66116

TABLES

TABLE 1-1
SUMMARY OF WASTE WATER SAMPLING
ANALYTICAL RESULTS

Sample I.D.		Tonolli Corp. Sample 4/30/84	T-1 9/27/84	TSL01 6/3/87	TSL02 6/3/87	Top of Tank 1987	Valve 1/3 from Tank Bottom 1987	Leaking Valve at Bottom 1987
Parameter	Unit							
Aluminum	ug/l	30,000	---	---	---	---	---	---
Arsenic	ug/l	5,200	12,200	622	704	1,620	250	15
Barium	ug/l	1,300	LT 500	---	---	---	---	---
Cadmium	ug/l	7,600	15,300	603	605	1,180	7500	30
Chromium	ug/l	180	1,355	137	138	370	2,550	ND
Copper	ug/l	---	---	1060	1050	---	---	---
Fluoride	ug/l	1,250	---	---	---	---	---	---
Total Iron	ug/l	2,700	---	---	---	---	---	---
Dissoved Iron	ug/l	350	---	---	---	---	---	---
Lead	ug/l	107,000	2,800	2,890	2,910	1,080	3,820	2,900
Magnesium	ug/l	38,500	---	---	---	---	---	---
Mercury	ug/l	4.9	2.1	---	---	---	---	---
Nickel	ug/l	---	---	---	---	810	5,500	100
Selenium	ug/l	25	99	---	---	---	---	---
Silver	ug/l	LT 10	LT 200	---	---	---	---	---
Zinc	ug/l	---	---	---	---	2,600	3,000	11,000
Toluene	ug/l	400	---	---	---	---	---	---
Trichloroethene	ug/l	1,100	---	---	---	---	---	---
1,1,1-Trichloethane	ug/l	1,400	---	---	---	---	---	---
Chloroform	ug/l	500	---	---	---	---	---	---
Methylene Chloride	ug/l	9,400	---	---	---	---	---	---
Benzene	ug/l	LT 100	---	---	---	---	---	---
All Pesticides	ug/l	LT 5,000	---	---	---	---	---	---
Phenols	ug/l	LT 20,000	---	---	---	---	---	---
Fuoranthane	ug/l	5,300	---	---	---	---	---	---
Bis-2-ethyl phthalate	ug/l	47,000	---	---	---	---	---	---
Di-n-butyl phthalate	ug/l	3,300	---	---	---	---	---	---
Phenathracene/Anthracene	ug/l	3,700	---	---	---	---	---	---
Pyrene	ug/l	1,800	---	---	---	---	---	---
Benzedene	ug/l	LT 20,000	---	---	---	---	---	---
Hexachlorocylopentadiene	ug/l	LT 20,000	---	---	---	---	---	---
Total PCBs	ug/l	LT 50,000	---	---	---	---	---	---
sulfate	mg/l	200	---	---	---	---	---	---
Nitrate	mg/l	1.1	---	---	---	---	---	---
Nitrite	mg/l	0.007	---	---	---	---	---	---
Ammonia	mg/l	0.23	---	---	---	---	---	---
Oil/Grease	mg/l	0.41	---	---	---	---	---	---
Total Solids	mg/l	2,145	---	---	---	---	---	---
Settleable Solids	mg/l	1,689.5	---	---	---	---	---	---
Dissolved Solids	mg/l	196.2	---	---	---	---	---	---
Dissolved Oxygen	mg/l	8.6	---	---	---	---	---	---
Acidity	mg/l	322	---	---	---	---	---	---
pH	-	1.0 - 1.1	---	---	---	---	---	---
Color	-	4.3	---	---	---	---	---	---
Turbidity	FTU	230	---	---	---	---	---	---
Five Day BOD	mg/l	1,200	---	---	---	---	---	---

NA - Not analyzed
LT - Less than Detection Limits
Note: Referenced from E.S. Work Plan 1989
Metals analysis beleived to be total metals.

TABLE 1-2
SUMMARY OF PREVIOUS GROUNDWATER MONITORING ANALYTICAL RESULTS FOR TONOLLI CORPORATION SUPERFUND SITE (a)

Parameter	Units	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	Groundwater for Test PIT-e
Antimony	ug/L	LT 2.0	LT 1.0 / 7.0	3.0 / 440	LT 1.0 / 16	20 / 29	12 / 116	12 / 71	1.0 / 399	1,030 / 1,940	—
Arsenic	ug/L	LT 2.0	LT 2.0 / 12	9.0 / 350	LT 2.0 / 11	24 / 77	11 / 25	3.0 / 81	4.0 / 31.8	380 / 840	—
Barium	ug/L	4.0	3.0 / 300	1.0 / 500	24 / 2100	LT 100 / 100	1.0 / 900	LT 1.0 / 81	9.0 / 54	38 / 153	—
Cadmium	ug/L	1.0	9.0 / 38	3.0 / 640	3.0 / 21	43 / 136	24 / 460	5.0 / 38	5.0 / 41	5.0 / 62	187
Chromium	ug/L	1.0	1.2 / 12	8.0 / 65	2.0 / 83	4.0 / 14	3.0 / 13	4.0 / 122	1.0 / 31.7	55 / 120	—
Copper	ug/L	50	LT 10 / 390	LT 10 / 120	60 / 110	160 / 418	60 / 494	200 / 510	20 / 180	50 / 70	—
Iron	ug/L	120	1,310 / 60,300	16,660 / 283,500	680 / 99,500	8,380 / 50,500	20 / 38,400	22,000 / 114,000	4,130 / 136,500	186 / 275	148
Lead	ug/L	24	4.9 / 119	4.0 / 141	25 / 1,130	3.0 / 28	4.0 / 96	21.7 / 190	10.4 / 260	176 / 5,600	140
Manganese	ug/L	25	240 / 8,750	37,000 / 221,000	420 / 990	9,800 / 14,400	140 / 25,700	3,200 / 44,000	1,070 / 3,640	101,000 / 155,000	—
Mercury	ug/L	LT 0.2	LT 0.2 / 0.87	LT 0.2 / 0.5	LT 0.2 / 1.1	1.1 / 27	LT 0.2 / 20	LT 0.2 / 2.0	LT 0.02 / 1.9	LT 0.2 / 0.5	28
Selenium	ug/L	LT 2.0	LT 2.0 / 2.6	LT 2.0 / 48	LT 2.0 / 4.0	7.0 / 23	LT 2.0 / 20	LT 2.0 / 6.0	LT 2.0 / 68	228 / 302	—
Silver	ug/L	LT 1.0	LT 1.0 / 2.0	LT 2.0 / 11	LT 1.0 / 3.0	LT 2.0 / 3.0	LT 2.0 / 8.1	LT 1.0 / 2.0	LT 1.0 / 12.6	79 / 133	—
Sodium	ug/L	2,430	6,300 / 53,000	157,000 / 1,450,000	1,800 / 40,000	67,300 / 238,000	69,200 / 564,000	1,380 / 40,000	7,800 / 970,000	2,440,000 / 4,300,000	—
Zinc	ug/L	100	60 / 970	2,410 / 10,800	120 / 330	570 / 1,470	190 / 1,000	440 / 1,140	200 / 530	110 / 680	95
Endrin	ug/L	LT 0.08	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.005	LT 0.01 / 0.005	LT 0.01 / 0.005	LT 0.005	—
Lindane	ug/L	LT 0.05	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01	LT 0.01 / 0.01	LT 0.01 / 0.01	LT 0.01	—
Methoxychlor	ug/L	LT 0.01	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.02	LT 0.1 / 0.02	LT 0.1 / 0.02	LT 0.02	—
Toxaphene	ug/L	LT 1.0	LT 0.1	LT 0.1	LT 0.1	LT 0.1	LT 0.1	LT 1.0 / 0.1	LT 1.0 / 0.1	LT 0.1	—
2,4-D	ug/L	LT 2.0	LT 0.02 / 1.4	LT 0.02 / 2.5	LT 0.02	LT 0.02	LT 0.02	LT 1.0 / 1.7	LT 1.0 / 1.8	LT 0.02	—
2,4,5-TP Silvex	ug/L	LT 0.005	LT 0.002	LT 0.005	LT 0.005	LT 0.002	LT 0.005	LT 0.002 / 0.005	LT 0.002 / 0.005	LT 0.002	—
Phenol	ug/L	LT 100	LT 100	LT 100	LT 100 / 35	LT 100	LT 100	LT 100	LT 100	LT 100 / 100	—
Chloride	mg/L	5.0	11 / 110	31 / 350	LT 1.0 / 150	75 / 800	48 / 290	1.5 / 33	3.0 / 750	213 / 500	—
Fluoride	mg/L	LT 0.05	0.043 / 0.25	0.02 / 1.11	0.15 / 0.36	0.25 / 0.31	0.15 / 0.32	0.155 / 0.28	0.03 / 0.27	0.227 / 0.53	—
Nitrate	mg/L	0.07	0.164 / 5.1	0.069 / 8.5	0.50 / 1.5	1.0	0.21 / 2.0	0.15 / 2.0	0.12 / 1.8	1.5 / 75.0	—
Sulfate	mg/L	5.0	33 / 150	85 / 3,900	22 / 269	375 / 4,700	125 / 750	325 / 600	150 / 1,750	8,000 / 8,750	160
Bicarbonate	mg/L	15	1.0 / 5.0	LT 10 / 30	0.0 / 15	15 / 40	0.0 / 13	LT 1.0 / 2.0	1.0 / 50	305 / 505	—
Oil / Grease	mg/L	2.0	LT 1.0 / 4.0	LT 1.0 / 8.0	LT 1.0 / 1.0	LT 1.0	LT 1.0 / 3.0	LT 1.0 / 2.5	1.0 / 30.5	3.4 / 7.9	—
Radium	pCi/L	LT 1.0	LT 1.0 / 1.6	LT 1.0 / 1.71	LT 1.0	LT 1.0	LT 1.0	LT 1.0 / 4.77	LT 1.0 / 2.0	LT 1.0 / 1.43	—
Gross Alpha	pCi/L	LT 4.0	LT 0.5 / 6.5	LT 2.0 / 22.0	LT 2.0 / 6.4	LT 0.6 / LT 5.0	LT 3.0 / 7.1	LT 1.0 / 5.3	LT 2.0 / 8.0	LT 40 / 4.5	—
Gross Beta	pCi/L	LT 2.0	LT 1.0 / 8.8	LT 3.0 / 21.0	1.5 / 10.0	2.8 / 15	2.3 / 27	LT 2.0 / 19	LT 6.0 / 21	LT 40 / 53	—
Turbidity	TU	0.5	0.0 / 42	0.0 / 125	0.8 / 90	15 / 85	0.0 / 60	0.1 / 142	0.1 / 150	97 / 360	—
Coliform	#/100 ml	0.0	0.0 / 75	0.0 / 2.0	0.0	0.0	0.0	0.0 / 1.0	0.0 / 32	0.0 / 46	—
pH	pH units	5.8	3.1 / 5.5	3.1 / 4.43	3.8 / 4.27	3.8 / 3.99	3.54 / 4.14	2.5 / 3.6	3.75 / 5.88	6.36 / 7.0	4
Specific Conductance	umhos	20	142 / 700	2,400 / 5,900	250 / 541	910 / 11,300	850 / 9,890	770 / 1,120	390 / 6,100	10,000 / 19,600	5,500
TOC	mg/L	2.7	0.2 / 9.0	2.2 / 9.9	2.0 / 795	2.2 / 3.5	LT 0.1 / 2.8	LT 0.1 / 7.3	0.5 / 11	150 / 340	—
TOH	mg/L	LT 0.05	LT 0.01 / 0.02	LT 0.05 / 0.071	LT 0.01 / 0.01	LT 0.05	LT 0.01 / 0.022	LT 0.01 / 0.031	0.01 / 0.54	0.061 / 0.23	—
TDS	mg/L	16	67 / 368	1,250 / 5,530	140 / 599	450 / 6,250	400 / 1,400	365 / 562	180 / 3,300	8,900 / 11,400	—

(a) Numbers to the left indicate lowest recorded value, while numbers to the right indicate the highest.
LT = Less than the detection limit indicated
--- = Not Analyzed

Source: Tonolli Corporation, RCRA Part B - Vol. II, March 1985 - "Soils, Geologic, Groundwater, and Groundwater/Surface Water Monitoring Report"

Metals analysis are believed to be total metals

AR301589

TABLE 1-3
SUMMARY OF GROUNDWATER MONITORING ANALYTICAL RESULTS FROM THE PANTHER CREEK ENERGY, INC. BEDROCK MONITORING WELLS (a)

PARAMETER	UNIT	6	7	8	9	10
Aluminum	µg/l	100	60 / 200 (b)	LT 100	20 / 100	LT 100
Arsenic	µg/l	LT 5.0	LT 5.0	LT 5.0	LT 5.0	LT 5.0
Beryllium	µg/l	LT 1.0	LT 1.0	LT 1.0	LT 1.0	LT 1.0
Cadmium	µg/l	LT 1.0	LT 1.0	LT 1.0	LT 1.0	LT 1.0
Calcium	µg/l	27,000	1,120	83,800	251,000	7,260
Chromium	µg/l	LT 5.0	LT 5.0	LT 5.0	LT 5.0	LT 5.0
Copper	µg/l	LT 10	LT 10	LT 10	LT 10	LT 10
Iron	µg/l	1,280	10 / 550	50 / 110	80 / 230	30
Lead	µg/l	LT 5.0	LT 5.0	LT 5.0	LT 5.0	LT 5.0
Magnesium	µg/l	510	370	17,100	60	2,410
Manganese	µg/l	80	10 / 19	LT 10 / 2.0	LT 10 / 5.0	LT 10
Mercury	µg/l	LT 0.5	LT 0.5	LT 0.5	LT 0.5	LT 0.5
Potassium	µg/l	3,720	820	3,060	58,500	420
Selenium	µg/l	LT 5.0	LT 5.0	LT 5.0	LT 5.0	LT 5.0
Silver	µg/l	LT 1.0	LT 1.0	LT 1.0	LT 1.0	LT 1.0
Sodium	µg/l	1,900	1,230	9,200	15,800	4,840
Zinc	µg/l	LT 10	10	540	LT 10	10
Phenol	µg/l	LT 5.0	9.0	LT 5.0	40	LT 5.0
Chloride	mg/l	1.0	1.0	4.0	4.0	6.0
Flouride	mg/l	LT 5.0	LT 5.0	LT 5.0	0.87	LT 5.0
Nitrate	mg/l	0.24	0.1	0.27	1.14	3.42
Nitrogen	mg/l	LT 0.1	LT 0.1	LT 0.1	0.5	LT 0.1
Sulfate	mg/l	6.0	7.0 / 15	225 / 340	12 / 48	2.0
pH	Units	7.2	9.8 / 11.7	6.8 / 11.7	6.6 / 11.5	6.7
Acidity	mg/l	3.0	0.0	0.0 / 7.0	0.0 / 3.0	6.0
Alkalinity	mg/l	22.0	34 / 282	48 / 224	53 / 160	25
Specific Conductance	mmhos	61	74 / 1,340	379 / 1,510	144,780	104
TSS	mg/l	14	LT 1.0 / 4.0	1.0 / 38	2.0 / 4.0	4.0
TDS	mg/l	63	28 / 351	379 / 686	82 / 288	100

LT = Less than the detection limit indicated.

(a) Source: Panther Creek Energy, Inc. Permit Application for Cogeneration Facility, May 1989 and Tonolli RI/FS Work Plan, April 1990.

(b) Numbers to the left are lowest recorded values, while numbers to the right are the highest recorded values.

TABLE 1-4

SUMMARY OF PREVIOUS SURFACE WATER MONITORING ANALYTICAL RESULTS TONOLLI CORPORATION SUPERFUND SITE

Parameter	Unit	Upstream (a) S-1	Downstream (a) S-2	Upstream (b) 029	Downstream (b) 028
Aluminum	ug/l	---	---	LT 20	LT 20
Antimony	ug/l	LT 1.0/2.0 (c)	LT 1.0/47 (c)	LT 20	LT 20
Arsenic	ug/l	LT 2.0/4.0	LT 2.0/108.3	3.0	5.0
Barium	ug/l	4.0/100	2.0/200	---	---
Beryllium	ug/l	---	---	LT 5.0	LT 5.0
Boron	ug/l	---	---	LT 100	LT100
Cadmium	ug/l	LT 1.0/9.0	2.0/38	LT 0.5	0.7
Chromium	ug/l	LT 1.0/15	LT 1.0/21	---	---
Copper	ug/l	10/120	20/900	2.0	5.0
Fluoride	ug/l	15/155	23/250	---	---
Iron	ug/l	50/550	330/3,360	280	330
Lead	ug/l	1.6/20	2.0/170	1.6	2.8
Manganese	ug/l	9.0/200	23/2,020	---	---
Mercury	ug/l	LT 0.2/1.6	LT 0.2/1.4	---	---
Nickel	ug/l	---	---	5.0	11
Nitrate	ug/l	21/8,000	10/1,100	---	---
Selenium	ug/l	LT 2.0/2.8	LT 2.0/30	LT 3.0	LT 3.0
Silver	ug/l	LT 1.0/2.0	0.7/9.0	LT 0.5	LT 0.5
Sodium	ug/l	700/8000	700/51,500	---	---
Tin	ug/l	---	---	LT 2.0	LT [illegible]
Zinc	ug/l	20/560	20/900	3.0	10
Endrin	ug/l	LT 0.005	LT 0.005	---	---
Lindane	ug/l	LT 0.01	LT 0.01	---	---
Methoxychlor	ug/l	LT 0.02	LT 0.02	---	---
Toxaphene	ug/l	LT 0.1	LT 0.1	---	---
2,4-D	ug/l	LT 0.02/1.5	LT 0.02/1.4	---	---
2,4,5-TPSilvex	ug/l	LT 0.002	LT 0.002	---	---
Phenol	ug/l	LT 100	LT 100/60	LT 1.0	8.0
Chloride	mg/l	1.0/13	1.0/39	---	---
Sulfate	mg/l	6.0/48	6.0/110	---	---
Bicarbonate	mg/l	3.0/23	3.0/26	---	---
Oil/Grease	mg/l	0.1/5.0	LT 1.0/3.0	---	---
Radium	pci/L	LT 1.0	LT 1.0	---	---
Gross Alpha	pci/L	LT 0.4/5.6	LT 0.4/5.0	---	---
Gross Beta	pci/L	LT 0.9/1.5	LT 1.0/5.1	---	---
Turbidity	TU	0.1/5	0.0/20	---	---
Coliform	per 100 ml	0.0/115	0.0/50	---	---
pH	Units	5.64/6.63	4.05/6.61	---	---
Specific Conductance	umhos	38/54	50/390	---	---
Total Organic Carbon	mg/l	1.4/3.7	0.4/14	---	---
Total Organic Halogens	mg/l	LT 0.01/0.027	LT 0.01/0.036	---	---
Total Dissolved Solids	mg/l	18/30	23/209	---	---
Acidity	mg/l	---	---	---	---
Alkalinity	mg/l	---	---	---	---
Flow Rate	gpm	---	---	---	---

LT = Less than indicated detection limit
--- = Not Analyzed
(a) Tonolli Corporation, RCRA Part B - Vol. II, March 1985 (Quarterly Monitoring 1983-1985)
(b) USEPA, 1989d (Sampled on July 3, 1989)
(c) Numbers to the left are the lowest recorded values, while numbers to the right are the highest recorded values.

Metals analysis are believed to be total metals

TABLE 1-4
(Continued)

SUMMARY OF PREVIOUS
SURFACE WATER MONITORING ANALYTICAL RESULTS
TONOLLI CORPORATION SUPERFUND SITE

Parameter	Unit	12	14	20	30	40
Aluminum	ug/l	LT 100/100 (c)	LT 100/100 (c)	10/100 (c)	LT 100/200 (c)	100/13,100 (c)
Antimony	ug/l	---	---	---	---	---
Arsenic	ug/l	---	---	---	---	---
Barium	ug/l	---	---	---	---	---
Beryllium	ug/l	---	---	---	---	---
Boron	ug/l	---	---	---	---	---
Cadmium	ug/l	---	---	---	---	---
Chromium	ug/l	---	---	---	---	---
Copper	ug/l	---	---	---	---	---
Fluoride	ug/l	---	---	---	---	---
Iron	ug/l	40/220	LT 10/70	90/190	30/310	120/300
Lead	ug/l	---	---	---	---	---
Manganese	ug/l	LT 10/50	LT 10/10	50/100	20/280	210/4,300
Mercury	ug/l	---	---	---	---	---
Nickel	ug/l	---	---	---	---	---
Nitrate	ug/l	---	---	---	---	---
Selenium	ug/l	---	---	---	---	---
Silver	ug/l	---	---	---	---	---
Sodium	ug/l	---	---	---	---	---
Tin	ug/l	---	---	---	---	---
Zinc	ug/l	---	---	---	---	---
Endrin	ug/l	---	---	---	---	---
Lindane	ug/l	---	---	---	---	---
Methoxychlor	ug/l	---	---	---	---	---
Toxaphene	ug/l	---	---	---	---	---
2,4-D	ug/l	---	---	---	---	---
2,4,5-TPSilvex	ug/l	---	---	---	---	---
Phenol	ug/l	---	---	---	---	---
Chloride	mg/l	---	---	---	---	---
Sulfate	mg/l	7.0/9.0	3.0/4.0	10/16	17/32	27/239
Bicarbonate	mg/l	---	---	---	---	---
Oil/Grease	mg/l	---	---	---	---	---
Radium	pci/l	---	---	---	---	---
Gross Alpha	pci/l	---	---	---	---	---
Gross Beta	pci/l	---	---	---	---	---
Turbidity	TU	---	---	---	---	---
Coliform	per 100 ml	---	---	---	---	---
pH	Units	6.0/6.9	5.9/6.4	5.4/6.1	5.2/6.3	3.5/5.7
Specific Conductance	umhos	41/48	18/21	46/64	90/98	84/460
Total Organic Carbon	mg/l	---	---	---	---	---
Total Organic Halogens	mg/l	---	---	---	---	---
Total Dissolved Solids	mg/l	---	---	---	---	---
Acidity	mg/l	3.0	2.0/3.0	3.0/5.0	1.0/5.0	5.0/91
Alkalinity	mg/l	3.0/6.0	2.0/5.0	4.0/5.0	2.0/7.0	0.0/3.0
Flow Rate	gpm	10,735	7,450	25,375	---	---

LT = Less than indicated detection limit
--- = Not Analyzed
(a) Tonolli Corporation, RCRA Part B - Vol. II, March 1985 (Quarterly Monitoring 1983-1985)
(b) USEPA, 1989d (Sampled on July 3, 1989)
(c) Numbers to the left are the lowest recorded values, while numbers to the right are the highest recorded values.

Metals analysis are believed to be total metals

TABLE 2-1

Hydraulic Conductivity Values
Tonolli Corporation Superfund Site
Nesquehoning, Pennsylvania

WELL	HYDRAULIC CONDUCTIVITY (cm/sec)	WELL	HYDRAULIC CONDUCTIVITY (cm/sec)
MW-10S	1.03×10^{-4}	MW-10D	4.89×10^{-3}
MW-11S	1.54×10^{-2}	MW-11D	7.39×10^{-4}
MW-12S	1.86×10^{-3}	MW-12D	3.29×10^{-3}
MW-13S	7.98×10^{-2}	MW-13D	6.61×10^{-3}
MW-14S	2.80×10^{-3}	MW-14D	(1)
MW-15S	1.08×10^{-3}	MW-15D	1.61×10^{-3}
MW-16S	2.60×10^{-3}	MW-16D	(2)
MW-17S	9.67×10^{-4}	MW-17D	1.08×10^{-3}
MW-18S	4.84×10^{-5}	MW-18D	3.38×10^{-3}
MW-19S	5.73×10^{-3}	MW-19D	2.83×10^{-4}
Average k =	1.10×10^{-2}	Average k =	2.74×10^{-3}

Overall Average k = 7.35×10^{-3} cm/sec

(1) No response to slug, hydraulic conductivity value greater than limits of test procedure.

(2) Monitoring well damaged, hydraulic conductivity testing could not be performed.

TABLE 2-2

HYDROGEOLOGIC DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	WELL COORDINATES (NORTH)	WELL COORDINATES (EAST)	GROUND SURFACE ELEVATION (MSL)	ELEVATION OF TOP OF RISER (MSL)	BOTTOM OF SCREENED INTERVAL (MSL)	LENGTH OF SCREENED INTERVAL (FEET)	GROUNDWATER LEVEL 12/3/90 (feet below TOR)	GROUNDWATER LEVEL 12/3/90 (elev)	HEAD DIFFERENCE *
ROUND 1 WELLS									
MW-10S	558,615.55	2,515,795.14	1049.77	1052.00	1001.77	10	32.87	1019.13	
MW-10D	558,612.52	2,515,802.90	1049.69	1051.65	971.69	10	37.66	1013.99	5.14
MW-11S	558,045.54	2,516,923.60	1012.55	1014.54	982.55	10	16.94	997.60	
MW-11D	558,038.55	2,516,932.86	1011.50	1014.14	909.50	10	18.63	995.51	2.09
MW-12S	558,374.47	2,516,937.69	1020.93	1022.85	980.93	10	23.21	999.64	
MW-12D	558,369.86	2,516,946.49	1020.58	1023.10	910.58	10	27.33	995.77	3.87
MW-13S	557,733.58	2,516,950.55	1004.08	1005.80	983.08	10	14.18	991.62	
MW-13D	557,737.98	2,516,965.72	1004.30	1005.52	901.30	10	10.36	995.16	-3.54
MW-14S	557,810.25	2,517,256.13	998.24	1000.42	978.24	10	9.13	991.29	
MW-14D	557,808.39	2,517,245.53	998.76	1001.07	901.76	10	9.04	992.03	-0.74
MW-15S	558,025.01	2,517,509.81	997.88	999.69	973.88	10	10.05	989.64	
MW-15D	558,016.35	2,517,519.79	998.01	999.50	875.01	10	9.44	990.06	-0.42
MW-16S	557,711.06	2,516,767.43	1008.60	1010.65	983.60	10	14.01	996.64	
MW-16D	557,706.01	2,516,762.68	1008.60	1010.29	891.60	10	13.60	996.69	-0.05
MW-17S	558,395.24	2,516,415.99	1019.37	1021.28	984.37	10	19.76	1001.52	
MW-17D	558,393.31	2,516,424.81	1019.53	1021.10	925.53	10	21.72	999.38	2.14
MW-18S	558,722.18	2,517,293.71	1007.28	1008.95	961.28	15	11.38	997.57	
MW-18D	558,719.98	2,517,326.19	1008.01	1010.13	912.01	10	12.78	997.35	0.22
MW-19S	557,632.96	2,516,440.78	1010.28	1012.16	985.28	10	14.21	997.95	
MW-19D	557,627.12	2,516,447.31	1011.52	1012.92	891.52	10	14.17	998.75	-0.8

* (-) Upward Gradient
(+) Downward Gradient
N/M is not measured.
N/A is not applicable.

AR301594

TABLE 2-2

HYDROGEOLOGIC DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	WELL COORDINATES (NORTH)	WELL COORDINATES (EAST)	GROUND SURFACE ELEVATION (MSL)	ELEVATION OF TOP OF CASING (MSL)	BOTTOM OF SCREENED INTERVAL (MSL)	LENGTH OF SCREENED INTERVAL (FEET)	GROUNDWATER LEVEL 12/3/90 (feet below TOR)	GROUNDWATER LEVEL 12/3/90 (elev)	HEAD DIFFERENCE *
PREVIOUS WELLS									
MW-2	557,754.49	2,516,963.34	1010.00	1011.50	969.49	19	N/M	---	N/A
MW-3	557,888.34	2,517,263.20	1016.68	1018.38	961.88	19	N/M	---	N/A
MW-8	558,307.28	2,517,473.97	1027.55	1029.05	979.98	3	N/M	---	N/A
MW-9	557,889.09	2,517,368.82	998.08	999.43	988.53	7	N/M	---	N/A
OTHER WELLS									
PC-6	559,056.32	2,515,616.49	1077.58	1081.16	952.58	40	N/M	---	N/A
PC-8	558,794.73	2,519,292.27	981.13	983.58	856.13	30	N/M	---	N/A
PC-9	557,325.57	2,516,427.74	1004.85	1007.63	874.85	20	N/M	---	N/A
PC-10	557,783.60	2,518,280.28	996.46	998.11	890.46	20	N/M	---	N/A
PC-11	556,522.13	2,516,067.24	1,018.33	1020.55	893.33	60	N/M	---	N/A
WATER COMPANY NORTH WELL (EW#2)	557,791.40	2,516,300.06	1016.85	1018.85	913.75	---	N/M	---	N/A
WATER COMPANY SOUTH WELL (EW#1)	557,769.51	2,516,313.42	1015.71	1017.46	768.36	---	N/M	---	N/A
LANDFILL MANHOLE (NORTHERN)	558,225.46	2,517,190.31	N/A	1032.64	---	N/A	N/M	---	N/A
LANDFILL MANHOLE (SOUTHERN)	558,026.83	2,517,225.07	N/A	1026.63	---	N/A	N/M	---	N/A
NESQUEHONING CREEK				ELEVATION OF GAUGE			STREAM SURFACE LEVEL 12/3/90 (feet below gauge)	STREAM SURFACE LEVEL 12/3/90 (elev)	
STREAM GAUGE #1	557,502.12	2,516,497.07	N/A	1002.82	N/A	N/A	6.15	996.67	N/A
STREAM GAUGE #2	557,792.13	2,517,330.81	N/A	989.10	N/A	N/A	2.38	986.72	N/A

* (-) Upward Gradient
(+) Downward Gradient
N/M Not measured.
N/A Not applicable.

AR301595

TABLE 2-2

HYDROGEOLOGIC DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	GROUND SURFACE ELEVATION (MSL)	ELEVATION OF TOP OF RISER (MSL)	GROUNDWATER LEVEL 12/19/90 (feet below TOR)	(elev)	HEAD DIFFERENCE *	GROUNDWATER LEVEL 1/24/91 (feet below TOR)	(elev)	HEAD DIFFERENCE *
ROUND 1 WELLS								
MW-10S	1049.77	1052.00	30.04	1021.96		31.56	1020.44	
MW-10D	1049.69	1051.65	35.38	1016.27	5.69	36.44	1015.21	5.23
MW-11S	1012.55	1014.54	15.90	998.64		16.07	998.47	
MW-11D	1011.50	1014.14	17.64	996.50	2.14	17.91	996.23	2.24
MW-12S	1020.93	1022.85	21.78	1001.07		21.94	1000.91	
MW-12D	1020.58	1023.10	26.17	996.93	4.14	26.46	996.64	4.27
MW-13S	1004.08	1005.80	13.70	992.10		13.77	992.03	
MW-13D	1004.30	1005.52	9.44	996.08	-3.98	9.72	995.8	-3.77
MW-14S	998.24	1000.42	8.65	991.77		8.78	991.64	
MW-14D	998.76	1001.07	8.28	992.79	-1.02	8.52	992.55	-0.91
MW-15S	997.88	999.69	9.39	990.30		9.53	990.16	
MW-15D	998.01	999.50	8.58	990.92	-0.62	8.79	990.71	-0.55
MW-16S	1008.60	1010.65	13.12	997.53		13.28	997.37	
MW-16D	1008.60	1010.29	12.65	997.64	-0.11	12.91	997.38	-0.01
MW-17S	1019.37	1021.28	17.74	1003.54		18.34	1002.94	
MW-17D	1019.53	1021.10	20.27	1000.83	2.71	20.73	1000.37	2.57
MW-18S	1007.28	1008.95	9.73	999.22		10.22	998.73	
MW-18D	1008.01	1010.13	11.42	998.71	0.51	11.81	998.32	0.41
MW-19S	1010.28	1012.16	13.37	998.79		13.60	998.56	
MW-19D	1011.52	1012.92	13.32	999.60	-0.81	13.58	999.34	-0.78

* (-) Upward Gradient
(+) Downward Gradient
N/M is not measured.
N/A is not applicable.

AR301596

TABLE 2-2

HYDROGEOLOGIC DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	GROUND SURFACE ELEVATION (MSL)	ELEVATION OF TOP OF CASING (MSL)	GROUNDWATER LEVEL 12/19/90 (feet below TOR)		(elev)	HEAD DIFFERENCE *	GROUNDWATER LEVEL 1/24/91 (feet below TOR)	(elev)	HEAD DIFFERENCE *
PREVIOUS WELLS									
MW-2	1010.00	1011.50	N/M		---	N/A	17.24	---	N/A
MW-3	1016.68	1018.38	25.80		992.58	N/A	25.98	992.40	N/A
MW-8	1027.55	1029.05	34.40		994.65	N/A	34.61	994.44	N/A
MW-9	998.08	999.43	DRY		---	N/A	9.83	---	N/A
OTHER WELLS									
PC-6	1077.58	1081.16	31.85		---	N/A	N/M	---	N/A
PC-8	---	945.14	N/M		---	N/A	N/M	---	N/A
PC-9	1004.85	1007.63	6.17		---	N/A	N/M	---	N/A
PC-10	---	998.70	N/M		---	N/A	N/M	---	N/A
PC-11	---	1021.75	N/M		---	N/A	N/M	---	N/A
WATER COMPANY NORTH WELL (EW#2)	1016.85	1018.85	N/M		---	N/A	18.84	---	N/A
WATER COMPANY SOUTH WELL (EW#1)	1015.71	1017.46	N/M		---	N/A	18.27	---	N/A
LANDFILL MANHOLE (NORTHERN)	N/A	1032.64	10.30	1	1022.34	N/A	N/M	---	N/A
LANDFILL MANHOLE (SOUTHERN)	N/A	1026.63	4.30	1	1022.33	N/A	N/M	---	N/A

		ELEVATION OF GAUGE	STREAM SURFACE LEVEL 12/19/90 (feet below gauge)	(elev)		STREAM SURFACE LEVEL 1/24/91 (feet below gauge)	(elev)	
STREAM GAUGE #1	N/A	1002.82	5.75	997.07	N/A	5.96	996.86	N/A
STREAM GAUGE #2	N/A	989.10	1.96	987.14	N/A	2.18	986.92	N/A

* (-) Upward Gradient
([illegible] nward Gradient
[illegible] measured.
[illegible] applicable.

TABLE [illegible] 4

AR301597

TABLE 2-2

HYDROGEOLOGIC DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	GROUND SURFACE ELEVATION (MSL)	ELEVATION OF TOP OF RISER (MSL)	GROUNDWATER LEVEL 2/27/91 (feet below TOR)	GROUNDWATER LEVEL 2/27/91 (elev)	HEAD DIFFERENCE *	GROUNDWATER LEVEL 3/20/91 (feet below TOR)	GROUNDWATER LEVEL 3/20/91 (elev)	HEAD DIFFERENCE *
ROUND 1 WELLS								
MW-10S	1049.77	1052.00	34.43	1017.57		30.87	1021.13	
MW-10D	1049.69	1051.65	38.70	1012.95	4.62	36.85	1014.80	6.33
MW-11S	1012.55	1014.54	17.27	997.27		16.40	998.14	
MW-11D	1011.50	1014.14	18.96	995.18	2.09	18.13	996.01	2.13
MW-12S	1020.93	1022.85	23.81	999.04		22.80	1000.05	
MW-12D	1020.58	1023.10	27.86	995.24	3.8	26.88	996.22	3.83
MW-13S	1004.08	1005.80	14.34	991.46		13.94	991.86	
MW-13D	1004.30	1005.52	10.64	994.88	-3.42	9.87	995.65	-3.79
MW-14S	998.24	1000.42	9.37	991.05		9.01	991.41	
MW-14D	998.76	1001.07	9.38	991.69	-0.64	8.74	992.33	-0.92
MW-15S	997.88	999.69	10.42	989.27		9.89	989.80	
MW-15D	998.01	999.50	9.94	989.56	-0.29	9.21	990.29	-0.49
MW-16S	1008.60	1010.65	14.18	996.47		13.45	997.20	
MW-16D	1008.60	1010.29	13.83	996.46	0.01	13.03	997.26	-0.06
MW-17S	1019.37	1021.28	20.41	1000.87		18.78	1002.50	
MW-17D	1019.53	1021.10	22.57	998.53	2.34	21.21	999.89	2.61
MW-18S	1007.28	1008.95	13.62	995.33		11.28	997.67	
MW-18D	1008.01	1010.13	12.61	997.52	-2.19	12.36	997.77	-0.10
MW-19S	1010.28	1012.16	14.27	997.89		13.61	998.55	
MW-19D	1011.52	1012.92	14.49	998.43	-0.54	13.66	999.26	-0.71

* (-) Upward Gradient
(+) Downward Gradient
N/M is not measured.
N/A is not applicable.

AR301598

TABLE 2-2

HYDROGEOLOGIC DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	GROUND SURFACE ELEVATION (MSL)	ELEVATION OF TOP OF CASING (MSL)	GROUNDWATER LEVEL 2/27/91 (feet below TOR)	GROUNDWATER LEVEL 2/27/91 (elev)	HEAD DIFFERENCE *	GROUNDWATER LEVEL 3/20/91 (feet below TOR)	GROUNDWATER LEVEL 3/20/91 (elev)	HEAD DIFFERENCE *
PREVIOUS WELLS								
MW-2	1010.00	1011.50	17.59	993.91	N/A	16.95	994.55	N/A
MW-3	1016.68	1018.38	26.80	991.58	N/A	26.27	992.11	N/A
MW-8	1027.55	1029.05	36.17	992.88	N/A	35.23	993.82	N/A
MW-9	998.08	999.43	N/M	N/M	N/A	9.83	989.60	N/A
OTHER WELLS								
PC-6	1077.58	1081.16	34.51	1046.65	N/A	31.43	1049.73	N/A
PC-8	981.13	983.58	11.70	971.88	N/A	11.16	972.42	N/A
PC-9	1004.85	1007.63	7.09	1000.54	N/A	6.26	1001.37	N/A
PC-10	995.46	998.11	14.54	983.57	N/A	13.93	984.18	N/A
PC-11	1,018.33	1020.55	9.23	1011.32	N/A	8.53	1012.02	N/A
WATER COMPANY NORTH WELL (EW#2)	1016.85	1018.85	19.78	999.07	N/A	18.87	999.98	N/A
WATER COMPANY SOUTH WELL (EW#1)	1015.71	1017.46	19.19	998.27	N/A	18.35	999.11	N/A
LANDFILL MANHOLE (NORTHERN)	N/A	1032.64	N/M	---	N/A	9.43	1023.21	N/A
LANDFILL MANHOLE (SOUTHERN)	N/A	1026.63	N/M	---	N/A	3.42	1023.21	N/A
		ELEVATION OF GAUGE	STREAM SURFACE LEVEL 2/27/91 (feet below gauge)	STREAM SURFACE LEVEL 2/27/91 (elev)		STREAM SURFACE LEVEL 3/20/91 (feet below gauge)	STREAM SURFACE LEVEL 3/20/91 (elev)	
STREAM GAUGE #1	N/A	1002.82	6.06	996.76	N/A	5.82	997.00	N/A
STREAM GAUGE #2	N/A	989.10	2.28	986.82	N/A	2.00	987.10	N/A

* (-) Upward Gradient
(+) Downward Gradient
N/M = Not measured.
N/A = Not applicable.

AR301599

TABLE 2-2

HYDROGEOLOGIC DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	GROUND SURFACE ELEVATION (MSL)	ELEVATION OF TOP OF RISER (MSL)	GROUNDWATER LEVEL 4/24/91 (feet below TOR)	GROUNDWATER LEVEL 4/24/91 (elev)	HEAD DIFFERENCE *	GROUNDWATER LEVEL 5/22/91 (feet below TOR)	GROUNDWATER LEVEL 5/22/91 (elev)	HEAD DIFFERENCE *
ROUND 1 WELLS								
MW-10S	1049.77	1052.00	35.20	1,016.80		34.35	1,017.65	
MW-10D	1049.69	1051.65	38.50	1,013.15	3.65	38.70	1,012.95	4.70
MW-11S	1012.55	1014.54	16.82	997.72		17.48	997.06	
MW-11D	1011.50	1014.14	18.66	995.48	2.24	19.14	995.00	2.06
MW-12S	1020.93	1022.85	23.37	999.48		24.18	998.67	
MW-12D	1020.68	1023.10	27.60	995.50	3.98	28.09	995.01	3.66
MW-13S	1004.08	1005.80	14.13	991.67		14.38	991.42	
MW-13D	1004.30	1005.52	10.38	995.14	-3.47	10.83	994.69	-3.27
MW-14S	998.24	1000.42	9.19	991.23		9.42	991.00	
MW-14D	998.76	1001.07	9.20	991.87	-0.64	9.56	991.51	-0.51
MW-15S	997.88	999.69	10.31	989.38		10.60	989.09	
MW-15D	998.01	999.50	9.78	989.72	-0.34	10.14	989.36	-0.27
MW-16S	1008.60	1010.65	13.78	996.87		14.36	996.29	
MW-16D	1008.60	1010.29	13.56	996.73	0.14	14.02	996.27	0.02
MW-17S	1019.37	1021.28	19.64	1,001.64		20.68	1,000.60	
MW-17D	1019.53	1021.10	22.23	998.87	2.77	22.78	998.32	2.28
MW-18S	1007.28	1008.95	12.51	996.44		13.08	995.87	
MW-18D	1008.01	1010.13	13.35	996.78	-0.34	13.86	996.27	-0.40
MW-19S	1010.28	1012.16	13.96	998.20		14.46	997.70	
MW-19D	1011.52	1012.92	14.20	998.72	-0.52	14.68	998.24	-0.64

* (-) Upward Gradient
(+) Downward Gradient
N/M is not measured.
N/A is not applicable.

AR301600

TABLE 2-2

HYDROGEOLOGIC DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	GROUND SURFACE ELEVATION (MSL)	ELEVATION OF TOP OF CASING (MSL)	GROUNDWATER LEVEL 4/24/91 (feet below TOC)	GROUNDWATER LEVEL 4/24/91 (elev)	HEAD DIFFERENCE *	GROUNDWATER LEVEL 5/22/91 (feet below TOC)	GROUNDWATER LEVEL 5/22/91 (elev)	HEAD DIFFERENCE *
PREVIOUS WELLS								
MW-2	1010.00	1011.50	17.25	994.25	N/A	17.59	993.91	N/A
MW-3	1016.68	1018.38	26.69	991.69	N/A	27.03	991.35	N/A
MW-8	1027.55	1029.05	36.05	993.00	N/A	36.54	992.51	N/A
MW-9	998.08	999.43	9.88	989.55	N/A	10.06	989.37	N/A
OTHER WELLS								
PC-6	1077.58	1081.16	34.49	1,046.67	N/A	34.29	1,046.87	N/A
PC-8	981.13	983.58	11.53	972.05	N/A	11.89	971.69	N/A
PC-9	1004.85	1007.63	6.90	1,000.73	N/A	7.37	1,000.26	N/A
PC-10	995.46	998.11	14.41	983.70	N/A	14.75	983.36	N/A
PC-11	1,018.33	1020.55	9.17	1,011.38	N/A	9.57	1,010.98	N/A
WATER COMPANY NORTH WELL	1016.85	1018.85	19.38	999.47	N/A	19.97	998.88	N/A
WATER COMPANY SOUTH WELL	1015.71	1017.46	18.96	998.50	N/A	19.44	998.02	N/A
LANDFILL MANHOLE (NORTHERN)	N/A	1032.64	N/M	---	N/A	9.89	1,022.75	N/A
LANDFILL MANHOLE (SOUTHERN)	N/A	1026.63	N/M	---	N/A	3.88	1,022.75	N/A

		ELEVATION OF GAUGE	STREAM SURFACE LEVEL 4/24/91 (feet below gauge)	STREAM SURFACE LEVEL 4/24/91 (elev)		STREAM SURFACE LEVEL 5/22/91 (feet below gauge)	STREAM SURFACE LEVEL 5/22/91 (elev)	
STREAM GAUGE #1	N/A	1002.82	5.96	996.86	N/A	6.20	996.62	N/A
STREAM GAUGE #2	N/A	989.10	2.18	986.92	N/A	2.39	986.71	N/A

* (-) Upward Gradient
[illegible] nward Gradient
[illegible] t measured.
[illegible] t applicable.

