/l	190	200	150	170	120
Chemical Oxygen Demand	mg/l	59	<5	31	150	47
Total Phenolics	mg/l	0.08	0.19	<0.01	0.02	<0.01
Cyanide	mg/l	<0.01	-	0.02	-	-
Nitrate	mg/l NO_3-N	<0.1	-	<0.1	-	-
Sulfate	mg/l	120	-	120	-	-
Metals:						
Cadmium	mg/l	<0.01	-	<0.001	-	-
Calcium	mg/l	140	-	120	-	-
Copper	mg/l	<0.01	-	0.02	-	-
Lead	mg/l	<0.01	-	<0.001	-	-
Magnesium	mg/l	33	-	28	-	-
Nickel	mg/l	<0.1	-	<0.1	-	-
Potassium	mg/l	12	-	11	-	-
Sodium	mg/l	37	-	33	-	-
Zinc	mg/l	0.02	-	<0.01	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<5	<10	<10
Bromomethane	µg/l	<10	<10	<5	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-5
Monitoring Well 44
(Continued)

Parameters	Units	Sampling Date 11/19/87	3/24/88	6/29/88	9/12/88	11/14/88
Groundwater Elevation	ft msl	4.45	5.65	4.93	5.25	4.97
Temperature(2)	°C	-	17	16	-	-
pH(2)	pH units	6.85	6.55	6.65	6.90	6.40
Specific Conductance @ 25°C(2)	µmhos/cm	1175	1100	1050	975	1000
Total Dissolved Solids @ 180°C	mg/l	660	605	600	490	505
Total Organic Carbon	mg/l	6	6	7	7	6
Alkalinity	mg/l $CaCO_3$	248	240	262	157	220
Ammonia	mg/l NH_3-N	25	25	18	22	29
Chloride	mg/l	190	160	120	120	120
Chemical Oxygen Demand	mg/l	50	<5	29	16	18
Total Phenolics	mg/l	<0.01	0.01	0.01	<0.01	<0.01
Cyanide	mg/l	-	<0.01	-	-	-
Nitrate	mg/l NO_3-N	-	0.2	-	-	-
Sulfate	mg/l	-	120	-	-	-
Metals:						
Cadmium	mg/l	-	<0.001	-	-	-
Calcium	mg/l	-	130	-	-	-
Copper	mg/l	-	0.01	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	30	-	-	-
Nickel	mg/l	-	<0.1	-	-	-
Potassium	mg/l	-	11	-	-	-
Sodium	mg/l	-	34	-	-	-
Zinc	mg/l	-	0.05	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<10	<10	<10
Bromomethane	µg/l	<10	<5	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-5
Monitoring Well 44
(Continued)

Parameters	Units	Sampling Date 2/20/89	5/22/89	8/21/89	11/13/89	2/12/90
Groundwater Elevation	ft msl	4.49	6.68	5.92	5.47	5.45
Temperature(2)	°C	12	15	16	15	12
pH(2)	pH units	6.85	6.65	6.75	6.70	6.85
Specific Conductance @ 25°C(2)	µmhos/cm	1100	1000	600	900	800
Total Dissolved Solids @ 180°C	mg/l	585	420	347	421	507
Total Organic Carbon	mg/l	7	7	4	32	5
Alkalinity	mg/l $CaCO_3$	164	224	172	172	234
Ammonia	mg/l NH_3-N	21	19	17	15	16
Chloride	mg/l	120	98	68	69	88
Chemical Oxygen Demand	mg/l	29	53	45	19	37
Total Phenolics	mg/l	<0.01	0.05	0.02	0.02	<0.01
Cyanide	mg/l	<0.01	-	-	-	-
Nitrate	mg/l NO_3-N	<0.1	-	-	-	-
Sulfate	mg/l	110	-	-	-	-
Metals:						
Cadmium	mg/l	<0.001	-	-	-	-
Calcium	mg/l	110	-	-	-	-
Copper	mg/l	0.03	-	-	-	-
Lead	mg/l	<0.001	-	-	-	-
Magnesium	mg/l	25	-	-	-	-
Nickel	mg/l	<0.1	-	-	-	-
Potassium	mg/l	8.3	-	-	-	-
Sodium	mg/l	32	-	-	-	-
Zinc	mg/l	0.03	-	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	19	<5	49
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	19	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<10	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<5	<5	<10
Bromomethane	µg/l	<5	<5	<5	<5	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-5
Monitoring Well 44
(Continued)

Parameters	Units	Sampling Date 5/21/90	8/14/90	11/13/90	1/28/91	4/22/91
Groundwater Elevation	ft msl	5.55	5.22	4.57	5.49	5.22
Temperature(2)	°C	11	15	14	14	13
pH(2)	pH units	7.00	6.85	5.95	6.30	6.65
Specific Conductance @ 25°C(2)	µmhos/cm	900	800	700	850	825
Total Dissolved Solids @ 180°C	mg/l	534	376	403	406	414
Total Organic Carbon	mg/l	5	7	4	9	4
Alkalinity	mg/l $CaCO_3$	176	243	220	234	214
Ammonia	mg/l NH_3-N	17	17	17	17	14
Chloride	mg/l	74	68	66	57	60
Chemical Oxygen Demand	mg/l	41	170	16	43	23
Total Phenolics	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
Cyanide	mg/l	-	<0.01	-	-	-
Nitrate	mg/l NO_3-N	-	0.3	-	-	-
Sulfate	mg/l	-	100	-	-	-
Metals:						
Cadmium	mg/l	-	<0.001	-	-	-
Calcium	mg/l	-	65	-	-	-
Copper	mg/l	-	<0.01	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	18	-	-	-
Nickel	mg/l	-	<0.1	-	-	-
Potassium	mg/l	-	6.2	-	-	-
Sodium	mg/l	-	18	-	-	-
Zinc	mg/l	-	<0.01	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<5	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<10	<10	<10
Bromomethane	µg/l	<10	<5	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<10	<10	<10	<10

See footnotes at end of table.

Table A-5
Monitoring Well 44
(Continued)

Parameters	Units	Sampling Date 8/5/91	10/29/91	1/21/92	4/20/92	7/21/92
Groundwater Elevation	ft msl	4.69	4.51	4.38	4.57	4.76
Temperature(2)	°C	17.5	12.7	11.6	13.2	15.8
pH(2)	pH units	6.86	7.01	7.03	6.63	6.57
Specific Conductance @ 25°C(2)	µmhos/cm	950	1200	800	800	700
Total Dissolved Solids @ 180°C	mg/l	442	419	457	404	388
Total Organic Carbon	mg/l	4	5	4	3	6
Alkalinity	mg/l $CaCO_3$	232	251	315	182	158
Ammonia	mg/l NH_3-N	15	15	14	14	13
Chloride	mg/l	51	50	52	61	42
Chemical Oxygen Demand	mg/l	9	40	25	<5	9
Total Phenolics	mg/l	0.02	<0.01	0.01	<0.1	0.056
Cyanide	mg/l	<0.01	-	-	-	<0.010
Nitrate	mg/l NO_3-N	0.2	-	-	-	0.20
Sulfate	mg/l	90	-	-	-	97
Metals:						
Cadmium	mg/l	<0.001	-	-	-	<0.001
Calcium	mg/l	83	-	-	-	82
Copper	mg/l	0.01	-	-	-	<0.010
Lead	mg/l	<0.001	-	-	-	<0.001
Magnesium	mg/l	23	-	-	-	24
Nickel	mg/l	<0.1	-	-	-	<0.040
Potassium	mg/l	11	-	-	-	7.1
Sodium	mg/l	25	-	-	-	18
Zinc	mg/l	<0.01	-	-	-	<0.010
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

(1) Dash denotes not analyzed.
(2) Field analysis.

Table A-6
Historical Groundwater Chemistry Data
Slag Area Monitoring Wells
Fairless Works
Monitoring Well 53

Parameters	Units	Sampling Date 8/14/80	1/29/81	12/21/81	1/25/82	6/20/82
Groundwater Elevation	ft msl	-(1)	-	1.8	2.2	4.1
Temperature(2)	°C	-	-	16	12	17
pH(2)	pH units	6.5	6.8	7.1	7.1	6.7
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	453	488	558	1020	479
Total Organic Carbon	mg/l	-	-	9.7	7.7	2.1
Alkalinity	mg/l $CaCO_3$	446	430	521	513	579
Ammonia	mg/l NH_3-N	3.8	5.5	<0.1	<0.1	4.8
Chloride	mg/l	9	12	<0.5	<0.5	1.5
Chemical Oxygen Demand	mg/l	58	-	38	<5	18
Total Phenolics	mg/l	0	0.015	0.03	<0.05	<0.005
Cyanide	mg/l	0.007	0.009	<0.01	0.01	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	0	-	0.008	<0.01	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	0	-	0.69	0.1	-
Lead	mg/l	0	-	<0.05	<0.05	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	0	-	<0.1	<0.1	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	0.05	-	0.039	0.2	-
Volatile Organics:						
Acrolein	µg/l	-	-	<100	<100	<100
Acrylonitrile	µg/l	-	-	<100	<100	<100
Benzene	µg/l	-	-	<10	<10	<10
Carbon Tetrachloride	µg/l	-	-	<10	<10	<10
Chlorobenzene	µg/l	-	-	<10	<10	<10
1,2-Dichloroethane	µg/l	-	-	<10	<10	<10
1,1,1-Trichloroethane	µg/l	-	-	<10	<10	<10
1,1-Dichloroethane	µg/l	-	-	<10	<10	<10
1,1,2-Trichloroethane	µg/l	-	-	<10	<10	<10
1,1,2,2-Tetrachloroethane	µg/l	-	-	<10	<10	<10
Chloroethane	µg/l	-	-	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	-	-	<10	<10	<10
Chloroform	µg/l	6.7	-	<10	<10	<10
1,1-Dichloroethene	µg/l	-	-	<10	<10	<10
Trans-1,2-Dichloroethene	µg/l	-	-	<10	<10	<10
1,2-Dichloropropane	µg/l	-	-	<10	<10	<10
Cis-1,3-Dichloropropene	µg/l	-	-	<10	<10	<10
Ethylbenzene	µg/l	-	-	<10	<10	<10
Methylene Chloride	µg/l	-	-	<10	<10	<10
Chloromethane	µg/l	-	-	<10	<10	<10
Bromomethane	µg/l	-	-	<10	<10	<10
Bromoform	µg/l	<1	-	<10	<10	<10
Bromodichloromethane	µg/l	1.8	-	<10	<10	<10
Dibromochloromethane	µg/l	2.9	-	<10	<10	<10
Tetrachloroethene	µg/l	-	-	<10	<10	<10
Toluene	µg/l	-	-	<10	<10	<10
Trichloroethene	µg/l	-	-	<10	<10	<10
Vinyl Chloride	µg/l	-	-	<10	<10	<10

See footnotes at end of table.

Table A-6
Monitoring Well 53
(Continued)

Parameters	Units	Sampling Date 9/7/82	11/3/82	12/6/82	12/14/82	3/16/83
Groundwater Elevation	ft msl	-	2.3	-	-	3.58
Temperature(2)	°C	17	12	18	12	16
pH(2)	pH units	6.7	7.1	6.9	7.1	6.6
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	479	546	632	546	460
Total Organic Carbon	mg/l	2.1	5.2	5.3	5.2	26
Alkalinity	mg/l $CaCO_3$	579	603	604	603	502
Ammonia	mg/l NH_3-N	4.8	3.1	46	3.1	7.1
Chloride	mg/l	1.5	3	0.6	3	<1
Chemical Oxygen Demand	mg/l	18	100	96	100	19
Total Phenolics	mg/l	<0.05	<0.005	<0.05	<0.05	<0.01
Cyanide	mg/l	-	-	-	-	0.011
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	-	0.08
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	-	<0.01
Lead	mg/l	-	-	-	-	<0.03
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	-	<0.03
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	-	<0.01
Volatile Organics:						
Acrolein	µg/l	-	<100	-	-	<100
Acrylonitrile	µg/l	-	<100	-	-	<100
Benzene	µg/l	-	<10	-	-	<10
Carbon Tetrachloride	µg/l	-	<10	-	-	<10
Chlorobenzene	µg/l	-	<10	-	-	<10
1,2-Dichloroethane	µg/l	-	<10	-	-	<10
1,1,1-Trichloroethane	µg/l	-	<10	-	-	<10
1,1-Dichloroethane	µg/l	-	<10	-	-	<10
1,1,2-Trichloroethane	µg/l	-	<10	-	-	<10
1,1,2,2-Tetrachloroethane	µg/l	-	<10	-	-	<10
Chloroethane	µg/l	-	<10	-	-	<10
2-Chloroethylvinyl Ether	µg/l	-	<10	-	-	<10
Chloroform	µg/l	-	<10	-	-	<10
1,1-Dichloroethene	µg/l	-	<10	-	-	<10
Trans-1,2-Dichloroethene	µg/l	-	<10	-	-	-
1,2-Dichloropropane	µg/l	-	<10	-	-	<10
Cis-1,3-Dichloropropene	µg/l	-	<10	-	-	<10
Ethylbenzene	µg/l	-	<10	-	-	<10
Methylene Chloride	µg/l	-	36	-	36	<10
Chloromethane	µg/l	-	<10	-	-	<10
Bromomethane	µg/l	-	<10	-	-	<10
Bromoform	µg/l	-	<10	-	-	<10
Bromodichloromethane	µg/l	-	<10	-	-	<10
Dibromochloromethane	µg/l	-	<10	-	-	<10
Tetrachloroethene	µg/l	-	<10	-	-	<10
Toluene	µg/l	-	<10	-	-	<10
Trichloroethene	µg/l	-	<10	-	-	<10
Vinyl Chloride	µg/l	-	<10	-	-	<10

See footnotes at end of table.

Table A-6
Monitoring Well 53
(Continued)

Parameters	Units	Sampling Date 6/15/83	9/21/83	12/8/83	3/20/84	6/20/84
Groundwater Elevation	ft msl	3.87	2.05	3.4	3.6	3.4
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	6.5	7.4	7	6.9	6.9
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	462	445	451	436	405
Total Organic Carbon	mg/l	70.7	95.1	83.2	116	51.6
Alkalinity	mg/l $CaCO_3$	440	440	430	430	400
Ammonia	mg/l NH_3-N	5.9	6.3	5.8	6.1	5.8
Chloride	mg/l	<2	<2	<2	<2	<2
Chemical Oxygen Demand	mg/l	160	15	<5	13	6
Total Phenolics	mg/l	<0.01	<0.01	0.016	<0.01	<0.02
Cyanide	mg/l	-	-	-	0.006	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	<0.005	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	<0.01	-
Lead	mg/l	-	-	-	<0.03	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	<0.03	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	<0.01	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	18
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<10	<10	<10
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<10	<10	<10	<10	<10
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<10	<10	<10
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

See footnotes at end of table.

Table A-6
Monitoring Well 53
(Continued)

Parameters	Units	Sampling Date 9/27/84	12/12/84	3/27/85	9/11/85	12/17/85
Groundwater Elevation	ft msl	-	2.1	2.5	2.75	3.49
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	6.7	6.7	6.9	7	6.7
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	426	409	428	374	428
Total Organic Carbon	mg/l	39	105	78.5	9.7	13.3
Alkalinity	mg/l $CaCO_3$	390	390	420	390	410
Ammonia	mg/l NH_3-N	5.9	8	6.8	13	7.4
Chloride	mg/l	<2	<2	7.4	<2	<2
Chemical Oxygen Demand	mg/l	11	13	13	16	7
Total Phenolics	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	mg/l	-	-	<0.005	-	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	<0.005	-	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	<0.01	-	-
Lead	mg/l	-	-	<0.03	-	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	<0.03	-	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	0.01	-	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<5	<5	<5
1,1,1-Trichloroethane	µg/l	31	10	14	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<10	<10	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<5	<10	<10

See footnotes at end of table.

Table A-6
Monitoring Well 53
(Continued)

Parameters	Units	Sampling Date 3/27/86	6/24/86	3/24/87	6/23/87	9/24/87
Groundwater Elevation	ft msl	3.65	3.12	3.7	3.11	3.65
Temperature(2)	°C	16	18	16	-	-
pH(2)	pH units	6.25	7	7.5	6.05	6.10
Specific Conductance @ 25°C(2)	µmhos/cm	750	700	700	600	580
Total Dissolved Solids @ 180°C	mg/l	397	390	380	412	357
Total Organic Carbon	mg/l	7.4	4.8	5	4	6
Alkalinity	mg/l $CaCO_3$	396	404	320	364	300
Ammonia	mg/l NH_3-N	6.4	5.7	6.7	4	4.7
Chloride	mg/l	19	<0.5	3	5	<0.5
Chemical Oxygen Demand	mg/l	36	60	18	280	22
Total Phenolics	mg/l	0.09	<0.01	0.28	0.02	0.02
Cyanide	mg/l	0.01	-	0.02	-	-
Nitrate	mg/l NO_3-N	<0.1	-	<0.1	-	-
Sulfate	mg/l	<1	-	14	-	-
Metals:						
Cadmium	mg/l	<0.01	-	<0.001	-	-
Calcium	mg/l	84	-	79	-	-
Copper	mg/l	<0.01	-	0.02	-	-
Lead	mg/l	<0.01	-	<0.001	-	-
Magnesium	mg/l	40	-	38	-	-
Nickel	mg/l	<0.1	-	<0.1	-	-
Potassium	mg/l	4.3	-	4.1	-	-
Sodium	mg/l	3	-	4.4	-	-
Zinc	mg/l	0.02	-	<0.01	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	9	<5
Chloromethane	µg/l	<10	<10	<5	<10	<10
Bromomethane	µg/l	<10	<10	<5	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-6
Monitoring Well 53
(Continued)

Parameters	Units	Sampling Date 11/19/87	3/24/88	6/29/88	9/12/88	11/14/88
Groundwater Elevation	ft msl	2.67	3.18	2.41	2.69	2.54
Temperature(2)	°C	-	17	-	-	-
pH(2)	pH units	6.60	6.50	6.50	6.65	6.45
Specific Conductance @ 25°C(2)	µmhos/cm	700	700	500	600	600
Total Dissolved Solids @ 180°C	mg/l	420	337	347	323	317
Total Organic Carbon	mg/l	8	4	4	3	6
Alkalinity	mg/l $CaCO_3$	392	363	370	353	64
Ammonia	mg/l NH_3-N	6.0	5.6	5.8	5.9	7.4
Chloride	mg/l	<0.5	3.7	2.0	2.4	2.8
Chemical Oxygen Demand	mg/l	30	<5	<5	10	40
Total Phenolics	mg/l	0.09	0.04	<0.01	<0.01	0.01
Cyanide	mg/l	-	<0.01	-	-	-
Nitrate	mg/l NO_3-N	-	0.2	-	-	-
Sulfate	mg/l	-	10	-	-	-
Metals:						
Cadmium	mg/l	-	<0.001	-	-	-
Calcium	mg/l	-	80	-	-	-
Copper	mg/l	-	0.01	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	35	-	-	-
Nickel	mg/l	-	<0.1	-	-	-
Potassium	mg/l	-	4.4	-	-	-
Sodium	mg/l	-	7	-	-	-
Zinc	mg/l	-	0.06	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<10	<10	<10
Bromomethane	µg/l	<10	<5	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	-

See footnotes at end of table.

Table A-6
Monitoring Well 53
(Continued)

Parameters	Units	Sampling Date 2/20/89	5/22/89	8/21/89	11/13/89	2/12/90
Groundwater Elevation	ft msl	1.96	4.86	3.24	2.99	3.43
Temperature(2)	°C	14	16	16	15	12
pH(2)	pH units	6.85	6.65	6.80	6.65	6.65
Specific Conductance @ 25°C(2)	µmhos/cm	600	650	440	650	600
Total Dissolved Solids @ 180°C	mg/l	339	303	371	309	331
Total Organic Carbon	mg/l	8	18	6	44	4
Alkalinity	mg/l $CaCO_3$	300	316	268	296	381
Ammonia	mg/l NH_3-N	6.2	5.0	5.5	5.3	5.1
Chloride	mg/l	2.2	1.6	3.0	1.2	1.4
Chemical Oxygen Demand	mg/l	30	50	31	26	9
Total Phenolics	mg/l	<0.01	<0.01	0.01	<0.01	<0.01
Cyanide	mg/l	<0.01	-	-	-	-
Nitrate	mg/l NO_3-N	<0.1	-	-	-	-
Sulfate	mg/l	26	-	-	-	-
Metals:						
Cadmium	mg/l	<0.001	-	-	-	-
Calcium	mg/l	76	-	-	-	-
Copper	mg/l	0.02	-	-	-	-
Lead	mg/l	<0.001	-	-	-	-
Magnesium	mg/l	29	-	-	-	-
Nickel	mg/l	<0.1	-	-	-	-
Potassium	mg/l	3.7	-	-	-	-
Sodium	mg/l	7	-	-	-	-
Zinc	mg/l	0.05	-	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	19	<5	10
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<10	9	<5	<5	8
Chloromethane	µg/l	<10	<5	<5	<5	<10
Bromomethane	µg/l	<5	<5	<5	<5	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-6
Monitoring Well 53
(Continued)

Parameters	Units	Sampling Date 5/21/90	8/13/90	11/13/90	1/28/91	4/22/91
Groundwater Elevation	ft msl	3.47	2.96	2.44	2.87	3.24
Temperature(2)	°C	12	19	14	16	14
pH(2)	pH units	6.85	6.75	5.95	6.45	6.25
Specific Conductance @ 25°C(2)	µmhos/cm	750	600	550	625	650
Total Dissolved Solids @ 180°C	mg/l	305	202	272	310	280
Total Organic Carbon	mg/l	5	8	7	14	5
Alkalinity	mg/l $CaCO_3$	304	337	350	318	293
Ammonia	mg/l NH_3-N	5.2	5.4	6.2	6.1	4.9
Chloride	mg/l	1.5	4.9	2.6	1.4	1.6
Chemical Oxygen Demand	mg/l	31	82	19	180	58
Total Phenolics	mg/l	0.01	0.05	0.02	<0.01	<0.01
Cyanide	mg/l	-	0.02	-	-	-
Nitrate	mg/l NO_3-N	-	<0.1	-	-	-
Sulfate	mg/l	-	7	-	-	-
Metals:						
Cadmium	mg/l	-	<0.001	-	-	-
Calcium	mg/l	-	62	-	-	-
Copper	mg/l	-	<0.01	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	27	-	-	-
Nickel	mg/l	-	<0.1	-	-	-
Potassium	mg/l	-	3.8	-	-	-
Sodium	mg/l	-	4	-	-	-
Zinc	mg/l	-	0.02	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<5	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<10	<10	<10
Bromomethane	µg/l	<10	<5	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<10	<10	<10	<10

See footnotes at end of table.

Table A-6
Monitoring Well 53
(Continued)

Parameters	Units	Sampling Date 8/5/91	10/28/91	1/21/92	4/20/92	7/21/92
Groundwater Elevation	ft msl	2.46	2.10	1.87	2.44	2.52
Temperature(2)	°C	19.1	15.1	12.2	16.7	19
pH(2)	pH units	6.83	6.83	6.86	6.47	6.29
Specific Conductance @ 25°C(2)	µmhos/cm	750	900	650	600	500
Total Dissolved Solids @ 180°C	mg/l	349	332	352	251	286
Total Organic Carbon	mg/l	7	8	7	5	8
Alkalinity	mg/l $CaCO_3$	300	334	408	308	260
Ammonia	mg/l NH_3-N	5.4	5.6	5.8	5.3	5.1
Chloride	mg/l	3.3	1.4	4	2.2	1.5
Chemical Oxygen Demand	mg/l	24	110	86	43	18
Total Phenolics	mg/l	0.02	0.02	0.04	<0.1	0.013
Cyanide	mg/l	0.06	-	-	-	0.027
Nitrate	mg/l NO_3-N	0.1	-	-	-	<0.10
Sulfate	mg/l	8	-	-	-	<10
Metals:						
Cadmium	mg/l	0.002	-	-	-	<0.001
Calcium	mg/l	64	-	-	-	71
Copper	mg/l	0.01	-	-	-	<0.10
Lead	mg/l	<0.001	-	-	-	0.001
Magnesium	mg/l	26	-	-	-	31
Nickel	mg/l	<0.1	-	-	-	<0.040
Potassium	mg/l	7.2	-	-	-	4.3
Sodium	mg/l	8	-	-	-	4
Zinc	mg/l	0.01	-	-	-	0.13
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

(1) Dash denotes not analyzed.
(2) Field analysis.

Table A-7
Historical Groundwater Chemistry Data
Slag Area Monitoring Wells
Fairless Works
Monitoring Well 79

Parameters	Units	Sampling Date 12/22/80	1/29/81	12/21/81	1/25/82	6/20/82
Groundwater Elevation	ft msl	-(1)	-	1.5	1.6	Not Sampled
Temperature(2)	°C	-	-	16	16	
pH(2)	pH units	7.1	6.4	6.8	6.1	
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	
Total Dissolved Solids @ 180°C	mg/l	284	255	472	388	
Total Organic Carbon	mg/l	78	-	1.6	<1	
Alkalinity	mg/l $CaCO_3$	64	50	36	38	
Ammonia	mg/l NH_3-N	0.29	0.1	1.8	1.77	
Chloride	mg/l	23	56	<0.5	<0.5	
Chemical Oxygen Demand	mg/l	30	-	17	<5	
Total Phenolics	mg/l	0.007	0	0.02	<0.05	
Cyanide	mg/l	0.005	0.002	<0.01	<0.01	
Nitrate	mg/l NO_3-N	-	-	-	-	
Sulfate	mg/l	-	-	-	-	
Metals:						
Cadmium	mg/l	0	-	<0.01	<0.01	
Calcium	mg/l	-	-	-	-	
Copper	mg/l	0	-	0.06	<0.1	
Lead	mg/l	0	-	<0.05	<0.05	
Magnesium	mg/l	-	-	-	-	
Nickel	mg/l	0.33	-	<0.1	<0.1	
Potassium	mg/l	-	-	-	-	
Sodium	mg/l	-	-	-	-	
Zinc	mg/l	0.15	-	0.693	0.45	
Volatile Organics:						
Acrolein	µg/l	-	-	<100	<100	
Acrylonitrile	µg/l	-	-	<100	<100	
Benzene	µg/l	-	-	<10	<10	
Carbon Tetrachloride	µg/l	-	-	<10	<10	
Chlorobenzene	µg/l	-	-	<10	<10	
1,2-Dichloroethane	µg/l	-	-	<10	<10	
1,1,1-Trichloroethane	µg/l	-	-	<10	<10	
1,1-Dichloroethane	µg/l	-	-	<10	<10	
1,1,2-Trichloroethane	µg/l	-	-	<10	<10	
1,1,2,2-Tetrachloroethane	µg/l	-	-	<10	<10	
Chloroethane	µg/l	-	-	<10	<10	
2-Chloroethylvinyl Ether	µg/l	-	-	<10	<10	
Chloroform	µg/l	<5	-	<10	<10	
1,1-Dichloroethene	µg/l	-	-	<10	<10	
Trans-1,2-Dichloroethene	µg/l	-	-	<10	<10	
1,2-Dichloropropane	µg/l	-	-	<10	<10	
Cis-1,3-Dichloropropene	µg/l	-	-	<10	<10	
Ethylbenzene	µg/l	-	-	<10	<10	
Methylene Chloride	µg/l	-	-	25	<10	
Chloromethane	µg/l	-	-	<10	<10	
Bromomethane	µg/l	-	-	<10	<10	
Bromoform	µg/l	<5	-	<10	<10	
Bromodichloromethane	µg/l	<5	-	<10	<10	
Dibromochloromethane	µg/l	<5	-	<10	<10	
Tetrachloroethene	µg/l	-	-	<10	<10	
Toluene	µg/l	-	-	<10	<10	
Trichloroethene	µg/l	-	-	53	65	
Vinyl Chloride	µg/l	-	-	<10	<10	

See footnotes at end of table.

Table A-7
Monitoring Well 79
(Continued)

Parameters	Units	Sampling Date 9/7/82	11/3/82	12/6/82	12/14/82	3/16/83
Groundwater Elevation	ft msl	-	1.9	-	-	2.76
Temperature(2)	°C	16	-	18	16	16
pH(2)	pH units	6.1	7.3	6.1	7.3	5.8
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	379	447	474	447	330
Total Organic Carbon	mg/l	<1	<1	1.3	<1	21.6
Alkalinity	mg/l $CaCO_3$	45	53	60	53	39
Ammonia	mg/l NH_3-N	0.46	0.06	0.1	0.06	0.11
Chloride	mg/l	76.8	61	67	61	55
Chemical Oxygen Demand	mg/l	<5	-	44	<5	<5
Total Phenolics	mg/l	<0.05	<0.005	0.001	<0.05	<0.01
Cyanide	mg/l	-	-	-	-	<0.005
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	-	<0.005
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	-	<0.01
Lead	mg/l	-	-	-	-	<0.03
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	-	<0.03
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	-	1.25
Volatile Organics:						
Acrolein	µg/l	-	<100	-	-	<100
Acrylonitrile	µg/l	-	<100	-	-	<100
Benzene	µg/l	-	<10	-	-	<10
Carbon Tetrachloride	µg/l	-	<10	-	-	<10
Chlorobenzene	µg/l	-	<10	-	-	<10
1,2-Dichloroethane	µg/l	-	<10	-	-	<10
1,1,1-Trichloroethane	µg/l	-	<10	-	-	<10
1,1-Dichloroethane	µg/l	-	<10	-	-	<10
1,1,2-Trichloroethane	µg/l	-	<10	-	-	<10
1,1,2,2-Tetrachloroethane	µg/l	-	<10	-	-	<10
Chloroethane	µg/l	-	<10	-	-	<10
2-Chloroethylvinyl Ether	µg/l	-	<10	-	-	<10
Chloroform	µg/l	-	<10	-	-	<10
1,1-Dichloroethene	µg/l	-	<10	-	-	<10
Trans-1,2-Dichloroethene	µg/l	-	<10	-	-	-
1,2-Dichloropropane	µg/l	-	<10	-	-	<10
Cis-1,3-Dichloropropene	µg/l	-	<10	-	-	<10
Ethylbenzene	µg/l	-	<10	-	-	<10
Methylene Chloride	µg/l	-	<10	-	-	<10
Chloromethane	µg/l	-	<10	-	-	<10
Bromomethane	µg/l	-	<10	-	-	<10
Bromoform	µg/l	-	<10	-	-	<10
Bromodichloromethane	µg/l	-	<10	-	-	<10
Dibromochloromethane	µg/l	-	<10	-	-	<10
Tetrachloroethene	µg/l	-	<10	-	-	<10
Toluene	µg/l	-	<10	-	-	<10
Trichloroethene	µg/l	53	44	43	44	42
Vinyl Chloride	µg/l	-	<10	-	-	<10

See footnotes at end of table.

Table A-7
Monitoring Well 79
(Continued)

Parameters	Units	Sampling Date 6/15/83	9/21/83	12/8/83	3/21/84	6/20/84
Groundwater Elevation	ft msl	2.93	1.48	2.6	3.1	2.6
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	5.6	7.9	6.1	6.1	5.9
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	417	383	246	350	385
Total Organic Carbon	mg/l	1.7	15.8	13.9	20.2	15.6
Alkalinity	mg/l $CaCO_3$	40	38	38	44	41
Ammonia	mg/l NH_3-N	0.76	0.76	0.31	0.13	0.36
Chloride	mg/l	67	59	48	49	52
Chemical Oxygen Demand	mg/l	6	6	36	6	<5
Total Phenolics	mg/l	<0.01	<0.01	<0.01	<0.01	<0.02
Cyanide	mg/l	-	-	-	<0.005	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	-	<0.005	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	-	<0.01	-
Lead	mg/l	-	-	-	<0.03	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	-	<0.03	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	-	0.34	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	µg/l	<5	<5	<5	8	18
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<10	<10	<10
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<10	<10	<10	<10	<10
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<10	<10	<10
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	38	50	14	28	32
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

See footnotes at end of table.

Table A-7
Monitoring Well 79
(Continued)

Parameters	Units	Sampling Date 9/27/84	12/12/84	3/27/85	9/11/85	12/17/85
Groundwater Elevation	ft msl	-	1.7	2.2	2.42	3.16
Temperature(2)	°C	-	-	-	-	-
pH(2)	pH units	5.9	6.1	6	6.2	5.6
Specific Conductance @ 25°C(2)	µmhos/cm	-	-	-	-	-
Total Dissolved Solids @ 180°C	mg/l	420	397	338	294	374
Total Organic Carbon	mg/l	11.3	16.5	16.2	2.5	3
Alkalinity	mg/l $CaCO_3$	45	44	42	52	50
Ammonia	mg/l NH_3-N	0.15	<0.2	0.3	0.1	<0.1
Chloride	mg/l	44	37	37	36	46
Chemical Oxygen Demand	mg/l	<5	<5	<5	<5	16
Total Phenolics	mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
Cyanide	mg/l	-	-	<0.005	-	-
Nitrate	mg/l NO_3-N	-	-	-	-	-
Sulfate	mg/l	-	-	-	-	-
Metals:						
Cadmium	mg/l	-	-	<0.005	-	-
Calcium	mg/l	-	-	-	-	-
Copper	mg/l	-	-	<0.01	-	-
Lead	mg/l	-	-	<0.03	-	-
Magnesium	mg/l	-	-	-	-	-
Nickel	mg/l	-	-	<0.03	-	-
Potassium	mg/l	-	-	-	-	-
Sodium	mg/l	-	-	-	-	-
Zinc	mg/l	-	-	0.26	-	-
Volatile Organics:						
Acrolein	µg/l	<100	<100	<100	<100	<100
Acrylonitrile	µg/l	<100	<100	<100	<100	<100
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<1	<1	<5	<5	<5
1,1,1-Trichloroethane	µg/l	29	11	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<10	<10	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<10	<10	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<10	<10	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	25	27	25	25	25
Vinyl Chloride	µg/l	<10	<10	<5	<10	<10

See footnotes at end of table.

