Attachment A-2

Analytical Data

Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3	CS3	CS3	CS3	CS3
Field Sample Location:		SD019	SD020	SD021	SD022	SD023	SD024	SD025
Sample Depth/Interval:		0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Matrix:		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Sample Collection Date:		08/21/2001	08/21/2001	08/21/2001	08/22/2001	08/22/2001	08/15/2001	08/23/2001
Field Sample Identification:		CS3-SD019-0.0/1.0	CS3-SD020-0.0/1.0	CS3-SD021-0.0/1.0	CS3-SD022-0.0/1.0	CS3-SD023-0.0/1.0	CS3-SD024-0.0/1.0	CS3-SD025-0.0/1.0
Laboratory Sample Identification:		E0WY1	E0WY2	E0WY3	E0WZ2	E0WZ3	E0WZ4	E0X00
Pesticides/PCBs	**Units**							
Aldrin	ug/Kg	4.2 J	4.6 =	4.7 =	6.7 J	6.5 =	5.1 =	18 =
alpha-BHC	ug/Kg	3 U	3.4 U	2.9 U	3.2 U	3.3 U	3.4 U	3.3 U
Endosulfan I	ug/Kg	3 U	3.4 U	2.9 U	3.2 U	3.3 U	3.4 U	3.3 U
Alpha-Chlordane	ug/Kg	3 U	3.4 U	2.9 U	3.2 U	3.3 U	3.4 U	3.3 U
beta-BHC	ug/Kg	3 U	3.4 U	2.9 U	3.2 U	3.3 U	3.4 U	1.5 J
Endosulfan II	ug/Kg	5.9 U	6.6 U	5.6 U	6.1 U	6.4 U	6.6 U	6.5 U
delta-BHC	ug/Kg	3 U	3.4 U	2.9 U	3.2 U	3.3 U	3.4 U	3.3 U
Dieldrin	ug/Kg	5.9 U	6.6 U	7.3 =	6.1 U	9.2 J	6.6 U	6.5 U
Endosulfan Sulfate	ug/Kg	5.9 U	6.6 U	5.6 U	6.1 U	6.4 U	6.6 U	6.5 U
Endrin	ug/Kg	2.4 J	2.6 J	5.6 U	5 J	5.2 J	2.7 J	8.7 J
Endrin Aldehyde	ug/Kg	5.9 U	6.6 U	5.6 U	6.1 U	6.4 U	6.6 U	6.5 U
Endrin Ketone	ug/Kg	2.8 J	6.6 U	4.1 J	5.7 J	6.4 U	6.6 U	4.9 J
gamma-BHC (Lindane)	ug/Kg	3 U	3.4 U	2.9 U	3.2 U	3.3 U	3.4 U	3.3 U
Gamma-Chlordane	ug/Kg	3 U	3.4 U	2.9 U	3.2 U	3.3 U	3.4 U	3.3 U
Heptachlor	ug/Kg	3.2 J	3.6 J	3.5 J	4 J	4 J	4.6 J	12 J
Heptachlor Epoxide	ug/Kg	3 U	3.4 U	2.9 U	3.2 U	3.3 U	3.4 U	3.3 U
Methoxychlor	ug/Kg	30 U	34 U	29 U	31 U	33 U	34 U	33 U
4,4'-DDD	ug/Kg	5.9 U	6.6 U	5.6 U	6.1 U	6.4 U	6.6 U	6.5 U
4,4'-DDE	ug/Kg	5.9 U	6.6 U	5.6 U	2.3 J	6.4 U	6.6 U	4 J
4,4'-DDT	ug/Kg	7.1 =	7.9 =	9 =	10 J	16 =	7.9 =	18 J
Aroclor-1016	ug/Kg	59 U	66 U	56 U	61 U	63 U	66 U	65 U
Aroclor-1221	ug/Kg	120 U	130 U	110 U	120 U	130 U	130 U	130 U
Aroclor-1232	ug/Kg	59 U	66 U	56 U	61 U	63 U	66 U	65 U
Aroclor-1242	ug/Kg	59 U	66 U	56 U	61 U	63 U	66 U	65 U
Aroclor-1248	ug/Kg	250 J	290 =	280 =	290 J	320 =	300 J	900 J
Aroclor-1254	ug/Kg	59 U	66 U	56 U	61 U	63 U	66 U	65 U
Aroclor-1260	ug/Kg	59 U	66 U	56 U	61 U	63 U	66 U	65 U
Toxaphene	ug/Kg	300 U	340 U	290 U	310 U	330 U	340 U	330 U

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3
Field Sample Location:		SD026	SD027
Sample Depth/Interval:		0' - 1'	0' - 1'
Matrix:		Sediment	Sediment
Sample Collection Date:		08/23/2001	08/23/2001
Field Sample Identification:		CS3-SD026-0.0/1.0	CS3-SD027-0.0/1.0
Laboratory Sample Identification:		E0X01	E0X03
Pesticides/PCBs	**Units**		
Aldrin	ug/Kg	41 J	76 J
alpha-BHC	ug/Kg	2.9 U	2.8 U
Endosulfan I	ug/Kg	2.3 J	1.4 J
Alpha-Chlordane	ug/Kg	2.9 U	2.8 U
beta-BHC	ug/Kg	2.9 U	3.1 J
Endosulfan II	ug/Kg	5.6 U	5.5 U
delta-BHC	ug/Kg	2.9 U	2.8 U
Dieldrin	ug/Kg	5.6 U	5.5 R
Endosulfan Sulfate	ug/Kg	5.6 U	5.5 U
Endrin	ug/Kg	5.6 U	30 J
Endrin Aldehyde	ug/Kg	5.6 U	5.5 U
Endrin Ketone	ug/Kg	14 J	17 J
gamma-BHC (Lindane)	ug/Kg	2.9 U	2.8 R
Gamma-Chlordane	ug/Kg	2.9 U	2.8 U
Heptachlor	ug/Kg	27 J	56 J
Heptachlor Epoxide	ug/Kg	2.9 U	2.8 U
Methoxychlor	ug/Kg	29 U	28 U
4,4'-DDD	ug/Kg	5.6 U	5.5 U
4,4'-DDE	ug/Kg	5.6 U	5.5 U
4,4'-DDT	ug/Kg	71 J	110 J
Aroclor-1016	ug/Kg	56 U	55 U
Aroclor-1221	ug/Kg	110 U	110 U
Aroclor-1232	ug/Kg	56 U	55 U
Aroclor-1242	ug/Kg	56 U	55 U
Aroclor-1248	ug/Kg	2000 J	3200 J
Aroclor-1254	ug/Kg	56 U	55 U
Aroclor-1260	ug/Kg	56 U	55 U
Toxaphene	ug/Kg	290 U	280 U

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Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3	CS3	CS3	CS3	CS3
Field Sample Location:		SD019	SD020	SD021	SD022	SD023	SD024	SD025
Sample Depth/Interval:		0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Matrix:		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Sample Collection Date:		08/21/2001	08/21/2001	08/21/2001	08/22/2001	08/22/2001	08/15/2001	08/23/2001
Field Sample Identification:		CS3-SD019-0.0/1.0	CS3-SD020-0.0/1.0	CS3-SD021-0.0/1.0	CS3-SD022-0.0/1.0	CS3-SD023-0.0/1.0	CS3-SD024-0.0/1.0	CS3-SD025-0.0/1.0
Laboratory Sample Identification:		E0WY1	E0WY2	E0WY3	E0WZ2	E0WZ3	E0WZ4	E0X00
Semivolatiles	**Units**							
2,2'-oxybis(1-Chloropropane)	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
2,4,5-Trichlorophenol	ug/Kg	1500 U	1700 U	1400 U	1500 U	1600 U	1700 U	1600 U
2,4,6-Trichlorophenol	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
2,4-Dichlorophenol	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
2,4-Dimethylphenol	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
2,4-Dinitrophenol	ug/Kg	1500 U	1700 U	1400 U	1500 U	1600 U	1700 U	1600 U
2,4-Dinitrotoluene	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
2,6-Dinitrotoluene	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
2-Chloronaphthalene	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
2-Chlorophenol	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
2-Methylnaphthalene	ug/Kg	120 J	72 J	120 J	310 J	230 J	57 J	180 J
2-Methylphenol	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
2-Nitroaniline	ug/Kg	1500 U	1700 U	1400 U	1500 U	1600 U	1700 U	1600 U
2-Nitrophenol	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
3,3'-Dichlorobenzidine	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
3-Nitroaniline	ug/Kg	1500 U	1700 U	1400 U	1500 U	1600 U	1700 U	1600 U
4,6-Dinitro-2-Methylphenol	ug/Kg	1500 U	1700 U	1400 U	1500 U	1600 U	1700 U	1600 U
4-Bromophenyl-phenylether	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
4-Chloro-3-Methylphenol	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
4-Chloroaniline	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
4-Chlorophenyl-phenyl ether	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
4-Methylphenol	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
4-Nitroaniline	ug/Kg	1500 U	1700 U	1400 U	1500 U	1600 U	1700 U	1600 U
Acenaphthene	ug/Kg	74 J	54 J	72 J	87 J	61 J	660 U	75 J
Acenaphthylene	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	37 J
Acetophenone	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
Anthracene	ug/Kg	97 J	59 J	100 J	100 J	69 J	34 J	93 J
Atrazine	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
Benzaldehyde	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
Benzo(a)anthracene	ug/Kg	180 J	110 J	180 J	220 J	150 J	64 J	230 J
Benzo(a)pyrene	ug/Kg	130 J	80 J	130 J	200 J	120 J	73 J	210 J
Benzo(b)fluoranthene	ug/Kg	170 J	120 J	200 J	260 J	160 J	79 J	320 J
Benzo(g,h,i)perylene	ug/Kg	99 J	110 J	120 J	100 J	140 J	87 J	150 J

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Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3	CS3	CS3	CS3	CS3
Field Sample Location:		SD019	SD020	SD021	SD022	SD023	SD024	SD025
Sample Depth/Interval:		0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Matrix:		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Sample Collection Date:		08/21/2001	08/21/2001	08/21/2001	08/22/2001	08/22/2001	08/15/2001	08/23/2001
Field Sample Identification:		CS3-SD019-0.0/1.0	CS3-SD020-0.0/1.0	CS3-SD021-0.0/1.0	CS3-SD022-0.0/1.0	CS3-SD023-0.0/1.0	CS3-SD024-0.0/1.0	CS3-SD025-0.0/1.0
Laboratory Sample Identification:		E0WY1	E0WY2	E0WY3	E0WZ2	E0WZ3	E0WZ4	E0X00
Semivolatiles	**Units**							
Benzo(k)fluoranthene	ug/Kg	190 J	120 J	160 J	180 J	130 J	74 J	220 J
Butylbenzylphthalate	ug/Kg	590 U	660 U	560 U	190 J	630 U	660 U	650 U
1,1'-Biphenyl	ug/Kg	590 U	660 U	560 U	31 J	630 U	660 U	650 U
bis(2-Chloroethoxy)methane	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
bis-(2-Chloroethyl) ether	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
bis(2-Ethylhexyl)phthalate	ug/Kg	86 J	81 J	71 J	85 J	85 J	38 J	110 J
Caprolactam	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
Carbazole	ug/Kg	39 J	660 U	36 J	49 J	33 J	660 U	40 J
Chrysene	ug/Kg	320 J	200 J	330 J	440 J	260 J	120 J	360 J
Di-n-butylphthalate	ug/Kg	590 U	660 U	31 J	36 J	630 U	660 U	41 J
Di-N-Octylphthalate	ug/Kg	590 UJ	660 UJ	560 UJ	46 J	630 UJ	660 UJ	61 J
Dibenzo(a,h)anthracene	ug/Kg	590 U	38 J	40 J	33 J	48 J	660 U	52 J
Dibenzofuran	ug/Kg	74 J	51 J	77 J	610 U	630 U	660 U	75 J
Diethylphthalate	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
Dimethylphthalate	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
Fluoranthene	ug/Kg	510 J	340 J	540 J	590 J	340 J	180 J	500 J
Fluorene	ug/Kg	73 J	43 J	65 J	100 J	73 J	660 U	69 J
Hexachlorobenzene	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
Hexachlorobutadiene	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
Hexachlorocyclopentadiene	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
Hexachloroethane	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
Indeno(1,2,3-cd)pyrene	ug/Kg	110 J	100 J	100 J	91 J	110 J	67 J	130 J
Isophorone	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
N-Nitroso-di-n-propylamine	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
N-Nitrosodiphenylamine	ug/Kg	590 U	660 U	96 J	130 J	80 J	660 U	650 U
Naphthalene	ug/Kg	80 J	57 J	90 J	120 J	78 J	55 J	110 J
Nitrobenzene	ug/Kg	590 U	660 U	560 U	610 U	630 U	660 U	650 U
Pentachlorophenol	ug/Kg	1500 U	1700 U	1400 U	1500 U	1600 U	1700 U	1600 U
Phenanthrene	ug/Kg	690 =	420 J	720 =	710 =	520 J	210 J	480 J
Phenol	ug/Kg	120 J	140 J	160 J	130 J	170 J	64 J	210 J
Pyrene	ug/Kg	520 J	350 J	510 J	510 J	460 J	230 J	430 J

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Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3
Field Sample Location:		SD026	SD027
Sample Depth/Interval:		0' - 1'	0' - 1'
Matrix:		Sediment	Sediment
Sample Collection Date:		08/23/2001	08/23/2001
Field Sample Identification:		CS3-SD026-0.0/1.0	CS3-SD027-0.0/1.0
Laboratory Sample Identification:		E0X01	E0X03
Semivolatiles	**Units**		
2,2'-oxybis(1-Chloropropane)	ug/Kg	560 U	550 U
2,4,5-Trichlorophenol	ug/Kg	1400 U	1400 U
2,4,6-Trichlorophenol	ug/Kg	560 U	550 U
2,4-Dichlorophenol	ug/Kg	560 U	550 U
2,4-Dimethylphenol	ug/Kg	560 U	550 U
2,4-Dinitrophenol	ug/Kg	1400 U	1400 U
2,4-Dinitrotoluene	ug/Kg	560 U	550 U
2,6-Dinitrotoluene	ug/Kg	560 U	550 U
2-Chloronaphthalene	ug/Kg	560 U	550 U
2-Chlorophenol	ug/Kg	560 U	550 U
2-Methylnaphthalene	ug/Kg	3200 =	410 J
2-Methylphenol	ug/Kg	560 U	550 U
2-Nitroaniline	ug/Kg	1400 U	1400 U
2-Nitrophenol	ug/Kg	560 U	550 U
3,3'-Dichlorobenzidine	ug/Kg	560 U	550 U
3-Nitroaniline	ug/Kg	1400 U	1400 U
4,6-Dinitro-2-Methylphenol	ug/Kg	1400 U	1400 U
4-Bromophenyl-phenylether	ug/Kg	560 U	550 U
4-Chloro-3-Methylphenol	ug/Kg	560 U	550 U
4-Chloroaniline	ug/Kg	560 U	550 U
4-Chlorophenyl-phenyl ether	ug/Kg	560 U	550 U
4-Methylphenol	ug/Kg	560 U	550 U
4-Nitroaniline	ug/Kg	1400 U	1400 U
Acenaphthene	ug/Kg	420 J	230 J
Acenaphthylene	ug/Kg	180 J	120 J
Acetophenone	ug/Kg	560 U	550 U
Anthracene	ug/Kg	670 =	330 J
Atrazine	ug/Kg	560 U	550 U
Benzaldehyde	ug/Kg	560 U	550 U
Benzo(a)anthracene	ug/Kg	870 =	680 =
Benzo(a)pyrene	ug/Kg	810 =	660 =
Benzo(b)fluoranthene	ug/Kg	1300 =	1100 =
Benzo(g,h,i)perylene	ug/Kg	200 J	160 J