AR301601

TABLE 2-2

HYDROGEOLOGIC DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	GROUND SURFACE ELEVATION (MSL)	ELEVATION OF TOP OF RISER (MSL)	GROUNDWATER LEVEL 6/13/91 (feet below TOR)	GROUNDWATER LEVEL 6/13/91 (elev)	HEAD DIFFERENCE *	GROUNDWATER LEVEL 7/6/91 (feet below TOR)	GROUNDWATER LEVEL 7/6/91 (elev)	HEAD DIFFERENCE *
ROUND 1 WELLS								
MW-10S	1048.77	1052.00	38.97	1,013.03		41.55	1,010.45	
MW-10D	1049.69	1051.65	41.65	1,010.00	3.03	43.24	1,008.41	2.04
MW-11S	1012.55	1014.54	18.17	996.37		18.90	995.64	
MW-11D	1011.50	1014.14	20.10	994.04	2.33	20.60	993.54	2.10
MW-12S	1020.93	1022.85	25.23	997.62		26.12	996.73	
MW-12D	1020.58	1023.10	29.14	993.96	3.66	29.76	993.34	3.39
MW-13S	1004.08	1005.80	14.54	991.26		13.76	992.04	
MW-13D	1004.30	1005.52	11.67	993.85	-2.59	12.18	993.34	-1.30
MW-14S	998.24	1000.42	9.92	990.50		10.35	990.07	
MW-14D	998.76	1001.07	10.28	990.79	-0.29	10.74	990.33	-0.26
MW-15S	997.88	999.69	11.17	988.52		11.43	988.26	
MW-15D	998.01	999.50	10.92	988.58	-0.06	11.56	987.94	0.32
MW-16S	1008.60	1010.65	14.95	995.70		15.48	995.17	
MW-16D	1008.60	1010.29	14.80	995.49	0.21	15.47	994.82	0.35
MW-17S	1019.37	1021.28	22.91	998.37		23.31	997.97	
MW-17D	1019.53	1021.10	24.04	997.06	1.31	24.88	996.22	1.75
MW-18S	1007.28	1008.95	14.47	994.48		15.33	993.62	
MW-18D	1008.01	1010.13	15.10	995.03	-0.55	15.88	994.25	-0.63
MW-19S	1010.28	1012.16	15.09	997.07		15.43	996.73	
MW-19D	1011.52	1012.92	15.58	997.34	-0.27	16.13	996.79	-0.06
ROUND 2 PIEZOMETERS								
P1	1023.37	1026.04				4.26	1,021.78	N/A
P2	1023.97	1027.65				5.94	1,021.71	N/A

* (-) Upward Gradient
(+) Downward Gradient
N/M is not measured.
N/A is not applicable.

AR301602

TABLE 2-2

HYDROGEOLOGIC DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	GROUND SURFACE ELEVATION (MSL)	ELEVATION OF TOP OF CASING (MSL)	GROUNDWATER LEVEL 6/13/91 (feet below TOC)	GROUNDWATER LEVEL 6/13/91 (elev)	HEAD DIFFERENCE *	GROUNDWATER LEVEL 7/6/91 (feet below TOC)	GROUNDWATER LEVEL 7/6/91 (elev)	HEAD DIFFERENCE *
PREVIOUS WELLS								
MW-2	1010.00	1011.60	N/M	N/A	N/A	18.58	992.92	N/A
MW-3	1016.68	1018.38	27.57	990.81	N/A	28.30	990.08	N/A
MW-8	1027.55	1029.05	37.60	991.45	N/A	38.18	990.87	N/A
MW-9	998.08	999.43	N/M	N/A	N/A	10.25	989.18	N/A
OTHER WELLS								
PC-6	1077.58	1081.16	37.48	1,043.68	N/A	39.61	1,041.55	N/A
PC-8	981.13	983.58	12.45	971.13	N/A	12.85	970.73	N/A
PC-9	1004.85	1007.63	8.49	999.14	N/A	8.98	998.65	N/A
PC-10	995.46	998.11	15.41	982.70	N/A	15.81	982.30	N/A
PC-11	1,018.33	1020.55	10.61	1,009.94	N/A	11.13	1,009.42	N/A
WATER COMPANY NORTH WELL	1016.85	1018.85	N/M	N/A	N/A	21.43	997.42	N/A
WATER COMPANY SOUTH WELL	1015.71	1017.46	N/M	N/A	N/A	21.02	996.44	N/A
LANDFILL MANHOLE (NORTHERN)	N/A	1032.64	N/M	---	N/A	10.52	1,022.12	N/A
LANDFILL MANHOLE (SOUTHERN)	N/A	1026.63	N/M	---	N/A	4.52	1,022.11	N/A
		ELEVATION OF GAUGE	STREAM SURFACE LEVEL 6/13/91 (feet below gauge)	STREAM SURFACE LEVEL 6/13/91 (elev)		STREAM SURFACE LEVEL 7/6/91 (feet below gauge)	STREAM SURFACE LEVEL 7/6/91 (elev)	
STREAM GAUGE #1	N/A	1002.82	N/M	N/A	N/A	6.35	996.47	N/A
STREAM GAUGE #2	N/A	989.10	N/M	N/A	N/A	2.75	986.35	N/A

* (-) Upward Gradient
[illegible]nward Gradient
[illegible]t measured.
[illegible]ot applicable.

AR301603

TABLE 3-1

GEOLOGIC DATA SUMMARY TABLE
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	WELL COORDINATES		GRD. ELEV.	BOTTOM OF BORING		TOP OF BEDROCK		ALLUVIUM				
								BOTTOM		TOP		
	NORTH	EAST	(FEET)	(FEET)	(ELEV.)	(FEET)	(ELEV.)	(FEET)	(ELEV.)	(FEET)	(ELEV.)	THICKNESS
MW-10S	558,615.55	2,515,795.14	1049.77	48.6	1001.17	---	---	NFP	---	0	1049.77	NFP
MW-10D	558,612.52	2,515,802.90	1049.69	99.5	950.19	75	974.69	75	974.69	0	1049.69	75
MW-11S	558,045.54	2,516,923.60	1012.55	30.5	982.05	---	---	NFP	---	15	997.55	NFP
MW-11D	558,038.55	2,516,932.86	1011.50	102	909.50	96	915.5	96	915.50	15	996.50	81
MW-12S	558,374.47	2,516,937.69	1020.93	40.5	980.43	---	---	NFP	---	15	1005.93	NFP
MW-12D	558,369.86	2,516,946.49	1020.58	112	908.58	96	924.58	96	924.58	15	1005.58	81
MW-13S	557,733.58	2,516,950.55	1004.08	22	982.08	---	---	NFP	---	17	987.08	NFP
MW-13D	557,737.98	2,516,965.72	1004.30	108.1	896.20	98	906.3	98	906.30	14	990.30	84
MW-14S	557,810.25	2,517,256.13	998.24	20.8	977.44	---	---	NFP	---	18	980.24	NFP
MW-14D	557,808.39	2,517,245.53	998.76	99.6	899.16	93	905.76	93	905.76	19	979.76	74
MW-15S	558,025.01	2,517,509.81	997.88	25.2	972.68	---	---	NFP	---	16	981.88	NFP
MW-15D	558,016.35	2,517,519.79	998.01	126	872.01	117	881.01	117	881.01	15	983.01	102
MW-16S	557,711.06	2,516,767.43	1008.60	26	982.60	---	---	NFP	---	17	991.60	NFP
MW-16D	557,705.01	2,516,762.68	1008.60	119.5	889.10	112	896.6	112	896.60	17	991.60	95
MW-17S	558,395.24	2,516,415.99	1019.37	35.7	983.67		0	NFP	---	4	1015.37	NFP
MW-17D	558,393.31	2,516,424.81	1019.53	99.1	920.43	80	939.53	80	939.53	4	1015.53	76
MW-18S	558,722.18	2,517,293.71	1007.28	48.1	959.18	---	---	NFP	---	2	1005.28	NFP
MW-18D	558,719.98	2,517,326.19	1008.01	99.5	908.51	91	917.01	91	917.01	2.5	1005.51	88.5
MW-19S	557,632.96	2,516,440.78	1010.28	26	984.28	---	---	NFP	---	6	1004.28	NFP
MW-19D	557,627.12	2,516,447.31	1011.52	121.8	889.72	118	893.52	118	893.52	5	1006.52	113
Panther Creek Wells												
PC-6	559,056.32	2,515,616.49	1077.58	125	952.58	76	1001.58	76	1001.58	0	1077.58	76
PC-7 (Destroyed) *	---	---	1073.14	150	923.14	55	1018.14	55	1018.14	0	1073.14	55
PC-8	558,794.73	2,519,292.27	981.13	125	856.13	60	921.13	60	921.13	5	976.13	55
PC-9	557,325.57	2,516,427.74	1004.85	130	874.85	107	897.85	107	897.85	4	1000.85	103
PC-10	557,783.60	2,518,280.28	995.46	105	890.46	70	925.46	70	925.46	3	992.46	67
PC-11	556,522.13	2,515,067.24	1018.33	125	893.33	70	948.33	70	948.33	0	1018.33	70
Water Company Wells												
North Well (EW#2)	557,791.40	2,516,300.06	1016.85	100	---	100	---	100	---	0	100	---
South Well (EW#1)	557,769.51	2,516,313.42	1015.71	245	---	107	---	107	---	0	107	---

NOTES: * Survey data from Benatec Associates: all other survey data from PCRA.

** Geological logs were not of sufficient detail to deliniate this strata, i.e. May or may not be present.

*** Open borehole.

NFP = Not fully penetrated.

NS = Not seen.

AR301604

TABLE 3-1

GEOLOGIC DATA SUMMARY TABLE
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	DEEPEST CLAY LENS					MINE SPOILS				
	BOTTOM		TOP		THICKNESS	BOTTOM		TOP		
	(FEET)	(ELEV.)	(FEET)	(ELEV.)		(FEET)	(ELEV.)	(FEET)	(ELEV.)	THICKNESS
MW-10S	NS	---	NS	---	NS	NS	---	NS	---	NS
MW-10D	NS	---	NS NS	---	NS	NS	---	NS	---	NS
MW-11S	NS	---	NS	---	NS	15	997.55	0	1012.55	15
MW-11D	88	923.50	81	930.50	7	15	996.50	0	1011.50	15
MW-12S	NS	---	NS	---	NS	15	1005.93	0	1020.93	15
MW-12D	96	924.58	86	934.58	10	15	1005.58	0	1020.58	15
MW-13S	NS	---	NS	---	NS	17	987.08	0	1004.08	17
MW-13D	87	917.30	82	922.30	5	14	990.30	0	1004.30	14
MW-14S	NS	---	NS	---	NS	18	980.24	0	998.24	18
MW-14D	73	925.76	65	933.76	8	19	979.76	0	998.76	19
MW-15S	NS	---	NS	---	NS	16	981.88	0	997.88	16
MW-15D	100	898.01	95	903.01	5	15	983.01	0	998.01	15
MW-16S	NS	---	NS	---	NS	17	991.60	0	1008.60	17
MW-16D	88	920.60	82	926.60	6	17	991.60	0	1008.60	17
MW-17S	NS	---	NS	---	NS	4	1015.37	0	1019.37	4
MW-17D	80	939.53	68	951.53	12	4	1015.53	0	1019.53	4
MW-18S	NS	---	NS	---	NS	2	1005.28	0	1007.28	2
MW-18D	91	917.01	84	924.01	7	2.5	1005.51	0	1008.01	2.5
MW-19S	NS	---	NS	---	NS	6	1004.28	0	1010.28	6
MW-19D	NS	---	NS	---	0	5	1006.52	0	1011.52	5
Panther Creek Wells										
PC-6	**	---	**	---	**	NS	---	NS	---	NS
PC-7 (Destroyed) *	**	---	**	---	**	NS	---	NS	---	NS
PC-8	**	---	**	---	**	5	976.13	0.00	981.13	5
PC-9	**	---	**	---	**	4	1000.85	0.00	1004.85	4
PC-10	**	---	**	---	**	3	992.46	0.00	995.46	3
PC-11	**	---	**	---	**	NS	---	NS	---	NS
Water Company Wells										
North Well (EW#2)	**	---	**	---	**	NS	---	NS	---	---
South Well (EW#1)	**	**	**	---	**	NS	---	NS	---	---

NOTES: * Survey data from Benatec Associates: all other survey data from PCRA.

** Geological logs were not of sufficient detail to deliniate this strata, i.e. May or may not be present.

*** Open borehole.

NFP = Not fully penetrated.

NS = Not seen.

AR301605

TABLE 3-1

GEOLOGIC DATA SUMMARY TABLE
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

WELL NUMBER	SCREENED INTERVAL				LENGTH
	BOTTOM		TOP		
	(FEET)	(ELEV.)	(FEET)	(ELEV.)	(FEET)
MW-10S	48	1001.77	38	1011.77	10
MW-10D	78	971.69	68	981.69	10
MW-11S	30	982.55	20	992.55	10
MW-11D	102	909.50	92	919.50	10
MW-12S	40	980.93	30	990.93	10
MW-12D	110	910.58	100	920.58	10
MW-13S	21	983.08	11	993.08	10
MW-13D	103	901.30	93	911.30	10
MW-14S	20	978.24	10	988.24	10
MW-14D	97	901.76	87	911.76	10
MW-15S	24	973.88	14	983.88	10
MW-15D	123	875.01	113	885.01	10
MW-16S	25	983.60	15	993.60	10
MW-16D	117	891.60	107	901.60	10
MW-17S	35	984.37	25	994.37	10
MW-17D	94	925.53	84	935.53	10
MW-18S	46	961.28	31	976.28	15
MW-18D	96	912.01	86	922.01	10
MW-19S	25	985.28	15	995.28	10
MW-19D	120	891.52	110	901.52	10
Panther Creek Wells					
PC-6	125	952.58	85	992.58	40
PC-7 (Destroyed) *	150	923.14	80	993.14	80
PC-8	125	856.13	95	886.13	30
PC-9	130	874.85	110	894.85	20
PC-10	105	890.46	85	910.46	20
PC-11	125	893.33	65	953.33	60
Water Company Wells					
North Well (EW#2)	100	916.85	0	—	100
South Well (EW#1)	245 ***	770.71	122.00 ***	—	123 ***

NOTES: * Survey data from Benatec Associates; all other survey data from PCRA.

** Geological logs were not of sufficient detail to deliniate this strata, i.e. May or may not be present.

*** Open borehole.

NFP = Not fully penetrated.

NS = Not seen.

AR301606

TABLE 4-1

ROUND 1 SAMPLING ANALYSIS SUMMARY
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

	Number of Samples									
Parameter	Stream Sediment	Surface Water	Waste	Leachate	Landfill Waste	Soil	Groundwater	Surface Impounded Water and Landfill Peizometer	Sump Sediment	Total
Indicator Metals(1)	9	9	6	5	5	97(5)	17		4	152
PAH's	9	9	6	5	5	63	17		4	118
TAL Metals(2)	2	2	2	1		8	6			21
TCL Semi-Volatile Organics(3)	2	2	2	1		8	6			21
TCL Volatile Organics	2	2	2	1		8	6			21
TCL Pesticides/ PCBs	2	2	2	1		8	6			21
Total Organic Carbon	9	11	2	6	5	71	23		4	131
Hexavalent Chromium	2	2	2	1		8	6			21
Cyanide	2	2	2	1		8	6			21
Total Suspended Solids		11		6			23			40
Total Dissolved Solids		11		6			23			40
Alkalinity/Acidity		11		6			23			40
Hardness		11		6			23			40
Sulfate		11		6			22			39
Chloride		11		6			22			39
TCLP for Indicator Metals(1)			4		5					9
Cation Exchange Capacity						6				6
Grain Size										
Atterberg Limits										
CIU Triaxial Test										
Specific Gravity										
Moisture Content	11		8		5	105(5)			4	133
pH(4)	2	11	2	6	5	71	23		4	124
Eh(4)		11		6			6			23
Temperature(4)		11		6			23			40
Conductivity(4)		11		6			23			40
									Total =	1,140

(1) Indicator Metals for Round 1 are Pb, Cu, Cd, As, Se, Hg, and Zn
(2) TAL Metals includes Indicator Metals.
(3) TCL Semi-Volatiles include PAHs.
(4) Outlined areas represent parameters which were measured in the field.
(5) Round 1 off-site soil samples (34 total) were analyzed for lead and moisture.

AR301607

TABLE 4-2

ROUND 2 SAMPLING ANALYSIS SUMMARY
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

Number of Samples

Parameter	Stream Sediment	Surface Water	Waste	Leachate	Landfill Waste	Soil	Groundwater	Surface Impounded Water and Landfill Peizometer	Sump Sediment	Total
Indicator Metals(1)	13	13	6(5)			49	16			97
PAH's										
TAL Metals(2)							6	3		9
TCL Semi-Volatile Organics(3)										
TCL Volatile Organics										
TCL Pesticides/ PCBs										
Total Organic Carbon	13	13	6			49	22	3		106
Hexavalent Chromium										
Cyanide										
Total Suspended Solids		13					22	3		38
Total Dissolved Solids		13					22	3		38
Alkalinity/Acidity		13					22	3		38
Hardness		13					22	3		38
Sulfate		13					22	3		38
Chloride		13					22	3		38
TCLP for Metals			6			5				11
Cation Exchange Capacity										
Grain Size						5				5
Atterberg Limits						4				4
CIU Triaxial Test						2				2
Specific Gravity						4				4
Moisture Content	13		6			53				72
pH(4)	13	13	6			49	22	3		106
Eh(4)		13					22	3		38
Temperature(4)		13					22	3		38
Conductivity(4)		13					22	3		38
									TOTAL =	758

(1) Indicator Metals for Round 2 are Pb, Cu, Cd, As, and Zn.
(2) TAL Metals includes Indicator Metals.
(3) TCL Semi-Volatiles include PAHs.
(4) Outlined areas represent parameters which were measured in the field.
(5) Round 2 waste samples were analyzed for lead.

AR301608

TABLE 4-3

ROUND 2 OFFSITE SOIL SAMPLE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

		SO-OFF-1	SO-OFF-2	SO-OFF-3	SO-OFF-4	SO-OFF-5	SO-OFF-6	SO-OFF-7	SO-OFF-8	SO-OFF-9	SO-OFF-10	SO-OFF-11	SO-OFF-12
Matrix Description		SOIL	SOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	SOIL	MINE SPOIL
General Chemistry													
pH, s.u.		---	---	---	---	---	---	---	---	---	---	---	---
TOC, mg/kg		---	---	---	---	---	---	---	---	---	---	---	---
Moisture Content, % (as received)		45.8	44.5	13.2	24.7	9.2	9.0	11.1	10.4	11.5	12.6	12.0	14.6
Indicator Metals, mg/kg	CRDL												
Cadmium	1	---	---	---	---	---	---	---	---	---	---	---	---
Copper	5	---	---	---	---	---	---	---	---	---	---	---	---
Lead	0.6	768	266	18.5	10000	770	308	378	84.5	83.4	103	11.5	128
Zinc	4	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic	2	---	---	---	---	---	---	---	---	---	---	---	---
TCLP Extraction, mg/l													
Mercury		---	---	---	---	---	---	---	---	---	---	---	---
Arsenic		---	---	---	---	---	---	---	---	---	---	---	---
Selenium		---	---	---	---	---	---	---	---	---	---	---	---
Barium		---	---	---	---	---	---	---	---	---	---	---	---
Cadmium		---	---	---	---	---	---	---	---	---	---	---	---
Chromium		---	---	---	---	---	---	---	---	---	---	---	---
Lead		---	---	---	---	---	---	---	---	---	---	---	---
Silver		---	---	---	---	---	---	---	---	---	---	---	---

Note - Samples were collected from the top two inches unless otherwise indicated in sample number.

AR301609

TABLE 4-3

ROUND 2 OFFSITE SOIL SAMPLE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

		SO-OFF-13	SO-OFF-14	SO-OFF-15	SO-OFF-16	SO-OFF-17	SO-OFF-18	SO-OFF-19	SO-OFF-20	SO-OFF-21	SO-OFF-22	SO-OFF-23	SO-OFF-24
Matrix Description		MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	SOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL
General Chemistry													
pH, s.u.		---	---	---	---	---	---	---	---	---	---		
TOC, mg/kg		---	---	---	---	---	---	---	---	---	---		
Moisture Content, % (as received)		18.0	17.3	8.0	11.8	10.9	8.1	7.5	8.0	6.4	5.3	13.7	14.8
Indicator Metals, mg/kg	CRDL												
Cadmium	1	---	---	---	---	---	---	---	---	---	---	---	---
Copper	5	---	---	---	---	---	---	---	---	---	---	---	---
Lead	0.6	142	94.8	93.2	93.6	538	137	438	270	142	71.6	275	291
Zinc	4	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic	2	---	---	---	---	---	---	---	---	---	---	---	---
TCLP Extraction, mg/l													
Mercury		---	---	---	---	---	---	---	---	---	---	---	---
Arsenic		---	---	---	---	---	---	---	---	---	---	---	---
Selenium		---	---	---	---	---	---	---	---	---	---	---	---
Barium		---	---	---	---	---	---	---	---	---	---	---	---
Cadmium		---	---	---	---	---	---	---	---	---	---	---	---
Chromium		---	---	---	---	---	---	---	---	---	---	---	---
Lead		---	---	---	---	---	---	---	---	---	---	---	---
Silver		---	---	---	---	---	---	---	---	---	---	---	---

Note - Samples were collected from the top two inches unless otherwise indicated in sample number.

AR301610

AR301611

TABLE 4-3

ROUND 2 OFFSITE SOIL SAMPLE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

		SO-OFF-25	SO-OFF-26	SO-OFF-27	SO-OFF-28	SO-OFF-29	SO-OFF-30	SO-OFF-31	SO-OFF-32	SO-OFF-33 (DUP 23)	SO-OFF-34 (DUP-31)
Matrix Description		MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	SOIL	SOIL	SOIL	SOIL	MINE SPOIL	SOIL
General Chemistry											
pH, s.u.		---	---	---	---	---	---	---	---	---	---
TOC, mg/kg		---	---	---	---	---	---	---	---	---	---
Moisture Content, % (as received)		4.7	5.2	6.4	15.0	39.4	62.5	52.5	16.9	15.3	51.6
Indicator Metals, mg/kg	CRDL										
Cadmium	1	---	---	---	---	---	---	---	---	---	---
Copper	5	---	---	---	---	---	---	---	---	---	---
Lead	0.6	29.3	166	27.8	72.4	183	221	450	513	194	540
Zinc	4	---	---	---	---	---	---	---	---	---	---
Arsenic	2	---	---	---	---	---	---	---	---	---	---
TCLP Extraction, mg/l											
Mercury		---	---	---	---	---	---	---	---	---	---
Arsenic		---	---	---	---	---	---	---	---	---	---
Selenium		---	---	---	---	---	---	---	---	---	---
Barium		---	---	---	---	---	---	---	---	---	---
Cadmium		---	---	---	---	---	---	---	---	---	---
Chromium		---	---	---	---	---	---	---	---	---	---
Lead		---	---	---	---	---	---	---	---	---	---
Silver		---	---	---	---	---	---	---	---	---	---

Note - Samples were collected from the top two inches unless otherwise indicated in sample number.

TABLE 4-3

ROUND 2 OFFSITE SOIL SAMPLE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

		SO-OFF-35	SO-OFF-36 (DUP-35)	SO-OFF-37	SO-OFF-38	SO-OFF-39-0	SO-OFF-39-1.5	SO-OFF-39-3	SO-OFF-39-4	SO-OFF-40-0	SO-OFF-40-1.5	SO-OFF-40-3.0	SO-OFF-40-4.0
Matrix Description		SOIL	SOIL	SOIL	SOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL
General Chemistry													
pH, s.u.		---	---	---	---	---	---	---	---	---	---	---	---
TOC, mg/kg		---	---	---	---	---	---	---	---	---	---	---	---
Moisture Content, % (as received)		40.4	40.1	51.7	50.4	10.6	15.4	9.9	12.9	20.5	16.7	15.4	16.0
Indicator Metals, mg/kg	CRDL												
Cadmium	1	1.00 U	0.92 U	2.7	2.3	0.64 U	0.69 U	0.62 U	0.60 U	0.74 U	0.72 U	0.66 U	0.63 U
Copper	5	29.1	28.4	36.0	25.2	19.4	14.4	18.7	14.1	17.7	9.4	11.9	9.1
Lead	0.6	204	205	846	572	23.0	10.2	15.0	11.9	111	6.2	6.5	7.1
Zinc	4	47.4	50.5	85.5	102	10.6	7.9	10.1	6.3	5.5	2.1 B	2.9 B	2.7 B
Arsenic	2	8.3	8.3	10.0	6.4	7.2	5.6	7.5	5.7	10.7	11.4	7.6	7.7
TCLP Extraction, mg/l													
Mercury		---	---	---	---	---	---	---	---	---	---	---	---
Arsenic		---	---	---	---	---	---	---	---	---	---	---	---
Selenium		---	---	---	---	---	---	---	---	---	---	---	---
Barium		---	---	---	---	---	---	---	---	---	---	---	---
Cadmium		---	---	---	---	---	---	---	---	---	---	---	---
Chromium		---	---	---	---	---	---	---	---	---	---	---	---
Lead		---	---	---	---	---	---	---	---	---	---	---	---
Silver		---	---	---	---	---	---	---	---	---	---	---	---

Note - Samples were collected from the top two inches unless otherwise indicated in sample number.

AR301612

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S1-3 SOIL		SO-S2-3 SOIL		SO-S3-3 SOIL		SO-S3-5 MINE SPOIL		SO-S4-1.5 SOIL		SO-S4-5 SOIL		SO-S5-8 SOIL	
General Chemistry															
pH, s.u.		3.96		4.26		4.64		5.31		5.76		4.95		4.13	
TOC, mg/kg		870		630		1,400		5,100		710		390		300	
Moisture Content, % (as rec'd)		9.5		9.2		9.0		11.1		7.8		7.4		7.7	
Hexavalent Chromium, mg/kg		---		---		---		---		0.3		---		0.2	LT
Indicator Metals, mg/kg	CRDL														
Cadmium	1	0.15	U	0.15	U	0.29	B	0.15	U	0.49		0.15	U	0.15	U
Copper	5	16.3		21.2		14.4		46.4		16.4		12.0		12.1	
Lead	0.6	14.5	L	507	L	286	L	96.3	L	2,250		174		143	J
Mercury	0.2	0.02	B	0.03	B	0.04		0.04	B	0.03	B	0.05		0.03	B
Zinc	4	26.7		42.6		30.7		61.6		33.5	J	33.4	J	17.5	
Arsenic	2	8.2	J	8.1	J	5.0	J	5.5	J	3.3	L	5.0	L	4.2	UK
Selenium	1	0.84		0.29	B	0.33	B	2.1		0.10	UL	0.11	BL	0.10	U
Additional TAL Metals, mg/kg	CRDL														
Aluminum	40	---		---		---		---		4,830		---		4,610	
Antimony	12	---		---		---		---		9.7	J	---		1.3	U
Barium	40	---		---		---		---		15.7		---		20.3	B
Beryllium	1	---		---		---		---		0.36		---		0.28	B
Calcium	1,000	---		---		---		---		747	J	---		72.2	B
Chromium	2	---		---		---		---		11.4		---		13.7	
Cobalt	10	---		---		---		---		8.8		---		2.0	B
Iron	20	---		---		---		---		23,200		---		26,700	
Magnesium	1,000	---		---		---		---		595		---		378	
Manganese	3	---		---		---		---		455	J	---		198	
Nickel	8	---		---		---		---		8.3		---		4.1	B
Potassium	1,000	---		---		---		---		444		---		365	
Silver	2	---		---		---		---		0.60	U	---		0.61	U
Sodium	1,000	---		---		---		---		67.9	B	---		25.2	B
Thallium	2	---		---		---		---		0.12	U	---		[illegible]	U
Vanadium	10	---		---		---		---		10.9		---		[illegible]	
Cyanide, T	2	---		---		---		---		0.13	U	---		[illegible]	U

HR3016/3

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S1-3 SOIL		SO-S2-3 SOIL		SO-S3-3 SOIL		SO-S3-5 MINE SPOIL		SO-S4-1.5 SOIL		SO-S4-5 SOIL		SO-S5-8 SOIL	
TCL Volatiles, ug/kg															
	CRQL														
Acetone	10	---		---		---		---		14	*	---		39	*
Chloroform	5	---		---		---		---		5	U	---		5	U
Ethylbenzene	5	---		---		---		---		5	U	---		5	U
Methylene Chloride	5	---		---		---		---		18		---		21	
Tetrachloroethene	5	---		---		---		---		5	U	---		5	U
Toluene	5	---		---		---		---		5	U	---		5	U
2-Butanone	10	---		---		---		---		11	U	---		2	J
1,1,1-Trichloroethane	5	---		---		---		---		5	U	---		5	U
1,1-Dichloroethene	5	---		---		---		---		5	U	---		5	U
Xylenes, Total	5	---		---		---		---		5	U	---		5	U
PAH's, mg/kg															
	CRQL														
Naphthalene	0.330	2	LT	2	LT	2	LT	2	LT	0.360	U	2	LT	0.360	U
Acenaphthylene	0.330	2	LT	2	LT	2	LT	2	LT	0.360	U	2	LT	0.360	U
Acenaphthene	0.330	2	LT	2	LT	2	LT	2	LT	0.360	U	2	LT	0.360	U
Fluorene	0.330	2	LT	2	LT	2	LT	2	LT	0.360	U	2	LT	0.360	U
Phenanthrene	0.330	0.6	LT	0.6	LT	0.5	LT	0.6	LT	0.360	U	0.5	LT	0.360	U
Anthracene	0.330	0.6	LT	0.6	LT	0.5	LT	0.6	LT	0.360	U	0.5	LT	0.360	U
Fluoranthene	0.330	0.2	LT	0.2	LT	0.2	LT	0.2	LT	0.360	U	0.2	LT	0.360	U
Pyrene	0.330	0.2	LT	0.2	LT	0.2	LT	0.2	LT	0.360	U	0.2	LT	0.360	U
Benzo(a) anthracene	0.330	0.01	LT	0.01	LT	0.01	LT	0.03	LT	0.360	U	0.01	LT	0.360	U
Chrysene	0.330	0.1	LT	0.1	LT	0.1	LT	0.1	LT	0.360	U	0.1	LT	0.360	U
Benzo(b) fluoranthene	0.330	0.02	LT	0.02	LT	0.02	LT	0.03	LT	0.360	U	0.02	LT	0.360	U
Benzo(k) fluoranthene	0.330	0.02	LT	0.02	LT	0.02	LT	0.02	LT	0.360	U	0.02	LT	0.360	U
Benzo(a) pyrene	0.330	0.02	LT	0.02	LT	0.02	LT	0.02	LT	0.360	U	0.02	LT	0.360	U
Dibenzo(a,h) anthracene	0.330	0.02	LT	0.02	LT	0.02	LT	0.02	LT	0.360	U	0.02	LT	0.360	U
Benzo(g,h,i) perylene	0.330	0.06	LT	0.06	LT	0.05	LT	0.06	LT	0.360	U	0.05	LT	0.360	U
Indeno (1,2,3-cd) pyrene	0.330	0.06	LT	0.06	LT	0.05	LT	0.06	LT	0.360	U	0.05	LT	0.360	U

AR301614

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S1-3 SOIL	SO-S2-3 SOIL	SO-S3-3 SOIL	SO-S3-5 MINE SPOIL	SO-S4-1.5 SOIL		SO-S4-5 SOIL	SO-S5-8 SOIL	
Additional TCL Semi-Volatiles, mg/kg										
	CRQL									
Phenol	0.330	---	---	---	---	0.360	U	---	0.360	U
bis (2-Chloroisopropyl) ether	0.330	---	---	---	---	0.360	U	---	0.360	U
2-Methylphenol	0.330	---	---	---	---	0.360	U	---	0.360	U
4-Methylphenol	0.330	---	---	---	---	0.360	U	---	0.360	U
2,4 - Dimethylphenol	0.330	---	---	---	---	0.360	U	---	0.360	U
2-Methylnaphthalene	0.330	---	---	---	---	0.360	U	---	0.360	U
Dibenzofuran	0.330	---	---	---	---	0.360	U	---	0.360	U
Benzoic acid	1.600	---	---	---	---	1.800	U	---	1.800	U
Nitrobenzene	0.360	---	---	---	---	0.360	U	---	0.360	U
N-Nitrosodiphenylamine (1)	0.360	---	---	---	---	0.360	U	---	0.360	U
Di-n-butylphthalate	0.330	---	---	---	---	0.360	U	---	0.057	J
Butylbenzylphthalate	0.330	---	---	---	---	0.360	U	---	0.360	U
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	---	30.000		---	0.300	J
Di-n-octylphthalate	0.330	---	---	---	---	8.300		---	0.071	J
Diethylphthalate	0.330	---	---	---	---	0.360	U	---	0.048	J
4-Nitrophenol	1.600	---	---	---	---	1.800	U	---	1.800	U
TCL Pesticides/PCBs, ug/kg										
	CRQL									
Dieldrin	16	---	---	---	---	17	U	---	17	U
alpha-Chlordane	80	---	---	---	---	87	U	---	87	U
TCLP Extraction, mg/l										
Mercury		---	---	---	---	---		---	---	
Arsenic		---	---	---	---	---		---	---	
Selenium		---	---	---	---	---		---	---	
Barium		---	---	---	---	---		---	---	
Cadmium		---	---	---	---	---		---	---	
Chromium		---	---	---	---	---		---	---	
Lead		---	---	---	---	---		---	---	
Silver		---	---	---	---	---		---	---	

AR301615

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S6-1.5 SOIL		S7-3 SOIL		SO-S7-10 SOIL		SO-S8-0 SOIL		SO-S8-5.5 MINE SPOIL / BATTERY CASINGS		SO-S9-5 SOIL		SO-S10-0 MINE SPOIL	
General Chemistry															
pH, s.u.		4.28		4.79		3.97		5.73		5.95		4.80		5.79	
TOC, mg/kg		960		1,800		760		3,400		5,700		1,100		5,700	
Moisture Content, % (as rec'd)		9.0		11.8		12.9		8.4		15.4		12.4		10.3	
Hexavalent Chromium, mg/kg		---		1.1		---		---		---		---		---	
Indicator Metals, mg/kg	CRDL														
Cadmium	1	0.15	U	0.43		0.16	U	22.6		0.23	B	0.26	U	73.7	
Copper	5	20.1	L	22.0		18.5		265		23.5		21.7	J	8,440	
Lead	0.6	21.3	K	634	J	124	J	27,000		146		53.4	J	29,400	
Mercury	0.2	0.02	B	0.16		0.03	B	0.13		0.10		0.05		0.10	
Zinc	4	30.5		15.5		27.7		196	J	29.1	J	46.6	J	835	J
Arsenic	2	10.5		6.5	K	21.0	K	259	L	6.7	L	6.2	J	119	L
Selenium	1	0.77	K	1.8	B	1.7	B	2.9	BL	1.8	L	0.11	BL	2.3	BL
Additional TAL Metals, mg/kg	CRDL														
Aluminum	40	---		3,220		---		---		---		---		---	
Antimony	12	---		2.5	B	---		---		---		---		---	
Barium	40	---		36.0		---		---		---		---		---	
Beryllium	1	---		0.26	B	---		---		---		---		---	
Calcium	1,000	---		659		---		---		---		---		---	
Chromium	2	---		7.3	K	---		---		---		---		---	
Cobalt	10	---		1.6	B	---		---		---		---		---	
Iron	20	---		5,470		---		---		---		---		---	
Magnesium	1,000	---		197	B	---		---		---		---		---	
Manganese	3	---		11.8		---		---		---		---		---	
Nickel	8	---		5.4		---		---		---		---		---	
Potassium	1,000	---		462		---		---		---		---		---	
Silver	2	---		0.62	U	---		---		---		---		---	
Sodium	1,000	---		38.5	B	---		---		---		---		---	
Thallium	2	---		0.33	B	---		---		---		---		---	
Vanadium	10	---		11.3		---		---		---		---		---	
Cyanide, Total	2	---		0.15	B	---		---		---		---		---	

AR301616

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S6-1.5 SOIL	S7-3 SOIL	SO-S7-10 SOIL	SO-S8-0 SOIL	SO-S8-5.5 MINE SPOIL / BATTERY CASINGS	SO-S9-5 SOIL	SO-S10-0 MINE SPOIL
TCL Volatiles, ug/kg								
	CRQL							
Acetone	10	---	3 *	---	---	---	---	---
Chloroform	5	---	6 UJ	---	---	---	---	---
Ethylbenzene	5	---	6 UJ	---	---	---	---	---
Methylene Chloride	5	---	10 J	---	---	---	---	---
Tetrachloroethene	5	---	6 UJ	---	---	---	---	---
Toluene	5	---	6 J	---	---	---	---	---
2-Butanone	10	---	11 UJ	---	---	---	---	---
1,1,1-Trichloroethane	5	---	6 UJ	---	---	---	---	---
1,1-Dichloroethene	5	---	6 UJ	---	---	---	---	---
Xylenes, Total	5	---	6 UJ	---	---	---	---	---
PAH's, mg/kg								
	CRQL							
Naphthalene	0.330	2 LT	0.380 U	2 LT	2 LT	2 LT	2 LT	2 LT
Acenaphthylene	0.330	2 LT	0.380 U	2 LT	2 LT	2 LT	2 LT	2 LT
Acenaphthene	0.330	2 LT	0.380 U	2 LT	2 LT	2 LT	2 LT	2 LT
Fluorene	0.330	2 LT	0.380 U	2 LT	2 LT	2 LT	2 LT	2 LT
Phenanthrene	0.330	0.5 LT	0.380 U	0.6 LT	0.5 LT	0.6 LT	0.6 LT	0.6 LT
Anthracene	0.330	0.5 LT	0.380 U	0.6 LT	0.5 LT	0.6 LT	0.6 LT	0.6 LT
Fluoranthene	0.330	0.2 LT	0.380 U	0.2 LT	0.2	0.2	0.2 LT	0.2 LT
Pyrene	0.330	0.2 LT	0.380 U	0.2 LT	0.5 LT	0.2	0.2 LT	0.2 LT
Benzo(a) anthracene	0.330	0.01 LT	0.380 U	0.01 LT	0.10	0.08	0.01 LT	0.02 LT
Chrysene	0.330	0.1 LT	0.380 U	0.1 LT	0.2 LT	0.1 LT	0.1 LT	0.4
Benzo(b) fluoranthene	0.330	0.02 LT	0.380 U	0.02 LT	0.13	0.06	0.02 LT	0.02 LT
Benzo(k) fluoranthene	0.330	0.02 LT	0.380 U	0.02 LT	0.05	0.04	0.02 LT	0.02 LT
Benzo(a) pyrene	0.330	0.02 LT	0.380 U	0.02 LT	0.1 LT	0.05	0.02 LT	0.06
Dibenzo(a,h) anthracene	0.330	0.02 LT	0.380 U	0.02 LT	0.1 LT	0.02 LT	0.02 LT	0.04 LT
Benzo(g,h,i) perylene	0.330	0.05 LT	0.380 U	0.06 LT	0.3 LT	0.06 LT	0.06 LT	0.1 LT
Indeno (1,2,3-cd) pyrene	0.330	0.05 LT	0.380 U	0.06 LT	0.3 LT	0.06 LT	0.06 LT	[illegible] LT

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TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S6-1.5 SOIL	S7-3 SOIL		SO-S7-10 SOIL	SO-S8-0 SOIL	SO-S8-5.5 MINE SPOIL / BATTERY CASINGS	SO-S9-5 SOIL	SO-S10-0 MINE SPOIL
Additional TCL Semi-Volatiles, mg/kg									
	CRQL								
Phenol	0.330	---	0.380	U	---	---	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---	0.380	U	---	---	---	---	---
2-Methylphenol	0.330	---	0.380	U	---	---	---	---	---
4-Methylphenol	0.330	---	0.380	U	---	---	---	---	---
2,4 - Dimethylphenol	0.330	---	0.380	U	---	---	---	---	---
2-Methylnaphthalene	0.330	---	0.380	U	---	---	---	---	---
Dibenzofuran	0.330	---	0.380	U	---	---	---	---	---
Benzoic acid	1.600	---	1.900	U	---	---	---	---	---
Nitrobenzene	0.360	---	0.380	U	---	---	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---	0.380	U	---	---	---	---	---
Di-n-butylphthalate	0.330	---	0.380	U	---	---	---	---	---
Butylbenzylphthalate	0.330	---	0.380	U	---	---	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---	0.290	J	---	---	---	---	---
Di-n-octylphthalate	0.330	---	0.054	J	---	---	---	---	---
Diethylphthalate	0.330	---	0.380	U	---	---	---	---	---
4-Nitrophenol	1.600	---	1.900	U	---	---	---	---	---
TCL Pesticides/PCBs, ug/kg	CRQL								
Dieldrin	16	---	54	U	---	---	---	---	---
alpha-Chlordane	80	---	270	U	---	---	---	---	---
TCLP Extraction, mg/l									
Mercury		---	---		---	---	---	---	---
Arsenic		---	---		---	---	---	---	---
Selenium		---	---		---	---	---	---	---
Barium		---	---		---	---	---	---	---
Cadmium		---	---		---	---	---	---	---
Chromium		---	---		---	---	---	---	---
Lead		---	---		---	---	---	---	---
Silver		---	---		---	---	---	---	---