Table A-7
Monitoring Well 79
(Continued)

Parameters	Units	Sampling Date 3/26/86	6/24/86	3/24/87	6/23/87	9/24/87
Groundwater Elevation	ft msl	6.75	5.97	6.6	5.9	6.70
Temperature(2)	°C	15	16	16	-	-
pH(2)	pH units	6.5	6.2	6.8	6	6.10
Specific Conductance @ 25°C(2)	µmhos/cm	560	560	600	500	550
Total Dissolved Solids @ 180°C	mg/l	357	330	340	347	353
Total Organic Carbon	mg/l	4.3	4.8	2.7	3	3
Alkalinity	mg/l $CaCO_3$	48	52	48	52	48
Ammonia	mg/l NH_3-N	<0.1	0.8	<0.1	<0.1	<0.1
Chloride	mg/l	46	47	39	50	36
Chemical Oxygen Demand	mg/l	<5	110	18	220	22
Total Phenolics	mg/l	0.07	<0.01	0.04	0.02	0.04
Cyanide	mg/l	<0.01	-	0.02	-	-
Nitrate	mg/l NO_3-N	<0.1	-	<0.1	-	-
Sulfate	mg/l	140	-	140	-	-
Metals:						
Cadmium	mg/l	<0.01	-	<0.001	-	-
Calcium	mg/l	52	-	53	-	-
Copper	mg/l	<0.01	-	0.01	-	-
Lead	mg/l	<0.01	-	<0.001	-	-
Magnesium	mg/l	19	-	17	-	-
Nickel	mg/l	<0.1	-	<0.1	-	-
Potassium	mg/l	12	-	14	-	-
Sodium	mg/l	26	-	24	-	-
Zinc	mg/l	0.22	-	0.15	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	14	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<5	<10	<10
Bromomethane	µg/l	<10	<10	<5	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	24	41	<5	24	23
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-7
Monitoring Well 79
(Continued)

Parameters	Units	Sampling Date 11/19/87	3/24/88	6/29/88	9/12/88	11/14/88
Groundwater Elevation	ft msl	5.65	2.61	2.21	2.25	2.11
Temperature(2)	°C	-	16	15	-	-
pH(2)	pH units	6.05	6.35	6.35	7.05	5.70
Specific Conductance @ 25°C(2)	µmhos/cm	500	490	450	495	450
Total Dissolved Solids @ 180°C	mg/l	410	297	333	283	290
Total Organic Carbon	mg/l	2	5	3	2	12
Alkalinity	mg/l $CaCO_3$	56	109	57	46	60
Ammonia	mg/l NH_3-N	0.2	<0.1	0.2	<0.1	0.4
Chloride	mg/l	45	49	44	37	34
Chemical Oxygen Demand	mg/l	30	<5	<5	8	28
Total Phenolics	mg/l	<0.01	0.01	<0.01	<0.01	<0.01
Cyanide	mg/l	-	<0.01	-	-	-
Nitrate	mg/l NO_3-N	-	0.7	-	-	-
Sulfate	mg/l	-	120	-	-	-
Metals:						
Cadmium	mg/l	-	0.002	-	-	-
Calcium	mg/l	-	54	-	-	-
Copper	mg/l	-	0.02	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	16	-	-	-
Nickel	mg/l	-	<0.01	-	-	-
Potassium	mg/l	-	16	-	-	-
Sodium	mg/l	-	20	-	-	-
Zinc	mg/l	-	0.20	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	9	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<10	<10	<10
Bromomethane	µg/l	<10	<5	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	26	6	21	18	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-7
Monitoring Well 79
(Continued)

Parameters	Units	Sampling Date 2/20/89	5/22/89	8/21/89	11/13/89	2/12/90
Groundwater Elevation	ft msl	1.66	4.21	2.66	2.46	3.12
Temperature(2)	°C	13	16	17	14	13
pH(2)	pH units	6.40	6.55	6.45	6.35	6.45
Specific Conductance @ 25°C(2)	µmhos/cm	500	550	480	450	450
Total Dissolved Solids @ 180°C	mg/l	305	263	253	253	260
Total Organic Carbon	mg/l	4	4	16	11	5
Alkalinity	mg/l $CaCO_3$	56	60	56	48	55
Ammonia	mg/l NH_3-N	<0.1	<0.1	<0.1	<0.1	<0.1
Chloride	mg/l	29	31	33	32	32
Chemical Oxygen Demand	mg/l	12	37	25	10	25
Total Phenolics	mg/l	<0.01	<0.01	<0.01	<0.01	0.01
Cyanide	mg/l	<0.01	-	-	-	-
Nitrate	mg/l NO_3-N	0.6	-	-	-	-
Sulfate	mg/l	120	-	-	-	-
Metals:						
Cadmium	mg/l	<0.001	-	-	-	-
Calcium	mg/l	40	-	-	-	-
Copper	mg/l	0.02	-	-	-	-
Lead	mg/l	<0.001	-	-	-	-
Magnesium	mg/l	13	-	-	-	-
Nickel	mg/l	<0.1	-	-	-	-
Potassium	mg/l	13	-	-	-	-
Sodium	mg/l	20	-	-	-	-
Zinc	mg/l	0.15	-	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	11	<5	55
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	6	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<10	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<5	<5	<10
Bromomethane	µg/l	<5	<5	<5	<5	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	11	<5	25	<5	21
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5

See footnotes at end of table.

Table A-7
Monitoring Well 79
(Continued)

Parameters	Units	Sampling Date 5/21/90	8/13/90	11/13/90	1/28/91	4/22/91
Groundwater Elevation	ft msl	3.16	2.51	2.21	2.69	2.93
Temperature(2)	°C	12	18	14	15	15
pH(2)	pH units	6.60	6.50	6.45	5.65	6.40
Specific Conductance @ 25°C(2)	µmhos/cm	500	410	400	400	450
Total Dissolved Solids @ 180°C	mg/l	293	222	273	264	247
Total Organic Carbon	mg/l	3	8	3	3	3
Alkalinity	mg/l $CaCO_3$	88	69	52	51	56
Ammonia	mg/l NH_3-N	0.3	0.2	<0.1	<0.1	<0.1
Chloride	mg/l	29	29	27	28	34
Chemical Oxygen Demand	mg/l	18	86	12	12	21
Total Phenolics	mg/l	0.02	0.02	<0.01	<0.01	<0.01
Cyanide	mg/l	-	<0.01	-	-	-
Nitrate	mg/l NO_3-N	-	0.8	-	-	-
Sulfate	mg/l	-	110	-	-	-
Metals:						
Cadmium	mg/l	-	<0.001	-	-	-
Calcium	mg/l	-	38	-	-	-
Copper	mg/l	-	0.02	-	-	-
Lead	mg/l	-	<0.001	-	-	-
Magnesium	mg/l	-	12	-	-	-
Nickel	mg/l	-	<0.1	-	-	-
Potassium	mg/l	-	14	-	-	-
Sodium	mg/l	-	18	-	-	-
Zinc	mg/l	-	0.12	-	-	-
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	19	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	8	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<5	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<5	<10	<10	<10
Bromomethane	µg/l	<10	<5	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	22	20	17	18	18
Vinyl Chloride	µg/l	<5	<10	<10	<10	<10

See footnotes at end of table.

Table A-7
Monitoring Well 79
(Continued)

Parameters	Units	Sampling Date 8/5/91	10/28/91	1/20/92	4/20/92	7/21/92
Groundwater Elevation	ft msl	2.17	1.88	1.71	2.31	2.15
Temperature(2)	°C	17.0	15.1	13.0	15.4	17.3
pH(2)	pH units	6.40	6.27	6.21	5.95	6.14
Specific Conductance @ 25°C(2)	µmhos/cm	550	750	500	450	500
Total Dissolved Solids @ 180°C	mg/l	339	234	307	244	246
Total Organic Carbon	mg/l	3	3	3	<1	4
Alkalinity	mg/l $CaCO_3$	59	65	63	69	62
Ammonia	mg/l NH_3-N	<0.1	<0.1	<0.1	0.1	<0.10
Chloride	mg/l	34	28	29	41	33
Chemical Oxygen Demand	mg/l	14	14	30	<5	<5
Total Phenolics	mg/l	<0.01	<0.01	0.17	<0.1	0.029
Cyanide	mg/l	<0.01	-	-	-	<0.010
Nitrate	mg/l NO_3-N	0.6	-	-	-	0.70
Sulfate	mg/l	100	-	-	-	92
Metals:						
Cadmium	mg/l	0.001	-	-	-	<0.001
Calcium	mg/l	41	-	-	-	31
Copper	mg/l	0.01	-	-	-	<0.010
Lead	mg/l	<0.001	-	-	-	<0.001
Magnesium	mg/l	13	-	-	-	11
Nickel	mg/l	<0.1	-	-	-	<0.040
Potassium	mg/l	18	-	-	-	12
Sodium	mg/l	22	-	-	-	14
Zinc	mg/l	0.12	-	-	-	0.080
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	16	17	19	16	17
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10

(1)Dash denotes not analyzed.
(2)Field analysis.

Table B-1
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-1A

Parameters	Units	Sampling Date 9/13/88	11/15/88	12/6/88	12/29/88	2/20/89
Groundwater Elevation	ft msl	8.41	7.91	9.16	8.33	8.48
Temperature(1)	°C	-(2)	-	-	-	13
pH(1)	pH units	6.55	5.65	6.85	6.65	6.75
pH(1)	pH units	6.70	5.75	-	-	6.75
pH(1)	pH units	6.85	5.80	-	-	6.75
pH(1)	pH units	6.70	5.80	-	-	6.75
Specific Conductance @ 25°C(1)	µmhos/cm	1050	1250	600	1400	1250
Specific Conductance @ 25°C(1)	µmhos/cm	1050	1200	-	-	1300
Specific Conductance @ 25°C(1)	µmhos/cm	875	1200	-	-	1300
Specific Conductance @ 25°C(1)	µmhos/cm	950	1200	-	-	1300
Total Organic Carbon	mg/l	2	3	-	-	5
Total Organic Carbon	mg/l	1	3	-	-	5
Total Organic Carbon	mg/l	2	17	-	-	5
Total Organic Carbon	mg/l	<1	6	-	-	5
Total Organic Halogens	µg/l	<10	<10	-	-	21
Total Organic Halogens	µg/l	<10	<10	-	-	22
Total Organic Halogens	µg/l	<10	<10	-	-	21
Total Organic Halogens	µg/l	<10	<10	-	-	23
Alkalinity	mg/l $CaCO_3$	185	-	-	-	152
Chloride	mg/l	7.4	8.7	-	-	8.8
Fluoride	mg/l	0.13	0.22	-	-	0.08
Nitrate	mg/l NO_3-N	0.5	0.3	-	-	0.1
Sulfate	mg/l	420	550	-	-	520
Sodium	mg/l	13	13	-	-	12
Calcium	mg/l	150	-	-	-	190
Magnesium	mg/l	46	-	-	-	44
Potassium	mg/l	21	-	-	-	22
Phenolics	mg/l	<0.01	<0.01	-	-	<0.01
Gross Alpha	pCi/L	89±40	570±16	-	-	60±20
Gross Beta	pCi/L	210±21	568±74	-	-	160±80
Radium 226	mg/l	76±24	76±24	-	-	23±6
Total Coliform	col/100 ml	ND	ND	-	-	ND
Turbidity	NTU	18000	4200	-	-	0.46
Metals:						
Arsenic	mg/l	<0.001	<0.001	-	-	<0.001
Barium	mg/l	0.18	0.05	-	-	0.08
Cadmium	mg/l	0.002	<0.001	-	-	<0.001
Chromium	mg/l	0.002	<0.001	-	-	0.001
Iron	mg/l	0.1	0.1	-	-	<0.1
Lead	mg/l	<0.001	<0.001	-	-	<0.001
Manganese	mg/l	0.07	0.23	-	-	2.2
Mercury	mg/l	<0.0005	<0.0005	-	-	<0.0005
Selenium	mg/l	<0.001	<0.001	-	-	<0.001
Silver	mg/l	<0.001	0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	<0.1	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<1	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	<0.1

See footnotes at end of table.

Table B-1
Monitoring Well TB-1A
(Continued)

Parameters	Units	Sampling Date 9/13/88	11/15/88	12/6/88	12/29/88	2/20/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	12	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	<10	-
Benzidine	µg/l	<50	<50	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachloroethane	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	<10	-
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
Fluoranthene	µg/l	<10	<10	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	<10	-
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-1
Monitoring Well TB-1A
(Continued)

Parameters	Units	Sampling Date 9/13/88	11/15/88	12/6/88	12/29/88	2/20/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	-
Isophorone	µg/l	<10	<10	<10	<10	-
Naphthalene	µg/l	<10	<10	<10	<10	-
Nitrobenzene	µg/l	<10	<10	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	22	<10	<10	-
Butylbenzyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	<10	-
Diethyl Phthalate	µg/l	<10	<10	<10	<10	-
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	-
Benzo(a)anthracene	µg/l	<10	<10	<10	<10	-
Benzo(a)pyrene	µg/l	<10	<10	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	<10	-
Chrysene	µg/l	<10	<10	<10	<10	-
Acenaphthylene	µg/l	<10	<10	<10	<10	-
Anthracene	µg/l	<10	<10	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	<50	-
Fluorene	µg/l	<10	<10	<10	<10	-
Phenanthrene	µg/l	<10	<10	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	<50	-
Pyrene	µg/l	<10	<10	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	<10	-
2-Nitrophenol	µg/l	<50	<50	<50	<50	-
4-Nitrophenol	µg/l	<50	<50	<50	<50	-
p-chloro-m-cresol	µg/l	<10	<10	<10	<10	-
Pentachlorophenol	µg/l	<50	<50	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-1
Monitoring Well TB-1A
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Groundwater Elevation	ft msl	10.91	9.35	9.41	9.63	9.48
Temperature(1)	°C	14	18	15	10	10
pH(1)	pH units	6.75	6.75	6.75	6.80	7.05
pH(1)	pH units	6.80	7.00	6.80	6.90	7.05
pH(1)	pH units	6.85	6.80	6.80	6.95	7.05
pH(1)	pH units	6.75	6.80	6.80	6.95	7.05
Specific Conductance @ 25°C(1)	µmhos/cm	1150	700	1000	1100	1200
Specific Conductance @ 25°C(1)	µmhos/cm	1200	750	1000	1000	1250
Specific Conductance @ 25°C(1)	µmhos/cm	1200	700	1000	1000	1200
Specific Conductance @ 25°C(1)	µmhos/cm	1200	700	1000	1000	1200
Total Organic Carbon	mg/l	6	6	5	4	4
Total Organic Carbon	mg/l	5	6	6	4	3
Total Organic Carbon	mg/l	6	4	8	4	5
Total Organic Carbon	mg/l	5	7	5	5	3
Total Organic Halogens	µg/l	57	23	29	<10	<10
Total Organic Halogens	µg/l	50	16	25	14	<10
Total Organic Halogens	µg/l	43	21	20	14	<10
Total Organic Halogens	µg/l	54	24	20	<10	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	11	9.9	11	11	12
Fluoride	mg/l	0.08	0.12	0.11	0.10	0.11
Nitrate	mg/l NO_3-N	<0.1	1.6	0.4	0.6	0.7
Sulfate	mg/l	450	320	300	400	420
Sodium	mg/l	12	12	10	12	10
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	0.03	0.04	0.02	0.02	<0.01
Gross Alpha	pCi/L	4±4	-	-	-	-
Gross Beta	pCi/L	119±63	-	-	-	-
Radium 226	mg/l	44.3±9.9	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	2.8	-	-	-	-
Metals:						
Arsenic	mg/l	<0.001	0.001	<0.001	0.003	<0.001
Barium	mg/l	0.19	0.20	0.14	0.07	0.08
Cadmium	mg/l	0.001	0.001	<0.001	<0.001	<0.001
Chromium	mg/l	<0.001	0.012	0.003	<0.001	<0.001
Iron	mg/l	0.1	<0.1	1.2	0.1	<0.1
Lead	mg/l	<0.001	0.003	<0.001	<0.001	0.001
Manganese	mg/l	0.02	<0.01	0.06	0.04	<0.01
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	0.001	<0.001	<0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-1
Monitoring Well TB-1A
(Continued)

Parameters	Units	Sampling Date				
		5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	18	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	28	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-1
Monitoring Well TB-1A
(Continued)

Parameters	Units	Sampling Date				
		5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-1
Monitoring Well TB-1A
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.95	7.89	9.45	8.95	7.68
Temperature(1)	°C	17	12	12	11	16.2
pH(1)	pH units	6.70	6.65	6.85	6.90	6.83
pH(1)	pH units	6.80	6.65	6.85	6.90	6.91
pH(1)	pH units	6.80	6.65	6.85	6.90	6.93
pH(1)	pH units	6.85	6.65	6.80	6.90	6.93
Specific Conductance @ 25°C(1)	µmhos/cm	1000	1000	900	1000	1350
Specific Conductance @ 25°C(1)	µmhos/cm	1000	1000	700	1000	1400
Specific Conductance @ 25°C(1)	µmhos/cm	1000	1000	900	1000	1400
Specific Conductance @ 25°C(1)	µmhos/cm	1000	1000	900	1000	1400
Total Organic Carbon	mg/l	5	4	12	1	4
Total Organic Carbon	mg/l	4	3	12	4	4
Total Organic Carbon	mg/l	4	3	12	1	3
Total Organic Carbon	mg/l	4	3	12	3	4
Total Organic Halogens	µg/l	31	<10	15	13	<10
Total Organic Halogens	µg/l	43	<10	10	13	11
Total Organic Halogens	µg/l	33	<10	<10	13	<10
Total Organic Halogens	µg/l	20	<10	<10	10	13
Alkalinity	mg/l $CaCO_3$	161	-	-	-	174
Chloride	mg/l	8.5	11	8.7	9.2	11
Fluoride	mg/l	0.10	0.10	0.13	0.13	0.14
Nitrate	mg/l NO_3-N	<0.1	0.2	5.5	<0.1	0.3
Sulfate	mg/l	450	480	310	460	450
Sodium	mg/l	9	9	10	9	10
Calcium	mg/l	170	-	-	-	170
Magnesium	mg/l	38	-	0.01	-	34
Potassium	mg/l	23	-	-	-	27
Phenolics	mg/l	0.01	<0.01	<0.01	<0.01	<0.01
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	<0.001	0.003	<0.001	<0.001	<0.001
Barium	mg/l	0.07	0.05	0.06	0.07	0.05
Cadmium	mg/l	<0.001	<0.001	0.002	<0.001	<0.001
Chromium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	mg/l	<0.1	<0.1	<0.1	<0.1	0.2
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	0.07	0.50	0.01	0.26	1.4
Mercury	mg/l	<0.0005	0.0009	0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-1
Monitoring Well TB-1A
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<10	<10	<10	<10
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<10	<10	<10	<10
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-1
Monitoring Well TB-1A
(Continued)

Parameters	Units	Sampling Date				
		8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-1
Monitoring Well TB-1A
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.64	7.85	7.76	7.80
Temperature(1)	°C	15.0	11.9	11.8	17.9
pH(1)	pH units	6.95	7.19	6.56	6.53
pH(1)	pH units	6.97	7.10	6.58	6.55
pH(1)	pH units	6.95	7.12	6.59	6.55
pH(1)	pH units	6.95	7.10	6.59	6.56
Specific Conductance @ 25°C(1)	µmhos/cm	1350	1000	1000	1000
Specific Conductance @ 25°C(1)	µmhos/cm	1400	1050	1000	1000
Specific Conductance @ 25°C(1)	µmhos/cm	1400	1000	1000	1000
Specific Conductance @ 25°C(1)	µmhos/cm	1400	1000	1000	1000
Total Organic Carbon	mg/l	4	2	3	5
Total Organic Carbon	mg/l	4	2	3	4
Total Organic Carbon	mg/l	3	2	3	3
Total Organic Carbon	mg/l	3	2	3	3
Total Organic Halogens	µg/l	10	14	22	12
Total Organic Halogens	µg/l	12	17	15	57
Total Organic Halogens	µg/l	11	15	22	<10
Total Organic Halogens	µg/l	<10	24	31	11
Alkalinity	mg/l $CaCO_3$	-	-	-	192
Chloride	mg/l	11	10	13	11
Fluoride	mg/l	0.15	0.07	0.07	0.13
Nitrate	mg/l NO_3-N	0.1	1.1	<0.1	0.60
Sulfate	mg/l	340	320	290	320
Sodium	mg/l	11	9	9	7.0
Calcium	mg/l	-	-	-	130
Magnesium	mg/l	-	-	-	27
Potassium	mg/l	-	-	-	22
Phenolics	mg/l	<0.01	0.01	0.01	0.26
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	<0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.04	0.04	0.04	0.020
Cadmium	mg/l	<0.001	<0.001	0.003	<0.001
Chromium	mg/l	0.002	<0.001	<0.001	<0.001
Iron	mg/l	<0.1	<0.1	<0.1	<0.10
Lead	mg/l	0.003	<0.001	<0.001	<0.001
Manganese	mg/l	1.5	0.90	1.3	1.6
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.002	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-1
Monitoring Well TB-1A
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-1
Monitoring Well TB-1A
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.

Table B-2
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-1B

Parameters	Units	Sampling Date 9/13/88	11/15/88	12/6/88	12/29/88	2/20/89
Groundwater Elevation	ft msl	8.40	7.90	9.16	8.36	8.50
Temperature(1)	°C	(2)	-	-	-	13
pH(1)	pH units	6.70	6.05	6.75	6.75	6.55
pH(1)	pH units	6.60	6.75	-	-	6.70
pH(1)	pH units	6.70	6.75	-	-	6.65
pH(1)	pH units	6.70	6.70	-	-	6.70
Specific Conductance @ 25°C(1)	µmhos/cm	1325	1300	1600	1650	1500
Specific Conductance @ 25°C(1)	µmhos/cm	1350	1300	-	-	1500
Specific Conductance @ 25°C(1)	µmhos/cm	1350	1300	-	-	1500
Specific Conductance @ 25°C(1)	µmhos/cm	1350	1300	-	-	1500
Total Organic Carbon	mg/l	2	3	-	-	6
Total Organic Carbon	mg/l	2	3	-	-	6
Total Organic Carbon	mg/l	2	3	-	-	6
Total Organic Carbon	mg/l	2	3	-	-	6
Total Organic Halogens	µg/l	13	<10	-	-	25
Total Organic Halogens	µg/l	14	<10	-	-	24
Total Organic Halogens	µg/l	14	<10	-	-	24
Total Organic Halogens	µg/l	11	<10	-	-	24
Alkalinity	mg/l $CaCO_3$	133	-	-	-	152
Chloride	mg/l	7.1	7.1	-	-	7.2
Fluoride	mg/l	0.07	0.16	-	-	0.07
Nitrate	mg/l NO_3-N	0.2	<0.1	-	-	0.1
Sulfate	mg/l	590	610	-	-	620
Sodium	mg/l	11	10	-	-	12
Calcium	mg/l	210	-	-	-	210
Magnesium	mg/l	62	-	-	-	52
Potassium	mg/l	40	-	-	-	33
Phenolics	mg/l	<0.01	<0.01	-	-	0.01
Gross Alpha	pCi/L	81±37	<2	-	-	<2
Gross Beta	pCi/L	123±17	326±63	-	-	330±80
Radium 226	mg/l	3.8±1.0	38.1±2	-	-	8.1±4
Total Coliform	col/100 ml	ND	ND	-	-	ND
Turbidity	NTU	30000	4200	-	-	1.2
Metals:						
Arsenic	mg/l	<0.001	<0.001	-	-	<0.001
Barium	mg/l	0.10	0.02	-	-	0.05
Cadmium	mg/l	0.002	<0.001	-	-	<0.001
Chromium	mg/l	<0.001	<0.001	-	-	<0.001
Iron	mg/l	<0.1	0.1	-	-	<0.1
Lead	mg/l	<0.001	<0.001	-	-	<0.001
Manganese	mg/l	7.0	7.1	-	-	6.9
Mercury	mg/l	<0.0005	<0.0005	-	-	0.0011
Selenium	mg/l	<0.001	<0.001	-	-	<0.001
Silver	mg/l	<0.001	0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	<0.1	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<1	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	<0.1

See footnotes at end of table.

Table B-2
Monitoring Well TB-1B
(Continued)

Parameters	Units	Sampling Date 9/13/88	11/15/88	12/6/88	12/29/88	2/20/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	22	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	36	72	37	33
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	10	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	<10	-
Benzidine	µg/l	<50	<50	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachloroethane	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	<10	-
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
Fluoranthene	µg/l	<10	<10	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	<10	-
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-2
Monitoring Well TB-1B
(Continued)

Parameters	Units	Sampling Date 9/13/88	11/15/88	12/6/88	12/29/88	2/20/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	-
Isophorone	µg/l	<10	<10	<10	<10	-
Naphthalene	µg/l	<10	<10	<10	<10	-
Nitrobenzene	µg/l	<10	<10	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	<10	13	<10	-
Butylbenzyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	<10	-
Diethyl Phthalate	µg/l	<10	<10	<10	<10	-
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	-
Benzo(a)anthracene	µg/l	<10	<10	<10	<10	-
Benzo(a)pyrene	µg/l	<10	<10	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	<10	-
Chrysene	µg/l	<10	<10	<10	<10	-
Acenaphthylene	µg/l	<10	<10	<10	<10	-
Anthracene	µg/l	<10	<10	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	<50	-
Fluorene	µg/l	<10	<10	<10	<10	-
Phenanthrene	µg/l	<10	<10	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	<50	-
Pyrene	µg/l	<10	<10	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	<10	-
2-Nitrophenol	µg/l	<50	<50	<50	<50	-
4-Nitrophenol	µg/l	<50	<50	<50	<50	-
p-chloro-m-cresol	µg/l	<10	<10	<10	<10	-
Pentachlorophenol	µg/l	<50	<50	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-2
Monitoring Well TB-1B
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Groundwater Elevation	ft msl	10.91	9.33	9.41	9.68	9.51
Temperature(1)	°C	14	18	15	11	10
pH(1)	pH units	6.75	6.75	6.65	6.65	7.45
pH(1)	pH units	6.75	6.85	6.70	6.80	7.40
pH(1)	pH units	6.80	6.85	6.75	6.80	7.35
pH(1)	pH units	6.80	6.90	6.70	6.80	7.40
Specific Conductance @ 25°C(1)	µmhos/cm	1300	700	1200	1350	1300
Specific Conductance @ 25°C(1)	µmhos/cm	1300	700	1150	1300	1300
Specific Conductance @ 25°C(1)	µmhos/cm	1300	700	1200	1300	1300
Specific Conductance @ 25°C(1)	µmhos/cm	1300	700	1200	1350	1300
Total Organic Carbon	mg/l	7	4	4	4	4
Total Organic Carbon	mg/l	6	12	5	4	3
Total Organic Carbon	mg/l	6	4	4	4	3
Total Organic Carbon	mg/l	6	4	4	3	4
Total Organic Halogens	µg/l	53	<10	<10	<10	<10
Total Organic Halogens	µg/l	50	12	<10	13	<10
Total Organic Halogens	µg/l	51	12	<10	<10	<10
Total Organic Halogens	µg/l	49	<10	<10	17	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	11	10	9.6	7.8	6.6
Fluoride	mg/l	0.04	0.08	0.08	0.08	0.07
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	<0.1	0.2
Sulfate	mg/l	500	340	480	580	500
Sodium	mg/l	10	9	9	9	8
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	0.03	0.06	0.06	0.01	<0.01
Gross Alpha	pCi/L	<2	-	-	-	-
Gross Beta	pCi/L	49±11	-	-	-	-
Radium 226	mg/l	24.3±8.9	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	3.0	-	-	-	-
Metals:						
Arsenic	mg/l	<0.001	0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.06	0.06	0.14	0.03	0.04
Cadmium	mg/l	0.003	<0.001	0.002	0.003	0.002
Chromium	mg/l	<0.001	0.002	0.006	<0.001	<0.001
Iron	mg/l	0.1	<0.1	0.9	0.1	<0.1
Lead	mg/l	0.002	<0.001	<0.001	<0.001	0.001
Manganese	mg/l	5.6	2.7	4.1	5.8	5.2
Mercury	mg/l	<0.0005	<0.0005	<0.0005	0.0006	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	0.001	<0.001	<0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-2
Monitoring Well TB-1B
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	34	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	10	<5	<5	5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-2
Monitoring Well TB-1B
(Continued)

Parameters	Units	Sampling Date				
		5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-2
Monitoring Well TB-1B
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.96	7.9	9.47	8.97	7.71
Temperature(1)	°C	17	12	13	12	15.5
pH(1)	pH units	6.85	6.80	6.65	7.00	6.85
pH(1)	pH units	6.85	6.80	6.65	6.85	6.91
pH(1)	pH units	6.80	6.80	6.65	6.85	6.91
pH(1)	pH units	6.85	6.80	6.65	6.90	6.92
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1200	1100	1050	1450
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1200	925	1050	1450
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1200	1000	1050	1450
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1200	1020	1050	1450
Total Organic Carbon	mg/l	4	4	5	1	5
Total Organic Carbon	mg/l	4	4	6	4	5
Total Organic Carbon	mg/l	4	3	5	3	5
Total Organic Carbon	mg/l	4	4	6	3	5
Total Organic Halogens	µg/l	24	<10	<10	18	14
Total Organic Halogens	µg/l	19	<10	<10	21	15
Total Organic Halogens	µg/l	21	<10	<10	18	15
Total Organic Halogens	µg/l	17	<10	12	16	12
Alkalinity	mg/l $CaCO_3$	172	-	-	-	176
Chloride	mg/l	6.7	8.8	8.0	6.8	10
Fluoride	mg/l	0.08	0.11	0.11	0.16	0.11
Nitrate	mg/l NO_3-N	0.5	<0.1	5.6	<0.1	<0.1
Sulfate	mg/l	490	530	390	500	480
Sodium	mg/l	8	8	8	8	9
Calcium	mg/l	170	-	-	-	180
Magnesium	mg/l	40	-	-	-	37
Potassium	mg/l	25	-	-	-	27
Phenolics	mg/l	0.02	0.02	<0.01	<0.01	0.04
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	<0.001	0.002	<0.001	<0.001	<0.001
Barium	mg/l	0.03	0.03	0.03	0.05	0.03
Cadmium	mg/l	<0.001	<0.001	0.006	<0.001	0.002
Chromium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	mg/l	<0.1	<0.1	<0.1	<0.1	0.1
Lead	mg/l	<0.001	<0.001	0.001	<0.001	<0.001
Manganese	mg/l	5.1	5.0	5.3	5.4	5.2
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-2
Monitoring Well TB-1B
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	9
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-2
Monitoring Well TB-1B
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-2
Monitoring Well TB-1B
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.65	7.87	7.89	7.81
Temperature(1)	°C	14.6	12.1	12.8	16.0
pH(1)	pH units	6.93	7.12	6.51	6.60
pH(1)	pH units	6.94	7.09	6.56	6.60
pH(1)	pH units	6.94	7.18	6.56	6.60
pH(1)	pH units	6.93	7.14	6.57	6.59
Specific Conductance @ 25°C(1)	µmhos/cm	1500	1090	1100	1000
Specific Conductance @ 25°C(1)	µmhos/cm	1500	1095	1050	1000
Specific Conductance @ 25°C(1)	µmhos/cm	1500	1090	1050	1000
Specific Conductance @ 25°C(1)	µmhos/cm	1500	1090	1050	950
Total Organic Carbon	mg/l	3	2	3	4
Total Organic Carbon	mg/l	3	2	3	4
Total Organic Carbon	mg/l	3	2	3	4
Total Organic Carbon	mg/l	3	2	3	4
Total Organic Halogens	µg/l	11	29	32	11
Total Organic Halogens	µg/l	<10	27	32	12
Total Organic Halogens	µg/l	<10	25	31	19
Total Organic Halogens	µg/l	10	20	38	10
Alkalinity	mg/l $CaCO_3$	-	-	-	194
Chloride	mg/l	8.5	7.5	9.8	8.3
Fluoride	mg/l	0.10	0.07	0.10	0.14
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	<0.10
Sulfate	mg/l	410	420	330	330
Sodium	mg/l	9	8	7	6.0
Calcium	mg/l	-	-	-	130
Magnesium	mg/l	-	-	-	33
Potassium	mg/l	-	-	-	22
Phenolics	mg/l	<0.01	0.04	<0.01	0.16
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	<0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.02	0.02	0.02	<0.020
Cadmium	mg/l	0.001	<0.001	0.002	0.002
Chromium	mg/l	0.002	<0.001	<0.001	<0.001
Iron	mg/l	<0.1	<0.1	<0.1	<0.10
Lead	mg/l	0.001	0.002	<0.001	<0.001
Manganese	mg/l	4.7	4.6	4.5	3.9
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.001	0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-2
Monitoring Well TB-1B
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-2
Monitoring Well TB-1B
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.

Table B-3
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-1C

Parameters	Units	Sampling Date				
		9/13/88	11/15/88	12/6/88	12/29/88	2/20/89
Groundwater Elevation	ft msl	8.57	7.97	9.21	8.39	8.48
Temperature(1)	°C	-(2)	-	-	-	13
pH(1)	pH units	7.25	6.25	6.35	6.70	6.50
pH(1)	pH units	6.80	6.20	-	-	6.55
pH(1)	pH units	6.85	6.20	-	-	6.55
pH(1)	pH units	6.70	6.15	-	-	6.55
Specific Conductance @ 25°C(1)	µmhos/cm	390	700	700	900	1000
Specific Conductance @ 25°C(1)	µmhos/cm	380	480	-	-	1100
Specific Conductance @ 25°C(1)	µmhos/cm	350	480	-	-	1100
Specific Conductance @ 25°C(1)	µmhos/cm	350	475	-	-	1100
Total Organic Carbon	mg/l	<1	2	-	-	3
Total Organic Carbon	mg/l	<1	2	-	-	3
Total Organic Carbon	mg/l	<1	2	-	-	3
Total Organic Carbon	mg/l	2	2	-	-	3
Total Organic Halogens	µg/l	<10	<10	-	-	<10
Total Organic Halogens	µg/l	<10	<10	-	-	<10
Total Organic Halogens	µg/l	<10	<10	-	-	<10
Total Organic Halogens	µg/l	<10	<10	-	-	<10
Alkalinity	mg/l $CaCO_3$	2	-	-	-	80
Chloride	mg/l	4.3	3.8	-	-	6.0
Fluoride	mg/l	0.04	0.08	-	-	0.09
Nitrate	mg/l NO_3-N	0.1	<0.1	-	-	<0.1
Sulfate	mg/l	190	290	-	-	480
Sodium	mg/l	7	7	-	-	11
Calcium	mg/l	46	-	-	-	170
Magnesium	mg/l	17	-	-	-	51
Potassium	mg/l	4.6	-	-	-	15
Phenolics	mg/l	<0.01	0.01	-	-	<0.01
Gross Alpha	pCi/L	180±50	217±10	-	-	50±20
Gross Beta	pCi/L	290±23	218±57	-	-	<20
Radium 226	mg/l	50±15	33.6±1	-	-	<0.6
Total Coliform	col/100 ml	ND	ND	-	-	ND
Turbidity	NTU	80000	14400	-	-	0.42
Metals:						
Arsenic	mg/l	<0.0001	<0.001	-	-	<0.001
Barium	mg/l	0.08	0.04	-	-	0.07
Cadmium	mg/l	0.001	<0.001	-	-	<0.001
Chromium	mg/l	<0.001	0.002	-	-	0.002
Iron	mg/l	0.4	1.0	-	-	0.2
Lead	mg/l	<0.001	<0.001	-	-	<0.001
Manganese	mg/l	7.1	7.7	-	-	7.4
Mercury	mg/l	<0.0005	0.0005	-	-	<0.0005
Selenium	mg/l	<0.001	<0.001	-	-	<0.001
Silver	mg/l	<0.001	<0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	<0.1	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<1	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	<0.1

See footnotes at end of table.