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Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3
Field Sample Location:		SD026	SD027
Sample Depth/Interval:		0' - 1'	0' - 1'
Matrix:		Sediment	Sediment
Sample Collection Date:		08/23/2001	08/23/2001
Field Sample Identification:		CS3-SD026-0.0/1.0	CS3-SD027-0.0/1.0
Laboratory Sample Identification:		E0X01	E0X03
Semivolatiles	**Units**		
Benzo(k)fluoranthene	ug/Kg	740 =	770 =
Butylbenzylphthalate	ug/Kg	560 U	320 J
1,1'-Biphenyl	ug/Kg	290 J	62 J
bis(2-Chloroethoxy)methane	ug/Kg	560 U	550 U
bis-(2-Chloroethyl) ether	ug/Kg	560 U	550 U
bis(2-Ethylhexyl)phthalate	ug/Kg	370 J	310 J
Caprolactam	ug/Kg	560 U	550 U
Carbazole	ug/Kg	560 U	150 J
Chrysene	ug/Kg	1300 =	930 =
Di-n-butylphthalate	ug/Kg	560 U	110 J
Di-N-Octylphthalate	ug/Kg	560 UJ	170 J
Dibenzo(a,h)anthracene	ug/Kg	93 J	84 J
Dibenzofuran	ug/Kg	560 U	550 U
Diethylphthalate	ug/Kg	560 U	550 U
Dimethylphthalate	ug/Kg	560 U	550 U
Fluoranthene	ug/Kg	1700 =	2400 =
Fluorene	ug/Kg	630 =	240 J
Hexachlorobenzene	ug/Kg	560 U	550 U
Hexachlorobutadiene	ug/Kg	560 U	550 U
Hexachlorocyclopentadiene	ug/Kg	560 U	550 U
Hexachloroethane	ug/Kg	560 U	550 U
Indeno(1,2,3-cd)pyrene	ug/Kg	180 J	180 J
Isophorone	ug/Kg	560 U	550 U
N-Nitroso-di-n-propylamine	ug/Kg	560 U	550 U
N-Nitrosodiphenylamine	ug/Kg	370 J	140 J
Naphthalene	ug/Kg	3200 =	280 J
Nitrobenzene	ug/Kg	560 U	550 U
Pentachlorophenol	ug/Kg	1400 U	1400 U
Phenanthrene	ug/Kg	3500 =	1400 =
Phenol	ug/Kg	290 J	550 U
Pyrene	ug/Kg	2100 =	1300 =

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

	Field Site Identifier:	CS3	CS3	CS3
	Field Sample Location:	SD021	SD024	SD027
	Sample Depth/Interval:	0' - 1'	0' - 1'	0' - 1'
	Matrix:	Sediment	Sediment	Sediment
	Sample Collection Date:	08/21/2001	08/15/2001	08/23/2001
	Field Sample Identification:	CS3-SD021-0.0/1.0	CS3-SD024-0.0/1.0	CS3-SD027-0.0/1.0
	Laboratory Sample Identification:	2001CP20S61	2001CP20S62	2001CP20S63
SPLP-Metals	**Units**			
Arsenic	ug/L	2.5 =	0.9 M	4.7 =
Lead	ug/L	17 =	1.8 M	16.4 =

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

	Field Site Identifier:	CS3	CS3	CS3
	Field Sample Location:	SD021	SD024	SD027
	Sample Depth/Interval:	0' - 1'	0' - 1'	0' - 1'
	Matrix:	Sediment	Sediment	Sediment
	Sample Collection Date:	08/21/2001	08/15/2001	08/23/2001
	Field Sample Identification:	CS3-SD021-0.0/1.0	CS3-SD024-0.0/1.0	CS3-SD027-0.0/1.0
	Laboratory Sample Identification:	2001CP20S61	2001CP20S62	2001CP20S63
SPLP-Pest/PCBs	**Units**			
Aroclor-1016	ug/L	1.1 UJ	1 UJ	1.2 UJ
Aroclor-1232	ug/L	1.1 UJ	1 UJ	1.2 UJ
Aroclor-1242	ug/L	1.1 UJ	1 UJ	1.2 UJ
Aroclor-1248	ug/L	1.1 UJ	1 UJ	1.2 UJ
Aroclor-1254	ug/L	1.1 UJ	1 UJ	1.2 UJ
Aroclor-1260	ug/L	1.1 UJ	1 UJ	1.2 UJ

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

	Field Site Identifier:	CS3	CS3	CS3
	Field Sample Location:	SD021	SD024	SD027
	Sample Depth/Interval:	0' - 1'	0' - 1'	0' - 1'
	Matrix:	Sediment	Sediment	Sediment
	Sample Collection Date:	08/21/2001	08/15/2001	08/23/2001
	Field Sample Identification:	CS3-SD021-0.0/1.0	CS3-SD024-0.0/1.0	CS3-SD027-0.0/1.0
	Laboratory Sample Identification:	2001CP20S61	2001CP20S62	2001CP20S63
SPLP-Semivolatiles	**Units**			
2-Methylnaphthalene	ug/L	5 J	5 U	6 U
Acenaphthene	ug/L	6 U	5 U	6 U
Acenaphthylene	ug/L	6 U	5 U	6 U
Anthracene	ug/L	6 U	5 U	6 U
Benzo(a)anthracene	ug/L	6 U	5 U	6 U
Benzo(a)pyrene	ug/L	6 U	5 U	6 U
Benzo(b)fluoranthene	ug/L	6 U	5 U	6 U
Benzo(g,h,i)perylene	ug/L	6 U	5 U	6 U
Benzo(k)fluoranthene	ug/L	6 U	5 U	6 U
Carbazole	ug/L	6 U	5 U	6 U
Chrysene	ug/L	6 U	5 U	6 U
Dibenzo(a,h)anthracene	ug/L	6 U	5 U	6 U
Dibenzofuran	ug/L	6 U	5 U	6 U
Fluoranthene	ug/L	6 U	5 U	6 U
Fluorene	ug/L	6 U	5 U	6 U
Indeno(1,2,3-cd)pyrene	ug/L	6 U	5 U	6 U
Naphthalene	ug/L	5 U	5 U	6 U
Phenanthrene	ug/L	3 J	5 U	6 U
Pyrene	ug/L	6 U	5 U	6 U

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Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3
Field Sample Location:		SD021	SD024	SD027
Sample Depth/Interval:		0' - 1'	0' - 1'	0' - 1'
Matrix:		Sediment	Sediment	Sediment
Sample Collection Date:		08/21/2001	08/15/2001	08/23/2001
Field Sample Identification:		CS3-SD021-0.0/1.0	CS3-SD024-0.0/1.0	CS3-SD027-0.0/1.0
Laboratory Sample Identification:		2001CP20S61	2001CP20S62	2001CP20S63
SPLP-Volatiles	**Units**			
1,1,1,2-Tetrachloroethane	ug/L	5 U	5 U	5 U
1,1,1-Trichloroethane	ug/L	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	ug/L	25 U	25 U	25 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	5 U
1,1-Dichloroethane	ug/L	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	5 U	5 U	5 U
1,1-Dichloropropene	ug/L	5 U	5 U	5 U
1,2,3-Trichlorobenzene	ug/L	25 U	25 U	25 U
1,2,3-Trichloropropane	ug/L	25 U	25 U	25 U
1,2,4-Trichlorobenzene	ug/L	25 U	25 U	25 U
1,2,4-Trimethylbenzene	ug/L	5 U	5 U	5 U
1,2-Dibromo-3-Chloropropane	ug/L	25 U	25 U	25 U
1,2-Dibromoethane	ug/L	5 U	5 U	5 U
1,2-Dichlorobenzene	ug/L	25 U	25 U	25 U
1,2-Dichloroethane	ug/L	5 U	5 U	5 U
1,2-Dichloropropane	ug/L	5 U	5 U	5 U
1,3,5-Trimethylbenzene (Mesitylene)	ug/L	5 U	5 U	5 U
1,3-Dichlorobenzene	ug/L	5 U	5 U	5 U
1,3-Dichloropropane	ug/L	5 U	5 U	5 U
1,4-Dichlorobenzene	ug/L	25 U	25 U	25 U
2,2-Dichloropropane	ug/L	5 U	5 U	5 U
2-Butanone	ug/L	5 U	25 U	25 U
2-Chloroethyl Vinyl Ether	ug/L	25 UJ	25 UJ	25 UJ
2-Chlorotoluene	ug/L	5 U	5 U	5 U
2-Hexanone	ug/L	13 J	25 UJ	25 UJ
4-Chlorotoluene	ug/L	5 U	5 U	5 U
4-Methyl-2-Pentanone	ug/L	25 U	25 U	25 U
Acetone	ug/L	7 J	9 J	9 J
Acrolein	ug/L	5 U	50 UJ	50 UJ
Acrylonitrile	ug/L	5 U	25 U	25 U
Benzene	ug/L	5 U	5 U	5 U
Bromobenzene	ug/L	5 U	5 U	5 U
Bromochloromethane	ug/L	5 U	5 U	5 U

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Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3
Field Sample Location:		SD021	SD024	SD027
Sample Depth/Interval:		0' - 1'	0' - 1'	0' - 1'
Matrix:		Sediment	Sediment	Sediment
Sample Collection Date:		08/21/2001	08/15/2001	08/23/2001
Field Sample Identification:		CS3-SD021-0.0/1.0	CS3-SD024-0.0/1.0	CS3-SD027-0.0/1.0
Laboratory Sample Identification:		2001CP20S61	2001CP20S62	2001CP20S63
SPLP-Volatiles	**Units**			
Bromodichloromethane	ug/L	5 U	5 U	5 U
Bromoform	ug/L	25 U	25 U	25 U
Bromomethane	ug/L	5 UJ	10 U	10 U
Carbon Disulfide	ug/L	5 U	5 U	5 U
Carbon Tetrachloride	ug/L	5 U	5 U	5 U
Chlorobenzene	ug/L	5 U	5 U	5 U
Chloroethane	ug/L	8 J	10 U	10 U
Chloroform	ug/L	5 U	5 U	5 U
Chloromethane	ug/L	10 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	5 U	5 U	8 =
cis-1,3-Dichloropropene	ug/L	5 U	5 U	5 U
Dibromochloromethane	ug/L	5 U	5 U	5 U
Ethylbenzene	ug/L	5 U	5 U	5 U
Hexachlorobutadiene	ug/L	5 U	5 U	5 U
Isopropylbenzene	ug/L	5 U	5 U	5 U
M,P-Xylene (Sum Of Isomers)	ug/L	5 U	5 U	5 U
Methylene Chloride	ug/L	25 U	86 J	64 J
N-Butylbenzene	ug/L	5 U	5 U	5 U
N-Propylbenzene	ug/L	5 U	5 U	5 U
Naphthalene	ug/L	3 U	25 U	3 U
O-Xylene (1,2-Dimethylbenzene)	ug/L	5 U	5 U	5 U
P-Cymene (P-Isopropyltoluene)	ug/L	5 U	5 U	5 U
Sec-Butylbenzene	ug/L	5 U	5 U	5 U
Styrene	ug/L	5 U	5 U	5 U
T-Butylbenzene	ug/L	5 U	5 U	5 U
Tetrachloroethene	ug/L	5 U	5 U	7 U
Toluene	ug/L	5 U	5 U	5 U
trans-1,2-Dichloroethene	ug/L	11 U	5 U	5 U
trans-1,3-Dichloropropene	ug/L	5 U	5 U	5 U
Trichloroethene	ug/L	50 =	16 =	120 =

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Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3	CS3	CS3	CS3	CS3
Field Sample Location:		SD019	SD020	SD021	SD022	SD023	SD024	SD025
Sample Depth/Interval:		0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Matrix:		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Sample Collection Date:		08/21/2001	08/21/2001	08/21/2001	08/22/2001	08/22/2001	08/15/2001	08/23/2001
Field Sample Identification:		CS3-SD019-0.0/1.0	CS3-SD020-0.0/1.0	CS3-SD021-0.0/1.0	CS3-SD022-0.0/1.0	CS3-SD023-0.0/1.0	CS3-SD024-0.0/1.0	CS3-SD025-0.0/1.0
Laboratory Sample Identification:		ME0WY1	ME0WY2	ME0WY3	ME0WZ2	ME0WZ3	ME0WZ4	ME0X00
Total Metals	**Units**							
Aluminum	mg/Kg	5130 =	3110 =	4860 =	1530 =	1180 =	1340 =	1940 =
Antimony	mg/Kg	1 UJ	1.8 J	1.1 UJ	3.8 J	3.4 J	2.1 J	3.5 J
Arsenic	mg/Kg	10.5 =	7.3 =	9.2 =	6.8 =	5.5 =	6.5 =	11.7 =
Barium	mg/Kg	473 =	400 =	307 =	369 =	414 =	555 =	385 =
Beryllium	mg/Kg	0.31 J	0.17 J	0.26 J	0.16 J	0.15 J	0.22 J	0.17 =
Cadmium	mg/Kg	4.1 =	4.9 =	3.1 =	10.3 =	6.8 =	6.8 =	7.4 J
Calcium	mg/Kg	240000 =	241000 =	145000 =	277000 =	289000 =	327000 =	283000 =
Chromium	mg/Kg	54.6 =	34.7 =	38.7 =	89.3 =	58 =	89.7 =	63.1 =
Cobalt	mg/Kg	4.9 =	3.2 =	4 =	3.6 =	2.6 =	2.4 =	4 =
Copper	mg/Kg	63.2 =	46 =	47.5 =	82.3 =	64.8 =	69.3 =	117 J
Iron	mg/Kg	14900 =	8630 =	12600 =	12200 =	7900 =	8660 =	16300 =
Lead	mg/Kg	391 =	444 =	286 =	1110 =	1000 =	843 =	949 =
Magnesium	mg/Kg	12400 =	7080 =	9800 =	2840 =	2170 =	2620 =	4030 =
Manganese	mg/Kg	832 =	463 =	614 =	773 =	492 =	695 =	707 =
Mercury	mg/Kg	0.09 U	0.12 U	0.09 U	0.16 =	0.12 U	0.11 U	0.12 =
Nickel	mg/Kg	23.5 =	17.4 =	18.3 =	28.3 =	22.2 =	20.6 =	37 =
Potassium	mg/Kg	1380 =	837 =	1290 =	430 =	431 =	436 =	541 =
Selenium	mg/Kg	1.2 U	1.6 U	1.2 U	1.4 U	1.6 U	1.5 U	1.5 U
Silver	mg/Kg	0.64 =	0.5 J	0.5 J	1 =	0.75 J	0.64 J	1.3 J
Sodium	mg/Kg	444 =	541 =	466 =	505 =	509 =	567 =	409 =
Thallium	mg/Kg	1.8 U	2.4 U	1.9 U	2.2 U	2.4 U	2.3 U	2.2 U
Vanadium	mg/Kg	24.1 =	24.3 =	19.2 =	28.5 =	26.1 =	24.4 =	26.2 =
Zinc	mg/Kg	965 =	846 =	821 =	1480 =	1090 =	1050 =	1610 =

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Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3
Field Sample Location:		SD026	SD027
Sample Depth/Interval:		0' - 1'	0' - 1'
Matrix:		Sediment	Sediment
Sample Collection Date:		08/23/2001	08/23/2001
Field Sample Identification:		CS3-SD026-0.0/1.0	CS3-SD027-0.0/1.0
Laboratory Sample Identification:		ME0X01	ME0X03
Total Metals	**Units**		
Aluminum	mg/Kg	3540 =	3840 =
Antimony	mg/Kg	6.4 J	7.9 J
Arsenic	mg/Kg	19.7 =	16.4 =
Barium	mg/Kg	417 =	395 =
Beryllium	mg/Kg	0.36 =	0.34 =
Cadmium	mg/Kg	9.9 J	11.9 J
Calcium	mg/Kg	231000 =	173000 =
Chromium	mg/Kg	113 =	194 =
Cobalt	mg/Kg	7.3 =	8.3 =
Copper	mg/Kg	433 J	307 J
Iron	mg/Kg	33300 =	47200 =
Lead	mg/Kg	794 =	791 =
Magnesium	mg/Kg	8090 =	9310 =
Manganese	mg/Kg	1300 =	2300 =
Mercury	mg/Kg	0.25 =	0.46 =
Nickel	mg/Kg	79.2 =	94.6 =
Potassium	mg/Kg	958 =	944 =
Selenium	mg/Kg	1.3 U	1.3 U
Silver	mg/Kg	2.4 =	3 =
Sodium	mg/Kg	408 =	428 =
Thallium	mg/Kg	2 U	2 U
Vanadium	mg/Kg	28.3 =	24.1 =
Zinc	mg/Kg	2690 =	4670 =