AR301618

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S10-3 SOIL	SO-S11-3A MINE SPOIL	DUP-SO-S11-3B MINE SPOIL	SO-S11-5 SOIL	SO-S12-3 SOIL	SO-S12-5 SOIL	SO-S13-3A MINE SPOIL
General Chemistry								
pH, s.u.		3.95	6.41	6.36	4.61	3.39	3.37	4.44
TOC, mg/kg		420	7,000	5,400	1,200	710	720	4,200
Moisture Content, % (as rec'd)		12.9	20.1	19.1	10.1	11.4	11.6	14.9
Hexavalent Chromium, mg/kg		---	---	---	---	---	0.2 LT	---
Indicator Metals, mg/kg	CRDL							
Cadmium	1	0.15 U	0.81	2.1	2.0	0.25 U	0.26 U	0.26 U
Copper	5	21.2	30.7	28.8	22.0	21.9	22.3 J	13.5 J
Lead	0.6	54.6	2,230 L	7,430 L	185 L	29.8	23.0 J	14.6 J
Mercury	0.2	0.03 B	0.07	0.07	0.02 B	0.02 B	0.02 B	0.09
Zinc	4	26.3 J	4.8	8.8	33.3	32.3	28.9 J	12.5 J
Arsenic	2	7.9 L	6.5 J	57.5 J	9.3 J	9.7	10.3 J	2.6 J
Selenium	1	0.41 L	2.7	2.2	0.80	0.66	0.6 L	1.3 L
Additional TAL Metals, mg/kg	CRDL							
Aluminum	40	---	---	---	---	---	7,530	---
Antimony	12	---	---	---	---	---	1.3 U	---
Barium	40	---	---	---	---	---	31.3 J	---
Beryllium	1	---	---	---	---	---	0.49	---
Calcium	1,000	---	---	---	---	---	147 BJ	---
Chromium	2	---	---	---	---	---	10.3	---
Cobalt	10	---	---	---	---	---	2.8 BJ	---
Iron	20	---	---	---	---	---	35,200	---
Magnesium	1,000	---	---	---	---	---	1,570 J	---
Manganese	3	---	---	---	---	---	123 J	---
Nickel	8	---	---	---	---	---	8.0 J	---
Potassium	1,000	---	---	---	---	---	599	---
Silver	2	---	---	---	---	---	0.65 U	---
Sodium	1,000	---	---	---	---	---	1,020	---
Thallium	2	---	---	---	---	---	0.13 U	---
Vanadium	10	---	---	---	---	---	13.3	---
Cyanide, T	2	---	---	---	---	---	5.0 U	---

AR301619

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S10-3 SOIL	SO-S11-3A MINE SPOIL	DUP-SO-S11-3B MINE SPOIL	SO-S11-5 SOIL	SO-S12-3 SOIL	SO-S12-5 SOIL	SO-S13-3A MINE SPOIL
TCL Volatiles, ug/kg								
	CRQL							
Acetone	10	---	---	---	---	---	62	---
Chloroform	5	---	---	---	---	---	6 U	---
Ethylbenzene	5	---	---	---	---	---	6 U	---
Methylene Chloride	5	---	---	---	---	---	18	---
Tetrachloroethene	5	---	---	---	---	---	6 U	---
Toluene	5	---	---	---	---	---	3 J	---
2-Butanone	10	---	---	---	---	---	11 U	---
1,1,1-Trichloroethane	5	---	---	---	---	---	6 U	---
1,1-Dichloroethene	5	---	---	---	---	---	6 U	---
Xylenes, Total	5	---	---	---	---	---	2 J	---
PAH's, mg/kg								
	CRQL							
Naphthalene	0.330	5 LT	3 LT	2 LT	2 LT	2 LT	0.380 U	7 LT
Acenaphthylene	0.330	5 LT	3 LT	2 LT	2 LT	2 LT	0.380 U	7 LT
Acenaphthene	0.330	5 LT	3 LT	2 LT	2 LT	2 LT	0.380 U	7 LT
Fluorene	0.330	5 LT	3 LT	2 LT	2 LT	2 LT	0.380 U	7 LT
Phenanthrene	0.330	1 LT	0.6 LT	0.6 LT	0.6 LT	0.6 LT	0.380 U	2 LT
Anthracene	0.330	1 LT	0.6 LT	0.6 LT	0.6 LT	0.6 LT	0.380 U	2 LT
Fluoranthene	0.330	0.5 LT	0.3 LT	0.2 LT	0.2 LT	0.2 LT	0.380 U	0.7 LT
Pyrene	0.330	0.5 LT	0.3 LT	0.2 LT	0.2 LT	0.2 LT	0.380 U	0.7 LT
Benzo(a) anthracene	0.330	0.02 LT	0.01 LT	0.01 LT	0.01 LT	0.01 LT	0.380 U	0.04 LT
Chrysene	0.330	0.2 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.380 U	0.4 LT
Benzo(b) fluoranthene	0.330	0.05 LT	0.03 LT	0.02 LT	0.02 LT	0.02 LT	0.380 U	0.07 LT
Benzo(k) fluoranthene	0.330	0.05 LT	0.03 LT	0.02 LT	0.02 LT	0.02 LT	0.380 U	0.07 LT
Benzo(a) pyrene	0.330	0.05 LT	0.03 LT	0.02 LT	0.02 LT	0.02 LT	0.380 U	0.07 LT
Dibenzo(a,h) anthracene	0.330	0.05 LT	0.03 LT	0.02 LT	0.02 LT	0.02 LT	0.380 U	0.07 LT
Benzo(g,h,i) perylene	0.330	0.1 LT	0.06 LT	0.06 LT	0.06 LT	0.06 LT	0.380 U	0.2 LT
Indeno (1,2,3-cd) pyrene	0.330	0.1 LT	0.06 LT	0.06 LT	0.06 LT	0.06 LT	0.380 U	0.2 LT

AR301620

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S10-3 SOIL	SO-S11-3A MINE SPOIL	DUP-SO-S11-3B MINE SPOIL	SO-S11-5 SOIL	SO-S12-3 SOIL	SO-S12-5 SOIL	SO-S13-3A MINE SPOIL
Additional TCL Semi-Volatiles, mg/kg								
	CRQL							
Phenol	0.330	---	---	---	---	---	0.380 U	---
bis (2-Chloroisopropyl) ether	0.330	---	---	---	---	---	0.380 U	---
2-Methylphenol	0.330	---	---	---	---	---	0.380 U	---
4-Methylphenol	0.330	---	---	---	---	---	0.380 U	---
2,4 - Dimethylphenol	0.330	---	---	---	---	---	0.380 U	---
2-Methylnaphthalene	0.330	---	---	---	---	---	0.380 U	---
Dibenzofuran	0.330	---	---	---	---	---	0.380 U	---
Benzoic acid	1.600	---	---	---	---	---	1.900 U	---
Nitrobenzene	0.360	---	---	---	---	---	0.380 U	---
N-Nitrosodiphenylamine (1)	0.360	---	---	---	---	---	0.380 U	---
Di-n-butylphthalate	0.330	---	---	---	---	---	0.380 U	---
Butylbenzylphthalate	0.330	---	---	---	---	---	0.380 U	---
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	---	---	0.120 *	---
Di-n-octylphthalate	0.330	---	---	---	---	---	0.062 *	---
Diethylphthalate	0.330	---	---	---	---	---	0.380 U	---
4-Nitrophenol	1.600	---	---	---	---	---	1.900 U	---
TCL Pesticides/PCBs, ug/kg								
	CRQL							
Dieldrin	16	---	---	---	---	---	18 U	---
alpha-Chlordane	80	---	---	---	---	---	91 U	---
TCLP Extraction, mg/l								
Mercury		---	---	---	---	---	---	---
Arsenic		---	---	---	---	---	---	---
Selenium		---	---	---	---	---	---	---
Barium		---	---	---	---	---	---	---
Cadmium		---	---	---	---	---	---	---
Chromium		---	---	---	---	---	---	---
Lead		---	---	---	---	---	---	---
Silver		---	---	---	---	---	---	---

AR301621

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S13-3B MINE SPOIL		SO-S14-0.5 MINE SPOIL		SO-S14-10 MINE SPOIL / BATTERY CASINGS		SO-S15-1 MINE SPOIL / BATTERY CASINGS		SO-S15-1DUP MINE SPOIL / BATTERY CASINGS		SO-S15-9 MINE SPOIL / BATTERY CASINGS	
General Chemistry													
pH, s.u.		4.43		6.49		4.09		6.75		6.82		4.71	
TOC, mg/kg		3,800		8,200		3,700		4,100		5,200		4,300	
Moisture Content, % (as rec'd)		15.5		15.1		14.8		8.5		8.8		21.0	
Hexavalent Chromium, mg/kg		---		---		---		---		---		---	
Indicator Metals, mg/kg	CRDL												
Cadmium	1	0.26	U	130		16.9		16.0		17.6		0.64	
Copper	5	13.6	J	1,860	J	21.1	J	56.3		85.4		6.9	
Lead	0.6	14.1	J	95,200		1,290		21,800		30,600		414	
Mercury	0.2	0.09		0.30		0.03	B	0.18		0.19		0.13	
Zinc	4	13.1	J	1,480		67.7		91.8	J	123	J	13.8	J
Arsenic	2	3.4	J	304	L	2.8	BL	41.8	L	60.2	L	4.9	L
Selenium	1	1.4	L	2.9	BL	1.1	L	6.6	L	3.6	L	1.6	L
Additional TAL Metals, mg/kg	CRDL												
Aluminum	40	---		---		---		---		---		---	
Antimony	12	---		---		---		---		---		---	
Barium	40	---		---		---		---		---		---	
Beryllium	1	---		---		---		---		---		---	
Calcium	1,000	---		---		---		---		---		---	
Chromium	2	---		---		---		---		---		---	
Cobalt	10	---		---		---		---		---		---	
Iron	20	---		---		---		---		---		---	
Magnesium	1,000	---		---		---		---		---		---	
Manganese	3	---		---		---		---		---		---	
Nickel	8	---		---		---		---		---		---	
Potassium	1,000	---		---		---		---		---		---	
Silver	2	---		---		---		---		---		---	
Sodium	1,000	---		---		---		---		---		---	
Thallium	2	---		---		---		---		---		---	
Vanadium	10	---		---		---		---		---		---	
Cyanide, Total	2	---		---		---		---		---		---	

AR301622

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S13-3B MINE SPOIL	SO-S14-0.5 MINE SPOIL	SO-S14-10 MINE SPOIL / BATTERY CASINGS	SO-S15-1 MINE SPOIL / BATTERY CASINGS	SO-S15-1DUP MINE SPOIL / BATTERY CASINGS	SO-S15-9 MINE SPOIL / BATTERY CASINGS
TCL Volatiles, ug/kg							
	CRQL						
Acetone	10	---	---	---	---	---	---
Chloroform	5	---	---	---	---	---	---
Ethylbenzene	5	---	---	---	---	---	---
Methylene Chloride	5	---	---	---	---	---	---
Tetrachloroethene	5	---	---	---	---	---	---
Toluene	5	---	---	---	---	---	---
2-Butanone	10	---	---	---	---	---	---
1,1,1-Trichloroethane	5	---	---	---	---	---	---
1,1-Dichloroethene	5	---	---	---	---	---	---
Xylenes, Total	5	---	---	---	---	---	---
PAH's, mg/kg							
	CRQL						
Naphthalene	0.330	7 LT	6	2 LT	2 LT	2 LT	3 LT
Acenaphthylene	0.330	7 LT	2 LT	2 LT	2 LT	2 LT	3 LT
Acenaphthene	0.330	7 LT	2 LT	2 LT	2 LT	2 LT	3 LT
Fluorene	0.330	7 LT	2 LT	2 LT	2 LT	2 LT	3 LT
Phenanthrene	0.330	2 LT	8.0	0.6 LT	0.5 LT	0.5 LT	0.6 LT
Anthracene	0.330	2 LT	2.0	0.6 LT	0.5 LT	0.5 LT	0.6 LT
Fluoranthene	0.330	0.7 LT	5	0.2 LT	0.2 LT	0.2	0.3 LT
Pyrene	0.330	0.7 LT	5	0.2 LT	0.3	0.3	0.3 LT
Benzo(a) anthracene	0.330	0.04 LT	1.4	0.01 LT	0.04	0.09	0.01 LT
Chrysene	0.330	0.4 LT	1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT
Benzo(b) fluoranthene	0.330	0.07 LT	1.2	0.02 LT	0.57	0.09	0.03 LT
Benzo(k) fluoranthene	0.330	0.07 LT	0.2 LT	0.02 LT	0.05 LT	0.04 LT	0.03 LT
Benzo(a) pyrene	0.330	0.07 LT	1 LT	0.02 LT	0.05 LT	0.08 LT	0.03 LT
Dibenzo(a,h) anthracene	0.330	0.07 LT	0.9 LT	0.02 LT	0.02 LT	0.04 LT	0.03 LT
Benzo(g,h,i) perylene	0.330	0.2 LT	2 LT	0.06 LT	0.05 LT	0.1 LT	0.06 LT
Indeno (1,2,3-cd) pyrene	0.330	0.2 LT	2 LT	0.06 LT	0.05 LT	0.1 LT	0.06 LT

AR301623

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S13-3B MINE SPOIL	SO-S14-0.5 MINE SPOIL	SO-S14-10 MINE SPOIL / BATTERY CASINGS	SO-S15-1 MINE SPOIL / BATTERY CASINGS	SO-S15-1DUP MINE SPOIL / BATTERY CASINGS	SO-S15-9 MINE SPOIL / BATTERY CASINGS
Additional TCL Semi-Volatiles, mg/kg							
	CRQL						
Phenol	0.330	---	---	---	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---	---	---	---	---	---
2-Methylphenol	0.330	---	---	---	---	---	---
4-Methylphenol	0.330	---	---	---	---	---	---
2,4 - Dimethylphenol	0.330	---	---	---	---	---	---
2-Methylnaphthalene	0.330	---	---	---	---	---	---
Dibenzofuran	0.330	---	---	---	---	---	---
Benzoic acid	1.600	---	---	---	---	---	---
Nitrobenzene	0.360	---	---	---	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---	---	---	---	---	---
Di-n-butylphthalate	0.330	---	---	---	---	---	---
Butylbenzylphthalate	0.330	---	---	---	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	---	---	---
Di-n-octylphthalate	0.330	---	---	---	---	---	---
Diethylphthalate	0.330	---	---	---	---	---	---
4-Nitrophenol	1.600	---	---	---	---	---	---
TCL Pesticides/PCBs, ug/kg	CRQL						
Dieldrin	16	---	---	---	---	---	---
alpha-Chlordane	80	---	---	---	---	---	---
TCLP Extraction, mg/l							
Mercury		---	---	---	---	---	---
Arsenic		---	---	---	---	---	---
Selenium		---	---	---	---	---	---
Barium		---	---	---	---	---	---
Cadmium		---	---	---	---	---	---
Chromium		---	---	---	---	---	---
Lead		---	---	---	---	---	---
Silver		---	---	---	---	---	---

AR301624

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S16-0.5 SOIL/ MINE SPOIL		SO-S16-3 SOIL		SO-S17-3 MINE SPOIL		SO-S17-5 MINE SPOIL		SO-S18-5 MINE SPOIL		SO-S18-8 MINE SPOIL		SO-S19-3 SOIL	
General Chemistry															
pH, s.u.		8.26		3.95		5.29		4.87		5.64		4.62		4.85	
TOC, mg/kg		1,300		1,100		990		720		5,100		11,000		2,100	
Moisture Content, % (as rec'd)		7.4		9.4		9.2		9.9		27.9		14.9		8.5	
Hexavalent Chromium, mg/kg		---		---		---		0.3		---		---		---	
Indicator Metals, mg/kg	CRDL														
Cadmium	1	1.7		0.15	U	0.87		0.15	U	2.0		1.9		0.21	B
Copper	5	28.9		10.9		17.7		14.8		116	J	24.6	J	13.8	
Lead	0.6	471		13.7		2,300	L	81.4	J	8,470		29.7		109	
Mercury	0.2	0.01	B	0.01	B	0.04		0.04	U	0.15		0.22		0.04	
Zinc	4	36.4	J	24.4	J	30.2		32.8		547		24.4		36.0	J
Arsenic	2	23.4	L	8.6	L	11.5	J	4.4	K	23.6	L	6.1	BL	10.1	L
Selenium	1	0.48	UL	1.6	L	0.28	B	0.18	B	2.8	L	7.0	L	0.78	L
Additional TAL Metals, mg/kg	CRDL														
Aluminum	40	---		---		---		7,400		---		---		---	
Antimony	12	---		---		---		1.3	U	---		---		---	
Barium	40	---		---		---		31.9		---		---		---	
Beryllium	1	---		---		---		0.58		---		---		---	
Calcium	1,000	---		---		---		365		---		---		---	
Chromium	2	---		---		---		12.4	K	---		---		---	
Cobalt	10	---		---		---		13.1		---		---		---	
Iron	20	---		---		---		21,700		---		---		---	
Magnesium	1,000	---		---		---		1,220		---		---		---	
Manganese	3	---		---		---		558		---		---		---	
Nickel	8	---		---		---		14.6		---		---		---	
Potassium	1,000	---		---		---		634		---		---		---	
Silver	2	---		---		---		0.62	U	---		---		---	
Sodium	1,000	---		---		---		34.1	B	---		---		---	
Thallium	2	---		---		---		0.12	U	---		---		---	
Vanadium	10	---		---		---		10.1		---		---		---	
Cyanide, Total	2	---		---		---		0.14	U	---		---		---	

AR301625

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S16-0.5 SOIL/ MINE SPOIL	SO-S16-3 SOIL	SO-S17-3 MINE SPOIL	SO-S17-5 MINE SPOIL	SO-S18-5 MINE SPOIL	SO-S18-8 MINE SPOIL	SO-S19-3 SOIL
TCL Volatiles, ug/kg								
	CRQL							
Acetone	10	---	---	---	40 *	---	---	---
Chloroform	5	---	---	---	6 UJ	---	---	---
Ethylbenzene	5	---	---	---	6 UJ	---	---	---
Methylene Chloride	5	---	---	---	160 J	---	---	---
Tetrachloroethene	5	---	---	---	6 UJ	---	---	---
Toluene	5	---	---	---	39 J	---	---	---
2-Butanone	10	---	---	---	2 J	---	---	---
1,1,1-Trichloroethane	5	---	---	---	4 J	---	---	---
1,1-Dichloroethene	5	---	---	---	6 UJ	---	---	---
Xylenes, Total	5	---	---	---	2 J	---	---	---
PAH's, mg/kg								
	CRQL							
Naphthalene	0.330	2 LT	2 LT	2 LT	0.370 U	3 LT	5 LT	2 LT
Acenaphthylene	0.330	2 LT	2 LT	2 LT	0.370 U	3 LT	5 LT	2 LT
Acenaphthene	0.330	2 LT	2 LT	2 LT	0.370 U	3 LT	5 LT	2 LT
Fluorene	0.330	2 LT	2 LT	2 LT	0.370 U	3 LT	5 LT	2 LT
Phenanthrene	0.330	0.5 LT	0.6 LT	0.6 LT	0.370 U	[illegible]	1 LT	0.5 LT
Anthracene	0.330	0.5 LT	0.6 LT	0.6 LT	0.370 U	[illegible] LT	1 LT	0.5 LT
Fluoranthene	0.330	0.2 LT	0.2 LT	0.2 LT	0.370 U	0.7 LT	0.5 LT	0.2 LT
Pyrene	0.330	0.2 LT	0.2 LT	0.2 LT	0.370 U	0.7 LT	0.5 LT	0.2 LT
Benzo(a) anthracene	0.330	0.01	0.01 LT	0.01 LT	0.370 U	0.12	0.02 LT	0.01 LT
Chrysene	0.330	0.1 LT	0.1 LT	0.1 LT	0.370 U	0.3 LT	0.2 LT	0.1 LT
Benzo(b) fluoranthene	0.330	0.04	0.02 LT	0.02 LT	0.370 U	0.11	0.05 LT	0.02 LT
Benzo(k) fluoranthene	0.330	0.04 LT	0.02 LT	0.02 LT	0.370 U	0.06 LT	0.05 LT	0.02 LT
Benzo(a) pyrene	0.330	0.04 LT	0.02 LT	0.02 LT	0.370 U	0.10 LT	0.05 LT	0.02 LT
Dibenzo(a,h) anthracene	0.330	0.04 LT	0.02 LT	0.02 LT	0.370 U	0.1 LT	0.05 LT	0.02 LT
Benzo(g,h,i) perylene	0.330	0.3 LT	0.06 LT	0.06 LT	0.370 U	0.4 LT	0.1 LT	0.05 LT
Indeno (1,2,3-cd) pyrene	0.330	0.3 LT	0.06 LT	0.06 LT	0.370 U	0.4 LT	0.1 LT	0.05 LT

AR301626

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S16-0.5 SOIL/ MINE SPOIL	SO-S16-3 SOIL	SO-S17-3 MINE SPOIL	SO-S17-5 MINE SPOIL	SO-S18-5 MINE SPOIL	SO-S18-8 MINE SPOIL	SO-S19-3 SOIL
Additional TCL Semi-Volatiles, mg/kg								
	CRQL							
Phenol	0.330	---	---	---	0.370 U	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---	---	---	0.370 U	---	---	---
2-Methylphenol	0.330	---	---	---	0.370 U	---	---	---
4-Methylphenol	0.330	---	---	---	0.370 U	---	---	---
2,4 - Dimethylphenol	0.330	---	---	---	0.370 U	---	---	---
2-Methylnaphthalene	0.330	---	---	---	0.370 U	---	---	---
Dibenzofuran	0.330	---	---	---	0.370 U	---	---	---
Benzoic acid	1.600	---	---	---	1.800 U	---	---	---
Nitrobenzene	0.360	---	---	---	0.370 U	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---	---	---	0.370 U	---	---	---
Di-n-butylphthalate	0.330	---	---	---	0.064 J	---	---	---
Butylbenzylphthalate	0.330	---	---	---	0.370 U	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	0.130 J	---	---	---
Di-n-octylphthalate	0.330	---	---	---	0.370 U	---	---	---
Diethylphthalate	0.330	---	---	---	0.370 U	---	---	---
4-Nitrophenol	1.600	---	---	---	1.800 U	---	---	---
TCL Pesticides/PCBs, ug/kg	CRQL							
Dieldrin	16	---	---	---	18 U	---	---	---
alpha-Chlordane	80	---	---	---	89 U	---	---	---
TCLP Extraction, mg/l								
Mercury		---	---	---	---	---	---	---
Arsenic		---	---	---	---	---	---	---
Selenium		---	---	---	---	---	---	---
Barium		---	---	---	---	---	---	---
Cadmium		---	---	---	---	---	---	---
Chromium		---	---	---	---	---	---	---
Lead		---	---	---	---	---	---	---
Silver		---	---	---	---	---	---	---

AR301627

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S19-5 MINE SPOIL		SO-S20-5A MINE SPOIL		DUP-SO-S20-5B MINE SPOIL		SO-S20-10 MINE SPOIL		SO-S21-5 SOIL		SO-S21-10 MINE SPOIL		SO-S22-1.5 SOIL	
General Chemistry															
pH, s.u.		5.51		4.33		4.37		4.45		4.55		4.38		7.53	
TOC, mg/kg		4,100		2,100		1,900		2,800		1,400		3,700		3,700	
Moisture Content, % (as rec'd)		12.0		11.0		12.3		13.5		8.4		14.7		11.6	
Hexavalent Chromium, mg/kg		---		---		---		---		---		0.6		0.2	LT
Indicator Metals, mg/kg	CRDL														
Cadmium	1	0.22	B	4.5		1.2		5.6		2.2		1.4		0.71	J
Copper	5	10.1		34.2	J	43.2	J	10.1	J	29.2	L	27.6	L	19.1	J
Lead	0.6	4.7	B	1,850		2,070		64.7		1,330	K	27.0	K	793	J
Mercury	0.2	0.05		0.1		0.08		0.03	B	0.03	B	0.08		0.05	
Zinc	4	16.3	J	41.2		66.4		17.9		45.7		18.8		40.8	J
Arsenic	2	2.2	L	21.9	BL	19.8	L	2.1	BL	12.6		6.0		11.1	J
Selenium	1	0.49	L	5.4	L	4.5	L	1.0	L	0.96	K	2.2	K	0.83	L
Additional TAL Metals, mg/kg	CRDL														
Aluminum	40	---		---		---		---		---		2,910		8,080	
Antimony	12	---		---		---		---		---		1.4	UL	7.7	J
Barium	40	---		---		---		---		---		42.3	J	30.5	J
Beryllium	1	---		---		---		---		---		0.37	B	0.47	
Calcium	1,000	---		---		---		---		---		339	B	4,610	J
Chromium	2	---		---		---		---		---		7.1		11.2	
Cobalt	10	---		---		---		---		---		1.8	B	5.2	J
Iron	20	---		---		---		---		---		5,850	J	26,300	
Magnesium	1,000	---		---		---		---		---		148	B	1,700	J
Manganese	3	---		---		---		---		---		29.9	J	212	J
Nickel	8	---		---		---		---		---		4.4		9.3	J
Potassium	1,000	---		---		---		---		---		482		673	
Silver	2	---		---		---		---		---		0.65	U	0.62	U
Sodium	1,000	---		---		---		---		---		142	B	41.3	B
Thallium	2	---		---		---		---		---		0.13	U	0.1[illegible]	U
Vanadium	10	---		---		[illegible]		---		---		11.6		1[illegible]	
Cyanide, To[illegible]	2	---		---		[illegible]		---		---		0.14	U	[illegible]	U

AR301628

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S19-5 MINE SPOIL	SO-S20-5A MINE SPOIL	DUP-SO-S20-5B MINE SPOIL	SO-S20-10 MINE SPOIL	SO-S21-5 SOIL	SO-S21-10 MINE SPOIL	SO-S22-1.5 SOIL
TCL Volatiles, ug/kg								
	CRQL							
Acetone	10	---	---	---	---	---	31 *	5 *
Chloroform	5	---	---	---	---	---	6 UJ	6 U
Ethylbenzene	5	---	---	---	---	---	2 J	6 U
Methylene Chloride	5	---	---	---	---	---	200 J	52
Tetrachloroethene	5	---	---	---	---	---	6 UJ	6 U
Toluene	5	---	---	---	---	---	34 J	11
2-Butanone	10	---	---	---	---	---	12 UJ	11 U
1,1,1-Trichloroethane	5	---	---	---	---	---	3 J	6 U
1,1-Dichloroethene	5	---	---	---	---	---	6 UJ	6 U
Xylenes, Total	5	---	---	---	---	---	11 J	4 J
PAH's, mg/kg								
	CRQL							
Naphthalene	0.330	10 LT	2 LT	2 LT	2 LT	2 LT	0.390 U	0.380 U
Acenaphthylene	0.330	10 LT	2 LT	2 LT	2 LT	2 LT	0.390 U	0.380 U
Acenaphthene	0.330	10 LT	2 LT	2 LT	2 LT	2 LT	0.390 U	0.380 U
Fluorene	0.330	10 LT	2 LT	2 LT	2 LT	2 LT	0.390 U	0.380 U
Phenanthrene	0.330	3 LT	0.6 LT	0.6 LT	0.6 LT	0.5 LT	0.390 U	0.380 U
Anthracene	0.330	3 LT	0.6 LT	0.6 LT	0.6 LT	0.5 LT	0.390 U	0.380 U
Fluoranthene	0.330	1 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.390 U	0.380 U
Pyrene	0.330	1 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.390 U	0.380 U
Benzo(a) anthracene	0.330	0.06 LT	0.01	0.01 LT	0.01 LT	0.01 LT	0.390 U	0.380 U
Chrysene	0.330	0.6 LT	0.2	0.1 LT	0.1 LT	0.1 LT	0.390 U	0.380 U
Benzo(b) fluoranthene	0.330	0.1 LT	0.06	0.02 LT	0.02 LT	0.02 LT	0.390 U	0.380 U
Benzo(k) fluoranthene	0.330	0.1 LT	0.04 LT	0.02 LT	0.02 LT	0.02 LT	0.390 U	0.380 U
Benzo(a) pyrene	0.330	0.1 LT	0.04 LT	0.02 LT	0.02 LT	0.02 LT	0.390 U	0.380 U
Dibenzo(a,h) anthracene	0.330	0.1 LT	0.04 LT	0.02 LT	0.02 LT	0.02 LT	0.390 U	0.380 U
Benzo(g,h,i) perylene	0.330	0.3 LT	0.1 LT	0.06 LT	0.06 LT	0.05 LT	0.390 U	0.380 U
Indeno (1,2,3-cd) pyrene	0.330	0.3 LT	0.1 LT	0.06 LT	0.06 LT	0.05 LT	0.390 U	0.380 U

AR301629

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S19-5 MINE SPOIL	SO-S20-5A MINE SPOIL	DUP-SO-S20-5B MINE SPOIL	SO-S20-10 MINE SPOIL	SO-S21-5 SOIL	SO-S21-10 MINE SPOIL		SO-S22-1.5 SOIL	
Additional TCL Semi-Volatiles, mg/kg										
	CRQL									
Phenol	0.330	---	---	---	---	---	0.390	U	0.380	U
bis (2-Chloroisopropyl) ether	0.330	---	---	---	---	---	0.390	U	0.380	U
2-Methylphenol	0.330	---	---	---	---	---	0.390	U	0.380	U
4-Methylphenol	0.330	---	---	---	---	---	0.390	U	0.380	U
2,4 - Dimethylphenol	0.330	---	---	---	---	---	0.390	U	0.380	U
2-Methylnaphthalene	0.330	---	---	---	---	---	0.390	U	0.380	U
Dibenzofuran	0.330	---	---	---	---	---	0.390	U	0.380	U
Benzoic acid	1.600	---	---	---	---	---	2.000	U	1.900	U
Nitrobenzene	0.360	---	---	---	---	---	0.390	U	0.380	U
N-Nitrosodiphenylamine (1)	0.360	---	---	---	---	---	0.390	U	0.380	U
Di-n-butylphthalate	0.330	---	---	---	---	---	0.390	U	0.380	U
Butylbenzylphthalate	0.330	---	---	---	---	---	0.390	U	0.380	U
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	---	---	0.390	U	0.200	*
Di-n-octylphthalate	0.330	---	---	---	---	---	0.390	U	0.110	*
Diethylphthalate	0.330	---	---	---	---	---	0.390	U	0.380	U
4-Nitrophenol	1.600	---	---	---	---	---	2.000	U	1.900	U
TCL Pesticides/PCBs, ug/kg	CRQL									
Dieldrin	16	---	---	---	---	---	38	U	18	U
alpha-Chlordane	80	---	---	---	---	---	190	U	91	U
TCLP Extraction, mg/l										
Mercury		---	---	---	---	---	---		---	
Arsenic		---	---	---	---	---	---		---	
Selenium		---	---	---	---	---	---		---	
Barium		---	---	---	---	---	---		---	
Cadmium		---	---	---	---	---	---		---	
Chromium		---	---	---	---	---	---		---	
Lead		---	---	---	---	---	---		---	
Silver		---	---	---	---	---	---		---	

AR301630

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S24-10 MINE SPOIL	SO-S25-5 MINE SPOIL	SO-S25-7 MINE SPOIL	SO-S26-2.5 MINE SPOIL	SO-S26-5 SOIL	SO-S28-0.5 SOIL	SO-S28-5A MINE SPOIL
General Chemistry								
pH, s.u.		4.39	5.01	5.14	5.52	5.14	5.11	3.99
TOC, mg/kg		6,600	5,900	4,000	3,300	3,400	8,200	5,500
Moisture Content, % (as rec'd)		25.7	12.0	13.3	9.5	10.1	14.3	18.8
Hexavalent Chromium, mg/kg		---	---	---	---	---	---	---
Indicator Metals, mg/kg	CRDL							
Cadmium	1	0.79	0.58	0.16 U	6.6	0.15 U	2.2	6.5
Copper	5	16.8	18.4	12.2	31.6	17.0	24.5	28.4
Lead	0.6	30.8 L	250 L	56.5 L	3,260 J	89.0 J	1,710 J	64.7 J
Mercury	0.2	0.19	0.04	0.07	0.12	0.04 U	0.06	0.12
Zinc	4	15.7	22.3	18.4	52.4	50.4	42.4	37.3
Arsenic	2	7.4 J	4.5 J	3.6 J	42.5 K	8.0 K	16.8 K	4.1 BK
Selenium	1	2.6	0.94	1.0	2.7	0.10 U	1.5	2.8
Additional TAL Metals, mg/kg	CRDL							
Aluminum	40	---	---	---	---	---	---	---
Antimony	12	---	---	---	---	---	---	---
Barium	40	---	---	---	---	---	---	---
Beryllium	1	---	---	---	---	---	---	---
Calcium	1,000	---	---	---	---	---	---	---
Chromium	2	---	---	---	---	---	---	---
Cobalt	10	---	---	---	---	---	---	---
Iron	20	---	---	---	---	---	---	---
Magnesium	1,000	---	---	---	---	---	---	---
Manganese	3	---	---	---	---	---	---	---
Nickel	8	---	---	---	---	---	---	---
Potassium	1,000	---	---	---	---	---	---	---
Silver	2	---	---	---	---	---	---	---
Sodium	1,000	---	---	---	---	---	---	---
Thallium	2	---	---	---	---	---	---	---
Vanadium	10	---	---	---	---	---	---	---
Cyanide, Total	2	---	---	---	---	---	---	---

AR301631

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S24-10 MINE SPOIL	SO-S25-5 MINE SPOIL	SO-S25-7 MINE SPOIL	SO-S26-2.5 MINE SPOIL	SO-S26-5 SOIL	SO-S28-0.5 SOIL	SO-S28-5A MINE SPOIL
TCL Volatiles, ug/kg								
	CRQL							
Acetone	10	---	---	---	---	---	---	---
Chloroform	5	---	---	---	---	---	---	---
Ethylbenzene	5	---	---	---	---	---	---	---
Methylene Chloride	5	---	---	---	---	---	---	---
Tetrachloroethene	5	---	---	---	---	---	---	---
Toluene	5	---	---	---	---	---	---	---
2-Butanone	10	---	---	---	---	---	---	---
1,1,1-Trichloroethane	5	---	---	---	---	---	---	---
1,1-Dichloroethene	5	---	---	---	---	---	---	---
Xylenes, Total	5	---	---	---	---	---	---	---
PAH's, mg/kg								
	CRQL							
Naphthalene	0.330	3 LT	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Acenaphthylene	0.330	3 LT	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Acenaphthene	0.330	3 LT	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Fluorene	0.330	3 LT	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Phenanthrene	0.330	0.7 LT	0.6 LT	0.6 LT	0.6 LT	0.6 LT	0.6 LT	0.6 LT
Anthracene	0.330	0.7 LT	0.6 LT	0.6 LT	0.6 LT	0.6 LT	0.6 LT	0.6 LT
Fluoranthene	0.330	0.3 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT
Pyrene	0.330	0.3 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT
Benzo(a) anthracene	0.330	0.01 LT	0.01 LT	0.01 LT	0.01 LT	0.01 LT	0.02 LT	0.01 LT
Chrysene	0.330	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT
Benzo(b) fluoranthene	0.330	0.03 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT
Benzo(k) fluoranthene	0.330	0.03 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT
Benzo(a) pyrene	0.330	0.03 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT
Dibenzo(a,h) anthracene	0.330	0.03 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT
Benzo(g,h,i) perylene	0.330	0.07 LT	0.06 LT	0.06 LT	0.06 LT	0.06 LT	0.06 LT	0.06 LT
Indeno (1,2,3-cd) pyrene	0.330	0.07 LT	0.06 LT	0.06 LT	0.06 LT	0.06 LT	0.06 LT	0.06 LT

AR301632

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S24-10 MINE SPOIL	SO-S25-5 MINE SPOIL	SO-S25-7 MINE SPOIL	SO-S26-2.5 MINE SPOIL	SO-S26-5 SOIL	SO-S28-0.5 SOIL	SO-S28-5A MINE SPOIL
Additional TCL Semi-Volatiles, mg/kg								
	CRQL							
Phenol	0.330	---	---	---	---	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---	---	---	---	---	---	---
2-Methylphenol	0.330	---	---	---	---	---	---	---
4-Methylphenol	0.330	---	---	---	---	---	---	---
2,4 - Dimethylphenol	0.330	---	---	---	---	---	---	---
2-Methylnaphthalene	0.330	---	---	---	---	---	---	---
Dibenzofuran	0.330	---	---	---	---	---	---	---
Benzoic acid	1.600	---	---	---	---	---	---	---
Nitrobenzene	0.360	---	---	---	---	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---	---	---	---	---	---	---
Di-n-butylphthalate	0.330	---	---	---	---	---	---	---
Butylbenzylphthalate	0.330	---	---	---	---	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	---	---	---	---
Di-n-octylphthalate	0.330	---	---	---	---	---	---	---
Diethylphthalate	0.330	---	---	---	---	---	---	---
4-Nitrophenol	1.600	---	---	---	---	---	---	---
TCL Pesticides/PCBs, ug/kg	CRQL							
Dieldrin	16	---	---	---	---	---	---	---
alpha-Chlordane	80	---	---	---	---	---	---	---
TCLP Extraction, mg/l								
Mercury		---	---	---	---	---	---	---
Arsenic		---	---	---	---	---	---	---
Selenium		---	---	---	---	---	---	---
Barium		---	---	---	---	---	---	---
Cadmium		---	---	---	---	---	---	---
Chromium		---	---	---	---	---	---	---
Lead		---	---	---	---	---	---	---
Silver		---	---	---	---	---	---	---

AR301633

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S28-5B MINE SPOIL	SO-S29-5 MINE SPOIL	SO-S29-10 MINE SPOIL	SO-S30-10 MINE SPOIL	SO-S31-1.5A SOIL	SO-S31-1.5B SOIL	SO-S32-1.5 SOIL
General Chemistry								
pH, s.u.		4.06	5.09	3.84	5.68	6.08	6.29	3.93
TOC, mg/kg		5,500	2,700	1,400	5,300	1,000	1,000	1,300
Moisture Content, % (as rec'd)		16.6	13.9	18.6	14.2	9.5	8.4	16.0
Hexavalent Chromium, mg/kg		---	---	---	0.2 LT	---	---	---
Indicator Metals, mg/kg	CRDL							
Cadmium	1	3.9	1.1	0.23 B	0.23 B	5.4	5.0	0.16 U
Copper	5	23.8	32.9	15.3	14.4 J	17.0 L	13.8 L	17.4 L
Lead	0.6	185 J	2,450	15.3	11.7	95.8 K	65.6 K	13.8
Mercury	0.2	0.13	0.11 J	0.08 J	0.05	0.02 B	0.07	0.04
Zinc	4	25.9	45.2 J	7.3 J	13.1	69.4	73.2	38.1
Arsenic	2	13.4 K	24.1 L	5.9 L	4.6 L	4.5	3.7	7.2
Selenium	1	3.2	2.6 L	3.8 L	2.5 L	0.13 B	0.15 B	0.30 B
Additional TAL Metals, mg/kg	CRDL							
Aluminum	40	---	---	---	2,380	---	---	---
Antimony	12	---	---	---	1.3 UL	---	---	---
Barium	40	---	---	---	35.1	---	---	---
Beryllium	1	---	---	---	0.29 B	---	---	---
Calcium	1,000	---	---	---	552	---	---	---
Chromium	2	---	---	---	5.4 K	---	---	---
Cobalt	10	---	---	---	3.1 B	---	---	---
Iron	20	---	---	---	6,650	---	---	---
Magnesium	1,000	---	---	---	172 B	---	---	---
Manganese	3	---	---	---	104 L	---	---	---
Nickel	8	---	---	---	4.1	---	---	---
Potassium	1,000	---	---	---	287 B	---	---	---
Silver	2	---	---	---	0.65 U	---	---	---
Sodium	1,000	---	---	---	38.6 B	---	---	---
Thallium	2	---	---	---	0.13 U	---	---	---
Vanadium	10	---	---	---	10.3	---	---	---
Cyanide, T	2	---	---	---	0.14 U	---	---	---

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S28-5B MINE SPOIL	SO-S29-5 MINE SPOIL	SO-S29-10 MINE SPOIL	SO-S30-10 MINE SPOIL	SO-S31-1.5A SOIL	SO-S31-1.5B SOIL	SO-S32-1.5 SOIL
TCL Volatiles, ug/kg								
	CRQL							
Acetone	10	---	---	---	78	---	---	---
Chloroform	5	---	---	---	12 U	---	---	---
Ethylbenzene	5	---	---	---	12 U	---	---	---
Methylene Chloride	5	---	---	---	180	---	---	---
Tetrachloroethene	5	---	---	---	12 U	---	---	---
Toluene	5	---	---	---	12 K	---	---	---
2-Butanone	10	---	---	---	8 *	---	---	---
1,1,1-Trichloroethane	5	---	---	---	6 J	---	---	---
1,1-Dichloroethene	5	---	---	---	12 U	---	---	---
Xylenes, Total	5	---	---	---	12	---	---	---
PAH's, mg/kg								
	CRQL							
Naphthalene	0.330	2 LT	2 LT	2 LT	0.083 J	2 LT	2 LT	2 LT
Acenaphthylene	0.330	2 LT	2 LT	2 LT	0.390 U	2 LT	2 LT	2 LT
Acenaphthene	0.330	2 LT	2 LT	2 LT	0.100 J	2 LT	2 LT	2 LT
Fluorene	0.330	2 LT	2 LT	2 LT	0.120 J	2 LT	2 LT	2 LT
Phenanthrene	0.330	0.6 LT	0.6 LT	0.6 LT	0.210 J	0.6 LT	0.5 LT	0.6 LT
Anthracene	0.330	0.6 LT	0.6 LT	0.6 LT	0.390 U	0.6 LT	0.5 LT	0.6 LT
Fluoranthene	0.330	0.2 LT	0.2 LT	0.2 LT	0.049 J	0.2 LT	0.2 LT	0.2 LT
Pyrene	0.330	0.2 LT	0.7	0.2 LT	0.390 U	0.2 LT	0.2 LT	0.2 LT
Benzo(a) anthracene	0.330	0.01 LT	0.14	0.01 LT	0.390 U	0.01 LT	0.01 LT	0.01 LT
Chrysene	0.330	0.1 LT	0.6 LT	0.1 LT	0.390 U	0.1 LT	0.1 LT	0.1 LT
Benzo(b) fluoranthene	0.330	0.02 LT	1 LT	0.02 LT	0.390 U	0.02 LT	0.02 LT	0.02 LT
Benzo(k) fluoranthene	0.330	0.02 LT	1 LT	0.02 LT	0.390 U	0.02 LT	0.02 LT	0.02 LT
Benzo(a) pyrene	0.330	0.02 LT	2 LT	0.02 LT	0.390 U	0.02 LT	0.02 LT	0.02 LT
Dibenzo(a,h) anthracene	0.330	0.02 LT	2 LT	0.02 LT	0.390 U	0.02 LT	0.02 LT	0.02 LT
Benzo(g,h,i) perylene	0.330	0.06 LT	0.6 LT	0.06 LT	0.390 U	0.06 LT	0.05 LT	0.06 LT
Indeno (1,2,3-cd) pyrene	0.330	0.06 LT	0.6 LT	0.06 LT	0.390 U	0.06 LT	0.05 LT	0.06 LT