Table B-3
Monitoring Well TB-1C
(Continued)

Parameters	Units	Sampling Date 9/13/88	11/15/88	12/6/88	12/29/88	2/20/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<250	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<250	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	5	15	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	11	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	<10	-
Benzidine	µg/l	<50	<50	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachloroethane	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	<10	-
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
Fluoranthene	µg/l	<10	<10	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	<10	-
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-3
Monitoring Well TB-1C
(Continued)

Parameters	Units	Sampling Date				
		9/13/88	11/15/88	12/6/88	12/29/88	2/20/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	-
Isophorone	µg/l	<10	<10	<10	<10	-
Naphthalene	µg/l	<10	<10	<10	<10	-
Nitrobenzene	µg/l	<10	<10	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	14	<10	<10	-
Butylbenzyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	<10	-
Diethyl Phthalate	µg/l	<10	<10	<10	<10	-
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	-
Benzo(a)anthracene	µg/l	<10	<10	<10	<10	-
Benzo(a)pyrene	µg/l	<10	<10	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	<10	-
Chrysene	µg/l	<10	<10	<10	<10	-
Acenaphthylene	µg/l	<10	<10	<10	<10	-
Anthracene	µg/l	<10	<10	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	<50	-
Fluorene	µg/l	<10	<10	<10	<10	-
Phenanthrene	µg/l	<10	<10	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	<50	-
Pyrene	µg/l	<10	<10	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	<10	-
2-Nitrophenol	µg/l	<50	<50	<50	<50	-
4-Nitrophenol	µg/l	<50	<50	<50	<50	-
p-chloro-m-cresol	µg/l	<10	<10	<10	<10	-
Pentachlorophenol	µg/l	<50	<50	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-3
Monitoring Well TB-1C
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Groundwater Elevation	ft msl	10.94	9.35	9.41	9.67	9.54
Temperature(1)	°C	15	18	14	12	11
pH(1)	pH units	6.35	6.10	6.65	6.70	6.85
pH(1)	pH units	6.35	6.10	6.70	6.75	6.85
pH(1)	pH units	6.40	6.20	6.70	6.70	6.85
pH(1)	pH units	6.35	6.20	6.70	6.70	6.85
Specific Conductance @ 25°C(1)	µmhos/cm	950	800	1100	1200	1100
Specific Conductance @ 25°C(1)	µmhos/cm	950	800	1200	1200	1100
Specific Conductance @ 25°C(1)	µmhos/cm	1000	800	1100	1200	1100
Specific Conductance @ 25°C(1)	µmhos/cm	950	800	1200	1200	1100
Total Organic Carbon	mg/l	5	4	3	4	4
Total Organic Carbon	mg/l	5	7	3	4	4
Total Organic Carbon	mg/l	4	5	4	4	3
Total Organic Carbon	mg/l	5	9	3	3	4
Total Organic Halogens	µg/l	18	15	<10	<10	<10
Total Organic Halogens	µg/l	15	<10	<10	<10	<10
Total Organic Halogens	µg/l	19	13	<10	<10	<10
Total Organic Halogens	µg/l	18	<10	<10	<10	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	7.1	16	8.8	7.3	6.1
Fluoride	mg/l	0.01	0.05	0.05	0.07	0.06
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	0.2	0.2
Sulfate	mg/l	440	440	440	490	470
Sodium	mg/l	8	9	8	8	7
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	0.06	0.05	0.02	0.01	<0.01
Gross Alpha	pCi/L	<3	-	-	-	-
Gross Beta	pCi/L	52±47	-	-	-	-
Radium 226	mg/l	19.6±8.4	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	3.5	-	-	-	-
Metals:						
Arsenic	mg/l	<0.001	0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.06	0.11	0.12	0.04	0.05
Cadmium	mg/l	0.003	<0.001	0.002	0.002	0.008
Chromium	mg/l	<0.001	<0.001	0.003	0.004	<0.001
Iron	mg/l	0.5	0.2	0.8	0.2	0.4
Lead	mg/l	<0.001	0.002	<0.001	0.003	0.001
Manganese	mg/l	7.0	4.8	4.9	5.8	5.2
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-3
Monitoring Well TB-1C
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	45	<5	<5	10
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	10	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	12
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-3
Monitoring Well TB-1C
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-3
Monitoring Well TB-1C
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.98	7.91	9.50	8.98	7.73
Temperature(1)	°C	17	12	12	14	16.3
pH(1)	pH units	6.85	6.65	6.75	6.60	6.33
pH(1)	pH units	6.85	6.65	6.70	6.55	6.35
pH(1)	pH units	6.85	6.65	6.75	6.55	6.35
pH(1)	pH units	6.85	6.65	6.75	6.55	6.36
Specific Conductance @ 25°C(1)	µmhos/cm	1000	700	800	600	950
Specific Conductance @ 25°C(1)	µmhos/cm	1000	700	825	600	950
Specific Conductance @ 25°C(1)	µmhos/cm	1000	700	900	600	950
Specific Conductance @ 25°C(1)	µmhos/cm	1000	700	825	600	950
Total Organic Carbon	mg/l	6	3	8	3	6
Total Organic Carbon	mg/l	6	3	9	3	5
Total Organic Carbon	mg/l	5	3	9	2	5
Total Organic Carbon	mg/l	5	2	9	2	5
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Alkalinity	mg/l $CaCO_3$	141	-	-	-	62
Chloride	mg/l	7.9	5.0	5.8	5.6	6.9
Fluoride	mg/l	0.06	0.05	0.08	0.40	0.09
Nitrate	mg/l NO_3-N	<0.1	0.4	2.4	<0.1	0.1
Sulfate	mg/l	460	350	320	340	360
Sodium	mg/l	8	5	6	6	7
Calcium	mg/l	150	-	-	-	77
Magnesium	mg/l	39	-	-	-	23
Potassium	mg/l	18	-	-	-	8.9
Phenolics	mg/l	<0.01	0.06	<0.01	<0.01	0.13
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	<0.001	0.005	<0.001	<0.001	<0.001
Barium	mg/l	0.05	0.05	0.03	0.05	0.03
Cadmium	mg/l	<0.001	<0.001	0.001	<0.001	<0.001
Chromium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	mg/l	1.4	6.7	<0.1	1.6	2.9
Lead	mg/l	<0.001	0.001	<0.001	<0.001	<0.001
Manganese	mg/l	6.6	8.5	5.7	5.6	6.3
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	0.0010
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	0.002
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-3
Monitoring Well TB-1C
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	6	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-3
Monitoring Well TB-1C
(Continued)

Parameters	Units	Sampling Date				
		8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-3
Monitoring Well TB-1C
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.67	7.90	7.81	7.92
Temperature(1)	°C	13.6	12.2	14.3	15.1
pH(1)	pH units	6.40	6.86	5.98	6.65
pH(1)	pH units	6.39	6.86	6.00	6.64
pH(1)	pH units	6.41	6.86	6.01	6.66
pH(1)	pH units	6.40	6.85	6.00	6.67
Specific Conductance @ 25°C(1)	µmhos/cm	1000	600	600	800
Specific Conductance @ 25°C(1)	µmhos/cm	1000	680	650	800
Specific Conductance @ 25°C(1)	µmhos/cm	1000	680	650	800
Specific Conductance @ 25°C(1)	µmhos/cm	1000	700	650	800
Total Organic Carbon	mg/l	2	13	2	4
Total Organic Carbon	mg/l	3	14	2	4
Total Organic Carbon	mg/l	3	14	2	4
Total Organic Carbon	mg/l	2	15	2	4
Total Organic Halogens	µg/l	<10	24	15	<10
Total Organic Halogens	µg/l	<10	20	11	20
Total Organic Halogens	µg/l	<10	12	<10	15
Total Organic Halogens	µg/l	<10	14	12	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	122
Chloride	mg/l	6.5	5.8	7.5	8.2
Fluoride	mg/l	0.06	0.05	0.06	0.090
Nitrate	mg/l NO_3-N	<0.1	1.1	<0.1	<0.10
Sulfate	mg/l	310	260	210	310
Sodium	mg/l	8	7	5	6.0
Calcium	mg/l	-	-	-	120
Magnesium	mg/l	-	-	-	33
Potassium	mg/l	-	-	-	14
Phenolics	mg/l	<0.01	0.01	0.02	0.16
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	<0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.03	0.02	0.02	0.030
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.002	<0.001	<0.001	<0.001
Iron	mg/l	1.0	1.6	0.6	0.70
Lead	mg/l	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	5.4	3.5	2.9	5.2
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.002	<0.001	<0.001
Silver	mg/l	<0.001	0.002	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-3
Monitoring Well TB-1C
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-3
Monitoring Well TB-1C
(Continued)

Parameters	Units	Sampling Date			
		10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.

Table B-4
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-1D

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/29/88	2/20/89
Groundwater Elevation	ft msl	7.99	8.76	9.12	8.69	7.73
Temperature(1)	°C	-(2)	-	-	-	12
pH(1)	pH units	5.30	6.05	6.95	6.75	6.85
pH(1)	pH units	5.83	6.10	-	-	6.80
pH(1)	pH units	6.12	6.05	-	-	6.85
pH(1)	pH units	6.33	6.15	-	-	6.85
Specific Conductance @ 25°C(1)	µmhos/cm	174	120	150	155	170
Specific Conductance @ 25°C(1)	µmhos/cm	162	120	-	-	180
Specific Conductance @ 25°C(1)	µmhos/cm	156	120	-	-	180
Specific Conductance @ 25°C(1)	µmhos/cm	165	130	-	-	170
Total Organic Carbon	mg/l	4	4	-	-	2
Total Organic Carbon	mg/l	5	4	-	-	2
Total Organic Carbon	mg/l	5	5	-	-	13
Total Organic Carbon	mg/l	3	5	-	-	2
Total Organic Halogens	µg/l	38	<10	-	-	<10
Total Organic Halogens	µg/l	40	<10	-	-	<10
Total Organic Halogens	µg/l	32	<10	-	-	<10
Total Organic Halogens	µg/l	35	<10	-	-	<10
Alkalinity	mg/l $CaCO_3$	46	-	-	-	44
Chloride	mg/l	7.0	31	-	-	3.5
Fluoride	mg/l	0.18	0.43	-	-	0.16
Nitrate	mg/l NO_3-N	0.8	<0.1	-	-	<0.1
Sulfate	mg/l	20	230	-	-	24
Sodium	mg/l	9	10	-	-	10
Calcium	mg/l	9	-	-	-	11
Magnesium	mg/l	3	-	-	-	2.8
Potassium	mg/l	5.9	-	-	-	3.4
Phenolics	mg/l	<0.01	<0.01	-	-	0.02
Gross Alpha	pCi/L	<2	<2	-	-	10±10
Gross Beta	pCi/L	<3	207±57	-	-	<10
Radium 226	mg/l	<0.6	-	-	-	<0.6
Total Coliform	col/100 ml	ND	-	-	-	ND
Turbidity	NTU	112	6800	-	-	7.4
Metals:						
Arsenic	mg/l	<0.001	<0.001	-	-	<0.001
Barium	mg/l	0.10	0.01	-	-	0.02
Cadmium	mg/l	0.001	<0.001	-	-	0.0002
Chromium	mg/l	<0.001	<0.001	-	-	0.001
Iron	mg/l	1.0	3.3	-	-	3.9
Lead	mg/l	<0.001	0.002	-	-	<0.001
Manganese	mg/l	0.45	0.26	-	-	0.24
Mercury	mg/l	<0.0005	<0.0005	-	-	<0.0005
Selenium	mg/l	<0.001	<0.001	-	-	<0.001
Silver	mg/l	<0.001	<0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	<0.1	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<1	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	<0.1

See footnotes at end of table.

Table B-4
Monitoring Well TB-1D
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/29/88	2/20/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	22	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	<10	-
Benzidine	µg/l	<50	<50	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachloroethane	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	<10	-
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
Fluoranthene	µg/l	<10	<10	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	<10	-
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-4
Monitoring Well TB-1D
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/29/88	2/20/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	-
Isophorone	µg/l	<10	<10	<10	<10	-
Naphthalene	µg/l	<10	<10	<10	<10	-
Nitrobenzene	µg/l	<10	<10	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	20	24	20	-
Butylbenzyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	<10	-
Diethyl Phthalate	µg/l	<10	<10	<10	<10	-
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	-
Benzo(a)anthracene	µg/l	<10	<10	<10	<10	-
Benzo(a)pyrene	µg/l	<10	<10	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	<10	-
Chrysene	µg/l	<10	<10	<10	<10	-
Acenaphthylene	µg/l	<10	<10	<10	<10	-
Anthracene	µg/l	<10	<10	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	<50	-
Fluorene	µg/l	<10	<10	<10	<10	-
Phenanthrene	µg/l	<10	<10	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	<50	-
Pyrene	µg/l	<10	<10	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	<10	-
2-Nitrophenol	µg/l	<50	<50	<50	<50	-
4-Nitrophenol	µg/l	<50	<50	<50	<50	-
p-chloro-m-cresol	µg/l	<10	<10	<10	<10	-
Pentachlorophenol	µg/l	<50	<50	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-4
Monitoring Well TB-1D
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Groundwater Elevation	ft msl	10.06	9.72	9.42	9.56	9.49
Temperature(1)	°C	15	15	13	12	10
pH(1)	pH units	6.75	6.45	6.70	6.70	6.85
pH(1)	pH units	6.80	6.45	6.75	6.70	6.80
pH(1)	pH units	6.80	6.45	6.70	6.75	6.80
pH(1)	pH units	6.75	6.50	6.70	6.75	6.80
Specific Conductance @ 25°C(1)	µmhos/cm	180	145	130	140	150
Specific Conductance @ 25°C(1)	µmhos/cm	180	130	140	140	150
Specific Conductance @ 25°C(1)	µmhos/cm	190	130	130	140	150
Specific Conductance @ 25°C(1)	µmhos/cm	190	140	140	140	150
Total Organic Carbon	mg/l	6	5	6	3	3
Total Organic Carbon	mg/l	5	6	7	3	3
Total Organic Carbon	mg/l	5	5	6	4	4
Total Organic Carbon	mg/l	5	6	7	3	3
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	11	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	3.5	5.8	4.9	2.5	2.2
Fluoride	mg/l	0.13	0.11	0.12	0.16	0.16
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	0.2	0.4
Sulfate	mg/l	7.1	23	35	21	9
Sodium	mg/l	7	5	6	4	4
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	<0.01	-	0.02	0.02	0.01
Gross Alpha	pCi/L	3±3	-	-	-	-
Gross Beta	pCi/L	130±120	-	-	-	-
Radium 226	mg/l	13.4±9.0	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	14	-	-	-	-
Metals:						
Arsenic	mg/l	0.002	0.001	<0.001	0.002	0.002
Barium	mg/l	0.04	0.04	0.14	0.03	0.04
Cadmium	mg/l	<0.001	0.001	<0.001	0.003	<0.001
Chromium	mg/l	<0.001	<0.001	0.002	<0.001	<0.001
Iron	mg/l	11	5.0	8.0	8.1	10
Lead	mg/l	0.002	<0.001	<0.001	0.001	<0.001
Manganese	mg/l	0.44	0.25	0.28	0.28	0.28
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-4
Monitoring Well TB-1D
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	23	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	14	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-4
Monitoring Well TB-1D
(Continued)

Parameters	Units	Sampling Date				
		5/22/89	8/22/89	11/13/89	2/12/90	5/21/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-4
Monitoring Well TB-1D
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.71	8.27	9.37	9.10	8.19
Temperature(1)	°C	18	12	14	14	15.3
pH(1)	pH units	6.95	7.60	7.35	7.55	6.70
pH(1)	pH units	6.90	7.35	6.75	7.50	6.72
pH(1)	pH units	7.00	7.35	6.90	7.45	6.75
pH(1)	pH units	6.95	7.35	6.80	7.45	6.75
Specific Conductance @ 25°C(1)	µmhos/cm	110	120	100	105	170
Specific Conductance @ 25°C(1)	µmhos/cm	110	130	100	105	180
Specific Conductance @ 25°C(1)	µmhos/cm	110	130	100	100	180
Specific Conductance @ 25°C(1)	µmhos/cm	110	130	100	100	180
Total Organic Carbon	mg/l	13	3	9	2	2
Total Organic Carbon	mg/l	13	3	9	2	2
Total Organic Carbon	mg/l	13	3	9	2	2
Total Organic Carbon	mg/l	13	3	9	2	2
Total Organic Halogens	µg/l	25	<10	<10	<10	<10
Total Organic Halogens	µg/l	32	<10	<10	<10	<10
Total Organic Halogens	µg/l	23	<10	<10	<10	<10
Total Organic Halogens	µg/l	36	10	<10	<10	<10
Alkalinity	mg/l $CaCO_3$	74	-	-	-	45
Chloride	mg/l	3.2	5.1	1.4	2.1	2.9
Fluoride	mg/l	0.14	0.17	0.14	0.20	0.12
Nitrate	mg/l NO_3-N	1.3	<0.1	2.9	<0.1	<0.1
Sulfate	mg/l	19	<10	<10	<10	<10
Sodium	mg/l	4	5	5	4	5
Calcium	mg/l	8	-	-	-	11
Magnesium	mg/l	3	-	-	-	3
Potassium	mg/l	2.3	-	-	-	3.8
Phenolics	mg/l	0.02	0.02	0.02	0.02	<0.01
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	0.001	0.002	<0.001	<0.001	0.001
Barium	mg/l	0.04	0.04	0.04	0.06	0.04
Cadmium	mg/l	0.003	<0.001	0.002	<0.001	<0.001
Chromium	mg/l	0.002	<0.001	<0.001	<0.001	0.002
Iron	mg/l	6.8	7.2	10	8.7	12
Lead	mg/l	0.002	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	0.22	0.26	0.30	0.27	0.29
Mercury	mg/l	<0.0005	<0.0005	0.0006	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-4
Monitoring Well TB-1D
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	7	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-4
Monitoring Well TB-1D
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-4
Monitoring Well TB-1D
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	8.06	8.17	8.22	8.31
Temperature(1)	°C	12.7	12.0	15.5	14.6
pH(1)	pH units	6.26	7.14	6.68	6.58
pH(1)	pH units	6.30	7.08	6.55	6.58
pH(1)	pH units	6.30	7.08	6.52	6.59
pH(1)	pH units	6.30	7.08	6.52	6.59
Specific Conductance @ 25°C(1)	µmhos/cm	220	178	160	140
Specific Conductance @ 25°C(1)	µmhos/cm	220	142	150	140
Specific Conductance @ 25°C(1)	µmhos/cm	220	140	160	140
Specific Conductance @ 25°C(1)	µmhos/cm	220	155	160	150
Total Organic Carbon	mg/l	3	6	3	3
Total Organic Carbon	mg/l	3	4	3	2
Total Organic Carbon	mg/l	3	6	3	2
Total Organic Carbon	mg/l	3	7	3	2
Total Organic Halogens	µg/l	<10	20	<10	11
Total Organic Halogens	µg/l	<10	<10	<10	13
Total Organic Halogens	µg/l	<10	<10	<10	18
Total Organic Halogens	µg/l	<10	12	<10	19
Alkalinity	mg/l $CaCO_3$	-	-	-	46
Chloride	mg/l	2.2	3.0	3.5	2.3
Fluoride	mg/l	0.13	0.12	0.11	0.13
Nitrate	mg/l NO_3-N	<0.1	0.4	<0.1	<0.10
Sulfate	mg/l	<1	26	2	<10
Sodium	mg/l	6	5	4	3.0
Calcium	mg/l	-	-	-	12
Magnesium	mg/l	-	-	-	4.0
Potassium	mg/l	-	-	-	2.4
Phenolics	mg/l	<0.01	<0.01	0.05	0.10
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	<0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.04	0.03	0.03	0.040
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.002	<0.001	<0.001	<0.001
Iron	mg/l	9.2	9.4	11	10
Lead	mg/l	<0.001	0.001	0.001	0.001
Manganese	mg/l	0.42	0.26	0.32	0.32
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.002	0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-4
Monitoring Well TB-1D
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-4
Monitoring Well TB-1D
(Continued)

Parameters	Units	Sampling Date			
		10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.

Table B-5
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-3A

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/29/88	2/20/89
Groundwater Elevation	ft msl	8.19	7.64	8.88	8.09	8.05
Temperature(1)	°C	-(2)	-	-	-	13
pH(1)	pH units	6.25	5.60	6.35	6.65	6.95
pH(1)	pH units	-	-	-	-	6.90
pH(1)	pH units	-	-	-	-	6.95
pH(1)	pH units	-	-	-	-	6.90
Specific Conductance @ 25°C(1)	µmhos/cm	1090	1250	1300	1500	1300
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1400
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1450
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1400
Total Organic Carbon	mg/l	12	11	-	-	15
Total Organic Carbon	mg/l	-	-	-	-	14
Total Organic Carbon	mg/l	-	-	-	-	14
Total Organic Carbon	mg/l	-	-	-	-	14
Total Organic Halogens	µg/l	<10	<10	-	-	12
Total Organic Halogens	µg/l	-	-	-	-	11
Total Organic Halogens	µg/l	-	-	-	-	12
Total Organic Halogens	µg/l	-	-	-	-	13
Alkalinity	mg/l $CaCO_3$	589	-	-	-	316
Chloride	mg/l	9.5	10	-	-	9.6
Fluoride	mg/l	0.12	0.22	-	-	0.08
Nitrate	mg/l NO_3-N	0.2	<0.1	-	-	<0.1
Sulfate	mg/l	92	220	-	-	330
Sodium	mg/l	38	22	-	-	22
Calcium	mg/l	120	-	-	-	160
Magnesium	mg/l	62	-	-	-	55
Potassium	mg/l	14	-	-	-	15
Phenolics	mg/l	<0.01	<0.01	-	-	<0.01
Gross Alpha	pCi/L	68±34	214±84	-	-	40±20
Gross Beta	pCi/L	120±17	275±60	-	-	180±80
Radium 226	mg/l	60±20	<0.6	-	-	21±8
Total Coliform	col/100 ml	ND	ND	-	-	ND
Turbidity	NTU	7600	5400	-	-	6.1
Metals:						
Arsenic	mg/l	0.003	0.003	-	-	0.004
Barium	mg/l	0.24	0.10	-	-	0.13
Cadmium	mg/l	<0.001	<0.001	-	-	<0.001
Chromium	mg/l	0.002	<0.001	-	-	0.002
Iron	mg/l	1.4	20	-	-	16
Lead	mg/l	0.002	<0.001	-	-	<0.001
Manganese	mg/l	2.1	4.5	-	-	4.8
Mercury	mg/l	<0.0005	<0.0005	-	-	<0.0005
Selenium	mg/l	<0.001	0.002	-	-	<0.001
Silver	mg/l	<0.001	0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	<0.1	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<1	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	<0.1

See footnotes at end of table.

Table B-5
Monitoring Well TB-3A
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/29/88	2/20/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	6	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	<10	-
Benzidine	µg/l	<50	<50	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachloroethane	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	<10	-
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
Fluoranthene	µg/l	<10	<10	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	<10	-
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-5
Monitoring Well TB-3A
(Continued)

Parameters	Units	Sampling Date				
		9/14/88	11/15/88	12/6/88	12/29/88	2/20/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	-
Isophorone	µg/l	<10	<10	<10	<10	-
Naphthalene	µg/l	<10	<10	<10	<10	-
Nitrobenzene	µg/l	<10	<10	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	3000	63	<10	-
Butylbenzyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	<10	-
Diethyl Phthalate	µg/l	<10	<10	<10	<10	-
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	-
Benzo(a)anthracene	µg/l	<10	<10	<10	<10	-
Benzo(a)pyrene	µg/l	<10	<10	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	<10	-
Chrysene	µg/l	<10	<10	<10	<10	-
Acenaphthylene	µg/l	<10	<10	<10	<10	-
Anthracene	µg/l	<10	<10	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	<50	-
Fluorene	µg/l	<10	<10	<10	<10	-
Phenanthrene	µg/l	<10	<10	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	<50	-
Pyrene	µg/l	<10	<10	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	<10	-
2-Nitrophenol	µg/l	<50	<50	<50	<50	-
4-Nitrophenol	µg/l	<50	<50	<50	<50	-
p-chloro-m-cresol	µg/l	<10	<10	<10	<10	-
Pentachlorophenol	µg/l	<50	<50	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-5
Monitoring Well TB-3A
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/13/90	5/21/90
Groundwater Elevation	ft msl	10.64	7.22	9.12	9.35	9.19
Temperature(1)	°C	15	16	13	12	10
pH(1)	pH units	6.75	6.60	6.80	6.90	7.05
pH(1)	pH units	6.75	6.55	6.85	6.90	7.00
pH(1)	pH units	6.75	6.60	6.80	6.90	7.00
pH(1)	pH units	6.75	6.60	6.85	6.90	7.00
Specific Conductance @ 25°C(1)	µmhos/cm	1400	900	1200	1100	1300
Specific Conductance @ 25°C(1)	µmhos/cm	1450	900	1200	1100	1300
Specific Conductance @ 25°C(1)	µmhos/cm	1450	950	1200	1100	1300
Specific Conductance @ 25°C(1)	µmhos/cm	1450	950	1200	1100	1300
Total Organic Carbon	mg/l	10	9	7	9	7
Total Organic Carbon	mg/l	9	9	7	8	7
Total Organic Carbon	mg/l	10	9	7	11	7
Total Organic Carbon	mg/l	9	9	7	9	7
Total Organic Halogens	µg/l	17	17	<10	<10	<10
Total Organic Halogens	µg/l	14	10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	21	<10	12	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	11	12	11	10	9.0
Fluoride	mg/l	0.05	0.07	0.03	0.10	0.10
Nitrate	mg/l NO_3-N	<0.1	0.4	<0.1	1.6	0.4
Sulfate	mg/l	420	340	280	330	370
Sodium	mg/l	14	11	11	12	10
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	0.14	0.10	0.01	0.01	<0.01
Gross Alpha	pCi/L	2±1	-	-	-	-
Gross Beta	pCi/L	<3	-	-	-	-
Radium 226	mg/l	12.1±7.5	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	11	-	-	-	-
Metals:						
Arsenic	mg/l	0.005	0.003	0.005	0.004	0.004
Barium	mg/l	0.19	0.18	0.14	0.10	0.11
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	<0.001	0.002	0.003	0.002	<0.001
Iron	mg/l	11	9.0	11	9.2	8.7
Lead	mg/l	<0.001	<0.001	<0.001	0.001	<0.001
Manganese	mg/l	6.1	5.0	5.6	4.1	4.1
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.002	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-5
Monitoring Well TB-3A
(Continued)

Parameters	Units	Sampling Date				
		5/23/89	8/21/89	11/13/89	2/13/90	5/21/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	29	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	7	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-5
Monitoring Well TB-3A
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/13/90	5/21/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-5
Monitoring Well TB-3A
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.70	7.7	9.14	8.73	7.55
Temperature(1)	°C	18	12	14	14	15.1
pH(1)	pH units	6.80	7.05	6.55	7.35	6.87
pH(1)	pH units	6.85	7.05	6.55	7.45	6.95
pH(1)	pH units	6.85	7.05	6.55	7.45	6.95
pH(1)	pH units	6.85	7.05	6.55	7.50	6.97
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1200	1100	1050	1500
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1200	1100	1100	1500
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1200	1100	1100	1500
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1200	1100	1150	1500
Total Organic Carbon	mg/l	8	9	11	6	6
Total Organic Carbon	mg/l	8	9	11	6	6
Total Organic Carbon	mg/l	8	9	11	6	7
Total Organic Carbon	mg/l	8	9	12	7	7
Total Organic Halogens	µg/l	0.014	19	18	20	26
Total Organic Halogens	µg/l	0.016	21	13	16	29
Total Organic Halogens	µg/l	0.011	20	19	20	27
Total Organic Halogens	µg/l	0.01	18	14	18	29
Alkalinity	mg/l $CaCO_3$	310	-	-	-	303
Chloride	mg/l	9.2	11	9.3	8.7	9.0
Fluoride	mg/l	0.09	0.12	0.12	0.12	0.10
Nitrate	mg/l NO_3-N	2.9	0.1	1.8	<0.1	<0.1
Sulfate	mg/l	400	370	350	410	390
Sodium	mg/l	12	12	11	12	12
Calcium	mg/l	160	-	-	-	160
Magnesium	mg/l	49	-	-	-	46
Potassium	mg/l	18	-	-	-	22
Phenolics	mg/l	0.05	0.09	0.02	<0.01	0.02
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	IS	0.007	0.005	0.004	0.004
Barium	mg/l	0.10	0.11	0.12	0.12	0.10
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	<0.001	<0.001	<0.001	<0.001	0.002
Iron	mg/l	7.9	11	12	9.9	9.3
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	4.7	4.6	4.7	4.7	4.5
Mercury	mg/l	<0.0005	<0.0005	0.0006	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-5
Monitoring Well TB-3A
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	24
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	11	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-5
Monitoring Well TB-3A
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-5
Monitoring Well TB-3A
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.53	7.67	7.67	7.80
Temperature(1)	°C	13.8	11.1	16.1	15.5
pH(1)	pH units	6.95	6.62	6.51	6.57
pH(1)	pH units	6.95	6.76	6.52	6.57
pH(1)	pH units	6.95	6.30	6.56	6.58
pH(1)	pH units	6.95	6.35	6.55	6.59
Specific Conductance @ 25°C(1)	µmhos/cm	1600	1350	1100	1100
Specific Conductance @ 25°C(1)	µmhos/cm	1600	1300	1100	1100
Specific Conductance @ 25°C(1)	µmhos/cm	1550	1300	1100	1100
Specific Conductance @ 25°C(1)	µmhos/cm	1600	1300	1100	1100
Total Organic Carbon	mg/l	10	15	8	11
Total Organic Carbon	mg/l	9	15	8	11
Total Organic Carbon	mg/l	9	16	8	10
Total Organic Carbon	mg/l	9	16	8	11
Total Organic Halogens	µg/l	44	68	35	37
Total Organic Halogens	µg/l	43	85	31	38
Total Organic Halogens	µg/l	42	68	26	38
Total Organic Halogens	µg/l	42	70	34	31
Alkalinity	mg/l $CaCO_3$	-	-	-	400
Chloride	mg/l	9.1	8.8	12	9.3
Fluoride	mg/l	0.11	0.10	0.12	0.13
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	<0.10
Sulfate	mg/l	260	260	240	250
Sodium	mg/l	13	11	11	10
Calcium	mg/l	-	-	-	130
Magnesium	mg/l	-	-	-	54
Potassium	mg/l	-	-	-	20
Phenolics	mg/l	<0.01	0.02	0.06	0.11
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	0.008	0.004	0.003	0.002
Barium	mg/l	0.12	0.15	0.12	0.090
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.001	0.002	<0.001	<0.001
Iron	mg/l	13	13	8.4	4.1
Lead	mg/l	<0.001	0.002	<0.001	0.004
Manganese	mg/l	3.9	3.3	3.6	3.3
Mercury	mg/l	0.0010	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.001	<0.001	<0.001
Silver	mg/l	0.003	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-5
Monitoring Well TB-3A
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-5
Monitoring Well TB-3A
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.

Table B-6
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-3C

Parameters	Units	Sampling Date(1) 9/14/88	11/15/88	12/6/88	12/29/88	2/21/89
Groundwater Elevation	ft msl	8.39	-(2)	8.96	8.35	9.16
Temperature(3)	°C	-	-	-	-	14
pH(3)	pH units	6.25	-	6.90	7.15	7.55
pH(3)	pH units	-	-	6.20	-	7.55
pH(3)	pH units	-	-	6.20	-	7.55
pH(3)	pH units	-	-	6.20	-	7.55
Specific Conductance @ 25°C(3)	µmhos/cm	210	-	190	200	275
Specific Conductance @ 25°C(3)	µmhos/cm	-	-	-	-	275
Specific Conductance @ 25°C(3)	µmhos/cm	-	-	-	-	275
Specific Conductance @ 25°C(3)	µmhos/cm	-	-	-	-	275
Total Organic Carbon	mg/l	3	-	15	-	7
Total Organic Carbon	mg/l	-	-	8	-	7
Total Organic Carbon	mg/l	-	-	10	-	6
Total Organic Carbon	mg/l	-	-	6	-	7
Total Organic Halogens	µg/l	<10	-	<10	-	<10
Total Organic Halogens	µg/l	-	-	<10	-	<10
Total Organic Halogens	µg/l	-	-	<10	-	<10
Total Organic Halogens	µg/l	-	-	<10	-	<10
Alkalinity	mg/l $CaCO_3$	108	-	238	-	88
Chloride	mg/l	4.4	-	3.3	-	3.1
Fluoride	mg/l	0.18	-	0.15	-	0.14
Nitrate	mg/l NO_3-N	0.1	-	<0.1	-	<0.1
Sulfate	mg/l	50	-	50	-	31
Sodium	mg/l	9	-	8	-	9
Calcium	mg/l	27	-	59	-	23
Magnesium	mg/l	12	-	39	-	8.2
Potassium	mg/l	2.3	-	72	-	1.4
Phenolics	mg/l	<0.01	-	0.20	-	0.04
Gross Alpha	pCi/L	130±45	-	644±22	-	70±20
Gross Beta	pCi/L	250±22	-	663±79	-	180±80
Radium 226	mg/l	110±22	-	-	-	21±8
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	42000	-	36000	-	39
Metals:						
Arsenic	mg/l	0.001	-	<0.001	-	<0.001
Barium	mg/l	0.02	-	0.07	-	0.02
Cadmium	mg/l	<0.001	-	<0.001	-	<0.001
Chromium	mg/l	<0.001	-	0.001	-	0.001
Iron	mg/l	<0.1	-	0.2	-	<0.1
Lead	mg/l	<0.001	-	0.004	-	<0.001
Manganese	mg/l	0.70	-	0.41	-	0.35
Mercury	mg/l	<0.0005	-	0.0034	-	<0.0005
Selenium	mg/l	0.002	-	<0.001	-	<0.001
Silver	mg/l	<0.001	-	<0.001	-	<0.001
Organics						
Endrin	µg/l	<1	-	<1	-	<1
Lindane	µg/l	<0.1	-	<0.1	-	<0.1
Methoxychlor	µg/l	<1	-	<1	-	<1
Toxaphene	µg/l	<1	-	<1	-	<1
2,4-D	µg/l	<0.1	-	<0.1	-	<0.1

See footnotes at end of table.

Table B-6
Monitoring Well TB-3C
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/29/88	2/21/89
Volatile Organics:						
Acrolein	µg/l	<250	-	<250	<250	<250
Acrylonitrile	µg/l	<250	-	<250	<250	<250
Benzene	µg/l	<5	-	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	-	<5	<5	<5
Chlorobenzene	µg/l	<5	-	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	-	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	-	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	-	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	-	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	-	<5	<5	<5
Chloroethane	µg/l	<5	-	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	-	<5	<5	-
Chloroform	µg/l	<5	-	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	-	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	-	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	-	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5	<5
Ethylbenzene	µg/l	<5	-	<5	<5	<5
Methylene Chloride	µg/l	21	-	<5	<5	<5
Chloromethane	µg/l	<5	-	<5	<5	<5
Bromomethane	µg/l	<5	-	<5	<5	<5
Bromoform	µg/l	<5	-	<5	<5	<5
Bromodichloromethane	µg/l	<5	-	<5	<5	<5
Dibromochloromethane	µg/l	<5	-	<5	<5	<5
Tetrachloroethene	µg/l	<5	-	<5	<5	<5
Toluene	µg/l	<5	-	<5	<5	<5
Trichloroethene	µg/l	<5	-	<5	<5	<5
Vinyl Chloride	µg/l	<5	-	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	-	<10	<10	-
Benzidine	µg/l	<50	-	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	-	<10	<10	-
Hexachlorobenzene	µg/l	<10	-	<10	<10	-
Hexachloroethane	µg/l	<10	-	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	-	<10	<10	-
2-Chloronaphthalene	µg/l	<10	-	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	-	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	-	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	-	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	-	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	-	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	-	<10	<10	-
Fluoranthene	µg/l	<10	-	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	-	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	-	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	-	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	-	<10	<10	-
Hexachlorobutadiene	µg/l	<10	-	<10	<10	-

See footnotes at end of table.

Table B-6
Monitoring Well TB-3C
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/29/88	2/21/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	-	<10	<10	-
Isophorone	µg/l	<10	-	<10	<10	-
Naphthalene	µg/l	<10	-	<10	<10	-
Nitrobenzene	µg/l	<10	-	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	-	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	-	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	-	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	-	<10	<10	-
Butylbenzyl Phthalate	µg/l	<10	-	<10	<10	-
Di-N-butyl Phthalate	µg/l	<10	-	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	-	<10	<10	-
Diethyl Phthalate	µg/l	<10	-	<10	<10	-
Dimethyl Phthalate	µg/l	<10	-	<10	<10	-
Benzo(a)anthracene	µg/l	<10	-	<10	<10	-
Benzo(a)pyrene	µg/l	<10	-	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	-	<10	<10	-
Chrysene	µg/l	<10	-	<10	<10	-
Acenaphthylene	µg/l	<10	-	<10	<10	-
Anthracene	µg/l	<10	-	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	-	<50	<50	-
Fluorene	µg/l	<10	-	<10	<10	-
Phenanthrene	µg/l	<10	-	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	-	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	-	<50	<50	-
Pyrene	µg/l	<10	-	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	-	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	-	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	-	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	-	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	-	<10	<10	-
2-Nitrophenol	µg/l	<50	-	<50	<50	-
4-Nitrophenol	µg/l	<50	-	<50	<50	-
p-chloro-m-cresol	µg/l	<10	-	<10	<10	-
Pentachlorophenol	µg/l	<50	-	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	-	<10	<10	-

See footnotes at end of table.