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Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3	CS3	CS3	CS3	CS3
Field Sample Location:		SD019	SD020	SD021	SD022	SD023	SD024	SD025
Sample Depth/Interval:		0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Matrix:		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Sample Collection Date:		08/21/2001	08/21/2001	08/21/2001	08/22/2001	08/22/2001	08/15/2001	08/23/2001
Field Sample Identification:		CS3-SD019-0.0/1.0	CS3-SD020-0.0/1.0	CS3-SD021-0.0/1.0	CS3-SD022-0.0/1.0	CS3-SD023-0.0/1.0	CS3-SD024-0.0/1.0	CS3-SD025-0.0/1.0
Laboratory Sample Identification:		E0WY1	E0WY2	E0WY3	E0WZ2	E0WZ3	E0WZ4	E0X00
Volatiles	**Units**							
1,1,1-Trichloroethane	ug/Kg	18 U	20 U	810 U	19 UJ	19 U	20 UJ	98 UJ
1,1,2,2-Tetrachloroethane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
1,1,2-Trichloroethane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
1,1-Dichloroethane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
1,1-Dichloroethene	ug/Kg	6 J	20 U	810 U	19 U	19 U	20 UJ	98 UJ
1,2,4-Trichlorobenzene	ug/Kg	18 UJ	20 U	810 U	19 U	19 U	20 UJ	98 UJ
1,2-Dibromo-3-Chloropropane	ug/Kg	18 U	20 UJ	810 UJ	19 U	19 U	20 UJ	98 UJ
1,2-Dibromoethane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
1,2-Dichlorobenzene	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
1,2-Dichloroethane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
1,2-Dichloropropane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
1,3-Dichlorobenzene	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
1,4-Dichlorobenzene	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
2-Butanone	ug/Kg	18 UJ	11 J	810 UJ	19 UJ	16 J	20 UJ	98 UJ
2-Hexanone	ug/Kg	18 UJ	20 UJ	810 UJ	19 U	19 U	20 UJ	98 UJ
4-Methyl-2-Pentanone	ug/Kg	18 U	20 U	810 UJ	19 U	19 U	20 UJ	98 UJ
Acetone	ug/Kg	18 UJ	110 UJ	810 UJ	38 UJ	110 =	49 UJ	140 UJ
Benzene	ug/Kg	2 J	17 J	810 U	19 U	19 U	20 UJ	98 UJ
Bromodichloromethane	ug/Kg	18 U	20 U	810 U	19 UJ	19 U	20 UJ	98 UJ
Bromoform	ug/Kg	18 U	20 UJ	810 U	19 U	19 U	20 UJ	98 UJ
Bromomethane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Carbon Disulfide	ug/Kg	18 U	6 J	810 U	5 J	5 J	3 J	98 UJ
Carbon Tetrachloride	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Chlorobenzene	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Chloroethane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Chloroform	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Chloromethane	ug/Kg	18 U	20 U	810 U	19 UJ	19 U	20 UJ	98 UJ
cis-1,2-Dichloroethene	ug/Kg	130 =	21 =	200 J	5 J	2 J	6 J	25 J
cis-1,3-Dichloropropene	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Cyclohexane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Dibromochloromethane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Dichlorodifluoromethane	ug/Kg	18 UJ	20 UJ	810 U	19 UJ	19 UJ	20 UJ	98 UJ

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Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3	CS3	CS3	CS3	CS3
Field Sample Location:		SD019	SD020	SD021	SD022	SD023	SD024	SD025
Sample Depth/Interval:		0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'	0' - 1'
Matrix:		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Sample Collection Date:		08/21/2001	08/21/2001	08/21/2001	08/22/2001	08/22/2001	08/15/2001	08/23/2001
Field Sample Identification:		CS3-SD019-0.0/1.0	CS3-SD020-0.0/1.0	CS3-SD021-0.0/1.0	CS3-SD022-0.0/1.0	CS3-SD023-0.0/1.0	CS3-SD024-0.0/1.0	CS3-SD025-0.0/1.0
Laboratory Sample Identification:		E0WY1	E0WY2	E0WY3	E0WZ2	E0WZ3	E0WZ4	E0X00
Volatiles	**Units**							
Ethylbenzene	ug/Kg	18 U	3 J	810 U	19 U	19 U	20 UJ	98 UJ
Isopropylbenzene	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Methyl Acetate	ug/Kg	18 UJ	20 U	810 UJ	19 UJ	19 U	20 UJ	98 UJ
Methyl tert-Butyl Ether	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Methylcyclohexane	ug/Kg	18 U	20 U	810 U	5 J	19 U	20 UJ	98 UJ
Methylene Chloride	ug/Kg	13 J	41 =	120 J	19 U	40 U	20 UJ	98 UJ
Styrene	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Tetrachloroethene	ug/Kg	2 J	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Toluene	ug/Kg	18 U	10 J	810 U	3 J	19 U	20 UJ	98 UJ
trans-1,2-Dichloroethene	ug/Kg	3 J	20 U	810 U	19 U	19 U	20 UJ	98 UJ
trans-1,3-Dichloropropene	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Trichloroethene	ug/Kg	1700 =	420 =	6200 U	220 =	22 =	140 J	1100 J
Trichlorofluoromethane	ug/Kg	18 U	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Vinyl Chloride	ug/Kg	8 J	20 U	810 U	19 U	19 U	20 UJ	98 UJ
Xylenes (total)	ug/Kg	18 U	10 J	810 U	11 J	19 U	20 UJ	98 UJ

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Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3
Field Sample Location:		SD026	SD027
Sample Depth/Interval:		0' - 1'	0' - 1'
Matrix:		Sediment	Sediment
Sample Collection Date:		08/23/2001	08/23/2001
Field Sample Identification:		CS3-SD026-0.0/1.0	CS3-SD027-0.0/1.0
Laboratory Sample Identification:		E0X01	E0X03
Volatiles	**Units**		
1,1,1-Trichloroethane	ug/Kg	160000 U	1600 U
1,1,2,2-Tetrachloroethane	ug/Kg	160000 U	1600 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/Kg	160000 U	1600 U
1,1,2-Trichloroethane	ug/Kg	160000 U	1600 U
1,1-Dichloroethane	ug/Kg	160000 U	1600 U
1,1-Dichloroethene	ug/Kg	160000 U	1600 U
1,2,4-Trichlorobenzene	ug/Kg	160000 U	1600 U
1,2-Dibromo-3-Chloropropane	ug/Kg	160000 UJ	1600 UJ
1,2-Dibromoethane	ug/Kg	160000 U	1600 U
1,2-Dichlorobenzene	ug/Kg	160000 U	1600 U
1,2-Dichloroethane	ug/Kg	160000 U	1600 U
1,2-Dichloropropane	ug/Kg	160000 U	1600 U
1,3-Dichlorobenzene	ug/Kg	160000 U	1600 U
1,4-Dichlorobenzene	ug/Kg	160000 U	1600 U
2-Butanone	ug/Kg	160000 UJ	1600 UJ
2-Hexanone	ug/Kg	160000 UJ	1600 UJ
4-Methyl-2-Pentanone	ug/Kg	160000 UJ	1600 UJ
Acetone	ug/Kg	160000 UJ	1600 UJ
Benzene	ug/Kg	160000 U	1600 U
Bromodichloromethane	ug/Kg	160000 U	1600 U
Bromoform	ug/Kg	160000 U	1600 U
Bromomethane	ug/Kg	160000 U	1600 U
Carbon Disulfide	ug/Kg	160000 U	1600 U
Carbon Tetrachloride	ug/Kg	160000 U	1600 U
Chlorobenzene	ug/Kg	160000 U	1600 U
Chloroethane	ug/Kg	160000 U	1600 U
Chloroform	ug/Kg	160000 U	1600 U
Chloromethane	ug/Kg	160000 U	1600 U
cis-1,2-Dichloroethene	ug/Kg	160000 U	1600 U
cis-1,3-Dichloropropene	ug/Kg	160000 U	1600 U
Cyclohexane	ug/Kg	160000 U	1600 U
Dibromochloromethane	ug/Kg	160000 U	1600 U
Dichlorodifluoromethane	ug/Kg	160000 U	1600 U

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from Markland Quarry (Contract 3)
Continental Steel Superfund Site

	Field Site Identifier:	CS3	CS3
	Field Sample Location:	SD026	SD027
	Sample Depth/Interval:	0' - 1'	0' - 1'
	Matrix:	Sediment	Sediment
	Sample Collection Date:	08/23/2001	08/23/2001
	Field Sample Identification:	CS3-SD026-0.0/1.0	CS3-SD027-0.0/1.0
	Laboratory Sample Identification:	E0X01	E0X03
Volatiles	**Units**		
Ethylbenzene	ug/Kg	160000 U	1600 U
Isopropylbenzene	ug/Kg	160000 U	1600 U
Methyl Acetate	ug/Kg	160000 UJ	1600 UJ
Methyl tert-Butyl Ether	ug/Kg	160000 U	1600 U
Methylcyclohexane	ug/Kg	160000 U	1600 U
Methylene Chloride	ug/Kg	19000 J	1600 U
Styrene	ug/Kg	160000 U	1600 U
Tetrachloroethene	ug/Kg	160000 U	1600 U
Toluene	ug/Kg	160000 U	1600 U
trans-1,2-Dichloroethene	ug/Kg	160000 U	1600 U
trans-1,3-Dichloropropene	ug/Kg	160000 U	1600 U
Trichloroethene	ug/Kg	2800000 U	18000 U
Trichlorofluoromethane	ug/Kg	160000 U	1600 U
Vinyl Chloride	ug/Kg	160000 U	1600 U
Xylenes (total)	ug/Kg	160000 U	1600 U

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from Dewatering Samples from Markland Quarry (CS3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3	CS3
Field Sample Location:		DS001	DS002	DS003	DS003
Sample Depth/Interval:		N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water
Sample Collection Date:		08/29/2001	08/30/2001	08/30/2001	08/30/2001
Field Sample Identification:		CS3-DS001-02	CS3-DS002-02	CS3-DS003-01	CS3-DS003-02
Laboratory Sample Identification:		E0XS9	E0XT7	E0XT5	E0XT6
Pesticides/PCBs	**Units**				
Aldrin	ug/L	0.055 J	0.05 U	0.057 J	0.05 U
alpha-BHC	ug/L	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan I	ug/L	0.05 U	0.05 U	0.05 U	0.05 U
Alpha-Chlordane	ug/L	0.05 U	0.05 U	0.05 U	0.05 U
beta-BHC	ug/L	0.05 U	0.05 U	0.05 U	0.05 U
Endosulfan II	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
delta-BHC	ug/L	0.05 U	0.05 U	0.05 U	0.05 U
Dieldrin	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Endosulfan Sulfate	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Endrin	ug/L	0.1 U	0.1 U	0.1 U	0.036 J
Endrin Aldehyde	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Endrin Ketone	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
gamma-BHC (Lindane)	ug/L	0.05 U	0.05 U	0.05 U	0.05 U
Gamma-Chlordane	ug/L	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	ug/L	0.027 J	0.05 U	0.034 J	0.11 J
Heptachlor Epoxide	ug/L	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	ug/L	0.5 U	0.5 U	0.5 U	0.5 U
4,4'-DDD	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDE	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
4,4'-DDT	ug/L	0.1 U	0.1 U	0.1 U	0.1 U
Aroclor-1016	ug/L	1 U	1 U	1 U	1 U
Aroclor-1221	ug/L	2 U	2 U	2 U	2 U
Aroclor-1232	ug/L	1 U	1 U	1 U	1 U
Aroclor-1242	ug/L	1 U	1 U	1 U	1 U
Aroclor-1248	ug/L	1.9 =	0.41 J	2.2 =	6.6 =
Aroclor-1254	ug/L	1 U	1 U	1 U	1 U
Aroclor-1260	ug/L	1 U	1 U	1 U	1 U
Toxaphene	ug/L	5 U	5 U	5 U	5 U

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "R" - Rejected - Initial Calibration RRF below QC limits

Analytical Results from Dewatering Samples from Markland Quarry (CS3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3	CS3
Field Sample Location:		DS001	DS002	DS003	DS003
Sample Depth/Interval:		N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water
Sample Collection Date:		08/29/2001	08/30/2001	08/30/2001	08/30/2001
Field Sample Identification:		CS3-DS001-02	CS3-DS002-02	CS3-DS003-01	CS3-DS003-02
Laboratory Sample Identification:		E0XS9	E0XT7	E0XT5	E0XT6
Semivolatiles	**Units**				
2,2'-oxybis(1-Chloropropane)	ug/L	11 R	11 U	110 U	220 U
2,4,5-Trichlorophenol	ug/L	27 U	26 U	270 U	560 U
2,4,6-Trichlorophenol	ug/L	11 U	11 U	110 U	220 U
2,4-Dichlorophenol	ug/L	11 U	11 U	110 U	220 U
2,4-Dimethylphenol	ug/L	11 U	11 U	110 U	220 U
2,4-Dinitrophenol	ug/L	27 U	26 U	270 U	560 U
2,4-Dinitrotoluene	ug/L	11 R	11 U	110 U	220 U
2,6-Dinitrotoluene	ug/L	11 R	11 U	110 U	220 U
2-Chloronaphthalene	ug/L	11 R	11 U	110 U	220 U
2-Chlorophenol	ug/L	11 U	11 U	110 U	220 U
2-Methylnaphthalene	ug/L	0.8 J	5 J	110 U	220 U
2-Methylphenol	ug/L	11 U	11 U	110 U	220 U
2-Nitroaniline	ug/L	27 R	26 U	270 U	560 U
2-Nitrophenol	ug/L	11 U	11 U	110 U	220 U
3,3'-Dichlorobenzidine	ug/L	11 R	11 U	110 U	220 U
3-Nitroaniline	ug/L	27 R	26 U	270 U	560 U
4,6-Dinitro-2-Methylphenol	ug/L	27 U	26 U	270 U	560 U
4-Bromophenyl-phenylether	ug/L	11 R	11 U	110 U	220 U
4-Chloro-3-Methylphenol	ug/L	11 U	11 U	110 U	220 U
4-Chloroaniline	ug/L	11 R	11 U	110 U	220 U
4-Chlorophenyl-phenyl ether	ug/L	11 R	11 U	110 U	220 U
4-Methylphenol	ug/L	11 U	11 U	110 U	220 U
4-Nitroaniline	ug/L	27 R	26 U	270 U	560 U
Acenaphthene	ug/L	11 R	0.7 J	110 U	220 U
Acenaphthylene	ug/L	11 R	11 U	110 U	220 U
Acetophenone	ug/L	11 R	11 U	110 U	220 U
Anthracene	ug/L	11 R	11 U	110 U	220 U
Atrazine	ug/L	11 R	11 U	110 U	220 U
Benzaldehyde	ug/L	11 R	2 J	110 U	220 U
Benzo(a)anthracene	ug/L	11 R	11 U	110 U	220 U
Benzo(a)pyrene	ug/L	11 R	11 U	110 U	220 U
Benzo(b)fluoranthene	ug/L	11 R	11 U	110 U	220 U
Benzo(g,h,i)perylene	ug/L	11 R	11 U	110 U	220 U

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "R" - Rejected - Initial Calibration RRF below QC limits