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TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S28-5B MINE SPOIL	SO-S29-5 MINE SPOIL	SO-S29-10 MINE SPOIL	SO-S30-10 MINE SPOIL		SO-S31-1.5A SOIL	SO-S31-1.5B SOIL	SO-S32-1.5 SOIL
Additional TCL Semi-Volatiles, mg/kg									
	CRQL								
Phenol	0.330	---	---	---	0.390	U	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---	---	---	0.390	U	---	---	---
2-Methylphenol	0.330	---	---	---	0.390	U	---	---	---
4-Methylphenol	0.330	---	---	---	0.390	U	---	---	---
2,4 - Dimethylphenol	0.330	---	---	---	0.390	U	---	---	---
2-Methylnaphthalene	0.330	---	---	---	0.300	J	---	---	---
Dibenzofuran	0.330	---	---	---	0.390	U	---	---	---
Benzoic acid	1.600	---	---	---	1.900	U	---	---	---
Nitrobenzene	0.360	---	---	---	0.390	U	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---	---	---	0.390	U	---	---	---
Di-n-butylphthalate	0.330	---	---	---	0.390	U	---	---	---
Butylbenzylphthalate	0.330	---	---	---	0.390	U	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	0.390	U	---	---	---
Di-n-octylphthalate	0.330	---	---	---	0.390	U	---	---	---
Diethylphthalate	0.330	---	---	---	0.390	U	---	---	---
4-Nitrophenol	1.600	---	---	---	1.900	U	---	---	---
TCL Pesticides/PCBs, ug/kg	CRQL								
Dieldrin	16	---	---	---	19	U	---	---	---
alpha-Chlordane	80	---	---	---	93	U	---	---	---
TCLP Extraction, mg/l									
Mercury		---	---	---	---		---	---	---
Arsenic		---	---	---	---		---	---	---
Selenium		---	---	---	---		---	---	---
Barium		---	---	---	---		---	---	---
Cadmium		---	---	---	---		---	---	---
Chromium		---	---	---	---		---	---	---
Lead		---	---	---	---		---	---	---
Silver		---	---	---	---		---	---	---

AR301636

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S33-1.5 MINE SPOIL		SO-S33-8 MINE SPOIL		SO-S34-1.5 MINE SPOIL		SO-S35-0.5 MINE SPOIL		SO-S36-0 MINE SPOIL		SO-S37-0 MINE SPOIL		SO-S38-0 SOIL
General Chemistry														
pH, s.u.		6.95		4.00		4.18		5.89		4.13		3.67		4.42
TOC, mg/kg		4,100		4,500		1,000		3,100		2,000		1,400		3,200
Moisture Content, % (as rec'd)		12.3		22.8		8.8		11.4		9.9		7.8		11.8
Hexavalent Chromium, mg/kg		---		---		---		---		---		---		---
Indicator Metals, mg/kg	CRDL													
Cadmium	1	1.7		0.18	U	0.15	U	0.24	U	0.25	U	0.15	U	0.26
Copper	5	22.3		14.2		12.5	L	22.7	J	20.5	J	16.8	L	27.7
Lead	0.6	890		62.3		24.7	K	116	J	176	J	51.5	K	32.5
Mercury	0.2	0.14		0.06		0.13		0.13		0.15		0.21		0.08
Zinc	4	39.2	J	10.4	J	9.5		10.4	J	10.6	J	14.0		43.8
Arsenic	2	12.3	L	33.0	L	5.1		6.5	J	5.6	J	11.8		6.2
Selenium	1	4.8	L	3.9	L	4.2	K	3.6	L	3.6	L	8.4	K	0.68
Additional TAL Metals, mg/kg	CRDL													
Aluminum	40	---		---		---		---		---		---		---
Antimony	12	---		---		---		---		---		---		---
Barium	40	---		---		---		---		---		---		---
Beryllium	1	---		---		---		---		---		---		---
Calcium	1,000	---		---		---		---		---		---		---
Chromium	2	---		---		---		---		---		---		---
Cobalt	10	---		---		---		---		---		---		---
Iron	20	---		---		---		---		---		---		---
Magnesium	1,000	---		---		---		---		---		---		---
Manganese	3	---		---		---		---		---		---		---
Nickel	8	---		---		---		---		---		---		---
Potassium	1,000	---		---		---		---		---		---		---
Silver	2	---		---		---		---		---		---		---
Sodium	1,000	---		---		---		---		---		---		---
Thallium	2	---		---		---		---		---		---		---
Vanadium	10	---		---		---		---		---		---		---
Cyanide, Total	2	---		---		---		---		---		---		---

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TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S33-1.5 MINE SPOIL	SO-S33-8 MINE SPOIL	SO-S34-1.5 MINE SPOIL	SO-S35-0.5 MINE SPOIL	SO-S36-0 MINE SPOIL	SO-S37-0 MINE SPOIL	SO-S38-0 SOIL
TCL Volatiles, ug/kg								
	CRQL							
Acetone	10	---	---	---	---	---	---	---
Chloroform	5	---	---	---	---	---	---	---
Ethylbenzene	5	---	---	---	---	---	---	---
Methylene Chloride	5	---	---	---	---	---	---	---
Tetrachloroethene	5	---	---	---	---	---	---	---
Toluene	5	---	---	---	---	---	---	---
2-Butanone	10	---	---	---	---	---	---	---
1,1,1-Trichloroethane	5	---	---	---	---	---	---	---
1,1-Dichloroethene	5	---	---	---	---	---	---	---
Xylenes, Total	5	---	---	---	---	---	---	---
PAH's, mg/kg								
	CRQL							
Naphthalene	0.330	2 LT	3 LT	2 LT	7 LT	7 LT	2 LT	7
Acenaphthylene	0.330	2 LT	3 LT	2 LT	7 LT	7 LT	2 LT	7
Acenaphthene	0.330	2 LT	3 LT	2 LT	7 LT	7 LT	2 LT	7
Fluorene	0.330	2 LT	3 LT	2 LT	7 LT	7 LT	2 LT	7
Phenanthrene	0.330	0.6 LT	0.6 LT	0.5 LT	2 LT	2 LT	0.5 LT	2
Anthracene	0.330	0.6 LT	0.6 LT	0.5 LT	2 LT	2 LT	0.5 LT	2
Fluoranthene	0.330	0.2 LT	0.3 LT	0.2 LT	0.7 LT	0.7 LT	0.2 LT	0.7
Pyrene	0.330	0.2 LT	0.3 LT	0.2 LT	0.7 LT	0.7 LT	0.2 LT	0.7
Benzo(a) anthracene	0.330	0.01 LT	0.01 LT	0.01 LT	0.03 LT	0.03 LT	0.01 LT	0.03
Chrysene	0.330	0.1 LT	0.1 LT	0.1 LT	0.3 LT	0.3 LT	0.1 LT	0.3
Benzo(b) fluoranthene	0.330	0.02 LT	0.03 LT	0.02 LT	0.07 LT	0.07 LT	0.02 LT	0.07
Benzo(k) fluoranthene	0.330	0.02 LT	0.03 LT	0.02 LT	0.07 LT	0.07 LT	0.02 LT	0.07
Benzo(a) pyrene	0.330	0.02 LT	0.03 LT	0.02 LT	0.07 LT	0.07 LT	0.02 LT	0.07
Dibenzo(a,h) anthracene	0.330	0.02 LT	0.03 LT	0.02 LT	0.07 LT	0.07 LT	0.02 LT	0.07
Benzo(g,h,i) perylene	0.330	0.06 LT	0.06 LT	0.05 LT	0.2 LT	0.2 LT	0.05 LT	0.2
Indeno (1,2,3-cd) pyrene	0.330	0.06 LT	0.06 LT	0.05 LT	0.2 LT	0.2 LT	0.05 LT	0.2

AR301638

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S33-1.5 MINE SPOIL	SO-S33-8 MINE SPOIL	SO-S34-1.5 MINE SPOIL	SO-S35-0.5 MINE SPOIL	SO-S36-0 MINE SPOIL	SO-S37-0 MINE SPOIL	SO-S38-0 SOIL
Additional TCL Semi-Volatiles, mg/kg								
	CRQL							
Phenol	0.330	---	---	---	---	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---	---	---	---	---	---	---
2-Methylphenol	0.330	---	---	---	---	---	---	---
4-Methylphenol	0.330	---	---	---	---	---	---	---
2,4 - Dimethylphenol	0.330	---	---	---	---	---	---	---
2-Methylnaphthalene	0.330	---	---	---	---	---	---	---
Dibenzofuran	0.330	---	---	---	---	---	---	---
Benzoic acid	1.600	---	---	---	---	---	---	---
Nitrobenzene	0.360	---	---	---	---	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---	---	---	---	---	---	---
Di-n-butylphthalate	0.330	---	---	---	---	---	---	---
Butylbenzylphthalate	0.330	---	---	---	---	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	---	---	---	---
Di-n-octylphthalate	0.330	---	---	---	---	---	---	---
Diethylphthalate	0.330	---	---	---	---	---	---	---
4-Nitrophenol	1.600	---	---	---	---	---	---	---
TCL Pesticides/PCBs, ug/kg	CRQL							
Dieldrin	16	---	---	---	---	---	---	---
alpha-Chlordane	80	---	---	---	---	---	---	---
TCLP Extraction, mg/l								
Mercury		---	---	---	---	---	---	---
Arsenic		---	---	---	---	---	---	---
Selenium		---	---	---	---	---	---	---
Barium		---	---	---	---	---	---	---
Cadmium		---	---	---	---	---	---	---
Chromium		---	---	---	---	---	---	---
Lead		---	---	---	---	---	---	---
Silver		---	---	---	---	---	---	---

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

		SO-S39-0	SO-S39-1.5	SO-S40-5	SO-S40-10	SO-S41-0.5	SO-S42-0.5	SO-S43-5	SO-S43-6.5	SO-S44-8
MATRIX DESCRIPTION		MINE SPOIL	MINE SPOIL	SOIL	SOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL	MINE SPOIL
General Chemistry										
pH, s.u.		4.42	4.19	4.70	4.67	4.59	5.14	5.84	5.57	4.79
TOC, mg/kg		4,500	3,900	780	550	2,900	6,000	4,800	4,200	1,100
Moisture Content, % (as rec'd)		10.2	17.2	11.7	6.7	9.7	9.6	20.1	29.0	24.0
Hexavalent Chromium, mg/kg		---	---	---	---	---	---	---	---	---
Indicator Metals, mg/kg	CRDL									
U Cadmium	1	0.21 B	0.16 U	11.5	5.6	0.8	3.5	0.98	0.27 B	0.26 B
J Copper	5	19.7	36.8	99.8 L	58.2 L	24.4 J	29.4 J	45.5 J	21.2 J	17.2 J
J Lead	0.6	329 L	13.1 L	7,370 K	4,600 K	56.6	820	369	212	34.9
Mercury	0.2	0.14	0.13	0.04	0.02 B	0.12	0.11	0.09	0.1	0.09
J Zinc	4	9.2	13.5	92.3	88.1	22.5	46.4	32.7	41.1	23.1
J Arsenic	2	7.8 J	11.0 J	43.0	21.3	6.9 BL	7.5 BL	8.7 BL	4.4 L	5.2 L
L Selenium	1	4.1	7.4	5.1 K	1.2 K	3.8 L	4.6 L	3.1 L	3.4 L	5.2 L
Additional TAL Metals, mg/kg	CRDL									
Aluminum	40	---	---	---	---	---	---	---	---	---
Antimony	12	---	---	---	---	---	---	---	---	---
Barium	40	---	---	---	---	---	---	---	---	---
Beryllium	1	---	---	---	---	---	---	---	---	---
Calcium	1,000	---	---	---	---	---	---	---	---	---
Chromium	2	---	---	---	---	---	---	---	---	---
Cobalt	10	---	---	---	---	---	---	---	---	---
Iron	20	---	---	---	---	---	---	---	---	---
Magnesium	1,000	---	---	---	---	---	---	---	---	---
Manganese	3	---	---	---	---	---	---	---	---	---
Nickel	8	---	---	---	---	---	---	---	---	---
Potassium	1,000	---	---	---	---	---	---	---	---	---
Silver	2	---	---	---	---	---	---	---	---	---
Sodium	1,000	---	---	---	---	---	---	---	---	---
Thallium	2	---	---	---	---	---	---	---	---	---
Vana[illegible]	10	---	---	[illegible]	---	---	---	---	---	---
Cyan[illegible]tal	2	---	---	[illegible]	---	---	---	---	---	---

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TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S39-0 MINE SPOIL	SO-S39-1.5 MINE SPOIL	SO-S40-5 SOIL	SO-S40-10 SOIL	SO-S41-0.5 MINE SPOIL	SO-S42-0.5 MINE SPOIL	SO-S43-5 MINE SPOIL	SO-S43-6.5 MINE SPOIL	SO-S44-8 MINE SPOIL
TCL Volatiles, ug/kg										
	CRQL									
Acetone	10	---	---	---	---	---	---	---	---	---
Chloroform	5	---	---	---	---	---	---	---	---	---
Ethylbenzene	5	---	---	---	---	---	---	---	---	---
Methylene Chloride	5	---	---	---	---	---	---	---	---	---
Tetrachloroethene	5	---	---	---	---	---	---	---	---	---
Toluene	5	---	---	---	---	---	---	---	---	---
2-Butanone	10	---	---	---	---	---	---	---	---	---
1,1,1-Trichloroethane	5	---	---	---	---	---	---	---	---	---
1,1-Dichloroethene	5	---	---	---	---	---	---	---	---	---
Xylenes, Total	5	---	---	---	---	---	---	---	---	---
PAH's, mg/kg										
	CRQL									
LT Naphthalene	0.330	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT	3 LT	6 LT	5 LT
LT Acenaphthylene	0.330	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT	3 LT	6 LT	5 LT
LT Acenaphthene	0.330	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT	3 LT	6 LT	5 LT
LT Fluorene	0.330	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT	3 LT	6 LT	5 LT
LT Phenanthrene	0.330	0.6 LT	0.6 LT	0.6 LT	0.5 LT	0.6 LT	0.6 LT	0.6	1 LT	1 LT
LT Anthracene	0.330	0.6 LT	0.6 LT	0.6 LT	0.5 LT	0.6 LT	0.6 LT	0.6 LT	1 LT	1 LT
LT Fluoranthene	0.330	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	1.3	0.6 LT	0.5 LT
LT Pyrene	0.330	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	1.3	0.6 LT	0.5 LT
LT Benzo(a) anthracene	0.330	0.01 LT	0.01 LT	0.01 LT	0.01 LT	0.01 LT	0.1 LT	0.53	0.25	0.05
LT Chrysene	0.330	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.3 LT	0.3 LT
LT Benzo(b) fluoranthene	0.330	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.06	0.34	0.1 LT	0.05
LT Benzo(k) fluoranthene	0.330	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.03	0.20	0.1 LT	0.05 LT
LT Benzo(a) pyrene	0.330	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.03 LT	0.25	0.1 LT	0.05 LT
LT Dibenzo(a,h) anthracene	0.330	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.1 LT	0.1 LT	0.05 LT
LT Benzo(g,h,i) perylene	0.330	0.06 LT	0.06 LT	0.06 LT	0.05 LT	0.06 LT	0.06 LT	0.06 LT	0.3 LT	0.1 LT
LT Indeno (1,2,3-cd) pyrene	0.330	0.06 LT	0.06 LT	0.06 LT	0.05 LT	0.06 LT	0.06 LT	0.09	0.3 LT	0.1 LT

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TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S39-0 MINE SPOIL	SO-S39-1.5 MINE SPOIL	SO-S40-5 SOIL	SO-S40-10 SOIL	SO-S41-0.5 MINE SPOIL	SO-S42-0.5 MINE SPOIL	SO-S43-5 MINE SPOIL	SO-S43-6.5 MINE SPOIL	SO-S44-8 MINE SPOIL
Additional TCL Semi-Volatiles, mg/kg										
	CRQL									
Phenol	0.330	---	---	---	---	---	---	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---	---	---	---	---	---	---	---	---
2-Methylphenol	0.330	---	---	---	---	---	---	---	---	---
4-Methylphenol	0.330	---	---	---	---	---	---	---	---	---
2,4 - Dimethylphenol	0.330	---	---	---	---	---	---	---	---	---
2-Methylnaphthalene	0.330	---	---	---	---	---	---	---	---	---
Dibenzofuran	0.330	---	---	---	---	---	---	---	---	---
Benzoic acid	1.600	---	---	---	---	---	---	---	---	---
Nitrobenzene	0.360	---	---	---	---	---	---	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---	---	---	---	---	---	---	---	---
Di-n-butylphthalate	0.330	---	---	---	---	---	---	---	---	---
Butylbenzylphthalate	0.330	---	---	---	---	---	---	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	---	---	---	---	---	---
Di-n-octylphthalate	0.330	---	---	---	---	---	---	---	---	---
Diethylphthalate	0.330	---	---	---	---	---	---	---	---	---
4-Nitrophenol	1.600	---	---	---	---	---	---	---	---	---
TCL Pesticides/PCBs, ug/kg	CRQL									
Dieldrin	16	---	---	---	---	---	---	---	---	---
alpha-Chlordane	80	---	---	---	---	---	---	---	---	---
TCLP Extraction, mg/l										
Mercury		---	---	---	---	---	---	---	---	---
Arsenic		---	---	---	---	---	---	---	---	---
Selenium		---	---	---	---	---	---	---	---	---
Barium		---	---	---	---	---	---	---	---	---
Cadmium		---	---	---	---	---	---	---	---	---
Chromium		---	---	---	---	---	---	---	---	---
Lead		---	---	---	---	---	---	---	---	---
Silver		---	---	---	---	---	---	---	---	---

AR301642

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S4-A SOIL		SO-S5-A SOIL		SO-S7-A MINE SPOIL		SO-S22-A SOIL		SO-XRFC3 SOIL		SO-XRFC4 SOIL		SO-XRFC5 SOIL	
General Chemistry															
pH, s.u.		---		---		---		---		---		---		---	
TOC, mg/kg		---		---		---		---		---		---		---	
Moisture Content, %		6.3		12.1		7.3		10.3		27.1		8.2		9.7	
Hexavalent Chromium, mg/kg		---		---		---		---		---		---		---	
Indicator Metals, mg/kg	CRDL														
Cadmium	1	0.28	B	0.59		17.6		0.36	B	0.35	B	6.6		0.50	
Copper	5	15.7		30.2		198		22.6		15.2		54.9		22.1	
Lead	0.6	2,590		465		53,500		50.3		35.8		4,860		80.0	
Mercury	0.2	0.07	J	0.05	J	0.22	J	0.02	BJ	0.08	J	0.05	J	0.12	J
Zinc	4	27.6		26.9		402		60.2		43.3		247		27.1	
Arsenic	2	6.0	J	25.6	J	283	J	2.5	BJ	4.8	J	18.8	J	4.9	J
Selenium	1	0.16	B	1.9		0.67	U	0.14	U	0.86	U	0.82		2.5	
	CRDL														
Aluminum	40	---		7,270		---		---		---		3,830		---	
Antimony	12	---		3.3	BL	---		---		---		29.8	L	---	
Barium	40	---		36.3		---		---		---		58.9		---	
Beryllium	1	---		0.73		---		---		---		0.76		---	
Calcium	1,000	---		394		---		---		---		3,070		---	
Chromium	2	---		10.9		---		---		---		11.4		---	
Cobalt	10	---		2.7	B	---		---		---		6.7		---	
Iron	20	---		32,600		---		---		---		16,100		---	
Magnesium	1,000	---		1,050	J	---		---		---		985	J	---	
Manganese	3	---		103		---		---		---		478		---	
Nickel	8	---		3.2		---		---		---		11.6		---	
Potassium	1,000	---		408	L	---		---		---		448	L	---	
Silver	2	---		0.16	U	---		---		---		0.29	B	---	
Sodium	1,000	---		19.8	B	---		---		---		68.4	B	---	
Thallium	2	---		0.14	U	---		---		---		0.14	U	---	
Vanadium	10	---		18.9		---		---		---		11.4		---	
Cyanide, Total	2	---		0.14	U	---		---		---		0.27	U	---	

HD3 1643

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S4-A SOIL		SO-S5-A SOIL	SO-S7-A MINE SPOIL		SO-S22-A SOIL		SO-XRFC3 SOIL		SO-XRFC4 SOIL	SO-XRFC5 SOIL	
TCL Volatiles, ug/kg													
	CRQL												
Acetone	10	---		---	---		---		---		---	---	
Chloroform	5	---		---	---		---		---		---	---	
Ethylbenzene	5	---		---	---		---		---		---	---	
Methylene Chloride	5	---		---	---		---		---		---	---	
Tetrachloroethene	5	---		---	---		---		---		---	---	
Toluene	5	---		---	---		---		---		---	---	
2-Butanone	10	---		---	---		---		---		---	---	
1,1,1-Trichloroethane	5	---		---	---		---		---		---	---	
1,1-Dichloroethene	5	---		---	---		---		---		---	---	
Xylenes, Total	5	---		---	---		---		---		---	---	
PAH's, mg/kg													
	CRQL												
Naphthalene	0.330	2	LT	---	4	LT	2	LT	2	LT	---	2	LT
Acenaphthylene	0.330	2	LT	---	4	LT	2	LT	2	LT	---	2	LT
Acenaphthene	0.330	2	LT	---	4	LT	2	LT	2	LT	---	2	LT
Fluorene	0.330	2	LT	---	4	LT	2	LT	2	LT	---	2	LT
Phenanthrene	0.330	0.5	LT	---	1		0.5	LT	0.5	LT	---	0.5	LT
Anthracene	0.330	0.5	LT	---	1	LT	0.5	LT	0.5	LT	---	0.5	LT
Fluoranthene	0.330	0.5	LT	---	4	LT	0.2	LT	0.2	LT	---	0.2	LT
Pyrene	0.330	0.2	LT	---	4	LT	0.2	LT	0.2	LT	---	0.2	LT
Benzo(a) anthracene	0.330	0.2	LT	---	0.5	LT	0.01	LT	0.02	LT	---	0.03	LT
Chrysene	0.330	0.5	LT	---	10	LT	0.5	LT	1.0	LT	---	0.5	LT
Benzo(b) fluoranthene	0.330	0.2	LT	---	0.58		0.02	LT	0.04	LT	---	0.02	LT
Benzo(k) fluoranthene	0.330	0.2	LT	---	0.4	LT	0.02	LT	0.04	LT	---	0.02	LT
Benzo(a) pyrene	0.330	0.2	LT	---	0.4	LT	0.02	LT	0.04	LT	---	0.02	LT
Dibenzo(a,h) anthracene	0.330	0.2	LT	---	0.4	LT	0.02	LT	0.1	LT	---	0.3	LT
Benzo(g,h,i) perylene	0.330	0.5	LT	---	1	LT	0.05	LT	0.3	LT	---	0.5	LT
Indeno (1,2,3-cd) pyrene	0.330	0.5	LT	---	1	LT	0.05	LT	0.2	LT	---	0.4	LT

AR301644

TABLE 4-4

ROUND 1 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S4-A SOIL	SO-S5-A SOIL	SO-S7-A MINE SPOIL	SO-S22-A SOIL	SO-XRFC3 SOIL	SO-XRFC4 SOIL	SO-XRFC5 SOIL
Additional TCL Semi-Volatiles, mg/kg	CRQL							
Phenol	0.330	---	---	---	---	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---	---	---	---	---	---	---
2-Methylphenol	0.330	---	---	---	---	---	---	---
4-Methylphenol	0.330	---	---	---	---	---	---	---
2,4 - Dimethylphenol	0.330	---	---	---	---	---	---	---
2-Methylnaphthalene	0.330	---	---	---	---	---	---	---
Dibenzofuran	0.330	---	---	---	---	---	---	---
Benzoic acid	1.600	---	---	---	---	---	---	---
Nitrobenzene	0.360	---	---	---	---	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---	---	---	---	---	---	---
Di-n-butylphthalate	0.330	---	---	---	---	---	---	---
Butylbenzylphthalate	0.330	---	---	---	---	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	---	---	---	---
Di-n-octylphthalate	0.330	---	---	---	---	---	---	---
Diethylphthalate	0.330	---	---	---	---	---	---	---
4-Nitrophenol	1.600	---	---	---	---	---	---	---
TCL Pesticides/PCBs, ug/kg	CRQL							
Dieldrin	16	---	---	---	---	---	---	---
alpha-Chlordane	80	---	---	---	---	---	---	---
TCLP Extraction, mg/l								
Mercury		---	---	---	---	---	---	---
Arsenic		---	---	---	---	---	---	---
Selenium		---	---	---	---	---	---	---
Barium		---	---	---	---	---	---	---
Cadmium		---	---	---	---	---	---	---
Chromium		---	---	---	---	---	---	---
Lead		---	---	---	---	---	---	---
Silver		---	---	---	---	---	---	---

AR301645

AR301646

TABLE 4-5

ROUND 2 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

		SO-S49-3		SO-S50-1.5		SO-S51-3		SO-S52-3		SO-S53-1.5		SO-S53-3		SO-S54-1.5		SO-S54-2.0 DUP of S54-1.5
		SOIL		MINE SPOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL
General Chemistry																
pH, s.u.		3.95		6.62		4.03		4.11		4.61		5.94		6.51		6.65
TOC, mg/kg		710		5,100		540		3,000		8,300		6,000		5,400		4,300
Moisture Content, % (as received)		8.8		7.1		6.2		17.8		6.5		10.7		9.3		10.1
Indicator Metals, mg/kg	CRDL															
Cadmium	1	0.43	U	19.5		0.41	U	0.47	U	0.41	U	0.43	U	6.4		11.4
Copper	5	18.0		725		9.8		16.2		23.4		11.3		72.3		108
Lead	0.6	41.3		96,700		15.6		15.3		394		39.5		9,820		17,100
Zinc	4	29.7		386		27.4		33.6		21.7		22.8		92.0		116
Arsenic	2	9.2		416		5.0		42.9		13.2		14.7		95.9		105
TCLP Extraction, mg/l																
Mercury		---		---		---		---		---		---		---		---
Arsenic		---		---		---		---		---		---		---		---
Selenium		---		---		---		---		---		---		---		---
Barium		---		---		---		---		---		---		---		---
Cadmium		---		---		---		---		---		---		---		---
Chromium		---		---		---		---		---		---		---		---
Lead		---		---		---		---		---		---		---		---
Silver		---		---		---		---		---		---		---		---

AR301647

TABLE 4-5

ROUND 2 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

		SO-S55-1		SO-S55-3		SO-S56-1.5		SO-S56-5		SO-S57-1.5		SO-S57-3		SO-S58-1		SO-S58-3		SO-S58-4	
Matrix Description		SOIL		SOIL		SOIL		MINE SPOIL		SOIL		SOIL		MINE SPOIL		MINE SPOIL		Dup of S58-3 MINE SPOIL	
General Chemistry																			
pH, s.u.		5.31		4.71		5.19		6.79		5.37		5.27		7.12		5.84		5.68	
TOC, mg/kg		3,100		730		720		2,600		1,500		1,500		4,700		1,700		1,900	
Moisture Content, % (as received)		12.9		8.3		7.2		16.6		6.2		6.4		7.3		6.3		7.0	
Indicator Metals, mg/kg	CRDL																		
Cadmium	1	1.5		0.20	B	0.20	B	0.24	B	0.20	B	0.21	B	11.7		2.1		1.7	
Copper	5	22.3	K	23.4	K	18.2	K	76.7	K	16.4	K	28.0	K	35.4	K	24.7	K	24.1	K
Lead	0.6	575		8.3	J	31.7	J	2.5	J	27.7		42.8	J	3,390		482		465	
Zinc	4	43.5	J	33.0	J	38.7	J	38.7	J	32.1	J	41.1	J	122	J	32.8	J	25.5	J
Arsenic	2	17.8	J	6.3	J	7.7	J	1.4	BJ	6.4	J	7.6	J	25.6	J	13.0	J	9.4	J
TCLP Extraction, mg/l																			
Mercury		---		---		---		---		---		---		---		---		---	
Arsenic		---		---		---		---		---		---		---		---		---	
Selenium		---		---		---		---		---		---		---		---		---	
Barium		---		---		---		---		---		---		---		---		---	
Cadmium		---		---		---		---		---		---		---		---		---	
Chromium		---		---		---		---		---		---		---		---		---	
Lead		---		---		---		---		---		---		---		---		---	
Silver		---		---		---		---		---		---		---		---		---	

AR301647

TABLE 4-5

ROUND 2 TEST PIT SOIL ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

		SO-S59-1.5		SO-S59-2		SO-S59-6		SO-S60-1		SO-S60-5		SO-S61-3		SO-S61-5		SO-S62-1		SO-S62-1 DUP		SO-S62-5	
Matrix Description		MINE SPOIL		MINE SPOIL		MINE SPOIL		MINE SPOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
General Chemistry																					
pH, s.u.		5.85		---		4.78		5.75		3.79		4.26		5.62		5.46		---		4.75	
TOC, mg/kg		1,800		---		1,600		2,200		1,700		350		380		400		---		420	
Moisture Content, % (as received)		13.1		---		9.0		10.2		18.8		7.8		6.9		7.1		---		7.9	
Indicator Metals, mg/kg	CRDL																				
Cadmium	1	11.5		---		2.7		1.3		0.23	U	0.42	B	2.6		7.3		---		2.5	
Copper	5	65.2	K	---		33.1	K	30.1	K	21.8	K	18.6	K	45.6	K	61.0	K	---		52.9	K
Lead	0.6	9,800		---		2,350		1,100		17.0	J	282		2,090		3,550		---		2,910	
Zinc	4	197	J	---		66.9	J	31.3	J	24.4	J	32.3	J	52.8	J	89.6	J	---		58.8	J
Arsenic	2	29.9	J	---		16.8	J	15.0	J	40.2	J	84.2	J	116	J	152	J	---		12.6	J
TCLP Extraction, mg/l																					
Mercury		---		0.005	LT	---		---		---		0.005	LT	---		0.005	LT	0.005	LT	---	
Arsenic		---		0.5	LT	---		---		---		0.5	LT	---		0.5	LT	0.5	LT	---	
Selenium		---		0.5	LT	---		---		---		0.5	LT	---		0.5	LT	0.5	LT	---	
Barium		---		2	LT	---		---		---		2	LT	---		2	LT	2	LT	---	
Cadmium		---		0.19		---		---		---		0.05	LT	---		0.06		0.08		---	
Chromium		---		0.5	LT	---		---		---		0.5	LT	---		0.5	LT	0.5	LT	---	
Lead		---		269		---		---		---		2.8		---		59.6		57.3		---	
Silver		---		0.1	LT	---		---		---		0.1	LT	---		0.1	LT	0.1	LT	---	

AR301648

TABLE 4-6

ROUND 2 SURFACE SOIL SAMPLE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S63-0 SOIL		SO-S64-0 SOIL		SO-S65-0 SOIL		SO-S66-0 SOIL		SO-S67-0 SOIL		SO-S68-0 SOIL		SO-S69-0 SOIL		SO-S70-0 SOIL	
General Chemistry																	
pH, s.u.		7.95		6.34		7.70		6.43		5.53		4.44		4.06		4.63	
TOC, mg/kg		1,800		1,600		6,000		1,500		6,100		1,300		730		2,700	
Moisture Content, % (as received)		13.3		5.7		12.5		7.1		12.3		7.6		8.4		13.4	
Indicator Metals, mg/kg	CRDL																
Cadmium	1	1.1	U	1.0	U	12.7		1.0	U	2.6		1.0	U	1.0	U	1.1	U
Copper	5	13.8		13.0		75.1		31.6		126		24.2		39.6		167	
Lead	0.6	117		82.8		13,100		126		5,950		116		807		1,990	
Zinc	4	77.4		38.3		370		59.2		112		50.5		63.9		70.1	
Arsenic	2	4.5	J	7.7	J	411	J	8.5	J	41.4	J	6.3	J	2.1	U	31.6	J
TCLP Extraction, mg/l																	
Mercury		---		---		---		---		---		---		---		---	
Arsenic		---		---		---		---		---		---		---		---	
Selenium		---		---		---		---		---		---		---		---	
Barium		---		---		---		---		---		---		---		---	
Cadmium		---		---		---		---		---		---		---		---	
Chromium		---		---		---		---		---		---		---		---	
Lead		---		---		---		---		---		---		---		---	
Silver		---		---		---		---		---		---		---		---	

AR301649

TABLE 4-6

ROUND 2 SURFACE SOIL SAMPLE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING,PENNSYLVANIA

MATRIX DESCRIPTION		SO-S71-0 RED BROWN MATERIAL		SO-S72-0 SOIL		SO-S73-0 SOIL		SO-S74-0 SOIL		SO-S100-0 SOIL		SO-S75-0 SOIL		SO-S76-0 SOIL		SO-S77-0 SOIL	
General Chemistry																	
pH, s.u.		6.64		5.61		8.54		8.40		4.43		4.29		4.78		4.42	
TOC, mg/kg		27,000		4,400		1,800		2,900		1,400		57,000		19,000		20,000	
Moisture Content, % (as received)		1.0		10.5		5.2		4.1		8.6		44.6		22.1		20.3	
Indicator Metals, mg/kg	CRDL																
Cadmium	1	9.8	U	23.8		3.5		2.8		1.0		1.9		1.2	U	1.2	U
Copper	5	3,120		46.6		39.1		42.9		26.1		28.1		12.6		9.6	
Lead	0.6	383		317,000		2,390		1,880		117		303		62.0		15.5	
Zinc	4	87.9		14.3		107		142		52.6		51.2		55.2		46.4	
Arsenic	2	45.4	J	221	J	18.4	J	14.7	J	7.1	J	9.7	J	8.0	BJ	4.8	J
TCLP Extraction, mg/l																	
Mercury		---		---		---		---		---		---		---		---	
Arsenic		---		---		---		---		---		---		---		---	
Selenium		---		---		---		---		---		---		---		---	
Barium		---		---		---		---		---		---		---		---	
Cadmium		---		---		---		---		---		---		---		---	
Chromium		---		---		---		---		---		---		---		---	
Lead		---		---		---		---		---		---		---		---	
Silver		---		---		---		---		---		---		---		---	

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TABLE 4-7

ROUND 1 BYPRODUCT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		WA-W1	WA-W2	WA-W3	WA-W4	WA-W5	WA-W6	WA-W7
MATRIX DESCRIPTION		MINE SPOIL	BATTERY CASINGS (BLACK)	MINE SPOIL	EXCAVATED LAGOON SOIL	SOLIDIFIED SLUDGE	DEWATERED SLUDGE	CRUSHER BUILDING PILES
General Chemistry								
pH, s.u.		4.00	---	4.25	---	---	---	---
TOC, mg/kg		2,000	---	2,600	---	---	---	---
Moisture Content, % (as rec'd)		8.5	---	7.1	9.8	22.1	33.2	2.1
Hexavalent Chromium, mg/kg		0.4 LT	---	0.4 LT	---	---	---	---
Indicator Metals, mg/kg								
	CRDL							
Cadmium	1	0.21 U	---	0.20 U	3.5	24.8	53.0	11.4
Copper	5	18.1	---	16.1	34.2	54.0	152	123
Lead	0.6	90.6	---	80.1	6,930	27,400	47,700	45,700
Mercury	0.2	0.19 J	---	0.52 J	0.23 J	0.94 J	1.50 J	0.20 J
Zinc	4	10.9	---	14.8	24.6	124	267	122
Arsenic	2	4.6 J	---	7.1 J	18.1 J	53.7 J	87.4 J	326 J
Selenium	1	4.3	---	3.6	4.4	0.79 U	0.92 U	0.61 U
Additional TAL Metals, mg/kg								
	CRDL							
Aluminum	40	3,020	---	3,690	---	---	---	---
Antimony	12	1.2 UL	---	1.2 UL	---	---	---	---
Barium	40	34.8	---	31.9	---	---	---	---
Beryllium	1	0.64 U	---	0.62 U	---	---	---	---
Calcium	1,000	123 B	---	49.8 B	---	---	---	---
Chromium	2	1.7	---	3.8	---	---	---	---
Cobalt	10	0.84 B	---	0.74 B	---	---	---	---
Iron	20	9,270	---	8,180	---	---	---	---
Magnesium	1,000	228 BJ	---	144 BJ	---	---	---	---
Manganese	3	19.6	---	13.1	---	---	---	---
Nickel	8	1.3 B	---	1.7 B	---	---	---	---
Potassium	1,000	855 L	---	783 L	---	---	---	---
Silver	2	0.29 B	---	0.21 B	---	---	---	---
Sodium	1,000	33.6 B	---	35 B	---	---	---	---
Thallium	2	0.14 U	---	0.14 U	---	---	---	---
Vanadium	10	3.7	---	7.9	---	---	---	---
Cyanide, Total	2	0.13 U	---	0.13 U	---	---	---	---

TABLE 4-7

ROUND 1 BYPRODUCT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		WA-W1	WA-W2	WA-W3	WA-W4	WA-W5	WA-W6	WA-W7
MATRIX DESCRIPTION		MINE SPOIL	BATTERY CASINGS (BLACK)	MINE SPOIL	EXCAVATED LAGOON SOIL	SOLIDIFIED SLUDGE	DEWATERED SLUDGE	CRUSHER BUILDING PILES
TCL Volatiles, ug/kg								
	CRQL							
Acetone	10	25 *	---	15 *	---	---	---	---
Chloroform	5	5 J	---	10 J	---	---	---	---
Ethylbenzene	5	4 J	---	7 J	---	---	---	---
Methylene Chloride	5	210 J	---	390 J	---	---	---	---
Tetrachloroethene	5	5 UJ	---	2 J	---	---	---	---
Toluene	5	15 J	---	32 J	---	---	---	---
2-Butanone	10	11 UJ	---	11 UJ	---	---	---	---
1,1,1-Trichloroethane	5	5 UJ	---	5 UJ	---	---	---	---
1,1-Dichloroethene	5	5 *	---	2 *	---	---	---	---
Xylenes, Total	5	29 J	---	50 J	---	---	---	---
PAH's, mg/kg								
	CRQL							
Naphthalene	0.330	0.360 U	---	0.360 U	5 LT	70 LT	20 LT	20 LT
Acenaphthylene	0.330	0.360 U	---	0.360 U	2 LT	10 LT	20 LT	20 LT
Acenaphthene	0.330	0.360 U	---	0.360 U	2 LT	4 LT	20 LT	20 LT
Fluorene	0.330	0.360 U	---	0.360 U	2 LT	4 LT	20 LT	20 LT
Phenanthrene	0.330	0.360 U	---	0.360 U	0.7	26	32	11
Anthracene	0.330	0.360 U	---	0.360 U	0.5 LT	2 LT	5 LT	5 LT
Fluoranthene	0.330	0.360 U	---	0.360 U	1.4	36	60	10 LT
Pyrene	0.330	0.360 U	---	0.360 U	0.8	4 LT	35	12
Benzo(a) anthracene	0.330	0.360 U	---	0.360 U	0.10 LT	2.0 LT	3	2 LT
Chrysene	0.330	0.360 U	---	0.360 U	0.5 LT	10 LT	8	6.5
Benzo(b) fluoranthene	0.330	0.360 U	---	0.360 U	0.05 LT	1.0	1	40 LT
Benzo(k) fluoranthene	0.330	0.360 U	---	0.360 U	0.02 LT	0.5	0.6	40 LT
Benzo(a) pyrene	0.330	0.360 U	---	0.360 U	0.04 LT	0.1 LT	0.2 LT	40 LT
Dibenzo(a,h) anthracene	0.330	0.360 U	---	0.360 U	0.02 LT	0.04 LT	0.2 LT	40 LT
Benzo(g,h,i) perylene	0.330	0.360 U	---	0.360 U	0.05 LT	0.1 LT	0.5 LT	100 LT
Indeno (1,2,3-cd) pyrene	0.330	0.360 U	---	0.360 U	0.05 LT	0.1 LT	0.5 LT	100 LT

TABLE 4-7

ROUND 1 BYPRODUCT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		WA-W1	WA-W2	WA-W3	WA-W4	WA-W5	WA-W6	WA-W7
MATRIX DESCRIPTION		MINE SPOIL	BATTERY CASINGS (BLACK)	MINE SPOIL	EXCAVATED LAGOON SOIL	SOLIDIFIED SLUDGE	DEWATERED SLUDGE	CRUSHER BUILDING PILES
Additional TCL Semi-Volatiles (mg/kg)	CRQL							
Phenol	0.330	0.360 U	---	0.360 U	---	---	---	---
bis (2-Chloroisopropyl) ether	0.330	0.360 U	---	0.360 U	---	---	---	---
2-Methylphenol	0.330	0.360 U	---	0.360 U	---	---	---	---
4-Methylphenol	0.330	0.360 U	---	0.360 U	---	---	---	---
2,4 - Dimethylphenol	0.330	0.360 U	---	0.360 U	---	---	---	---
2-Methylnaphthalene	0.330	0.360 U	---	0.360 U	---	---	---	---
Dibenzofuran	0.330	0.360 U	---	0.360 U	---	---	---	---
Benzoic acid	1.600	1.800 U	---	1.800 U	---	---	---	---
Nitrobenzene	0.360	0.360 U	---	0.360 U	---	---	---	---
N-Nitrosodiphenylamine (1)	0.360	0.360 U	---	0.360 U	---	---	---	---
Di-n-butylphthalate	0.330	0.360 U	---	0.087 J	---	---	---	---
Butylbenzylphthalate	0.330	0.360 U	---	0.360 U	---	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	0.092 J	---	0.360 U	---	---	---	---
Di-n-octylphthalate	0.330	0.360 U	---	0.360 U	---	---	---	---
Diethylphthalate	0.330	0.360 U	---	0.360 U	---	---	---	---
4-Nitrophenol	1.600	1.800 U	---	1.800 U	---	---	---	---
TCL Pesticides/PCBs, ug/kg	CRQL							
Dieldrin	16	17 U	---	17 U	---	---	---	---
alpha-Chlordane	80	87 U	---	86 U	---	---	---	---
TCLP Extraction, mg/l								
Mercury		---	0.005 LT	---	---	---	---	---
Arsenic		---	0.5 LT	---	---	---	---	---
Selenium		---	0.5 LT	---	---	---	---	---
Barium		---	2 LT	---	---	---	---	---
Cadmium		---	0.06	---	---	---	---	---
Chromium		---	0.5 LT	---	---	---	---	---
Lead		---	200 J	---	---	---	---	---
Silver		---	0.1 LT	---	---	---	---	---

AR301653

TABLE 4-7

ROUND 1 BYPRODUCT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		WA-W8-DRUM	WA-W9	WA-W9 DUP.	WA-W10	WA-W11 DUP. OF W7	WA-XRFC1	WA-XRFC2
MATRIX DESCRIPTION		MELTED PLASTICS	BATTERY CASINGS (COLORED) AND MELTED PLASTIC		BAGHOUSE DUST	CRUSHER BUILDING PILES	REFINERY BUILDING DUST	CRUSHER BUILDING DUST
General Chemistry								
pH, s.u.		---	---	---	---	---	---	---
TOC, mg/kg		---	---	---	---	---	---	---
Moisture Content, % (as rec'd)		---	---	---	2.2	2.2	4.3	5.5
Hexavalent Chromium, mg/kg		---	---	---	---	---	---	---
Indicator Metals, mg/kg	CRDL							
Cadmium	1	---	---	---	1,080	12.1	1,230	2,170
Copper	5	---	---	---	2,150	115	2,370	1,040
Lead	0.6	---	---	---	119,000	89,000	203,000	157,000
Mercury	0.2	---	---	---	6.0 J	0.25 J	0.75 J	5.4 J
Zinc	4	---	---	---	18,500	120	3,910	11,500
Arsenic	2	---	---	---	3,020 J	266 J	539 J	364 J
Selenium	1	---	---	---	1.5 B	0.63 U	6.7	3.4 B
Additional TAL Metals, mg/kg	CRDL						---	---
Aluminum	40	---	---	---	---	---	---	---
Antimony	12	---	---	---	---	---	---	---
Barium	40	---	---	---	---	---	---	---
Beryllium	1	---	---	---	---	---	---	---
Calcium	1,000	---	---	---	---	---	---	---
Chromium	2	---	---	---	---	---	---	---
Cobalt	10	---	---	---	---	---	---	---
Iron	20	---	---	---	---	---	---	---
Magnesium	1,000	---	---	---	---	---	---	---
Manganese	3	---	---	---	---	---	---	---
Nickel	8	---	---	---	---	---	---	---
Potassium	1,000	---	---	---	---	---	---	---
Silver	2	---	---	---	---	---	---	---
Sodium	1,000	---	---	---	---	---	---	---
Thallium	2	---	---	---	---	---	---	---
Vanadium	10	---	---	---	---	---	---	---
Cyanide, Total	2	---	---	---	---	---		