Table B-6
Monitoring Well TB-3C
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/13/90	5/21/90
Groundwater Elevation	ft msl	11.49	9.26	9.29	9.56	9.44
Temperature(3)	°C	17	16	13	12	10
pH(3)	pH units	6.95	6.90	6.90	7.20	7.10
pH(3)	pH units	7.10	6.80	6.85	7.15	7.10
pH(3)	pH units	7.10	6.75	6.90	7.20	7.15
pH(3)	pH units	7.15	6.70	6.90	7.20	7.15
Specific Conductance @ 25°C(3)	µmhos/cm	210	180	240	210	230
Specific Conductance @ 25°C(3)	µmhos/cm	200	180	250	210	230
Specific Conductance @ 25°C(3)	µmhos/cm	210	180	250	210	230
Specific Conductance @ 25°C(3)	µmhos/cm	210	180	250	210	230
Total Organic Carbon	mg/l	11	4	6	3	2
Total Organic Carbon	mg/l	7	4	10	2	2
Total Organic Carbon	mg/l	11	3	5	3	2
Total Organic Carbon	mg/l	11	3	6	2	2
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	14	<10	<10	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	3.1	6.7	5.1	5.9	2.8
Fluoride	mg/l	0.13	0.08	0.07	0.09	0.10
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	0.5	0.5
Sulfate	mg/l	12	44	110	71	150
Sodium	mg/l	4	4	4	3	3
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	0.11	0.02	<0.01	0.02	0.06
Gross Alpha	pCi/L	16±5	-	-	-	-
Gross Beta	pCi/L	<7	-	-	-	-
Radium 226	mg/l	3.7±1.0	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	30	-	-	-	-
Metals:						
Arsenic	mg/l	0.004	0.005	0.007	0.006	0.007
Barium	mg/l	0.04	0.02	0.03	0.02	0.03
Cadmium	mg/l	<0.001	<0.001	<0.001	0.004	<0.001
Chromium	mg/l	<0.001	0.002	0.007	<0.001	<0.001
Iron	mg/l	1.9	0.2	0.9	0.4	0.2
Lead	mg/l	0.003	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	0.57	0.42	0.45	0.38	0.40
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	0.002	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-6
Monitoring Well TB-3C
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/13/90	5/21/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	6	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-6
Monitoring Well TB-3C
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/13/90	5/21/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-6
Monitoring Well TB-3C
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	9.01	8.21	9.12	8.93	8.00
Temperature(3)	°C	17	12	13	15	16.6
pH(3)	pH units	7.25	7.40	7.20	8.55	6.79
pH(3)	pH units	7.30	7.40	7.10	8.30	6.82
pH(3)	pH units	7.20	7.40	7.25	8.30	6.82
pH(3)	pH units	7.25	7.40	7.25	8.25	6.83
Specific Conductance @ 25°C(3)	µmhos/cm	200	180	150	170	180
Specific Conductance @ 25°C(3)	µmhos/cm	200	180	150	175	180
Specific Conductance @ 25°C(3)	µmhos/cm	200	180	150	170	180
Specific Conductance @ 25°C(3)	µmhos/cm	200	180	150	165	180
Total Organic Carbon	mg/l	5	2	20	2	2
Total Organic Carbon	mg/l	5	2	20	2	2
Total Organic Carbon	mg/l	5	2	18	2	2
Total Organic Carbon	mg/l	5	2	19	2	2
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Alkalinity	mg/l $CaCO_3$	86	-	-	-	66
Chloride	mg/l	9.6	13	4.0	66	5.3
Fluoride	mg/l	0.09	0.11	0.12	0.13	0.10
Nitrate	mg/l NO_3-N	0.4	0.2	1.9	<0.1	<0.1
Sulfate	mg/l	37	160	30	13	43
Sodium	mg/l	8	3	3	3	8
Calcium	mg/l	20	-	-	-	18
Magnesium	mg/l	8	-	-	-	7
Potassium	mg/l	1.2	-	-	-	5.4
Phenolics	mg/l	<0.01	0.04	<0.01	0.01	0.02
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	0.005	0.007	0.006	0.004	0.004
Barium	mg/l	0.02	0.02	0.02	0.04	0.02
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	<0.001	<0.001	0.002	<0.001	0.001
Iron	mg/l	0.5	1.1	0.6	0.3	0.1
Lead	mg/l	<0.001	0.002	<0.001	<0.001	<0.001
Manganese	mg/l	0.39	0.36	0.46	0.37	0.29
Mercury	mg/l	<0.0005	<0.0005	0.0006	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-6
Monitoring Well TB-3C
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-6
Monitoring Well TB-3C
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-6
Monitoring Well TB-3C
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.97	8.08	8.00	8.01
Temperature(3)	°C	12.6	12.2	16.6	15.0
pH(3)	pH units	6.72	7.95	6.78	6.67
pH(3)	pH units	6.75	7.75	6.70	6.67
pH(3)	pH units	6.76	7.76	6.70	6.67
pH(3)	pH units	6.76	7.70	6.72	6.69
Specific Conductance @ 25°C(3)	µmhos/cm	300	180	160	150
Specific Conductance @ 25°C(3)	µmhos/cm	300	190	160	150
Specific Conductance @ 25°C(3)	µmhos/cm	300	190	160	150
Specific Conductance @ 25°C(3)	µmhos/cm	300	190	160	150
Total Organic Carbon	mg/l	2	2	2	3
Total Organic Carbon	mg/l	1	1	2	2
Total Organic Carbon	mg/l	1	1	2	2
Total Organic Carbon	mg/l	2	1	2	2
Total Organic Halogens	µg/l	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10
Total Organic Halogens	µg/l	11	<10	<10	11
Alkalinity	mg/l $CaCO_3$	-	-	-	61
Chloride	mg/l	13	4.1	21	4.8
Fluoride	mg/l	0.09	0.07	0.09	0.10
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	<0.10
Sulfate	mg/l	<1	16	6	<10
Sodium	mg/l	5	4	3	2.0
Calcium	mg/l	-	-	-	15
Magnesium	mg/l	-	-	-	6.2
Potassium	mg/l	-	-	-	0.90
Phenolics	mg/l	<0.01	0.01	-	0.024
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	0.006	0.004	0.005	0.003
Barium	mg/l	0.02	0.01	0.02	<0.020
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.001	<0.001	<0.001	0.011
Iron	mg/l	0.3	1.8	0.5	1.2
Lead	mg/l	<0.001	0.003	<0.001	0.006
Manganese	mg/l	0.22	0.30	0.23	0.21
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.001	0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-6
Monitoring Well TB-3C
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-6
Monitoring Well TB-3C
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Replacement well sampled beginning August 1989.
(2) Dash denotes not analyzed.
(3) Field analysis.

Table B-7
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-4A

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/28/88	2/21/89
Groundwater Elevation	ft msl	8.68	7.75	8.92	8.20	8.21
Temperature(1)	°C	-(2)	-	-	-	13
pH(1)	pH units	8.73	6.85	7.05	6.75	7.25
pH(1)	pH units	-	-	-	-	7.35
pH(1)	pH units	-	-	-	-	7.30
pH(1)	pH units	-	-	-	-	7.30
Specific Conductance @ 25°C(1)	µmhos/cm	670	1500	1450	1500	1500
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1450
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1500
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1500
Total Organic Carbon	mg/l	51	16	-	-	8
Total Organic Carbon	mg/l	-	-	-	-	8
Total Organic Carbon	mg/l	-	-	-	-	8
Total Organic Carbon	mg/l	-	-	-	-	8
Total Organic Halogens	µg/l	25	42	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Alkalinity	mg/l $CaCO_3$	156	-	-	-	160
Chloride	mg/l	7.1	8.8	-	-	8.7
Fluoride	mg/l	0.28	0.29	-	-	0.21
Nitrate	mg/l NO_3-N	0.5	<0.1	-	-	<0.1
Sulfate	mg/l	460	640	-	-	540
Sodium	mg/l	10	9	-	-	11
Calcium	mg/l	150	-	-	-	190
Magnesium	mg/l	27	-	-	-	50
Potassium	mg/l	27	-	-	-	26
Phenolics	mg/l	<0.01	<0.01	-	-	0.01
Gross Alpha	pCi/L	80±36	189±84	-	-	10±10
Gross Beta	pCi/L	120±17	226±58	-	-	110±40
Radium 226	mg/l	36±18	-	-	-	<0.6
Total Coliform	col/100 ml	ND	-	-	-	ND
Turbidity	NTU	3700	960	-	-	13
Metals:						
Arsenic	mg/l	0.001	0.001	-	-	0.002
Barium	mg/l	0.10	0.05	-	-	0.11
Cadmium	mg/l	<0.001	<0.001	-	-	<0.001
Chromium	mg/l	<0.001	<0.001	-	-	0.002
Iron	mg/l	<0.1	0.2	-	-	0.9
Lead	mg/l	0.002	<0.001	-	-	<0.001
Manganese	mg/l	0.59	2.0	-	-	3.2
Mercury	mg/l	0.0006	0.0006	-	-	<0.0005
Selenium	mg/l	<0.001	0.001	-	-	<0.001
Silver	mg/l	<0.001	0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	<0.1	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<1	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	<0.1

See footnotes at end of table.

Table B-7
Monitoring Well TB-4A
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/28/88	2/21/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	10	70	50	80	98
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	6	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	<10	-
Benzidine	µg/l	<50	<50	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachloroethane	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	<10	-
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
Fluoranthene	µg/l	<10	<10	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	<10	-
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-7
Monitoring Well TB-4A
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/28/88	2/21/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	-
Isophorone	µg/l	<10	<10	<10	<10	-
Naphthalene	µg/l	<10	<10	<10	<10	-
Nitrobenzene	µg/l	<10	<10	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	160	110	<10	-
Butylbenzyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	<10	-
Diethyl Phthalate	µg/l	<10	<10	<10	<10	-
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	-
Benzo(a)anthracene	µg/l	<10	<10	<10	<10	-
Benzo(a)pyrene	µg/l	<10	<10	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	<10	-
Chrysene	µg/l	<10	<10	<10	<10	-
Acenaphthylene	µg/l	<10	<10	<10	<10	-
Anthracene	µg/l	<10	<10	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	<50	-
Fluorene	µg/l	<10	<10	<10	<10	-
Phenanthrene	µg/l	<10	<10	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	<50	-
Pyrene	µg/l	<10	<10	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	<10	-
2-Nitrophenol	µg/l	<50	<50	<50	<50	-
4-Nitrophenol	µg/l	<50	<50	<50	<50	-
p-chloro-m-cresol	µg/l	<10	<10	<10	<10	-
Pentachlorophenol	µg/l	<50	<50	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-7
Monitoring Well TB-4A
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/22/89	11/14/89	2/13/90	5/22/90
Groundwater Elevation	ft msl	10.66	9.16	9.13	9.29	9.34
Temperature(1)	°C	15	17	12	12	11
pH(1)	pH units	6.95	6.80	7.00	7.15	7.05
pH(1)	pH units	7.10	6.80	7.10	7.10	7.10
pH(1)	pH units	7.05	6.90	7.15	7.15	7.05
pH(1)	pH units	7.10	6.90	7.10	7.15	7.10
Specific Conductance @ 25°C(1)	µmhos/cm	950	600	800	1000	1100
Specific Conductance @ 25°C(1)	µmhos/cm	1000	700	850	1000	1100
Specific Conductance @ 25°C(1)	µmhos/cm	1000	600	800	1000	1100
Specific Conductance @ 25°C(1)	µmhos/cm	1000	700	800	1000	1050
Total Organic Carbon	mg/l	19	15	10	11	9
Total Organic Carbon	mg/l	19	14	10	10	9
Total Organic Carbon	mg/l	19	11	10	10	9
Total Organic Carbon	mg/l	19	15	10	10	9
Total Organic Halogens	µg/l	53	23	11	<10	<10
Total Organic Halogens	µg/l	50	28	10	14	<10
Total Organic Halogens	µg/l	47	26	17	<10	<10
Total Organic Halogens	µg/l	52	25	14	<10	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	5.4	7.2	8.0	7.1	5.6
Fluoride	mg/l	0.28	0.34	0.27	0.24	0.29
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	0.2	0.3
Sulfate	mg/l	220	270	160	310	310
Sodium	mg/l	8	7	8	8	7
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	<0.01	0.08	<0.01	<0.01	<0.01
Gross Alpha	pCi/L	2±2	-	-	-	-
Gross Beta	pCi/L	<2	-	-	-	-
Radium 226	mg/l	3.8±1.0	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	30	-	-	-	-
Metals:						
Arsenic	mg/l	0.003	0.003	0.004	0.002	0.002
Barium	mg/l	0.01	0.22	0.11	0.12	0.13
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	<0.001	0.001	0.002	0.001	0.001
Iron	mg/l	5.3	2.4	2.5	2.8	4.4
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	0.002
Manganese	mg/l	2.5	2.2	1.4	3.1	3.1
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-7
Monitoring Well TB-4A
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/22/89	11/14/89	2/13/90	5/22/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	7	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-7
Monitoring Well TB-4A
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/22/89	11/14/89	2/13/90	5/22/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-7
Monitoring Well TB-4A
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.75	7.72	9.29	8.73	7.59
Temperature(1)	°C	17	13	14	14	16.4
pH(1)	pH units	7.05	6.85	6.60	7.45	7.03
pH(1)	pH units	7.10	6.85	6.85	7.50	7.08
pH(1)	pH units	7.10	6.85	6.85	7.55	7.08
pH(1)	pH units	7.10	6.85	6.85	7.55	7.10
Specific Conductance @ 25°C(1)	µmhos/cm	700	1200	1000	800	1300
Specific Conductance @ 25°C(1)	µmhos/cm	700	1200	1000	800	1250
Specific Conductance @ 25°C(1)	µmhos/cm	700	1200	1000	800	1250
Specific Conductance @ 25°C(1)	µmhos/cm	700	1200	1000	850	1250
Total Organic Carbon	mg/l	7	5	9	8	9
Total Organic Carbon	mg/l	8	6	9	8	10
Total Organic Carbon	mg/l	8	6	8	8	10
Total Organic Carbon	mg/l	8	5	9	8	10
Total Organic Halogens	µg/l	15	42	58	46	100
Total Organic Halogens	µg/l	28	44	64	47	110
Total Organic Halogens	µg/l	12	45	58	53	110
Total Organic Halogens	µg/l	32	53	56	36	110
Alkalinity	mg/l $CaCO_3$	227	-	-	-	191
Chloride	mg/l	5.5	8.1	7.3	7.0	9.5
Fluoride	mg/l	0.31	0.28	0.22	0.27	0.19
Nitrate	mg/l NO_3-N	<0.1	<0.1	0.6	<0.1	<0.1
Sulfate	mg/l	330	480	340	300	400
Sodium	mg/l	8	8	7	8	10
Calcium	mg/l	140	-	-	-	160
Magnesium	mg/l	28	-	-	-	32
Potassium	mg/l	18	-	-	-	24
Phenolics	mg/l	0.21	0.03	0.04	0.01	0.04
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	0.002	0.003	0.003	0.002	0.003
Barium	mg/l	0.14	0.16	0.14	0.15	0.12
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.002	<0.001	<0.001	<0.001	<0.001
Iron	mg/l	5.6	6.1	5.7	5.7	3.3
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	3.1	3.3	2.9	2.7	2.5
Mercury	mg/l	<0.0005	<0.0005	0.0010	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	280
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	10	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	13	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-7
Monitoring Well TB-4A
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-7
Monitoring Well TB-4A
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.48	7.62	7.57	7.79
Temperature(1)	°C	12.6	12.8	16.1	15.7
pH(1)	pH units	6.90	7.18	6.52	6.79
pH(1)	pH units	6.91	7.23	6.52	6.79
pH(1)	pH units	6.94	7.18	6.57	6.79
pH(1)	pH units	6.94	7.19	6.56	6.80
Specific Conductance @ 25°C(1)	µmhos/cm	1400	900	950	800
Specific Conductance @ 25°C(1)	µmhos/cm	1350	900	1000	800
Specific Conductance @ 25°C(1)	µmhos/cm	1350	900	1000	800
Specific Conductance @ 25°C(1)	µmhos/cm	1350	900	1000	800
Total Organic Carbon	mg/l	5	37	4	5
Total Organic Carbon	mg/l	5	31	4	6
Total Organic Carbon	mg/l	5	37	4	5
Total Organic Carbon	mg/l	5	36	4	5
Total Organic Halogens	µg/l	130	130	140	57
Total Organic Halogens	µg/l	120	130	140	63
Total Organic Halogens	µg/l	130	130	130	58
Total Organic Halogens	µg/l	120	130	140	64
Alkalinity	mg/l $CaCO_3$	-	-	-	196
Chloride	mg/l	9.1	9.1	13	10
Fluoride	mg/l	0.22	0.17	0.16	0.24
Nitrate	mg/l NO_3-N	<0.1	1.5	<0.1	<0.10
Sulfate	mg/l	330	320	250	290
Sodium	mg/l	9	11	9	7.0
Calcium	mg/l	-	-	-	120
Magnesium	mg/l	-	-	-	24
Potassium	mg/l	-	-	-	20
Phenolics	mg/l	0.02	0.03	0.10	0.13
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	0.002	0.002	0.001	0.001
Barium	mg/l	0.10	0.12	0.09	0.070
Cadmium	mg/l	<0.001	<0.001	<0.001	0.001
Chromium	mg/l	0.001	<0.001	<0.001	<0.001
Iron	mg/l	4.1	3.9	2.6	1.3
Lead	mg/l	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	2.5	2.3	2.3	1.7
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.002	<0.001	<0.001
Silver	mg/l	0.001	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-7
Monitoring Well TB-4A
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-7
Monitoring Well TB-4A
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.

Table B-8
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-4B

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/28/88	2/21/89
Groundwater Elevation	ft msl	8.13	7.60	8.83	8.12	8.15
Temperature(1)	°C	-(2)	-	-	-	13
pH(1)	pH units	7.60	6.60	6.90	6.65	7.05
pH(1)	pH units	-	-	-	-	7.05
pH(1)	pH units	-	-	-	-	7.10
pH(1)	pH units	-	-	-	-	7.05
Specific Conductance @ 25°C(1)	µmhos/cm	1430	1500	1500	1600	1450
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1500
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1500
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1450
Total Organic Carbon	mg/l	5	4	-	-	4
Total Organic Carbon	mg/l	-	-	-	-	4
Total Organic Carbon	mg/l	-	-	-	-	4
Total Organic Carbon	mg/l	-	-	-	-	3
Total Organic Halogens	µg/l	60	24	-	-	17
Total Organic Halogens	µg/l	-	-	-	-	17
Total Organic Halogens	µg/l	-	-	-	-	18
Total Organic Halogens	µg/l	-	-	-	-	17
Alkalinity	mg/l $CaCO_3$	165	-	-	-	136
Chloride	mg/l	9.0	9.0	-	-	9.8
Fluoride	mg/l	0.09	0.18	-	-	0.08
Nitrate	mg/l NO_3-N	0.4	<0.1	-	-	<0.1
Sulfate	mg/l	670	720	-	-	600
Sodium	mg/l	10	9	-	-	11
Calcium	mg/l	240	-	-	-	220
Magnesium	mg/l	75	-	-	-	47
Potassium	mg/l	39	-	-	-	34
Phenolics	mg/l	<0.01	<0.01	-	-	<0.01
Gross Alpha	pCi/L	76±39	119±69	-	-	30±20
Gross Beta	pCi/L	170±19	235±58	-	-	170±80
Radium 226	mg/l	12±5.4	-	-	-	6.1±5
Total Coliform	col/100 ml	ND	-	-	-	ND
Turbidity	NTU	16000	5800	-	-	0.82
Metals:						
Arsenic	mg/l	<0.001	<0.001	-	-	<0.001
Barium	mg/l	0.06	0.02	-	-	0.04
Cadmium	mg/l	<0.001	<0.001	-	-	<0.001
Chromium	mg/l	<0.001	<0.001	-	-	0.002
Iron	mg/l	<0.1	<0.1	-	-	0.1
Lead	mg/l	<0.001	<0.001	-	-	<0.001
Manganese	mg/l	0.03	3.6	-	-	3.5
Mercury	mg/l	0.0005	<0.0005	-	-	<0.0005
Selenium	mg/l	<0.001	0.001	-	-	<0.001
Silver	mg/l	<0.001	0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	<0.1	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<1	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	<0.1

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/28/88	2/21/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	80	110	120	150	160
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	<10	-
Benzidine	µg/l	<50	<50	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachloroethane	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	<10	-
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
Fluoranthene	µg/l	<10	<10	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	<10	-
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/28/88	2/21/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	-
Isophorone	µg/l	<10	<10	<10	<10	-
Naphthalene	µg/l	<10	<10	<10	<10	-
Nitrobenzene	µg/l	<10	<10	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	12	21	11	-
Butylbenzyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	<10	-
Diethyl Phthalate	µg/l	<10	<10	<10	<10	-
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	-
Benzo(a)anthracene	µg/l	<10	<10	<10	<10	-
Benzo(a)pyrene	µg/l	<10	<10	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	<10	-
Chrysene	µg/l	<10	<10	<10	<10	-
Acenaphthylene	µg/l	<10	<10	<10	<10	-
Anthracene	µg/l	<10	<10	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	<50	-
Fluorene	µg/l	<10	<10	<10	<10	-
Phenanthrene	µg/l	<10	<10	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	<50	-
Pyrene	µg/l	<10	<10	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	<10	-
2-Nitrophenol	µg/l	<50	<50	<50	<50	-
4-Nitrophenol	µg/l	<50	<50	<50	<50	-
p-chloro-m-cresol	µg/l	<10	<10	<10	<10	-
Pentachlorophenol	µg/l	<50	<50	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/14/89	2/13/90	5/22/90
Groundwater Elevation	ft msl	10.61	9.14	9.05	9.26	9.16
Temperature(1)	°C	15	17	13	12	12
pH(1)	pH units	6.75	6.70	6.95	7.10	7.00
pH(1)	pH units	6.80	6.95	6.95	7.10	7.00
pH(1)	pH units	6.75	7.00	6.95	7.10	7.00
pH(1)	pH units	6.75	7.00	6.95	7.10	7.00
Specific Conductance @ 25°C(1)	µmhos/cm	1450	850	900	1150	1300
Specific Conductance @ 25°C(1)	µmhos/cm	1500	1000	900	1200	1300
Specific Conductance @ 25°C(1)	µmhos/cm	1500	1000	950	1200	1300
Specific Conductance @ 25°C(1)	µmhos/cm	1500	1000	900	1200	1250
Total Organic Carbon	mg/l	5	6	3	4	4
Total Organic Carbon	mg/l	5	4	4	4	4
Total Organic Carbon	mg/l	6	5	3	4	4
Total Organic Carbon	mg/l	5	5	4	4	4
Total Organic Halogens	µg/l	140	91	61	<10	<10
Total Organic Halogens	µg/l	130	93	62	<10	<10
Total Organic Halogens	µg/l	130	99	56	<10	<10
Total Organic Halogens	µg/l	82	97	64	<10	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	9.2	10	8.1	8.3	6.8
Fluoride	mg/l	0.06	0.07	0.06	0.010	0.10
Nitrate	mg/l NO_3-N	<0.1	0.4	<0.1	0.3	0.2
Sulfate	mg/l	550	430	260	430	460
Sodium	mg/l	9	8	8	8	8
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	<0.01	0.20	<0.01	<0.01	<0.01
Gross Alpha	pCi/L	7±7	-	-	-	-
Gross Beta	pCi/L	<9	-	-	-	-
Radium 226	mg/l	13.9±6.7	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	5.6	-	-	-	-
Metals:						
Arsenic	mg/l	0.002	0.001	0.002	0.001	<0.001
Barium	mg/l	0.06	0.08	0.05	0.04	0.04
Cadmium	mg/l	0.002	0.001	<0.001	<0.001	<0.001
Chromium	mg/l	<0.001	0.001	0.002	<0.001	<0.001
Iron	mg/l	0.1	0.2	1.0	0.6	0.6
Lead	mg/l	<0.001	0.001	<0.001	<0.001	<0.001
Manganese	mg/l	1.5	2.4	1.5	2.1	2.2
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/14/89	2/13/90	5/22/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	220	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date				
		5/23/89	8/21/89	11/14/89	2/13/90	5/22/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.62	7.65	9.07	8.53	7.48
Temperature(1)	°C	17	13	14	14	15.8
pH(1)	pH units	6.90	6.75	6.85	7.50	6.97
pH(1)	pH units	6.90	6.85	6.85	7.55	7.00
pH(1)	pH units	6.85	7.05	6.85	7.45	7.00
pH(1)	pH units	6.90	7.00	6.85	7.50	7.01
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1050	1100	950	1400
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1000	1100	950	1400
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1100	1100	950	1400
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1100	1100	950	1400
Total Organic Carbon	mg/l	5	8	10	3	4
Total Organic Carbon	mg/l	5	8	10	3	4
Total Organic Carbon	mg/l	5	9	11	3	4
Total Organic Carbon	mg/l	6	8	11	3	3
Total Organic Halogens	µg/l	39	53	75	83	150
Total Organic Halogens	µg/l	37	47	82	86	140
Total Organic Halogens	µg/l	49	53	77	91	140
Total Organic Halogens	µg/l	47	54	69	93	140
Alkalinity	mg/l $CaCO_3$	206	-	-	-	195
Chloride	mg/l	6.9	8.0	8.2	8.3	10
Fluoride	mg/l	0.10	0.18	0.13	0.12	0.12
Nitrate	mg/l NO_3-N	0.7	0.9	4.4	<0.1	<0.1
Sulfate	mg/l	480	480	430	420	440
Sodium	mg/l	9	8	8	9	10
Calcium	mg/l	180	-	-	-	180
Magnesium	mg/l	41	-	-	-	37
Potassium	mg/l	26	-	-	-	27
Phenolics	mg/l	0.17	0.05	<0.01	<0.001	<0.01
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	<0.001	0.003	<0.001	<0.001	<0.001
Barium	mg/l	0.03	0.04	0.03	0.04	0.03
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	mg/l	0.3	<0.1	<0.1	0.1	0.4
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	0.003
Manganese	mg/l	2.6	2.6	3.0	2.4	2.3
Mercury	mg/l	<0.0005	<0.0005	0.0014	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	280
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	10	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	13	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.40	7.55	7.49	7.63
Temperature(1)	°C	13.2	13.1	16.4	15.4
pH(1)	pH units	6.99	7.18	6.49	6.67
pH(1)	pH units	7.02	7.18	6.52	6.68
pH(1)	pH units	7.01	7.28	6.53	6.70
pH(1)	pH units	7.01	7.22	6.53	6.70
Specific Conductance @ 25°C(1)	µmhos/cm	1500	820	950	900
Specific Conductance @ 25°C(1)	µmhos/cm	1500	900	950	900
Specific Conductance @ 25°C(1)	µmhos/cm	1500	900	950	900
Specific Conductance @ 25°C(1)	µmhos/cm	1500	950	950	900
Total Organic Carbon	mg/l	3	7	3	3
Total Organic Carbon	mg/l	3	6	3	4
Total Organic Carbon	mg/l	3	6	3	3
Total Organic Carbon	mg/l	3	6	3	4
Total Organic Halogens	µg/l	140	76	110	66
Total Organic Halogens	µg/l	150	90	120	57
Total Organic Halogens	µg/l	140	70	120	75
Total Organic Halogens	µg/l	150	70	100	62
Alkalinity	mg/l $CaCO_3$	-	-	-	198
Chloride	mg/l	9.5	9.2	14	11
Fluoride	mg/l	0.11	0.11	0.12	0.14
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	<0.10
Sulfate	mg/l	370	330	270	310
Sodium	mg/l	9	11	8	10
Calcium	mg/l	-	-	-	170
Magnesium	mg/l	-	-	-	40
Potassium	mg/l	-	-	-	29
Phenolics	mg/l	0.08	<0.01	<0.01	0.047
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	<0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.02	0.02	0.03	0.030
Cadmium	mg/l	0.003	<0.001	0.002	<0.001
Chromium	mg/l	0.001	<0.001	<0.001	<0.001
Iron	mg/l	<0.1	<0.1	<0.1	<0.030
Lead	mg/l	<0.001	<0.001	<0.001	0.001
Manganese	mg/l	2.1	2.1	1.9	2.6
Mercury	mg/l	0.0009	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.002	0.001	<0.001
Silver	mg/l	0.001	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-8
Monitoring Well TB-4B
(Continued)

Parameters	Units	Sampling Date			
		10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.

Table B-9
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-4C

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/29/88	2/21/89
Groundwater Elevation	ft msl	8.35	7.82	8.94	8.25	8.42
Temperature(1)	°C	-(2)	-	-	-	14
pH(1)	pH units	6.75	7.40	7.55	7.30	6.45
pH(1)	pH units	-	-	-	-	6.35
pH(1)	pH units	-	-	-	-	6.30
pH(1)	pH units	-	-	-	-	6.35
Specific Conductance @ 25°C(1)	µmhos/cm	270	125	145	170	150
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	150
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	150
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	150
Total Organic Carbon	mg/l	<1	3	-	-	5
Total Organic Carbon	mg/l	-	-	-	-	5
Total Organic Carbon	mg/l	-	-	-	-	4
Total Organic Carbon	mg/l	-	-	-	-	4
Total Organic Halogens	µg/l	<10	<10	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Alkalinity	mg/l $CaCO_3$	106	-	-	-	56
Chloride	mg/l	4.2	5.6	-	-	4.3
Fluoride	mg/l	0.23	0.20	-	-	0.09
Nitrate	mg/l NO_3-N	0.5	0.2	-	-	<0.1
Sulfate	mg/l	38	52	-	-	24
Sodium	mg/l	16	7	-	-	8
Calcium	mg/l	25	-	-	-	16
Magnesium	mg/l	10	-	-	-	6.4
Potassium	mg/l	2.2	-	-	-	2.9
Phenolics	mg/l	0.01	<0.01	-	-	0.01
Gross Alpha	pCi/L	48±20	180±76	-	-	3±2
Gross Beta	pCi/L	78±15	291±61	-	-	50±20
Radium 226	mg/l	12±5.5	-	-	-	11±6
Total Coliform	col/100 ml	ND	-	-	-	ND
Turbidity	NTU	4000	1360	-	-	17
Metals:						
Arsenic	mg/l	<0.001	<0.001	-	-	<0.001
Barium	mg/l	0.04	0.01	-	-	0.03
Cadmium	mg/l	<0.001	0.002	-	-	<0.001
Chromium	mg/l	<0.001	<0.001	-	-	0.002
Iron	mg/l	<0.1	0.9	-	-	0.3
Lead	mg/l	<0.001	<0.001	-	-	<0.001
Manganese	mg/l	0.58	0.41	-	-	0.19
Mercury	mg/l	0.0005	<0.0005	-	-	<0.0005
Selenium	mg/l	<0.001	0.001	-	-	<0.001
Silver	mg/l	<0.001	<0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	<0.1	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<1	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	0.5

See footnotes at end of table.

Table B-9
Monitoring Well TB-4C
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/29/88	2/21/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	7
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	11	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	<10	-
Benzidine	µg/l	<50	<50	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachloroethane	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	<10	-
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
Fluoranthene	µg/l	<10	<10	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	<10	-
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-9
Monitoring Well TB-4C
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/29/88	2/21/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	-
Isophorone	µg/l	<10	<10	<10	<10	-
Naphthalene	µg/l	<10	<10	<10	<10	-
Nitrobenzene	µg/l	<10	<10	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	<10	52	<10	-
Butylbenzyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	<10	-
Diethyl Phthalate	µg/l	<10	<10	<10	<10	-
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	-
Benzo(a)anthracene	µg/l	<10	<10	<10	<10	-
Benzo(a)pyrene	µg/l	<10	<10	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	<10	-
Chrysene	µg/l	<10	<10	<10	<10	-
Acenaphthylene	µg/l	<10	<10	<10	<10	-
Anthracene	µg/l	<10	<10	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	<50	-
Fluorene	µg/l	<10	<10	<10	<10	-
Phenanthrene	µg/l	<10	<10	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	<50	-
Pyrene	µg/l	<10	<10	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	<10	-
2-Nitrophenol	µg/l	<50	<50	<50	<50	-
4-Nitrophenol	µg/l	<50	<50	<50	<50	-
p-chloro-m-cresol	µg/l	<10	<10	<10	<10	-
Pentachlorophenol	µg/l	<50	<50	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-9
Monitoring Well TB-4C
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/21/89	11/14/89	2/13/90	5/22/90
Groundwater Elevation	ft msl	10.50	9.14	9.23	10.10	9.30
Temperature(1)	°C	18	15	12	13	12
pH(1)	pH units	6.70	6.35	6.75	7.15	6.85
pH(1)	pH units	6.85	6.45	6.75	7.10	6.90
pH(1)	pH units	6.75	6.50	6.75	7.10	6.85
pH(1)	pH units	6.80	6.55	6.80	7.05	6.90
Specific Conductance @ 25°C(1)	µmhos/cm	350	600	370	160	150
Specific Conductance @ 25°C(1)	µmhos/cm	345	600	375	170	150
Specific Conductance @ 25°C(1)	µmhos/cm	400	600	375	170	150
Specific Conductance @ 25°C(1)	µmhos/cm	400	600	375	170	150
Total Organic Carbon	mg/l	3	9	6	3	2
Total Organic Carbon	mg/l	3	4	5	4	2
Total Organic Carbon	mg/l	3	4	7	4	2
Total Organic Carbon	mg/l	3	5	7	3	2
Total Organic Halogens	µg/l	<10	25	<10	<10	<10
Total Organic Halogens	µg/l	<10	25	<10	<10	<10
Total Organic Halogens	µg/l	<10	22	16	<10	<10
Total Organic Halogens	µg/l	<10	29	<10	<10	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	5.0	10	5.6	3.1	2.4
Fluoride	mg/l	0.10	0.08	0.07	0.10	0.07
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	0.4	0.1
Sulfate	mg/l	110	310	100	26	13
Sodium	mg/l	8	10	8	4	4
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	0.02	0.04	0.01	0.01	<0.01
Gross Alpha	pCi/L	75±8	-	-	-	-
Gross Beta	pCi/L	<10	-	-	-	-
Radium 226	mg/l	17.0±8.3	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	11	-	-	-	-
Metals:						
Arsenic	mg/l	0.004	0.003	0.003	0.003	0.003
Barium	mg/l	0.05	0.16	0.02	<0.01	0.02
Cadmium	mg/l	0.002	<0.001	<0.001	<0.001	0.001
Chromium	mg/l	<0.001	<0.001	0.002	0.001	<0.001
Iron	mg/l	0.4	2.1	3.1	1.6	0.9
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	0.51	1.4	0.62	0.32	0.17
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	0.001	<0.001	<0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	0.4	-	-	-	-

See footnotes at end of table.

Table B-9
Monitoring Well TB-4C
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/21/89	11/14/89	2/13/90	5/22/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	82	7	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	9	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-9
Monitoring Well TB-4C
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/21/89	11/14/89	2/13/90	5/22/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-9
Monitoring Well TB-4C
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.85	7.95	9.13	8.77	7.73
Temperature(1)	°C	17	13	14	15	15.4
pH(1)	pH units	6.90	7.35	7.45	7.40	6.68
pH(1)	pH units	6.90	7.35	7.20	7.35	6.70
pH(1)	pH units	6.90	7.35	7.10	7.35	6.71
pH(1)	pH units	6.90	7.35	7.10	7.35	6.70
Specific Conductance @ 25°C(1)	µmhos/cm	1250	120	1000	140	1600
Specific Conductance @ 25°C(1)	µmhos/cm	1200	120	1000	140	1600
Specific Conductance @ 25°C(1)	µmhos/cm	1250	120	1000	145	1600
Specific Conductance @ 25°C(1)	µmhos/cm	1250	120	1000	145	1600
Total Organic Carbon	mg/l	7	2	3	4	3
Total Organic Carbon	mg/l	6	1	3	4	4
Total Organic Carbon	mg/l	6	1	3	3	3
Total Organic Carbon	mg/l	7	1	3	3	4
Total Organic Halogens	µg/l	18	<10	<10	16	<10
Total Organic Halogens	µg/l	17	<10	<10	13	<10
Total Organic Halogens	µg/l	16	<10	<10	<10	<10
Total Organic Halogens	µg/l	12	<10	<10	<10	<10
Alkalinity	mg/l $CaCO_3$	74	-	-	-	49
Chloride	mg/l	2.5	2.5	1.3	2.7	3.6
Fluoride	mg/l	0.09	0.10	0.12	0.12	0.10
Nitrate	mg/l NO_3-N	0.2	<0.1	3.3	1.4	<0.1
Sulfate	mg/l	11	<10	14	<10	15
Sodium	mg/l	4	3	3	4	4
Calcium	mg/l	12	-	-	-	13
Magnesium	mg/l	5	-	-	-	5
Potassium	mg/l	0.9	-	-	-	3.1
Phenolics	mg/l	<0.01	0.02	0.01	<0.01	0.01
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	0.003	0.004	0.004	0.002	0.002
Barium	mg/l	0.02	0.02	0.02	0.03	0.02
Cadmium	mg/l	0.007	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.001	<0.001	<0.001	<0.001	<0.001
Iron	mg/l	1.7	1.3	1.1	1.3	2.0
Lead	mg/l	0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	0.17	0.17	0.22	0.30	0.16
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-9
Monitoring Well TB-4C
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	21	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<5
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<5
Chloroform	µg/l	<5	<5	<5	<5	<10
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<10
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	27	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-9
Monitoring Well TB-4C
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-9
Monitoring Well TB-4C
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.69	7.74	7.72	7.84
Temperature(1)	°C	13.3	12.3	17.0	15.1
pH(1)	pH units	6.50	7.39	6.61	6.79
pH(1)	pH units	6.53	7.42	6.62	6.79
pH(1)	pH units	6.54	7.24	6.61	6.79
pH(1)	pH units	6.54	7.24	6.65	6.80
Specific Conductance @ 25°C(1)	µmhos/cm	220	172	120	120
Specific Conductance @ 25°C(1)	µmhos/cm	220	170	120	120
Specific Conductance @ 25°C(1)	µmhos/cm	220	125	120	120
Specific Conductance @ 25°C(1)	µmhos/cm	220	120	120	120
Total Organic Carbon	mg/l	2	4	1	1
Total Organic Carbon	mg/l	2	4	1	2
Total Organic Carbon	mg/l	2	4	1	2
Total Organic Carbon	mg/l	2	5	1	2
Total Organic Halogens	µg/l	<10	12	<10	<10
Total Organic Halogens	µg/l	<10	11	<10	10
Total Organic Halogens	µg/l	<10	<10	<10	<10
Total Organic Halogens	µg/l	11	<10	<10	11
Alkalinity	mg/l $CaCO_3$	-	-	-	61
Chloride	mg/l	2.9	3.1	3.1	2.6
Fluoride	mg/l	0.09	0.07	0.08	0.10
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	<0.10
Sulfate	mg/l	11	37	4	<10
Sodium	mg/l	5	4	3	2.0
Calcium	mg/l	-	-	-	12
Magnesium	mg/l	-	-	-	6.0
Potassium	mg/l	-	-	-	0.70
Phenolics	mg/l	0.07	0.02	<0.01	0.094
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	0.004	0.001	0.002	0.002
Barium	mg/l	0.01	0.02	0.02	<0.010
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.002	<0.001	<0.001	<0.001
Iron	mg/l	2.3	1.8	1.3	1.1
Lead	mg/l	<0.001	0.001	0.001	<0.001
Manganese	mg/l	0.18	0.16	0.13	0.14
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-9
Monitoring Well TB-4C
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.
(3) Anomalous field measurement likely due to transcription error.