Analytical Results from Dewatering Samples from Markland Quarry (CS3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3	CS3
Field Sample Location:		DS001	DS002	DS003	DS003
Sample Depth/Interval:		N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water
Sample Collection Date:		08/29/2001	08/30/2001	08/30/2001	08/30/2001
Field Sample Identification:		CS3-DS001-02	CS3-DS002-02	CS3-DS003-01	CS3-DS003-02
Laboratory Sample Identification:		E0XS9	E0XT7	E0XT5	E0XT6
Semivolatiles	**Units**				
Benzo(k)fluoranthene	ug/L	11 R	11 U	110 U	220 U
Butylbenzylphthalate	ug/L	11 R	11 UJ	110 UJ	220 UJ
1,1'-Biphenyl	ug/L	11 R	11 U	110 U	220 U
bis(2-Chloroethoxy)methane	ug/L	11 R	11 U	110 U	220 U
bis-(2-Chloroethyl) ether	ug/L	11 R	11 U	110 U	220 U
bis(2-Ethylhexyl)phthalate	ug/L	0.7 J	11 UJ	6 J	220 UJ
Caprolactam	ug/L	11 R	11 U	110 U	220 U
Carbazole	ug/L	11 R	11 U	110 U	220 U
Chrysene	ug/L	11 R	11 U	110 U	220 U
Di-n-butylphthalate	ug/L	11 R	11 U	110 U	220 U
Di-N-Octylphthalate	ug/L	11 R	1 J	110 UJ	220 UJ
Dibenzo(a,h)anthracene	ug/L	11 R	11 U	110 U	220 U
Dibenzofuran	ug/L	11 R	11 U	110 U	220 U
Diethylphthalate	ug/L	11 R	11 U	110 U	220 U
Dimethylphthalate	ug/L	11 R	11 U	110 U	220 U
Fluoranthene	ug/L	11 R	11 U	110 U	220 U
Fluorene	ug/L	11 R	0.7 J	110 U	220 U
Hexachlorobenzene	ug/L	11 R	11 U	110 U	220 U
Hexachlorobutadiene	ug/L	11 R	11 U	110 U	220 U
Hexachlorocyclopentadiene	ug/L	11 R	11 UJ	110 UJ	220 UJ
Hexachloroethane	ug/L	11 R	11 U	110 U	220 U
Indeno(1,2,3-cd)pyrene	ug/L	11 R	11 U	110 U	220 U
Isophorone	ug/L	11 R	11 U	110 U	220 U
N-Nitroso-di-n-propylamine	ug/L	11 R	11 U	110 U	220 U
N-Nitrosodiphenylamine	ug/L	11 R	11 U	110 U	220 U
Naphthalene	ug/L	0.6 J	2 J	110 U	220 U
Nitrobenzene	ug/L	11 R	11 U	110 U	220 U
Pentachlorophenol	ug/L	27 UJ	26 UJ	270 UJ	560 UJ
Phenanthrene	ug/L	1 J	2 J	110 U	220 U
Phenol	ug/L	11 U	100 =	420 =	380 =
Pyrene	ug/L	11 R	0.8 J	110 U	220 U

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Analytical Results from Dewatering Samples from Markland Quarry (CS3)
Continental Steel Superfund Site

	Field Site Identifier:	CS3	CS3	CS3	CS3	CS3
	Field Sample Location:	DS001	DS001	DS002	DS003	DS003
	Sample Depth/Interval:	N/A	N/A	N/A	N/A	N/A
	Matrix:	Water	Water	Water	Water	Water
	Sample Collection Date:	08/28/2001	08/29/2001	08/30/2001	08/30/2001	08/30/2001
	Field Sample Identification:	CS3-DS001-1	CS3-DS001-02	CS3-DS002-02	CS3-DS003-01	CS3-DS003-02
	Laboratory Sample Identification:	ME0XS6	ME0XS9	ME0XT7	ME0XT5	ME0XT6
Total Metals	**Units**					
Aluminum	ug/L	1410 J	2090 J	741 J	1610 J	3210 J
Antimony	ug/L	5.2 UB	3.7 UJ	3.7 UJ	97.5 J	10.6 UB
Arsenic	ug/L	14.3 J	18.4 J	2.6 J	5.8 J	19.6 J
Barium	ug/L	674 J	833 J	546 J	189 J	377 J
Beryllium	ug/L	0.26 UB	0.28 UB	0.19 UB	0.21 UB	0.3 UB
Cadmium	ug/L	4 J	5.1 J	0.7 UJ	1.6 J	6 J
Calcium	ug/L	336000 J	452000 J	87800 J	91000 J	171000 J
Chromium	ug/L	45.7 J	65.4 J	6.5 J	11.9 J	48.1 J
Cobalt	ug/L	3.6 J	4.8 J	1.8 UJ	2.1 J	5.7 J
Copper	ug/L	120 J	162 J	49.8 J	109 J	272 J
Iron	ug/L	3750 J	5170 J	562 J	1640 J	9940 J
Lead	ug/L	964 J	1210 J	393 J	223 J	767 J
Magnesium	ug/L	11100 J	11100 J	850 J	1380 J	4200 J
Manganese	ug/L	367 J	487 J	44.8 J	117 J	599 J
Mercury	ug/L	0.29 J	0.27 J	0.2 UJ	0.2 UJ	0.54 J
Nickel	ug/L	4.9 J	12 J	3.2 J	23.4 J	66 J
Potassium	ug/L	28600 J	37600 J	34600 J	52600 J	57500 J
Selenium	ug/L	3 J	2.9 UB	2.9 UB	4.6 UB	2.2 UJ
Silver	ug/L	4 UJ	4 UJ	4 UJ	4 UJ	4 UJ
Sodium	ug/L	28800 J	32000 J	33600 J	44300 J	44800 J
Thallium	ug/L	5.7 UJ	5.7 UJ	5.7 UJ	5.7 UJ	5.7 UJ
Vanadium	ug/L	46.8 J	55.8 J	13.8 J	24.1 J	34.3 J
Zinc	ug/L	1830 J	2100 J	231 J	862 J	3250 J

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "R" - Rejected - Initial Calibration RRF below QC limits

Analytical Results from Dewatering Samples from Markland Quarry (CS3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3	CS3
Field Sample Location:		DS001	DS002	DS003	DS003
Sample Depth/Interval:		N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water
Sample Collection Date:		08/29/2001	08/30/2001	08/30/2001	08/30/2001
Field Sample Identification:		CS3-DS001-02	CS3-DS002-02	CS3-DS003-01	CS3-DS003-02
Laboratory Sample Identification:		E0XS9	E0XT7	E0XT5	E0XT6
Volatiles	**Units**				
1,1,1-Trichloroethane	ug/L	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	ug/L	10 U	10 U	10 U	10 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/L	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	ug/L	10 U	10 U	10 U	10 U
1,1-Dichloroethane	ug/L	10 U	10 U	10 U	10 U
1,1-Dichloroethene	ug/L	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/L	10 U	10 U	10 U	10 U
1,2-Dibromo-3-Chloropropane	ug/L	10 U	10 U	10 U	10 U
1,2-Dibromoethane	ug/L	10 U	10 U	10 U	10 U
1,2-Dichlorobenzene	ug/L	10 U	10 U	10 U	10 U
1,2-Dichloroethane	ug/L	10 U	10 U	10 U	10 U
1,2-Dichloropropane	ug/L	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	ug/L	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	ug/L	10 U	10 U	10 U	10 U
2-Butanone	ug/L	10 U	2 J	3 J	5 J
2-Hexanone	ug/L	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	ug/L	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	11 UB	17 UB	29 U
Benzene	ug/L	10 U	10 U	10 U	10 U
Bromodichloromethane	ug/L	5 J	4 J	10 U	10 U
Bromoform	ug/L	10 U	10 U	10 U	10 U
Bromomethane	ug/L	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	10 U	10 U	10 U	10 U
Carbon Tetrachloride	ug/L	10 U	10 U	10 U	10 U
Chlorobenzene	ug/L	10 U	10 U	10 U	10 U
Chloroethane	ug/L	10 U	10 U	10 U	10 U
Chloroform	ug/L	19 =	16 =	4 J	10 U
Chloromethane	ug/L	10 U	10 U	10 U	10 U
cis-1,2-Dichloroethene	ug/L	2 J	2 J	9 J	13 =
cis-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U
Cyclohexane	ug/L	10 U	10 U	10 U	10 U
Dibromochloromethane	ug/L	2 J	1 J	10 U	10 U
Dichlorodifluoromethane	ug/L	10 U	10 U	10 U	10 U

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "R" - Rejected - Initial Calibration RRF below QC limits

Analytical Results from Dewatering Samples from Markland Quarry (CS3)
Continental Steel Superfund Site

Field Site Identifier:		CS3	CS3	CS3	CS3
Field Sample Location:		DS001	DS002	DS003	DS003
Sample Depth/Interval:		N/A	N/A	N/A	N/A
Matrix:		Water	Water	Water	Water
Sample Collection Date:		08/29/2001	08/30/2001	08/30/2001	08/30/2001
Field Sample Identification:		CS3-DS001-02	CS3-DS002-02	CS3-DS003-01	CS3-DS003-02
Laboratory Sample Identification:		E0XS9	E0XT7	E0XT5	E0XT6
Volatiles	**Units**				
Ethylbenzene	ug/L	10 U	10 U	10 U	10 U
Isopropylbenzene	ug/L	10 U	10 U	10 U	10 U
Methyl Acetate	ug/L	10 U	10 U	10 U	10 U
Methyl tert-Butyl Ether	ug/L	10 U	10 U	10 U	10 U
Methylcyclohexane	ug/L	10 U	10 U	10 U	10 U
Methylene Chloride	ug/L	10 U	10 U	10 U	10 U
Styrene	ug/L	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	10 U	10 U	2 J	3 J
Toluene	ug/L	10 U	10 U	10 U	10 U
trans-1,2-Dichloroethene	ug/L	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	ug/L	10 U	10 U	10 U	10 U
Trichloroethene	ug/L	20 =	34 =	93 =	150 =
Trichlorofluoromethane	ug/L	10 U	10 U	10 U	10 U
Vinyl Chloride	ug/L	10 U	10 U	10 U	10 U
Xylenes (total)	ug/L	10 U	10 U	10 U	10 U

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "R" - Rejected - Initial Calibration RRF below QC limits

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0XS6
CS3-DS001-1

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 29688 SAS No.: ____ SDG No.: E0XR0

Matrix: (soil/water) WATER Lab Sample ID: 01081003-024A

Sample wt/vol: 5 (g/mL) ML Lab File ID: B3639.D

Level: (low/med) LOW Date Received: 08/29/01

% Moisture: not dec. Date Analyzed: 09/03/01

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND (µg/L or µg/Kg)	UG/L	Q
75-71-8	Dichlorodifluoromethane	10	U
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-69-4	Trichlorofluoromethane	10	U
75-35-4	1,1-Dichloroethene	10	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	10	U
67-64-1	Acetone	12 UB	B U
75-15-0	Carbon Disulfide	10	U
79-20-9	Methyl Acetate	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
1634-04-4	Methyl tert-Butyl Ether	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	1	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	9	J
71-55-6	1,1,1-Trichloroethane	10	U
110-82-7	Cyclohexane	10	U
56-23-5	Carbon Tetrachloride	10	U
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U

ST 10/10/01

CW 02-05-1

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0XS6
CS3-DS001 - 1

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 29688 SAS No.: _____ SDG No.: E0XR0

Matrix: (soil/water) WATER Lab Sample ID: 01081003-024A

Sample wt/vol: 5 (g/mL) ML Lab File ID: B3639.D

Level: (low/med) LOW Date Received: 08/29/01

% Moisture: not dec. Date Analyzed: 09/03/01

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
79-01-6	Trichloroethene	17	
108-87-2	Methylcyclohexane	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	2	J
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
106-93-4	1,2-Dibromoethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
98-82-8	Isopropylbenzene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

CW 02-05-0

1F

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0XS6

DS001-1

Lab Name Clayton Group Services Contract 68-W-99-069

Lab Code CLAYTN Case No. 29688 SAS No. _____ SDG No. E0XR0

Matrix: (soil/water) WATER Lab Sample ID: 01081003-024A

Sample wt/vol: 5 (g/mL) ML Lab File ID: B3639.D

Level: (low/med) LOW Date Received: 08/29/01

% Moisture: not dec. Date Analyzed: 09/03/01

GC Column DB-624 ID: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: (µl) Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found: 0 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0XS6
C53-DS001-1

ab Name: Clayton Group Services Contract: 68-W-99-069

ab Code: CLAYTN Case No.: 29688 SAS No.: _____ SDG No.: E0XR0

atrix: (soil/water) WATER Lab Sample ID: 01081003-024B

ample wt/vol: 900 (g/mL) ML Lab File ID: I5563.D

evel: (low/med) LOW Date Received: 08/29/01

Moisture: Decanted: (Y/N) N Date Extracted: 08/30/01

oncentrated Extract Volume: 1000 (µL) Date Analyzed: 08/31/01

njection Volume: 2 (µL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
100-52-7	Benzaldehyde	~~0.8~~ 11	~~B~~ U
108-95-2	Phenol	11	U
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	2,2´-oxybis(1-Chloropropane)	11	U
98-86-2	Acetophenone	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
105-60-2	Caprolactam	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	28	U
92-52-4	1,1´-Biphenyl	11	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	28	U
131-11-3	Dimethylphthalate	11	U
606-20-2	2,6-Dinitrotoluene	11	U
208-96-8	Acenaphthylene	11	U
99-09-2	3-Nitroaniline	28	U
83-32-9	Acenaphthene	11	U

R

SF 10/10/01

CW 10-07-01

1D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0XS6
CS3-DS001-1

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 29688 SAS No.: _____ SDG No.: E0XR0

Matrix: (soil/water) WATER Lab Sample ID: 01081003-024B

Sample wt/vol: 900 (g/mL) ML Lab File ID: I5563.D

Level: (low/med) LOW Date Received: 08/29/01

% Moisture: Decanted: (Y/N) N Date Extracted: 08/30/01

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 08/31/01

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	28	U
100-02-7	4-Nitrophenol	28	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethylphthalate	11	U
86-73-7	Fluorene	0.7	J
7005-72-3	4-Chlorophenyl-phenylether	11	U
100-01-6	4-Nitroaniline	28	U
534-52-1	4,6-Dinitro-2-methylphenol	28	U
86-30-6	N-Nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
1912-24-9	Atrazine	11	U
87-86-5	Pentachlorophenol	28	U
85-01-8	Phenanthrene	3	J
120-12-7	Anthracene	11	U
86-74-8	Carbazole	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	1	J
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3´-Dichlorobenzidine	11	U
56-55-3	Benzo(a)anthracene	11	U
218-01-9	Chrysene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	~~1~~ 11	~~B~~ 4
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

R

SF 10/10/01

(1) Cannot be separated from Diphenylamine

CW 02-07-02

1G

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

E0XS6

CS3-DS001-1

ne: Clayton Group Services Contract: 68-W-99-069

de: CLAYTN Case No.: 29688 SAS No.: _____ SDG No.: E0XR0

: (soil/water) WATER Lab Sample ID: 01081003-024B

wt/vol: 900 (g/mL) ML Lab File ID: I5563.D

(low/med) LOW Date Received: 08/29/01

ure: Decanted: (Y/N) N Date Extracted: 08/30/01

trated Extract Volume: 1000 (µl) Date Analyzed: 08/31/01

ion Volume: 2 (µl) Dilution Factor: 1.00

eanup: (Y/N) N pH: _____ Extraction: (Type) CONT

TICs found: 30 CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.		Unknown (6.3)	6.30	5	J
2.		Unknown (7.27)	7.27	5	J
3.	000142-29-0	Cyclopentene	7.89	14	NJ
4.	002004-69-5	3-Penten-1-yne, (E)-	8.01	11	NJ
5.	000122-99-6	Ethanol, 2-phenoxy-	9.66	7	NJ
6.		Unknown (11.22)	11.22	7	J
7.		Unknown hydrocarbon (11.35)	11.35	8	J
8.	000582-16-1	Naphthalene, 2,7-dimethyl-	12.54	7	NJ
9.		Unknown hydrocarbon (12.57)	12.57	5	J
10.		Unknown (13.18)	13.18	7	J
11.		Unknown (13.47)	13.47	5	J
12.		Unknown acid (14.21)	14.21	9	J
13.	005989-02-6	(-)-Loliolide	15.81	9	NJ
14.		Unknown (16.66)	16.66	9	J
15.	000057-10-3	Hexadecanoic acid	16.78	25	NJ
16.		Unknown (17.49)	17.49	9	J
17.		Unknown (17.98)	17.98	7	J
18.		Unknown acid (18.23)	18.23	50	J
19.		Unknown (19.26)	19.26	13	J
20.	000123-95-5	Octadecanoic acid, butyl ester	19.40	45	~~BNJ~~ U
21.		Unknown (20.29)	20.29	14	J
22.		Unknown (21)	21.00	8	J
23.		Unknown (21.86)	21.86	6	J
24.		Unknown (22.37)	22.37	10	J
25.		Unknown (23.38)	23.38	7	J
26.		Unknown (24.73)	24.73	13	J
27.		Unknown (25.44)	25.44	8	J
28.		Unknown (27)	27.00	10	J
29.		Unknown (28.92)	28.92	13	J
30.		Unknown (29.19)	29.19	5	J