AR301654

TABLE 4-7

ROUND 1 BYPRODUCT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		WA-W8-DRUM	WA-W9	WA-W9 DUP.	WA-W10	WA-W11 DUP. OF W7	WA-XRFC1	WA-XRFC2
MATRIX DESCRIPTION		MELTED PLASTICS	BATTERY CASINGS (COLORED) AND MELTED PLASTIC		BAGHOUSE DUST	CRUSHER BUILDING PILES	REFINERY BUILDING DUST	CRUSHER BUILDING DUST
TCL Volatiles, ug/kg								
	CRQL							
Acetone	10	---	---	---	---	---	---	---
Chloroform	5	---	---	---	---	---	---	---
Ethylbenzene	5	---	---	---	---	---	---	---
Methylene Chloride	5	---	---	---	---	---	---	---
Tetrachloroethene	5	---	---	---	---	---	---	---
Toluene	5	---	---	---	---	---	---	---
2-Butanone	10	---	---	---	---	---	---	---
1,1,1-Trichloroethane	5	---	---	---	---	---	---	---
1,1-Dichloroethene	5	---	---	---	---	---	---	---
Xylenes, Total	5	---	---	---	---	---	---	---
PAH's, mg/kg								
	CRQL							
Naphthalene	0.330	---	---	---	20 LT	20 LT	20 LT	20 LT
Acenaphthylene	0.330	---	---	---	10 LT	20 LT	4 LT	20 LT
Acenaphthene	0.330	---	---	---	10 LT	20 LT	10 LT	20 LT
Fluorene	0.330	---	---	---	10 LT	20 LT	2 LT	20 LT
Phenanthrene	0.330	---	---	---	5 LT	5 LT	4.0	5 LT
Anthracene	0.330	---	---	---	2.5 LT	5 LT	0.5 LT	5 LT
Fluoranthene	0.330	---	---	---	3	10 LT	8.0	7
Pyrene	0.330	---	---	---	2 LT	10 LT	5.3	8
Benzo(a) anthracene	0.330	---	---	---	2 LT	1 LT	0.6	5.0 LT
Chrysene	0.330	---	---	---	2.5 LT	5 LT	5.0 LT	25 LT
Benzo(b) fluoranthene	0.330	---	---	---	3	2 LT	0.25	60 LT
Benzo(k) fluoranthene	0.330	---	---	---	1 LT	20 LT	0.2 LT	5 LT
Benzo(a) pyrene	0.330	---	---	---	1 LT	20 LT	0.2 LT	3.6
Dibenzo(a,h) anthracene	0.330	---	---	---	1 LT	20 LT	1.0 LT	1.0 LT
Benzo(g,h,i) perylene	0.330	---	---	---	3 LT	50 LT	2.0 LT	10 LT
Indeno (1,2,3-cd) pyrene	0.330	---	---	---	2 LT	50 LT	0.05 LT	7.0 LT

AR301655

TABLE 4-7

ROUND 1 BYPRODUCT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

MATRIX DESCRIPTION		WA-W8-DRUM MELTED PLASTICS		WA-W9 BATTERY CASINGS (COLORED) AND MELTED PLASTIC		WA-W9 DUP. BATTERY CASINGS (COLORED) AND MELTED PLASTIC		WA-W10 BAGHOUSE DUST	WA-W11 DUP. OF W7 CRUSHER BUILDING PILES	WA-XRFC1 REFINERY BUILDING DUST	WA-XRFC2 CRUSHER BUILDING DUST
Additional TCL Semi-Volatiles (mg/kg)	CRQL										
Phenol	0.330	---		---		---		---	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---		---		---		---	---	---	---
2-Methylphenol	0.330	---		---		---		---	---	---	---
4-Methylphenol	0.330	---		---		---		---	---	---	---
2,4 - Dimethylphenol	0.330	---		---		---		---	---	---	---
2-Methylnaphthalene	0.330	---		---		---		---	---	---	---
Dibenzofuran	0.330	---		---		---		---	---	---	---
Benzoic acid	1.600	---		---		---		---	---	---	---
Nitrobenzene	0.360	---		---		---		---	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---		---		---		---	---	---	---
Di-n-butylphthalate	0.330	---		---		---		---	---	---	---
Butylbenzylphthalate	0.330	---		---		---		---	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---		---		---		---	---	---	---
Di-n-octylphthalate	0.330	---		---		---		---	---	---	---
Diethylphthalate	0.330	---		---		---		---	---	---	---
4-Nitrophenol	1.600	---		---		---		---	---	---	---
TCL Pesticides/PCBs, ug/kg	CRQL										
Dieldrin	16	---		---		---		---	---	---	---
alpha-Chlordane	80	---		---		---		---	---	---	---
TCLP Extraction, mg/l											
Mercury		0.005	LT	0.005	LT	0.005	LT	---	---	---	---
Arsenic		0.5	LT	0.5	LT	0.5	LT	---	---	---	---
Selenium		0.5	LT	0.5	LT	0.5	LT	---	---	---	---
Barium		2	LT	2	LT	2	LT	---	---	---	---
Cadmium		0.05	LT	0.58		0.60		---	---	---	---
Chromium		0.5	LT	0.5	LT	0.5	LT	---	---	---	---
Lead		1.6	J	2,640	J	2,560	J	---	---	---	---
Silver		0.1	LT	0.1	LT	0.1	LT	---	---	---	---

AR301656

TABLE 4-8

ROUND 2 BYPRODUCT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

MATRIX DESCRIPTION		WA-W12 RED-BROWN MATERIAL	WA-W13 CRUSHER BUILDING DUST	WA-W14 EXCAVATED SOIL	WA-W15 SOLIDIFIED SLUDGE	WA-W16 DEWATERED SLUDGE	WA-W17 DUST FURNACE AREA
General Chemistry							
pH, s.u.		6.30	6.63	6.10	12.4	12.3	7.74
TOC, mg/kg		9,500	4,600	3,800	4,200	4,100	8,000
Moisture Content, % (as received)		1.7	2.8	6.2	27.5	24.5	1.5
Indicator Metals, mg/kg	CRDL						
Cadmium	1	---	---	---	---	---	---
Copper	5	---	---	---	---	---	---
Lead	0.6	2,570	192,000	5,290	19,100	41,300	221,000
Zinc	4	---	---	---	---	---	---
Arsenic	2	---	---	---	---	---	---
TCLP Extraction, mg/l							
Mercury		0.005 LT	0.005 LT	0.005 LT	0.005 LT	0.005 LT	0.005 LT
Arsenic		0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT
Selenium		0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT
Barium		2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Cadmium		0.05 LT	144	1.16	0.05 LT	0.09	33.7
Chromium		0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT
Lead		3 LT	57.7	15.4	1.5	1.5	15.5
Silver		0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT

TABLE 4-9

ROUND 1 LANDFILL WASTE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		LTP1-4	LTP2 WHITE	LTP2 BLACK-A	LTP2 BLACK-B (Duplicate)	LTP3-6.5
MATRIX DESCRIPTION		Battery Casings	Sludge	Battery Casings	Battery Casings	Battery Casings
General Chemistry						
pH, S.U.		5.84	6.06	6.91	7.31	5.81
TOC, mg/kg		2,400	2,900	5,600	3,200	2,700
Moisture Content, % (as rec'd)		6.1	37.6	10.5	22.3	27.3
Hexavalent Chromium, mg/kg		---	---	---	---	---
Indicator Metals, mg/kg						
	CRDL					
Cadmium	1	89.0	44.4	54.1	187	12.1
Copper	5	1,920 L	778 L	960 L	4,790 L	146 L
Lead	0.6	51,100 K	11,200 K	68,300 K	62,800 K	18,500 K
Mercury	0.2	0.03 B	0.85	0.19	0.23	0.08
Zinc	4	1,830	458	1,170	2,770	319
Arsenic	2	440	192	1,070	1,140	99.1
Selenium	1	15.0 K	2.4 B	1.4 B	32.2 K	0.96
Additional TAL Metals, mg/kg						
	CRDL					
Aluminum	40	---	---	---	---	---
Antimony	12	---	---	---	---	---
Barium	40	---	---	---	---	---
Beryllium	1	---	---	---	---	---
Calcium	1,000	---	---	---	---	---
Chromium	2	---	---	---	---	---
Cobalt	10	---	---	---	---	---
Iron	20	---	---	---	---	---
Magnesium	1,000	---	---	---	---	---
Manganese	3	---	---	---	---	---
Nickel	8	---	---	---	---	---
Potassium	1,000	---	---	---	---	---
Silver	2	---	---	---	---	---
Sodium	1,000	---	---	---	---	---
Thallium	2	---	---	---	---	---
Vanadium	10	---	---	---	---	---
Cyanide, Total	2	---	---	---	---	---

TABLE 4-9

ROUND 1 LANDFILL WASTE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		LTP1-4	LTP2 WHITE	LTP2 BLACK-A	LTP2 BLACK-B (Duplicate)	LTP3-6.5
MATRIX DESCRIPTION		Battery Casings	Sludge	Battery Casings	Battery Casings	Battery Casings
TCL Volatiles, ug/kg						
	CRQL					
Acetone	10	---	---	---	---	---
Chloroform	5	---	---	---	---	---
Ethylbenzene	5	---	---	---	---	---
Methylene Chloride	5	---	---	---	---	---
Tetrachloroethene	5	---	---	---	---	---
Toluene	5	---	---	---	---	---
2-Butanone	10	---	---	---	---	---
1,1,1-Trichloroethane	5	---	---	---	---	---
1,1-Dichloroethene	5	---	---	---	---	---
Xylenes, Total	5	---	---	---	---	---
PAH's, mg/kg						
	CRQL					
Naphthalene	0.330	40	10 LT	2 LT	3 LT	30 LT
Acenaphthylene	0.330	20 LT	20 LT	2 LT	3 LT	30 LT
Acenaphthene	0.330	20 LT	6 LT	2 LT	3 LT	30 LT
Fluorene	0.330	10 LT	6 LT	2 LT	3 LT	30 LT
Phenanthrene	0.330	31	37	0.6 LT	0.6 LT	12
Anthracene	0.330	10 LT	2 LT	0.6 LT	0.6 LT	7 LT
Fluoranthene	0.330	17	60 LT	0.2 LT	0.3 LT	6
Pyrene	0.330	15	30 LT	0.2 LT	3.9	7
Benzo(a) anthracene	0.330	5.8	2.2	0.01 LT	0.6 LT	1.9
Chrysene	0.330	5 LT	7	0.1 LT	0.1 LT	4 LT
Benzo(b) fluoranthene	0.330	4	1.1	0.02 LT	0.03 LT	2
Benzo(k) fluoranthene	0.330	2	0.51	0.02 LT	0.03 LT	1 LT
Benzo(a) pyrene	0.330	3 LT	0.06 LT	0.02 LT	0.5 LT	1 LT
Dibenzo(a,h) anthracene	0.330	1 LT	0.06 LT	0.02 LT	0.5 LT	1 LT
Benzo(g,h,i) perylene	0.330	4	0.5 LT	0.06 LT	1 LT	4 LT
Indeno (1,2,3-cd) pyrene	0.330	4	0.2 LT	0.06 LT	1 LT	4 LT
Additional TCL Semi-Volatiles, mg/kg						
	CRQL					
Phenol	0.330	---	---	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---	---	---	---	---
2-Methylphenol	0.330	---	---	---	---	---
4-Methylphenol	0.330	---	---	---	---	---
2,4 - Dimethylphenol	0.330	---	---	---	---	---
2-Methylnaphthalene	0.330	---	---	---	---	---
Dibenzofuran	0.330	---	---	---	---	---
Benzoic acid	1.600	---	---	---	---	---
Nitrobenzene	0.360	---	---	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---	---	---	---	---
Di-n-butylphthalate	0.330	---	---	---	---	---
Butylbenzylphthalate	0.330	---	---	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	---	---
Di-n-octylphthalate	0.330	---	---	---	---	---
Diethylphthalate	0.330	---	---	---	---	---
4-Nitrophenol	1.600	---	---	---	---	---

TABLE 4-9

ROUND 1 LANDFILL WASTE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		LTP1-4	LTP2 WHITE	LTP2 BLACK-A	LTP2 BLACK-B (Duplicate)	LTP3-6.5
MATRIX DESCRIPTION		Battery Casings	Sludge	Battery Casings	Battery Casings	Battery Casings
TCL Pesticides/PCBs, ug/kg	CRQL					
Dieldrin	16	---	---	---	---	---
alpha-Chlordane	80	---	---	---	---	---
TCLP Extraction, mg/l						
Mercury		0.005 LT	0.005 LT	0.005 LT	0.005 LT	0.005 LT
Arsenic		0.5 LT J	0.5 LT J	0.6 J	0.5 LT J	0.5 LT
Selenium		0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT
Barium		2 LT	2 LT	2 LT	2 LT	2 LT
Cadmium		0.42	0.22	0.92	0.83	0.25
Chromium		0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT
Lead		294 J	22.0 J	137 J	93.7 J	177 J
Silver		0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD1-GW-10S		RD1-GW-10D		RD1-GW-11S		RD1-GW-11D		RD1-GW-11D (DUP.)		RD1-GW-12S		RD1-GW-12D		RD1-GW-13S	
Field Parameters																		
pH, s.u.			5.05		5.25		3.02		5.62		5.62		4.27		4.33		3.42	
Specific Conductance			27		49		392		49		49		380		667		527	
Temperature, C			9.2		10.2		8.5		9.7		9.7		9.3		8.3		6.8	
Eh			---		---		---		---		---		---		---		277	
General Chemistry, mg/l																		
Alkalinity to pH 8.3			1	LT	1	LT	1	LT	1	LT	1	LT	1	LT	1	LT	1	LT
Alkalinity to pH 4.5			7		10		1	LT	8		8		1	LT	1	LT	1	LT
TSS			860		3,780		850		53		160		3,420		390		570	
TDS			30		30		320		60		70		400		610		330	
Total Hardness			10		45		94		11		22		122		295		65	
Chloride			4	LT	1		11		2		2		1		1	LT	21	
Sulfate			20	LT	30		210		15		4	LT	230		400		240	
TOC			0.8		0.5	LT	0.9		0.5	LT	0.5	LT	0.9		0.6		0.6	
Hexavalent Chromium			0.005	LT	---		---		---		---		---		---		0.005	LT
Indicator Metals, ug/l		CRDL																
Cadmium	Total	5	1.8	B	1.0	U	84.5		1.0	U	5		17.5		11.0		74.5	
	Dissolved	5	1.7	U	1.0	U	77.0		2.5		3		20		9.5		66.7	
Copper	Total	25	47.7		77.1	K	192	K	28.1	K	46.6	K	473	K	63.8	K	98.8	
	Dissolved	25	6.4	B	11	B	87.4		12.2	B	12.3	B	140		40.2		651	
Lead	Total	3	44.7	K	115		148.0		15.1		42.4		329		583		187	K
	Dissolved	3	9.5	J	14.4	J	49.9	J	23.2	J	27.4	J	48	J	328	J	8.4	J
Mercury	Total	0.2	0.15	B	0.33		0.67		0.11	B	0.14	B	2.1		0.02	B	0.61	
	Dissolved	0.2	0.00	U	0.07	B	0.06	B	0.00	U	0.00	U	0.06	B	0.02	B	0.07	B
Zinc	Total	20	85.3	*	170	J	420	J	40.2	J	86.6	J	706	J	891	J	544	
	Dissolved	20	33.6	J	48		319		49.6		53.5		323		757		561	J
Arsenic	Total	10	13.5	U	2.7	U	80.0		3	B	2.7	U	2.7	U	14.5	B	7.5	B
	Dissolved	10	2.7	U	2.7	U	2.7	U	2.7	U	2.7	U	2.7	U	2.7	U	2.7	U
Selenium	Total	5	1.4	U	15	B	7.0	U	3.5	B	2.1	B	23.5	B	1.4	U	1.4	B
	Dissolved	5	1.4	U	1.4	U	1.4	B	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U

AR301661

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD1-GW-10S		RD1-GW-10D	RD1-GW-11S	RD1-GW-11D	RD1-GW-11D (DUP.)	RD1-GW-12S	RD1-GW-12D	RD1-GW-13S	
Additional TAL Metals,ug/l												
		CRDL										
Aluminum	Total	200	37,600	J	---	---	---	---	---	---	26,000	J
	Dissolved	200	10.7	B	---	---	---	---	---	---	10,200	
Antimony	Total	60	9.0	U	---	---	---	---	---	---	9.0	U
	Dissolved	60	9.0	U	---	---	---	---	---	---	9.0	U
Barium	Total	200	153.0		---	---	---	---	---	---	187	
	Dissolved	200	12.2	B	---	---	---	---	---	---	18.4	B
Beryllium	Total	5	2.3	B	---	---	---	---	---	---	5.5	
	Dissolved	5	0.20	U	---	---	---	---	---	---	4.5	
Calcium	Total	5,000	3,190	J	---	---	---	---	---	---	14,300	J
	Dissolved	5,000	2,390	B	---	---	---	---	---	---	14,200	
Chromium	Total	10	56.4	*	---	---	---	---	---	---	15.8	*
	Dissolved	10	4.0	U	---	---	---	---	---	---	4.0	U
Cobalt	Total	50	40.5		---	---	---	---	---	---	98.3	
	Dissolved	50	9.5	B	---	---	---	---	---	---	85.6	
Iron	Total	100	43,600	J	---	---	---	---	---	---	27,200	J
	Dissolved	100	11.4	B	---	---	---	---	---	---	826	
Magnesium	Total	5,000	2,350	B	---	---	---	---	---	---	6,000	
	Dissolved	5,000	274	B	---	---	---	---	---	---	4,660	
Manganese	Total	15	2,140	J	---	---	---	---	---	---	6,520	J
	Dissolved	15	530		---	---	---	---	---	---	5,410	
Nickel	Total	40	45.4		---	---	---	---	---	---	84.5	
	Dissolved	40	124		---	---	---	---	---	---	70.9	
Potassium	Total	5,000	6,410		---	---	---	---	---	---	5,090	
	Dissolved	5,000	757	B	---	---	---	---	---	---	1,870	B
Silver	Total	10	4.3	U	---	---	---	---	---	---	4.3	U
	Dissolved	10	4.3	U	---	---	---	---	---	---	4.3	U
Sodium	Total	5,000	1,480	BJ	---	---	---	---	---	---	44,600	J
	Dissolved	5,000	1,020	B	---	---	---	---	---	---	40,700	
Thallium	Total	10	1.7	U	---	---	---	---	---	---	2.0	B
	Dissolved	10	1.7	U	---	---	---	---	---	---	1.7	U
Vanadium	Total	50	45		---	---	---	---	---	---	21.4	B
	Dissolved	50	4.6	U	---	---	---	---	---	---	4.6	U
Cyanide, Total		10	2.5	U	---	---	---	---	---	---	2.5	U

AR301662

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		RD1-GW-10S		RD1-GW-10D		RD1-GW-11S		RD1-GW-11D		RD1-GW-11D (DUP.)		RD1-GW-12S		RD1-GW-12D		RD1-GW-13S	
TCL Volatiles, ug/l																	
	CRQL																
Acetone	10	20	*	---		---		---		---		---		---		16	*
Chloroform	5	5	U	---		---		---		---		---		---		5	U
Ethylbenzene	5	5	U	---		---		---		---		---		---		5	U
Methylene Chloride	5	5	U	---		---		---		---		---		---		5	U
Tetrachloroethene	5	5	U	---		---		---		---		---		---		5	U
Toluene	5	5	U	---		---		---		---		---		---		5	U
2-Butanone	10	10	U	---		---		---		---		---		---		10	U
1,1,1 - Trichloroethane	5	5	U	---		---		---		---		---		---		5	U
1,1 - Dichloroethene	5	5	U	---		---		---		---		---		---		5	U
Xylenes, Total	5	5	U	---		---		---		---		---		---		5	U
PAH's, ug/l																	
	CRQL																
Naphthalene	10	10	U	10	LT	20	LT	10	LT	10	LT	10	LT	10	LT	10	U
Acenaphthylene	10	10	U	20	LT	40	LT	20	LT	20	LT	20	LT	20	LT	10	U
Acenaphthene	10	10	U	20	LT	40	LT	20	LT	20	LT	20	LT	20	LT	10	U
Fluorene	10	10	U	2	LT	4	LT	2	LT	2	LT	2	LT	2	LT	10	U
Phenanthrene	10	10	U	2	LT	4	LT	2	LT	2	LT	2	LT	2	LT	10	U
Anthracene	10	10	U	1	LT	2	LT	1	LT	1	LT	1	LT	1	LT	10	U
Fluoranthene	10	10	U	0.5	LT	1	LT	0.5	LT	0.5	LT	0.5	LT	0.5	LT	10	U
Pyrene	10	10	U	2	LT	4	LT	2	LT	2	LT	2	LT	2	LT	10	U
Benzo(a) anthracene	10	10	U	0.1	LT	0.2	LT	0.1	LT	0.1	LT	0.1	LT	0.1	LT	10	U
Chrysene	10	10	U	1	LT	2	LT	1	LT	1	LT	1	LT	1	LT	10	U
Benzo(b) fluoranthene	10	10	U	0.2	LT	0.4	LT	0.2	LT	0.2	LT	0.2	LT	0.2	LT	10	U
Benzo(k) fluoranthene	10	10	U	0.1	LT	0.2	LT	0.1	LT	0.1	LT	0.1	LT	0.1	LT	10	U
Benzo(a) pyrene	10	10	U	0.2	LT	0.4	LT	0.2	LT	0.2	LT	0.2	LT	0.2	LT	10	U
Dibenzo(a,h) anthracene	10	10	U	0.2	LT	0.4	LT	0.2	LT	0.2	LT	0.2	LT	0.2	LT	10	U
Benzo(g,h,i) perylene	10	10	U	0.5	LT	1	LT	0.5	LT	0.5	LT	0.5	LT	0.5	LT	10	U
Indeno (1,2,3-cd) pyrene	10	10	U	0.5	LT	1	LT	0.5	LT	0.5	LT	0.5	LT	0.5	LT	10	U

AR301693

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		RD1-GW-10S		RD1-GW-10D	RD1-GW-11S	RD1-GW-11D	RD1-GW-11D (DUP.)	RD1-GW-12S	RD1-GW-12D	RD1-GW-13S	
Additional TCL Semi-Volatiles, ug/l											
	CRQL										
Phenol	10	10	U	---	---	---	---	---	---	10	U
bis (2-Chloroisopropyl) ether	10	10	U	---	---	---	---	---	---	10	U
2-Methylphenol	10	10	U	---	---	---	---	---	---	10	U
4-Methylphenol	10	10	U	---	---	---	---	---	---	10	U
2,4 - Dimethylphenol	10	10	U	---	---	---	---	---	---	10	U
2-Methylnaphthalene	10	10	U	---	---	---	---	---	---	10	U
Dibenzofuran	10	10	U	---	---	---	---	---	---	10	U
Benzoic acid	50	50	U	---	---	---	---	---	---	50	U
Nitrobenzene	10	10	U	---	---	---	---	---	---	10	U
N-Nitrosodiphenylamine (1)	10	10	U	---	---	---	---	---	---	10	U
Di-n-butylphthalate	10	10	U	---	---	---	---	---	---	10	U
Butylbenzylphthalate	10	10	U	---	---	---	---	---	---	10	U
bis (2-Ethylhexyl) phthalate	10	10	U	---	---	---	---	---	---	10	U
Di-n-octylphthalate	10	10	U	---	---	---	---	---	---	10	U
Diethylphalate	10	10	U	---	---	---	---	---	---	10	U
4-Nitrophenol	50	50	U	---	---	---	---	---	---	50	U
TCL Pesticides/PCBs, ug/l											
	CRQL										
Dieldrin	0.10	0.10	U	---	---	---	---	---	---	0.10	U
alpha-Chlordane	0.50	0.50	U	---	---	---	---	---	---	0.50	U

AR301664

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD1-GW-13D	RD1-GW-14S	RD1-GW-14D	RD1-GW-15S	RD1-GW-15D	RD1-GW-16S	RD1-GW-16S (DUP.)
Field Parameters									
pH, s.u.			5.84	5.89	5.36	6.88	4.62	3.82	3.82
Specific Conductance			218	6,070	131	9,200	230	228	228
Temperature, C			8.1	5.2	7.4	9.0	7.7	4.2	4.2
Eh			219	---	---	---	---	280	280
General Chemistry, mg/l									
Alkalinity to pH 8.3			1 LT	1 LT	1 LT	1 LT	1 LT	1 LT	1 LT
Alkalinity to pH 4.5			15	107	14	294	2	1 LT	1 LT
TSS			157	5,030	51	5,620	24	14,800	11,900
TDS			90	3,330	110	7,200	190	130	130
Total Hardness			55	153	48	112	92	53	49
Chloride			3	170	2	590	6	---	50 LT
Sulfate			37	2,500	35	4,000	80	---	400
TOC			0.9	3.1	0.5 LT	13	0.5 LT	1.9	2.0
Hexavalent Chromium			0.005 LT	---	---	0.005 LT	---	0.005 LT	0.005 LT
Indicator Metals, ug/l		CRDL							
Cadmium	Total	5	1.7 U	7.0	1.0 U	63.6	7.5	199	170
	Dissolved	5	1.7 U	1.0 U	1.0 U	1.7 U	7.0	25.9	27.5
Copper	Total	25	14.2	750 K	123 K	901	24 K	501	427
	Dissolved	25	8.2 B	6.2 B	28.2	27.3	20.2	11.5 B	12.3 B
Lead	Total	3	31.6 K	33.8	34.4	144 K	34.6	180 K	138 K
	Dissolved	3	8.1 J	21.4 J	14.7 J	16.3 J	22.9 J	8 J	5.3 J
Mercury	Total	0.2	0.12 B	5.2	0.12 B	2	0.2 B	2.4	2.2
	Dissolved	0.2	0.02 B	0.09 B	0.06 B	0.02 B	0.18 B	0.00 U	0.00 U
Zinc	Total	20	33.4 *	1,320 J	96.8 J	679	163 J	1,360	1,180
	Dissolved	20	70.3 J	120.0	82.9	105 J	205	243 J	241 J
Arsenic	Total	10	3.2 B	4,220	2.9 B	51.0 B	2.7 U	6.2 B	2.7 U
	Dissolved	10	2.7 U	313.0	2.7 U	17 B	2.7 U	2.7 U	2.7 U
Selenium	Total	5	1.4 U	7.5 B	2 B	12.0 B	5.5	1.4 U	1.4 U
	Dissolved	5	1.4 U	7.3	1.4 U	7.0 U	1.5 B	1.4 U	1.4 U

AR301665

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD1-GW-13D		RD1-GW-14S	RD1-GW-14D	RD1-GW-15S		RD1-GW-15D	RD1-GW-16S		RD1-GW-16S (DUP.)	
Additional TAL Metals, ug/l		CRDL											
Aluminum	Total	200	4,970	J	---	---	222,000	J	---	366,000	J	349,000	J
	Dissolved	200	54.9	B	---	---	11.7	B	---	1,610		1,630	
Antimony	Total	60	9.0	U	---	---	30.4		---	97.0		75.7	
	Dissolved	60	9.0	U	---	---	9.0	U	---	9.0	U	9.0	U
Barium	Total	200	44.5	B	---	---	804		---	1,620		1,400	
	Dissolved	200	19.1	B	---	---	12.1	B	---	24.2	B	24.2	B
Beryllium	Total	5	0.66	B	---	---	8.4		---	17.6		15.7	
	Dissolved	5	0.20	U	---	---	0.20	U	---	0.32	B	0.56	B
Calcium	Total	5,000	14,400	J	---	---	23,300	J	---	11,700	J	11,600	J
	Dissolved	5,000	14,600		---	---	20,700		---	10,100		10,400	
Chromium	Total	10	12.4	*	---	---	194		---	384.0		352	
	Dissolved	10	4.0	U	---	---	4.0	U	---	4.0	U	4.0	U
Cobalt	Total	50	3.1	U	---	---	123		---	150.0		137	
	Dissolved	50	3.1	U	---	---	3.1	U	---	25.5		28.0	
Iron	Total	100	5,740	J	---	---	403,000	J	---	874,000	J	750,000	J
	Dissolved	100	49.6	B	---	---	8,450		---	131.0		73.4	
Magnesium	Total	5,000	4,120		---	---	25,400		---	33,600		30,700	
	Dissolved	5,000	3,620		---	---	3,960		---	2,060	B	2,170	B
Manganese	Total	15	127	J	---	---	5,940	J	---	8,170	J	7,730	J
	Dissolved	15	18.5		---	---	3,570		---	2,010		2,160	
Nickel	Total	40	8.3	B	---	---	165		---	272		256	
	Dissolved	40	19.6	B	---	---	52		---	28.9		31.2	
Potassium	Total	5,000	1,920	B	---	---	49,200		---	32,600		34,600	
	Dissolved	5,000	648	B	---	---	27,900		---	1,930	B	2,040	B
Silver	Total	10	4.3	U	---	---	4.3	U	---	10.2		8.7	
	Dissolved	10	4.3	U	---	---	4.3	U	---	4.3	U	4.3	U
Sodium	Total	5,000	3,270	J	---	---	2,190,000	J	---	15,100	J	15,800	J
	Dissolved	5,000	3,350		---	---	2,000,000		---	13,600		14,600	
Thallium	Total	10	1.7	U	---	---	1.7	U	---	4.9	B	2.3	B
	Dissolved	10	1.7	U	---	---	1.7	U	---	1.7	U	1.7	U
Vanadium	Total	50	6.0	B	---	---	345		---	609		545	
	Dissolved	50	4.6	U	---	---	4.6	U	---	4.6	U	4.6	U
Cyanide, Total		10	2.5	U	---	---	2.5	U	---	2.5	U	2.5	U

AR301666

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		RD1-GW-13D		RD1-GW-14S		RD1-GW-14D		RD1-GW-15S		RD1-GW-15D		RD1-GW-16S		RD1-GW-16S (DUP.)	
TCL Volatiles, ug/l															
	CRQL														
Acetone	10	12	*	---		---		18	*	---		19	*	19	*
Chloroform	5	5	U	---		---		5	U	---		5	U	5	U
Ethylbenzene	5	5	U	---		---		5	U	---		5	U	5	U
Methylene Chloride	5	5	U	---		---		5	U	---		5	U	5	U
Tetrachloroethene	5	5	U	---		---		5	U	---		5	U	5	U
Toluene	5	5	U	---		---		5	U	---		5	U	5	U
2-Butanone	10	10	U	---		---		10	U	---		10	U	10	U
1,1,1 - Trichoroethane	5	5	U	---		---		5	U	---		5	U	5	U
1,1 - Dichloroethene	5	5	U	---		---		5	U	---		5	U	5	U
Xylenes, Total	5	5	U	---		---		5	U	---		5	U	5	U
PAH's, ug/l															
	CRQL														
Naphthalene	10	10	U	20	LT	10	LT	10	U	10	LT	10	U	10	U
Acenaphthylene	10	10	U	40	LT	20	LT	10	U	20	LT	10	U	10	U
Acenaphthene	10	10	U	40	LT	20	LT	10	U	20	LT	10	U	10	U
Fluorene	10	10	U	4	LT	2	LT	10	U	2	LT	10	U	10	U
Phenanthrene	10	10	U	4	LT	2	LT	10	U	2	LT	10	U	10	U
Anthracene	10	10	U	2	LT	1	LT	10	U	1	LT	10	U	10	U
Fluoranthene	10	10	U	1	LT	0.5	LT	10	U	0.5	LT	10	U	10	U
Pyrene	10	10	U	4	LT	2	LT	10	U	2	LT	10	U	10	U
Benzo(a) anthracene	10	10	U	0.2	LT	0.1	LT	10	U	0.1	LT	10	U	10	U
Chrysene	10	10	U	2	LT	1	LT	10	U	1	LT	10	U	10	U
Benzo(b) fluoranthene	10	10	U	0.4	LT	0.2	LT	10	U	0.2	LT	10	U	10	U
Benzo(k) fluoranthene	10	10	U	0.2	LT	0.1	LT	10	U	0.1	LT	10	U	10	U
Benzo(a) pyrene	10	10	U	0.4	LT	0.2	LT	10	U	0.2	LT	10	U	10	U
Dibenzo(a,h) anthracene	10	10	U	0.4	LT	0.2	LT	10	U	0.2	LT	10	U	10	U
Benzo(g,h,i) perylene	10	10	U	1	LT	0.5	LT	10	U	0.5	LT	10	U	10	U
Indeno (1,2,3-cd) pyrene	10	10	U	1	LT	0.5	LT	10	U	0.5	LT	10	U	10	U

AR301667

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		RD1-GW-13D		RD1-GW-14S	RD1-GW-14D	RD1-GW-15S		RD1-GW-15D	RD1-GW-16S		RD1-GW-16S (DUP.)	
Additional TCL Semi-Volatiles, ug/l												
	CRQL											
Phenol	10	10	U	---	---	10	U	---	10	U	10	U
bis (2-Chloroisopropyl) ether	10	10	U	---	---	10	U	---	10	U	10	U
2-Methylphenol	10	10	U	---	---	10	U	---	10	U	10	U
4-Methylphenol	10	10	U	---	---	10	U	---	10	U	10	U
2,4 - Dimethylphenol	10	10	U	---	---	10	U	---	10	U	10	U
2-Methylnaphthalene	10	10	U	---	---	10	U	---	10	U	10	U
Dibenzofuran	10	10	U	---	---	10	U	---	10	U	10	U
Benzoic acid	50	50	U	---	---	50	U	---	50	U	50	U
Nitrobenzene	10	10	U	---	---	10	U	---	10	U	10	U
N-Nitrosodiphenylamine (1)	10	10	U	---	---	10	U	---	10	U	10	U
Di-n-butylphthalate	10	10	U	---	---	10	U	---	10	U	10	U
Butylbenzylphthalate	10	10	U	---	---	10	U	---	10	U	10	U
bis (2-Ethylhexyl) phthalate	10	10	U	---	---	10	U	---	10	U	10	U
Di-n-octylphthalate	10	10	U	---	---	10	U	---	10	U	10	U
Diethylphalate	10	10	U	---	---	10	U	---	10	U	10	U
4-Nitrophenol	50	50	U	---	---	50	U	---	50	U	50	U
TCL Pesticides/PCBs, ug/l												
	CRQL											
Dieldrin	0.10	0.10	U	---	---	0.10	U	---	0.015	J	1.0	U
alpha-Chlordane	0.50	0.50	U	---	---	0.50	U	---	0.50	U	5.0	U

AR301668

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD1-GW-16D		RD1-GW-17S		RD1-GW-17S (DUP.)		RD1-GW-17D		RD1-GW-18S		RD1-GW-18D		RD1-GW-19S		RD1-GW-19D	
Field Parameters																		
pH, s.u.			5.7		4.81		4.81		10.8		5.34		5.51		4.96		6.64	
Specific Conductance			80		97		97		409		550		39		81		102	
Temperature, C			9.3		9.5		9.5		6.6		5.3		8.5		10.2		9.1	
Eh			263		---		---		---		---		---		---		247	
General Chemistry, mg/l																		
Alkalinity to pH 8.3			1	LT	1	LT	1	LT	140		1	LT	1	LT	1	LT	1	LT
Alkalinity to pH 4.5			13		7		5		204		6		10		9		42	
TSS			16		2,300		5,110		4,960		7,320		180		1,850		25	
TDS			50		80		80		230		400		60		50		70	
Total Hardness			22		47		52		193		224		12		61		37	
Chloride			2		1		1		1	LT	1		1	LT	1		1	LT
Sulfate			9		40	LT	100	LT	100	LT	200		5		100	LT	4	
TOC			1.3		0.9		0.7		0.8		0.5	LT	0.5	LT	0.6		1.3	
Hexavalent Chromium			---		---		---		---		---		---		---		---	
Indicator Metals, ug/l		CRDL																
Cadmium	Total	5	1.0	B	4.0	B	2.1	U	1.0	U	2.1	U	1.0	U	1.0	U	1.0	U
	Dissolved	5	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Copper	Total	25	59.4	K	96.3	K	234	K	106	K	545.0	K	17.6	K	194	K	12.8	K
	Dissolved	25	7.9	B	22.7		20		10.6	B	21.6		19.2		26.9		5.2	B
Lead	Total	3	152	J	50.8	J	123	J	271	J	438.0	J	10.4	U	173	J	20.8	J
	Dissolved	3	23.8	J	11.8		10.5		28.6	J	10.4	U	16.3	J	38.3	J	12.1	J
Mercury	Total	0.2	0.05	B	0.28		0.44		0.14	B	0.28		0.09	B	0.47		0.2	
	Dissolved	0.2	0.00	U	0.02	B	0.02	B	0.01	B	0.01	B	0.02	B	0.06	B	0.02	B
Zinc	Total	20	44.1	J	179	J	436	J	252	J	773	J	64	J	475	J	58	J
	Dissolved	20	28.9		113		72.3		57.9		184		69.1		85.2		38.6	
Arsenic	Total	10	2.7	U	13.5	U	13.5	U	16.5	B	13.5	U	7.8	B	27	U	2.7	U
	Dissolved	10	2.7	U	2.7	U	2.7	U	2.7	U	2.7	U	15.9		2.7	U	2.7	U
Selenium	Total	5	1.4	U	1.6	B	1.4	U	1.4	U	7.0	U	1.5	B	7.0	U	1.4	U
	Dissolved	5	1.4	U	1.4	U	1.4	U	1.5	B	1.4	U	3.3	B	1.4	U	1.4	U

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD1-GW-16D	RD1-GW-17S	RD1-GW-17S (DUP.)	RD1-GW-17D	RD1-GW-18S	RD1-GW-18D	RD1-GW-19S	RD1-GW-19D
Additional TAL Metals, ug/l										
		CRDL								
Aluminum	Total	200	---	---	---	---	---	---	---	---
	Dissolved	200	---	---	---	---	---	---	---	---
Antimony	Total	60	---	---	---	---	---	---	---	---
	Dissolved	60	---	---	---	---	---	---	---	---
Barium	Total	200	---	---	---	---	---	---	---	---
	Dissolved	200	---	---	---	---	---	---	---	---
Beryllium	Total	5	---	---	---	---	---	---	---	---
	Dissolved	5	---	---	---	---	---	---	---	---
Calcium	Total	5,000	---	---	---	---	---	---	---	---
	Dissolved	5,000	---	---	---	---	---	---	---	---
Chromium	Total	10	---	---	---	---	---	---	---	---
	Dissolved	10	---	---	---	---	---	---	---	---
Cobalt	Total	50	---	---	---	---	---	---	---	---
	Dissolved	50	---	---	---	---	---	---	---	---
Iron	Total	100	---	---	---	---	---	---	---	---
	Dissolved	100	---	---	---	---	---	---	---	---
Magnesium	Total	5,000	---	---	---	---	---	---	---	---
	Dissolved	5,000	---	---	---	---	---	---	---	---
Manganese	Total	15	---	---	---	---	---	---	---	---
	Dissolved	15	---	---	---	---	---	---	---	---
Nickel	Total	40	---	---	---	---	---	---	---	---
	Dissolved	40	---	---	---	---	---	---	---	---
Potassium	Total	5,000	---	---	---	---	---	---	---	---
	Dissolved	5,000	---	---	---	---	---	---	---	---
Silver	Total	10	---	---	---	---	---	---	---	---
	Dissolved	10	---	---	---	---	---	---	---	---
Sodium	Total	5,000	---	---	---	---	---	---	---	---
	Dissolved	5,000	---	---	---	---	---	---	---	---
Thallium	Total	10	---	---	---	---	---	---	---	---
	Dissolved	10	---	---	---	---	---	---	---	---
Vanadium	Total	50	---	---	---	---	---	---	---	---
	Dissolved	50	---	---	---	---	---	---	---	---
Cyanide, Total		10	---	---	---	---	---	---	---	---

AR301670

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		RD1-GW-16D	RD1-GW-17S	RD1-GW-17S (DUP.)	RD1-GW-17D	RD1-GW-18S	RD1-GW-18D	RD1-GW-19S	RD1-GW-19D
TCL Volatiles, ug/l									
	CRQL								
Acetone	10	---	---	---	---	---	---	---	---
Chloroform	5	---	---	---	---	---	---	---	---
Ethylbenzene	5	---	---	---	---	---	---	---	---
Methylene Chloride	5	---	---	---	---	---	---	---	---
Tetrachloroethene	5	---	---	---	---	---	---	---	---
Toluene	5	---	---	---	---	---	---	---	---
2-Butanone	10	---	---	---	---	---	---	---	---
1,1,1 - Trichoroethane	5	---	---	---	---	---	---	---	---
1,1 - Dichloroethene	5	---	---	---	---	---	---	---	---
Xylenes, Total	5	---	---	---	---	---	---	---	---
PAH's, ug/l									
	CRQL								
Naphthalene	10	10 LT	20 LT	20 LT	20 LT	20 LT	10 LT	20 LT	10 LT
Acenaphthylene	10	20 LT	40 LT	40 LT	40 LT	40 LT	20 LT	40 LT	20 LT
Acenaphthene	10	20 LT	40 LT	40 LT	40 LT	40 LT	20 LT	40 LT	20 LT
Fluorene	10	2 LT	4 LT	4 LT	4 LT	4 LT	2 LT	4 LT	2 LT
Phenanthrene	10	2 LT	4 LT	4 LT	4 LT	4 LT	2 LT	4 LT	2 LT
Anthracene	10	1 LT	2 LT	2 LT	2 LT	2 LT	1 LT	2 LT	1 LT
Fluoranthene	10	0.5 LT	1 LT	1 LT	1 LT	1 LT	0.5 LT	1 LT	0.5 LT
Pyrene	10	2 LT	4 LT	4 LT	4 LT	4 LT	2 LT	4 LT	2 LT
Benzo(a) anthracene	10	0.1 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.1 LT	0.2 LT	0.1 LT
Chrysene	10	1 LT	2 LT	2 LT	2 LT	2 LT	1 LT	2 LT	1 LT
Benzo(b) fluoranthene	10	0.2 LT	0.4 LT	0.4 LT	0.4 LT	0.4 LT	0.2 LT	0.4 LT	0.2 LT
Benzo(k) fluoranthene	10	0.1 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.1 LT	0.2 LT	0.1 LT
Benzo(a) pyrene	10	0.2 LT	0.4 LT	0.4 LT	0.4 LT	0.4 LT	0.2 LT	0.4 LT	0.2 LT
Dibenzo(a,h) anthracene	10	0.2 LT	0.4 LT	0.4 LT	0.4 LT	0.4 LT	0.2 LT	0.4 LT	0.2 LT
Benzo(g,h,i) perylene	10	0.5 LT	1 LT	1 LT	1 LT	1 LT	0.5 LT	1 LT	0.5 LT
Indeno (1,2,3-cd) pyrene	10	0.5 LT	1 LT	1 LT	1 LT	1 LT	0.5 LT	1 LT	0.5 LT