Table B-10
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-4D

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/28/88	2/21/89
Groundwater Elevation	ft msl	8.39	7.95	8.92	8.41	8.54
Temperature(1)	°C	-(2)	-	-	-	13
pH(1)	pH units	6.35	7.30	7.35	7.35	7.40
pH(1)	pH units	-	-	-	-	7.10
pH(1)	pH units	-	-	-	-	7.25
pH(1)	pH units	-	-	-	-	7.25
Specific Conductance @ 25°C(1)	µmhos/cm	283	240	235	215	210
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	210
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	200
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	220
Total Organic Carbon	mg/l	50	2	-	-	2
Total Organic Carbon	mg/l	-	-	-	-	2
Total Organic Carbon	mg/l	-	-	-	-	2
Total Organic Carbon	mg/l	-	-	-	-	2
Total Organic Halogens	µg/l	31	<10	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Alkalinity	mg/l $CaCO_3$	72	-	-	-	68
Chloride	mg/l	17	61	-	-	12
Fluoride	mg/l	0.20	0.29	-	-	0.08
Nitrate	mg/l NO_3-N	1.2	1.3	-	-	1.0
Sulfate	mg/l	39	110	-	-	39
Sodium	mg/l	35	22	-	-	12
Calcium	mg/l	16	-	-	-	19
Magnesium	mg/l	6	-	-	-	6.2
Potassium	mg/l	10	-	-	-	2.3
Phenolics	mg/l	<0.01	0.01	-	-	0.01
Gross Alpha	pCi/L	100±42	189±92	-	-	20±10
Gross Beta	pCi/L	160±19	223±57	-	-	55±40
Radium 226	mg/l	110±30	-	-	-	<0.6
Total Coliform	col/100 ml	ND	-	-	-	ND
Turbidity	NTU	16000	9200	-	-	16
Metals:						
Arsenic	mg/l	0.001	0.01	-	-	<0.001
Barium	mg/l	<0.01	<0.01	-	-	0.02
Cadmium	mg/l	<0.001	<0.001	-	-	<0.001
Chromium	mg/l	<0.001	<0.001	-	-	0.002
Iron	mg/l	<0.1	0.1	-	-	0.1
Lead	mg/l	<0.001	<0.001	-	-	<0.001
Manganese	mg/l	0.01	<0.01	-	-	0.04
Mercury	mg/l	0.0005	<0.0005	-	-	<0.0005
Selenium	mg/l	<0.001	<0.001	-	-	<0.001
Silver	mg/l	<0.001	<0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	<0.1	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<1	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	<0.1

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/28/88	2/21/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	23	25	26	8	11
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	6	8	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	<10	-
Benzidine	µg/l	<50	<50	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachloroethane	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	<10	-
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
Fluoranthene	µg/l	<10	<10	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	<10	-
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/6/88	12/28/88	2/21/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	-
Isophorone	µg/l	<10	<10	<10	<10	-
Naphthalene	µg/l	<10	<10	<10	<10	-
Nitrobenzene	µg/l	<10	<10	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	140	14	<10	-
Butylbenzyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	<10	-
Diethyl Phthalate	µg/l	<10	<10	<10	<10	-
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	-
Benzo(a)anthracene	µg/l	<10	<10	<10	<10	-
Benzo(a)pyrene	µg/l	<10	<10	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	<10	-
Chrysene	µg/l	<10	<10	<10	<10	-
Acenaphthylene	µg/l	<10	<10	<10	<10	-
Anthracene	µg/l	<10	<10	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	<50	-
Fluorene	µg/l	<10	<10	<10	<10	-
Phenanthrene	µg/l	<10	<10	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	<50	-
Pyrene	µg/l	<10	<10	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	<10	-
2-Nitrophenol	µg/l	<50	<50	<50	<50	-
4-Nitrophenol	µg/l	<50	<50	<50	<50	-
p-chloro-m-cresol	µg/l	<10	<10	<10	<10	-
Pentachlorophenol	µg/l	<50	<50	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/22/89	11/14/89	2/13/90	5/22/90
Groundwater Elevation	ft msl	10.37	9.27	9.30	9.53	9.38
Temperature(1)	°C	18	15	12	12	12
pH(1)	pH units	6.85	7.45	6.85	7.10	6.85
pH(1)	pH units	7.05	7.35	6.85	7.10	6.85
pH(1)	pH units	7.00	7.35	6.85	7.10	6.85
pH(1)	pH units	7.00	7.35	6.85	7.10	6.85
Specific Conductance @ 25°C(1)	µmhos/cm	155	120	140	135	140
Specific Conductance @ 25°C(1)	µmhos/cm	140	120	145	135	140
Specific Conductance @ 25°C(1)	µmhos/cm	150	120	140	135	140
Specific Conductance @ 25°C(1)	µmhos/cm	160	120	140	135	140
Total Organic Carbon	mg/l	2	2	1	1	2
Total Organic Carbon	mg/l	2	1	1	1	2
Total Organic Carbon	mg/l	2	1	2	1	2
Total Organic Carbon	mg/l	2	3	2	1	2
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	4.1	4.6	3.3	2.8	2.0
Fluoride	mg/l	0.05	0.04	0.02	0.07	0.13
Nitrate	mg/l NO_3-N	0.8	0.7	0.8	1.4	0.9
Sulfate	mg/l	11	13	11	18	8
Sodium	mg/l	6	4	4	3	3
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	0.05	0.06	<0.01	0.11	0.14
Gross Alpha	pCi/L	6±2	-	-	-	-
Gross Beta	pCi/L	11±28	-	-	-	-
Radium 226	mg/l	4.5±2.0	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	46	-	-	-	-
Metals:						
Arsenic	mg/l	0.002	0.001	0.001	0.001	0.001
Barium	mg/l	<0.01	0.05	0.01	<0.01	0.01
Cadmium	mg/l	0.003	<0.001	0.001	0.001	0.001
Chromium	mg/l	<0.001	<0.001	0.003	0.004	<0.001
Iron	mg/l	0.1	<0.1	0.7	<0.1	<0.1
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	0.06	0.06	0.05	0.09	0.06
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	0.001	<0.001	0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/22/89	11/14/89	2/13/90	5/22/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	20	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	11	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 5/22/89	8/22/89	11/14/89	2/13/90	5/22/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.99	8.15	9.12	8.90	7.92
Temperature(1)	°C	17	13	14	14	16.6
pH(1)	pH units	7.05	7.65	7.05	7.40	6.79
pH(1)	pH units	7.05	7.65	7.05	7.45	6.85
pH(1)	pH units	7.00	7.55	6.95	7.45	6.85
pH(1)	pH units	7.00	7.55	6.95	7.50	6.87
Specific Conductance @ 25°C(1)	µmhos/cm	120	130	100	1150(3)	160
Specific Conductance @ 25°C(1)	µmhos/cm	120	130	100	1150(3)	160
Specific Conductance @ 25°C(1)	µmhos/cm	120	120	100	1150(3)	160
Specific Conductance @ 25°C(1)	µmhos/cm	120	120	100	1200(3)	160
Total Organic Carbon	mg/l	5	<1	5	2	3
Total Organic Carbon	mg/l	6	<1	5	2	2
Total Organic Carbon	mg/l	7	<1	5	2	4
Total Organic Carbon	mg/l	6	<1	5	2	3
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	11	<10	<10	<10	<10
Alkalinity	mg/l $CaCO_3$	47	-	-	-	45
Chloride	mg/l	2.0	2.6	2.6	2.7	2.9
Fluoride	mg/l	0.06	0.06	0.09	0.08	0.08
Nitrate	mg/l NO_3-N	1.0	1.0	2.5	1.9	1.0
Sulfate	mg/l	7	12	<10	<10	43
Sodium	mg/l	3	3	3	4	4
Calcium	mg/l	13	-	-	-	14
Magnesium	mg/l	5	-	-	-	5
Potassium	mg/l	0.9	-	-	-	2.4
Phenolics	mg/l	<0.01	0.01	0.01	0.01	<0.01
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	0.001	0.001	0.001	<0.001	<0.001
Barium	mg/l	0.02	0.01	<0.01	0.02	<0.01
Cadmium	mg/l	0.002	<0.001	0.009	0.004	<0.001
Chromium	mg/l	0.003	<0.001	<0.001	<0.001	<0.001
Iron	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
Lead	mg/l	0.001	<0.001	<0.001	0.002	<0.001
Manganese	mg/l	0.05	0.04	0.05	0.03	0.04
Mercury	mg/l	<0.0005	<0.0005	0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	18	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/13/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.85	8.04	7.93	7.95
Temperature(1)	°C	13.7	12.1	15.9	15.4
pH(1)	pH units	6.67	7.62	6.63	6.83
pH(1)	pH units	6.67	7.73	6.63	6.83
pH(1)	pH units	6.70	7.69	6.64	6.84
pH(1)	pH units	6.70	7.69	6.64	6.84
Specific Conductance @ 25°C(1)	µmhos/cm	450	150	120	120
Specific Conductance @ 25°C(1)	µmhos/cm	450	115	125	120
Specific Conductance @ 25°C(1)	µmhos/cm	450	115	125	120
Specific Conductance @ 25°C(1)	µmhos/cm	450	115	130	120
Total Organic Carbon	mg/l	<1	8	2	2
Total Organic Carbon	mg/l	<1	7	2	1
Total Organic Carbon	mg/l	<1	8	2	1
Total Organic Carbon	mg/l	<1	9	2	1
Total Organic Halogens	µg/l	<10	17	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	25
Total Organic Halogens	µg/l	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	10	<10	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	61
Chloride	mg/l	2.2	3.2	3.5	2.8
Fluoride	mg/l	0.06	0.06	0.05	0.080
Nitrate	mg/l NO_3-N	0.6	0.9	0.8	1.0
Sulfate	mg/l	4	17	5	<10
Sodium	mg/l	4	5	3	2.0
Calcium	mg/l	-	-	-	12
Magnesium	mg/l	-	-	-	6.0
Potassium	mg/l	-	-	-	0.80
Phenolics	mg/l	0.01	<0.01	<0.01	0.056
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	<0.001	0.001	<0.001	<0.001
Barium	mg/l	<0.01	<0.01	0.02	<0.020
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.002	<0.001	<0.001	<0.001
Iron	mg/l	0.2	<0.1	<0.1	0.15
Lead	mg/l	<0.001	0.001	<0.001	0.001
Manganese	mg/l	0.10	0.04	0.04	0.25
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.002	<0.001	<0.001
Silver	mg/l	0.002	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-10
Monitoring Well TB-4D
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.
(3) Anomalous field measurement likely due to transcription error.

Table B-11
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-5A

Parameters	Units	Sampling Date[1] 9/14/88	11/15/88	12/5/88	12/28/88	2/21/89
Groundwater Elevation	ft msl	8.21	7.63	8.91	-[2]	8.67
Temperature[3]	°C	-	-	-	-	10
pH[3]	pH units	6.20	6.00	6.55	-	6.55
pH[3]	pH units	-	-	-	-	6.70
pH[3]	pH units	-	-	-	-	6.75
pH[3]	pH units	-	-	-	-	6.75
Specific Conductance @ 25°C[3]	µmhos/cm	570	650	650	-	700
Specific Conductance @ 25°C[3]	µmhos/cm	-	-	-	-	650
Specific Conductance @ 25°C[3]	µmhos/cm	-	-	-	-	700
Specific Conductance @ 25°C[3]	µmhos/cm	-	-	-	-	700
Total Organic Carbon	mg/l	5	3	-	-	8
Total Organic Carbon	mg/l	-	-	-	-	8
Total Organic Carbon	mg/l	-	-	-	-	8
Total Organic Carbon	mg/l	-	-	-	-	8
Total Organic Halogens	µg/l	<10	<10	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	22
Alkalinity	mg/l $CaCO_3$	121	-	-	-	80
Chloride	mg/l	25	23	-	-	13
Fluoride	mg/l	0.09	0.21	-	-	0.08
Nitrate	mg/l NO_3-N	<0.1	<0.1	-	-	<0.1
Sulfate	mg/l	150	120	-	-	190
Sodium	mg/l	25	11	-	-	13
Calcium	mg/l	71	-	-	-	80
Magnesium	mg/l	22	-	-	-	23
Potassium	mg/l	3.8	-	-	-	2.9
Phenolics	mg/l	<0.01	<0.01	-	-	<0.01
Gross Alpha	pCi/L	150±47	191±81	-	-	20±40
Gross Beta	pCi/L	210±21	308±62	-	-	280±160
Radium 226	mg/l	110±25	-	-	-	14±6
Total Coliform	col/100 ml	ND	-	-	-	ND
Turbidity	NTU	33000	18400	-	-	15
Metals:						
Arsenic	mg/l	<0.001	<0.001	-	-	<0.001
Barium	mg/l	0.02	<0.01	-	-	0.04
Cadmium	mg/l	0.001	<0.001	-	-	<0.001
Chromium	mg/l	<0.001	<0.001	-	-	0.001
Iron	mg/l	<0.1	<0.1	-	-	0.3
Lead	mg/l	0.002	<0.001	-	-	<0.001
Manganese	mg/l	4.4	4.0	-	-	6.5
Mercury	mg/l	0.0005	<0.0005	-	-	<0.0005
Selenium	mg/l	<0.001	0.001	-	-	<0.001
Silver	mg/l	<0.001	<0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	0.3	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<10	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	<0.1

See footnotes at end of table.

Table B-11
Monitoring Well TB-5A
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/5/88	12/28/88	2/21/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	-	<250
Acrylonitrile	µg/l	<250	<250	<250	-	<250
Benzene	µg/l	<5	<5	<5	-	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	-	<5
Chlorobenzene	µg/l	<5	<5	<5	-	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	-	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	-	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	-	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	-	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	-	<5
Chloroethane	µg/l	<5	<5	<5	-	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	-	<5
Chloroform	µg/l	<5	<5	<5	-	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	-	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	-	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	-	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	-	<5
Ethylbenzene	µg/l	<5	<5	<5	-	<5
Methylene Chloride	µg/l	<5	<5	<5	-	<5
Chloromethane	µg/l	<5	<5	<5	-	<5
Bromomethane	µg/l	<5	<5	<5	-	<5
Bromoform	µg/l	<5	<5	<5	-	<5
Bromodichloromethane	µg/l	<5	<5	<5	-	<5
Dibromochloromethane	µg/l	<5	<5	<5	-	<5
Tetrachloroethene	µg/l	<5	<5	<5	-	<5
Toluene	µg/l	<5	<5	<5	-	<5
Trichloroethene	µg/l	<5	<5	<5	-	<5
Vinyl Chloride	µg/l	<5	<5	<5	-	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	-	-
Benzidine	µg/l	<50	<50	<50	-	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	-	-
Hexachlorobenzene	µg/l	<10	<10	<10	-	-
Hexachloroethane	µg/l	<10	<10	<10	-	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	-	-
2-Chloronaphthalene	µg/l	<10	<10	<10	-	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	-	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	-	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	-	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	-	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	-	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	-	-
Fluoranthene	µg/l	<10	<10	<10	-	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	-	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	-	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	-	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	-	-
Hexachlorobutadiene	µg/l	<10	<10	<10	-	-

See footnotes at end of table.

Table B-11
Monitoring Well TB-5A
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/5/88	12/28/88	2/21/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	-	-
Isophorone	µg/l	<10	<10	<10	-	-
Naphthalene	µg/l	<10	<10	<10	-	-
Nitrobenzene	µg/l	<10	<10	<10	-	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	-	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	-	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	-	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	26	15	-	-
Butylbenzyl Phthalate	µg/l	<10	<10	<10	-	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	-	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	-	-
Diethyl Phthalate	µg/l	<10	<10	<10	-	-
Dimethyl Phthalate	µg/l	<10	<10	<10	-	-
Benzo(a)anthracene	µg/l	<10	<10	<10	-	-
Benzo(a)pyrene	µg/l	<10	<10	<10	-	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	-	-
Chrysene	µg/l	<10	<10	<10	-	-
Acenaphthylene	µg/l	<10	<10	<10	-	-
Anthracene	µg/l	<10	<10	<10	-	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	-	-
Fluorene	µg/l	<10	<10	<10	-	-
Phenanthrene	µg/l	<10	<10	<10	-	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	-	-
Pyrene	µg/l	<10	<10	<10	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	-	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	-	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	-	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	-	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	-	-
2-Nitrophenol	µg/l	<50	<50	<50	-	-
4-Nitrophenol	µg/l	<50	<50	<50	-	-
p-chloro-m-cresol	µg/l	<10	<10	<10	-	-
Pentachlorophenol	µg/l	<50	<50	<50	-	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	-	-

See footnotes at end of table.

Table B-11
Monitoring Well TB-5A
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/12/90	5/21/90
Groundwater Elevation	ft msl	11.06	9.25	9.17	9.32	9.24
Temperature(3)	°C	14	17	15	11	10
pH(3)	pH units	6.75	6.60	6.45	6.60	6.75
pH(3)	pH units	6.70	7.05	6.60	6.70	6.75
pH(3)	pH units	6.75	7.05	6.50	6.70	6.75
pH(3)	pH units	6.70	7.05	6.50	6.70	6.70
Specific Conductance @ 25°C(3)	µmhos/cm	450	550	500	400	450
Specific Conductance @ 25°C(3)	µmhos/cm	500	500	500	400	460
Specific Conductance @ 25°C(3)	µmhos/cm	500	500	500	400	460
Specific Conductance @ 25°C(3)	µmhos/cm	500	500	500	400	460
Total Organic Carbon	mg/l	5	7	4	4	3
Total Organic Carbon	mg/l	5	6	4	4	4
Total Organic Carbon	mg/l	5	7	4	4	4
Total Organic Carbon	mg/l	5	7	4	4	4
Total Organic Halogens	µg/l	30	17	32	<10	<10
Total Organic Halogens	µg/l	41	23	19	<10	<10
Total Organic Halogens	µg/l	20	38	43	<10	<10
Total Organic Halogens	µg/l	35	22	46	<10	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	6.9	16	12	18	11
Fluoride	mg/l	0.11	0.21	0.08	0.13	0.14
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	<0.1	0.4
Sulfate	mg/l	100	110	100	65	64
Sodium	mg/l	7	8	7	5	5
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	<0.01	<0.01	<0.01	0.08	0.02
Gross Alpha	pCi/L	130±21	-	-	-	-
Gross Beta	pCi/L	<22	-	-	-	-
Radium 226	mg/l	39.8±13.4	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	7.4	-	-	-	-
Metals:						
Arsenic	mg/l	0.004	0.003	0.003	0.002	0.003
Barium	mg/l	0.05	0.10	0.05	0.03	0.05
Cadmium	mg/l	<0.001	<0.001	<0.001	0.002	0.001
Chromium	mg/l	<0.001	0.001	0.003	0.002	<0.001
Iron	mg/l	5.6	0.1	2.7	4.0	4.7
Lead	mg/l	<0.001	0.002	<0.001	<0.001	<0.001
Manganese	mg/l	16	8.3	19	17	13
Mercury	mg/l	<0.0005	<0.0005	<0.0005	0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	0.001	<0.001	<0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-11
Monitoring Well TB-5A
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/12/90	5/21/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	8	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-11
Monitoring Well TB-5A
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/12/90	5/21/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-11
Monitoring Well TB-5A
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.72	7.7	9.12	8.59	7.53
Temperature(3)	°C	19	12	12	14	17.5
pH(3)	pH units	6.50	7.20	6.25	7.20	6.55
pH(3)	pH units	6.55	7.20	6.15	7.15	6.54
pH(3)	pH units	6.55	7.20	6.15	7.15	6.57
pH(3)	pH units	6.55	7.20	6.15	7.20	6.55
Specific Conductance @ 25°C(3)	µmhos/cm	410	350	425	420	500
Specific Conductance @ 25°C(3)	µmhos/cm	410	350	425	425	500
Specific Conductance @ 25°C(3)	µmhos/cm	410	350	400	420	500
Specific Conductance @ 25°C(3)	µmhos/cm	410	350	400	425	500
Total Organic Carbon	mg/l	6	3	9	3	3
Total Organic Carbon	mg/l	6	2	9	3	2
Total Organic Carbon	mg/l	5	3	9	3	2
Total Organic Carbon	mg/l	5	3	9	3	2
Total Organic Halogens	µg/l	34	13	<10	<10	11
Total Organic Halogens	µg/l	24	<10	<10	<10	<10
Total Organic Halogens	µg/l	36	12	<10	10	11
Total Organic Halogens	µg/l	31	14	<10	<10	<10
Alkalinity	mg/l $CaCO_3$	120	-	-	-	111
Chloride	mg/l	9.3	20	11	9.7	8.2
Fluoride	mg/l	0.13	0.14	0.13	0.12	0.10
Nitrate	mg/l NO_3-N	0.5	0.2	1.4	<0.1	<0.1
Sulfate	mg/l	81	82	67	73	25
Sodium	mg/l	6	6	6	6	7
Calcium	mg/l	43	-	-	-	39
Magnesium	mg/l	11	-	-	-	9
Potassium	mg/l	2.4	-	-	-	3.8
Phenolics	mg/l	<0.01	0.02	0.03	<0.01	<0.01
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	0.002	0.002	0.004	0.002	0.002
Barium	mg/l	0.06	0.06	0.05	0.07	0.06
Cadmium	mg/l	0.005	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.003	<0.001	<0.001	<0.001	<0.001
Iron	mg/l	3.9	3.0	11	10	7.3
Lead	mg/l	0.001	0.002	<0.001	<0.001	<0.001
Manganese	mg/l	14	13	14	16	14
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-11
Monitoring Well TB-5A
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-11
Monitoring Well TB-5A
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-11
Monitoring Well TB-5A
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.46	7.62	7.35	7.70
Temperature(3)	°C	15.8	11.8	14.4	17.4
pH(3)	pH units	6.35	6.08	6.33	6.30
pH(3)	pH units	6.37	6.18	6.35	6.30
pH(3)	pH units	6.40	6.20	6.35	6.35
pH(3)	pH units	6.40	6.22	6.38	6.28
Specific Conductance @ 25°C(3)	µmhos/cm	600	310	350	320
Specific Conductance @ 25°C(3)	µmhos/cm	600	330	350	320
Specific Conductance @ 25°C(3)	µmhos/cm	600	365	350	320
Specific Conductance @ 25°C(3)	µmhos/cm	600	-	350	320
Total Organic Carbon	mg/l	3	2	2	6
Total Organic Carbon	mg/l	3	2	4	5
Total Organic Carbon	mg/l	3	2	2	5
Total Organic Carbon	mg/l	3	2	3	5
Total Organic Halogens	µg/l	<10	16	20	<10
Total Organic Halogens	µg/l	<10	14	16	<10
Total Organic Halogens	µg/l	<10	<10	21	<10
Total Organic Halogens	µg/l	<10	19	15	12
Alkalinity	mg/l $CaCO_3$	-	-	-	116
Chloride	mg/l	7.7	7.6	8.6	8.3
Fluoride	mg/l	0.11	0.08	0.08	0.090
Nitrate	mg/l NO_3-N	<0.1	0.6	<0.1	<0.10
Sulfate	mg/l	57	64	48	61
Sodium	mg/l	8	9	7	8.0
Calcium	mg/l	-	-	-	39
Magnesium	mg/l	-	-	-	11
Potassium	mg/l	-	-	-	1.8
Phenolics	mg/l	<0.01	<0.01	0.01	0.12
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	0.002	0.002	0.002	0.002
Barium	mg/l	0.06	0.06	0.06	0.070
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.001	<0.001	<0.001	<0.001
Iron	mg/l	4.7	5.6	4.5	7.5
Lead	mg/l	0.003	0.001	<0.001	0.021
Manganese	mg/l	12	12	59	19
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.002	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-11
Monitoring Well TB-5A
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date			
		10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.

Table B-12
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-5B

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/5/88	12/28/88	2/21/89
Groundwater Elevation	ft msl	8.24	7.65	8.94	8.19	7.59
Temperature(1)	°C	-(2)	-	-	-	12
pH(1)	pH units	6.41	6.85	6.35	6.90	7.15
pH(1)	pH units	-	-	-	-	7.20
pH(1)	pH units	-	-	-	-	7.25
pH(1)	pH units	-	-	-	-	7.15
Specific Conductance @ 25°C(1)	µmhos/cm	860	950	1050	1050	1000
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	950
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1000
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1000
Total Organic Carbon	mg/l	13	5	-	-	5
Total Organic Carbon	mg/l	-	-	-	-	5
Total Organic Carbon	mg/l	-	-	-	-	5
Total Organic Carbon	mg/l	-	-	-	-	5
Total Organic Halogens	µg/l	<10	<10	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Alkalinity	mg/l $CaCO_3$	162	-	-	-	140
Chloride	mg/l	48	40	-	-	38
Fluoride	mg/l	0.06	0.11	-	-	0.04
Nitrate	mg/l NO_3-N	<0.1	<0.1	-	-	0.2
Sulfate	mg/l	240	270	-	-	230
Sodium	mg/l	14	12	-	-	15
Calcium	mg/l	130	-	-	-	100
Magnesium	mg/l	40	-	-	-	33
Potassium	mg/l	7.5	-	-	-	6.8
Phenolics	mg/l	<0.01	<0.01	-	-	<0.01
Gross Alpha	pCi/L	89±40	294±10	-	-	40±20
Gross Beta	pCi/L	200±20	308±62	-	-	440±80
Radium 226	mg/l	34±5.1	-	-	-	7.1±6
Total Coliform	col/100 ml	ND	-	-	-	ND
Turbidity	NTU	16000	7600	-	-	0.66
Metals:						
Arsenic	mg/l	<0.001	<0.001	-	-	<0.001
Barium	mg/l	0.09	0.04	-	-	0.06
Cadmium	mg/l	<0.001	<0.001	-	-	<0.001
Chromium	mg/l	0.003	<0.001	-	-	0.001
Iron	mg/l	<0.1	<0.1	-	-	0.1
Lead	mg/l	<0.001	<0.001	-	-	<0.001
Manganese	mg/l	0.38	1.9	-	-	1.6
Mercury	mg/l	<0.0005	<0.0005	-	-	<0.0005
Selenium	mg/l	<0.001	<0.001	-	-	<0.001
Silver	mg/l	<0.001	<0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	<0.1	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<1	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	<0.1

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/5/88	12/28/88	2/21/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	<10	-
Benzidine	µg/l	<50	<50	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachloroethane	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	<10	-
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
Fluoranthene	µg/l	<10	<10	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	<10	-
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/5/88	12/28/88	2/21/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	-
Isophorone	µg/l	<10	<10	<10	<10	-
Naphthalene	µg/l	<10	<10	<10	<10	-
Nitrobenzene	µg/l	<10	<10	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	440	<10	<10	-
Butylbenzyl Phthalate	µg/l	<10	<10	11	<10	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	<10	-
Diethyl Phthalate	µg/l	<10	<10	<10	<10	-
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	-
Benzo(a)anthracene	µg/l	<10	<10	<10	<10	-
Benzo(a)pyrene	µg/l	<10	<10	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	<10	-
Chrysene	µg/l	<10	<10	<10	<10	-
Acenaphthylene	µg/l	<10	<10	<10	<10	-
Anthracene	µg/l	<10	<10	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	<50	-
Fluorene	µg/l	<10	<10	<10	<10	-
Phenanthrene	µg/l	<10	<10	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	<50	-
Pyrene	µg/l	<10	<10	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	<10	-
2-Nitrophenol	µg/l	<50	<50	<50	<50	-
4-Nitrophenol	µg/l	<50	<50	<50	<50	-
p-chloro-m-cresol	µg/l	<10	<10	<10	<10	-
Pentachlorophenol	µg/l	<50	<50	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/12/90	5/21/90
Groundwater Elevation	ft msl	10.59	9.19	9.12	9.30	9.19
Temperature(1)	°C	14	17	14	12	10
pH(1)	pH units	6.90	6.65	7.00	7.05	7.30
pH(1)	pH units	7.00	6.80	6.90	7.00	7.25
pH(1)	pH units	7.05	7.00	7.00	7.05	7.25
pH(1)	pH units	7.05	7.05	7.00	7.05	7.25
Specific Conductance @ 25°C(1)	µmhos/cm	1100	800	900	700	900
Specific Conductance @ 25°C(1)	µmhos/cm	1200	800	850	700	850
Specific Conductance @ 25°C(1)	µmhos/cm	1200	800	850	700	850
Specific Conductance @ 25°C(1)	µmhos/cm	1200	800	900	700	850
Total Organic Carbon	mg/l	5	4	3	4	3
Total Organic Carbon	mg/l	4	5	3	4	3
Total Organic Carbon	mg/l	4	5	3	3	4
Total Organic Carbon	mg/l	4	5	3	3	4
Total Organic Halogens	µg/l	49	20	40	<10	<10
Total Organic Halogens	µg/l	49	21	24	<10	<10
Total Organic Halogens	µg/l	47	18	26	<10	<10
Total Organic Halogens	µg/l	48	16	17	<10	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	35	27	14	11	17
Fluoride	mg/l	0.03	0.02	<0.01	0.04	0.04
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	0.6	0.3
Sulfate	mg/l	280	310	160	120	160
Sodium	mg/l	13	11	9	8	7
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	<0.01	0.27	<0.01	0.09	<0.01
Gross Alpha	pCi/L	<6	-	-	-	-
Gross Beta	pCi/L	<8	-	-	-	-
Radium 226	mg/l	26.4±10.8	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	8.4	-	-	-	-
Metals:						
Arsenic	mg/l	<0.001	0.001	0.001	0.001	<0.001
Barium	mg/l	0.11	0.21	0.05	0.04	0.12
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001	0.001
Chromium	mg/l	<0.001	0.008	0.002	0.002	<0.001
Iron	mg/l	0.1	6.2	1.2	0.4	0.4
Lead	mg/l	<0.001	0.002	<0.001	<0.001	<0.001
Manganese	mg/l	1.2	1.1	0.93	0.73	3.0
Mercury	mg/l	<0.0005	<0.0005	<0.0005	0.0007	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/12/90	5/21/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	7	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	7	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/12/90	5/21/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.65	7.63	9.07	8.56	7.50
Temperature(1)	°C	18	13	14	14	15.4
pH(1)	pH units	7.00	6.95	6.35	7.60	7.07
pH(1)	pH units	7.05	6.95	6.35	7.65	7.10
pH(1)	pH units	7.05	6.95	6.45	7.65	7.11
pH(1)	pH units	7.05	7.00	6.45	7.65	7.10
Specific Conductance @ 25°C(1)	µmhos/cm	750	800	900	850	1050
Specific Conductance @ 25°C(1)	µmhos/cm	750	800	900	850	1050
Specific Conductance @ 25°C(1)	µmhos/cm	750	850	825	850	1100
Specific Conductance @ 25°C(1)	µmhos/cm	750	800	825	850	1100
Total Organic Carbon	mg/l	6	4	10	1	3
Total Organic Carbon	mg/l	5	4	10	4	3
Total Organic Carbon	mg/l	5	3	10	1	3
Total Organic Carbon	mg/l	5	4	10	1	3
Total Organic Halogens	µg/l	<10	<10	<10	<10	<10
Total Organic Halogens	µg/l	<10	<10	<10	12	<10
Total Organic Halogens	µg/l	<10	<10	<10	<10	10
Total Organic Halogens	µg/l	<10	<10	<10	<10	13
Alkalinity	mg/l $CaCO_3$	231	-	-	-	212
Chloride	mg/l	19	25	24	26	22
Fluoride	mg/l	0.04	0.04	0.08	0.06	0.08
Nitrate	mg/l NO_3-N	<0.1	<0.1	4.7	0.1	<0.1
Sulfate	mg/l	160	170	180	250	210
Sodium	mg/l	9	9	9	11	11
Calcium	mg/l	88	-	-	-	99
Magnesium	mg/l	26	-	-	-	27
Potassium	mg/l	5.7	-	-	-	6.9
Phenolics	mg/l	<0.01	<0.01	0.05	0.01	<0.01
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	<0.001	0.002	0.001	<0.001	<0.001
Barium	mg/l	0.05	0.05	0.06	0.06	0.05
Cadmium	mg/l	<0.001	<0.001	<0.001	0.002	<0.001
Chromium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	mg/l	0.4	0.5	0.5	0.4	0.4
Lead	mg/l	<0.001	0.001	<0.001	<0.001	<0.001
Manganese	mg/l	0.77	0.81	0.79	0.89	0.77
Mercury	mg/l	<0.0005	<0.0005	0.0028	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.44	7.57	7.49	7.67
Temperature(1)	°C	13.0	11.5	15.6	15.9
pH(1)	pH units	7.02	6.64	6.59	6.78
pH(1)	pH units	7.00	6.58	6.62	6.79
pH(1)	pH units	7.05	6.79	6.64	6.80
pH(1)	pH units	7.02	6.87	6.64	6.80
Specific Conductance @ 25°C(1)	µmhos/cm	1000	550	700	700
Specific Conductance @ 25°C(1)	µmhos/cm	950	550	700	700
Specific Conductance @ 25°C(1)	µmhos/cm	950	550	700	700
Specific Conductance @ 25°C(1)	µmhos/cm	1000	550	700	700
Total Organic Carbon	mg/l	2	2	5	4
Total Organic Carbon	mg/l	3	2	5	5
Total Organic Carbon	mg/l	3	2	4	5
Total Organic Carbon	mg/l	3	2	3	-
Total Organic Halogens	µg/l	20	19	11	23
Total Organic Halogens	µg/l	13	23	<10	16
Total Organic Halogens	µg/l	19	31	12	11
Total Organic Halogens	µg/l	13	31	<10	16
Alkalinity	mg/l $CaCO_3$	-	-	-	200
Chloride	mg/l	20	21	28	26
Fluoride	mg/l	0.05	0.05	0.05	0.060
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	<0.10
Sulfate	mg/l	140	95	97	140
Sodium	mg/l	10	10	9	9.0
Calcium	mg/l	-	-	-	85
Magnesium	mg/l	-	-	-	26
Potassium	mg/l	-	-	-	4.8
Phenolics	mg/l	<0.01	<0.01	0.04	0.19
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	<0.001	<0.001	<0.001	0.005
Barium	mg/l	0.04	0.04	0.04	0.050
Cadmium	mg/l	<0.001	<0.001	0.001	<0.001
Chromium	mg/l	0.001	<0.001	<0.001	0.012
Iron	mg/l	0.3	0.4	0.2	0.30
Lead	mg/l	<0.001	0.001	0.001	0.003
Manganese	mg/l	0.67	0.5	0.63	0.69
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-12
Monitoring Well TB-5B
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.