ST 10/10/01

FORM I SV-TIC OLM04.2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0XS6RE
CS3-DS001-1

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 29688 SAS No.: _____ SDG No.: E0XR0

Matrix: (soil/water) WATER Lab Sample ID: 01081003-024B

Sample wt/vol: 900 (g/mL) ML Lab File ID: I5574.D

Level: (low/med) LOW Date Received: 08/29/01

% Moisture: Decanted: (Y/N) N Date Extracted: 08/30/01

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/04/01

Injection Volume: 2 (µL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
100-52-7	Benzaldehyde	~~0~~ 9 11 UB	B~~J~~ U
108-95-2	Phenol	11	U
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	2,2´-oxybis(1-Chloropropane)	11	U
98-86-2	Acetophenone	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
91-20-3	Naphthalene	11	U
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
105-60-2	Caprolactam	2	J
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	28	U
92-52-4	1,1´-Biphenyl	11	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	28	U
131-11-3	Dimethylphthalate	11	U
606-20-2	2,6-Dinitrotoluene	11	U
208-96-8	Acenaphthylene	11	U
99-09-2	3-Nitroaniline	28	U
83-32-9	Acenaphthene	11	U

SF 10/10/01

CW 02-070

1D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0XS6RE
CS3-AS001-1

ab Name: Clayton Group Services Contract: 68-W-99-069

ab Code: CLAYTN Case No.: 29688 SAS No.: _____ SDG No.: E0XR0

atrix: (soil/water) WATER Lab Sample ID: 01081003-024B

ample wt/vol: 900 (g/mL) ML Lab File ID: I5574.D

evel: (low/med) LOW Date Received: 08/29/01

Moisture: Decanted: (Y/N) N Date Extracted: 08/30/01

oncentrated Extract Volume: 1000 (µL) Date Analyzed: 09/04/01

njection Volume: 2 (µL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: _____ Extraction: (Type) CONT

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	28	U
100-02-7	4-Nitrophenol	28	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethylphthalate	11	U
86-73-7	Fluorene	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
100-01-6	4-Nitroaniline	28	U
534-52-1	4,6-Dinitro-2-methylphenol	28	U
86-30-6	N-Nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
1912-24-9	Atrazine	11	U
87-86-5	Pentachlorophenol	28	U
85-01-8	Phenanthrene	3	J
120-12-7	Anthracene	11	U
86-74-8	Carbazole	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	1	J
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	11	U
56-55-3	Benzo(a)anthracene	11	U
218-01-9	Chrysene	11	U
117-81-7	bis(2-Ethylhexyl)phthalate	~~0.8~~ 11 UB	~~BJ~~ U
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	11	U
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) Cannot be separated from Diphenylamine

SR 10/10/01

02-07-02

1G

EPA SAMPLE NO.

E0XS6RE
CS3-DS001-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 29688 SAS No.: _____ SDG No.: E0XR0

Matrix: (soil/water) WATER Lab Sample ID: 01081003-024B

Sample wt/vol: 900 (g/mL) ML Lab File ID: I5574.D

Level: (low/med) LOW Date Received: 08/29/01

% Moisture: Decanted: (Y/N) N Date Extracted: 08/30/01

Concentrated Extract Volume: 1000 (µl) Date Analyzed: 09/04/01

Injection Volume: 2 (µl) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Extraction: (Type) CONT

CONCENTRATION UNITS:

Number TICs found: 30 (µg/L or µg/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	Unknown (6.3)	6.30	5	J
2.	Unknown (6.89)	6.89	5	J
3.	Unknown hydrocarbon (7.87)	7.87	15	J
4. 002004-69-5	3-Penten-1-yne, (E)-	8.01	12	NJ
5. 000122-99-6	Ethanol, 2-phenoxy-	9.66	6	NJ
6.	Unknown (11.22)	11.22	6	J
7.	Unknown hydrocarbon (11.34)	11.34	6	J
8. 002146-39-6	Bicyclo(2_2_1)heptane, 2-ethenyl-	12.25	40	NJ
9.	Unknown (12.55)	12.55	14	J
10.	Unknown (13.18)	13.18	6	J
11.	Unknown (13.46)	13.46	6	J
12.	Unknown (14.19)	14.19	11	J
13.	Unknown (14.33)	14.33	6	J
14.	Unknown (15.81)	15.81	8	J
15.	Unknown (16.66)	16.66	7	J
16. 000057-10-3	Hexadecanoic acid	16.78	19	NJ
17.	Unknown (17.49)	17.49	9	J
18.	Unknown acid	18.23	42	J
19.	Unknown (19.24)	19.24	13	J
20. 000646-13-9	Octadecanoic acid, 2-methylpropyl ester	19.39	45	NJ
21.	Unknown (19.48)	19.48	6	J
22.	Unknown (20.27)	20.27	14	J
23.	Unknown (20.98)	20.98	10	J
24.	Unknown (21.84)	21.84	5	J
25.	Unknown (22.37)	22.37	10	J
26.	Unknown (23.36)	23.36	7	J
27.	Unknown (24.72)	24.72	13	J
28.	Unknown (25.43)	25.43	7	J
29.	Unknown (26.98)	26.98	8	J
30.	Unknown (28.91)	28.91	11	J

1E

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

E0XS6

CS3-DS001-1

Lab Name: Clayton Group Services Contract: 68-W-99-069

Lab Code: CLAYTN Case No.: 29688 SAS No.: _____ SDG No.: E0XR0

Matrix: (soil/water) WATER Lab Sample ID: 01081003-024B

Sample wt/vol: 900 (g/mL) ML Lab File ID: pes187.rst

% Moisture: Decanted: (Y/N) N Date Received: 08/29/01

Extraction: (Type) SepF Date Extracted: 08/30/01

Concentrated Extract Volume: 9000 (uL) Date Analyzed: 09/04/01

Injection Volume: 1 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (µg/L or µg/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.015	PJ
309-00-2	Aldrin	0.036	J
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4`-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4`-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4`-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	2.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	0.86	J
11097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

	Field Site Identifier:	OU4	OU4	OU4	OU4	OU4	OU4	OU4
	Field Sample Location:	SD-001	SD-002	SD-003	SD-004	SD-005	SD-006	SD-007
	Sample Depth/Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Matrix:	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
	Sample Collection Date:	11/02/1995	11/02/1995	11/02/1995	11/03/1995	11/04/1995	11/03/1995	11/04/1995
	Field Sample Identification:	04SD00100106XX	04SD00200106XX	04SD00300106XX	04SD00400106XX	04SD00500106XX	04SD00600106XX	04SD00700106XX
	Laboratory Sample Identification:	SD-01	SD-02	SD-03	SD-04	SD-05	SD-06	SD-07
General Chemistry	**Units**							
Solids, Percent	percent	46 =	48 =	45 =	76.8 =	63.3 =	70.4 =	71.9 =

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

	Field Site Identifier:	OU4
	Field Sample Location:	SD-008
	Sample Depth/Interval:	N/A
	Matrix:	Sediment
	Sample Collection Date:	11/04/1995
	Field Sample Identification:	04SD00800106XX
	Laboratory Sample Identification:	SD-08
General Chemistry	**Units**	
Solids, Percent	percent	72.3 =

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

Field Site Identifier:		OU4	OU4	OU4	OU4	OU4	OU4	OU4
Field Sample Location:		SD-001	SD-002	SD-003	SD-003	SD-004	SD-005	SD-006
Sample Depth/Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Sample Collection Date:		11/02/1995	11/02/1995	11/02/1995	11/02/1995	11/03/1995	11/04/1995	11/03/1995
Field Sample Identification:		04SD00100106XX	04SD00200106XX	04SD00300104XX	04SD00300106XX	04SD00400106XX	04SD00500106XX	04SD00600106XX
Laboratory Sample Identification:		SD-01	SD-02	EATT7	SD-03	SD-04	SD-05	SD-06
Pesticides/PCBs	**Units**							
Aldrin	ug/Kg	NR	NR	3.3 U	NR	NR	NR	NR
alpha-BHC	ug/Kg	NR	NR	3.3 U	NR	NR	NR	NR
Endosulfan I	ug/Kg	NR	NR	3.3 U	NR	NR	NR	NR
Alpha-Chlordane	ug/Kg	NR	NR	3.3 U	NR	NR	NR	NR
beta-BHC	ug/Kg	NR	NR	3.3 U	NR	NR	NR	NR
Endosulfan II	ug/Kg	NR	NR	6.5 U	NR	NR	NR	NR
delta-BHC	ug/Kg	NR	NR	3.3 U	NR	NR	NR	NR
Dieldrin	ug/Kg	NR	NR	6.5 U	NR	NR	NR	NR
Endosulfan Sulfate	ug/Kg	NR	NR	6.5 U	NR	NR	NR	NR
Endrin	ug/Kg	NR	NR	6.5 U	NR	NR	NR	NR
Endrin Aldehyde	ug/Kg	NR	NR	6.5 U	NR	NR	NR	NR
Endrin Ketone	ug/Kg	NR	NR	6.5 U	NR	NR	NR	NR
gamma-BHC (Lindane)	ug/Kg	NR	NR	3.3 U	NR	NR	NR	NR
Gamma-Chlordane	ug/Kg	NR	NR	3.3 U	NR	NR	NR	NR
Heptachlor	ug/Kg	NR	NR	3.3 U	NR	NR	NR	NR
Heptachlor Epoxide	ug/Kg	NR	NR	3.3 U	NR	NR	NR	NR
Hexachlorobenzene	ug/Kg	NR	NR	650 UJ	NR	NR	NR	NR
Methoxychlor	ug/Kg	NR	NR	33 U	NR	NR	NR	NR
4,4'-DDD	ug/Kg	NR	NR	6.5 U	NR	NR	NR	NR
4,4'-DDE	ug/Kg	NR	NR	6.5 U	NR	NR	NR	NR
4,4'-DDT	ug/Kg	NR	NR	6.5 U	NR	NR	NR	NR
Aroclor-1016	ug/Kg	NR	NR	65 U	NR	NR	NR	NR
Aroclor-1221	ug/Kg	NR	NR	130 U	NR	NR	NR	NR
Aroclor-1232	ug/Kg	NR	NR	65 U	NR	NR	NR	NR
Aroclor-1242	mg/Kg	1 UF	2.5 F	65 U	1 UF	3.3 F	1 UF	1 UF
Aroclor-1242	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Aroclor-1248	mg/Kg	1 UF	2.1 F	65 U	1 UF	5.1 F	1.2 F	1 UF
Aroclor-1248	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Aroclor-1254	mg/Kg	1 UF	1 UF	65 U	1 UF	1 UF	1 UF	1 UF
Aroclor-1254	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Aroclor-1260	mg/Kg	1 UF	1 UF	65 U	1 UF	1 UF	1 UF	1 UF
Aroclor-1260	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Toxaphene	ug/Kg	NR	NR	330 U	NR	NR	NR	NR

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

Field Site Identifier:		OU4	OU4	OU4
Field Sample Location:		SD-007	SD-008	SD-009
Sample Depth/Interval:		N/A	N/A	N/A
Matrix:		Sediment	Sediment	Sediment
Sample Collection Date:		11/04/1995	11/04/1995	11/05/1995
Field Sample Identification:		04SD00700106XX	04SD00800106XX	04SD00900104XX
Laboratory Sample Identification:		SD-07	SD-08	EATW0
Pesticides/PCBs	**Units**			
Aldrin	ug/Kg	NR	NR	28 U
alpha-BHC	ug/Kg	NR	NR	28 U
Endosulfan I	ug/Kg	NR	NR	28 U
Alpha-Chlordane	ug/Kg	NR	NR	28 U
beta-BHC	ug/Kg	NR	NR	28 U
Endosulfan II	ug/Kg	NR	NR	53 U
delta-BHC	ug/Kg	NR	NR	28 U
Dieldrin	ug/Kg	NR	NR	7.9 DJP
Endosulfan Sulfate	ug/Kg	NR	NR	53 U
Endrin	ug/Kg	NR	NR	53 U
Endrin Aldehyde	ug/Kg	NR	NR	53 U
Endrin Ketone	ug/Kg	NR	NR	53 U
gamma-BHC (Lindane)	ug/Kg	NR	NR	28 U
Gamma-Chlordane	ug/Kg	NR	NR	28 U
Heptachlor	ug/Kg	NR	NR	28 U
Heptachlor Epoxide	ug/Kg	NR	NR	32 D
Hexachlorobenzene	ug/Kg	NR	NR	15000 U
Methoxychlor	ug/Kg	NR	NR	280 U
4,4'-DDD	ug/Kg	NR	NR	53 U
4,4'-DDE	ug/Kg	NR	NR	53 U
4,4'-DDT	ug/Kg	NR	NR	53 U
Aroclor-1016	ug/Kg	NR	NR	530 U
Aroclor-1221	ug/Kg	NR	NR	1100 U
Aroclor-1232	ug/Kg	NR	NR	530 U
Aroclor-1242	mg/Kg	1 UF	0.9 F	3100 D
Aroclor-1242	ug/Kg	NR	NR	NR
Aroclor-1248	mg/Kg	1 UF	1.7 F	530 U
Aroclor-1248	ug/Kg	NR	NR	NR
Aroclor-1254	mg/Kg	1 UF	1 UF	820 DP
Aroclor-1254	ug/Kg	NR	NR	NR
Aroclor-1260	mg/Kg	1 UF	1 UF	530 U
Aroclor-1260	ug/Kg	NR	NR	NR
Toxaphene	ug/Kg	NR	NR	2800 U

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

Field Site Identifier:		OU4	OU4	OU4	OU4	OU4	OU4	OU4
Field Sample Location:		SD-001	SD-002	SD-003	SD-003	SD-004	SD-005	SD-006
Sample Depth/Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Sample Collection Date:		11/02/1995	11/02/1995	11/02/1995	11/02/1995	11/03/1995	11/04/1995	11/03/1995
Field Sample Identification:		04SD00100106XX	04SD00200106XX	04SD00300104XX	04SD00300106XX	04SD00400106XX	04SD00500106XX	04SD00600106XX
Laboratory Sample Identification:		SD-01	SD-02	EATT7	SD-03	SD-04	SD-05	SD-06
Semivolatiles	**Units**							
1,2,4-Trichlorobenzene	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
2,2'-oxybis(1-Chloropropane)	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
2,4,5-Trichlorophenol	ug/Kg	NR	NR	1600 U	NR	NR	NR	NR
2,4,6-Trichlorophenol	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
2,4-Dimethylphenol	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
2,4-Dinitrophenol	ug/Kg	NR	NR	1600 U	NR	NR	NR	NR
2,4-Dinitrotoluene	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
2,6-Dinitrotoluene	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
2-Chloronaphthalene	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
2-Chlorophenol	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
2-Methylnaphthalene	ug/Kg	NR	NR	2000 =	NR	NR	NR	NR
2-Methylphenol	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
2-Nitroaniline	ug/Kg	NR	NR	1600 U	NR	NR	NR	NR
2-Nitrophenol	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
3,3'-Dichlorobenzidine	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
3-Nitroaniline	ug/Kg	NR	NR	1600 U	NR	NR	NR	NR
4,6-Dinitro-2-Methylphenol	ug/Kg	NR	NR	1600 UJ	NR	NR	NR	NR
4-Bromophenyl-phenylether	ug/Kg	NR	NR	650 UJ	NR	NR	NR	NR
4-Chloro-3-Methylphenol	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
4-Chloroaniline	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
4-Chlorophenyl-phenyl ether	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
4-Methylphenol	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
4-Nitroaniline	ug/Kg	NR	NR	1600 U	NR	NR	NR	NR
Acenaphthene	mg/Kg	2 UF	2 UF	650 U	2 UF	2 UF	3.1 F	2 UF
Acenaphthene	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Acenaphthylene	mg/Kg	2 UF	2 UF	650 U	2 UF	2 UF	3 F	2 UF
Acenaphthylene	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Anthracene	mg/Kg	2 UF	2 UF	240 J	2 UF	2 UF	2.5 F	2 UF
Anthracene	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Benzo(a)anthracene	mg/Kg	2 UF	11 F	590 J	2 UF	14 F	30 F	13 F
Benzo(a)anthracene	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Benzo(a)pyrene	mg/Kg	2 UF	2 UF	350 J	2 UF	3.7 F	14 F	5.1 F
Benzo(a)pyrene	ug/Kg	NR	NR	NR	NR	NR	NR	NR