TABLE 4-10

ROUND 1 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		RD1-GW-16D	RD1-GW-17S	RD1-GW-17S (DUP.)	RD1-GW-17D	RD1-GW-18S	RD1-GW-18D	RD1-GW-19S	RD1-GW-19D
Additional TCL Semi-Volatiles, ug/l									
	CRQL								
Phenol	10	---	---	---	---	---	---	---	---
bis (2-Chloroisopropyl) ether	10								
2-Methylphenol	10	---	---	---	---	---	---	---	---
4-Methylphenol	10	---	---	---	---	---	---	---	---
2,4 - Dimethylphenol	10	---	---	---	---	---	---	---	---
2-Methylnaphthalene	10	---	---	---	---	---	---	---	---
Dibenzofuran	10	---	---	---	---	---	---	---	---
Benzoic acid	50	---	---	---	---	---	---	---	---
Nitrobenzene	10	---	---	---	---	---	---	---	---
N-Nitrosodiphenylamine (1)	10	---	---	---	---	---	---	---	---
Di-n-butylphthalate	10	---	---	---	---	---	---	---	---
Butylbenzylphthalate	10	---	---	---	---	---	---	---	---
bis (2-Ethylhexyl) phthalate	10	---	---	---	---	---	---	---	---
Di-n-octylphthalate	10	---	---	---	---	---	---	---	---
Diethylphalate	10	---	---	---	---	---	---	---	---
4-Nitrophenol	50	---	---	---	---	---	---	---	---
TCL Pesticides/PCBs, ug/l									
	CRQL								
Dieldrin	0.10	---	---	---	---	---	---	---	---
alpha-Chlordane	0.50	---	---	---	---	---	---	---	---

AR301672

TABLE 4-11

ROUND 2 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD2-GW-10S		RD2-GW-10D		RD2-GW-11S		RD2-GW-11D		RD2-GW-12S		RD2-GW-12D		RD2-GW-13S	
Field Parameters																
pH, s.u.			7.16		5.72		4.02		6.63		4.39		4.88		4.37	
Specific Conductance			109.4		15.0		316		44.4		509		842		364.0	
Temperature, C			21.7		10.4		13.6		12.3		13.7		13.6		11.6	
Eh			211		202		332		236		364		315		321	
General Chemistry, mg/l																
Alkalinity to pH 8.3			1	LT	1	LT	1	LT	1	LT	1	LT	1	LT	1	LT
Alkalinity to pH 4.5			26		4		1	LT	8		1	LT	1	LT	1	LT
Acidity to 3.7			1	LT	1	LT	1	LT	1	LT	10		1	LT	1	LT
Acidity to 8.3			6		11		85		7		153		247		66	
TSS			14		1,630		910		6		77		36		90	
TDS			40		10		230		20		410		730		240	
Total Hardness			50		24		78		12		106		348		64	
Chloride			2		2		4		3		2		1		12	
Sulfate			3	LT	3	LT	130		7		243		463		144	
TOC			1.3		0.6		0.7		0.6		0.6		1.2		0.9	
Indicator Metals, ug/l																
		CRDL														
Cadmium	Total	5	5.0	U	2.0	U	58.8		2.0	U	21.4		14.7		57.2	
	Dissolved	5	5.0	U	2.0	U	58.8		2.0	U	18.8		14.4		59.7	
Copper	Total	25	6.3	B	33.7		64.2		29.5		146		90.5		67.6	
	Dissolved	25	14.9	B	5.6	B	31.4		3.0	B	140		77.8		71.8	
Lead	Total	3	7.1	*JK	63.0	J	33.6	JK	13.2	J	10.0	*JK	71.1	J	5.1	J
	Dissolved	3	3.8	*	4.1	*	10.5	*	6.3	*	9.5	*	59.3		6.8	*
Zinc	Total	20	21.9		73.0		249		18.8	B	401		1,170		490	
	Dissolved	20	245		15.7	B	234		15.0	U	402		1130		513	
Arsenic	Total	10	2.0	UL	6.7	B	6.9	BL	2.0	U	2.0	UL	2.0	U	2.0	U
	Dissolved	10	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U

AR301673

TABLE 4-11

ROUND 2 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD2-GW-10S		RD2-GW-10D	RD2-GW-11S		RD2-GW-11D	RD2-GW-12S		RD2-GW-12D	RD2-GW-13S
Additional TAL Metals, ug/l		CRDL										
Aluminum	Total	200	1,940	J	---	12,100	J	---	19,200	J	---	---
	Dissolved	200	22.1	B	---	4,040		---	18,100		---	---
Antimony	Total	60	15.0	U	---	15.0	U	---	15.0	U	---	---
	Dissolved	60	15.0	U	---	15.0	U	---	15.0	U	---	---
Barium	Total	200	32.1	BJ	---	62.8	BJ	---	15.6	BJ	---	---
	Dissolved	200	17.0	B	---	14.8	B	---	11.7	B	---	---
Beryllium	Total	5	3.0	U	---	3.0	U	---	3.0	U	---	---
	Dissolved	5	3.0	U	---	3.0	U	---	3.1	B	---	---
Calcium	Total	5,000	14,500		---	22,300		---	21,600		---	---
	Dissolved	5,000	3,330	B	---	21,900		---	21,100		---	---
Chromium	Total	10	9.0	U	---	13.5	J	---	9.0	U	---	---
	Dissolved	10	9.0	U	---	9.0	U	---	9.0	U	---	---
Cobalt	Total	50	6.6	B	---	33.5	B	---	110		---	---
	Dissolved	50	5.0	U	---	26.4	B	---	106		---	---
Iron	Total	100	3,190		---	22,000		---	6,960		---	---
	Dissolved	100	74.0	*BJ	---	72.6	*BJ	---	5,160	J	---	---
Magnesium	Total	5,000	627	B	---	5,360		---	10,500		---	---
	Dissolved	5,000	341	B	---	4,340	B	---	10,200		---	---
Manganese	Total	15	210		---	1,830		---	7,560		---	---
	Dissolved	15	70.7		---	1,780		---	7,440		---	---
Nickel	Total	40	8.0	U	---	44.3		---	94.7		---	---
	Dissolved	40	10.1	B	---	37.2	B	---	97.9		---	---
Potassium	Total	5,000	696	B	---	7,850		---	2,310	B	---	---
	Dissolved	5,000	526	*B	---	4,940	B	---	2,280	B	---	---
Silver	Total	10	10.0	U	---	10.0	U	---	10.0	U	---	---
	Dissolved	10	4.6	*B	---	4.0	U	---	5.4	*B	---	---
Sodium	Total	5,000	737	B	---	15,400		---	5,270		---	---
	Dissolved	5,000	886	B	---	14,000		---	5,410		---	---
Vanadium	Total	50	10.0	UJ	---	20.4	BJ	---	10.0	UJ	---	---
	Dissolved	50	5.3	B	---	5.0	U	---	7.2	B	---	---

AR301674

TABLE 4-11

ROUND 2 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD2-GW-13D		RD2-GW-14S		RD2-200 DUPLICATE OF GW-14S		RD2-GW-14D		RD2-GW-15S		RD2-GW-15D		RD2-GW-16S	
Field Parameters																
pH, s.u.			6.22		4.48		4.48		6.28		7.14		5.85		4.76	
Specific Conductance			142.0		362		362		109.6		7,230		250		200	
Temperature, C			12.0		14.2		14.2		14.0		14.5		13.9		14.4	
Eh			250		46		46		214		-84		214		265	
General Chemistry, mg/l																
Alkalinity to pH 8.3			1	LT	1	LT	1	LT	1	LT	1	LT	1	LT	1	LT
Alkalinity to pH 4.5			20		1	LT	1	LT	11		275		3		1	LT
Acidity to 3.7			1	LT	1	LT	1	LT	1	LT	1	LT	1	LT	1	LT
Acidity to 8.3			13		198		164		15		65		11		24	
TSS			21		92		65		4		123		4	LT	72	
TDS			100		2,450		2,430		60		5,090		160		150	
Total Hardness			56		4		6		46		60		77		44	
Chloride			3		116		106		3		386		4		4	
Sulfate			34		1,530		1,520		32		2,930		86		71	
TOC			0.5		2.0		1.6		0.7		4.3		0.5	LT	0.5	LT
Indicator Metals, ug/l																
		CRDL														
Cadmium	Total	5	2.0	U	5.0	U	5.0	U	2.0	U	5.0	U	2.9	B	30.1	
	Dissolved	5	2.0	U	5.0	U	5.0	U	2.0	U	5.0	U	3.8	B	30.1	
Copper	Total	25	11.2	B	11.9	B	9.6	B	6.8	B	16.5	B	4.8	B	26.6	
	Dissolved	25	6.1	B	3.0	U	3.0	U	3.6	B	3.0	U	6.4	B	13.3	B
Lead	Total	3	15.5	J	5.4	*	16.0	JK	15.6	J	5.0	B*JK	8.4	J	11.0	J
	Dissolved	3	9.6	*	1.0	UL	1.0	UL	1.8	B*	1.0	UL	4.1	*	11.2	*
Zinc	Total	20	18.8	B	957		961		15.0	U	15.0	U	92.2		274	
	Dissolved	20	30.1		932		937		15.0	U	11.3	B*	96.0		277	
Arsenic	Total	10	2.0	U	360	L	480	L	2.0	U	10.0	UL	2.0	U	2.0	U
	Dissolved	10	2.0	U	292		288		2.0	U	10.0	U	2.0	U	2.0	U

AR301675

TABLE 4-11

ROUND 2 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD2-GW-13D	RD2-GW-14S		RD2-200 DUPLICATE OF GW-14S		RD2-GW-14D	RD2-GW-15S		RD2-GW-15D	RD2-GW-16S
Additional TAL Metals, ug/l		CRDL										
Aluminum	Total	200	---	17,100	J	18,200	J	---	881	J	---	---
	Dissolved	200	---	16,700		16,800		---	19.0	U	---	---
Antimony	Total	60	---	27.7	B	30.9	B	---	15.0	U	---	---
	Dissolved	60	---	36.4	B	32.8	B	---	15.0	U	---	---
Barium	Total	200	---	12.2	BJ	13.4	BJ	---	12.5	BJ	---	---
	Dissolved	200	---	11.7	B	10.0	B	---	9.2	B	---	---
Beryllium	Total	5	---	3.0	U	3.0	U	---	3.0	U	---	---
	Dissolved	5	---	3.0	U	3.0	U	---	3.0	U	---	---
Calcium	Total	5,000	---	108,000		110,000		---	15,400		---	---
	Dissolved	5,000	---	109,000		110,000		---	15,300		---	---
Chromium	Total	10	---	9.0	U	9.0	U	---	9.0	U	---	---
	Dissolved	10	---	9.0	U	9.0	U	---	9.0	U	---	---
Cobalt	Total	50	---	106		106		---	5.0	U	---	---
	Dissolved	50	---	105		100		---	5.0	U	---	---
Iron	Total	100	---	6,060		8,270		---	13,000		---	---
	Dissolved	100	---	5,700	J	5,690	J	---	10,100	J	---	---
Magnesium	Total	5,000	---	20,600		21,000		---	3,200	B	---	---
	Dissolved	5,000	---	20,000		20,100		---	3,090	B	---	---
Manganese	Total	15	---	10,600		10,600		---	3,230		---	---
	Dissolved	15	---	10,400		10,500		---	3,200		---	---
Nickel	Total	40	---	129		128		---	8.0	U	---	---
	Dissolved	40	---	128		127		---	8.0	U	---	---
Potassium	Total	5,000	---	16,400		16,500		---	21,800		---	---
	Dissolved	5,000	---	16,900		17,100		---	22,900		---	---
Silver	Total	10	---	10.0	U	10.0	U	---	10.0	UJ	---	---
	Dissolved	10	---	4.7	*B	4.6	*B	---	4.0	U	---	---
Sodium	Total	5,000	---	522,000		530,000		---	NR		---	---
	Dissolved	5,000	---	516,000		505,000		---	NR		---	---
Vanadium	Total	50	---	21.2	BJ	21.7	BJ	---	10.0	UJ	---	---
	Dissolved	50	---	18.7	B	15.8	B	---	5.0	U	---	---

AR301676

TABLE 4-11

ROUND 2 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD2-100 DUPLICATE OF GW-16S		RD2-GW-16D		RD2-GW-17S		RD2-GW-17D		RD2-GW-18S		RD2-GW-18D	
Field Parameters														
pH, s.u.			4.76		7.21		5.70		6.83		4.87		6.23	
Specific Conductance			200		52		21.6		51.9		520		45.0	
Temperature, C			14.4		11.7		11.5		16.1		14.9		11.8	
Eh			265		219		275		206		275		238	
General Chemistry, mg/l														
Alkalinity to pH 8.3			1	LT	1	LT	1	LT	1	LT	1	LT	1	LT
Alkalinity to pH 4.5			1	LT	20		3		22		1	LT	15	
Acidity to 3.7			1	LT	1	LT	1	LT	1	LT	1	LT	1	LT
Acidity to 8.3			34		12		10		6		181		11	
TSS			149		18		127		4		400		29	
TDS			120		40		20		30		320		20	
Total Hardness			42		26		6		18		126		20	
Chloride			4		2		2		1		2		1	
Sulfate			69		7		6		3	LT	207		4	
TOC			0.5	LT	0.8		0.8		0.5	LT	0.7		1.2	
Indicator Metals, ug/l		CRDL												
Cadmium	Total	5	30.4		2.0	U	2.0	U	2.0	U	2.0	U	3.3	B
	Dissolved	5	29.6		2.0	U	2.0	U	2.0	U	2.7	B	3.4	B
Copper	Total	25	45.5		9.3	B	6.0	B	3.0	U	70.0		18.5	B
	Dissolved	25	12.2	B	5.8	B	7.3	B	3.0	U	66.8		3.0	B
Lead	Total	3	20.7	J	50.2	J	5.2	J	2.5	BJ	75.7	J	94.6	J
	Dissolved	3	9.0	*	4.9	*	7.0	*	2.5	B*	43.0		10.2	*
Zinc	Total	20	298		17.6	B	15.5	B	15.0	U	608		79.2	
	Dissolved	20	268		16.0	B	25.5		15.0	U	626		44.7	
Arsenic	Total	10	2.0	U	2.0	U	2.3	B	2.0	U	2.0	U	2.0	U
	Dissolved	10	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U

AR301677

TABLE 4-11

ROUND 2 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD2-100 DUPLICATE OF GW-16S	RD2-GW-16D	RD2-GW-17S	RD2-GW-17D	RD2-GW-18S	RD2-GW-18D
Additional TAL Metals, ug/l		CRDL						
Aluminum	Total	200	---	---	---	---	---	---
	Dissolved	200	---	---	---	---	---	---
Antimony	Total	60	---	---	---	---	---	---
	Dissolved	60	---	---	---	---	---	---
Barium	Total	200	---	---	---	---	---	---
	Dissolved	200	---	---	---	---	---	---
Beryllium	Total	5	---	---	---	---	---	---
	Dissolved	5	---	---	---	---	---	---
Calcium	Total	5,000	---	---	---	---	---	---
	Dissolved	5,000	---	---	---	---	---	---
Chromium	Total	10	---	---	---	---	---	---
	Dissolved	10	---	---	---	---	---	---
Cobalt	Total	50	---	---	---	---	---	---
	Dissolved	50	---	---	---	---	---	---
Iron	Total	100	---	---	---	---	---	---
	Dissolved	100	---	---	---	---	---	---
Magnesium	Total	5,000	---	---	---	---	---	---
	Dissolved	5,000	---	---	---	---	---	---
Manganese	Total	15	---	---	---	---	---	---
	Dissolved	15	---	---	---	---	---	---
Nickel	Total	40	---	---	---	---	---	---
	Dissolved	40	---	---	---	---	---	---
Potassium	Total	5,000	---	---	---	---	---	---
	Dissolved	5,000	---	---	---	---	---	---
Silver	Total	10	---	---	---	---	---	---
	Dissolved	10	---	---	---	---	---	---
Sodium	Total	5,000	---	---	---	---	---	---
	Dissolved	5,000	---	---	---	---	---	---
Vanadium	Total	50	---	---	---	---	---	---
	Dissolved	50	---	---	---	---	---	---

AR301678

TABLE 4-11

ROUND 2 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD2-GW-19S		RD2-GW-19D		RD2-P1 LANDFILL PIEZOMETER		RD2-P2 LANDFILL PIEZOMETER		RD2-LFILL1 IMPOUNDED SURFACE WATER	
Field Parameters												
pH, s.u.			5.89		6.25		9.78		11.09		3.80	
Specific Conductance			30.5		91.3		24,400		16,100		853	
Temperature, C			10.0		12.6		18.6		16.8		28.4	
Eh			250		228		139		-121		300	
General Chemistry, mg/l												
Alkalinity to pH 8.3			1	LT	1	LT	446		63		1	LT
Alkalinity to pH 4.5			2		21		786		533		1	LT
Acidity to 3.7			1	LT	1	LT	1	LT	1	LT	1	LT
Acidity to 8.3			11		14		1	LT	1	LT	24	
TSS			33		290		340		890		4	LT
TDS			10	LT	40		29,200		15,300		760	
Total Hardness			10		24		1,060		1190		374	
Chloride			2		1		4,100		215		9	
Sulfate			6		3	LT	15,400		11,000		454	
TOC			0.5	LT	0.5	LT	6.3		13		1.8	
Indicator Metals, ug/l												
		CRDL										
Cadmium	Total	5	2.0	U	2.0	U	171		613		81.7	
	Dissolved	5	2.0	U	2.0	U	5.0	U	5.0	U	86.7	
Copper	Total	25	3.9	B	16.7	B	3,150		14,700		79.5	
	Dissolved	25	3.0	U	3.0	U	3.3	B	6.4	B	81.4	
Lead	Total	3	1.5	BJ	18.2	J	18,700	JK	186,000	JK	4,000	JK
	Dissolved	3	1.0	U	2.1	B*	28.9		68.8	J	4.9	*
Zinc	Total	20	15.0	U	47.0		2010		7450		759	
	Dissolved	20	16.3	B	15.0	U	6.0	U	11.2	B*	781	
Arsenic	Total	10	2.0	U	2.0	U	22.5	BL	2,280	L	4.0	BL
	Dissolved	10	2.0	U	2.0	U	10.0	U	624		4.2	B

AR301679

TABLE 4-11

ROUND 2 GROUNDWATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD2-GW-19S	RD2-GW-19D	RD2-P1 LANDFILL PIEZOMETER		RD2-P2 LANDFILL PIEZOMETER		RD2-LFILL1 IMPOUNDED SURFACE WATER	
Additional TAL Metals, ug/l		CRDL								
Aluminum	Total	200	---	---	2,440	J	36,600	J	350	J
	Dissolved	200	---	---	47.2	B	25.8	B	356	
Antimony	Total	60	---	---	942		11,900		15.0	U
	Dissolved	60	---	---	393		1,990		15.0	U
Barium	Total	200	---	---	606	J	76.8	BJ	3.7	*BJ
	Dissolved	200	---	---	120	B	78.1	B	3.4	B
Beryllium	Total	5	---	---	3.0	U	3.0	U	3.0	U
	Dissolved	5	---	---	3.0	U	3.0	U	3.0	U
Calcium	Total	5,000	---	---	NR		NR		131,000	
	Dissolved	5,000	---	---	390,000		332,000		134,000	
Chromium	Total	10	---	---	9.0	U	203	J	9.0	U
	Dissolved	10	---	---	9.0	U	9.0	U	9.0	U
Cobalt	Total	50	---	---	7.7	B	59.4		16.8	B
	Dissolved	50	---	---	5.0	U	5.0	U	14.0	B
Iron	Total	100	---	---	41,700		293,000		609	
	Dissolved	100	---	---	30.8	*BJ	179	J	644	J
Magnesium	Total	5,000	---	---	2,350	B	15,600		5,780	
	Dissolved	5,000	---	---	725	B	1,100	B	5,710	
Manganese	Total	15	---	---	333		5,280		1,540	
	Dissolved	15	---	---	2.0	U	2.0	U	1,490	
Nickel	Total	40	---	---	91.3		643		182	
	Dissolved	40	---	---	8.0	U	8.0	U	187	
Potassium	Total	5,000	---	---	357,000		76,300		4,460	B
	Dissolved	5,000	---	---	453,000		80,600		4,590	B
Silver	Total	10	---	---	10.8		22.8		10.0	U
	Dissolved	10	---	---	4.0	U	4.0	U	5.0	*B
Sodium	Total	5,000	---	---	NR		NR		43,300	
	Dissolved	5,000	---	---	NR		NR		43,800	
Vanadium	Total	50	---	---	37.1	BJ	187	J	10.1	BJ
	Dissolved	50	---	---	13.1	B	14.7	B	9[illegible]	[illegible]B

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TABLE 4-12

ROUND 1 SEEP AND LANDFILL LEACHATE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			L1 SEEP	L2 LANDFILL	L3 SEEP	L4 SEEP	L5 LANDFILL	L6 (DUP. OF L3)
Field Parameters								
pH, s.u.			3.04	7.5	3.8	3.96	5.92	3.8
Specific Conductance			429	633	600	393	339	600
Temperature, C			14.1	13.2	12.3	12.9	13.2	12.3
Eh			470	142	376	422	54	376
General Chemistry, mg/l								
Alkalinity to pH 8.3			1 LT	1 LT	1 LT	1 LT	1 LT	1 LT
Alkalinity to pH 4.5			1 LT	23	1 LT	1 LT	1 LT	1 LT
Acidity to pH 3.7			37	1 LT	2	1 LT	1 LT	1 LT
Acidity to pH 8.3			286	3	153	159	162	160
TSS			740	24	21	4 LT	40	78
TDS			3,080	550	430	3,640	1,930	450
Total Hardness			501	281	126	326	870	127
Chloride			160	5	18	130	55	18
Sulfate			1,800	330	270	2,200	1,300	240
TOC			3.5	6.0	2.2	2.0	3.8	2.2
Hexavalent Chromium			---	0.005 LT	---	---	---	---
Indicator Metals, ug/l		CRDL						
Cadmium	Total	5	61.0	61.4	71.3	34.6	79.1	74.2
	Dissolved	5	59.0	37.1	74.7	32.9	72.7	69.9
Copper	Total	25	128	7.6 B	23.8	25.2	151	36.5
	Dissolved	25	93.6	2.5 U	26.0	30.7	2.5 U	24.3
Lead	Total	3	1,380	2,180	71.4	7.5 U	640	87.7
	Dissolved	3	83.5 J	316 J	67.3 J	7.5 U	572 J	70.3 J
Mercury	Total	0.2	0.44	0.11 B	0.1 U	0.19 B	0.17 B	0.22
	Dissolved	0.2	0.12 B*	0.16 B*	0.21 *	2.0 *	0.17 B*	0.11 B*
Zinc	Total	20	761	213	606	441	742	620
	Dissolved	20	687	105	631	431	1,760	564
Arsenic	Total	10	635	39.1	16.1	42 B	49.9	24.3
	Dissolved	10	13.4	15.8	4.7 B*	21.5 B	6.4 B*	5.1 B*
Selenium	Total	5	23.4 L	1.9 UL	1.9 UL	9.5 UL	9.5 UL	3.1 BL
	Dissolved	5	21.4 L	1.9 UL	1.9 UL	9.5 UL	3.1 BL	1.9 UL

TABLE 4-12

ROUND 1 SEEP AND LANDFILL LEACHATE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			L1 SEEP	L2 LANDFILL		L3 SEEP	L4 SEEP	L5 LANDFILL	L6 (DUP. OF L3)
Additional TAL Metals, ug/l									
		CRDL							
Aluminum	Total	200	---	39.5	B	---	---	---	---
	Dissolved	200	---	12.0	U	---	---	---	---
Antimony	Total	60	---	85.6		---	---	---	---
	Dissolved	60	---	52.8		---	---	---	---
Barium	Total	200	---	19.9	B	---	---	---	---
	Dissolved	200	---	18.7	B	---	---	---	---
Beryllium	Total	5	---	4.5	U	---	---	---	---
	Dissolved	5	---	4.5	U	---	---	---	---
Calcium	Total	5,000	---	106,000	J	---	---	---	---
	Dissolved	5,000	---	99,100		---	---	---	---
Chromium	Total	10	---	2.5	U	---	---	---	---
	Dissolved	10	---	2.5	U	---	---	---	---
Cobalt	Total	50	---	19.2	U	---	---	---	---
	Dissolved	50	---	19.2	U	---	---	---	---

TABLE 4-12

ROUND 1 SEEP AND LANDFILL LEACHATE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			L1 SEEP	L2 LANDFILL	L3 SEEP	L4 SEEP	L5 LANDFILL	L6 (DUP. OF L3)
Additional TAL Metals, ug/l (continued)								
		CRDL						
Iron	Total	100	---	2,120 J	---	---	---	---
	Dissolved	100	---	274 J	---	---	---	---
Magnesium	Total	5,000	---	2,150 BJ	---	---	---	---
	Dissolved	5,000	---	2,010 B	---	---	---	---
Manganese	Total	15	---	219 J	---	---	---	---
	Dissolved	15	---	199	---	---	---	---
Nickel	Total	40	---	45.6	---	---	---	---
	Dissolved	40	---	36.7	---	---	---	---
Potassium	Total	5,000	---	12,000	---	---	---	---
	Dissolved	5,000	---	11,000	---	---	---	---
Silver	Total	10	---	4.4 B	---	---	---	---
	Dissolved	10	---	4.0 U	---	---	---	---
Sodium	Total	5,000	---	20,800	---	---	---	---
	Dissolved	5,000	---	19,200	---	---	---	---
Thallium	Total	10	---	2.0 U	---	---	---	---
	Dissolved	10	---	2.0 U	---	---	---	---
Vanadium	Total	50	---	6.0 U	---	---	---	---
	Dissolved	50	---	6.8 B	---	---	---	---
Cyanide, Total		10	---	5.0 U	---	---	---	---
TCL Volatiles, ug/l								
		CRQL						
Acetone		10	---	7 J	---	---	---	---
Chloroform		5	---	5 U	---	---	---	---
Ethylbenzene		5	---	5 U	---	---	---	---
Methylene Chloride		5	---	5 U	---	---	---	---
Tetrachloroethene		5	---	5 U	---	---	---	---
Toluene		5	---	5 U	---	---	---	---
2-Butanone		10	---	10 U	---	---	---	---
1,1,1 - Trichoroethane		5	---	5 U	---	---	---	---
1,1 - Dichloroethene		5	---	5 U	---	---	---	---
Xylenes, Total		5	---	5 U	---	---	---	---

TABLE 4-12

ROUND 1 SEEP AND LANDFILL LEACHATE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		L1 SEEP	L2 LANDFILL	L3 SEEP	L4 SEEP	L5 LANDFILL	L6 (DUP. OF L3)
PAH's, ug/l							
	CRQL						
Naphthalene	10	10 LT	10 U	10 LT	20 LT	50 LT	20 LT
Acenaphthylene	10	20 LT	10 U	20 LT	40 LT	100 LT	40 LT
Acenaphthene	10	20 LT	10 U	20 LT	40 LT	100 LT	40 LT
Fluorene	10	2 LT	10 U	2 LT	4 LT	10 LT	4 LT
Phenanthrene	10	2 LT	10 U	2 LT	4 LT	10 LT	4 LT
Anthracene	10	1 LT	10 U	1 LT	2 LT	5 LT	2 LT
Fluoranthene	10	0.5 LT	10 U	0.5 LT	1 LT	2.5 LT	1 LT
Pyrene	10	2 LT	10 U	2 LT	4 LT	10 LT	4 LT
Benzo(a) anthracene	10	0.1 LT	10 U	0.1 LT	0.2 LT	0.5 LT	0.2 LT
Chrysene	10	1 LT	10 U	1 LT	2 LT	5 LT	2 LT
Benzo(b) fluoranthene	10	0.2 LT	10 U	0.2 LT	0.4 LT	1 LT	0.4 LT
Benzo(k) fluoranthene	10	0.1 LT	10 U	0.1 LT	0.2 LT	0.5 LT	0.2 LT
Benzo(a) pyrene	10	0.2 LT	10 U	0.2 LT	0.4 LT	1 LT	0.4 LT
Dibenzo(a,h) anthracene	10	0.2 LT	10 U	0.2 LT	0.4 LT	1 LT	0.4 LT
Benzo(g,h,i) perylene	10	0.5 LT	10 U	0.5 LT	1 LT	2.5 LT	1 LT
Indeno (1,2,3-cd) pyrene	10	0.5 LT	10 U	0.5 LT	1 LT	2.5 LT	1 LT

TABLE 4-12

ROUND 1 SEEP AND LANDFILL LEACHATE ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		L1 SEEP	L2 LANDFILL	L3 SEEP	L4 SEEP	L5 LANDFILL	L6 (DUP. OF L3)
Additional TCL Semi-Volatiles, ug/l							
	CRQL						
Phenol	10	---	10 U	---	---	---	---
bis (2-Chloroisopropyl) ether	10	---	10 U	---	---	---	---
2-Methylphenol	10	---	10 U	---	---	---	---
4-Methylphenol	10	---	10 U	---	---	---	---
2,4 - Dimethylphenol	10	---	10 U	---	---	---	---
2-Methylnaphthalene	10	---	10 U	---	---	---	---
Dibenzofuran	10	---	10 U	---	---	---	---
Benzoic acid	50	---	50 U	---	---	---	---
Nitrobenzene	10	---	10 U	---	---	---	---
N-Nitrosodiphenylamine (1)	10	---	10 U	---	---	---	---
Di-n-butylphthalate	10	---	10 U	---	---	---	---
Butylbenzylphthalate	10	---	10 U	---	---	---	---
bis (2-Ethylhexyl) phthalate	10	---	6 J	---	---	---	---
Di-n-octylphthalate	10	---	10 U	---	---	---	---
Diethylphalate	10	---	10 U	---	---	---	---
4-Nitrophenol	50	---	50 U	---	---	---	---
TCL Pesticides/PCB's, ug/l							
	CRQL						
Dieldrin	0.10	---	0.1 U	---	---	---	---
alpha-Chlordane	0.50	---	0.08 J	---	---	---	---

TABLE 4-13

ROUND 1 SURFACE WATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD1-SW-NC-1	RD1-SW-NC-2	RD1-SW-NC-3	RD1-SW-NC-4	RD1-SW-NC-5	RD1-SW-NC-6	RD1-SW-NC-7	RD1-SW-NC-8	RD1-SW-NC-9	RD1-SW-NC-10	RD1-SW-NC-11 (Dup. of NC-4)
Field Parameters													
pH, s.u.			6.18	6.03	6.20	6.32	5.55	5.42	5.20	6.22	4.79	4.82	6.32
Specific Conductance			44	50	49	47	50	103	106	19	107	108	47
Temperature, C			22.5	22.3	21.2	20.5	19.8	20	20.5	18.2	20.9	21.1	20.5
Eh			210	223	221	176	220	193	242	220	265	252	176
General Chemistry, mg/l													
Alkalinity to pH 8.3			1 LT	1 LT	1 LT	1 LT	1 LT	1 LT	1 LT	1 LT	1 LT	1 LT	1 LT
Alkalinity to pH 4.5			6	6	5	5	5	4	2	4	1 LT	1 LT	5
TSS			5	5	8	10 LT	6	5	20	5	9	9	30
TDS			10	30	20	30	10 LT	30	60	10 LT	70	70	20
Total Hardness			16	14	14	14	16	16	22	10	24	26	17
Chloride			5	5	4	4	4	5	6	1	6	6	4
Sulfate			6	6	6	7	10	15	32	2 LT	37	37	8
TOC			3.0	2.3	2.0	1.9	2.0	1.8	1.9	1.2	2.6	1.5	2.0
Hexavalent Chromium			---	0.005 LT	---	---	0.005 LT	---	---	---	---	---	---
Indicator Metals, ug/l		CRDL											
Cadmium	Total	5	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
	Dissolved	5	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	2.3 B	1.8 U
Copper	Total	25	2.5 U	2.5 U	3.6 B	2.5 U	2.5 U	2.5 U	3.8 B	4.6 B	3.5 B	4.5 B	3.5 B
	Dissolved	25	6.6 B	4.4 B	2.5 U	2.5 U	2.6 B	3.2 B	2.5 B	2.5 U	3.1 B	2.7 B	2.5 U
Lead	Total	3	1.5 U	1.5 U	5.8	1.8 B	2.8 B	4.2	6.4	5.9	6.1	5.6	2.3 B
	Dissolved	3	1.5 U	1.8 BJ	1.5 U	1.7 BJ	2.7 BJ	1.6 BJ	2.2 BJ	4.4 J	3.2 J	4.1 J	1.5 U
Mercury	Total	0.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
	Dissolved	0.2	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Zinc	Total	20	14.5 *	6.9 B*	14.9 *	26.7 *	18.1 *	15.3 *	28.2 *	10.9 *	35.4 *	32.5 *	12.2 *
	Dissolved	20	23.7 *	24 *	14.7 *	22.5 *	14.3 *	19.4 *	27.3 *	26.9 *	34.8 *	35.7 *	20.4 *
Arsenic	Total	10	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 B	1.9 B	1.8 U
	Dissolved	10	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	2.6 B	1.8 U	1.9 B	2.5 B
Selenium	Total	5	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
	Dissolved	5	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U

AR 301606

TABLE 4-13

ROUND 1 SURFACE WATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD1-SW-NC-1	RD1-SW-NC-2	RD1-SW-NC-3	RD1-SW-NC-4	RD1-SW-NC-5	RD1-SW-NC-6	RD1-SW-NC-7	RD1-SW-NC-8	RD1-SW-NC-9	RD1-SW-NC-10	RD1-SW-NC-11 (Dup. of NC-4)
Additional TAL Metals, ug/l													
Aluminum	Total	200	---	21.2 B	---	---	96.3 B	---	---	---	---	---	---
	Dissolved	200	---	40.4 B	---	---	54.9 B	---	---	---	---	---	---
Antimony	Total	60	---	8.6 U	---	---	8.6 U	---	---	---	---	---	---
	Dissolved	60	---	8.6 U	---	---	8.6 U	---	---	---	---	---	---
Barium	Total	200	---	14.0 B	---	---	14 B	---	---	---	---	---	---
	Dissolved	200	---	13.2 B	---	---	13.4 B	---	---	---	---	---	---
Beryllium	Total	5	---	4.5 U	---	---	4.5 U	---	---	---	---	---	---
	Dissolved	5	---	4.5 U	---	---	4.5 U	---	---	---	---	---	---
Calcium	Total	5,000	---	3,800	---	---	3,930	---	---	---	---	---	---
	Dissolved	5,000	---	3,850	---	---	4,050	---	---	---	---	---	---
Chromium	Total	10	---	2.5 U	---	---	2.5 U	---	---	---	---	---	---
	Dissolved	10	---	2.5 U	---	---	2.5 U	---	---	---	---	---	---
Cobalt	Total	50	---	2.5 U	---	---	2.5 U	---	---	---	---	---	---
	Dissolved	50	---	2.5 U	---	---	2.5 U	---	---	---	---	---	---
Iron	Total	100	---	208 J	---	---	273 J	---	---	---	---	---	---
	Dissolved	100	---	116	---	---	145	---	---	---	---	---	---
Magnesium	Total	5,000	---	938 B	---	---	1,040 B	---	---	---	---	---	---
	Dissolved	5,000	---	962 BJ	---	---	1,090 BJ	---	---	---	---	---	---
Manganese	Total	15	---	32.0	---	---	98.4	---	---	---	---	---	---
	Dissolved	15	---	20.9	---	---	90.7	---	---	---	---	---	---
Nickel	Total	40	---	4.9 U	---	---	4.9 U	---	---	---	---	---	---
	Dissolved	40	---	4.9 U	---	---	5.2 B	---	---	---	---	---	---
Potassium	Total	5,000	---	541 B	---	---	540 B	---	---	---	---	---	---
	Dissolved	5,000	---	517 B	---	---	534 B	---	---	---	---	---	---
Silver	Total	10	---	4.0 U	---	---	4.0 U	---	---	---	---	---	---
	Dissolved	10	---	4.0 U	---	---	4.0 U	---	---	---	---	---	---
Sodium	Total	5,000	---	2,560 J	---	---	2,910 J	---	---	---	---	---	---
	Dissolved	5,000	---	2,650 J	---	---	3,030 J	---	---	---	---	---	---
Thallium	Total	10	---	2.0 U	---	---	2.0 U	---	---	---	---	---	---
	Dissolved	10	---	2.0 U	---	---	2.0 U	---	---	---	---	---	---
Vanadium	Total	50	---	6.0 U	---	---	6.0 U	---	---	---	---	---	---
	Dissolved	50	---	6.0 U	---	---	6.0 U	---	---	---	---	---	---
Cyanide, Total		10	---	5.0 U	---	---	5 U	---	---	---	---	---	---

AR301607

TABLE 4-13

ROUND 1 SURFACE WATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		RD1-SW-NC-1	RD1-SW-NC-2	RD1-SW-NC-3	RD1-SW-NC-4	RD1-SW-NC-5	RD1-SW-NC-6	RD1-SW-NC-7	RD1-SW-NC-8	RD1-SW-NC-9	RD1-SW-NC-10	RD1-SW-NC-11 (Dup. of NC-4)
TCL Volatiles, ug/l	CRQL											
Acetone	10	---	14 *	---	---	11 *	---	---	---	---	---	---
Chloroform	5	---	5 U	---	---	5 U	---	---	---	---	---	---
Ethylbenzene	5	---	5 U	---	---	5 U	---	---	---	---	---	---
Methylene Chloride	5	---	5 U	---	---	5 U	---	---	---	---	---	---
Tetrachloroethene	5	---	5 U	---	---	5 U	---	---	---	---	---	---
Toluene	5	---	5 U	---	---	5 U	---	---	---	---	---	---
2-Butanone	10	---	10 U	---	---	10 U	---	---	---	---	---	---
1,1,1 - Trichoroethane	5	---	5 U	---	---	5 U	---	---	---	---	---	---
1,1 - Dichloroethene	5	---	5 U	---	---	5 U	---	---	---	---	---	---
Xylenes, Total	5	---	5 U	---	---	5 U	---	---	---	---	---	---
PAH's, ug/l	CRQL											
Naphthalene	10	10 LT	10 U	10 LT	20 LT	10 U	10 LT	10 LT	10 LT	10 LT	10 LT	10 LT
Acenaphthylene	10	20 LT	10 U	20 LT	40 LT	10 U	20 LT	20 LT	20 LT	20 LT	20 LT	20 LT
Acenaphthene	10	20 LT	10 U	20 LT	40 LT	10 U	20 LT	20 LT	20 LT	20 LT	20 LT	20 LT
Fluorene	10	2 LT	10 U	2 LT	4 LT	10 U	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Phenanthrene	10	2 LT	10 U	2 LT	4 LT	10 U	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Anthracene	10	1 LT	10 U	1 LT	2 LT	10 U	1 LT	1 LT	1 LT	1 LT	1 LT	1 LT
Fluoranthene	10	0.5 LT	10 U	0.5 LT	1.0 LT	10 U	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT
Pyrene	10	2 LT	10 U	2 LT	4 LT	10 U	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Benzo(a) anthracene	10	0.1 LT	10 U	0.1 LT	0.2 LT	10 U	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT
Chrysene	10	1 LT	10 U	1 LT	2 LT	10 U	1 LT	1 LT	1 LT	1 LT	1 LT	1 LT
Benzo(b) fluoranthene	10	0.2 LT	10 U	0.2 LT	0.4 LT	10 U	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT
Benzo(k) fluoranthene	10	0.1 LT	10 U	0.1 LT	0.2 LT	10 U	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT	0.1 LT
Benzo(a) pyrene	10	0.2 LT	10 U	0.2 LT	0.4 LT	10 U	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT
Dibenzo(a,h) anthracene	10	0.2 LT	10 U	0.2 LT	0.4 LT	10 U	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT
Benzo(g,h,i) perylene	10	0.5 LT	10 U	0.5 LT	1.0 LT	10 U	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT
Indeno (1,2,3-cd) pyrene	10	0.5 LT	10 U	0.5 LT	1.0 LT	10 U	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT

0 0 1 0 1 6 8

TABLE 4-13

ROUND 1 SURFACE WATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		RD1-SW-NC-1	RD1-SW-NC-2	RD1-SW-NC-3	RD1-SW-NC-4	RD1-SW-NC-5	RD1-SW-NC-6	RD1-SW-NC-7	RD1-SW-NC-8	RD1-SW-NC-9	RD1-SW-NC-10	RD1-SW-NC-11 (Dup. of NC-4)
Additional TCL Semi-Volatiles, ug/l												
	CRQL											
Phenol	10	---	10 U	---	---	10 U	---	---	---	---	---	---
bis (2-Chloroisopropyl) ether	10	---	10 U	---	---	10 U	---	---				
2-Methylphenol	10	---	10 U	---	---	10 U	---	---	---	---	---	---
4-Methylphenol	10	---	10 U	---	---	10 U	---	---	---	---	---	---
2,4 - Dimethylphenol	10	---	10 U	---	---	10 U	---	---	---	---	---	---
2-Methylnaphthalene	10	---	10 U	---	---	10 U	---	---	---	---	---	---
Dibenzofuran	10	---	10 U	---	---	10 U	---	---	---	---	---	---
Benzoic acid	50	---	50 U	---	---	50 U	---	---	---	---	---	---
Nitrobenzene	10	---	10 U	---	---	10 U	---	---	---	---	---	---
N-Nitrosodiphenylamine (1)	10	---	10 U	---	---	10 U	---	---	---	---	---	---
Di-n-butylphthalate	10	---	10 U	---	---	10 U	---	---	---	---	---	---
Butylbenzylphthalate	10	---	10 U	---	---	10 U	---	---	---	---	---	---
bis (2-Ethylhexyl) phthalate	10	---	10 U	---	---	10 U	---	---	---	---	---	---
Di-n-octylphthalate	10	---	10 U	---	---	10 U	---	---	---	---	---	---
Diethylphalate	10	---	10 U	---	---	10 U	---	---	---	---	---	---
4-Nitrophenol	50	---	50 U	---	---	50 U	---	---	---	---	---	---
TCL Pesticides/PCBs, ug/l												
	CRQL											
Dieldrin	0.10	---	0.1 U	---	---	0.1 U	---	---	---	---	---	---
alpha-Chlordane	0.50	---	0.5 U	---	---	0.5 U	---	---	---	---	---	---