Table B-13
Historical Groundwater Chemistry Data
Borrow Pit 20 Monitoring Wells
Fairless Works
Monitoring Well TB-5C

Parameters	Units	Sampling Date				
		9/14/88	11/15/88	12/5/88	12/28/88	2/21/89
Groundwater Elevation	ft msl	8.25	7.66	8.93	8.20	8.20
Temperature(1)	°C	-(2)	-	-	-	13
pH(1)	pH units	6.51	6.60	6.40	6.55	7.25
pH(1)	pH units	-	-	-	-	7.25
pH(1)	pH units	-	-	-	-	7.25
pH(1)	pH units	-	-	-	-	7.25
Specific Conductance @ 25°C(1)	µmhos/cm	1190	1400	1700	1650	1500
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1500
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1500
Specific Conductance @ 25°C(1)	µmhos/cm	-	-	-	-	1500
Total Organic Carbon	mg/l	4	10	-	-	5
Total Organic Carbon	mg/l	-	-	-	-	5
Total Organic Carbon	mg/l	-	-	-	-	5
Total Organic Carbon	mg/l	-	-	-	-	5
Total Organic Halogens	µg/l	12	19	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Total Organic Halogens	µg/l	-	-	-	-	<10
Alkalinity	mg/l $CaCO_3$	68	-	-	-	80
Chloride	mg/l	46	40	-	-	38
Fluoride	mg/l	0.13	0.31	-	-	0.15
Nitrate	mg/l NO_3-N	<0.1	<0.1	-	-	<0.1
Sulfate	mg/l	450	610	-	-	570
Sodium	mg/l	18	15	-	-	15
Calcium	mg/l	150	-	-	-	200
Magnesium	mg/l	48	-	-	-	50
Potassium	mg/l	14	-	-	-	13
Phenolics	mg/l	<0.01	<0.01	-	-	<0.01
Gross Alpha	pCi/L	55±36	460±14	-	-	40±20
Gross Beta	pCi/L	140±18	369±65	-	-	150±80
Radium 226	mg/l	<0.6	-	-	-	10±6
Total Coliform	col/100 ml	ND	-	-	-	ND
Turbidity	NTU	30000	10400	-	-	1.4
Metals:						
Arsenic	mg/l	0.001	0.001	-	-	0.004
Barium	mg/l	0.08	0.04	-	-	0.05
Cadmium	mg/l	0.003	<0.001	-	-	<0.001
Chromium	mg/l	0.005	<0.001	-	-	0.002
Iron	mg/l	<0.1	6.2	-	-	6.1
Lead	mg/l	<0.001	<0.001	-	-	<0.001
Manganese	mg/l	2.1	3.3	-	-	3.3
Mercury	mg/l	<0.0005	<0.0005	-	-	0.0013
Selenium	mg/l	<0.001	<0.001	-	-	<0.001
Silver	mg/l	<0.001	0.001	-	-	<0.001
Organics						
Endrin	µg/l	<1	<1	-	-	<1
Lindane	µg/l	<0.1	<0.1	-	-	<0.1
Methoxychlor	µg/l	<1	<1	-	-	<1
Toxaphene	µg/l	<1	<1	-	-	<1
2,4-D	µg/l	<0.1	<0.1	-	-	<0.1

See footnotes at end of table.

Table B-13
Monitoring Well TB-5C
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/5/88	12/28/88	2/21/89
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	17	41	68	<5	15
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	<10	<10	<10	<10	-
Benzidine	µg/l	<50	<50	<50	<50	-
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachlorobenzene	µg/l	<10	<10	<10	<10	-
Hexachloroethane	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethoxy)methane	µg/l	<10	<10	<10	<10	-
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	-
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	-
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	-
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	-
Fluoranthene	µg/l	<10	<10	<10	<10	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroisopropyl)ether	µg/l	<10	<10	<10	<10	-
Bis(2-chloroethyl)ether	µg/l	<10	<10	<10	<10	-
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-13
Monitoring Well TB-5C
(Continued)

Parameters	Units	Sampling Date 9/14/88	11/15/88	12/5/88	12/28/88	2/21/89
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	-
Isophorone	µg/l	<10	<10	<10	<10	-
Naphthalene	µg/l	<10	<10	<10	<10	-
Nitrobenzene	µg/l	<10	<10	<10	<10	-
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	-
N-Nitrosodi-n-propylamine	µg/l	<10	<10	<10	<10	-
Bis(2-ethylhexyl)phthalate	µg/l	<10	14	44	<10	-
Butylbenzyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-butyl Phthalate	µg/l	<10	<10	<10	<10	-
Di-N-octyl Phthalate	µg/l	<10	<10	<10	<10	-
Diethyl Phthalate	µg/l	<10	<10	<10	<10	-
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	-
Benzo(a)anthracene	µg/l	<10	<10	<10	<10	-
Benzo(a)pyrene	µg/l	<10	<10	<10	<10	-
Benzo(k)fluoranthene	µg/l	<10	<10	<10	<10	-
Chrysene	µg/l	<10	<10	<10	<10	-
Acenaphthylene	µg/l	<10	<10	<10	<10	-
Anthracene	µg/l	<10	<10	<10	<10	-
Benzo(g,h,i)perylene	µg/l	<50	<50	<50	<50	-
Fluorene	µg/l	<10	<10	<10	<10	-
Phenanthrene	µg/l	<10	<10	<10	<10	-
Dibenzo(a,h)anthracene	µg/l	<50	<50	<50	<50	-
Indeno(1,2,3-c,d)pyrene	µg/l	<50	<50	<50	<50	-
Pyrene	µg/l	<10	<10	<10	<10	-
Acid Extractables:						
2-Chlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dichlorophenol	µg/l	<10	<10	<10	<10	-
2,4-Dimethylphenol	µg/l	<10	<10	<10	<10	-
4,6-Dinitro-o-cresol	µg/l	<50	<50	<50	<50	-
2,4-Dinitrophenol	µg/l	<10	<10	<10	<10	-
2-Nitrophenol	µg/l	<50	<50	<50	<50	-
4-Nitrophenol	µg/l	<50	<50	<50	<50	-
p-chloro-m-cresol	µg/l	<10	<10	<10	<10	-
Pentachlorophenol	µg/l	<50	<50	<50	<50	-
2,4,6-Trichlorophenol	µg/l	<10	<10	<10	<10	-

See footnotes at end of table.

Table B-13
Monitoring Well TB-5C
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/12/90	5/21/90
Groundwater Elevation	ft msl	10.59	9.22	9.15	9.32	9.21
Temperature(1)	°C	14	17	13	12	10
pH(1)	pH units	6.90	6.90	6.90	7.05	7.05
pH(1)	pH units	7.00	7.00	7.00	7.05	7.10
pH(1)	pH units	7.00	7.10	7.00	7.05	7.10
pH(1)	pH units	7.05	7.10	7.05	7.05	7.10
Specific Conductance @ 25°C(1)	µmhos/cm	1500	1000	1100	1100	1200
Specific Conductance @ 25°C(1)	µmhos/cm	1600	1000	1200	1000	1200
Specific Conductance @ 25°C(1)	µmhos/cm	1600	1000	1200	1100	1200
Specific Conductance @ 25°C(1)	µmhos/cm	1600	1000	1200	1100	1200
Total Organic Carbon	mg/l	5	10	4	4	4
Total Organic Carbon	mg/l	6	6	4	5	4
Total Organic Carbon	mg/l	6	5	5	4	4
Total Organic Carbon	mg/l	5	5	4	4	5
Total Organic Halogens	µg/l	44	19	44	22	<10
Total Organic Halogens	µg/l	46	22	15	19	<10
Total Organic Halogens	µg/l	42	20	27	19	<10
Total Organic Halogens	µg/l	46	14	22	20	<10
Alkalinity	mg/l $CaCO_3$	-	-	-	-	-
Chloride	mg/l	29	38	28	23	21
Fluoride	mg/l	0.10	0.11	0.06	0.16	0.14
Nitrate	mg/l NO_3-N	<0.1	0.2	<0.1	0.3	0.5
Sulfate	mg/l	550	450	290	350	380
Sodium	mg/l	13	12	11	11	9
Calcium	mg/l	-	-	-	-	-
Magnesium	mg/l	-	-	-	-	-
Potassium	mg/l	-	-	-	-	-
Phenolics	mg/l	<0.01	0.08	<0.01	0.14	<0.01
Gross Alpha	pCi/L	6±3	-	-	-	-
Gross Beta	pCi/L	<5	-	-	-	-
Radium 226	mg/l	16.3±7.8	-	-	-	-
Total Coliform	col/100 ml	ND	-	-	-	-
Turbidity	NTU	5.0	-	-	-	-
Metals:						
Arsenic	mg/l	0.006	0.004	0.004	0.005	0.005
Barium	mg/l	0.07	0.08	0.04	0.03	0.04
Cadmium	mg/l	<0.001	0.003	<0.001	<0.001	0.002
Chromium	mg/l	<0.001	0.001	0.003	0.001	<0.001
Iron	mg/l	9.5	8.4	8.0	8.3	8.3
Lead	mg/l	<0.001	<0.001	0.002	<0.001	<0.001
Manganese	mg/l	3.2	2.6	2.3	2.3	2.2
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Organics						
Endrin	µg/l	<1	-	-	-	-
Lindane	µg/l	<0.1	-	-	-	-
Methoxychlor	µg/l	<1	-	-	-	-
Toxaphene	µg/l	<1	-	-	-	-
2,4-D	µg/l	<0.1	-	-	-	-

See footnotes at end of table.

Table B-13
Monitoring Well TB-5C
(Continued)

Parameters	Units	Sampling Date 5/23/89	8/21/89	11/13/89	2/12/90	5/21/90
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	150	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5	<5
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-13
Monitoring Well TB-5C
(Continued)

Parameters	Units	Sampling Date				
		5/23/89	8/21/89	11/13/89	2/12/90	5/21/90
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-13
Monitoring Well TB-5C
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Groundwater Elevation	ft msl	8.69	7.67	9.12	8.62	7.56
Temperature(1)	°C	17	13	13	14	15.6
pH(1)	pH units	7.20	6.95	6.60	7.00	7.18
pH(1)	pH units	7.20	7.00	6.65	7.05	7.22
pH(1)	pH units	7.20	7.00	6.75	7.05	7.23
pH(1)	pH units	7.20	7.00	6.90	7.05	7.22
Specific Conductance @ 25°C(1)	µmhos/cm	1050	1150	1100	1050	1400
Specific Conductance @ 25°C(1)	µmhos/cm	1050	1100	1100	1050	1350
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1150	1050	1050	1350
Specific Conductance @ 25°C(1)	µmhos/cm	1100	1150	1000	1050	1400
Total Organic Carbon	mg/l	8	5	12	1	6
Total Organic Carbon	mg/l	8	5	12	1	6
Total Organic Carbon	mg/l	7	5	13	1	6
Total Organic Carbon	mg/l	7	5	13	1	6
Total Organic Halogens	µg/l	27	47	21	49	41
Total Organic Halogens	µg/l	20	60	25	54	41
Total Organic Halogens	µg/l	23	46	23	37	47
Total Organic Halogens	µg/l	28	36	22	40	43
Alkalinity	mg/l $CaCO_3$	210	-	-	-	196
Chloride	mg/l	20	25	25	26	29
Fluoride	mg/l	0.13	0.18	0.16	0.14	0.13
Nitrate	mg/l NO_3-N	0.5	0.2	7.8	0.1	0.2
Sulfate	mg/l	410	420	370	440	380
Sodium	mg/l	11	11	10	12	13
Calcium	mg/l	150	-	-	-	150
Magnesium	mg/l	38	-	-	-	33
Potassium	mg/l	17	-	-	-	17
Phenolics	mg/l	<0.01	0.02	0.01	<0.01	<0.01
Gross Alpha	pCi/L	-	-	-	-	-
Gross Beta	pCi/L	-	-	-	-	-
Radium 226	mg/l	-	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-	-
Turbidity	NTU	-	-	-	-	-
Metals:						
Arsenic	mg/l	0.004	0.006	0.004	0.003	0.005
Barium	mg/l	0.04	0.04	0.05	0.04	0.02
Cadmium	mg/l	<0.001	<0.001	0.001	<0.001	<0.001
Chromium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Iron	mg/l	9.2	8.4	4.0	4.7	7.0
Lead	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	2.4	2.5	2.7	2.4	2.2
Mercury	mg/l	<0.0005	<0.0005	0.006	<0.0005	<0.0005
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	0.001
Organics						
Endrin	µg/l	-	-	-	-	-
Lindane	µg/l	-	-	-	-	-
Methoxychlor	µg/l	-	-	-	-	-
Toxaphene	µg/l	-	-	-	-	-
2,4-D	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-13
Monitoring Well TB-5C
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Volatile Organics:						
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<5	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<5	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	47
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	6	<5	<5	<5	<5
Chloromethane	µg/l	<5	<10	<10	<10	<10
Bromomethane	µg/l	<5	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10
Base Neutrals:						
Acenaphthene	µg/l	-	-	-	-	-
Benzidine	µg/l	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-	-
Fluoranthene	µg/l	-	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-13
Monitoring Well TB-5C
(Continued)

Parameters	Units	Sampling Date 8/13/90	11/14/90	1/29/91	4/23/91	8/6/91
Base Neutrals (continued):						
Hexachlorocyclopentadiene	µg/l	-	-	-	-	-
Isophorone	µg/l	-	-	-	-	-
Naphthalene	µg/l	-	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-	-
Chrysene	µg/l	-	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-	-
Anthracene	µg/l	-	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-	-
Fluorene	µg/l	-	-	-	-	-
Phenanthrene	µg/l	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-	-
Pyrene	µg/l	-	-	-	-	-
Acid Extractables:						
2-Chlorophenol	µg/l	-	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-	-

See footnotes at end of table.

Table B-13
Monitoring Well TB-5C
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Groundwater Elevation	ft msl	7.46	7.65	7.57	7.72
Temperature(1)	°C	14.0	12.3	15.5	17.0
pH(1)	pH units	7.14	7.29	6.59	6.85
pH(1)	pH units	7.11	7.22	6.60	6.85
pH(1)	pH units	7.13	7.31	6.60	6.86
pH(1)	pH units	7.13	7.25	6.62	6.86
Specific Conductance @ 25°C(1)	µmhos/cm	1400	870	1000	900
Specific Conductance @ 25°C(1)	µmhos/cm	1400	900	1000	900
Specific Conductance @ 25°C(1)	µmhos/cm	1400	900	1000	900
Specific Conductance @ 25°C(1)	µmhos/cm	1400	900	1000	900
Total Organic Carbon	mg/l	4	66	4	7
Total Organic Carbon	mg/l	4	78	5	5
Total Organic Carbon	mg/l	5	79	4	5
Total Organic Carbon	mg/l	5	82	5	6
Total Organic Halogens	µg/l	48	60	70	72
Total Organic Halogens	µg/l	47	64	65	70
Total Organic Halogens	µg/l	46	54	74	70
Total Organic Halogens	µg/l	44	55	68	76
Alkalinity	mg/l $CaCO_3$	-	-	-	200
Chloride	mg/l	30	31	40	33
Fluoride	mg/l	0.13	0.15	0.14	0.14
Nitrate	mg/l NO_3-N	<0.1	<0.1	0.5	<0.10
Sulfate	mg/l	260	270	280	270
Sodium	mg/l	14	11	12	14
Calcium	mg/l	-	-	-	140
Magnesium	mg/l	-	-	-	35
Potassium	mg/l	-	-	-	18
Phenolics	mg/l	0.03	0.02	<0.01	0.47
Gross Alpha	pCi/L	-	-	-	-
Gross Beta	pCi/L	-	-	-	-
Radium 226	mg/l	-	-	-	-
Total Coliform	col/100 ml	-	-	-	-
Turbidity	NTU	-	-	-	-
Metals:					
Arsenic	mg/l	0.004	0.002	0.003	0.003
Barium	mg/l	0.03	0.03	0.04	0.030
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.001	<0.001	<0.001	<0.001
Iron	mg/l	5.2	3.7	4.2	5.6
Lead	mg/l	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	2.1	2.0	2.2	2.2
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	mg/l	<0.001	0.002	0.001	<0.001
Silver	mg/l	0.002	<0.001	<0.001	<0.001
Organics					
Endrin	µg/l	-	-	-	-
Lindane	µg/l	-	-	-	-
Methoxychlor	µg/l	-	-	-	-
Toxaphene	µg/l	-	-	-	-
2,4-D	µg/l	-	-	-	-

See footnotes at end of table.

Table B-13
Monitoring Well TB-5C
(Continued)

Parameters	Units	Sampling Date 10/29/91	1/21/92	4/21/92	7/22/92
Volatile Organics:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
Cis-1,3-Dichloropropene	µg/l	<5	-	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<5	<10	<10
Base Neutrals:					
Acenaphthene	µg/l	-	-	-	-
Benzidine	µg/l	-	-	-	-
1,2,4-Trichlorobenzene	µg/l	-	-	-	-
Hexachlorobenzene	µg/l	-	-	-	-
Hexachloroethane	µg/l	-	-	-	-
Bis(2-chloroethoxy)methane	µg/l	-	-	-	-
2-Chloronaphthalene	µg/l	-	-	-	-
1,2-Dichlorobenzene	µg/l	-	-	-	-
1,3-Dichlorobenzene	µg/l	-	-	-	-
1,4-Dichlorobenzene	µg/l	-	-	-	-
3,3-Dichlorobenzidine	µg/l	-	-	-	-
2,4-Dinitrotoluene	µg/l	-	-	-	-
2,6-Dinitrotoluene	µg/l	-	-	-	-
Fluoranthene	µg/l	-	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	-
Bis(2-chloroisopropyl)ether	µg/l	-	-	-	-
Bis(2-chloroethyl)ether	µg/l	-	-	-	-
Hexachlorobutadiene	µg/l	-	-	-	-

See footnotes at end of table.

Table B-13
Monitoring Well TB-5C
(Continued)

Parameters	Units	Sampling Date			
		10/29/91	1/21/92	4/21/92	7/22/92
Base Neutrals (continued):					
Hexachlorocyclopentadiene	µg/l	-	-	-	-
Isophorone	µg/l	-	-	-	-
Naphthalene	µg/l	-	-	-	-
Nitrobenzene	µg/l	-	-	-	-
N-Nitrosodimethylamine	µg/l	-	-	-	-
N-Nitrosodiphenylamine	µg/l	-	-	-	-
N-Nitrosodi-n-propylamine	µg/l	-	-	-	-
Bis(2-ethylhexyl)phthalate	µg/l	-	-	-	-
Butylbenzyl Phthalate	µg/l	-	-	-	-
Di-N-butyl Phthalate	µg/l	-	-	-	-
Di-N-octyl Phthalate	µg/l	-	-	-	-
Diethyl Phthalate	µg/l	-	-	-	-
Dimethyl Phthalate	µg/l	-	-	-	-
Benzo(a)anthracene	µg/l	-	-	-	-
Benzo(a)pyrene	µg/l	-	-	-	-
Benzo(k)fluoranthene	µg/l	-	-	-	-
Chrysene	µg/l	-	-	-	-
Acenaphthylene	µg/l	-	-	-	-
Anthracene	µg/l	-	-	-	-
Benzo(g,h,i)perylene	µg/l	-	-	-	-
Fluorene	µg/l	-	-	-	-
Phenanthrene	µg/l	-	-	-	-
Dibenzo(a,h)anthracene	µg/l	-	-	-	-
Indeno(1,2,3-c,d)pyrene	µg/l	-	-	-	-
Pyrene	µg/l	-	-	-	-
Acid Extractables:					
2-Chlorophenol	µg/l	-	-	-	-
2,4-Dichlorophenol	µg/l	-	-	-	-
2,4-Dimethylphenol	µg/l	-	-	-	-
4,6-Dinitro-o-cresol	µg/l	-	-	-	-
2,4-Dinitrophenol	µg/l	-	-	-	-
2-Nitrophenol	µg/l	-	-	-	-
4-Nitrophenol	µg/l	-	-	-	-
p-chloro-m-cresol	µg/l	-	-	-	-
Pentachlorophenol	µg/l	-	-	-	-
2,4,6-Trichlorophenol	µg/l	-	-	-	-

(1) Field analysis.
(2) Dash denotes not analyzed.

BCM

EARTH SCIENCES CONSULTANTS INC.

DECEMBER 1992

Table 1
Groundwater Chemistry Data
USX/WMI Property Transaction, Fairless Works
Third Quarter 1992

Parameters	Units	Sampling Location					
		FUA01D	FUA02D	FUA03	FUA04D	FUA05	FUA06D
Groundwater Elevation	ft msl	2.80	2.52	2.18	3.54	2.19	NM(1)
Temperature(2)	°C	14.0	NS(3)	16.4	14.2	13.8	NS
pH(2)	pH units	6.25	NS	6.09	6.39	6.17	NS
Specific Conductance @ 25°C(2)	µmhos/cm	150	NS	2300	270	800	NS
Total Organic Carbon	mg/l	5.0	NS	17	3.0	8.0	NS
Alkalinity	mg/l $CaCO_3$	40.0	NS	183	49.0	191	NS
Chloride	mg/l	3.8	NS	370	34	40	NS
Nitrate	mg/l NO_3-N	<0.10	NS	<0.10	<0.10	<0.10	NS
Sulfate	mg/l	12	NS	610	12	180	NS
Sulfide	mg/l	<1.0	NS	<1.0	<1.0	<1.0	NS
Fluoride	mg/l	0.070	NS	0.16	0.14	0.13	NS
Ammonia	mg/l NH_3-N	<0.10	NS	2.3	<0.10	1.1	NS
Nitrogen, Kjeldahl	mg/l NH_3-N	1.3	NS	16	2.0	8.0	NS
Calcium	mg/l	11	NS	310	16	100	NS
Magnesium	mg/l	3.0	NS	42	3.0	17	NS
Sodium	mg/l	6.0	NS	82	19	24	NS
Potassium	mg/l	2.2	NS	4.7	3.0	4.9	NS
Aluminum	mg/l	<0.10	NS	0.17	<0.10	<0.10	NS
Antimony	mg/l	<0.10	NS	<0.10	<0.10	<0.10	NS
Arsenic	mg/l	<0.001	NS	0.006	<0.001	0.001	NS
Barium	mg/l	0.050	NS	0.030	0.10	0.030	NS
Beryllium	mg/l	<0.005	NS	0.008	<0.005	<0.005	NS
Cadmium	mg/l	<0.001	NS	<0.001	<0.001	<0.001	NS
Chromium	mg/l	<0.001	NS	0.002	<0.001	<0.001	NS
Cobalt	mg/l	<0.010	NS	<0.010	0.010	0.010	NS
Copper	mg/l	<0.010	NS	0.010	<0.010	0.010	NS
Iron	mg/l	6.4	NS	20	6.7	3.9	NS
Lead	mg/l	0.002	NS	<0.001	<0.001	0.002	NS
Manganese	mg/l	0.13	NS	8.4	0.16	9.0	NS
Mercury	mg/l	<0.0002	NS	<0.0002	<0.0002	<0.0002	NS
Nickel	mg/l	<0.040	NS	0.040	<0.040	0.050	NS
Osmium	mg/l	<1.0	NS	<1.0	<1.0	<1.0	NS
Selenium	mg/l	<0.001	NS	<0.001	<0.001	<0.001	NS
Silver	mg/l	<0.001	NS	<0.001	<0.001	<0.001	NS
Thallium	mg/l	<0.001	NS	<0.001	0.001	<0.001	NS
Tin	mg/l	<0.10	NS	<0.10	<0.10	<0.10	NS
Vanadium	mg/l	<0.050	NS	<0.050	<0.050	<0.050	NS
Zinc	mg/l	<0.010	NS	0.050	<0.010	<0.010	NS
Cyanide	mg/l	<0.010	NS	<0.010	<0.010	<0.010	NS
Phenolics	mg/l	0.033	NS	0.024	0.026	0.12	NS

See footnotes at end of table.

Table 1
(Continued)

Parameters	Units	Sampling Location					
		FUB01	FUB02	FUB03	FUB04	FUB05D	FUB06
Groundwater Elevation	ft msl	6.88	6.50	7.82	6.21	7.69	6.44
Temperature(2)	°C	15.3	14.7	15.2	14.5	14.1	15.5
pH(2)	pH units	7.15	6.19	6.31	6.03	6.00	6.25
Specific Conductance @ 25°C(2)	µmhos/cm	1000	600	450	700	120	700
Total Organic Carbon	mg/l	5.0	2.0	2.0	4.0	2.0	7.0
Alkalinity	mg/l $CaCO_3$	255	99.0	65.0	66.0	42.0	212
Chloride	mg/l	28	12	14	19	4.5	25
Nitrate	mg/l NO_3-N	<0.10	1.3	0.47	0.71	0.92	<0.10
Sulfate	mg/l	290	200	130	250	14	110
Sulfide	mg/l	1.4	<1.0	<1.0	<1.0	<1.0	1.3
Fluoride	mg/l	0.43	0.060	0.090	0.070	0.040	0.14
Ammonia	mg/l NH_3-N	16	<0.10	<0.10	<0.10	<0.10	5.5
Nitrogen, Kjeldahl	mg/l NH_3-N	110	2.0	1.0	1.0	2.0	40
Calcium	mg/l	130	79	45	94	11	59
Magnesium	mg/l	39	24	15	15	5.0	31
Sodium	mg/l	16	7.0	7.0	11	3.0	19
Potassium	mg/l	15	3.4	4.2	17	0.80	5.2
Aluminum	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Antimony	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	0.007	<0.001	<0.001	<0.001	<0.001	0.009
Barium	mg/l	0.060	0.010	0.050	0.010	<0.010	0.18
Beryllium	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Cadmium	mg/l	<0.001	<0.001	0.001	0.001	<0.001	<0.001
Chromium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	0.010
Copper	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Iron	mg/l	2.3	<0.10	<0.10	<0.10	0.10	42
Lead	mg/l	<0.001	0.001	0.002	0.001	0.001	0.001
Manganese	mg/l	2.2	<0.010	2.7	0.40	0.030	2.0
Mercury	mg/l	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/l	<0.10	<0.040	<0.040	<0.040	<0.040	<0.040
Osmium	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Selenium	mg/l	<0.001	0.002	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Thallium	mg/l	0.001	<0.001	0.002	<0.001	<0.001	<0.001
Tin	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium	mg/l	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Zinc	mg/l	<0.010	<0.010	<0.010	<0.010	0.020	0.040
Cyanide	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Phenolics	mg/l	0.27	0.091	0.067	0.12	0.10	0.041

See footnotes at end of table.

Table 1
(Continued)

Parameters	Units	Sampling Location				
		FUB07	FUB08	FUB09	FUB10D	FUB11
Groundwater Elevation	ft msl	6.00	5.62	5.77	4.66	5.41
Temperature(2)	°C	15.0	15.2	15.5	15.7	16.3
pH(2)	pH units	6.55	6.57	6.34	6.46	6.48
Specific Conductance @ 25°C(2)	µmhos/cm	700	900	700	150	800
Total Organic Carbon	mg/l	7.0	4.0	3.0	1.0	9.0
Alkalinity	mg/l $CaCO_3$	72.0	184	101	36.0	80.0
Chloride	mg/l	19	18	19	2.9	25
Nitrate	mg/l NO_3-N	0.15	<0.10	0.69	<0.10	<0.10
Sulfate	mg/l	250	270	250	<10	290
Sulfide	mg/l	<1.0	<1.0	<1.0	1.0	<1.0
Fluoride	mg/l	0.070	0.080	0.080	0.060	0.040
Ammonia	mg/l NH_3-N	<0.10	4.8	0.43	<0.10	0.18
Nitrogen, Kjeldahl	mg/l NH_3-N	<1.0	31	3.0	1.0	2.0
Calcium	mg/l	88	100	89	7.0	110
Magnesium	mg/l	14	27	20	3.0	22
Sodium	mg/l	12	14	12	3.0	12
Potassium	mg/l	20	13	15	1.3	15
Aluminum	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Antimony	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	<0.001	<0.001	<0.001	0.004	<0.001
Barium	mg/l	<0.010	0.030	0.020	0.020	0.030
Beryllium	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l	<0.010	0.020	0.010	0.010	0.010
Copper	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Iron	mg/l	0.80	1.3	0.20	4.0	0.10
Lead	mg/l	0.002	0.002	<0.001	0.001	0.001
Manganese	mg/l	0.76	3.9	0.27	0.12	0.40
Mercury	mg/l	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/l	<0.040	<0.040	<0.040	<0.040	<0.040
Osmium	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001
Thallium	mg/l	0.002	<0.001	<0.001	<0.001	<0.001
Tin	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium	mg/l	<0.050	<0.050	<0.050	<0.050	<0.050
Zinc	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Cyanide	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Phenolics	mg/l	0.15	0.058	0.19	0.20	0.38

See footnotes at end of table.

Table 1
(Continued)

Parameters	Units	Sampling Location				
		FUB12	FUB13	FUB14	FUB15D	FUB16
Groundwater Elevation	ft msl	5.42	5.14	5.00	4.46	4.88
Temperature(2)	°C	15.7	15.3	14.8	NS	15.2
pH(2)	pH units	6.79	6.80	6.50	NS	6.70
Specific Conductance @ 25°C(2)	µmhos/cm	1000	900	800	NS	900
Total Organic Carbon	mg/l	10	5.0	8.0	NS	4.0
Alkalinity	mg/l $CaCO_3$	192	170	141	NS	131
Chloride	mg/l	27	21	22	NS	26
Nitrate	mg/l NO_3-N	0.11	0.31	<0.10	NS	<0.10
Sulfate	mg/l	310	270	250	NS	290
Sulfide	mg/l	<1.0	<1.0	<1.0	NS	<1.0
Fluoride	mg/l	0.21	0.39	0.23	NS	0.11
Ammonia	mg/l NH_3-N	35	8.4	5.0	NS	6.0
Nitrogen, Kjeldahl	mg/l NH_3-N	190	35	33	NS	40
Calcium	mg/l	100	100	98	NS	100
Magnesium	mg/l	30	27	24	NS	27
Sodium	mg/l	18	16	15	NS	16
Potassium	mg/l	8.1	14	14	NS	9.7
Aluminum	mg/l	<0.10	<0.10	<0.10	NS	<0.10
Antimony	mg/l	<0.10	<0.10	<0.10	NS	<0.10
Arsenic	mg/l	<0.001	<0.001	0.002	NS	0.001
Barium	mg/l	0.020	0.030	0.080	NS	0.090
Beryllium	mg/l	<0.005	<0.005	<0.005	NS	<0.005
Cadmium	mg/l	<0.001	<0.001	<0.001	NS	<0.001
Chromium	mg/l	<0.001	<0.001	<0.001	NS	<0.001
Cobalt	mg/l	<0.010	<0.010	<0.010	NS	0.010
Copper	mg/l	<0.010	<0.010	<0.010	NS	<0.010
Iron	mg/l	<0.10	4.0	1.7	NS	2.6
Lead	mg/l	0.001	0.001	0.001	NS	0.001
Manganese	mg/l	4.9	3.6	4.2	NS	7.8
Mercury	mg/l	<0.0002	<0.0002	<0.0002	NS	<0.0002
Nickel	mg/l	<0.040	<0.040	<0.040	NS	<0.040
Osmium	mg/l	<1.0	<1.0	<1.0	NS	<1.0
Selenium	mg/l	<0.001	<0.001	<0.001	NS	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	NS	<0.001
Thallium	mg/l	<0.001	0.001	<0.001	NS	<0.001
Tin	mg/l	<0.10	<0.10	<0.10	NS	<0.10
Vanadium	mg/l	<0.050	<0.050	<0.050	NS	<0.050
Zinc	mg/l	<0.010	<0.010	<0.010	NS	<0.010
Cyanide	mg/l	<0.010	<0.010	<0.010	NS	<0.010
Phenolics	mg/l	0.30	0.26	0.091	NS	0.017

(1)NM = Not measured due to well casing blockage.
(2)Field analysis.
(3)NS = Not sampled due to well casing blockage.

Table 2
Volatile Organic Chemistry Data
USX/WMI Property Transaction, Fairless Works
Third Quarter 1992

Parameters	Units	Sampling Location					
		FUA01D	FUA02D	FUA03	FUA04D	FUA05	FUA06D
Acrolein	µg/l	<250	NS(1)	<250	<250	<250	NS
Acrylonitrile	µg/l	<250	NS	<250	<250	<250	NS
Benzene	µg/l	<5	NS	<5	<5	<5	NS
Carbon Tetrachloride	µg/l	<5	NS	<5	<5	<5	NS
Chlorobenzene	µg/l	<5	NS	<5	<5	<5	NS
1,2-Dichloroethane	µg/l	<5	NS	<5	<5	<5	NS
1,1,1-Trichloroethane	µg/l	<5	NS	<5	<5	<5	NS
1,1-Dichloroethane	µg/l	<5	NS	<5	<5	<5	NS
1,1,2-Trichloroethane	µg/l	<5	NS	<5	<5	<5	NS
1,1,2,2-Tetrachloroethane	µg/l	<5	NS	<5	<5	<5	NS
Chloroethane	µg/l	<10	NS	<10	<10	<10	NS
2-Chloroethylvinyl Ether	µg/l	<10	NS	<10	<10	<10	NS
Chloroform	µg/l	<5	NS	<5	<5	<5	NS
1,1-Dichloroethene	µg/l	<5	NS	<5	<5	<5	NS
Trans-1,2-Dichloroethene	µg/l	<5	NS	<5	<5	<5	NS
1,2-Dichloropropane	µg/l	<5	NS	<5	<5	<5	NS
1,3-Dichloropropene	µg/l	<5	NS	<5	<5	<5	NS
Ethylbenzene	µg/l	<5	NS	<5	<5	<5	NS
Methylene Chloride	µg/l	<5	NS	<5	<5	<5	NS
Chloromethane	µg/l	<10	NS	<10	<10	<10	NS
Bromomethane	µg/l	<10	NS	<10	<10	<10	NS
Bromoform	µg/l	<5	NS	<5	<5	<5	NS
Bromodichloromethane	µg/l	<5	NS	<5	<5	<5	NS
Dibromochloromethane	µg/l	<5	NS	<5	<5	<5	NS
Tetrachloroethene	µg/l	<5	NS	<5	<5	<5	NS
Toluene	µg/l	<5	NS	<5	<5	<5	NS
Trichloroethene	µg/l	<5	NS	<5	<5	<5	NS
Vinyl Chloride	µg/l	<10	NS	<10	<10	<10	NS

See footnotes at end of table.

Table 2
(Continued)

Parameters	Units	Sampling Location					
		FUB01	FUB02	FUB03	FUB04	FUB05D	FUB06
Acrolein	µg/l	<250	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250	<250
Benzene	µg/l	7	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5	<5
1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	7	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10	<10

See footnotes at end of table.

Table 2
(Continued)

Parameters	Units	Sampling Location				
		FUB07	FUB08	FUB09	FUB10D	FUB11
Acrolein	µg/l	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5
1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<20	<10	<10

See footnotes at end of table.

Table 2
(Continued)

Parameters	Units	Sampling Location				
		FUB12	FUB13	FUB14	FUB15D	FUB16
Acrolein	µg/l	<250	<250	<250	NS	<250
Acrylonitrile	µg/l	<250	<250	<250	NS	<250
Benzene	µg/l	<5	<5	<5	NS	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	NS	<5
Chlorobenzene	µg/l	<5	<5	<5	NS	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	NS	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	NS	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	NS	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	NS	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	NS	<5
Chloroethane	µg/l	<10	<10	<10	NS	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	NS	<10
Chloroform	µg/l	<5	<5	<5	NS	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	NS	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	NS	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	NS	<5
1,3-Dichloropropene	µg/l	<5	<5	<5	NS	<5
Ethylbenzene	µg/l	<5	<5	<5	NS	<5
Methylene Chloride	µg/l	<5	<5	<5	NS	<5
Chloromethane	µg/l	<10	<10	<10	NS	<10
Bromomethane	µg/l	<10	<10	<10	NS	<10
Bromoform	µg/l	<5	<5	<5	NS	<5
Bromodichloromethane	µg/l	<5	<5	<5	NS	<5
Dibromochloromethane	µg/l	<5	<5	<5	NS	<5
Tetrachloroethene	µg/l	<5	<5	<5	NS	<5
Toluene	µg/l	<5	<5	<5	NS	<5
Trichloroethene	µg/l	<5	<5	<5	NS	<5
Vinyl Chloride	µg/l	<10	<10	<10	NS	<10

(1)NS = Not sampled due to well casing blockage.