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

Field Site Identifier:		OU4	OU4	OU4	OU4	OU4	OU4	OU4
Field Sample Location:		SD-001	SD-002	SD-003	SD-003	SD-004	SD-005	SD-006
Sample Depth/Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Sample Collection Date:		11/02/1995	11/02/1995	11/02/1995	11/02/1995	11/03/1995	11/04/1995	11/03/1995
Field Sample Identification:		04SD00100106XX	04SD00200106XX	04SD00300104XX	04SD00300106XX	04SD00400106XX	04SD00500106XX	04SD00600106XX
Laboratory Sample Identification:		SD-01	SD-02	EATT7	SD-03	SD-04	SD-05	SD-06
Semivolatiles	**Units**							
Benzo(b)fluoranthene	ug/Kg	NR	NR	420 J	NR	NR	NR	NR
Benzo(b,k)fluoranthene	mg/Kg	2 UF	6 F	NR	2 UF	7.4 F	21 F	7.9 F
Benzo(g,h,i)perylene	mg/Kg	2 UF	2 UF	150 J	2 UF	2 UF	7.4 F	2 UF
Benzo(g,h,i)perylene	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Benzo(k)fluoranthene	ug/Kg	NR	NR	650 UJ	NR	NR	NR	NR
Butylbenzylphthalate	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
bis(2-Chloroethoxy)methane	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
bis-(2-Chloroethyl) ether	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
bis(2-Ethylhexyl)phthalate	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
Carbazole	ug/Kg	NR	NR	650 UJ	NR	NR	NR	NR
Chrysene	mg/Kg	2 UF	2 UF	950 =	2 UF	2 UF	25 F	2 UF
Chrysene	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Di-n-butylphthalate	ug/Kg	NR	NR	650 UJ	NR	NR	NR	NR
Di-N-Octylphthalate	ug/Kg	NR	NR	650 UJ	NR	NR	NR	NR
Dibenz (A,B) Anthracene	mg/Kg	2 UF	2 UF	650 UJ	2 UF	2 UF	2 UF	2 UF
Dibenz (A,B) Anthracene	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Dibenzofuran	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
Diethylphthalate	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
Dimethylphthalate	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
Fluoranthene	mg/Kg	2 UF	2 UF	370 J	2 UF	2.5 F	9.9 F	2.5 F
Fluoranthene	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Fluorene	mg/Kg	2 UF	2 UF	310 J	2 UF	2 UF	4.3 F	2 UF
Fluorene	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Hexachlorobutadiene	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
Hexachlorocyclopentadiene	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
Hexachloroethane	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
Indeno(1,2,3-cd)pyrene	mg/Kg	2 UF	2 UF	650 UJ	2 UF	2 UF	25 F	15 F
Indeno(1,2,3-cd)pyrene	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Isophorone	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
N-Nitroso-di-n-propylamine	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
N-Nitrosodiphenylamine	ug/Kg	NR	NR	650 UJ	NR	NR	NR	NR
Naphthalene	mg/Kg	2 UF	2 UF	330 J	2 UF	2 UF	2 UF	2 UF
Naphthalene	ug/Kg	NR	NR	NR	NR	NR	NR	NR

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

	Field Site Identifier:	OU4	OU4	OU4	OU4	OU4	OU4	OU4
	Field Sample Location:	SD-001	SD-002	SD-003	SD-003	SD-004	SD-005	SD-006
	Sample Depth/Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Matrix:	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
	Sample Collection Date:	11/02/1995	11/02/1995	11/02/1995	11/02/1995	11/03/1995	11/04/1995	11/03/1995
	Field Sample Identification:	04SD00100106XX	04SD00200106XX	04SD00300104XX	04SD00300106XX	04SD00400106XX	04SD00500106XX	04SD00600106XX
	Laboratory Sample Identification:	SD-01	SD-02	EATT7	SD-03	SD-04	SD-05	SD-06
Semivolatiles	**Units**							
Nitrobenzene	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
Pentachlorophenol	ug/Kg	NR	NR	1600 UJ	NR	NR	NR	NR
Phenanthrene	mg/Kg	2 UF	2 UF	2100 J	2 UF	2 F	8.4 F	2.2 F
Phenanthrene	ug/Kg	NR	NR	NR	NR	NR	NR	NR
Phenol	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
Pyrene	mg/Kg	3.6 F	4 F	3400 =	2 UF	5.3 F	17 F	5 F
Pyrene	ug/Kg	NR	NR	NR	NR	NR	NR	NR

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

Field Site Identifier:		OU4	OU4	OU4
Field Sample Location:		SD-007	SD-008	SD-009
Sample Depth/Interval:		N/A	N/A	N/A
Matrix:		Sediment	Sediment	Sediment
Sample Collection Date:		11/04/1995	11/04/1995	11/05/1995
Field Sample Identification:		04SD00700106XX	04SD00800106XX	04SD00900104XX
Laboratory Sample Identification:		SD-07	SD-08	EATW0
Semivolatiles	**Units**			
1,2,4-Trichlorobenzene	ug/Kg	NR	NR	15000 U
2,2'-oxybis(1-Chloropropane)	ug/Kg	NR	NR	15000 U
2,4,5-Trichlorophenol	ug/Kg	NR	NR	37000 U
2,4,6-Trichlorophenol	ug/Kg	NR	NR	15000 U
2,4-Dimethylphenol	ug/Kg	NR	NR	15000 U
2,4-Dinitrophenol	ug/Kg	NR	NR	37000 U
2,4-Dinitrotoluene	ug/Kg	NR	NR	15000 U
2,6-Dinitrotoluene	ug/Kg	NR	NR	15000 U
2-Chloronaphthalene	ug/Kg	NR	NR	15000 U
2-Chlorophenol	ug/Kg	NR	NR	15000 U
2-Methylnaphthalene	ug/Kg	NR	NR	2500 J
2-Methylphenol	ug/Kg	NR	NR	15000 U
2-Nitroaniline	ug/Kg	NR	NR	37000 U
2-Nitrophenol	ug/Kg	NR	NR	15000 U
3,3'-Dichlorobenzidine	ug/Kg	NR	NR	15000 U
3-Nitroaniline	ug/Kg	NR	NR	3700 U
4,6-Dinitro-2-Methylphenol	ug/Kg	NR	NR	37000 U
4-Bromophenyl-phenylether	ug/Kg	NR	NR	15000 U
4-Chloro-3-Methylphenol	ug/Kg	NR	NR	15000 U
4-Chloroaniline	ug/Kg	NR	NR	15000 U
4-Chlorophenyl-phenyl ether	ug/Kg	NR	NR	15000 U
4-Methylphenol	ug/Kg	NR	NR	15000 U
4-Nitroaniline	ug/Kg	NR	NR	37000 U
Acenaphthene	mg/Kg	2 UF	3.8 F	310 J
Acenaphthene	ug/Kg	NR	NR	NR
Acenaphthylene	mg/Kg	2 UF	3.9 F	15000 U
Acenaphthylene	ug/Kg	NR	NR	NR
Anthracene	mg/Kg	2 UF	3 F	240 J
Anthracene	ug/Kg	NR	NR	NR
Benzo(a)anthracene	mg/Kg	2 UF	30 F	540 J
Benzo(a)anthracene	ug/Kg	NR	NR	NR
Benzo(a)pyrene	mg/Kg	2 UF	14 F	15000 U
Benzo(a)pyrene	ug/Kg	NR	NR	NR

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

Field Site Identifier:		OU4	OU4	OU4
Field Sample Location:		SD-007	SD-008	SD-009
Sample Depth/Interval:		N/A	N/A	N/A
Matrix:		Sediment	Sediment	Sediment
Sample Collection Date:		11/04/1995	11/04/1995	11/05/1995
Field Sample Identification:		04SD00700106XX	04SD00800106XX	04SD00900104XX
Laboratory Sample Identification:		SD-07	SD-08	EATW0
Semivolatiles	**Units**			
Benzo(b)fluoranthene	ug/Kg	NR	NR	15000 U
Benzo(b,k)fluoranthene	mg/Kg	2 UF	24 F	NR
Benzo(g,h,i)perylene	mg/Kg	2 UF	8.2 F	350 J
Benzo(g,h,i)perylene	ug/Kg	NR	NR	NR
Benzo(k)fluoranthene	ug/Kg	NR	NR	15000 U
Butylbenzylphthalate	ug/Kg	NR	NR	15000 U
bis(2-Chloroethoxy)methane	ug/Kg	NR	NR	15000 U
bis-(2-Chloroethyl) ether	ug/Kg	NR	NR	15000 U
bis(2-Ethylhexyl)phthalate	ug/Kg	NR	NR	430 J
Carbazole	ug/Kg	NR	NR	15000 U
Chrysene	mg/Kg	2 UF	28 F	990 J
Chrysene	ug/Kg	NR	NR	NR
Di-n-butylphthalate	ug/Kg	NR	NR	15000 U
Di-N-Octylphthalate	ug/Kg	NR	NR	15000 U
Dibenz (A,B) Anthracene	mg/Kg	2 UF	2 UF	15000 U
Dibenz (A,B) Anthracene	ug/Kg	NR	NR	NR
Dibenzofuran	ug/Kg	NR	NR	15000 U
Diethylphthalate	ug/Kg	NR	NR	560 J
Dimethylphthalate	ug/Kg	NR	NR	15000 U
Fluoranthene	mg/Kg	2 UF	9.9 F	850 U
Fluoranthene	ug/Kg	NR	NR	NR
Fluorene	mg/Kg	2 UF	5.4 F	310 J
Fluorene	ug/Kg	NR	NR	NR
Hexachlorobutadiene	ug/Kg	NR	NR	15000 U
Hexachlorocyclopentadiene	ug/Kg	NR	NR	15000 U
Hexachloroethane	ug/Kg	NR	NR	15000 U
Indeno(1,2,3-cd)pyrene	mg/Kg	2 UF	28 F	15000 U
Indeno(1,2,3-cd)pyrene	ug/Kg	NR	NR	NR
Isophorone	ug/Kg	NR	NR	15000 U
N-Nitroso-di-n-propylamine	ug/Kg	NR	NR	15000 U
N-Nitrosodiphenylamine	ug/Kg	NR	NR	37000 U
Naphthalene	mg/Kg	2 UF	2 UF	15000 U
Naphthalene	ug/Kg	NR	NR	NR

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

	Field Site Identifier:	OU4	OU4	OU4
	Field Sample Location:	SD-007	SD-008	SD-009
	Sample Depth/Interval:	N/A	N/A	N/A
	Matrix:	Sediment	Sediment	Sediment
	Sample Collection Date:	11/04/1995	11/04/1995	11/05/1995
	Field Sample Identification:	04SD00700106XX	04SD00800106XX	04SD00900104XX
	Laboratory Sample Identification:	SD-07	SD-08	EATW0
Semivolatiles	**Units**			
Nitrobenzene	ug/Kg	NR	NR	15000 U
Pentachlorophenol	ug/Kg	NR	NR	37000 UR
Phenanthrene	mg/Kg	2 UF	9.3 F	2000 J
Phenanthrene	ug/Kg	NR	NR	NR
Phenol	ug/Kg	NR	NR	15000 U
Pyrene	mg/Kg	2 UF	25 F	1400 J
Pyrene	ug/Kg	NR	NR	NR

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

	Field Site Identifier:	OU4	OU4
	Field Sample Location:	SD-003	SD-009
	Sample Depth/Interval:	N/A	N/A
	Matrix:	Sediment	Sediment
	Sample Collection Date:	11/02/1995	11/05/1995
	Field Sample Identification:	04SD00300104XX	04SD00900104XX
	Laboratory Sample Identification:	MEAHS7	MEAHT0
Dissolved Metals	**Units**		
Mercury	mg/Kg	0.27 =	0.27 *

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

	Field Site Identifier:	OU4	OU4	OU4	OU4	OU4	OU4	OU4
	Field Sample Location:	SD-001	SD-002	SD-003	SD-003	SD-004	SD-005	SD-006
	Sample Depth/Interval:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Matrix:	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
	Sample Collection Date:	11/02/1995	11/02/1995	11/02/1995	11/02/1995	11/03/1995	11/04/1995	11/03/1995
	Field Sample Identification:	04SD00100106XX	04SD00200106XX	04SD00300104XX	04SD00300106XX	04SD00400106XX	04SD00500106XX	04SD00600106XX
	Laboratory Sample Identification:	SD-01	SD-02	MEAHS7	SD-03	SD-04	SD-05	SD-06
Total Metals	**Units**							
Aluminum	mg/Kg	NR	NR	1140 =	NR	NR	NR	NR
Antimony	mg/Kg	NR	NR	1.6 UJN	NR	NR	NR	NR
Arsenic	mg/Kg	11 U	13 =	6 =	16 =	31 =	73 =	25 =
Barium	mg/Kg	220 =	230 =	249 =	290 =	180 =	140 =	180 =
Beryllium	mg/Kg	NR	NR	0.52 U	NR	NR	NR	NR
Cadmium	mg/Kg	7 =	18 =	5.9 =	6.9 =	5 =	6 =	7 =
Calcium	mg/Kg	NR	NR	284000 =	NR	NR	NR	NR
Chromium	mg/Kg	43 =	190 =	59 JN*	84 =	47 =	61 =	66 =
Cobalt	mg/Kg	NR	NR	1.9 B	NR	NR	NR	NR
Copper	mg/Kg	46 =	230 =	57.7 J	110 =	110 =	310 =	61 =
Iron	mg/Kg	NR	NR	8770 J	NR	NR	NR	NR
Lead	mg/Kg	1300 =	1300 =	1030 =	870 =	500 =	860 =	1100 =
Magnesium	mg/Kg	NR	NR	2270 B	NR	NR	NR	NR
Manganese	mg/Kg	NR	NR	543 J	NR	NR	NR	NR
Nickel	mg/Kg	11 =	98 =	16.9 B	40 =	29 =	120 =	19 =
Potassium	mg/Kg	NR	NR	1270 B	NR	NR	NR	NR
Selenium	mg/Kg	NR	NR	1.6 UJN	NR	NR	NR	NR
Silver	mg/Kg	NR	NR	0.83 BJ	NR	NR	NR	NR
Sodium	mg/Kg	NR	NR	154 U	NR	NR	NR	NR
Thallium	mg/Kg	NR	NR	2.1 U	NR	NR	NR	NR
Vanadium	mg/Kg	NR	NR	28.5 =	NR	NR	NR	NR
Zinc	mg/Kg	830 =	2900 =	1180 JN	2200 =	1600 =	1400 =	2000 =