AR301689

TABLE 4-14

ROUND 2 SURFACE WATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD2-SW-NC-1		RD2-SW-NC-2		RD2-SW-NC-3		RD2-SW-NC-4		RD2-SW-NC-5		RD2-SW-NC-6		RD2-SW-NC-7	
Field Parameters																
pH, s.u.			6.45		6.42		6.06		6.25		6.15		6.41		4.15	
Specific Conductance			48		46		53		54		59		115		113	
Temperature, C			19.8		19.3		17.6		22.8		22.8		22.3		20.8	
Eh			206		238		253		196		176		166		56	
General Chemistry, mg/l																
Alkalinity to pH 8.3			1	LT	1	LT	1	LT	1	LT	1	LT	1	LT	1	LT
Alkalinity to pH 4.5			5		5		5		6		5		5		3	
Acidity to pH 8.3			1	LT	1	LT	1	LT	1	LT	1	LT	1	LT	1	LT
Acidity to pH 4.5			5		4		3		3		4		6		3	
TSS			4	LT	4	LT	4	LT	5		4	LT	5		8	
TDS			40		20		50		20		30		60		70	
Total Hardness			18		16		16		20		18		22		26	
Chloride			4		4		4		4		4		4		5	
Sulfate			8		8		9		11		12		23		34	
TOC			2.4		2.4		2.2		2		2.1		1.9		1.8	
Indicator Metals, ug/l		CRDL														
Cadmium	Total	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Dissolved	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Copper	Total	25	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
	Dissolved	25	3.0	U	3.0	U	3.0	U	7.0	B	3.0	U	3.0	U	3.0	U
Lead	Total	3	1.4	B*	7.9	*	1.9	B*	5.3	*	4.1	*	8.1	*	11.1	
	Dissolved	3	4.7	*	8.5	*	19.1	*	7.7	*	3.4	*	4.7	*	9.9	*
Zinc	Total	20	28.1	*J	28.1	*J	26.9	*J	16.5	B*J	28.7	*J	73.8	*J	39.7	*J
	Dissolved	20	14.3	B*J	15.4	B*J	16.6	B*J	16.0	B*J	12.0	B*J	15.4	B*J	35.5	*J
Arsenic	Total	10	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	3.9	B	3.5	B
	Dissolved	10	2.1	B	2.3	B	2.0	U	2.0	U	2.6	B	4.5	B	[illegible].3	B

AR301690

TABLE 4-14

ROUND 2 SURFACE WATER ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

			RD2-SW-NC-8		RD2-SW-NC-9		RD2-SW-NC-10		RD2-SW-NC-11 (Dup. of NC-4)		RD2-SW-NC-12		RD2-SW-NC-13	
Field Parameters														
pH, s.u.			6.40		5.33		5.11		6.25		6.56		6.48	
Specific Conductance			19		123		116		54		228		30	
Temperature, C			12.9		18.9		19.4		22.8		18.8		13.4	
Eh			219		212		230		196		196		252	
General Chemistry, mg/l														
Alkalinity to pH 8.3			1	LT	1	LT	1	LT	1	LT	1	LT	1	LT
Alkalinity to pH 4.5			3		1		1		6		42		3	
Acidity to pH 8.3			1	LT	1	LT	1	LT	1	LT	1	LT	1	LT
Acidity to pH 4.5			3		4		3		3		3		2	
TSS			4	LT	20		20		4		31		4	LT
TDS			10	LT	80		80		40		180		10	LT
Total Hardness			8		30		30		20		111		8	
Chloride			1		5		5		4		3		2	
Sulfate			4		40		43		13		75		4	
TOC			0.7		1.5		1.9		2.2		1.2		0.6	
Indicator Metals, ug/l														
		CRDL												
Cadmium	Total	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
	Dissolved	5	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Copper	Total	25	3.0	U	3.0	U	3.0	U	3.0	U	9.2	B	3.0	U
	Dissolved	25	3.0	U	3.0	U	5.0	B	4.2	B	3.1	B	3.0	U
Lead	Total	3	3.8	*	9.9	*	11.1		4.3	*	31.1		3.1	*
	Dissolved	3	8.3	*	2.7	B*	1.8	B*	30.0	*	4.4	*	3.0	*
Zinc	Total	20	26.9	*J	56.7	*J	47.0	*J	18.9	B*J	124	*J	26.3	*J
	Dissolved	20	34.4	*J	35.5	*J	43.4	*J	14.8	B*J	97.3	J	15.5	B*J
Arsenic	Total	10	2.0	U	3.6	B	3.0	B	2.0	U	2.6	B	2.0	U
	Dissolved	10	2.1	B	3.5	B	3.1	B	2.5	B	2.3	B	2.5	B

R301691

TABLE 4-15

ROUND 1 STREAM SEDIMENT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

	CRDL	RD1-SD-NC-1	RD1-SD-NC-2	RD1-SD-NC-3	RD1-SD-NC-4	RD1-SD-NC-5	RD1-SD-NC-6	RD1-SD-NC-7	RD1-SD-NC-8	RD1-SD-NC-9	RD1-SD-NC-10	RD1-SD-NC-11 (Dup. of SD-NC-4)
General Chemistry												
pH, s.u.		---	5.84	---	---	5.63	---	---	---	---	---	---
TOC, mg/kg		3,000	---	5,000	300	---	6,800	1,900	150	1,900	1,800	14,000
Moisture Content, % (as rec'd)		21.7	17.4	23.1	20.9	26.5	38.3	33.3	19.2	34.3	28.1	18.3
Hexavalent Chromium, mg/kg		---	0.2 LT	---	---	1 LT	---	---	---	---	---	---
Indicator Metals, mg/kg												
Cadmium	1	0.30 U	0.28 U	0.47	0.29 U	2.3	0.38 U	0.35 U	1.3	0.36 U	0.32 U	0.52
Copper	5	14.7 L	14.4 L	16.1 L	16.5 L	36.0 L	22.5 L	25.5 L	7.6 L	29.5 L	26.3 L	22.0 L
Lead	0.6	32.3 J	29.5 J	349 J	182 J	3,090 J	528 J	79.7 J	224 J	70.9 J	70.2 J	606 J
Mercury	0.2	0.02 U	0.02 U	0.02 U	0.06	0.08	0.13	0.16	0.02 U	0.16	0.22	0.05
Zinc	4	56.7 J	68.4 J	55.7 J	72.2 J	77.1 J	17.0 J	12.7 J	64.8 J	16.3 J	15.2 J	62.4 J
Arsenic	2	2.6	3.8 B	16.0	16.3	31.6	11.5	9.0 B	33.1	6.8	6.5	2.0
Selenium	1	0.16 U	0.15 U	0.17 BK	24.8 J	3.4 J	4.2 J	4.0 J	0.55 BK	4.4 J	4.5 J	1.9 J
Additional TAL Metals, mg/kg												
Aluminum	40	---	6,150	---	---	2,790	---	---	---	---	---	---
Antimony	12	---	1.3 U	---	---	22.5 J	---	---	---	---	---	---
Barium	40	---	40.1 J	---	---	35.7 J	---	---	---	---	---	---
Beryllium	1	---	0.86 J	---	---	0.77 U	---	---	---	---	---	---
Calcium	1,000	---	229 BJ	---	---	3,020 J	---	---	---	---	---	---
Chromium	2	---	10.0	---	---	7.3	---	---	---	---	---	---
Cobalt	10	---	18.3	---	---	3.6 B	---	---	---	---	---	---
Iron	20	---	22,800	---	---	8,120	---	---	---	---	---	---
Magnesium	1,000	---	1,590 J	---	---	335 BJ	---	---	---	---	---	---
Manganese	3	---	1,110 J	---	---	125 J	---	---	---	---	---	---
Nickel	8	---	18.5	---	---	10.6	---	---	---	---	---	---
Potassium	1,000	---	336 BL	---	---	459 L	---	---	---	---	---	---
Silver	2	---	13.3 U	---	---	14.8 U	---	---	---	---	---	---
Sodium	1,000	---	23.8 B	---	---	88.1 B	---	---	---	---	---	---
Thallium	2	---	0.16 UL	---	---	0.17 UL	---	---	---	---	---	---
Vanadium	10	---	6.9	---	---	8.4	---	---	---	---	---	---
Cyanide, Total	2	---	0.15 U	---	---	0.17 U	---	---	---	---	---	---

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TABLE 4-15

ROUND 1 STREAM SEDIMENT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

	CRQL	RD1-SD-NC-1	RD1-SD-NC-2	RD1-SD-NC-3	RD1-SD-NC-4	RD1-SD-NC-5	RD1-SD-NC-6	RD1-SD-NC-7	RD1-SD-NC-8	RD1-SD-NC-9	RD1-SD-NC-10	RD1-SD-NC-11 (Dup. of SD-NC-4)
TCL Volatiles, mg/kg												
Acetone	10	---	0.013 *	---	---	0.057 *	---	---	---	---	---	---
Chloroform	5	---	0.006 U	---	---	0.007 U	---	---	---	---	---	---
Ethylbenzene	5	---	0.006 U	---	---	0.007 U	---	---	---	---	---	---
Methylene Chloride	5	---	0.001 J	---	---	0.003 J	---	---	---	---	---	---
Tetrachloroethene	5	---	0.006 U	---	---	0.007 U	---	---	---	---	---	---
Toluene	5	---	0.006 U	---	---	0.007 U	---	---	---	---	---	---
2-Butanone	10	---	0.012 U	---	---	0.014 U	---	---	---	---	---	---
1,1,1-Trichloroethane	5	---	0.006 U	---	---	0.007 U	---	---	---	---	---	---
1,1-Dichloroethene	5	---	0.006 U	---	---	0.007 U	---	---	---	---	---	---
Xylenes, Total	5	---	0.006 U	---	---	0.007 U	---	---	---	---	---	---
PAH's, mg/kg												
	CRQL											
Naphthalene	0.330	2 LT	0.400 U	2 LT	2 LT	7.100	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Acenaphthylene	0.330	2 LT	0.400 U	2 LT	2 LT	0.100 J	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Acenaphthene	0.330	2 LT	0.400 U	2 LT	2 LT	11.000	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Fluorene	0.330	2 LT	0.400 U	2 LT	2 LT	7.200	2 LT	2 LT	2 LT	2 LT	2 LT	2 LT
Phenanthrene	0.330	0.5 LT	0.400 U	0.6 LT	0.5 LT	26.000	0.9 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT
Anthracene	0.330	0.5 LT	0.400 U	0.5 LT	0.5 LT	6.700	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT
Fluoranthene	0.330	0.2 LT	0.400 U	0.2 LT	0.2 LT	13.000	0.8	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT
Pyrene	0.330	0.2 LT	0.400 U	0.2 LT	0.2 LT	15.000 J	0.6	0.2 LT	0.2 LT	0.2 LT	0.2 LT	0.2 LT
Benzo(a) anthracene	0.330	0.03 LT	0.400 U	0.01 LT	0.01 LT	5.200 J	0.32	0.01 LT	0.01 LT	0.01 LT	0.01 LT	0.02 LT
Chrysene	0.330	0.5 LT	0.400 U	0.5 LT	0.5 LT	6.500 J	2.0 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT	0.5 LT
Benzo(b) fluoranthene	0.330	0.02 LT	0.400 U	0.02 LT	0.02 LT	4.800 J	0.29	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT
Benzo(k) fluoranthene	0.330	0.02 LT	0.400 U	0.02 LT	0.02 LT	0.450 UJ	0.17	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT
Benzo(a) pyrene	0.330	0.03 LT	0.400 U	0.02 LT	0.02 LT	2.800 J	0.27	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT
Dibenzo(a,h) anthracene	0.330	0.03 LT	0.400 U	0.02 LT	0.02 LT	0.450 UJ	0.1 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT	0.02 LT
Benzo(g,h,i) perylene	0.330	0.05 LT	0.400 U	0.05 LT	0.05 LT	1.300 J	0.2	0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05 LT
Indeno (1,2,3-cd) pyrene	0.330	0.05 LT	0.400 U	0.05 LT	0.05 LT	1.300	0.2 LT	0.05 LT	0.05 LT	0.05 LT	0.05 LT	0.05 LT

AR301693

TABLE 4-15

ROUND 1 STREAM SEDIMENT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		RD1-SD-NC-1	RD1-SD-NC-2		RD1-SD-NC-3	RD1-SD-NC-4	RD1-SD-NC-5		RD1-SD-NC-6	RD1-SD-NC-7	RD1-SD-NC-8	RD1-SD-NC-9	RD1-SD-NC-10	RD1-SD-NC-11 (Dup. of SD-NC-4)
Additional TCL Semi-Volatiles, mg/kg	CRQL													
Phenol	0.330	---	0.400	U	---	---	3.900		---	---	---	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---	0.400	U	---	---	0.130	J	---	---	---	---	---	
2-Methylphenol	0.330	---	0.400	U	---	---	12.000		---	---	---	---	---	
4-Methylphenol	0.330	---	0.400	U	---	---	9.500		---	---	---	---	---	
2,4 - Dimethylphenol	0.330	---	0.400	U	---	---	2.700		---	---	---	---	---	---
2-Methylnaphthalene	0.330	---	0.400	U	---	---	4.900		---	---	---	---	---	---
Dibenzofuran	0.330	---	0.400	U	---	---	6.100		---	---	---	---	---	---
Benzoic acid	1.600	---	0.061	*	---	---	2.100	JB	---	---	---	---	---	---
Nitrobenzene	0.360	---	0.400	U	---	---	0.120	J	---	---	---	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---	0.400	U	---	---	1.300		---	---	---	---	---	---
Di-n-butylphthalate	0.330	---	0.059	J	---	---	15.000		---	---	---	---	---	---
Butylbenzylphthalate	0.330	---	0.400	UJ	---	---	8.900	J	---	---	---	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---	0.260	J	---	---	150.000	J	---	---	---	---	---	---
Di-n-octylphthalate	0.330	---	0.063	J	---	---	31.000	J	---	---	---	---	---	---
Diethylphthalate	0.330	---	0.400	U	---	---	0.110	J	---	---	---	---	---	---
4-Nitrophenol	1.600	---	2.000	U	---	---	0.120	J	---	---	---	---	---	---
TCL Pesticides/PCBs, ug/kg	CRQL													
Dieldrin	16	---	19	U	---	---	22	U	---	---	---	---	---	---
alpha-Chlordane	80	---	96	U	---	---	110	U	---	---	---	---	---	---
TCLP Extraction, mg/l														
Mercury		---	---		---	---	---		---	---	---	---	---	---
Arsenic		---	---		---	---	---		---	---	---	---	---	---
Selenium		---	---		---	---	---		---	---	---	---	---	---
Barium		---	---		---	---	---		---	---	---	---	---	---
Cadmium		---	---		---	---	---		---	---	---	---	---	---
Chromium		---	---		---	---	---		---	---	---	---	---	---
Lead		---	---		---	---	---		---	---	---	---	---	---
Silver		---	---		---	---	---		---	---	---	---	---	---

D-1-3-0-1-6-9-4

TABLE 4-16

ROUND 2 STREAM SEDIMENT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		RD2-SD-NC-1	RD2-SD-NC-2	RD2-SD-NC-3	RD2-SD-NC-4	RD2-SD-NC-5	RD2-SD-NC-6
General Chemistry							
pH, s.u.		6.43	6.09	6.68	4.96	4.65	5.53
TOC, mg/kg		870	1,100	3,600	1,600	4,700	5,900
Moisture Content, % (as received)		17.3	18.7	16.6	20.8	20.1	23.6
Indicator Metals, mg/kg	CRDL						
Cadmium	1	1.20 U	1.1 U	1.1 U	3.4	1.2 U	1.3 U
Copper	5	10.2	9.8	28.8	27.9	21.1	11.4
Lead	0.6	24.1	21.4	146	616	472	131
Zinc	4	42.7	45.3	33.2	52.2	65.9	34.1
Arsenic	2	5.8 L	4.9 L	9.2 L	23.1 L	48.9 L	181 L
TCLP Extraction, mg/l							
Mercury		---	---	---	---	---	---
Arsenic		---	---	---	---	---	---
Selenium		---	---	---	---	---	---
Barium		---	---	---	---	---	---
Cadmium		---	---	---	---	---	---
Chromium		---	---	---	---	---	---
Lead		---	---	---	---	---	---
Silver		---	---	---	---	---	---

AR301695

TABLE 4-16

ROUND 2 STREAM SEDIMENT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		RD2-SD-NC-7	RD2-SD-NC-8	RD2-SD-NC-9	RD2-SD-NC-10	RD2-SD-NC-11 (Dup. of SD-NC-4)	RD2-SD-NC-12	RD2-SD-NC-13
General Chemistry								
pH, s.u.		4.01	6.68	4.45	4.50	5.06	7.48	5.80
TOC, mg/kg		1,000	2,900	8,100	5,300	2,000	1,900	1,700
Moisture Content, % (as received)		27.3	18.8	41.0	47.4	16.3	26.0	19.4
Indicator Metals, mg/kg	CRDL							
Cadmium	1	1.3 U	1.2 U	1.7 U	1.8 U	1.4	1.3	1.2 U
Copper	5	26.6	9.6	42.5	47.5	17.4	30.3	5.8 B
Lead	0.6	24.0	250	54.5	60.9	406	326	31.1
Zinc	4	11.3	73.2	75.2	31.6	53.0	485	54.1
Arsenic	2	7.5 L	4.3 L	14.7 L	15.2 L	29.3 L	7.8 L	2.7 L
TCLP Extraction, mg/l								
Mercury		---	---	---	---	---	---	---
Arsenic		---	---	---	---	---	---	---
Selenium		---	---	---	---	---	---	---
Barium		---	---	---	---	---	---	---
Cadmium		---	---	---	---	---	---	---
Chromium		---	---	---	---	---	---	---
Lead		---	---	---	---	---	---	---
Silver		---	---	---	---	---	---	---

AR301696

TABLE 4-17

ROUND 1 SUMP SEDIMENT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		SD-SUMP1	SD-SUMP2A	SD-SUMP2B	SD-SUMP3
General Chemistry					
pH, s.u.		8.14	6.43	6.38	6.46
TOC, mg/kg		7,000	35,000	29,000	29,000
Moisture Content, % (as rec'd)		40.1	48.3	43.9	66.0
Hexavalent Chromium, mg/kg		---	---	---	---
Indicator Metals, mg/kg					
	CRDL				
Cadmium	1	53.4	247	218	83.7
Copper	5	198	2,980	2,340	1,160
Lead	0.6	19,000	311,000	243,000	92,000
Mercury	0.2	0.37	1.80	1.5	0.82
Zinc	4	643 J	1,260 J	974 J	796 J
Arsenic	2	101	824	694	536
Selenium	1	2.1 BK	2.1 BK	2.0 BK	1.3 UK
Additional TAL Metals, mg/kg					
	CRDL				
Aluminum	40	---	---	---	---
Antimony	12	---	---	---	---
Barium	40	---	---	---	---
Beryllium	1	---	---	---	---
Calcium	1,000	---	---	---	---
Chromium	2	---	---	---	---
Cobalt	10	---	---	---	---
Iron	20	---	---	---	---
Magnesium	1,000	---	---	---	---
Manganese	3	---	---	---	---
Nickel	8	---	---	---	---
Potassium	1,000	---	---	---	---
Silver	2	---	---	---	---
Sodium	1,000	---	---	---	---
Thallium	2	---	---	---	---
Vanadium	10	---	---	---	---
Cyanide, Total	2	---	---	---	---
TCL Volatiles, mg/kg					
	CRQL				
Acetone	10	---	---	---	---
Chloroform	5	---	---	---	---
Ethylbenzene	5	---	---	---	---
Methylene Chloride	5	---	---	---	---
Tetrachloroethene	5	---	---	---	---
Toluene	5	---	---	---	---
2-Butanone	10	---	---	---	---
1,1,1-Trichloroethane	5	---	---	---	---
1,1-Dichloroethene	5	---	---	---	---
Xylenes, Total	5	---	---	---	---

TABLE 4-17

ROUND 1 SUMP SEDIMENT ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		SD-SUMP1	SD-SUMP2A	SD-SUMP2B	SD-SUMP3
PAH's, mg/kg					
	CRQL				
Naphthalene	0.330	10 LT	10 LT	10 LT	20 LT
Acenaphthylene	0.330	10 LT	10 LT	10 LT	20 LT
Acenaphthene	0.330	10 LT	10 LT	10 LT	20 LT
Fluorene	0.330	10 LT	10 LT	10 LT	20 LT
Phenanthrene	0.330	3 LT	4 LT	4 LT	6 LT
Anthracene	0.330	3 LT	4 LT	4 LT	6 LT
Fluoranthene	0.330	1	1 LT	1 LT	2 LT
Pyrene	0.330	1 LT	6 LT	2 LT	2 LT
Benzo(a) anthracene	0.330	0.1 LT	1.0 LT	0.2 LT	0.1 LT
Chrysene	0.330	2 LT	1 LT	1 LT	0.9 LT
Benzo(b) fluoranthene	0.330	0.4	1.2	1.1	0.6 LT
Benzo(k) fluoranthene	0.330	0.1	0.6 LT	0.2	0.2 LT
Benzo(a) pyrene	0.330	0.1 LT	0.6 LT	0.2 LT	0.2 LT
Dibenzo(a,h) anthracene	0.330	0.1 LT	0.6 LT	0.5 LT	0.2 LT
Benzo(g,h,i) perylene	0.330	0.3 LT	2 LT	1 LT	0.6 LT
Indeno (1,2,3-cd) pyrene	0.330	0.3 LT	2 LT	1 LT	0.6 LT
Additional TCL Semi-Volatiles, mg/kg					
	CRQL				
Phenol	0.330	---	---	---	---
bis (2-Chloroisopropyl) ether	0.330	---	---	---	---
2-Methylphenol	0.330	---	---	---	---
4-Methylphenol	0.330	---	---	---	---
2,4 - Dimethylphenol	0.330	---	---	---	---
2-Methylnaphthalene	0.330	---	---	---	---
Dibenzofuran	0.330	---	---	---	---
Benzoic acid	1.600	---	---	---	---
Nitrobenzene	0.360	---	---	---	---
N-Nitrosodiphenylamine (1)	0.360	---	---	---	---
Di-n-butylphthalate	0.330	---	---	---	---
Butylbenzylphthalate	0.330	---	---	---	---
bis (2-Ethylhexyl) phthalate	0.330	---	---	---	---
Di-n-octylphthalate	0.330	---	---	---	---
Diethylphthalate	0.330	---	---	---	---
4-Nitrophenol	1.600	---	---	---	---
TCL Pesticides/PCBs, ug/kg					
	CRQL				
Dieldrin	16	---	---	---	---
alpha-Chlordane	80	---	---	---	---
TCLP Extraction, mg/l					
Mercury		---	---	---	---
Arsenic		---	---	---	---
Selenium		---	---	---	---
Barium		---	---	---	---
Cadmium		---	---	---	---
Chromium		---	---	---	---
Lead		---	---	---	---
Silver		---	---	---	---

TABLE 4-18

RI AIR MONITORING ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

Week of:		High Volume Sampler #1			High Volume Sampler #2			High Volume Sampler #3			High Volume Sampler #4		
		TSP ug/M3	Lead ug/M3		TSP ug/M3	Lead ug/M3		TSP ug/M3	Lead ug/M3		TSP ug/M3	Lead ug/M3	
21-Oct-90	21-Oct-90	---	---		---	---		---	---		---	---	
	22-Oct-90	---	---		---	---		---	---		---	---	
	23-Oct-90	---	---		---	---		---	---		---	---	
	24-Oct-90	---	---		---	---		---	---		---	---	
	25-Oct-90	---	---		---	---		---	---		---	---	
	26-Oct-90	23.9	0.00506		15.9	0.20700		12.1	0.01750		12.1	0.00763	
	27-Oct-90	23.0	0.01340		22.6	0.02050		23.9	0.02030		23.9	0.00959	
28-Oct-90	28-Oct-90	7.76	0.00180	LT	9.13	0.02380		7.99	0.01190		9.27	0.01060	
	29-Oct-90	11.1	0.00726		9.52	0.20100		16.1	0.02500		16.9	0.02670	
	30-Oct-90	34.3	0.01470		52.9	0.16100		56.5	0.04330		44.5	0.53300	
	31-Oct-90	38.1	0.01690		66.2	0.28500		56.0	0.04650		54.2	0.04170	
	1-Nov-90	39.2	0.01470		61.5	0.05710		51.7	0.04570		51.0	0.06810	
	2-Nov-90	29.1	0.00297		47.2	0.01260		39.0	0.02500		39.9	0.03400	
	3-Nov-90	33.0	0.00604		53.1	0.01950		49.5	0.00942		47.0	0.01470	
4-Nov-90	4-Nov-90	29.7	0.00807		39.9	0.10300		38.1	0.00973		38.0	0.01160	
	5-Nov-90	32.1	0.04260		69.6	1.83000		41.0	0.05300		40.5	0.08410	
	6-Nov-90	7.77	0.00288		14.3	0.06720		12.2	0.02950		10.5	0.03000	
	7-Nov-90	13.1	0.00170	LT	31.3	0.13100		15.8	0.02300		33.9	0.02520	
	8-Nov-90	17	0.01140		15.1	0.06770		14.2	0.00297		13.4	0.0018	LT
	9-Nov-90	20.0	0.00846		22.0	0.10400		18.2	0.00771		18.6	0.00760	
	10-Nov-90	186.0	0.00170		7.4	0.00780		6.19	0.00180	LT	6.19	0.00462	
11-Nov-90	11-Nov-90	6.03	0.00170	LT	7.11	0.01750		4.97	0.02420		6.50	0.05910	
	12-Nov-90	6.08	0.00160	LT	8.34	0.07580		8.09	0.05900		8.08	0.05930	
	13-Nov-90	15.2	0.01050		13.1	0.06090		9.95	0.05220		8.84	0.05670	
	14-Nov-90	17.6	0.01110		25.9	0.07540		18.8	0.03780		19.1	0.02460	
	15-Nov-90	25.3	0.02500		33.3	0.05320		36	0.21500		99.5	0.09950	
	16-Nov-90	21.8	0.00291		30.7	0.04070		28.9	0.02030		27.5	0.03810	
	17-Nov-90	6.07	0.00486		7.08	0.04670		31.6	0.00503		9.15	0.00498	
18-Nov-90	18-Nov-90	8.77	0.00279		10.40	0.02220		10.90	0.00584		12.70	0.00469	
	19-Nov-90	12.5	0.00451		19.2	0.08330		15.1	0.01640		16.5	0.01170	
	20-Nov-90	17.50	0.00449		28.60	0.16900		29.60	0.04110		31.60	0.02570	
	21-Nov-90	24.9	0.01280		35.8	0.04250		35.7	0.01790		31.3	0.17700	
	22-Nov-90	46.30	0.00916		46.80	0.01590		49.00	0.00852		49.10	0.00835	
	23-Nov-90	20.7	0.00180	LT	23.9	0.00704		25.8	0.00190	LT	25.6	0.00245	
	24-Nov-90	12.80	0.00160	LT	15.80	0.00251		17.10	0.00170	LT	16.60	0.00225	
25-Nov-90	25-Nov-90	21.0	0.00180	LT	22.4	0.00180	LT	23.8	0.00369		23.7	0.00912	
	26-Nov-90	31.70	0.01420		43.90	0.11900		35.60	0.01880		35.60	0.01990	
	27-Nov-90	36.6	0.00180	LT	43.8	0.02400		50.3	0.01330		45.7	0.01220	
	28-Nov-90	18.90	0.00347		20.70	0.01830		19.80	0.01320		20.0	0.01060	
	29-Nov-90	10.7	0.00347		11.7	0.01240		10.9	0.00991		10.9	0.00759	
	30-Nov-90	15.70	0.00277		20.60	0.00467		22.20	0.00350		471.00	0.00288	
	1-Dec-90	78.7	0.00287		31.3	0.00721		341.0	0.00415		31.3	0.00470	
2-Dec-90	2-Dec-90	13.00	0.01730		14.00	0.02340		15.20	0.00415		88.20	0.00294	
	3-Dec-90	96.00	0.00234		69.3	0.00693		67.3	0.00180	LT	63.4	0.00180	LT
	4-Dec-90	7.01	0.00170	LT	11.10	0.04180		8.50	0.03330		8.02	0.05050	
	5-Dec-90	11.0	0.00162		13.5	0.01010		---	---		1.11	0.00832	
	6-Dec-90	16.5	0.00307		20.2	0.00509		21.7	0.00581		20.7	0.00498	
	7-Dec-90	20.5	0.00551		23.1	0.01160		24.7	0.01260		24.8	0.01130	
	8-Dec-90	14.0	0.00442		15.2	0.01160		16.2	0.00845		16.0	0.00847	
9-Dec-90	9-Dec-90	18.3	0.00467		20.7	0.01870		23.0	0.01980		22.4	0.01680	
	10-Dec-90	12.6	0.00290		11.8	0.05970		13.1	0.01430		13.3	0.01160	
	11-Dec-90	22.4	0.01110		25.6	0.01690		26.5	0.01000		25.4	0.01020	
	12-Dec-90	---	---		201	0.01510		45.8	0.01640		43.3	0.01470	
	13-Dec-90	---	---		12.1	0.01250		12.6	0.00904		13.3	0.01400	

TABLE 4-18

RI AIR MONITORING ANALYTICAL DATA
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

		High Volume Sampler #1			High Volume Sampler #2			High Volume Sampler #3			High Volume Sampler #4		
		TSP ug/M3	Lead ug/M3		TSP ug/M3	Lead ug/M3		TSP ug/M3	Lead ug/M3		TSP ug/M3	Lead ug/M3	
	14-Dec-90	19.4	0.00883		23.2	0.01250		24.1	0.00223		22.1	0.00683	
	15-Dec-90	12.1	0.00318		12.3	0.00482		13.0	0.00430		11.9	0.00219	
16-Dec-90	16-Dec-90	11.2	0.00190	LT	---	---		12.1	0.00190	LT	11.7	0.00190	LT
	17-Dec-90	18.8	0.00364		---	---		23.4	0.00680		22.0	0.00427	
	18-Dec-90	10.9	0.00459		11.8	0.00576		11.7	0.00234		11.2	0.00177	
	19-Dec-90	8.79	0.00180	LT	9.89	0.00432		11.6	0.00135		10.5	0.00180	LT
	20-Dec-90	14.3	0.00988		14.6	0.04470		14.1	0.00550		13.6	0.00457	
	21-Dec-90	7.62	0.00280		8.22	0.0016	LT	9.05	0.00464		8.3	0.00296	
	22-Dec-90	71.7	0.0017	LT	12.1	0.00257		12.8	0.00556		12.3	0.00171	
23-Dec-90	23-Dec-90	5.95	0.0018	LT	5.29	0.0016	LT	5.64	0.0018	LT	5.72	0.00602	
	24-Dec-90	10.7	0.0017	LT	10.7	0.00528		12.4	0.00598		12.3	0.00595	
	25-Dec-90	15.4	0.00265		78.2	0.00620		20.1	0.01050		18.6	0.00797	
	26-Dec-90	14.7	0.0017	LT	14.0	0.0016	LT	16.5	0.0017	LT	16.7	0.0017	LT
	27-Dec-90	10.9	0.00455		13.8	0.01660		17.4	0.00720		15.3	0.00572	
	28-Dec-90	12.7	0.0018	LT	11.3	0.00202		12.5	0.00334		12.5	0.00175	
	29-Dec-90	31.0	0.00297		33.4	0.00320		191	0.00475		300	0.00545	
30-Dec-90	30-Dec-90	7.62	0.0016	LT	8.03	0.00144		10.5	0.00420		9.51	0.00163	
	31-Dec-90	8.29	0.0019	LT	8.36	0.0019	LT	10.1	0.0019	LT	9.65	0.0019	LT
	1-Jan-91	19.1	0.00290		20.5	0.00454		23.3	0.00292		22.4	0.00176	LT
	2-Jan-91	21.2	0.00487		22.9	0.00748		25.1	0.00435		24.3	0.00617	
	3-Jan-91	13.9	0.00177		14.8	0.00489		15.9	0.00477		16.4	0.00549	
	4-Jan-91	17.5	0.00316		20.5	0.00759		23.7	0.00783		23.0	0.00633	
	5-Jan-91	25.5	0.00797		27.5	0.01230		32.3	0.00972		28.6	0.00828	
6-Jan-91	6-Jan-91	18.8	0.00290		17.5	0.00428		18.9	0.00411		19.3	0.00300	
	7-Jan-91	14.6	0.01230		13.8	0.01470		14.3	0.00400		15.1	0.00352	
	8-Jan-91	19.6	0.02900		15.8	0.03260		19.0	0.00370		21.3	0.00377	
	9-Jan-91	15.1	0.00171	LT	16.2	0.00410		17.2	0.00448		18.0	0.00293	
	10-Jan-91	29.1	0.05320		997	0.19600		384	0.00309		23.5	0.00312	
	11-Jan-91	2080	0.02650		12.5	0.02220		14.1	0.00149	LT	13.2	0.00154	
	12-Jan-91	15.7	0.00274		14.1	0.00495		15.5	0.00275		15.3	0.00437	
13-Jan-91	13-Jan-91	12.1	0.00302		15.1	0.00452		18.9	0.00623		18.0	0.00505	
	14-Jan-91	30.7	0.00533		32.8	0.00493		36.2	0.00542		35.1	0.00439	
	15-Jan-91	103	0.01570		131	0.01690		203	0.01860		344	0.01730	
	16-Jan-91	8.3	0.00233		10.7	0.00212		12.6	0.00292		11.4	0.00298	
	17-Jan-91	11.8	0.00178	LT	12.7	0.03110		11.3	0.03280		14.3	0.06290	
	18-Jan-91	14.9	0.00164	LT	16.6	0.02140		16.9	0.02400		17.6	0.03300	
	19-Jan-91	17.4	0.00327		23.6	0.00512		23.7	0.00719		23.2	0.00573	
20-Jan-91	20-Jan-91	16.6	0.00313		15.5	0.00158		16.7	0.00184		16.5	0.00316	
	21-Jan-91	12.8	0.00231		15.0	0.00511		15.0	0.00571		13.9	0.00290	
	22-Jan-91	20.6	0.00550		22.2	0.00732		25.2	0.00980		25.2	0.00844	
	23-Jan-91	24.2	0.00255		25.8	0.00926		27.4	0.00760		29.0	0.00939	
	24-Jan-91	13.3	0.00184	LT	13.7	0.00952		12.6	0.00870		13.1	0.01520	
	25-Jan-91	18.8	0.00161		22.8	0.00497		22.7	0.00722		20.6	0.00703	
	26-Jan-91	26.2	0.00250		28.3	0.00833		27.2	0.00513		---	---	
27-Jan-90	27-Jan-91	22.5	0.00176		22.7	0.00435		21.6	0.00294		20.7	0.00303	
	28-Jan-91	15.6	0.00293		20.4	0.00709		22.4	0.00754		19.4	0.00493	
	29-Jan-91	30.3	0.01480		34.8	0.01330		36.8	0.01490		34.0	0.01520	
	30-Jan-91	21.2	0.00612		22.1	0.01680		24.0	0.02280		22.5	0.03030	
	31-Jan-91	18.5	0.00169	LT	20.0	0.01970		18.3	0.01880		18.2	0.03710	
	1-Feb-91	25.3	0.00531		28.4	0.00492		29.6	0.00941		28.5	0.00828	

TABLE 4-19

DATA QUALIFIER CODES FOR INORGANIC DATA VALIDATION

CODES RELATED TO IDENTIFICATION
(confidence concerning presence or absence of analytes):

(NO CODE)	=	Confirmed identification.
U	=	Not detected. The associated number indicates approximate sample concentration necessary to be detected.
B	=	Reported value obtained from a reading that was less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit.
*	=	Not detected substantially above the level reported in laboratory or field blanks.
R	=	Unreliable result. Analyte may or may not be present in the sample.

CODES RELATED TO QUANTITATION
(can be used for both positive results and sample quantitation limits):

J	=	Analyte Present. Reported value may not be accurate or precise.
K	=	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	=	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.
UL	=	Not detected, quantitation limit may be biased low.
LT	=	Less than quantitation limit.

TABLE 4-20

DATA QUALIFIER CODES FOR ORGANIC DATA VALIDATION

CODES RELATING TO IDENTIFICATION
(confidence concerning presence or absence of compounds):

(NO CODE)	=	Confirmed identification.
U	=	Not detected. The associated number indicates approximate sample concentration necessary to be detected.
B	=	Compound was detected in laboratory or field blank.
*	=	Not detected substantially above the level reported in laboratory or field blanks.
R	=	Unreliable result. Analyte may or may not be present in the sample.
N	=	Tentative identification. Analyte is considered to be present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION
(can be used for both positive results and sample quantitation limits):

J	=	Analyte present. Reported value may not be accurate or precise.
K	=	Analyte present. Reported value may be biased high. Actual value is expected to be lower.
L	=	Analyte present. Reported value may be biased low. Actual value is expected to be higher.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.
UL	=	Not detected, quantitation limit may be biased low.
LT	=	Less than quantitation limit.

TABLE 5-1

Results of Cation Exchange Capacity Analysis
Tonolli Corporation Superfund Site
Nesquehoning, Pennsylvania

Sample No.	Soil Type	Cation Exchange Capacity (mg/l)*	(mg/100g)**
TONO-SO-S2-6	Alluvium	32	3.5
TONO-SO-S38-5	Alluvium	31	3.4
TONO-SO-S39-5	Alluvium	46	5.0
TONO-SO-S36-9	Mine Spoil	22	2.4
TONO-SO-S44-3	Mine Spoil	33	3.6
TONO-SO-CEC6-2	Mine Spoil	34	3.7

* Method SW 846-9081, Detection Limit of 5 mg/l of Na^+

** Calculated from laboratory data assuming 4 g of soil extracted for a Na^+ into a final volume of 100 ml.

TABLE 7-1

GENERAL LIST OF ARARS AND TBCs FOR TONOLLI CORPORATION SITE

RESOURCE CONSERVATION AND RECOVERY ACT WASTE REGULATIONS

- Generator Requirements
- Transportation Requirements
- Treatment, Storage and Disposal Requirements
  - Groundwater Protection
  - Closure and Post-Closure Action
  - Surface Impoundments
  - Waste Piles
  - Land Treatment
  - Landfills
  - Incinerators
- Land Disposal Restrictions

SAFE DRINKING WATER ACT

- Maximum Contaminant Levels
- Maximum Contaminant Level Goals
- Secondary Maximum Contaminant Levels
- National Interim Primary Drinking Water Standards
- Injection Well Program

CLEAN WATER ACT

- Ambient Water Quality Criteria for the Protection of Aquatic Life
- Ambient Water Quality Criteria for the Protection of Human Health
- National Pollutant Discharge Elimination System Requirements
- Dredge and Fill Requirements

THE CLEAN AIR ACT

- National Ambient Air Quality Standards
- National Emissions Standards for Hazardous Air Pollutants
- New Source Performance Standards

AR301704

TABLE 7-1
(Continued)

STANDARDS FOR TOXICS AND PESTICIDES

- Toxic Substances Control Act
- Federal Insecticide, Fungicide, And Rodenticide Act

OTHER RESOURCE PROTECTION STATUTES

- National Historic Preservation Act
- Archeological and Historic Preservation Act
- Endangered Species Act
- Wild and Scenic Rivers Act
- Fish and Wildlife Coordination Act
- Coastal Zone Management Act
- Wilderness Act

OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION REQUIREMENTS

STATE ENVIRONMENTAL REQUIREMENTS

- Ground Water and Surface Water
  - Pennsylvania Clean Streams Law
  - Pennsylvania Safe Drinking Water Act
  - Pennsylvania Water Resources Regulations
  - Pennsylvania Discharge Eliminator System
  - Pennsylvania Water Quality Standards

- Solid Waste
  - Pennsylvania Solid Waste Management Act
  - Pennsylvania Solid Waste - Resource Recovery Development Act
  - Pennsylvania Hazardous Sites Cleanup Act
  - Pennsylvania Solid Waste Regulations
  - Pennsylvania Hazardous Waste Regulations

- Air Pollutants
  - Pennsylvania Air Pollution Control Act
  - Pennsylvania Air Pollution Control Regulations

AR301705

TABLE 7-2

CHEMICAL-SPECIFIC ARARS AND TBCS FOR OTHER THAN GROUNDWATER AND SURFACE WATER

Requirement/Criteria	Constituent	Medium	Criteria
ARARs			
RCRA Action Levels	Arsenic	Air	2.32×10^{-4} ug/m^3
	Cadmium	Air	4.50×10^{-4} ug/m^3
RCRA Toxicity Characteristic	Arsenic	Soil/Waste	5.0 mg/l
	Cadmium	Soil/Waste	1.0 mg/l
	Lead	Soil/Waste	5.0 mg/l
Clean Air Act NAAQS	Lead	Air	1.5 ug/m^3
TBCs			
Proposed RCRA Action Level	Arsenic	Soil	80 mg/kg
		Air	7×10^{-5} mg/m^3
	Cadmium	Soil	40 mg/kg
		Air	6×10^{-4} mg/m^3
Proposed RCRA Maximum Protection Standards	Arsenic	Air	7×10^{-3} mg/m^3
	Cadmium	Air	6×10^{-2} mg/m^3
Clean Air Act NAAQS	Lead	Air	1.5 ug/m^3
RfD	Arsenic		3×10^{-4} mg/kg/day
	Cadmium		5×10^{-4} mg/kg/day
CSF (inhalation)	Arsenic		50 (mg/kg/day)$^{-1}$
	Cadmium		6.1 (mg/kg/day)$^{-1}$
CDC Blood Lead Level of Concern for Young Children	Lead	Blood	10 - 15 ug/dl
OERR Cleanup Recommendation	Lead	Soil	500-1,000 mg/kg

AR301706

TABLE 7-2
(Continued)

TABLE 7-2 FOOTNOTES

OERR Cleanup Recommendation - Found in "Interim Guidance on Establishing Soil Lead Cleanup Levels at Superfund Sites." Issued as OSWER Directive No. 9355.4-0.

RCRA Action Level - Level which may necessitate corrective action at a RCRA regulated unit. For arsenic and cadmium these levels are based on carcinogenic effects due to exposure via the inhalation pathway. Source: RCRA Facility Investigation Guidance (USEPA, 1989)

RCRA Toxicity Characteristic - Based on concentrations resulting from the Toxicity Characteristic Leachate Procedures (TCLP).

Proposed RCRA Action Level - Action levels are levels proposed by the USEPA to be indicators for protection of human health and the environment. Exceedance of action levels can trigger a corrective measure study. Source: Proposed Rule 55 Federal Register 30798, July 27, 1990.

Proposed RCRA Maximum Protection Standards - The upper limit of the range of concentrations for establishing protection standards for carcinogens. Source: Proposed Rule 55 Federal Register 30798, July 27, 1990.

Clean Air Act NAAQS - Natural Ambient Air Quality Standards (40 CFR 50).

RfD - Chronic Reference Dose. Source: arsenic - IRIS; cadmium - HEAST.

CSF (inhalation) - Cancer Slope Factore. Source: HEAST.

CDC Blood Lead Level of Concern - Concentration of lead in the blood that has been determined by the Centers for Disease Control to be of neurological concern in young children.