Table 3
Base/Neutral Extractable Chemistry Data
USX/WMI Property Transaction, Fairless Works
Third Quarter 1992

Parameters	Units	Sampling Location					
		FUA01D	FUA02D	FUA03	FUA04D	FUA05	FUA06D
Acenaphthene	µg/l	<10	NS(1)	<10	<10	<10	NS
Benzidine	µg/l	<50	NS	<50	<50	<50	NS
1,2,4-Trichlorobenzene	µg/l	<10	NS	<10	<10	<10	NS
Hexachlorobenzene	µg/l	<10	NS	<10	<10	<10	NS
Hexachloroethane	µg/l	<10	NS	<10	<10	<10	NS
Bis(2-Chloroethoxy)methane	µg/l	<10	NS	<10	<10	<10	NS
2-Chloronaphthalene	µg/l	<10	NS	<10	<10	<10	NS
1,2-Dichlorobenzene	µg/l	<10	NS	<10	<10	<10	NS
1,3-Dichlorobenzene	µg/l	<10	NS	<10	<10	<10	NS
1,4-Dichlorobenzene	µg/l	<10	NS	<10	<10	<10	NS
3,3-Dichlorobenzidine	µg/l	<10	NS	<10	<10	<10	NS
2,4-Dinitrotoluene	µg/l	<10	NS	<10	<10	<10	NS
2,6-Dinitrotoluene	µg/l	<10	NS	<10	<10	<10	NS
Fluoranthene	µg/l	<10	NS	<10	<10	<10	NS
4-Chlorophenyl Phenyl Ether	µg/l	<10	NS	<10	<10	<10	NS
4-Bromophenyl Phenyl Ether	µg/l	<10	NS	<10	<10	<10	NS
Bis(2-Chloroisopropyl)ether	µg/l	<10	NS	<10	<10	<10	NS
Bis(2-Chloroethyl)ether	µg/l	<10	NS	<10	<10	<10	NS
Hexachlorobutadiene	µg/l	<10	NS	<10	<10	<10	NS
Hexachlorocyclopentadiene	µg/l	<10	NS	<10	<10	<10	NS
Isophorone	µg/l	<10	NS	<10	<10	<10	NS
Naphthalene	µg/l	<10	NS	<10	<10	<10	NS
Nitrobenzene	µg/l	<10	NS	<10	<10	<10	NS
N-Nitrosodimethylamine	µg/l	<10	NS	<10	<10	<10	NS
N-Nitrosodiphenylamine	µg/l	<10	NS	<10	<10	<10	NS
N-Nitrosodi-N-Propylamine	µg/l	<10	NS	<10	<10	<10	NS
Bis(2-Ethylhexyl)phthalate	µg/l	<10	NS	<10	<10	<10	NS
Butyl Benzyl Phthalate	µg/l	<10	NS	<10	<10	<10	NS
Di-n-Butyl Phthalate	µg/l	<10	NS	<10	<10	<10	NS
Di-n-Octyl Phthalate	µg/l	<10	NS	<10	<10	<10	NS
Diethyl Phthalate	µg/l	<10	NS	<10	<10	<10	NS
Dimethyl Phthalate	µg/l	<10	NS	<10	<10	<10	NS
Benzo(a)Anthracene	µg/l	<10	NS	<10	<10	<10	NS
Benzo(a)Pyrene	µg/l	<10	NS	<10	<10	<10	NS
Benzo(b)Fluoranthene	µg/l	<10	NS	<10	<10	<10	NS
Benzo(k)Fluoranthene	µg/l	<10	NS	<10	<10	<10	NS
Chrysene	µg/l	<10	NS	<10	<10	<10	NS
Acenaphthylene	µg/l	<10	NS	<10	<10	<10	NS
Anthracene	µg/l	<10	NS	<10	<10	<10	NS
Benzo(g,h,i)Perylene	µg/l	<10	NS	<10	<10	<10	NS
Fluorene	µg/l	<10	NS	<10	<10	<10	NS
Phenanthrene	µg/l	<10	NS	<10	<10	<10	NS
Dibenzo(ah)Anthracene	µg/l	<10	NS	<10	<10	<10	NS
Indeno(1,2,3-cd)Pyrene	µg/l	<10	NS	<10	<10	<10	NS
Pyrene	µg/l	<10	NS	<10	<10	<10	NS
Polychlorinated Biphenyls	µg/l	<1	NS	<1	<1	2.7	NS

See footnotes at end of table.

Table 3
(Continued)

Parameters	Units	Sampling Location					
		FUB01	FUB02	FUB03	FUB04	FUB05D	FUB06
Acenaphthene	µg/l	<10	<10	<10	<10	<10	<10
Benzidine	µg/l	<50	<50	<50	<50	<50	<50
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	<10	<10
Hexachlorobenzene	µg/l	<10	<10	<10	<10	<10	<10
Hexachloroethane	µg/l	<10	<10	<10	<10	<10	<10
Bis(2-Chloroethoxy)methane	µg/l	<10	<10	<10	<10	<10	<10
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	<10	<10
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	<10	<10
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	<10	<10
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	<10	<10
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	<10	<10
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	<10	<10
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	<10	<10
Fluoranthene	µg/l	<10	<10	<10	<10	<10	<10
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	<10	<10
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	<10	<10
Bis(2-Chloroisopropyl)ether	µg/l	<10	<10	<10	<10	<10	<10
Bis(2-Chloroethyl)ether	µg/l	<10	<10	<10	<10	<10	<10
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	<10	<10
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	<10	<10
Isophorone	µg/l	<10	<10	<10	<10	<10	<10
Naphthalene	µg/l	<10	<10	<10	<10	<10	<10
Nitrobenzene	µg/l	<10	<10	<10	<10	<10	<10
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	<10	<10
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	<10	<10
N-Nitrosodi-N-Propylamine	µg/l	<10	<10	<10	<10	<10	<10
Bis(2-Ethylhexyl)phthalate	µg/l	<10	<10	<10	<10	<10	<10
Butyl Benzyl Phthalate	µg/l	<10	<10	<10	15	<10	<10
Di-n-Butyl Phthalate	µg/l	<10	<10	<10	<10	<10	<10
Di-n-Octyl Phthalate	µg/l	<10	<10	<10	<10	<10	<10
Diethyl Phthalate	µg/l	<10	<10	<10	<10	<10	<10
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	<10	<10
Benzo(a)Anthracene	µg/l	<10	<10	<10	<10	<10	<10
Benzo(a)Pyrene	µg/l	<10	<10	<10	<10	<10	<10
Benzo(b)Fluoranthene	µg/l	<10	<10	<10	<10	<10	<10
Benzo(k)Fluoranthene	µg/l	<10	<10	<10	<10	<10	<10
Chrysene	µg/l	<10	<10	<10	<10	<10	<10
Acenaphthylene	µg/l	<10	<10	<10	<10	<10	<10
Anthracene	µg/l	<10	<10	<10	<10	<10	<10
Benzo(g,h,i)Perylene	µg/l	<10	<10	<10	<10	<10	<10
Fluorene	µg/l	<10	<10	<10	<10	<10	<10
Phenanthrene	µg/l	<10	<10	<10	<10	<10	<10
Dibenzo(ah)Anthracene	µg/l	<10	<10	<10	<10	<10	<10
Indeno(1,2,3-cd)Pyrene	µg/l	<10	<10	<10	<10	<10	<10
Pyrene	µg/l	<10	<10	<10	<10	<10	<10
Polychlorinated Biphenyls	µg/l	<1	<1	<1	<1	<1	<1

See footnotes at end of table.

Table 3
(Continued)

Parameters	Units	Sampling Location				
		FUB07	FUB08	FUB09	FUB10D	FUB11
Acenaphthene	µg/l	<10	<10	<20	<10	<10
Benzidine	µg/l	<50	<50	<100	<50	<50
1,2,4-Trichlorobenzene	µg/l	<10	<10	<20	<10	<10
Hexachlorobenzene	µg/l	<10	<10	<20	<10	<10
Hexachloroethane	µg/l	<10	<10	<20	<10	<10
Bis(2-Chloroethoxy)methane	µg/l	<10	<10	<20	<10	<10
2-Chloronaphthalene	µg/l	<10	<10	<20	<10	<10
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	<10
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	<10
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	<10
3,3-Dichlorobenzidine	µg/l	<10	<10	<20	<10	<10
2,4-Dinitrotoluene	µg/l	<10	<10	<20	<10	<10
2,6-Dinitrotoluene	µg/l	<10	<10	<20	<10	<10
Fluoranthene	µg/l	<10	<10	<20	<10	<10
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<20	<10	<10
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<20	<10	<10
Bis(2-Chloroisopropyl)ether	µg/l	<10	<10	<20	<10	<10
Bis(2-Chloroethyl)ether	µg/l	<10	<10	<20	<10	<10
Hexachlorobutadiene	µg/l	<10	<10	<20	<10	<10
Hexachlorocyclopentadiene	µg/l	<10	<10	<20	<10	<10
Isophorone	µg/l	<10	<10	<20	<10	<10
Naphthalene	µg/l	<10	<10	<20	<10	<10
Nitrobenzene	µg/l	<10	<10	<20	<10	<10
N-Nitrosodimethylamine	µg/l	<10	<10	<20	<10	<10
N-Nitrosodiphenylamine	µg/l	<10	<10	<20	<10	<10
N-Nitrosodi-N-Propylamine	µg/l	<10	<10	<20	<10	<10
Bis(2-Ethylhexyl)phthalate	µg/l	<10	<10	<20	<10	<10
Butyl Benzyl Phthalate	µg/l	<10	<10	<20	<10	<10
Di-n-Butyl Phthalate	µg/l	<10	<10	<20	<10	<10
Di-n-Octyl Phthalate	µg/l	<10	<10	<20	<10	<10
Diethyl Phthalate	µg/l	<10	<10	<20	<10	<10
Dimethyl Phthalate	µg/l	<10	<10	<20	<10	<10
Benzo(a)Anthracene	µg/l	<10	<10	<20	<10	<10
Benzo(a)Pyrene	µg/l	<10	<10	<20	<10	<10
Benzo(b)Fluoranthene	µg/l	<10	<10	<20	<10	<10
Benzo(k)Fluoranthene	µg/l	<10	<10	<20	<10	<10
Chrysene	µg/l	<10	<10	<20	<10	<10
Acenaphthylene	µg/l	<10	<10	<20	<10	<10
Anthracene	µg/l	<10	<10	<20	<10	<10
Benzo(g,h,i)Perylene	µg/l	<10	<10	<20	<10	<10
Fluorene	µg/l	<10	<10	<20	<10	<10
Phenanthrene	µg/l	<10	<10	<20	<10	<10
Dibenzo(ah)Anthracene	µg/l	<10	<10	<20	<10	<10
Indeno(1,2,3-cd)Pyrene	µg/l	<10	<10	<20	<10	<10
Pyrene	µg/l	<10	<10	<20	<10	<10
Polychlorinated Biphenyls	µg/l	<1	<1	<1	<1	<1

See footnotes at end of table.

Table 3
(Continued)

Parameters	Units	Sampling Location				
		FUB12	FUB13	FUB14	FUB15D	FUB16
Acenaphthene	µg/l	<10	<10	<10	NS	<10
Benzidine	µg/l	<50	<50	<50	NS	<50
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	NS	<10
Hexachlorobenzene	µg/l	<10	<10	<10	NS	<10
Hexachloroethane	µg/l	<10	<10	<10	NS	<10
Bis(2-Chloroethoxy)methane	µg/l	<10	<10	<10	NS	<10
2-Chloronaphthalene	µg/l	<10	<10	<10	NS	<10
1,2-Dichlorobenzene	µg/l	<10	<10	<10	NS	<10
1,3-Dichlorobenzene	µg/l	<10	<10	<10	NS	<10
1,4-Dichlorobenzene	µg/l	<10	<10	<10	NS	<10
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	NS	<10
2,4-Dinitrotoluene	µg/l	<10	<10	<10	NS	<10
2,6-Dinitrotoluene	µg/l	<10	<10	<10	NS	<10
Fluoranthene	µg/l	<10	<10	<10	NS	<10
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	NS	<10
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	NS	<10
Bis(2-Chloroisopropyl)ether	µg/l	<10	<10	<10	NS	<10
Bis(2-Chloroethyl)ether	µg/l	<10	<10	<10	NS	<10
Hexachlorobutadiene	µg/l	<10	<10	<10	NS	<10
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	NS	<10
Isophorone	µg/l	<10	<10	<10	NS	<10
Naphthalene	µg/l	<10	<10	<10	NS	<10
Nitrobenzene	µg/l	<10	<10	<10	NS	<10
N-Nitrosodimethylamine	µg/l	<10	<10	<10	NS	<10
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	NS	<10
N-Nitrosodi-N-Propylamine	µg/l	<10	<10	<10	NS	<10
Bis(2-Ethylhexyl)phthalate	µg/l	<10	<10	<10	NS	<10
Butyl Benzyl Phthalate	µg/l	<10	<10	<10	NS	<10
Di-n-Butyl Phthalate	µg/l	<10	<10	<10	NS	<10
Di-n-Octyl Phthalate	µg/l	<10	<10	<10	NS	<10
Diethyl Phthalate	µg/l	<10	<10	<10	NS	<10
Dimethyl Phthalate	µg/l	<10	<10	<10	NS	<10
Benzo(a)Anthracene	µg/l	<10	<10	<10	NS	<10
Benzo(a)Pyrene	µg/l	<10	<10	<10	NS	<10
Benzo(b)Fluoranthene	µg/l	<10	<10	<10	NS	<10
Benzo(k)Fluoranthene	µg/l	<10	<10	<10	NS	<10
Chrysene	µg/l	<10	<10	<10	NS	<10
Acenaphthylene	µg/l	<10	<10	<10	NS	<10
Anthracene	µg/l	<10	<10	<10	NS	<10
Benzo(g,h,i)Perylene	µg/l	<10	<10	<10	NS	<10
Fluorene	µg/l	<10	<10	<10	NS	<10
Phenanthrene	µg/l	<10	<10	<10	NS	<10
Dibenzo(ah)Anthracene	µg/l	<10	<10	<10	NS	<10
Indeno(1,2,3-cd)Pyrene	µg/l	<10	<10	<10	NS	<10
Pyrene	µg/l	<10	<10	<10	NS	<10
Polychlorinated Biphenyls	µg/l	<1	<1	<1	NS	<1

(1)NS = Not sampled due to well casing blockage.

Table 4
Quality Assurance/Quality Control
Groundwater Chemistry Data
USX/WMI Property Transaction, Fairless Works
Third Quarter 1992

Parameters	Units	Sampling Location					
		FUA03	FUA03 (Dup)	FUB16	FUB16 (Dup)	Equipment Blank	Trip Blank
Groundwater Elevation	ft msl	2.18	-(1)	4.88	-	-	-
Temperature(2)	°C	16.4	-	15.2	-	-	-
pH(2)	pH units	6.09	-	6.70	-	-	-
Specific Conductance @ 25°C(2)	µmhos/cm	2300	-	900	-	-	-
Total Organic Carbon	mg/l	17	17	4.0	3.0	<1.0	<1.0
Alkalinity	mg/l $CaCO_3$	183	186	131	131	<2.00	2.00
Chloride	mg/l	370	400	26	26	<0.50	<0.50
Nitrate	mg/l NO_3-N	<0.10	<0.10	<0.10	<0.10	0.30	<0.10
Sulfate	mg/l	610	610	290	290	<10	<10
Sulfide	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Fluoride	mg/l	0.16	0.15	0.11	0.10	0.040	0.030
Ammonia	mg/l NH_3-N	2.3	2.3	6.0	6.0	<0.10	<0.10
Nitrogen, Kjeldahl	mg/l NH_3-N	16	16	40	46	3.0	<1.0
Calcium	mg/l	310	330	100	110	<1.0	<1.0
Magnesium	mg/l	42	43	27	27	<1.0	<1.0
Sodium	mg/l	82	82	16	16	<1.0	<1.0
Potassium	mg/l	4.7	4.8	9.7	9.4	<0.10	<0.10
Aluminum	mg/l	0.17	0.19	<0.10	<0.10	<0.10	<0.10
Antimony	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	0.006	0.006	0.001	0.002	<0.001	<0.001
Barium	mg/l	0.030	0.030	0.090	0.10	<0.010	<0.010
Beryllium	mg/l	0.008	0.009	<0.005	<0.005	<0.005	<0.005
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	mg/l	<0.010	0.020	0.010	0.020	<0.010	<0.010
Copper	mg/l	0.010	0.020	<0.010	<0.010	<0.010	<0.010
Iron	mg/l	20	21	2.6	2.8	<0.10	<0.10
Lead	mg/l	<0.001	<0.001	0.001	0.001	0.002	0.014
Manganese	mg/l	8.4	8.8	7.8	8.0	<0.010	<0.010
Mercury	mg/l	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	mg/l	0.040	0.040	<0.040	0.040	<0.040	<0.040
Osmium	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Thallium	mg/l	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Tin	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium	mg/l	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Zinc	mg/l	0.050	0.030	<0.010	<0.010	<0.010	0.010
Cyanide	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Phenolics	mg/l	0.024	0.050	0.017	0.052	0.14	0.036

(1) Dash denotes not analyzed.
(2) Field analysis.

Table 5
Quality Assurance/Quality Control
Volatile Organic Chemistry Data
USX/WMI Property Transaction, Fairless Works
Third Quarter 1992

Parameters	Units	Sampling Location					
		FUA03	FUA03 (Dup)	FUB16	FUB16 (Dup)	Equipment Blank	Trip Blank
Acrolein	µg/l	<250	<250	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5	<5	<5
1,3-Dichloropropene	µg/l	<5	<5	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10	<10	<10

Table 6
Quality Assurance/Quality Control
Base/Neutral Extractable Chemistry Data
USX/WMI Property Transaction, Fairless Works
Third Quarter 1992

Parameters	Units	Sampling Location					
		FUA03	FUA03 (Dup)	FUB16	FUB16 (Dup)	Equipment Blank	Trip Blank
Acenaphthene	µg/l	<10	<10	<10	<10	<10	<10
Benzidine	µg/l	<50	<50	<50	<50	<50	<50
1,2,4-Trichlorobenzene	µg/l	<10	<10	<10	<10	<10	<10
Hexachlorobenzene	µg/l	<10	<10	<10	<10	<10	<10
Hexachloroethane	µg/l	<10	<10	<10	<10	<10	<10
Bis(2-Chloroethoxy)methane	µg/l	<10	<10	<10	<10	<10	<10
2-Chloronaphthalene	µg/l	<10	<10	<10	<10	<10	<10
1,2-Dichlorobenzene	µg/l	<10	<10	<10	<10	<10	<10
1,3-Dichlorobenzene	µg/l	<10	<10	<10	<10	<10	<10
1,4-Dichlorobenzene	µg/l	<10	<10	<10	<10	<10	<10
3,3-Dichlorobenzidine	µg/l	<10	<10	<10	<10	<10	<10
2,4-Dinitrotoluene	µg/l	<10	<10	<10	<10	<10	<10
2,6-Dinitrotoluene	µg/l	<10	<10	<10	<10	<10	<10
Fluoranthene	µg/l	<10	<10	<10	<10	<10	<10
4-Chlorophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	<10	<10
4-Bromophenyl Phenyl Ether	µg/l	<10	<10	<10	<10	<10	<10
Bis(2-Chloroisopropyl)ether	µg/l	<10	<10	<10	<10	<10	<10
Bis(2-Chloroethyl)ether	µg/l	<10	<10	<10	<10	<10	<10
Hexachlorobutadiene	µg/l	<10	<10	<10	<10	<10	<10
Hexachlorocyclopentadiene	µg/l	<10	<10	<10	<10	<10	<10
Isophorone	µg/l	<10	<10	<10	<10	<10	<10
Naphthalene	µg/l	<10	<10	<10	<10	<10	<10
Nitrobenzene	µg/l	<10	<10	<10	<10	<10	<10
N-Nitrosodimethylamine	µg/l	<10	<10	<10	<10	<10	<10
N-Nitrosodiphenylamine	µg/l	<10	<10	<10	<10	<10	<10
N-Nitrosodi-N-Propylamine	µg/l	<10	<10	<10	<10	<10	<10
Bis(2-Ethylhexyl)phthalate	µg/l	<10	<10	<10	<10	<10	<10
Butyl Benzyl Phthalate	µg/l	<10	<10	<10	<10	<10	<10
Di-n-Butyl Phthalate	µg/l	<10	<10	<10	<10	<10	<10
Di-n-Octyl Phthalate	µg/l	<10	<10	<10	<10	<10	<10
Diethyl Phthalate	µg/l	<10	<10	<10	<10	<10	<10
Dimethyl Phthalate	µg/l	<10	<10	<10	<10	<10	<10
Benzo(a)Anthracene	µg/l	<10	<10	<10	<10	<10	<10
Benzo(a)Pyrene	µg/l	<10	<10	<10	<10	<10	<10
Benzo(b)Fluoranthene	µg/l	<10	<10	<10	<10	<10	<10
Benzo(k)Fluoranthene	µg/l	<10	<10	<10	<10	<10	<10
Chrysene	µg/l	<10	<10	<10	<10	<10	<10
Acenaphthylene	µg/l	<10	<10	<10	<10	<10	<10
Anthracene	µg/l	<10	<10	<10	<10	<10	<10
Benzo(g,h,i)Perylene	µg/l	<10	<10	<10	<10	<10	<10
Fluorene	µg/l	<10	<10	<10	<10	<10	<10
Phenanthrene	µg/l	<10	<10	<10	<10	<10	<10
Dibenzo(ah)Anthracene	µg/l	<10	<10	<10	<10	<10	<10
Indeno(1,2,3-cd)Pyrene	µg/l	<10	<10	<10	<10	<10	<10
Pyrene	µg/l	<10	<10	<10	<10	<10	<10
Polychlorinated Biphenyls	µg/l	<1	<1	<1	<1	<1	<1

Appendix A

Historical Groundwater Chemistry Data
Area A Wells

Table A-1
Historical Groundwater Chemistry Data
Fairless Works
Well FUA01D

Parameters	Units	Sampling Location			
		10/18/88	2/24/89	5/25/89	8/23/89
Groundwater Elevation	ft msl	1.66	2.04	3.94	2.66
Temperature	°C	14	10	14	14
pH	pH units	6.70	7.25	6.50	6.65
Specific Conductance @ 25°C	µmhos/cm	175	160	160	140
Total Organic Carbon	mg/l	5	1	1	1
Alkalinity	mg/l $CaCO_3$	44	-(1)	40	40
Chloride	mg/l	4.0	3.8	3.6	5.1
Nitrate	mg/l NO_3-N	0.1	-	<0.1	<0.1
Sulfate	mg/l	24	-	25	25
Sulfide	mg/l	<0.1	<1	<0.1	<1
Fluoride	mg/l	0.04	0.12	0.08	0.11
Ammonia	mg/l	0.2	<0.1	<0.1	<0.1
Nitrogen, Kjeldahl	mg/l	0.2	0.1	<0.1	<1
Calcium	mg/l	14	17	13	17
Magnesium	mg/l	2.8	3.2	3	3
Sodium	mg/l	9	8	8	7
Potassium	mg/l	3.2	2.2	2.4	2.2
Cyanide	mg/l	<0.01	<0.01	<0.01	<0.01
Phenolics, Total	mg/l	<0.01	<0.01	<0.01	0.18
Metals:					
Aluminum	mg/l	<0.1	<0.1	0.5	0.4
Antimony	mg/l	<0.1	2.1	<0.1	<0.1
Arsenic	mg/l	<0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.03	0.04	0.09	0.06
Beryllium	mg/l	<0.01	<0.01	<0.01	<0.01
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	<0.001	0.002	<0.001	<0.001
Cobalt	mg/l	<0.1	<0.1	<0.1	<0.1
Copper	mg/l	<0.01	<0.01	<0.01	<0.01
Iron	mg/l	3.1	10	12	11
Lead	mg/l	0.002	<0.001	<0.001	<0.001
Manganese	mg/l	0.22	0.25	0.34	0.29
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Nickel	mg/l	<0.1	<0.1	<0.1	<0.1
Osmium	mg/l	<10	<0.1	<10	<20
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Thallium	mg/l	<0.001	<0.001	<0.001	<0.001
Tin	mg/l	<1	<1	<1	<1
Vanadium	mg/l	<1	<1	<1	<1
Zinc	mg/l	0.06	0.02	0.02	<0.01

See footnotes at end of table.

Table A-1
Well FUA01D
(Continued)

Parameters	Units	Sampling Location			
		10/18/88	2/24/89	5/25/89	8/23/89
Volatiles:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
1,3-Dichloropropene	µg/l	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	5
Chloromethane	µg/l	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5
Acetone	µg/l	<10	<10	-	-

See footnotes at end of table.

Table A-1
Well FUA01D
(Continued)

Parameters	Units	Sampling Location 10/18/88	2/24/89	5/25/89	8/23/89
Base/Neutrals:					
Acenaphthene	µg/l	<10	-	-	-
Benzidine	µg/l	<50	-	-	-
1,2,4-Trichlorobenzene	µg/l	<10	-	-	-
Hexachlorobenzene	µg/l	<10	-	-	-
Hexachloroethane	µg/l	<10	-	-	-
Bis(2-Chloroethoxy)methane	µg/l	<10	-	-	-
2-Chloronaphthalene	µg/l	<10	-	-	-
1,2-Dichlorobenzene	µg/l	<10	-	-	-
1,3-Dichlorobenzene	µg/l	<10	-	-	-
1,4-Dichlorobenzene	µg/l	<10	-	-	-
3,3-Dichlorobenzidine	µg/l	<10	-	-	-
2,4-Dinitrotoluene	µg/l	<10	-	-	-
2,6-Dinitrotoluene	µg/l	<10	-	-	-
Fluoranthene	µg/l	<10	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	<10	-	-	-
Bis(2-Chloroisopropyl)ether	µg/l	<10	-	-	-
Bis(2-Chloroethyl)ether	µg/l	<10	-	-	-
Hexachlorobutadiene	µg/l	<10	-	-	-
Hexachlorocyclopentadiene	µg/l	<10	-	-	-
Isophorone	µg/l	<10	-	-	-
Naphthalene	µg/l	<10	-	-	-
Nitrobenzene	µg/l	<10	-	-	-
N-Nitrosodimethylamine	µg/l	<10	-	-	-
N-Nitrosodiphenylamine	µg/l	<10	-	-	-
N-Nitrosodi-N-Propylamine	µg/l	<10	-	-	-
Bis(2-Ethylhexyl)phthalate	µg/l	24	-	-	-
Butyl Benzyl Phthalate	µg/l	<10	-	-	-
Di-n-Butyl Phthalate	µg/l	<10	-	-	-
Di-n-Octyl Phthalate	µg/l	<10	-	-	-
Diethyl Phthalate	µg/l	<10	-	-	-
Dimethyl Phthalate	µg/l	<10	-	-	-
Benzo(a)Anthracene	µg/l	<10	-	-	-
Benzo(a)Pyrene	µg/l	<10	-	-	-
Benzo(b)Fluoranthene	µg/l	<10	-	-	-
Benzo(k)Fluoranthene	µg/l	<10	-	-	-
Chrysene	µg/l	<10	-	-	-
Acenaphthylene	µg/l	<10	-	-	-
Anthracene	µg/l	<10	-	-	-
Benzo(g,h,i)Perylene	µg/l	<50	-	-	-
Fluorene	µg/l	<10	-	-	-
Phenanthrene	µg/l	<10	-	-	-
Dibenzo(ah)Anthracene	µg/l	<50	-	-	-
Indeno(1,2,3-cd)Pyrene	µg/l	<50	-	-	-
Pyrene	µg/l	<10	-	-	-
Polychlorinated Biphenyls	µg/l	<1	-	-	-

See footnotes at end of table.

Table A-1
Well FUA01D
(Continued)

Parameters	Units	Sampling Location			
		11/15/89	2/14/90	5/22/90	8/14/90
Groundwater Elevation	ft msl	2.81	3.31	3.5	3.62
Temperature	°C	13	13	12	17
pH	pH units	6.65	6.65	7.05	6.75
Specific Conductance @ 25°C	µmhos/cm	150	150	160	200
Total Organic Carbon	mg/l	7	<1	2	1
Alkalinity	mg/l $CaCO_3$	48	59	46	36
Chloride	mg/l	3.4	14	3.0	3.3
Nitrate	mg/l NO_3-N	<0.1	<0.1	0.1	<0.1
Sulfate	mg/l	13	10	17	13
Sulfide	mg/l	<1	<1	<1	<1
Fluoride	mg/l	0.04	0.10	0.11	0.10
Ammonia	mg/l	<0.1	<0.1	<0.1	0.2
Nitrogen, Kjeldahl	mg/l	12	<0.1	0.6	0.2
Calcium	mg/l	13	11	11	10
Magnesium	mg/l	3	2	2	2
Sodium	mg/l	6	5	6	6
Potassium	mg/l	1.6	2.2	0.2	2.0
Cyanide	mg/l	<0.01	<0.01	<0.01	<0.01
Phenolics, Total	mg/l	<0.01	0.12	<0.01	<0.01
Metals:					
Aluminum	mg/l	<0.1	<0.1	<0.1	0.1
Antimony	mg/l	<0.1	<0.1	<0.1	<0.1
Arsenic	mg/l	<0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.01	0.05	0.06	0.05
Beryllium	mg/l	<0.01	<0.01	<0.01	<0.005
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.001	0.003	<0.001	0.001
Cobalt	mg/l	<0.1	<0.1	<0.1	<0.01
Copper	mg/l	0.01	<0.01	<0.01	<0.01
Iron	mg/l	9.7	4.9	8.2	8.3
Lead	mg/l	<0.001	<0.001	<0.001	<0.001
Manganese	mg/l	0.27	0.20	0.19	0.15
Mercury	mg/l	<0.0005	<0.0005	<0.0005	0.0009
Nickel	mg/l	<0.1	<0.1	<0.1	<0.1
Osmium	mg/l	<10	<1	<1	<1
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Thallium	mg/l	<0.001	<0.001	<0.001	<0.001
Tin	mg/l	<1	<1	<0.1	<0.1
Vanadium	mg/l	<1	<1	<0.1	<0.1
Zinc	mg/l	0.02	0.03	<0.01	0.01

See footnotes at end of table.

Table A-1
Well FUA01D
(Continued)

Parameters	Units	Sampling Location			
		11/15/89	2/14/90	5/22/90	8/14/90
Volatiles:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<10
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
1,3-Dichloropropene	µg/l	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<10
Bromomethane	µg/l	<5	<5	<5	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<10
Acetone	µg/l	-	-	-	-

See footnotes at end of table.

Table A-1
Well FUA01D
(Continued)

Parameters	Units	Sampling Location 11/15/89	2/14/90	5/22/90	8/14/90
Base/Neutrals:					
Acenaphthene	µg/l	<10	-	-	<10
Benzidine	µg/l	<50	-	-	<50
1,2,4-Trichlorobenzene	µg/l	<10	-	-	<10
Hexachlorobenzene	µg/l	<10	-	-	<10
Hexachloroethane	µg/l	<10	-	-	<10
Bis(2-Chloroethoxy)methane	µg/l	<10	-	-	<10
2-Chloronaphthalene	µg/l	<10	-	-	<10
1,2-Dichlorobenzene	µg/l	<10	-	-	<10
1,3-Dichlorobenzene	µg/l	<10	-	-	<10
1,4-Dichlorobenzene	µg/l	<10	-	-	<10
3,3-Dichlorobenzidine	µg/l	<10	-	-	<20
2,4-Dinitrotoluene	µg/l	<10	-	-	<10
2,6-Dinitrotoluene	µg/l	<10	-	-	<10
Fluoranthene	µg/l	<10	-	-	<10
4-Chlorophenyl Phenyl Ether	µg/l	<10	-	-	<10
4-Bromophenyl Phenyl Ether	µg/l	<10	-	-	<10
Bis(2-Chloroisopropyl)ether	µg/l	<10	-	-	<10
Bis(2-Chloroethyl)ether	µg/l	<10	-	-	<10
Hexachlorobutadiene	µg/l	<10	-	-	<10
Hexachlorocyclopentadiene	µg/l	<10	-	-	<10
Isophorone	µg/l	<10	-	-	<10
Naphthalene	µg/l	<10	-	-	<10
Nitrobenzene	µg/l	<10	-	-	<10
N-Nitrosodimethylamine	µg/l	<10	-	-	<10
N-Nitrosodiphenylamine	µg/l	<10	-	-	<10
N-Nitrosodi-N-Propylamine	µg/l	<10	-	-	<10
Bis(2-Ethylhexyl)phthalate	µg/l	100	-	-	<10
Butyl Benzyl Phthalate	µg/l	<10	-	-	<10
Di-n-Butyl Phthalate	µg/l	26	-	-	<10
Di-n-Octyl Phthalate	µg/l	<10	-	-	<10
Diethyl Phthalate	µg/l	<10	-	-	<10
Dimethyl Phthalate	µg/l	<10	-	-	<10
Benzo(a)Anthracene	µg/l	<10	-	-	<10
Benzo(a)Pyrene	µg/l	<10	-	-	<10
Benzo(b)Fluoranthene	µg/l	<10	-	-	<10
Benzo(k)Fluoranthene	µg/l	<10	-	-	<10
Chrysene	µg/l	<10	-	-	<10
Acenaphthylene	µg/l	<10	-	-	<10
Anthracene	µg/l	<10	-	-	<10
Benzo(g,h,i)Perylene	µg/l	<50	-	-	<10
Fluorene	µg/l	<10	-	-	<10
Phenanthrene	µg/l	<10	-	-	<10
Dibenzo(ah)Anthracene	µg/l	<50	-	-	<10
Indeno(1,2,3-cd)Pyrene	µg/l	<50	-	-	<10
Pyrene	µg/l	<10	-	-	<10
Polychlorinated Biphenyls	µg/l	-	-	-	<1

See footnotes at end of table.

Table A-1
Well FUA01D
(Continued)

Parameters	Units	Sampling Location 11/14/90	1/30/91	4/22/91	8/7/91
Groundwater Elevation	ft msl	2.09	3.46	4.04	1.97
Temperature	°C	12	12	13	14.9
pH	pH units	6.95	6.50	7.15	6.60
Specific Conductance @ 25°C	µmhos/cm	140	100	130	180
Total Organic Carbon	mg/l	<1	1	1	17
Alkalinity	mg/l $CaCO_3$	39	45	35	33
Chloride	mg/l	3.7	13	2.9	3.8
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	<0.1
Sulfate	mg/l	15	23	16	21
Sulfide	mg/l	<1	<1	<1	0.3
Fluoride	mg/l	0.12	0.08	0.09	0.08
Ammonia	mg/l	0.2	<0.1	<0.1	<0.1
Nitrogen, Kjeldahl	mg/l	0.7	3.2	<1	<0.1
Calcium	mg/l	11	11	12	13
Magnesium	mg/l	3	2	3	3
Sodium	mg/l	7	6	7	8
Potassium	mg/l	4.0	2.1	2.6	4.6
Cyanide	mg/l	<0.01	<0.01	<0.01	0.02
Phenolics, Total	mg/l	<0.01	<0.01	<0.01	0.02
Metals:					
Aluminum	mg/l	0.1	0.5	<0.1	0.2
Antimony	mg/l	<0.1	0.1	<0.1	<0.1
Arsenic	mg/l	<0.001	0.001	<0.001	<0.001
Barium	mg/l	0.06	0.04	0.06	0.06
Beryllium	mg/l	<0.01	<0.01	<0.01	<0.005
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.001	0.009	0.005	<0.001
Cobalt	mg/l	<0.01	<0.01	<0.01	0.02
Copper	mg/l	<0.01	<0.01	<0.01	0.03
Iron	mg/l	8.6	3.5	9.1	10
Lead	mg/l	0.002	<0.001	0.004	<0.001
Manganese	mg/l	0.17	0.14	0.17	0.18
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Nickel	mg/l	<0.1	<0.1	<0.1	<0.1
Osmium	mg/l	<1	<1	<1	<10
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Thallium	mg/l	<0.001	<0.001	<0.001	<0.001
Tin	mg/l	<0.1	<0.1	<0.1	<0.1
Vanadium	mg/l	<0.1	<0.1	<0.1	<0.1
Zinc	mg/l	<0.01	0.01	<0.01	0.01

See footnotes at end of table.

Table A-1
Well FUA01D
(Continued)

Parameters	Units	Sampling Location			
		11/14/90	1/30/91	4/22/91	8/7/91
Volatiles:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
1,3-Dichloropropene	µg/l	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10
Acetone	µg/l	-	-	-	-

See footnotes at end of table.