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

	Field Site Identifier:	OU4	OU4	OU4
	Field Sample Location:	SD-007	SD-008	SD-009
	Sample Depth/Interval:	N/A	N/A	N/A
	Matrix:	Sediment	Sediment	Sediment
	Sample Collection Date:	11/04/1995	11/04/1995	11/05/1995
	Field Sample Identification:	04SD00700106XX	04SD00800106XX	04SD00900104XX
	Laboratory Sample Identification:	SD-07	SD-08	MEAHT0
Total Metals	**Units**			
Aluminum	mg/Kg	NR	NR	3940 =
Antimony	mg/Kg	NR	NR	13.3 BNJ
Arsenic	mg/Kg	20 U	31 =	12 NJ
Barium	mg/Kg	200 =	300 =	408 =
Beryllium	mg/Kg	NR	NR	0.2 U
Cadmium	mg/Kg	5 =	5 =	7.9 =
Calcium	mg/Kg	NR	NR	227000 =
Chromium	mg/Kg	33 =	54 =	109 =
Cobalt	mg/Kg	NR	NR	6.9 B
Copper	mg/Kg	38 =	99 =	201 JE*
Iron	mg/Kg	NR	NR	40100 =
Lead	mg/Kg	780 =	710 =	1730 =
Magnesium	mg/Kg	NR	NR	6550 =
Manganese	mg/Kg	NR	NR	1280 =
Nickel	mg/Kg	12 =	29 =	69.8 *
Potassium	mg/Kg	NR	NR	384 B
Selenium	mg/Kg	NR	NR	0.37 UWJ
Silver	mg/Kg	NR	NR	0.6 UNJ
Sodium	mg/Kg	NR	NR	339 B
Thallium	mg/Kg	NR	NR	0.07 UNW
Vanadium	mg/Kg	NR	NR	25.7 =
Zinc	mg/Kg	820 =	160 =	2640 =

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

Field Site Identifier:		OU4	OU4	OU4	OU4	OU4	OU4	OU4
Field Sample Location:		SD-001	SD-002	SD-003	SD-003	SD-004	SD-005	SD-006
Sample Depth/Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Sample Collection Date:		11/02/1995	11/02/1995	11/02/1995	11/02/1995	11/03/1995	11/04/1995	11/03/1995
Field Sample Identification:		04SD00100106XX	04SD00200106XX	04SD00300104XX	04SD00300106XX	04SD00400106XX	04SD00500106XX	04SD00600106XX
Laboratory Sample Identification:		SD-01	SD-02	EATT7	SD-03	SD-04	SD-05	SD-06
Volatiles	**Units**							
1,1,1-Trichloroethane	ug/Kg	10 UF	10 UF	2400 U	10 UF	10 UF	10 UF	10 UF
1,1,2,2-Tetrachloroethane	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
1,1,2-Trichloroethane	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
1,1-Dichloroethane	ug/Kg	10 UF	10 UF	2400 U	10 UF	10 UF	10 UF	10 UF
1,1-Dichloroethene	ug/Kg	10 UF	10 UF	2400 U	10 UF	100 F	10 UF	26 F
1,2-Dichlorobenzene	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
1,2-Dichloroethane	ug/Kg	10 UF	10 UF	2400 U	10 UF	2 F	10 UF	10 UF
1,2-Dichloropropane	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
1,3-Dichlorobenzene	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
1,4-Dichlorobenzene	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
2,4-Dichlorophenol	ug/Kg	NR	NR	650 U	NR	NR	NR	NR
2-Butanone	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
2-Hexanone	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
4-Methyl-2-Pentanone	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Acetone	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Benzene	ug/Kg	10 UF	10 UF	2400 U	10 UF	28 F	10 UF	20 F
Bromodichloromethane	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Bromoform	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Bromomethane	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Carbon Disulfide	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Carbon Tetrachloride	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Chlorobenzene	ug/Kg	10 UF	10 UF	2400 U	10 UF	10 UF	10 UF	30 F
Chloroethane	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Chloroform	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Chloromethane	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
cis-1,2-Dichloroethene	ug/Kg	10 UF	10 UF	NR	10 UF	260 F	6.8 F	27 F
cis-1,3-Dichloropropene	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Dibromochloromethane	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Ethylbenzene	ug/Kg	10 UF	10 UF	2400 U	4000 EF	220 F	10 UF	97 F
M,P-Xylene (Sum Of Isomers)	ug/Kg	10 UF	10 UF	NR	10 UF	330 F	5.7 F	100 F
Methylene Chloride	ug/Kg	10 UF	10 UF	380 J	10 UF	12 F	10 UF	10 UF
O-Xylene (1,2-Dimethylbenzene)	ug/Kg	10 UF	10 UF	NR	3400 EF	570 F	10 UF	100 F
Styrene	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

Field Site Identifier:		OU4	OU4	OU4	OU4	OU4	OU4	OU4
Field Sample Location:		SD-001	SD-002	SD-003	SD-003	SD-004	SD-005	SD-006
Sample Depth/Interval:		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Matrix:		Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
Sample Collection Date:		11/02/1995	11/02/1995	11/02/1995	11/02/1995	11/03/1995	11/04/1995	11/03/1995
Field Sample Identification:		04SD00100106XX	04SD00200106XX	04SD00300104XX	04SD00300106XX	04SD00400106XX	04SD00500106XX	04SD00600106XX
Laboratory Sample Identification:		SD-01	SD-02	EATT7	SD-03	SD-04	SD-05	SD-06
Volatiles	**Units**							
Tetrachloroethene	ug/Kg	10 UF	10 UF	2400 U	10 UF	75 F	10 UF	70 F
Toluene	ug/Kg	10 UF	10 UF	2400 U	8600 EF	210 F	10 UF	60 F
Total 1,2-Dichloroethene	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
trans-1,2-Dichloroethene	ug/Kg	10 UF	10 UF	NR	10 UF	38 F	10 UF	10 UF
trans-1,3-Dichloropropene	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Trichloroethene	ug/Kg	660 F	5000 EF	15000 =	13000 EF	2700 F	330 F	2400 F
Vinyl Chloride	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR
Xylenes (total)	ug/Kg	NR	NR	2400 U	NR	NR	NR	NR

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

Field Site Identifier:		OU4	OU4	OU4
Field Sample Location:		SD-007	SD-008	SD-009
Sample Depth/Interval:		N/A	N/A	N/A
Matrix:		Sediment	Sediment	Sediment
Sample Collection Date:		11/04/1995	11/04/1995	11/05/1995
Field Sample Identification:		04SD00700106XX	04SD00800106XX	04SD00900104XX
Laboratory Sample Identification:		SD-07	SD-08	EATW0
Volatiles	**Units**			
1,1,1-Trichloroethane	ug/Kg	10 UF	10 UF	2400 U
1,1,2,2-Tetrachloroethane	ug/Kg	NR	NR	2400 U
1,1,2-Trichloroethane	ug/Kg	NR	NR	2400 U
1,1-Dichloroethane	ug/Kg	10 UF	10 UF	2400 U
1,1-Dichloroethene	ug/Kg	10 UF	10 UF	2400 U
1,2-Dichlorobenzene	ug/Kg	NR	NR	15000 U
1,2-Dichloroethane	ug/Kg	10 UF	10 UF	2400 U
1,2-Dichloropropane	ug/Kg	NR	NR	2400 U
1,3-Dichlorobenzene	ug/Kg	NR	NR	15000 U
1,4-Dichlorobenzene	ug/Kg	NR	NR	15000 U
2,4-Dichlorophenol	ug/Kg	NR	NR	15000 U
2-Butanone	ug/Kg	NR	NR	2400 U
2-Hexanone	ug/Kg	NR	NR	2400 U
4-Methyl-2-Pentanone	ug/Kg	NR	NR	2400 U
Acetone	ug/Kg	NR	NR	2400 U
Benzene	ug/Kg	10 UF	10 UF	2400 U
Bromodichloromethane	ug/Kg	NR	NR	2400 U
Bromoform	ug/Kg	NR	NR	2400 U
Bromomethane	ug/Kg	NR	NR	2400 U
Carbon Disulfide	ug/Kg	NR	NR	2400 U
Carbon Tetrachloride	ug/Kg	NR	NR	2400 U
Chlorobenzene	ug/Kg	10 UF	10 UF	2400 U
Chloroethane	ug/Kg	NR	NR	2400 U
Chloroform	ug/Kg	NR	NR	2400 U
Chloromethane	ug/Kg	NR	NR	2400 U
cis-1,2-Dichloroethene	ug/Kg	10 UF	8.6 F	NR
cis-1,3-Dichloropropene	ug/Kg	NR	NR	2400 U
Dibromochloromethane	ug/Kg	NR	NR	2400 U
Ethylbenzene	ug/Kg	5.1 F	10 UF	2400 U
M,P-Xylene (Sum Of Isomers)	ug/Kg	10 UF	10 UF	NR
Methylene Chloride	ug/Kg	10 UF	10 UF	330 J
O-Xylene (1,2-Dimethylbenzene)	ug/Kg	8.2 F	10 UF	NR
Styrene	ug/Kg	NR	NR	2400 U

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Analytical Results from the Remedial Investigation for OU 4 (Markland Quarry)
Continental Steel Superfund Site

	Field Site Identifier:	OU4	OU4	OU4
	Field Sample Location:	SD-007	SD-008	SD-009
	Sample Depth/Interval:	N/A	N/A	N/A
	Matrix:	Sediment	Sediment	Sediment
	Sample Collection Date:	11/04/1995	11/04/1995	11/05/1995
	Field Sample Identification:	04SD00700106XX	04SD00800106XX	04SD00900104XX
	Laboratory Sample Identification:	SD-07	SD-08	EATW0
Volatiles	**Units**			
Tetrachloroethene	ug/Kg	10 UF	5.8 F	2400 U
Toluene	ug/Kg	10 F	8 F	2400 U
Total 1,2-Dichloroethene	ug/Kg	NR	NR	2400 U
trans-1,2-Dichloroethene	ug/Kg	10 UF	10 UF	NR
trans-1,3-Dichloropropene	ug/Kg	NR	NR	2400 U
Trichloroethene	ug/Kg	460 F	680 F	40000 J
Vinyl Chloride	ug/Kg	NR	NR	2400 U
Xylenes (total)	ug/Kg	NR	NR	2400 U

QUALIFIER KEY: "J" - Estimated Detected Result; "=" - Detected; "U" - Not Detected Above Reporting Limit; "NR" - Not Reported; "" - Not Analyzed: Insufficient Extraction Volume*

Appendix B
Geotube Information

SI® Geosolutions

Product Data Sheet

GEOTEX® 1016T

GEOTEX 1016T is a geotextile tube fabricated from a woven polyester reinforcement geotextile containing high tenacity and high molecular weight multifilament yarns. The individual yarns are woven to form a high strength geotextile. These characteristics make the **GEOTEX 1016T** ideal for dredged material disposal, dewatering of contaminated materials and coastal/riverine erosion control. The geotextile tube is resistant to the pressures of controlled and proper hydraulic filling, ultraviolet degradation, and other stresses normally associated with these types of applications. **GEOTEX 1016T** conforms to the properties listed below[1] which have been derived from quality control testing performed by one of SI Corporations' GAI-LAP accredited laboratories:

		MARV[4]	
PROPERTY	**TEST METHOD**	**ENGLISH**	**METRIC**
Tube			
Circumference (nominal)	Measured	15.0/30.0/45.0 ft.	4.57/9.15/13.72 m
Standard Length[2]	Measured	100/150/300 ft	30.48/45.72/91.44 m
Fill Port Size (diameter)	Measured	12.0/18.0 in	30.48/45.72 cm
Fill Port Spacing (typical)	Measured	25.0/50.0 in	7.62/15.24 cm
Factory Seam Strength[3]	ASTM D4884	600 lbs/in	105 kN/m
Physical			
Mass/Unit Area	ASTM D5261	23.0 oz/y^2	775 g/m
Mechanical [4]			
Wide Width Tensile Strength	ASTM D4595	12,000 x 12,000 lb/ft	175 x 175 kN/m
Wide Width Elongation	ASTM D4595	7 x 7 %	7 x 7 %
Puncture Strength	ASTM D4833	450 lb	2000 N
Endurance			
UV Resistance % Retention @ 150hrs	ASTM D4355	65%	65%
Hydraulic			
Apparent Opening Size (AOS)	ASTM D4751	60 US Std. Sieve	0.250 mm
Water Flow Rate	ASTM D4491	6 gpm/ft^2	240 l/min/m^2

NOTES:

1. **The property values listed above are effective 9/6/2000 and are subject to change without notice.**
2. Standard lengths are typically inventoried at the factory. Non standard lengths require additional lead times.
3. Represents a cross machine factory sewn seam approved by SI Corporation. Individual project parameters may require specific seam strengths, types, etc. Please consult an SI representative if project-specific seam strengths are required.
4. Values for machine (warp) and cross-machine (fill), respectively, under dry or saturated conditions. Minimum average roll values (MARV) are calculated as the typical minus two standard deviations. Statistically, it yields a 97.7% degree of confidence that any samples taken from quality assurance testing will exceed the value reported.

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT FURNISHED HEREUNDER OTHER THAN AT THE TIME OF DELIVERY IT SHALL BE OF THE QUALITY AND SPECIFICATION STATED HEREIN. ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS EXPRESSLY EXCLUDED, AND, TO THE EXTENT THAT IT IS CONTRARY TO THE FOREGOING SENTENCE, ANY IMPLIED WARRANTY OF MERCHANTABILITY IS EXPRESSLY EXCLUDED. ANY RECOMMENDATIONS MADE BY SELLER CONCERNING THE USES OR APPLICATIONS OF SAID PRODUCT ARE BELIEVED RELIABLE AND SELLER MAKES NO WARRANTY OF RESULTS TO BE OBTAINED. IF THE PRODUCT DOES NOT MEET SYNTHETIC INDUSTRIES CURRENT PUBLISHED SPECIFICATIONS, AND THE CUSTOMER GIVES NOTICE TO SYNTHETIC INDUSTRIES BEFORE INSTALLING THE PRODUCT, THEN SYNTHETIC INDUSTRIES WILL REPLACE THE PRODUCT WITHOUT CHARGE OR REFUND THE PURCHASE PRICE.