AR301707

TABLE 7-3

ARARs AND TBCs FOR GROUNDWATER AND SURFACE WATER

Requirement/Citation	Arsenic Level (mg/l)	Cadmium Level (mg/l)	Lead Level (mg/l)
ARARs			
MCL	0.05	0.005	0.015[a]
NIPDWR	0.05	0.01	0.05
AWQC Human Health (dw)	2.5×10^{-5}	0.01	0.05
AWQC Human Health (dw/ao)	2.2×10^{-6}	0.01	0.05
AWQC Aquatic Life (acute)	0.36	0.0039	0.082
AWQC Aquatic Life (chronic)	0.19	0.0011	0.0032
PA WQC Aquatic Life	0.19	0.0011	0.0032
PA WQC Human Health	0.05	0.01	0.05
TBC's			
Proposed MCL	--[b]	--	0.005
MCLG	--	0.005	0
Proposed MCLG	0.05	--	--
Drinking Water Equivalent Level	0.015	0.018	--
Drinking Water Health Advisories	--	0.005	--
OERR Cleanup Recommendation	--	--	0.015

AR301708

TABLE 7-3
(Continued)

TABLE 7-3 FOOTNOTES

MCL - Maximum contaminant levels as listed in the National Primary Drinking Water Regulations. Sources: arsenic and lead - Integrated Risk Information System (IRIS); cadmium - 56 Federal Register 3526.

Proposed MCL -Proposed by USEPA Office of Drinking Water, Criteria and Standards Division. Source: United States Environmental Protection Agency, Fact Sheet - Drinking Water Regulations Under the Safe Drinking Water Act, Criteria and Standards Division, Office of Drinking Water, Washington, D.C., May 1990.

MCLG - Maximum Contaminant Level Goal. Source: IRIS.

Proposed MCLG - Proposed by USEPA Office of Drinking Water, Criteria and Standards Division. Source: IRIS.

NIPDWR - National Interim Primary Drinking Water Regulations promulgated under the SWDA. Source: United States Environmental Protection Agency Drinking Water Regulations and Health Advisories, Office of Drinking Water, Washington, D.C., April 1990.

Drinking Water Equivalent Levels - A lifetime exposure concentration protective of adverse, non-cancer health effects, that assumes all of the exposure to a contaminant is from a drinking water source. Source: Same as for NIPDWR.

Drinking Water Health Advisories - USEPA Office of Drinking Water Health Advisories. The various advisory levels include different exposure durations and both child and adult receptors. No health advisory levels were available for arsenic or lead. The value of 0.005 mg/l is the longer-term health advisory for a 10 kg child and the lifetime health advisory for a 70 kg adult. The one-day and ten-day health advisory level for a child is 0.04 mg/l; the longer-term health advisory for an adult is 0.02 mg/l. Source: Same as for NIPDWR.

AWQC Human Health - Clean Water Act Ambient Water Quality Criteria protective to human health. (DW): Based on exposure via ingestion of drinking water only. (DW/AO): Based on exposure via ingestion of drinking water and aquatic organisms. Source: 45 Federal Register 79318-79379.

AR301709

TABLE 7-3
(Continued)

AWQC Aquatic Life - Clean Water Act Ambient Water Quality Criteria. Concentration for protection of aquatic life to acute and chronic toxicity. Source: United States Environmental Protection Agency, 1988, Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites, Office of Emergency and Remedial Response, Washington, D.C., EPA/540/G-88/003.

OERR Cleanup Recommendation - Office of Emergency and Remedial Response and Office of Waste Programs Enforcement cleanup level for lead in groundwater at Superfund Sites.

PA WQC Aquatic Life - Pennsylvania Water Quality Criteria concentration for protection of aquatic life to chronic toxicity. This value supposes a maximum continuous concentration. Source: PA Code, Title 25, Chapter 16.

PA WQC Human Health - Pennsylvania Water Quality Criteria concentrations for protection of human health. Source: PA code, Title 25, Chapter 16.

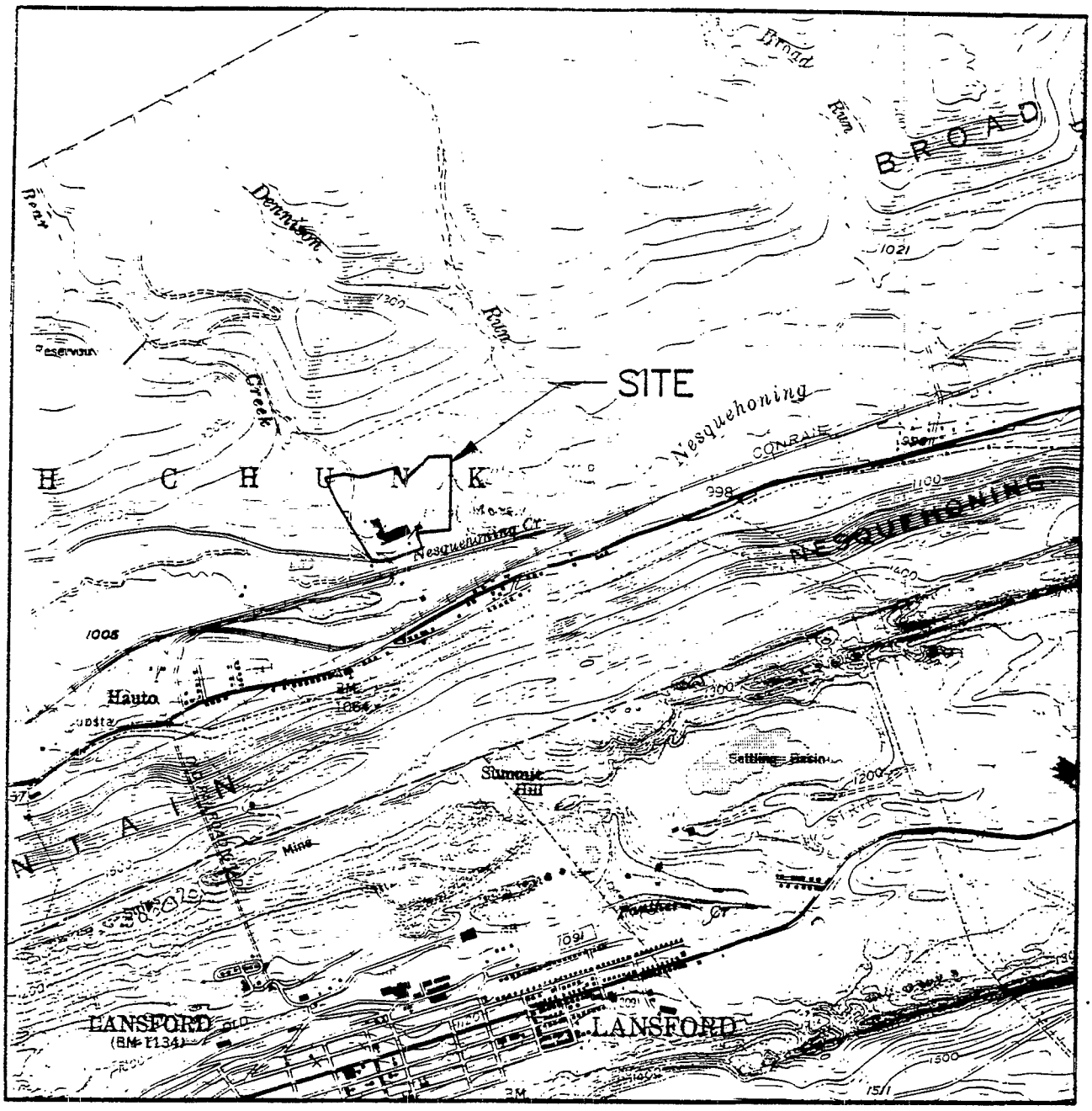
(a) USEPA is promulgating final rule NPDWRs for lead in drinking water which require treatment technologies and an action level of 0.015 mg/l applicable to small and medium-sized drinking water systems. The final NPDWR states that no more than 10 percent of the samples collected from one of these systems may exceed the action level (56 Federal Register 26460).

(b) "_ _" means not available.

AR301710

FIGURES

DRAWN BY	T. J. S. 6-1-90	CHECKED BY / APPROVED BY	MJB	8-30-91 / 8-30-91	DRAWING NUMBER 89-599-A2



SCALE

2000 0 2000 FEET

FIGURE 1-1

SITE LOCATION
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

PREPARED FOR

TONOLLI SITE STEERING COMMITTEE

Paul C. Rizzo Associates, Inc.
CONSULTANTS

REFERENCE:

USGS 7.5 MINUTE TOPOGRAPHIC MAPS OF TAMAQUA AND NESQUEHONING PA., TAMAQUA QUADRANGLE DATED: 1947 PHOTOREVISED 1983, NESQUEHONING QUADRANGLE DATED: 1948 PHOTOREVISED 1969 AND 1976, SCALE: 1"=2000'.

AR301712

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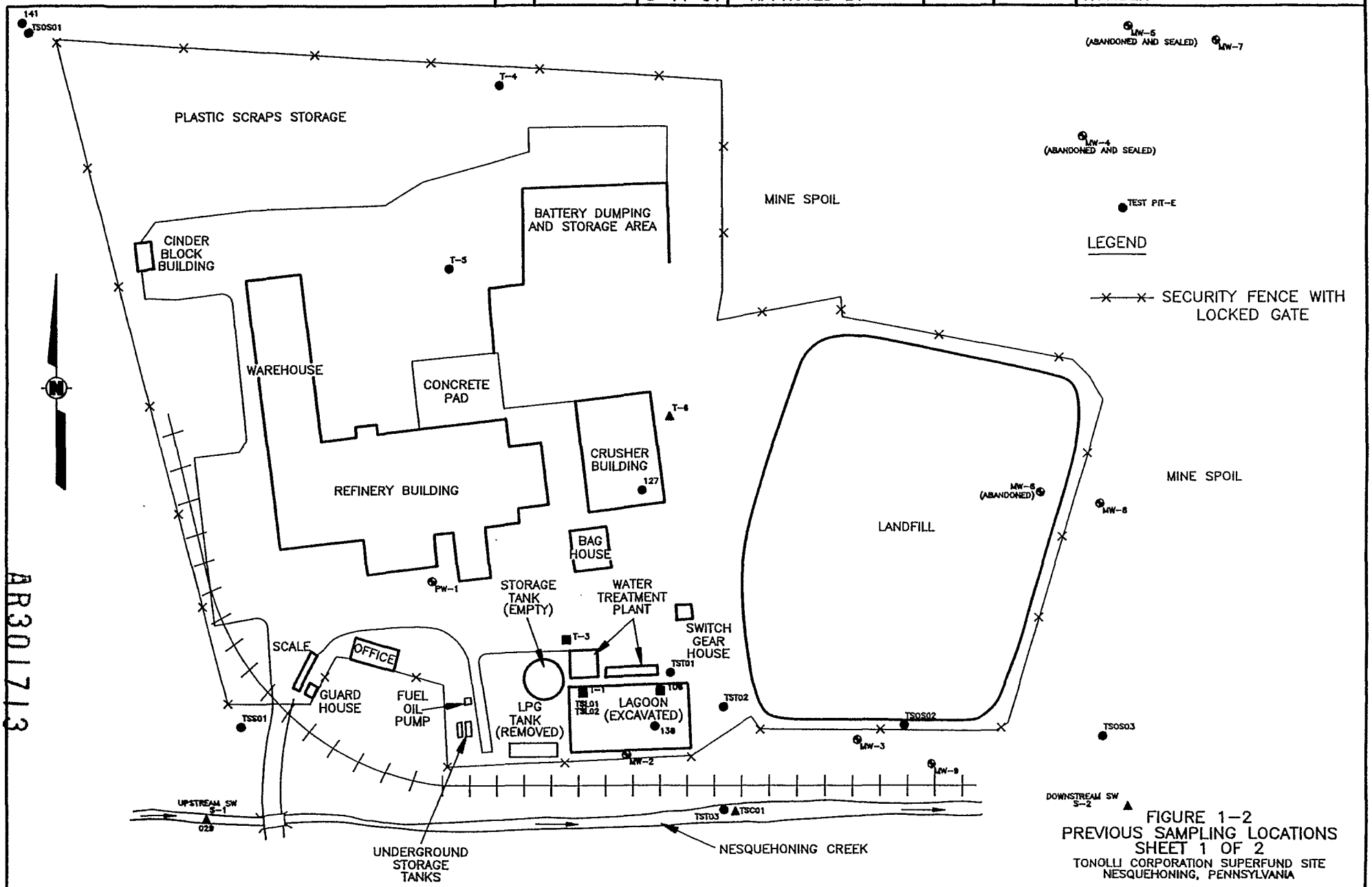
			APPROVED BY	W.C.S.	8-30-91		



REFERENCE :

ENGINEERING-SCIENCE, FIGURE 1.2
RI/FS WORK PLAN 4/6/90, ORIGINAL
SCALE 1" = 200'.

APPROXIMATE SCALE

120 0 120

FIGURE 1-2
PREVIOUS SAMPLING LOCATIONS
SHEET 1 OF 2
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

PREPARED FOR

TONOLLI SITE STEERING COMMITTEE

Paul C[illegible] Associates, Inc.
CONSULTA[illegible]

⚠1 REVISED IN RESPONSE TO USEPA COMMENTS ON DRAFT REPORT.
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AR301713

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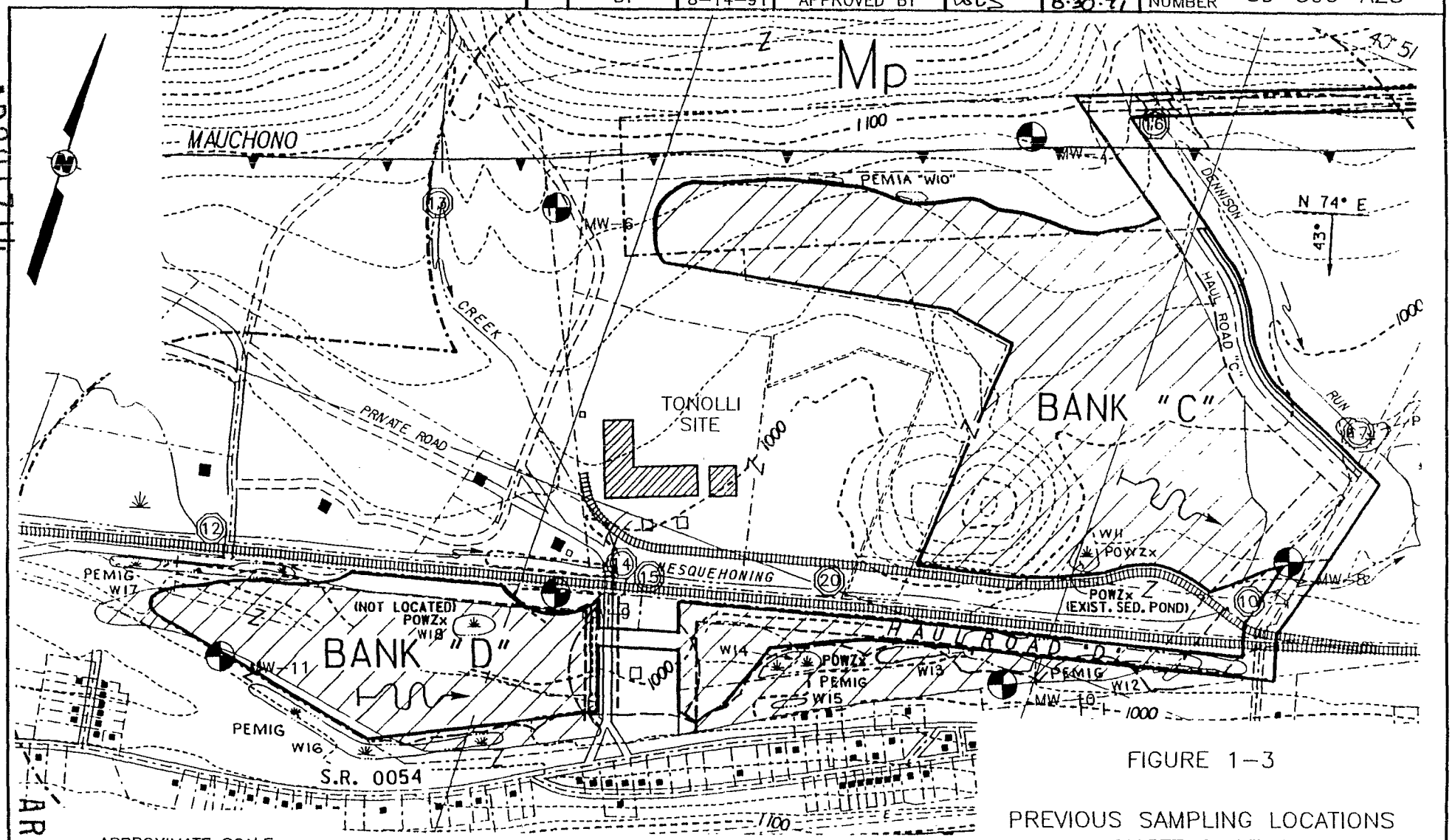

APPROXIMATE SCALE

600 0 600

REFERENCE:

RTS WORK PLAN, FIGURE 2.5, 4/6/90, ENGINEERING-SCIENCE; ADAPTED FROM PANTHER CREEK PARTNERS COAL REFUSE AND FLY ASH DISPOSAL PERMIT APPLICATION, TITLE: ENVIRONMENTAL RESOURCES MAP, MODULE 6.2(B) PREPARED BY BENATEC ASSOCIATES 5-30-89, REVISED 5-29-90 SCALE 1"=400'.

LEGEND

- DWELLING
- PANTHER CREEK ENERGY, INC. MONITORING WELL SAMPLES
- PANTHER CREEK ENERGY, INC. SURFACE WATER SAMPLES

FIGURE 1-3

PREVIOUS SAMPLING LOCATIONS
SHEET 2 OF 2
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

PREPARED FOR

TONOLLI SITE STEERING COMMITTEE

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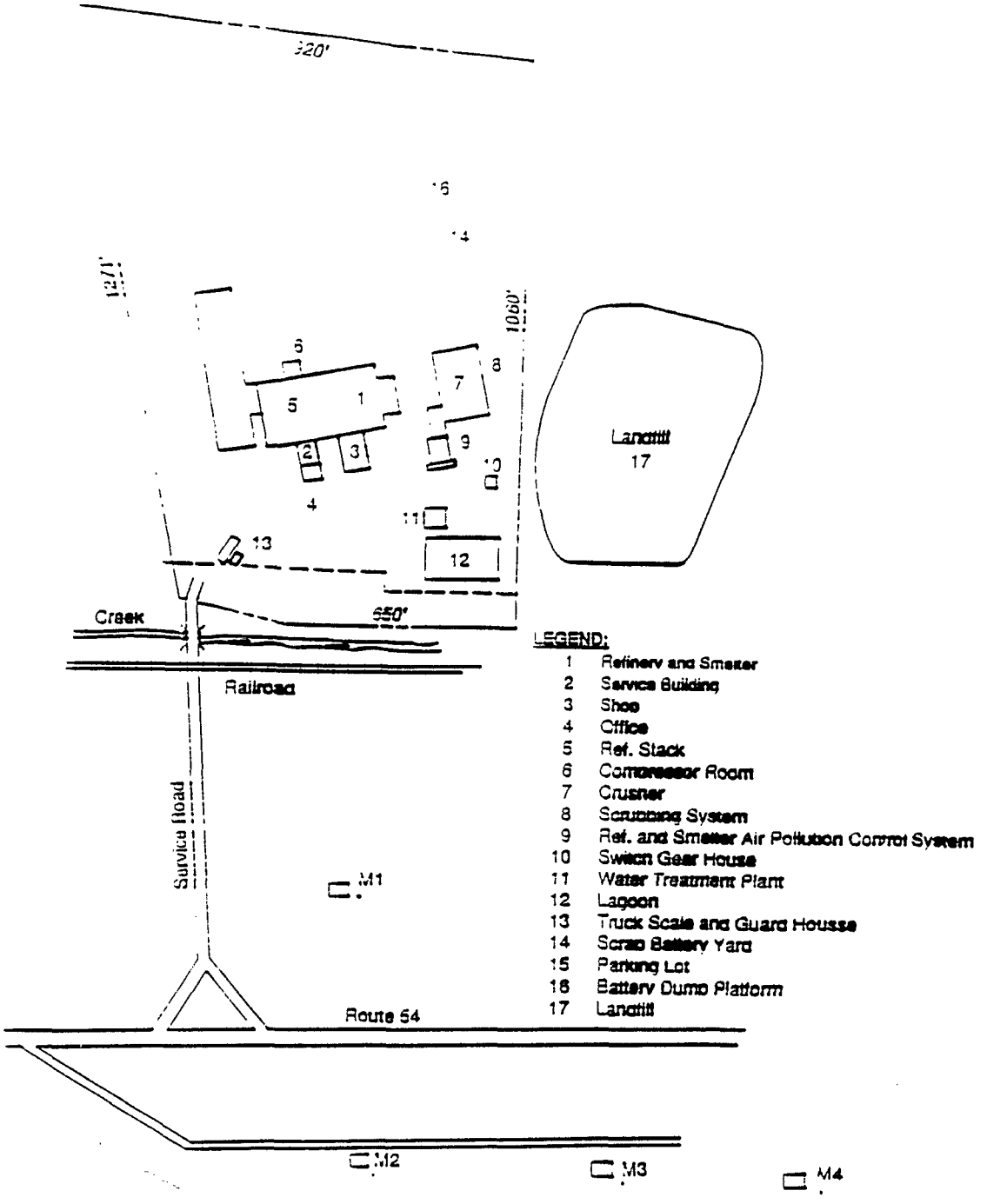
AR301717



NOT TO SCALE

FIGURE 1–4

PREVIOUS AIR SAMPLING LOCATIONS

TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

PREPARED FOR

TONOLLI SITE STEERING COMMITTEE
LOCATION

M1 – M4: AIR SAMPLING LOCATIONS

REFERENCE: ADAPTED FROM ENGINEERING–SCIENCE, INC., 1989 REMEDIAL INVESTIGATION WORK PLAN FIGURE 2.6.

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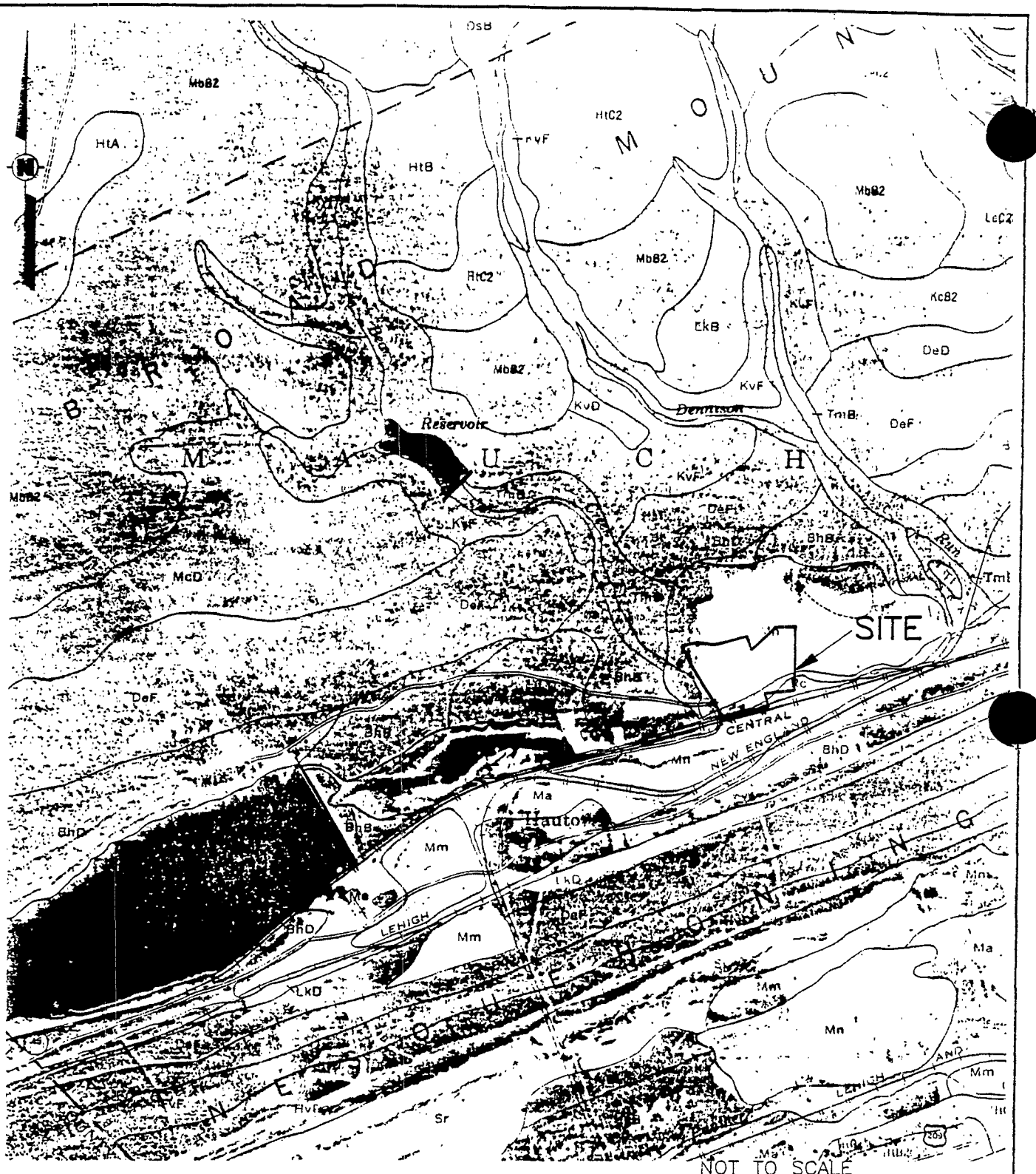

NOT TO SCALE

FIGURE 3-2

USDA SOIL SURVEY MAP

TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

PREPARED FOR

TONOLLI SITE STEERING COMMITTEE

NOTE: SEE APPENDIX F, PAGE 27 FOR COMPLETE DESCRIPTIONS OF SYMBOL NAMES AND DRAINAGE CLASS.

REFERENCE: U.S. SOIL CONSERVATION SERVICE, 1959, SOIL SURVEY OF CARBON COUNTY, PENNSYLVANIA.

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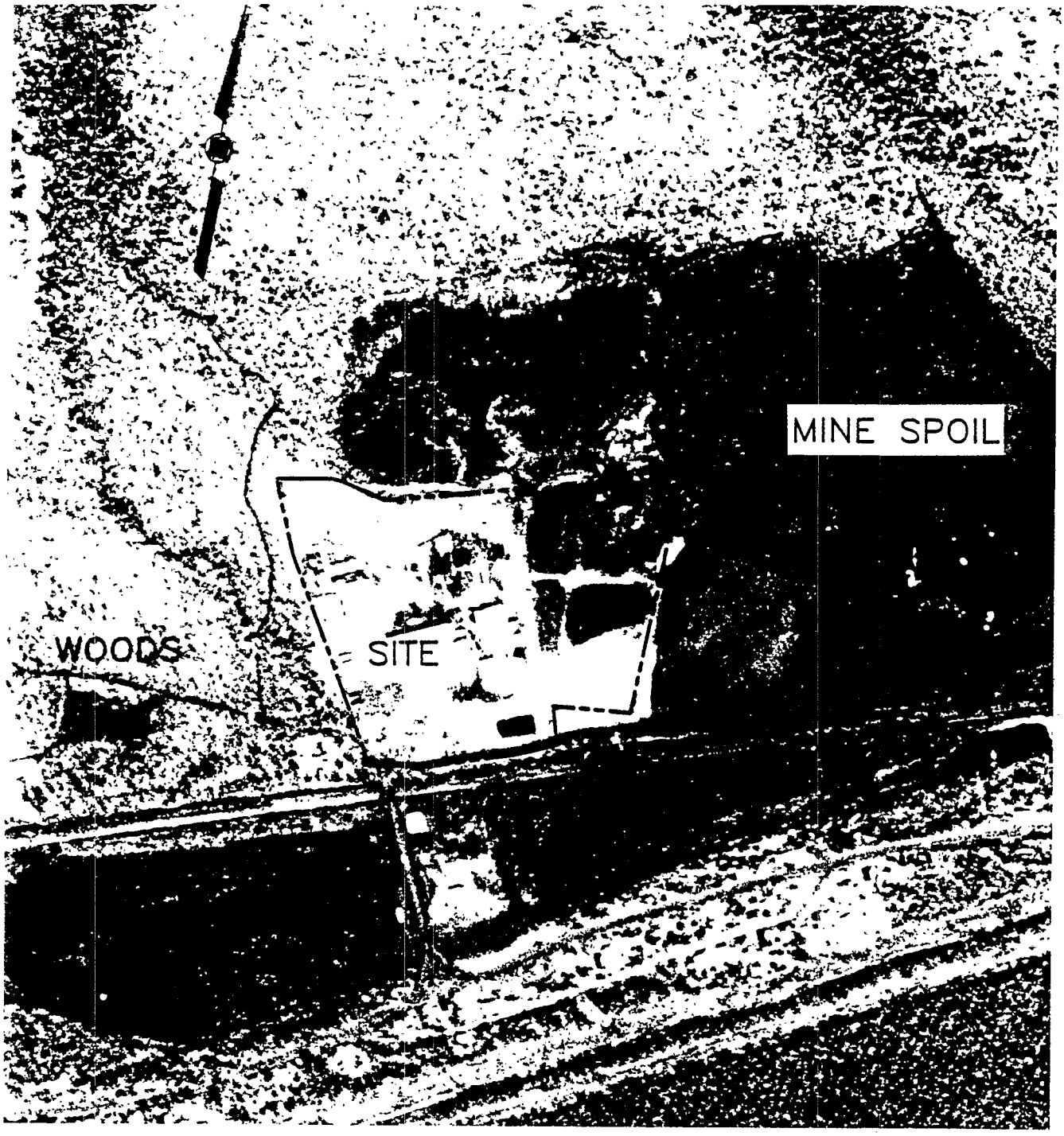

APPROXIMATE SCALE

1000 0 1000

FIGURE 3-1

AERIAL PHOTOGRAPH—MAY 8, 1981
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

PREPARED FOR

TONOLLI SITE STEERING COMMITTEE

REFERENCE: EPIC, 1990. SITE ANALYSIS OF TONOLLI CORPORATION BY BIONETICS CORPORATION CONTRACT NO. 68-53-3532, ORIGINAL SCALE 1:6,500.

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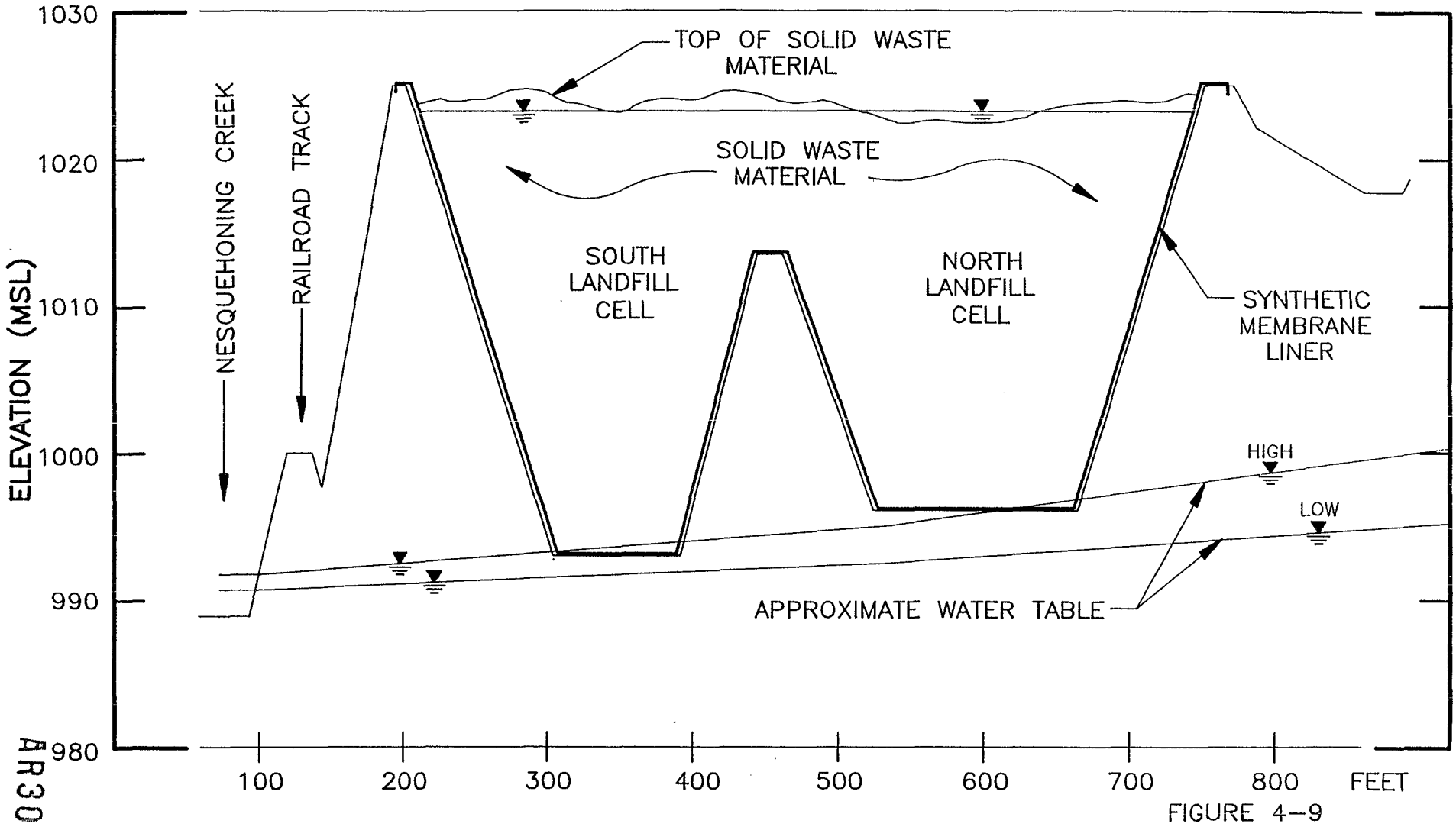

FIGURE 4-9

HORIZONTAL SCALE

100 0 100

VERTICAL SCALE

10 0 10

LANDFILL CROSS SECTION
TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

PREPARED FOR

TONOLLI SITE STEERING COMMITTEE

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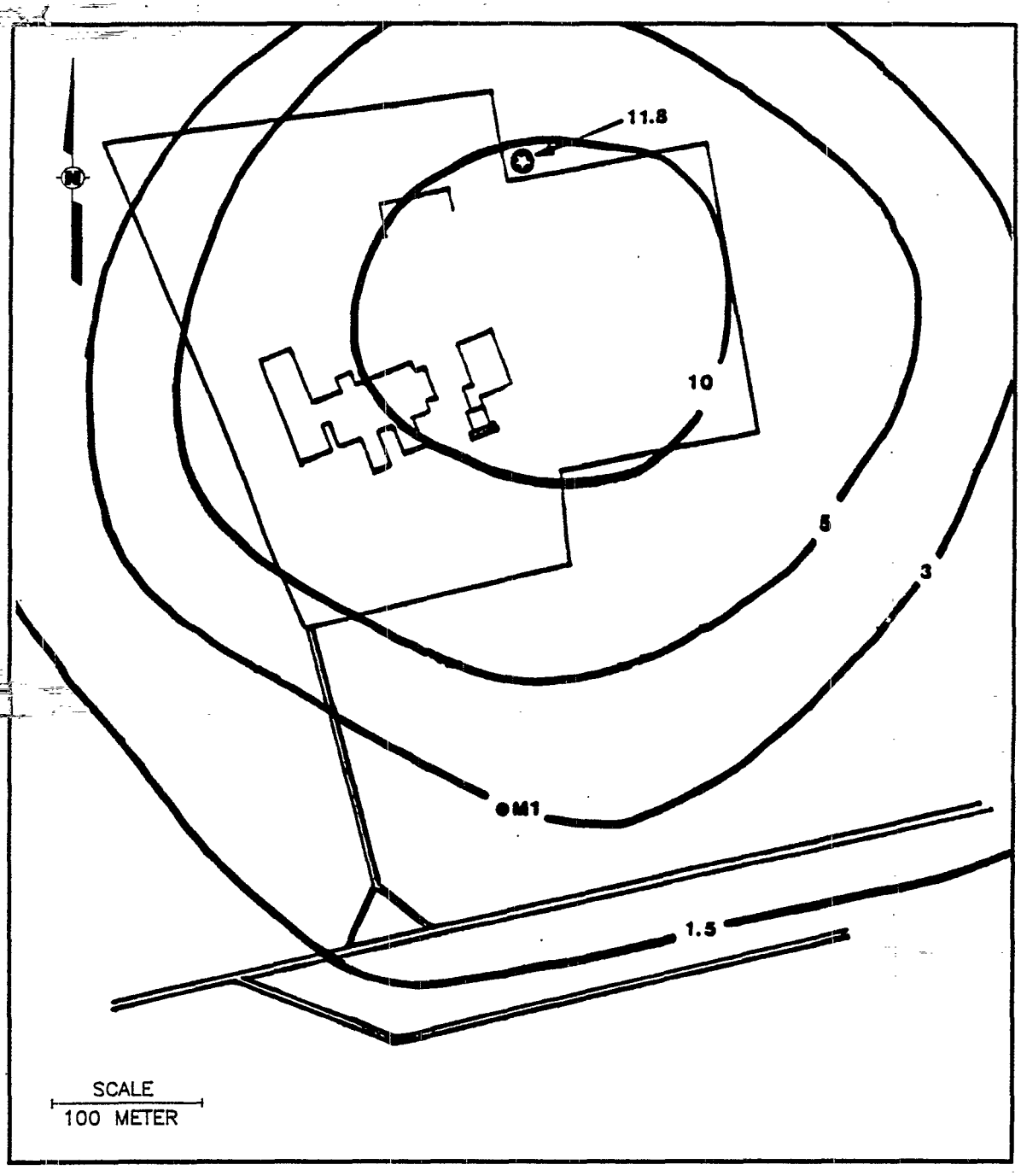

OFF PLANT MAXIMUM IMPACT

MONITOR SITE

NOTE:
FIGURE DEPICTS ISOPLETHS OF MODELED AMBIENT LEAD CONCENTRATIONS (ug/M^3) FOR THE TONOLLI EXISTING (UNCONTROLLED) MODELING SCENARIO.

REFERENCE:
RADIAN CORPORATION, 10/3/83, "AMBIENT LEAD CONCENTRATIONS AT TONOLLI CORPORATION, NESQUEHONING, PENNSYLVANIA", PREPARED FOR USEPA REGION III, AIR MANAGEMENT BRANCH UNDER EPA CONTRACT NO. 68-02-3513, WORK ASSIGNMENT NO. 38, FIGURE 6-1.

FIGURE 4-15

MODELED AMBIENT LEAD CONCENTRATIONS

TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

PREPARED FOR

TONOLLI SITE STEERING COMMITTEE

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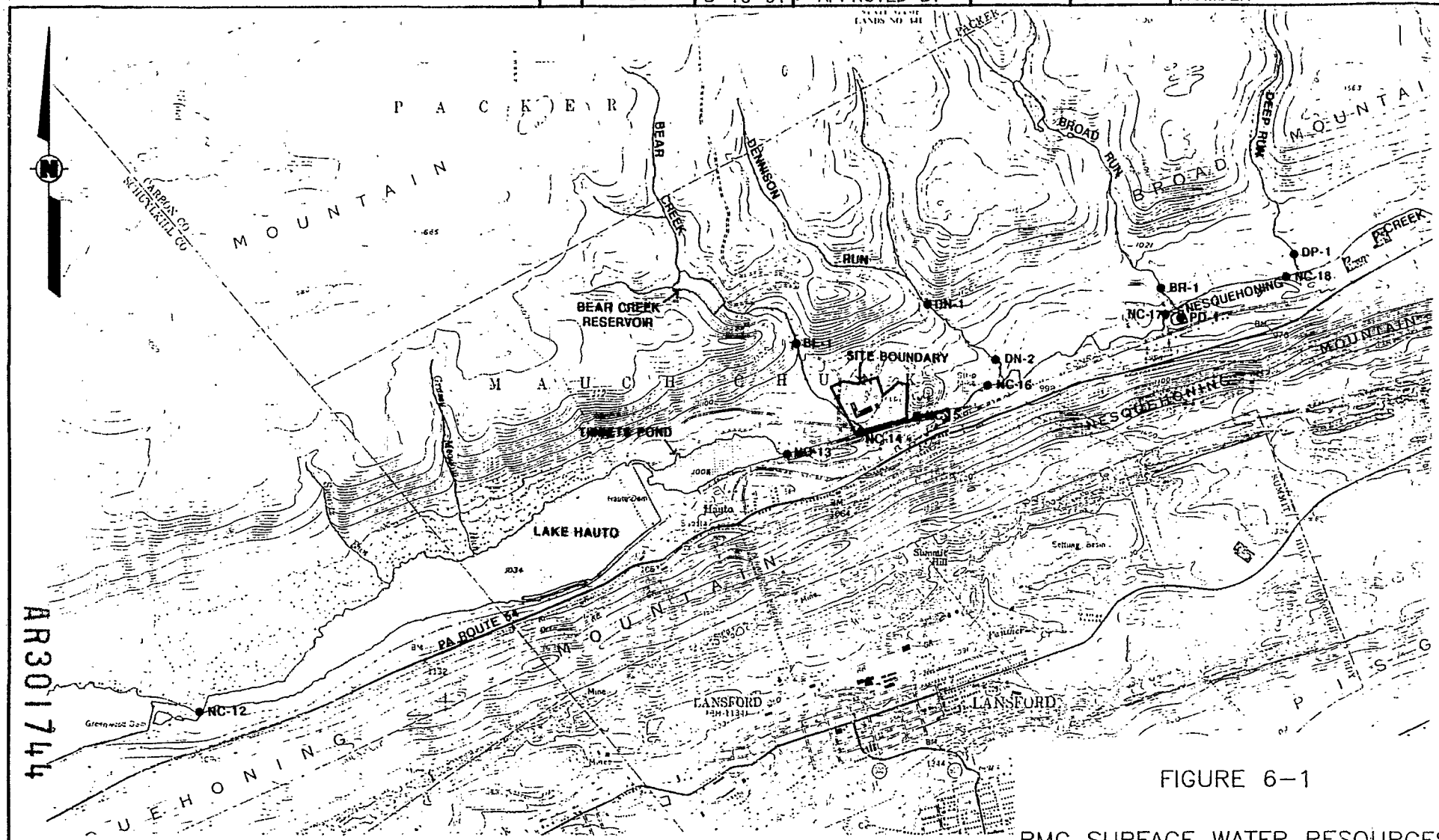

SCALE

2000 0 2000 FEET

FIGURE 6-1

RMC SURFACE WATER RESOURCES SAMPLING STATIONS

TONOLLI CORPORATION SUPERFUND SITE
NESQUEHONING, PENNSYLVANIA

PREPARED FOR

TONOLLI SITE STEERING COMMITTEE

Paul C. Rizzo Associates, Inc.
CONSULTANTS

REFERENCE:

RMC ENVIRONMENTAL SERVICES, MARCH 1991.
"TONOLLI CORPORATION SITE ECOLOGICAL CHARACTERIZATION",
FIGURE 5.3-1, ORIGINAL SCALE APPROXIMATELY 1"=2000'.

⚠1 REVISED FIGURE NO. FOR FINAL REPORT

APPROVED BY: [illegible] DATE: 12-30-91

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