Table A-1
Well FUA01D
(Continued)

Parameters	Units	Sampling Location 11/14/90	1/30/91	4/22/91	8/7/91
Base/Neutrals:					
Acenaphthene	µg/l	-	-	-	<10
Benzidine	µg/l	-	-	-	<50
1,2,4-Trichlorobenzene	µg/l	-	-	-	<10
Hexachlorobenzene	µg/l	-	-	-	<10
Hexachloroethane	µg/l	-	-	-	<10
Bis(2-Chloroethoxy)methane	µg/l	-	-	-	<10
2-Chloronaphthalene	µg/l	-	-	-	<10
1,2-Dichlorobenzene	µg/l	-	-	-	<10
1,3-Dichlorobenzene	µg/l	-	-	-	<10
1,4-Dichlorobenzene	µg/l	-	-	-	<10
3,3-Dichlorobenzidine	µg/l	-	-	-	<10
2,4-Dinitrotoluene	µg/l	-	-	-	<10
2,6-Dinitrotoluene	µg/l	-	-	-	<10
Fluoranthene	µg/l	-	-	-	<10
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	<10
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	<10
Bis(2-Chloroisopropyl)ether	µg/l	-	-	-	<10
Bis(2-Chloroethyl)ether	µg/l	-	-	-	<10
Hexachlorobutadiene	µg/l	-	-	-	<10
Hexachlorocyclopentadiene	µg/l	-	-	-	<10
Isophorone	µg/l	-	-	-	<10
Naphthalene	µg/l	-	-	-	<10
Nitrobenzene	µg/l	-	-	-	<10
N-Nitrosodimethylamine	µg/l	-	-	-	<10
N-Nitrosodiphenylamine	µg/l	-	-	-	<10
N-Nitrosodi-N-Propylamine	µg/l	-	-	-	<10
Bis(2-Ethylhexyl)phthalate	µg/l	-	-	-	<10
Butyl Benzyl Phthalate	µg/l	-	-	-	<10
Di-n-Butyl Phthalate	µg/l	-	-	-	<10
Di-n-Octyl Phthalate	µg/l	-	-	-	<10
Diethyl Phthalate	µg/l	-	-	-	<10
Dimethyl Phthalate	µg/l	-	-	-	<10
Benzo(a)Anthracene	µg/l	-	-	-	<10
Benzo(a)Pyrene	µg/l	-	-	-	<10
Benzo(b)Fluoranthene	µg/l	-	-	-	<10
Benzo(k)Fluoranthene	µg/l	-	-	-	<10
Chrysene	µg/l	-	-	-	<10
Acenaphthylene	µg/l	-	-	-	<10
Anthracene	µg/l	-	-	-	<10
Benzo(g,h,i)Perylene	µg/l	-	-	-	<50
Fluorene	µg/l	-	-	-	<10
Phenanthrene	µg/l	-	-	-	<10
Dibenzo(ah)Anthracene	µg/l	-	-	-	<50
Indeno(1,2,3-cd)Pyrene	µg/l	-	-	-	<50
Pyrene	µg/l	-	-	-	<10
Polychlorinated Biphenyls	µg/l	-	-	-	<1

See footnotes at end of table.

Table A-1
Well FUA01D
(Continued)

Parameters	Units	Sampling Location			
		10/28/91	1/20/92	4/22/92	7/22/92
Groundwater Elevation	ft msl	2.97	2.71	3.56	2.80
Temperature	°C	13.3	10.3	13.4	14.0
pH	pH units	6.15	6.06	6.47	6.25
Specific Conductance @ 25°C	µmhos/cm	300	135	150	150
Total Organic Carbon	mg/l	2	1	<1	5.0
Alkalinity	mg/l $CaCO_3$	65	46	36	40.0
Chloride	mg/l	4.4	4.5	2.5	3.8
Nitrate	mg/l NO_3-N	<0.1	<0.1	<0.1	<0.10
Sulfate	mg/l	13	18	14	12
Sulfide	mg/l	<0.1	0.3	2	<1.0
Fluoride	mg/l	0.11	0.09	0.09	0.070
Ammonia	mg/l	<0.1	<0.1	0.5	<0.10
Nitrogen, Kjeldahl	mg/l	<0.1	3	<1	1.3
Calcium	mg/l	11	12	11	11
Magnesium	mg/l	3	3	3	3.0
Sodium	mg/l	9	7	6	6.0
Potassium	mg/l	3.9	2.3	2	2.2
Cyanide	mg/l	<0.01	<0.01	<0.01	<0.010
Phenolics, Total	mg/l	<0.01	0.03	<0.01	0.033
Metals:					
Aluminum	mg/l	0.1	<0.1	0.3	<0.10
Antimony	mg/l	<0.1	<0.1	<0.1	<0.10
Arsenic	mg/l	<0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.05	0.05	0.06	0.050
Beryllium	mg/l	<0.005	<0.005	<0.005	<0.005
Cadmium	mg/l	<0.001	<0.001	<0.001	<0.001
Chromium	mg/l	0.003	<0.001	<0.001	<0.001
Cobalt	mg/l	<0.01	0.01	0.01	<0.010
Copper	mg/l	0.01	<0.01	<0.01	<0.010
Iron	mg/l	7.9	7.5	7	6.4
Lead	mg/l	<0.001	0.003	<0.001	0.002
Manganese	mg/l	0.16	0.20	0.1	0.13
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0002
Nickel	mg/l	<0.1	<0.1	<0.1	<0.040
Osmium	mg/l	<1	<1	<1	<1.0
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Thallium	mg/l	<0.001	<0.001	<0.001	<0.001
Tin	mg/l	<0.1	<0.1	<0.1	<0.10
Vanadium	mg/l	<0.1	<0.1	<0.1	<0.050
Zinc	mg/l	0.01	0.03	0.01	<0.010

See footnotes at end of table.

Table A-1
Well FUA01D
(Continued)

Parameters	Units	Sampling Location			
		10/28/91	1/20/92	4/22/92	7/22/92
Volatiles:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
1,3-Dichloropropene	µg/l	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10
Acetone	µg/l	-	-	-	-

See footnotes at end of table.

Table A-1
Well FUA01D
(Continued)

Parameters	Units	Sampling Location 10/28/91	1/20/92	4/22/92	7/22/92
Base/Neutrals:					
Acenaphthene	µg/l	-	-	-	<10
Benzidine	µg/l	-	-	-	<50
1,2,4-Trichlorobenzene	µg/l	-	-	-	<10
Hexachlorobenzene	µg/l	-	-	-	<10
Hexachloroethane	µg/l	-	-	-	<10
Bis(2-Chloroethoxy)methane	µg/l	-	-	-	<10
2-Chloronaphthalene	µg/l	-	-	-	<10
1,2-Dichlorobenzene	µg/l	-	-	-	<10
1,3-Dichlorobenzene	µg/l	-	-	-	<10
1,4-Dichlorobenzene	µg/l	-	-	-	<10
3,3-Dichlorobenzidine	µg/l	-	-	-	<10
2,4-Dinitrotoluene	µg/l	-	-	-	<10
2,6-Dinitrotoluene	µg/l	-	-	-	<10
Fluoranthene	µg/l	-	-	-	<10
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	<10
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	<10
Bis(2-Chloroisopropyl)ether	µg/l	-	-	-	<10
Bis(2-Chloroethyl)ether	µg/l	-	-	-	<10
Hexachlorobutadiene	µg/l	-	-	-	<10
Hexachlorocyclopentadiene	µg/l	-	-	-	<10
Isophorone	µg/l	-	-	-	<10
Naphthalene	µg/l	-	-	-	<10
Nitrobenzene	µg/l	-	-	-	<10
N-Nitrosodimethylamine	µg/l	-	-	-	<10
N-Nitrosodiphenylamine	µg/l	-	-	-	<10
N-Nitrosodi-N-Propylamine	µg/l	-	-	-	<10
Bis(2-Ethylhexyl)phthalate	µg/l	-	-	-	<10
Butyl Benzyl Phthalate	µg/l	-	-	-	<10
Di-n-Butyl Phthalate	µg/l	-	-	-	<10
Di-n-Octyl Phthalate	µg/l	-	-	-	<10
Diethyl Phthalate	µg/l	-	-	-	<10
Dimethyl Phthalate	µg/l	-	-	-	<10
Benzo(a)Anthracene	µg/l	-	-	-	<10
Benzo(a)Pyrene	µg/l	-	-	-	<10
Benzo(b)Fluoranthene	µg/l	-	-	-	<10
Benzo(k)Fluoranthene	µg/l	-	-	-	<10
Chrysene	µg/l	-	-	-	<10
Acenaphthylene	µg/l	-	-	-	<10
Anthracene	µg/l	-	-	-	<10
Benzo(g,h,i)Perylene	µg/l	-	-	-	<10
Fluorene	µg/l	-	-	-	<10
Phenanthrene	µg/l	-	-	-	<10
Dibenzo(ah)Anthracene	µg/l	-	-	-	<10
Indeno(1,2,3-cd)Pyrene	µg/l	-	-	-	<10
Pyrene	µg/l	-	-	-	<10
Polychlorinated Biphenyls	µg/l	-	-	-	<1

(1) Dash denotes not analyzed.

Table A-2
Historical Groundwater Chemistry Data
Fairless Works
Well FUA02D

Parameters	Units	Sampling Location			
		10/17/88	2/22/89	5/25/89	8/23/89
Groundwater Elevation	ft msl	2.49	2.88	3.96	3.18
Temperature	°C	17	13	15	15
pH	pH units	6.10	6.95	6.95	6.60
Specific Conductance @ 25°C	µmhos/cm	290	370	380	300
Total Organic Carbon	mg/l	1	14	5	9
Alkalinity	mg/l $CaCO_3$	44	-(1)	40	40
Chloride	mg/l	37	40	39	44
Nitrate	mg/l NO_3-N	0.1	-	<0.1	<0.1
Sulfate	mg/l	26	-	20	23
Sulfide	mg/l	<0.1	<1	<0.1	<1
Fluoride	mg/l	0.05	0.11	0.09	0.10
Ammonia	mg/l	0.2	<0.1	0.1	<0.1
Nitrogen, Kjeldahl	mg/l	0.2	0.2	<0.1	<1
Calcium	mg/l	22	21	18	24
Magnesium	mg/l	3.6	3.6	4	4
Sodium	mg/l	23	19	20	23
Potassium	mg/l	5.6	3.1	3.7	5.0
Cyanide	mg/l	<0.01	0.02	0.01	<0.01
Phenolics, Total	mg/l	<0.01	<0.01	<0.01	0.18
Metals:					
Aluminum	mg/l	<0.1	<0.1	0.2	0.1
Antimony	mg/l	<0.1	<0.1	<0.1	<0.1
Arsenic	mg/l	<0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.10	0.07	0.12	0.12
Beryllium	mg/l	<0.01	<0.01	<0.01	<0.01
Cadmium	mg/l	<0.001	<0.001	0.001	<0.001
Chromium	mg/l	0.002	<0.001	<0.001	0.001
Cobalt	mg/l	<0.1	<0.1	<0.1	<0.1
Copper	mg/l	<0.01	<0.01	<0.01	<0.01
Iron	mg/l	6.1	6.8	7.4	8.7
Lead	mg/l	0.001	<0.001	<0.001	<0.001
Manganese	mg/l	0.29	0.25	0.29	0.29
Mercury	mg/l	<0.0005	<0.0005	0.0006	<0.0005
Nickel	mg/l	<0.1	<0.1	<0.1	<0.1
Osmium	mg/l	<10	<0.1	<10	<20
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Thallium	mg/l	<0.001	<0.001	<0.001	<0.001
Tin	mg/l	<1	<1	<1	<1
Vanadium	mg/l	<1	<1	<1	<1
Zinc	mg/l	0.07	0.02	0.08	<0.01

See footnotes at end of table.

Table A-2
Well FUA02D
(Continued)

Parameters	Units	Sampling Location			
		10/17/88	2/22/89	5/25/89	8/23/89
Volatiles:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	38
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<5
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
1,3-Dichloropropene	µg/l	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<5	<5	<5	<5
Bromomethane	µg/l	<5	<5	<5	<5
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<5
Acetone	µg/l	<10	<10	-	-

See footnotes at end of table.

Table A-2
Well FUA02D
(Continued)

Parameters	Units	Sampling Location 10/17/88	2/22/89	5/25/89	8/23/89
Base/Neutrals:					
Acenaphthene	µg/l	<10	-	-	-
Benzidine	µg/l	<50	-	-	-
1,2,4-Trichlorobenzene	µg/l	<10	-	-	-
Hexachlorobenzene	µg/l	<10	-	-	-
Hexachloroethane	µg/l	<10	-	-	-
Bis(2-Chloroethoxy)methane	µg/l	<10	-	-	-
2-Chloronaphthalene	µg/l	<10	-	-	-
1,2-Dichlorobenzene	µg/l	<10	-	-	-
1,3-Dichlorobenzene	µg/l	<10	-	-	-
1,4-Dichlorobenzene	µg/l	<10	-	-	-
3,3-Dichlorobenzidine	µg/l	<10	-	-	-
2,4-Dinitrotoluene	µg/l	<10	-	-	-
2,6-Dinitrotoluene	µg/l	<10	-	-	-
Fluoranthene	µg/l	<10	-	-	-
4-Chlorophenyl Phenyl Ether	µg/l	<10	-	-	-
4-Bromophenyl Phenyl Ether	µg/l	<10	-	-	-
Bis(2-Chloroisopropyl)ether	µg/l	<10	-	-	-
Bis(2-Chloroethyl)ether	µg/l	<10	-	-	-
Hexachlorobutadiene	µg/l	<10	-	-	-
Hexachlorocyclopentadiene	µg/l	<10	-	-	-
Isophorone	µg/l	<10	-	-	-
Naphthalene	µg/l	<10	-	-	-
Nitrobenzene	µg/l	<10	-	-	-
N-Nitrosodimethylamine	µg/l	<10	-	-	-
N-Nitrosodiphenylamine	µg/l	<10	-	-	-
N-Nitrosodi-N-Propylamine	µg/l	<10	-	-	-
Bis(2-Ethylhexyl)phthalate	µg/l	22	-	-	-
Butyl Benzyl Phthalate	µg/l	<10	-	-	-
Di-n-Butyl Phthalate	µg/l	<10	-	-	-
Di-n-Octyl Phthalate	µg/l	<10	-	-	-
Diethyl Phthalate	µg/l	<10	-	-	-
Dimethyl Phthalate	µg/l	<10	-	-	-
Benzo(a)Anthracene	µg/l	<10	-	-	-
Benzo(a)Pyrene	µg/l	<10	-	-	-
Benzo(b)Fluoranthene	µg/l	<10	-	-	-
Benzo(k)Fluoranthene	µg/l	<10	-	-	-
Chrysene	µg/l	<10	-	-	-
Acenaphthylene	µg/l	<10	-	-	-
Anthracene	µg/l	<10	-	-	-
Benzo(g,h,i)Perylene	µg/l	<50	-	-	-
Fluorene	µg/l	<10	-	-	-
Phenanthrene	µg/l	<10	-	-	-
Dibenzo(ah)Anthracene	µg/l	<50	-	-	-
Indeno(1,2,3-cd)Pyrene	µg/l	<50	-	-	-
Pyrene	µg/l	<10	-	-	-
Polychlorinated Biphenyls	µg/l	<1	-	-	-

See footnotes at end of table.

Table A-2
Well FUA02D
(Continued)

Parameters	Units	Sampling Location 11/15/89	2/14/90	5/22/90	8/14/90
Groundwater Elevation	ft msl	3.10	3.54	3.75	3.32
Temperature	°C	14	13	13	17
pH	pH units	6.45	6.55	6.95	7.10
Specific Conductance @ 25°C	µmhos/cm	320	300	350	260
Total Organic Carbon	mg/l	10	2	2	3
Alkalinity	mg/l $CaCO_3$	46	39	50	44
Chloride	mg/l	40	41	40	39
Nitrate	mg/l NO_3-N	<0.1	<0.1	0.2	<0.1
Sulfate	mg/l	26	26	17	20
Sulfide	mg/l	<1	2	<1	<1
Fluoride	mg/l	0.12	0.13	0.13	0.12
Ammonia	mg/l	<0.1	<0.1	<0.1	0.2
Nitrogen, Kjeldahl	mg/l	0.5	<0.1	<0.1	0.7
Calcium	mg/l	20	18	18	17
Magnesium	mg/l	4	4	3	3
Sodium	mg/l	20	20	21	20
Potassium	mg/l	2.6	3.9	1.7	3.2
Cyanide	mg/l	<0.01	0.14	<0.01	<0.01
Phenolics, Total	mg/l	<0.01	0.03	<0.01	<0.01
Metals:					
Aluminum	mg/l	<0.1	<0.1	<0.1	<0.1
Antimony	mg/l	0.2	<0.1	<0.1	<0.1
Arsenic	mg/l	<0.001	<0.001	<0.001	<0.001
Barium	mg/l	0.08	0.09	0.10	0.10
Beryllium	mg/l	<0.01	<0.01	<0.01	<0.005
Cadmium	mg/l	0.001	0.002	<0.001	<0.001
Chromium	mg/l	<0.001	<0.001	<0.001	0.018
Cobalt	mg/l	<0.1	<0.1	<0.1	<0.01
Copper	mg/l	<0.01	<0.01	<0.01	<0.01
Iron	mg/l	90	7.9	8.3	8.5
Lead	mg/l	<0.001	0.005	<0.001	<0.001
Manganese	mg/l	0.26	0.27	0.26	0.24
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Nickel	mg/l	<0.1	<0.1	<0.1	<0.1
Osmium	mg/l	<10	<1	<1	<1
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	0.006
Thallium	mg/l	<0.001	<0.001	<0.001	<0.001
Tin	mg/l	<1	<1	<0.1	<0.1
Vanadium	mg/l	<1	<1	<0.1	<0.1
Zinc	mg/l	0.03	0.03	<0.01	<0.01

See footnotes at end of table.

Table A-2
Well FUA02D
(Continued)

Parameters	Units	Sampling Location			
		11/15/89	2/14/90	5/22/90	8/14/90
Volatiles:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	7
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<5	<5	<5	<10
2-Chloroethylvinyl Ether	µg/l	<5	<5	<5	<5
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
1,3-Dichloropropene	µg/l	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	7
Chloromethane	µg/l	<5	<5	<5	<10
Bromomethane	µg/l	<5	<5	<5	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<5	<5	<5	<10
Acetone	µg/l	-	-	-	-

See footnotes at end of table.

Table A-2
Well FUA02D
(Continued)

Parameters	Units	Sampling Location 11/15/89	2/14/90	5/22/90	8/14/90
Base/Neutrals:					
Acenaphthene	µg/l	<10	-	-	<10
Benzidine	µg/l	<50	-	-	<50
1,2,4-Trichlorobenzene	µg/l	<10	-	-	<10
Hexachlorobenzene	µg/l	<10	-	-	<10
Hexachloroethane	µg/l	<10	-	-	<10
Bis(2-Chloroethoxy)methane	µg/l	<10	-	-	<10
2-Chloronaphthalene	µg/l	<10	-	-	<10
1,2-Dichlorobenzene	µg/l	<10	-	-	<10
1,3-Dichlorobenzene	µg/l	<10	-	-	<10
1,4-Dichlorobenzene	µg/l	<10	-	-	<10
3,3-Dichlorobenzidine	µg/l	<10	-	-	<20
2,4-Dinitrotoluene	µg/l	<10	-	-	<10
2,6-Dinitrotoluene	µg/l	<10	-	-	<10
Fluoranthene	µg/l	<10	-	-	<10
4-Chlorophenyl Phenyl Ether	µg/l	<10	-	-	<10
4-Bromophenyl Phenyl Ether	µg/l	<10	-	-	<10
Bis(2-Chloroisopropyl)ether	µg/l	<10	-	-	<10
Bis(2-Chloroethyl)ether	µg/l	<10	-	-	<10
Hexachlorobutadiene	µg/l	<10	-	-	<10
Hexachlorocyclopentadiene	µg/l	<10	-	-	<10
Isophorone	µg/l	<10	-	-	<10
Naphthalene	µg/l	<10	-	-	<10
Nitrobenzene	µg/l	<10	-	-	<10
N-Nitrosodimethylamine	µg/l	<10	-	-	<10
N-Nitrosodiphenylamine	µg/l	<10	-	-	<10
N-Nitrosodi-N-Propylamine	µg/l	<10	-	-	<10
Bis(2-Ethylhexyl)phthalate	µg/l	47	-	-	<10
Butyl Benzyl Phthalate	µg/l	<10	-	-	<10
Di-n-Butyl Phthalate	µg/l	<10	-	-	<10
Di-n-Octyl Phthalate	µg/l	<10	-	-	<10
Diethyl Phthalate	µg/l	<10	-	-	<10
Dimethyl Phthalate	µg/l	<10	-	-	<10
Benzo(a)Anthracene	µg/l	<10	-	-	<10
Benzo(a)Pyrene	µg/l	<10	-	-	<10
Benzo(b)Fluoranthene	µg/l	<10	-	-	<10
Benzo(k)Fluoranthene	µg/l	<10	-	-	<10
Chrysene	µg/l	<10	-	-	<10
Acenaphthylene	µg/l	<10	-	-	<10
Anthracene	µg/l	<10	-	-	<10
Benzo(g,h,i)Perylene	µg/l	<50	-	-	<10
Fluorene	µg/l	<10	-	-	<10
Phenanthrene	µg/l	<10	-	-	<10
Dibenzo(ah)Anthracene	µg/l	<50	-	-	<10
Indeno(1,2,3-cd)Pyrene	µg/l	<50	-	-	<10
Pyrene	µg/l	<10	-	-	<10
Polychlorinated Biphenyls	µg/l	-	-	-	<1

See footnotes at end of table.

Table A-2
Well FUA02D
(Continued)

Parameters	Units	Sampling Location 11/14/90	1/30/91	4/22/91	8/7/91
Groundwater Elevation	ft msl	2.35	3.00	3.83	2.54
Temperature	°C	14	15	14	14.7
pH	pH units	7.20	6.70	6.80	6.76
Specific Conductance @ 25°C	µmhos/cm	240	250	275	390
Total Organic Carbon	mg/l	1	4	<1	7
Alkalinity	mg/l $CaCO_3$	40	38	30	41
Chloride	mg/l	40	42	39	47
Nitrate	mg/l NO_3-N	0.3	1.9	<0.1	<0.1
Sulfate	mg/l	20	26	20	27
Sulfide	mg/l	<1	<1	<1	0.1
Fluoride	mg/l	0.13	0.10	0.11	0.10
Ammonia	mg/l	0.1	<0.1	<0.1	0.3
Nitrogen, Kjeldahl	mg/l	0.7	2.8	<1	1.5
Calcium	mg/l	18	18	20	21
Magnesium	mg/l	4	4	4	4
Sodium	mg/l	22	21	22	21
Potassium	mg/l	5.0	3.8	3.6	4.2
Cyanide	mg/l	<0.01	<0.01	<0.01	0.02
Phenolics, Total	mg/l	<0.01	<0.01	<0.01	<0.01
Metals:					
Aluminum	mg/l	<0.1	0.5	0.1	0.1
Antimony	mg/l	<0.1	0.1	<0.1	<0.1
Arsenic	mg/l	<0.001	0.001	<0.001	<0.001
Barium	mg/l	0.09	0.08	0.10	0.11
Beryllium	mg/l	<0.01	<0.01	<0.01	<0.005
Cadmium	mg/l	<0.001	0.008	0.001	<0.001
Chromium	mg/l	<0.001	0.007	0.003	<0.001
Cobalt	mg/l	<0.01	<0.01	<0.01	0.02
Copper	mg/l	<0.01	<0.01	<0.01	0.02
Iron	mg/l	8.5	8.0	9.7	9.7
Lead	mg/l	0.001	<0.001	0.005	<0.001
Manganese	mg/l	0.26	0.28	0.29	0.34
Mercury	mg/l	<0.0005	<0.0005	<0.0005	<0.0005
Nickel	mg/l	<0.1	<0.1	<0.1	<0.1
Osmium	mg/l	<1	<1	<1	<10
Selenium	mg/l	<0.001	<0.001	<0.001	<0.001
Silver	mg/l	<0.001	<0.001	<0.001	<0.001
Thallium	mg/l	0.001	<0.001	<0.001	<0.001
Tin	mg/l	<0.1	<0.1	<0.1	<0.1
Vanadium	mg/l	<0.1	<0.1	<0.1	<0.1
Zinc	mg/l	<0.01	0.03	0.01	<0.01

See footnotes at end of table.

Table A-2
Well FUA02D
(Continued)

Parameters	Units	Sampling Location 11/14/90	1/30/91	4/22/91	8/7/91
Volatiles:					
Acrolein	µg/l	<250	<250	<250	<250
Acrylonitrile	µg/l	<250	<250	<250	<250
Benzene	µg/l	<5	<5	<5	<5
Carbon Tetrachloride	µg/l	<5	<5	<5	<5
Chlorobenzene	µg/l	<5	<5	<5	<5
1,2-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,1-Trichloroethane	µg/l	<5	<5	<5	<5
1,1-Dichloroethane	µg/l	<5	<5	<5	<5
1,1,2-Trichloroethane	µg/l	<5	<5	<5	<5
1,1,2,2-Tetrachloroethane	µg/l	<5	<5	<5	<5
Chloroethane	µg/l	<10	<10	<10	<10
2-Chloroethylvinyl Ether	µg/l	<10	<10	<10	<10
Chloroform	µg/l	<5	<5	<5	<5
1,1-Dichloroethene	µg/l	<5	<5	<5	<5
Trans-1,2-Dichloroethene	µg/l	<5	<5	<5	<5
1,2-Dichloropropane	µg/l	<5	<5	<5	<5
1,3-Dichloropropene	µg/l	<5	<5	<5	<5
Ethylbenzene	µg/l	<5	<5	<5	<5
Methylene Chloride	µg/l	<5	<5	<5	<5
Chloromethane	µg/l	<10	<10	<10	<10
Bromomethane	µg/l	<10	<10	<10	<10
Bromoform	µg/l	<5	<5	<5	<5
Bromodichloromethane	µg/l	<5	<5	<5	<5
Dibromochloromethane	µg/l	<5	<5	<5	<5
Tetrachloroethene	µg/l	<5	<5	<5	<5
Toluene	µg/l	<5	<5	<5	<5
Trichloroethene	µg/l	<5	<5	<5	<5
Vinyl Chloride	µg/l	<10	<10	<10	<10
Acetone	µg/l	-	-	-	-

See footnotes at end of table.

Table A-2
Well FUA02D
(Continued)

Parameters	Units	Sampling Location 11/14/90	1/30/91	4/22/91	8/7/91
Base/Neutrals:					
Acenaphthene	µg/l	-	-	-	<10
Benzidine	µg/l	-	-	-	<50
1,2,4-Trichlorobenzene	µg/l	-	-	-	<10
Hexachlorobenzene	µg/l	-	-	-	<10
Hexachloroethane	µg/l	-	-	-	<10
Bis(2-Chloroethoxy)methane	µg/l	-	-	-	<10
2-Chloronaphthalene	µg/l	-	-	-	<10
1,2-Dichlorobenzene	µg/l	-	-	-	<10
1,3-Dichlorobenzene	µg/l	-	-	-	<10
1,4-Dichlorobenzene	µg/l	-	-	-	<10
3,3-Dichlorobenzidine	µg/l	-	-	-	<10
2,4-Dinitrotoluene	µg/l	-	-	-	<10
2,6-Dinitrotoluene	µg/l	-	-	-	<10
Fluoranthene	µg/l	-	-	-	<10
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	<10
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	<10
Bis(2-Chloroisopropyl)ether	µg/l	-	-	-	<10
Bis(2-Chloroethyl)ether	µg/l	-	-	-	<10
Hexachlorobutadiene	µg/l	-	-	-	<10
Hexachlorocyclopentadiene	µg/l	-	-	-	<10
Isophorone	µg/l	-	-	-	<10
Naphthalene	µg/l	-	-	-	<10
Nitrobenzene	µg/l	-	-	-	<10
N-Nitrosodimethylamine	µg/l	-	-	-	<10
N-Nitrosodiphenylamine	µg/l	-	-	-	<10
N-Nitrosodi-N-Propylamine	µg/l	-	-	-	<10
Bis(2-Ethylhexyl)phthalate	µg/l	-	-	-	<10
Butyl Benzyl Phthalate	µg/l	-	-	-	<10
Di-n-Butyl Phthalate	µg/l	-	-	-	<10
Di-n-Octyl Phthalate	µg/l	-	-	-	<10
Diethyl Phthalate	µg/l	-	-	-	<10
Dimethyl Phthalate	µg/l	-	-	-	<10
Benzo(a)Anthracene	µg/l	-	-	-	<10
Benzo(a)Pyrene	µg/l	-	-	-	<10
Benzo(b)Fluoranthene	µg/l	-	-	-	<10
Benzo(k)Fluoranthene	µg/l	-	-	-	<10
Chrysene	µg/l	-	-	-	<10
Acenaphthylene	µg/l	-	-	-	<10
Anthracene	µg/l	-	-	-	<10
Benzo(g,h,i)Perylene	µg/l	-	-	-	<50
Fluorene	µg/l	-	-	-	<10
Phenanthrene	µg/l	-	-	-	<10
Dibenzo(ah)Anthracene	µg/l	-	-	-	<50
Indeno(1,2,3-cd)Pyrene	µg/l	-	-	-	<50
Pyrene	µg/l	-	-	-	<10
Polychlorinated Biphenyls	µg/l	-	-	-	<1

See footnotes at end of table.

Table A-2
Well FUA02D
(Continued)

Parameters	Units	Sampling Location			
		10/28/91	1/20/92	4/22/92	7/22/92
Groundwater Elevation	ft msl	3.03	2.62	2.98	2.52
Temperature	°C	13.8	NS(2)	NS	NS
pH	pH units	6.27	NS	NS	NS
Specific Conductance @ 25°C	µmhos/cm	500	NS	NS	NS
Total Organic Carbon	mg/l	1	NS	NS	NS
Alkalinity	mg/l $CaCO_3$	45	NS	NS	NS
Chloride	mg/l	40	NS	NS	NS
Nitrate	mg/l NO_3-N	<0.1	NS	NS	NS
Sulfate	mg/l	18	NS	NS	NS
Sulfide	mg/l	0.4	NS	NS	NS
Fluoride	mg/l	0.11	NS	NS	NS
Ammonia	mg/l	<0.1	NS	NS	NS
Nitrogen, Kjeldahl	mg/l	0.9	NS	NS	NS
Calcium	mg/l	19	NS	NS	NS
Magnesium	mg/l	4	NS	NS	NS
Sodium	mg/l	26	NS	NS	NS
Potassium	mg/l	5.6	NS	NS	NS
Cyanide	mg/l	<0.01	NS	NS	NS
Phenolics, Total	mg/l	<0.01	NS	NS	NS
Metals:					
Aluminum	mg/l	<0.1	NS	NS	NS
Antimony	mg/l	<0.1	NS	NS	NS
Arsenic	mg/l	<0.001	NS	NS	NS
Barium	mg/l	0.10	NS	NS	NS
Beryllium	mg/l	<0.005	NS	NS	NS
Cadmium	mg/l	<0.001	NS	NS	NS
Chromium	mg/l	0.002	NS	NS	NS
Cobalt	mg/l	<0.01	NS	NS	NS
Copper	mg/l	<0.01	NS	NS	NS
Iron	mg/l	8.9	NS	NS	NS
Lead	mg/l	<0.001	NS	NS	NS
Manganese	mg/l	0.25	NS	NS	NS
Mercury	mg/l	<0.0005	NS	NS	NS
Nickel	mg/l	<0.1	NS	NS	NS
Osmium	mg/l	<1	NS	NS	NS
Selenium	mg/l	<0.001	NS	NS	NS
Silver	mg/l	<0.001	NS	NS	NS
Thallium	mg/l	<0.001	NS	NS	NS
Tin	mg/l	<0.1	NS	NS	NS
Vanadium	mg/l	<0.1	NS	NS	NS
Zinc	mg/l	<0.01	NS	NS	NS

See footnotes at end of table.

Table A-2
Well FUA02D
(Continued)

Parameters	Units	Sampling Location			
		10/28/91	1/20/92	4/22/92	7/22/92
Volatiles:					
Acrolein	µg/l	<250	NS	NS	NS
Acrylonitrile	µg/l	<250	NS	NS	NS
Benzene	µg/l	<5	NS	NS	NS
Carbon Tetrachloride	µg/l	<5	NS	NS	NS
Chlorobenzene	µg/l	<5	NS	NS	NS
1,2-Dichloroethane	µg/l	<5	NS	NS	NS
1,1,1-Trichloroethane	µg/l	<5	NS	NS	NS
1,1-Dichloroethane	µg/l	<5	NS	NS	NS
1,1,2-Trichloroethane	µg/l	<5	NS	NS	NS
1,1,2,2-Tetrachloroethane	µg/l	<5	NS	NS	NS
Chloroethane	µg/l	<10	NS	NS	NS
2-Chloroethylvinyl Ether	µg/l	<10	NS	NS	NS
Chloroform	µg/l	<5	NS	NS	NS
1,1-Dichloroethene	µg/l	<5	NS	NS	NS
Trans-1,2-Dichloroethene	µg/l	<5	NS	NS	NS
1,2-Dichloropropane	µg/l	<5	NS	NS	NS
1,3-Dichloropropene	µg/l	<5	NS	NS	NS
Ethylbenzene	µg/l	<5	NS	NS	NS
Methylene Chloride	µg/l	<5	NS	NS	NS
Chloromethane	µg/l	<10	NS	NS	NS
Bromomethane	µg/l	<10	NS	NS	NS
Bromoform	µg/l	<5	NS	NS	NS
Bromodichloromethane	µg/l	<5	NS	NS	NS
Dibromochloromethane	µg/l	<5	NS	NS	NS
Tetrachloroethene	µg/l	<5	NS	NS	NS
Toluene	µg/l	<5	NS	NS	NS
Trichloroethene	µg/l	<5	NS	NS	NS
Vinyl Chloride	µg/l	<10	NS	NS	NS
Acetone	µg/l	-	-	-	NS

See footnotes at end of table.

Table A-2
Well FUA02D
(Continued)

Parameters	Units	Sampling Location 10/28/91	1/20/92	4/22/92	7/22/92
Base/Neutrals:					
Acenaphthene	µg/l	-	-	-	NS
Benzidine	µg/l	-	-	-	NS
1,2,4-Trichlorobenzene	µg/l	-	-	-	NS
Hexachlorobenzene	µg/l	-	-	-	NS
Hexachloroethane	µg/l	-	-	-	NS
Bis(2-Chloroethoxy)methane	µg/l	-	-	-	NS
2-Chloronaphthalene	µg/l	-	-	-	NS
1,2-Dichlorobenzene	µg/l	-	-	-	NS
1,3-Dichlorobenzene	µg/l	-	-	-	NS
1,4-Dichlorobenzene	µg/l	-	-	-	NS
3,3-Dichlorobenzidine	µg/l	-	-	-	NS
2,4-Dinitrotoluene	µg/l	-	-	-	NS
2,6-Dinitrotoluene	µg/l	-	-	-	NS
Fluoranthene	µg/l	-	-	-	NS
4-Chlorophenyl Phenyl Ether	µg/l	-	-	-	NS
4-Bromophenyl Phenyl Ether	µg/l	-	-	-	NS
Bis(2-Chloroisopropyl)ether	µg/l	-	-	-	NS
Bis(2-Chloroethyl)ether	µg/l	-	-	-	NS
Hexachlorobutadiene	µg/l	-	-	-	NS
Hexachlorocyclopentadiene	µg/l	-	-	-	NS
Isophorone	µg/l	-	-	-	NS
Naphthalene	µg/l	-	-	-	NS
Nitrobenzene	µg/l	-	-	-	NS
N-Nitrosodimethylamine	µg/l	-	-	-	NS
N-Nitrosodiphenylamine	µg/l	-	-	-	NS
N-Nitrosodi-N-Propylamine	µg/l	-	-	-	NS
Bis(2-Ethylhexyl)phthalate	µg/l	-	-	-	NS
Butyl Benzyl Phthalate	µg/l	-	-	-	NS
Di-n-Butyl Phthalate	µg/l	-	-	-	NS
Di-n-Octyl Phthalate	µg/l	-	-	-	NS
Diethyl Phthalate	µg/l	-	-	-	NS
Dimethyl Phthalate	µg/l	-	-	-	NS
Benzo(a)Anthracene	µg/l	-	-	-	NS
Benzo(a)Pyrene	µg/l	-	-	-	NS
Benzo(b)Fluoranthene	µg/l	-	-	-	NS
Benzo(k)Fluoranthene	µg/l	-	-	-	NS
Chrysene	µg/l	-	-	-	NS
Acenaphthylene	µg/l	-	-	-	NS
Anthracene	µg/l	-	-	-	NS
Benzo(g,h,i)Perylene	µg/l	-	-	-	NS
Fluorene	µg/l	-	-	-	NS
Phenanthrene	µg/l	-	-	-	NS
Dibenzo(ah)Anthracene	µg/l	-	-	-	NS
Indeno(1,2,3-cd)Pyrene	µg/l	-	-	-	NS
Pyrene	µg/l	-	-	-	NS
Polychlorinated Biphenyls	µg/l	-	-	-	NS

(1) Dash denotes not analyzed.
(2) NS = Not sampled due to well casing blockage.