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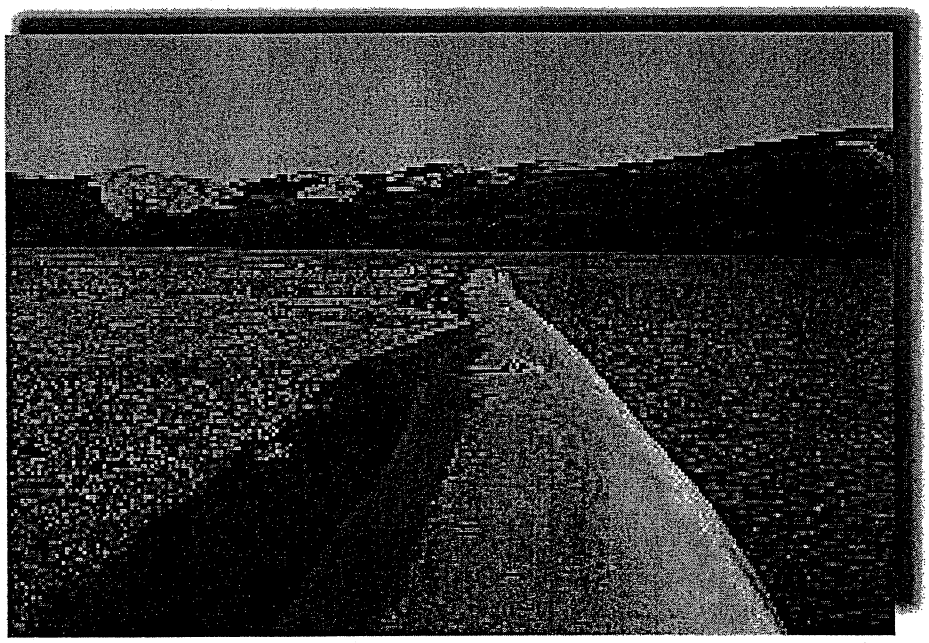
Geotextile Tubes & Containment Systems

- ▲ Coastal, Wetland and Riverine Structures
- ▲ Dredged Material Management
- ▲ Sludge Dewatering

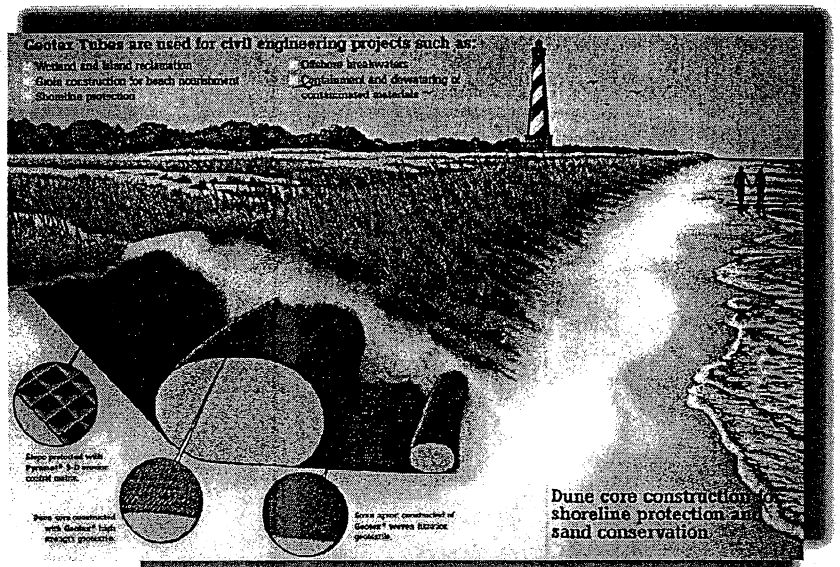


SI® Geosolutions

Geosolutions is an innovator in the
opment of construction products for the
portation, watershed management and
markets. Made from high strength woven
ropylene and polyester geotextiles, our
tex® Tubes are utilized in these markets
variety of applications:

- Shoreline protection, bank restoration and wetland construction
- Dredged material management
- Liquid waste dewatering

fully fabricated into cylinders, geotextile
are hydraulically filled with sand or other
rials to provide an environmentally friendly
cost-effective alternative to conventional
armor structures like concrete or rock. In
line protection applications, tubes provide an effective
ture to dissipate storm and wave energy and deflect erosive
aulic forces. These woven geotextile tubes are also used to
ter dredged material and high moisture content sludge,
ding a quick and cost-effective alternative to traditional
sal methods. In each case, Geotex Tubes have far less
ct on the environment than conventional methods.

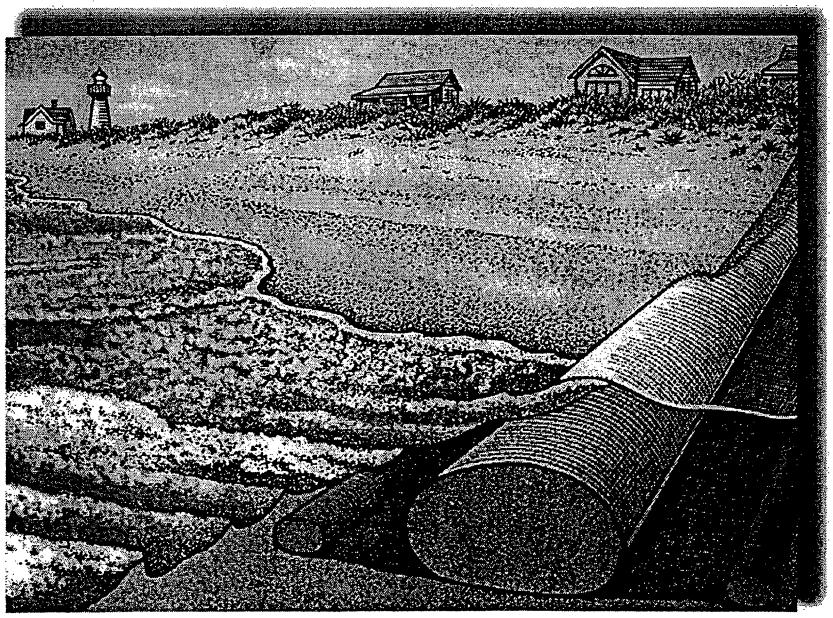


Tubes placed parallel to the shoreline and in conjunction with a turf reinforcement mat provide lasting protection against coastal erosion problems.

astal, Wetland & verine Structures

otex Tubes are designed for use along coastal
lines, stream banks, and wetland perimeters
rotection against storms, currents and other
ve forces. When used in conjunction with
r geosynthetic products from SI such as scour
ns, turf reinforcement mats and erosion
rol blankets, they represent complete systems
rosion management and environmental
ration. Geotex Tubes are also used as river
sion structures and for flood control.

n used along shorelines, our high performance
s are filled with dredged material or sand and
lled to shield against wave action, high tides
currents. When covered, geotextile tubes
e a resilient core for vegetated dunes to
ct upland property and infrastructure from
on and storm damage. They can also be
d perpendicular to the shoreline as jetties
groins to redirect or trap sediment.



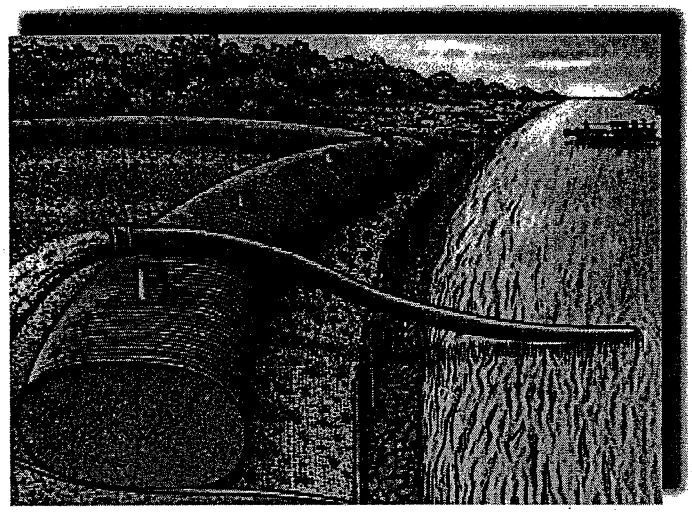
When placed perpendicular to the shoreline, a Geotex® Tube serves as a jetty to redirect or trap sediment. Note the scour apron beneath the tube for foundation support and erosion protection.

Dredged Material Management

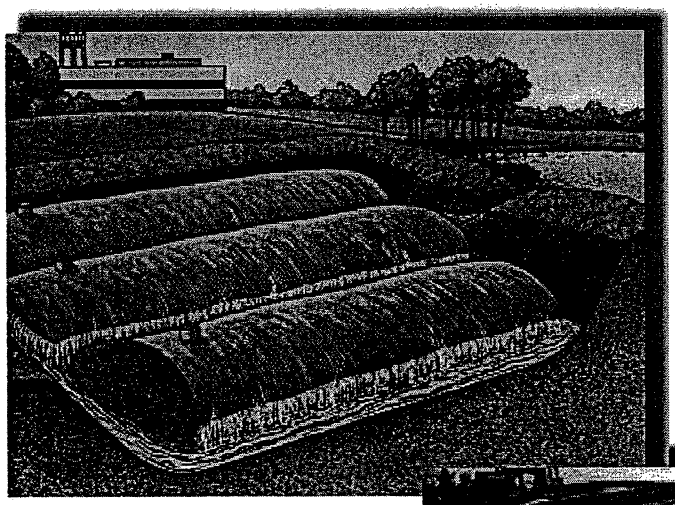
Geotex Tubes are an ideal solution for dredged material management. They greatly reduce dewatering time and disposal costs, and provide opportunities for the beneficial reuse of dredged material. Dewatering operations are cleaner because geotextile tubes dewater dredged material faster and retain fine-grained solids and many contaminants better than when the material is placed in lagoons or detention basins. With a geotextile tube, the dewatering process can be completed in a matter of days, depending on sediment characteristics. Once dewatered, the dredged material has reduced weight and volume and is more cost-effectively transported to a permanent disposal site.

Tubes can increase the capacity and safety of dewatering areas. By stacking the tubes on top of one another, space is maximized and construction and acquisition costs are minimized. The dewatering areas are also safer when the wet material is enclosed in a geotextile. Exposed dredged material in disposal pits or retention basins often forms a deceptively dry surface crust while remaining soft and hazardous underneath.

Tubes can be used to dewater sediment dredged from channels, inlets, marinas, harbors, rivers, detention basins, ponds and lakes. Because the tube structure can add strength to poor quality soil materials, they are important to successful environmental restoration projects involving the beneficial reuse of dredged material. Applications such as island creation, river diversion, breakwaters for wetland protection and salt marsh restoration have successfully utilized tubes as the structural component which allows the beneficial use of dredged material. Additionally, dredge-filled tubes have been used in port redevelopment, bluff protection and embankment restoration.



Tubes used to dewater dredged material aid in the reduction of dewatering time and disposal costs.



Geotex® Tubes provide a safe method of dewatering contaminated sludge material (above). Once dewatered, the "dry" fill material can be reused or disposed of more cost-effectively as solid waste (at right).

Sludge Dewatering

Geotex® Tubes and containment systems such as large dewatering bags provide cost-effective solutions to difficult environmental problems involving contaminated and high moisture content waste. High moisture content materials such as industrial waste, sludge from water treatment plants, agricultural waste from lagoons, mine tailings and dredged material all require dewatering before final disposal, but possess varying mechanical and hydraulic properties.

Geotex Tubes provide for large volumes of liquid waste to be removed quickly, allowing plant operators to reestablish environmental controls in their clarifiers, or replace filter presses and other components of waste water treatment plants. Once dewatered, the retained sludge can be transported to a landfill, creating a more cost-effective disposal option of a solid waste. Contaminants have been effectively retained within tubes despite the fine-grained nature of most sludges. Heavy metals, PCB's and PAH's have all been retained in various geotextile tube projects.

pes of Tubes

Geosolutions offers a variety of geotextile tubes and scour ns. Once the tube is placed, a small dredge with a discharge) inches or less rated no greater than 200 horsepower with aulic cutterheads is recommended for filling.

Cost effective polypropylene tubes suitable for most dredge dewatering applications. A tensile strength of 105 kN/m (600 lb/in) in the cross-machine direction allows for a high strength seam in the tube's circumferential (highest stress) direction.

IT A higher tensile strength, at 175 kN/m (1000 lb/in), polyester tube having virtually the same hydraulic properties of 46T, but with a higher factor of safety for "contaminated" sediments.

5T A high strength, at 175 kN/m (1000 lb/in), polyester tube with a tighter weave that retains extremely fine-grained particles.

2T Our highest strength, at 210 kN/m (1200 lb/in), polyester fabric for increased safety, longevity and durability.

es are fabricated in circumferences of 4.6, 9.2 and 13.7 ers (15, 30 and 45 feet), and in lengths of 30.5, 45.7 and 91.4 meters (100, 150, and 300 feet). Fill ports come in diameters of 30.5 and 45.7 centimeters (12 and 18 inches), and spacing between ports are 7.6 and 15.2 meters (25 and 50 feet).

SI® Advantage

Every product we manufacture comes with the assurance of competent and professional engineering support. Our staff of engineering and technical professionals can review specifications and project information, assist customers with design questions and recommend appropriate geosynthetic solutions. For Geotex® Tubes, our library of helpful literature includes technical information on specific products and applications, as well as standard specification and installation information from the Geosynthetic Research Institute. Our ISO-9002 manufacturing facilities and GAI-LAP certified test labs assure that the geotextile tube fabric you specify meets the hydraulic and index properties needed to satisfy the project requirements.

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Geotex®
Earthstopping Solutions.

GEOTEX® REPORT

A Geotextile Case Study From SI® Geosolutions

Geotex® Tubes Used to Dewater Tannery Sludge

Problem

A Mid-Atlantic tannery was faced with a critical decision when production outpaced the capacity of its wastewater treatment system. Sludge, the waste product of the tanning process, had built up over time and was continuing to accumulate. Fines from the state environmental agency, odor complaints from area citizens and the looming threat of being shut down plagued tannery management. So, why did the tannery not simply haul the sludge to the dump? Sludge will not be accepted at a landfill unless it has been dewatered to an acceptable solids level. The typical method of dewatering sludge is to use settling tanks and filter presses. This process can only treat small amounts of waste at a time; therefore, the method was not sufficient for the volume required to be removed.

Tannery Sludge before dewatering

Empty GEOTEX® Tubes are spread throughout graded area in preparation for filling.

Solution

With no obvious solution in sight, tannery management needed a creative idea, and fast. An innovative biological consultant working with C-Horse Construction suggested using Geotex tubes made by SI® Geosolutions to filter and contain the sludge. The plan was to pump sludge into large tubes fabricated from high strength geotextiles. Experience has shown that water filters from the sludge through pores in the woven fabric. Geotex tubes were used as a cost-effective alternative to belt and filter presses because of their large capacity and ability to be filled quickly. The goal was to enable the plant operator to re-establish proper waste management parameters such as odor, pH, and acceptable solids levels in order to bring the tannery back into regulatory compliance.

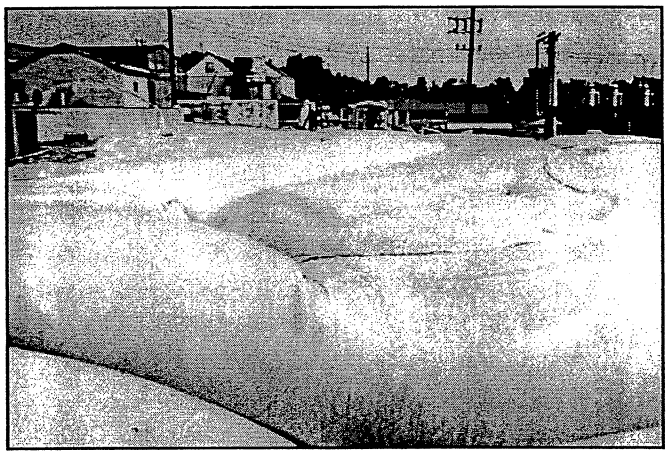
ign

.e dewatering site was prepared by grading a X 75' area and lining it with an impermeable c sheet. Water draining from the tubes g dewatering was to flow into a sump to be ›ed back into the waste collection system. different tubes were used. A small ›ropylene tube, fabricated 15 feet in mference and 40 feet in length and 4 high gth polyester tubes, fabricated 30 feet in mference and ranging in length from 40 to eet. The polypropylene tube was made from ɜx 4X6 and the polyester tubes were made Geotex 12X12 and Geotex 10X10. As ubes were filled, the geotextile tightened to the pressure and spaces between the e became smaller; as a result, even extremely -sized solids were prevented from escaping. types of dewatering occurred during the ɜss. Initially, dewatering was mechanical due mping, and then passive dewatering followed a period of weeks.

nnery sludge is pumped from the holding tank into GEOTEX® Tubes.

Results

A sample of sludge pumped into a tube, tested by Hera Tech Inc., had a Total Suspended Solids (TSS) of 441 grams/liter. Water leaving the tube had a TSS of 0.65 grams/liter. This indicates that 99.998% of the solids pumped into the tube was retained. Chromium within the sludge was reduced from 3.370 mg/l pre-tube to 0.8437 mg/l post-tube. After two weeks, the primary sludge had reached a percent solid greater than 25% while the biological sludge varied between 18 and 30%. The landfill requires sludge to be at a solids level greater than 17%; therefore, the sludge was ready to be excavated from the tubes.



Water filters from tannery sludge.

Conclusion

Geotex tubes successfully solved a problem for which the traditional method of using belt or filter presses was not sufficient; furthermore, the problem was solved quickly and cost effectively. By containing and dewatering approximately 1,400 cubic yards of tannery waste in geotextile tubes, the plant was able to return to optimal operating conditions while simultaneously complying with regulatory agencies.

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